

# Unix Refcard- kom.aau.dk

## Basic Unix

If you ever need help in unix type:

**man topic**

and you will get a on-line help on the topic

If you know the command you can often type:

**bash -help**, where bash is the command.

cd dir	Change directory
pwd	Print working directory
mkdir dir	Create directory
mv oldfile newfile	Rename file or dir
rm file1 [file2]	Remove file(s)
rmdir dir	Remove directory
ls	List directory
ls -a	Display hidden files
ls -l	Display in long format
du -k dir	Disk usage
bc	Simple console calc

## Process managment

w	Check who is doing what
top	Process list
who	Who is on-line on this machine
ps -Af	Print all processes on this machine
kill PID	Terminate a process
pkill processname	Terminate a process name
nice	Set priority of process. i.e. nice -n 20 matlab &

## Running programs

To start a program i the current folder type: **./myprogram**  
or **sh ./myprogram**.

To send a running program to the background, press **CTRL + Z**.  
The program will stop. If you type **bg** the program will be sent to  
background, otherwise type **fg** to continue.

To recall the program type **fg**.

## Screen

screen	Create multiple screens one a physical screen
screen -ls	List screens
screen -r number	Reattach screen

### Keybindings

Ctrl + A & C	Create new screen
Ctrl + A & Space	Navigate to next screen
Ctrl + A & A	Jump to last screen
Ctrl + A & X	Lock Screen
Ctrl + A & K	Kill Screen
Ctrl + A & Z	Detach screen
Ctrl + A & “	List active screens

## Advanced Unix

cat filename	Display content of a file
less filename	Browse og page through a text file
uname -a	Print system name
last -n 10	Print 10 last logins
type commandname	show the location of commandname
grep	search for a string in a file
tail	display the last few lines of a file
head	display first few lines of files
tee	read fom stdin and write stdout + file
awk	pattern scanning and processing language
sed	stream editor
perl	practical Extraction and Report Language
sort	sort, merge, or sequence check text files

## Bash

.bash_profile	Script that execuress once at login
.bashrc	Script that executes by every shell start
.bash_history	Console history

### Shortcuts:

Ctrl + R	Reverse search in history
Ctrl + A	Jump to start of line
Ctrl + E	Jump to end of line
Ctrl + K	Cut line
Ctrl + Y	Paste line
Ctrl + L	Clear screen

## Printing

selectprinter	Select a default printer
lpr [-Pprintername] filename	Print a filename
lpq [Pprintername]	Query printer queue
lprm [-Pprintername] jobnr	Remove printing job
a2ps -P<printername>	
-P(printername)	(printername) = name of the printer
-1	One page on one side
-2	Two pages on one side
-(N)	N pages on one side (1.2.4.9...NxN)
-sides=2	Duplex printing
-landscape	Print in landscape mode
-portrait	Print in portrait mode

## File archive and compression

### Create compressed

tar cvf file.tar file1 [file2 ...]	Wrap files
tar jcvf file.tar.bz2 file1 [file2 ...]	with bzip2
tar zcvf file.tar.gz file1 [file2 ...]	with gzip
zip file.zip	Create zip file
bzip2 file.bz2 file1 [file2 ...]	Slow & effective
gzip file.gz file 1 [fiel2 ...]	Fast
<i>Note: On solaris tar is gtar</i>	

### Extract compressed

tar xvf file.tar
tar jxvf file.tar.bz2
tar zxvf file.tar.gz2
unzip file.zip
bunzip file.bz2
gunzip file.gz

## Text editors

vi Advanced console editor  
pico A simple texteditor  
emacs Extensive interactive text editor  
xemacs Alternative emacs

## Office

soffice MS Office clone (Star office)  
abiword MS Word clone  
gnumeric MS Excell clone

## Project tools

latex Document preparation system  
xfig Nice tool for illustrations  
dia Diagram drawing  
convert in.jpg out.ps Convert graphics  
make Compiles source code from Makefile script  
gcc GNU C-compiler  
dos2unix file1 file2 strips CR's out of dos text files (Linux only)  
unix2dos file1 file2 adds CR's to unix text files (Linux only)  
matlab Matrix laboratory  
maple Interactive computer algebra system  
xmaple X11 version of maple  
labview Development environment for test,  
measurement, and control applications  
a2ps infile.jpg -o outfile.ps Convert any file to postscript

## Internet

mozilla Browser, News, Email, IRC, etc.  
ssh host -l user Secure shell  
pine Console mail reader  
irc Console irc client  
lftp Console ftp program  
gaim ICQ, Messenger client  
lynx Text based WWW browser  
rsync Synchronise files

## AFS

klog username Login to AFS  
tokens Show you afs tokens  
fs ls alias for: fs list acl  
fs sa aliss for: fs setacl  
fs listacl dir Show permissions of dir  
fs listacl file Show permissions of files  
fs setacl dir user perms Set permissions  
fs setacl doc pnto03 rlidwk fs setacl doc pnto03:friends  
fs setacl dir user:group perm Set permissions user/group  
pts help Get help to fs  
pts help Get help to pts  
pts membership user:group List group members  
pts membership user List which groups user are mem of  
pts creategroup user:newgroup Create group  
pts adduser username group e.g. pts creategroup pnto03:friends  
pts adduser pnto03 pnto03:friends Add user to a group  
pts removeuser user group e.g. pts removeuser pnto03 pnto03:friends  
pts delete group Remove user from group  
Delete group  
e.g. pts delete pnto03:friends

## Access control rights

r	read	list, read files
l	lookup	list files
i	insert	add/copy/move new files and subdirectories
d	delete	remove files and subdirectories
w	write	modify
k	lock	run programs that require file-locking
a	admin	change the ACL for the dir & files
	<b>Access package:</b> write read all none	<b>Permissions:</b> rlidwk rl rlidwka none