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UNIX to Plan 9 command translation (Plan 9 wiki)

7-9 minutes

The command set of Plan 9 is similar to that of UNIX. The commands fall into several broad classes.

Some are new programs for old jobs: programs like *ls*(1), *cat*(1), and *who*(1) have familiar names and functions but are new, simpler implementations. Who, for example, is a shell script, while ps is just 163 lines of C code.

Some commands are essentially the same as their UNIX ancestors: *awk*(1), *troff*(1), and others have been converted to ANSI C and extended to handle Unicode, but are still the familiar tools.

Some are entirely new programs for old niches: the shell *rc*(1), text editors *acme*(1) and *sam*(1), debuggers *acid*(1) and *db*(1), and others displace the better-known UNIX tools with similar jobs.

Compatibility was not a requirement for the system. Where the old commands or notation seemed good enough, we kept them. When they didn't, we replaced them.

The following list of some UNIX commands, files, and shell terminology, which you can emulate in a Plan 9 system:

UNIX	Plan 9 from Bell Labs
`command`	`{ command }
.profile	$home/lib/profile
^C (Ctrl+C)	DEL key -- doesn't work without rio(4) though.
~	$home /usr/$user/
~username	/usr/username
"$@"	$*
1>&2	>[2=1]
apropos	lookman(1)

```
at specific-time            while (! ~ (`{ date }) (specific-time));
commands

cc                          one of ones in 0c(1) followed by the same of
0l(1)
                            pcc(1) for Standard C/POSIX programs

cp -r /foo/ /bar/           mkdir /bar/foo/ && dircp /foo/ /bar/foo/

crontab -e                  sam /cron/$user/cron

curl http://foo/bar
wget http://foo/bar         hget http://foo/bar > bar
                            (progress bar, -t for ascii) hget -v -o bar
http://foo/bar |[2] aux/statusbar [-t] 'downloading'

cut                         awk -F ...

apt-get dist-upgrade
rpm -Ua
yum -c update               /usr/glenda/bin/rc/pull

apt-get install
rpm -i package
yum -c install package      9fs sources ; cd /n/sources/
                            /n/sources/contrib/fgb/root/rc/bin/contrib
/install fgb/contrib ; contrib/install $who/$what

df                          disk/kfscmd check
                            echo fsys all df | con -l /srv/fscons
                            df in fossilcons(8)

ee
emacs
jim
joe
nano
pico
vi
xedit                       sam
                            acme
```

```
expr                    hoc -e

find                    du -a | grep pattern
                        grep pattern `{du -a root}
    -name               du -a root | grep name
    pattern in a file   grep -n pattern `{du -a root | awk '{print
$2}'}
    -exec cp '{}' x ';'  cp `{ du -a | grep pattern } x

fsck                    echo fsys all check fix | con -l /srv/fscons
                        if running venti, for a thorough fix: echo fsys
all check fix venti snapshot | con -l /srv/fscons

ftp                     ftpfs host.domain (Remote files apear in
/n/ftp).

ftpd                    aux/listen ftp

getopt                  getflags(8)

groff -l                troff | lp

grops                   dpost - see troff(1)

head                    sed 10q

hwclock                 cat '#r/rtc'
                        aux/timesync

id                      echo $user
                        cat /dev/user
                        grep `{cat /dev/user} /adm/users
                        grep $user /adm/users

iostat                  iostats(4)

ifconfig(IP address)    cat /net/ndb

ifconfig                ip/ipconfig ether /net/ether0 add 192.168.1.32
                        ip/ipconfig # let dhcp do it
```

```
kill pid                    stop processname | rc
                            echo stop > /proc/pid/ctl
                            (in both cases, switch stop with start to get
it back)

kill -9 pid
kill -KILL pid              slay processname | rc
                            echo kill > /proc/pid/ctl

ld                          one of the ones in 0l(1)

ls                          lc -F

lspci                       pci -v

make                        mk (not exactly the same)
                            if necessary, use make in ape/psh

man -k                      lookman(1)

less
more                        p

mount [-p flag]             bind(1)
                            unmount(1)
                            9fs(1)
                            srv(1)
                            import(4)
                            exportfs(4)
   -p                       ns(1)

mount /dev/fd0 /mnt         a: ; cd /n/a:

mount /dev/acd0 /mnt        9660srv
                            mkdir /n/9660
                            mount /srv/9660 /n/9660 /dev/sdD0/data

netcat -l                   aux/listen1 -t tcp!*!$port command

netstat [-r flag]           netstat(1)
   -r                       cat /net/iproute
```

```
nfsstat                  iostats(4)

nslookup                 ndb/dnsquery

passwd                   auth/changeuser username (first time)
                         passwd (subsequent times)

paste [FILE] ...         pr -m [FILE] ...

PATH=$PATH:...           bind -a directory /bin

ping                     ip/ping

pkginfo                  wrap(8)

reboot                   fshalt -r (note that there is a reboot command,
but it doesn't call fshalt)

rmdir                    rm(1)
                         With contents inside: rm -r dir

sh                       rc(1)
                         if necessary, ape/psh

shutdown                 fshalt(8)
                         echo reboot > /dev/reboot
                         echo panic > /dev/reboot

snoop                    snoopy(8)

source                   .

startx
launch (Andrew Project)
mux (Blit's wm)          rio (replaces 8½ and help)

tar xzf file.tgz         tar xf file.tgz

tcpdump                  snoopy(8)

traceroute               ip/traceroute
```

```
tree                    du $* | awk '{print $2}' | sort | sed 's/[^\
/]+\//  /g'

ufs{dump|restore}       yesterday(1)
                        history(1)
                        fs(4)

vigr
vipw                    [Adding a new user]

vlock                   http://mirtchovski.com/lanlp9/rlock
                        (specify password at invocation)

vmstat                  stats(1)
                        cat /dev/sysstat
                        cat /dev/swap

which                   whatis

xbiff                   faces

xclock                  clock
                        games/catclock
                        faces

xditview                troff | page
                        troff | proof

xload                   stats -l

xlock                   /n/sources/contrib/steve/conslock
                        (authenticates against authentication server)

xlogo                   window 'hget http://plan9.bell-labs.com/plan9
/img/plan9bunnysmblack.jpg | page'

xman cat                man -t cat | page

xv file.jpg             page file.jpg

xwininfo                winwatch
```

```
yes                             while() { echo y }
   yes arg                      while() { echo arg }
```

OTHER APPLICATIONS:

- Web browsers
- Word processing: *troff*(1)