- pkg\_add install a package, and all required dependencies, i.e: pkg\_add -v firefox
- pkg\_delete uninstall a package, i.e. to delete
   a package and all its useless dependencies:
   pkg\_delete -R firefox
- pkg\_info display informations about a package, for example: pkg\_info firefox
- pkg\_tarup create from installed packages in our LOCALBASE a .tgz binary package, for example: pkg\_tarup -a firefox

### src part

### Available targets

- clean delete the current package's WRKDIR
- **clean-depends** delete all the WRKDIR of the current package's dependencies
- deinstalldeleteapackage,todeletetheuselessdependenciestoo:makeDEINSTALLDEPENDS=1deinstall
- **fetch** fetch the *distfile* from repositories
- help display a useful help about a pkgsrc topic, i.e.
   make help topic=DEINSTALLDEPENDS
- install install the package and its dependencies into our LOCALBASE, i.e.
  cd www/elinks && make install
- update update a package and dependencies
- **show-depends** display all the dependencies of a package
- show-var show a pkgsrc's variable, for example:
   make show-var VARNAME=MAINTAINER

#### Various tools

- $\mathbf{pkgclean}$  like  $\mathit{clean}$ 's target but smarter
- ${f pkgfind}$  tools useful to find packages, for example  ${f pkgfind}$  -C video

## Other operations

### shutdown(8)

- To reboot a machine: shutdown -r now
- To shutdown a NetBSD machine you might use shutdown(8), i.e. shutdown -p 5 "Hurry up!"

#### Kernel

- To obtain information about selected options in the kernel you might use config(1), i.e.: config -x /netbsd
- To obtain or set kernel states you might use sysctl(8), i.e.: sysctl -w security.curtain=1

### Testing

- To run the automated tests: cd /usr/tests && atf-run | atf-report
- To configure the testing framework, edit the files in /etc/atf.



# NetBSD reference card

# The NetBSD community

### Useful links

Official site: http://www.netbsd.org/ Man pages: http://man.netbsd.org/

Pkgsrc.se: http://www.pkgsrc.se/

ISO: ftp://iso.netbsd.org/pub/NetBSD/iso/
Binary packages: ftp://ftp.NetBSD.org/pub/

NetBSD/packages/current-packages/NetBSD/

(uname -p)/(uname -r)/All

NetBSD Wiki: http://wiki.netbsd.org/

# Obtaining the sources

- To obtain the sources we should set various useful variables for cvs(1): CVS\_RSH="ssh" CVSR00T="anoncvs@anoncvs.NetBSD.org:/cvsroot" export CVS\_RSH CVSR00T
- Now we choose a directory for the sources: cd /usr
- To obtain the sources (in this case the 6.1.4): cvs co -r netbsd-6-1-4-RELEASE -P src
- To obtain pkgsrc (i.e. the 2014Q2 release): cvs co -r pkgsrc-2014Q2 -P pkgsrc

# Configuration and useful commands

#### Audio

- To record audio (i.e. with a microphone) you can use audiorecord(1): audiorecord -p mic myrec.wav
- To play an audio file, recorded for example with audiorecord(1) you might use audioplay(1): audioplay myrec.wav
- To turn up or down the volume you can use mixerctl(1), the increment and decrement operators are supported: mixerctl -w outputs.master++ For a list of all possible variables: mixerctl -a

#### Localization

- To set your favourite language and/or charset you might use export (or setenv on the csh(1)) and the valid variables, for example for the Italian language and UTF-8: export LANG="it\_IT.UTF-8" export LC\_ALL="it\_IT.UTF-8"
- To print the current settings: locale
- To print all available settings you might use:

## Managing users and groups

- To add a user:
  - useradd -m -s /bin/ksh -G wheel user where /bin/ksh is a shell and wheel is a secondary group.
- To change some user's options, i.e add him/her to a group: usermod -G group user
- To delete a user: userdel user

## Monitoring the system

• To monitor various informations of your NetBSD box you might use the systat(1) tool (which uses curses(3)): systat all When you're on systat you can move on another displays with :display, i.e. :ps or :net, for a list of all the available displays: :help

- With envstat(4) you might obtain the sensor(s) informations, for example: envstat -i 2
- To obtain the pid of a process you might use pgrep(1): pgrep envstat
- To *kill* a process without knowing its pid you might use: pkill gimp
- To change the priority of a process you can use renice(8): prenice 6 vi

#### rc.d

rc.conf The synopsis of rc.conf file is:
daemon|option=yes|no|value

auto\_ifconfig automatically starts the network interfaces (please see ifconfig if) (boolean)

defaultroute set the default gateway, i.e defaultroute=192.168.1.1

dhclient configure the network using DHCP
 (auto\_ifconfig and ifconfig\_if not needed)
 (boolean)

hostname set the hostname, i.e. hostname=foobar

ifconfig\_if assigns an IP or other on that network interface, i.e. ifconfig\_rtk0="inet 192.168.1.4"

mixerctl automatically starts the mixerctl configuration (boolean)

postfix starts Postfix (boolean)

sshd starts the OpenSSH server (boolean)

# Start and stop services and other operations

- To start a service only one time, i.e. the sshd daemon: /etc/rc.d/sshd onestart
- To stop a service (for example sshd): /etc/rc.d/sshd stop
- To restart a service (for example network): /etc/rc.d/network restart

#### wscons

- To set the keyboard's layout, i.e. the Dvorak's layout: wsconsctl -w encoding=us.dvorak
- To turn off the pc speaker: wsconsctl -w bell.volume=0
- To see all available variables: wsconsctl -a, and display's options: wsconsctl -ad

## Pkgsrc

#### mk.conf

The mk.conf synopsis is: option = values or for concatenating values: option += values. Put a - as a prefix if you'd like to disable a option.

ACCEPTABLE\_LICENSES not free software or OSI licenses that we accept, i.e.: ACCEPTABLE LICENSES += vim-license

CFLAGS flag passed to the compiler, i.e
 CFLAGS += -march=pentium-m

FAILOVER\_FETCH if the distfile's checksum doesn't match, download again the distfile, FAILOVER\_FETCH = yes

FETCH\_CMD tool to use on the fetch phase, i.e.:
FETCH\_CMD = curl

PKG\_DEFAULT\_OPTIONS options
 used by all packages, for example:
 PKG\_DEFAULT\_OPTIONS += mmx -nas

PKG\_OPTIONS.package options used by a package, for example in the www/elinks case:
 PKG\_OPTIONS.elinks += nntp

X11\_TYPE option useful to set the X11 type, for
modular X.org: X11\_TYPE = modular

### pkg part

pkg\_admin audit show all the vulnerabilities of installed packages

pkg\_admin fetch-pkg-vulnerabilities download
 the vulnerability list