

## Software installation -- exercises

### 1. Things you need to check:

-> is your ports collection installed:

```
# ls -l /usr/ports
```

-> do you have the Perl language interpreter installed?

```
# ls -l /usr/bin/perl
```

### 2. Finding a port

Go to the `/usr/ports/directory` (`cd /usr/ports`), and use following commands to search for port names or keywords, for example:

```
# make search name=apache | more
```

```
# make search key=music | more
```

-> Find where the 'mysql-server' and 'bash' ports are (hint: look for 'Path:' in the output of make search)

### 3. Listing packages

To find installed packages on a system use the `pkg_info` command:

```
# pkg_info | more
```

To find which package a file belongs to, use the "`pkg_info -W`" command, for example:

```
# pkg_info -W /usr/local/bin/twm
/usr/local/bin/twm was installed by package twm-1.0.4
```

-> Find which package the file `'/usr/local/bin/cvt'` belongs to.

### 4. Installing from ports

-> Find where the port 'textmaze' is located

-> Go to the directory for textmaze, and build it:

```
# make
```

-> What do you notice ?

-> Install the port:

```
# make install
```

-> What do you notice ? Did the port install right away or did something else happen ?

The port 'textmaze' is now installed... Try it out!

```
# /usr/local/bin/textmaze
```

-> Look at the contents of the directory `/var/db/pkg` -- you should see the new package that has been registered:

```
# ls -l /var/db/pkg
...
drwxr-xr-x  2 root  wheel      512 Apr 23 01:22 textmaze-1.2
...
```

-> Look at the contents of the /var/db/pkg/textmaze-1.2 directory -- which files are there ?

## 5. Installing from package

Installing from package is easy.

There are two ways:

- over the network:

```
# pkg_add -r <package name>
```

we shall now add a few packages - to make the URLs shorter let us do

```
# set
```

```
FTP_ROOT=ftp://10.10.10.200/pub/FreeBSD/releases/i386/8.2-RELEASE/packages/All
```

```
# pkg_add $FTP_ROOT/mtr-0.80_2.tbz
```

```
# pkg_add $FTP_ROOT/portupgrade-2.4.8_1,2.tbz
```

- locally from the filesystem

```
# pkg_add /path/to/<package name>
```

-> Once again, look at /var/db/pkg/ and find the directory for the **zip package**.

You will notice that the zip package, which you installed from the cdrom, and the textmaze port, which you installed via the ports system, are both registered as packages in /var/db/pkg -- but you cannot tell which one was a port, and which one was a package.

## 6. Installing with portupgrade

-> Make sure that portupgrade/portinstall is installed:

```
# portinstall
```

You should get the help screen from portinstall

-> Install the 'sl' port

```
# portinstall sl
```

-> Test that sl works

```
# sl
```