

FreeBSD

Advance - 1

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Outline

安裝 軟體

系統 升級

Installing software

What's Package ?

What's Ports ?

cvsup (csup)
portsnap

Installing software

portupgrade !!

upgrade your OS

upgrade your OS

KERNCONF

upgrade your OS

make world

upgrade your OS

make kernel

正式
開始

"Package" ?

package



<http://members.cox.net/crandall11/money/box/>

package

```
"0101010101011110100111  
1111010001000100010011  
0001001001001101010101  
1010101110110101011110  
0101101001000101111010  
1011011110101010110100"
```

package

免編譯

package

免編譯

package

方便
省時

package

舉個例子

package

85°C

package

蛋糕

package



package

會胖

package



package

pkg_info

已安裝的 packages/ports 列表

package

pkg_add

直接安裝已編譯好的 package 套件

package

pkg_version

比較 package 版本 (查看有無新版)

package

pkg_delete

移除 package

package

pkg_deinstall

也是一樣（相依性支援較佳）

"Ports" ?

ports

原始碼

```
private static final String[] natoCalls = {
    "Alpha", "Bravo", "Charlie", "Delta", "Echo",
    "Foxtrot", "Golf", "Hotel", "India", "Juliet",
    "Kilo", "Lima", "Mike", "November", "Oscar",
    "Papa", "Quebec", "Romeo", "Sierra", "Tango",
    "Uniform", "Victor", "Whiskey", "X-ray", "Yankee", "Zulu"
};

/**
 * Returns the NATO call for a letter. eg. F = Foxtrot.
 * @param letter A character in range a-z, A-Z or 0-9.
 */
public static String getNATOCall(char letter) {
    if (letter >= 'a' && letter <= 'z') {
        return natoCalls[letter-'a'];
    }
    if (letter >= 'A' && letter <= 'Z') {
        return natoCalls[letter-'A'];
    }
    return null;
}
```

ports



ports

種菜

ports

種

種種
種種

ports

費時

種種種
種種種
種種種

ports

終於

長
來
出
了

ports

基因改良

ports

更新

ports tree

ports

CVS

CS

ports

`/etc/make.conf`

/etc/make.conf

```
MASTER_SITE_BACKUP ?= \
    ftp://ftp.tw.freebsd.org/pub/FreeBSD/ports/distfiles/${DIST_SUBDIR} /
MASTER_SITE_OVERRIDE ?= ${MASTER_SITE_BACKUP}
SUP_UPDATE = yes
SUP = /usr/local/bin/csup
SUPFLAGS = -g -L 2
SUPHOST = cvsup.tw.FreeBSD.org
SUPFILE = /usr/share/examples/cvsup/standard-supfile
PORTSSUPFILE = /usr/share/examples/cvsup/ports-supfile
DOCSUPFILE = /usr/share/examples/cvsup/doc-supfile
```

ports

/usr/ports/

ports

make update

ports

等等

另一種方法

ports

portsnap

使用 HTTP 協定

可被 proxy cached

安全性 較高

使用 SHA-1 紀錄 Publickey Fingerprint，再利用 Publickey 檢查下載的資料

更新 快速

只傳輸 diff

/etc/portsnap.conf

```
SERVERNAME = portsnap.tw.freebsd.org  
KEYPRINT = (有一個 default value)
```

portsnap

更新

ports tree

portsnap

取得

portsnap fetch

portsnap

展開

portsnap extract

portsnap

更新

portsnap update

裝軟體

make

`/usr/ports/ {dir} / {software} /`

make

做

make

make

make

make install

make

make clean

make

(呼)

make

可是

make

你在
哪裡

make

```
make search name=xxx  
make search key=yyy
```

搜尋軟體名稱

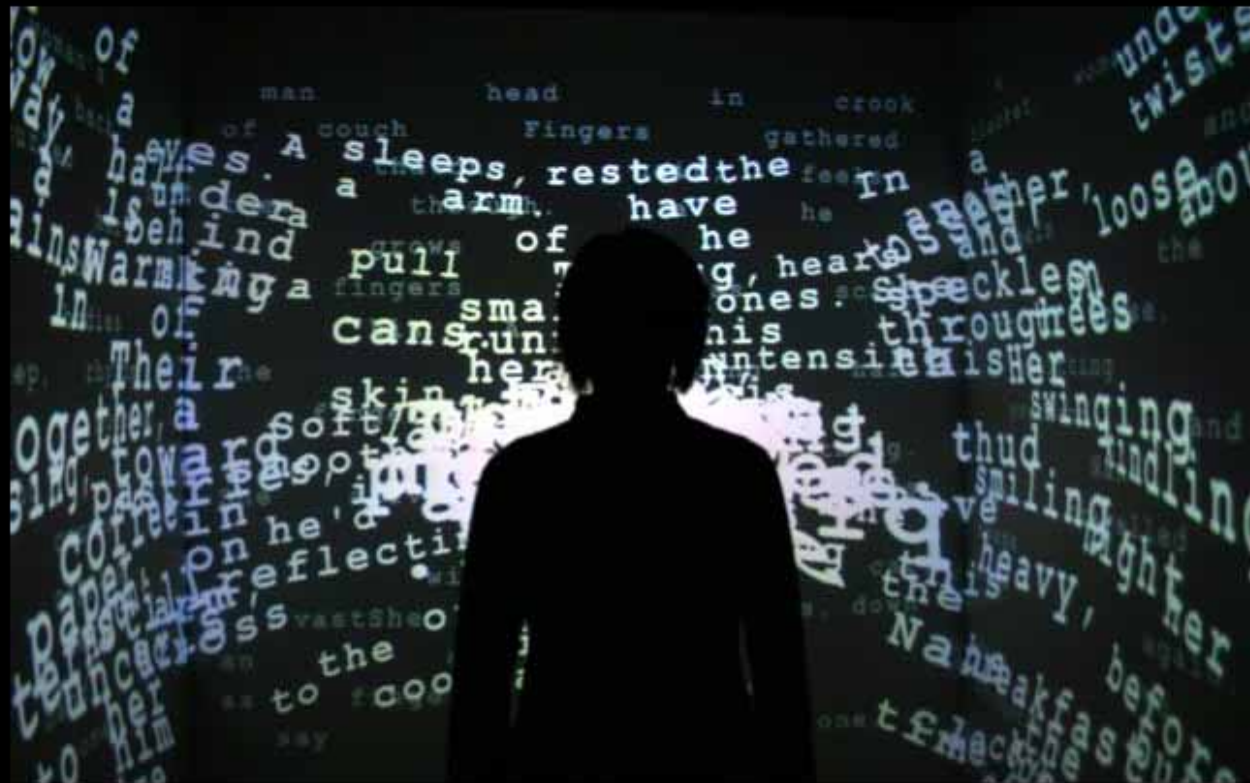
screen

screen

screen

螢幕

screen



screen



screen

C-a

ctrl-a

screen

C-a c

ctrl-a + c (create window)

screen

C-a C-a

ctrl-a + ctrl-a (互切)

screen

C-a n

ctrl-a + (n, spacebar) (next window)

screen

C-a p

ctrl-a + (p, backspace) (previous window)

screen

C-a w

ctrl-a + w (list)

screen

C-a NUM

ctrl-a + [number] (switch to NUM)

screen

C-a "

ctrl-a + " (list)

screen

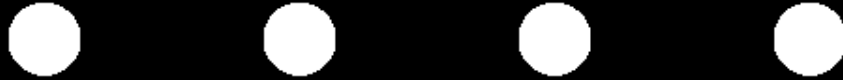
C-a ' !

ctrl-a + ' (quick switch)

screen

稍後
回來

screen



不是啦 == =

screen

C-a d

ctrl-a + d (detach screen)

screen

screen -r

(reattach screen)

portupgrade

`/usr/ports/sysutils/portupgrade`

portupgrade

portupgrade

升級套件

portupgrade

portinstall

安裝新套件

portupgrade

portversion

其實跟 pkg_version 差不多 XD

portupgrade

portsclean

清除 /usr/ports 不必要之檔案 (-D, -C)

portupgrade

portsdb

更新 ports tree 的 INDEX (-Fu)

portupgrade

pkgdb

修復相依性 (-F)

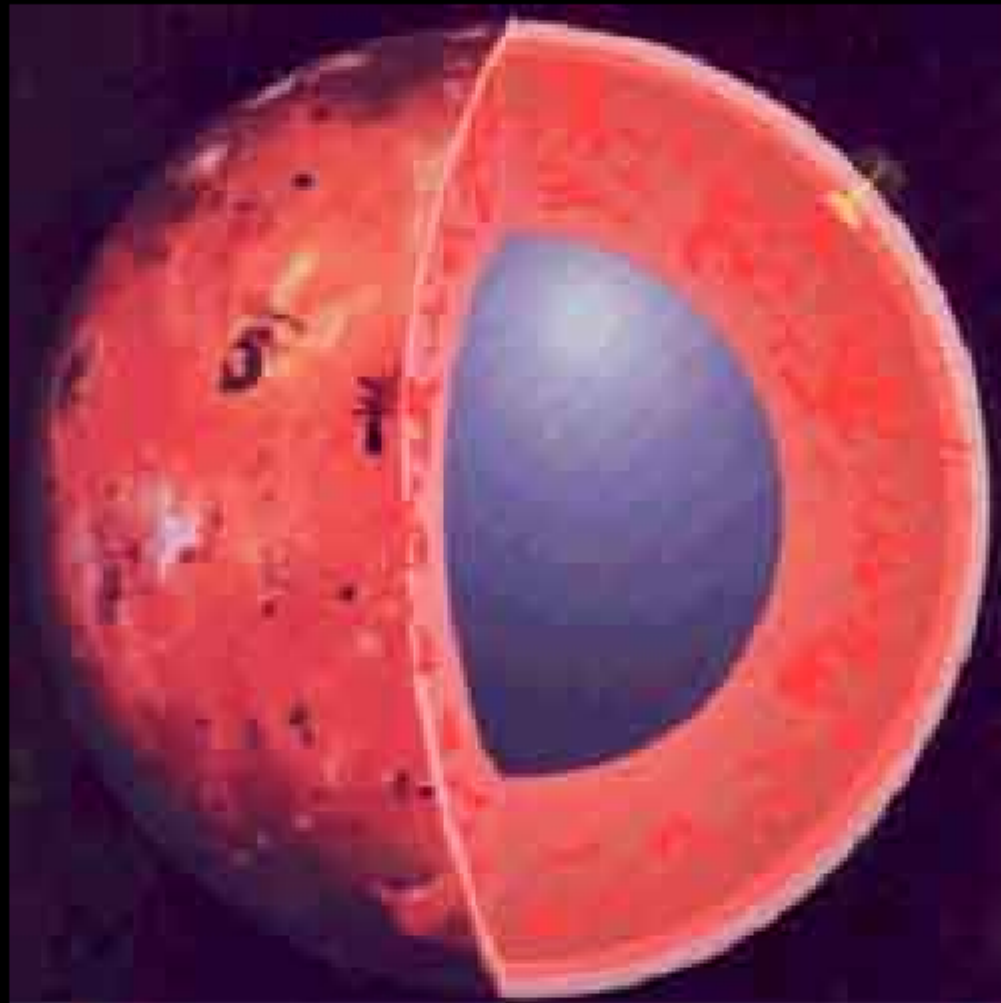
做核心

make kernel

kernel

核心？

kernel



記憶體管理

網路 控制

磁碟存取

為什麼？

增強功能

量身
訂做

kernel

`/usr/src/sys/i386/conf/`

備份

GENERIC IC

kernel

cp GENERIC FBSD

kernel

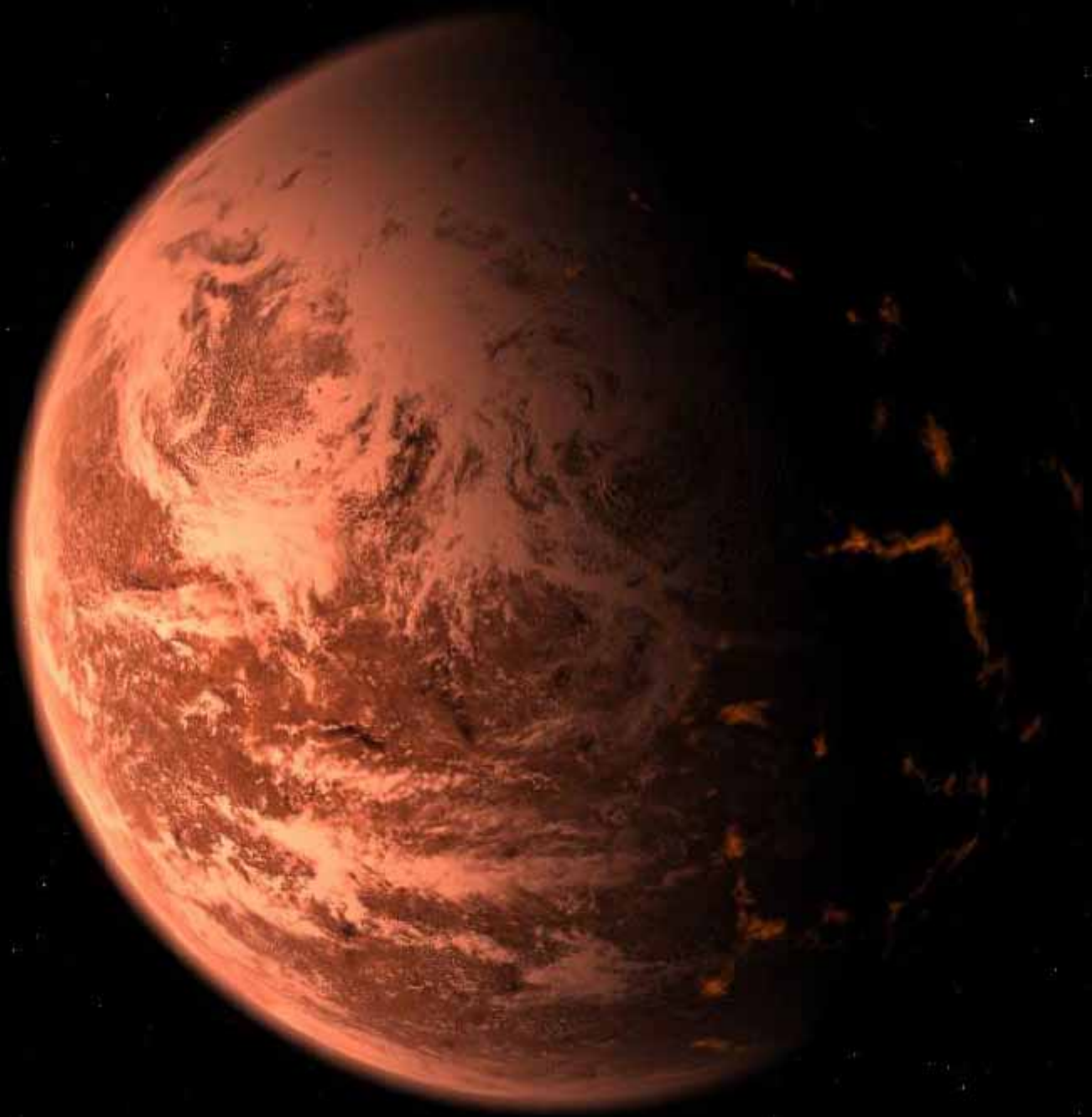
config FBSD

kernel

```
make KERNCONF=FBSD kernel
```

做世界

make buildworld



make buildworld

系統 升級

make buildworld

安全更新

```
make buildworld
```

`/usr/src/`

```
make buildworld
```

make update

```
make buildworld
```

make buildworld

裝世界

make installworld

make installworld

最後一步

make installworld

裝進系統

```
make installworld
```

```
make installworld
```

mergemaster

mergemaster

mergemaster -U 同步系統檔及設定檔

reboot