

19

19.1

FreeBSD

가

- : FreeBSD-STABLE FreeBSD-CURRENT.
- CVSup, CVS CTM
- make world

:

- (24).
- 가 (4)

19.2 FreeBSD-CURRENT FreeBSD-STABLE

FreeBSD 가 : FreeBSD-CURRENT FreeBSD-STABLE.

. FreeBSD-CURRENT

FreeBSD-STABLE .

19.2.1 FreeBSD

FreeBSD-CURRENT 가 가

FreeBSD

. FreeBSD-CURRENT

가

가

FreeBSD CURRENT

19.2.1.1 FreeBSD-CURRENT 가?

FreeBSD-CURRENT 가 FreeBSD
 가 가
 FreeBSD FreeBSD-CURRENT
 가 가
 FreeBSD-CURRENT 가
 가

19.2.1.2 FreeBSD-CURRENT 가?

FreeBSD-CURRENT 3 가 가 :

FreeBSD "current"

가 FreeBSD-CURRENT
 FreeBSD
 FreeBSD
 current ()

19.2.1.3 FreeBSD-CURRENT ?

FreeBSD - CURRENT

" ". FreeBSD - CURRENT 37

FreeBSD
FreeBSD

19.2.1.4 FreeBSD - CURRENT

freebsd - current (<http://lists.freebsd.org/mailman/listinfo/freebsd-current>) cvs -
all (<http://lists.freebsd.org/mailman/listinfo/cvs-all>)
가 . freebsd - current
current

cvs - all 가

가

<http://lists.FreeBSD.org/mailman/listinfo> 가

FreeBSD (http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/mirrors.html) 가 가

a. /usr/share/examples/cvsup
cvsup

standard - supfile

가

cron cvsup
supfile

cvsup

가 가 .

[1]: . FreeBSD
FreeBSD
http://www.FreeBSD.org/security/ .

FreeBSD - STABLE 가
가 가 FreeBSD - STABLE FreeBSD -
CURRENT FreeBSD - CURRENT FreeBSD - STABLE
FreeBSD - CURRENT 가 FreeBSD -
STABLE .
FreeBSD - STABLE
FreeBSD - STABLE
STABLE 가 FreeBSD ,

19.2.2.3 FreeBSD - STABLE

freebsd - stable (http://lists.freebsd.org/mailman/listinfo/freebsd - stable)
가 . FreeBSD - STABLE 가
가

cvss - all 가

가
<http://lists.FreeBSD.org/mailman/listinfo> 가

stable 가

ftp://snapshots.jp.FreeBSD.org/pub/FreeBSD/snapshots/ 가

(http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/mirrors.html) 가 FreeBSD - STABLE
가 FreeBSD - STABLE

FreeBSD 가 FreeBSD
가 가

a. /usr/share/examples/cvsup standard - supfile
cvsup
가 cron cvsup
supfile
cvsup

b. CTM 가
cvsup ftp CTM

FreeBSD - STABLE /usr/src Makefile
FreeBSD - STABLE /usr/src/UPDATING

19.3

FreeBSD (email) 가
CVS(http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/anoncvs.html),
CVSup(http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/cvsup.html)

CTM(http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/ctm.html)

: 가
(/bin
/sbin)
가
CVS CVSUp pull CVSUp
가 cvsup cvsupd
가 CVSUp CVS
CVS CVSUp CVSUp CVSUp CVS 가
CTM 가 가 CTM
(ASCII)
CTM
ctm_rmail(1) CVSUp
pull push
가 CVSUp
CTM
() CTM
CVS

19.4 make world

FreeBSD (FreeBSD-STABLE, FreeBSD-CURRENT)


```

: make world
world (
가

CURRENT
가

가
(
).
가
가
가

FreeBSD - STABLE   FreeBSD - CURRENT   FreeBSD - STABLE
FreeBSD - CURRENT

```

19.4.1

```

# make buildworld
# make buildkernel
# make installkernel
# reboot

```

```

( boot -s )

```

```
# mergemaster -p
# make installworld
# mergemaster
# reboot
```

19.4.2 /usr/src/UPDATING

```
    /usr/src/UPDATING (
)
가 . UPDATING UPDATING
: UPDATING 가
. 가
```

19.4.3 /etc/make.conf

```
/etc/defaults/make.conf /etc/make.conf
가 가 ;
    /etc/make.conf 가 . /etc/make.conf 가
make
    /etc/defaults/make.conf CFLAGS NOPROFILE
/etc/make.conf
(COPTFLAGS, NOPORTDOCS )
```

19.4.4 /etc

/etc

FreeBSD

가 , /etc/group

"make world"

가

가

smmsp 가 가 .mtree(8)가 /var/spool/clientmqueue

/usr/src/etc/group

/etc/group /usr/src/etc/group

GID 가

4.6-RELEASE world -p

mergemaster(8) . buildworld installworld

mergemaster 가 -p

:

cd /usr/src/usr.sbin/mergemaster

./mergemaster.sh -p

Tip:

:

find / -group GID -print

GID (ID)

19.4.5

가)

installkernel installworld

shutdown now

-s

fsck -p

mount -u /

mount -a -t ufs

swapon -a

UFS / /etc/fstab

Note: CMOS GMT 가(date(1)
)

adjkerntz -i

19.4.6 /usr/obj

```
        /usr/obj      (      )      .  
/usr/src      .  
  
        "make world"
```

```
/usr/obj      가      (  
        chflags(1)      ).
```

```
# cd /usr/obj  
# chflags -R noschg *  
# rm -rf *
```

19.4.7

19.4.7.1

```
make(1)      .      가  
  
FreeBSD      .  
  
        가      script(1)  
        . world      script(1)  
exit      .
```

```
# script /var/tmp/mw.out  
Script started, output file is /var/tmp/mw.out  
# make TARGET  
... compile, compile, compile ...  
# exit  
Script done, ...
```

/tmp

/var/tmp() root

19.4.6.2

/usr/src :

cd /usr/src

(가 가)

world make(1) FreeBSD
Makefile

make -x -D*VARIABLE* *target*

-x make(1) make(1)

-D*VARIABLE* Makefile Makefile
/etc/make.conf

make -D*NOPROFILE* *target*

/etc/make.conf

NOPROFILE= true # Avoid compiling profiled libraries

target make(1) Makefile

Makefile

가 가 .

make(1) 가 :

make target

FreeBSD 2.2.5 (FreeBSD-CURRENT
FreeBSD-STABLE 2.2.2 2.2.5) world :
buildworld installworld.

buildworld /usr/obj installworld

2 가

buildworld installworld

3 NFS . A, B C
A make buildworld make installworld .
B C /usr/src /usr/obj A NFS make installworld
B C .

world

:

make buildworld

-j make .

CPU 가 CPU
IO 가 CPU 가 .

CPU 가 .

make -j4 buildworld

```
make(1)      4
              .
              .
              .
              CPU 가 SMP 6 10
              가 가
              .
              .
              가
              .
              .
              world
```

19.4.7.3

```
가
500Mhz      III 128MB      FreeBSD - STABLE
2           . FreeBSD - CURRENT
```

19.4.8

```
가
ps(1) top(1)
.
.
가      GENERIC
. GENERIC      가
가
. GENERIC
.
FreeBSD      world
```

Note:

KERNCONF=MYKERNEL :


```
# cd /usr/src
# make buildkernel KERNCONF=MYKERNEL
# make installkernel KERNCONF=MYKERNEL
```

```
FreeBSD 4.2          KERNCONF=  KERNEL=
4.2-STABLE  2001    2          KERNCONF=
```

```
kern.securelevel  1          noshchg
                    installkernel
                    kern.securelevel
                    init(8)      chflags(1)
```

```
FreeBSD 4.0
                    config(8)
```

```
# /usr/obj/usr/src/usr.sbin/config/config KERNELNAME
```

19.4.8

19.4.5

19.4.9

```
make buildworld          FreeBSD
                    installworld
```

:

```
# cd /usr/src
# make installworld
```

Note: make buildworld

make installworld

-j installworld

make -DNOPROFILE buildworld

make -DNOPROFILE installworld

make buildworld

19.4.10 make world

world (/etc,
/var /usr)

가 가
mergemaster(8) 가
/etc

19.4.11.1 mergemaster

mergemaster(8) /etc
/usr/src/etc

mergemaster 3.3- 3.4- FreeBSD
3.3 -STABLE -CURRENT 가

mergemaster

```
mergemaster / root
.
.
가 + -
가 diff(1) . diff(1)
```

```
mergemaster(8) (
),
diff(1)
```

/etc/hosts

```
Use 'd' to delete the temporary ./etc/hosts
Use 'i' to install the temporary ./etc/hosts
Use 'm' to merge the temporary and installed versions
Use 'v' to view the diff results again

Default is to leave the temporary file to deal with by hand
How should I deal with this? [Leave it for later] m
:::1          localhost.example.com localhost | # #FreeBSD: src/etc/hosts.v 1.11.2.4 2003/02/06 20:36:58 dbak
127.0.0.1     localhost.example.com localhost | #
10.1.100.244 test.example.com test | # Host Database
10.1.100.244 test.example.com. | #
| # This file should contain the addresses and aliases for loca
> # share this file. Replace "my.domain" below with the domain
> # machine.
> #
> # In the presence of the domain name service or NIS, this fil
> # not be consulted at all; see /etc/host.conf for the resolut
> #
> #
> :::1          localhost localhost.my.domain
> 127.0.0.1     localhost localhost.my.domain
```

```
mergemaster(8)
.
.
. ? mergemaster(8)
.
.
가
```

```
??
l: use the left version
r: use the right version
e l: edit then use the left version
e r: edit then use the right version
e b: edit then use the left and right versions concatenated
e: edit a new version
s: silently include common lines
v: verbosely include common lines
q: quit
```



```

# cp -Rp /etc /etc.old

-R                               -p

/etc                               가                               . /var/tmp/root 가
                               가
                               .

# mkdir /var/tmp/root
# cd /usr/src/etc
# make DESTDIR=/var/tmp/root distrib -dirs distribution

                               . /var/tmp/root
                               . 가
                               :

# cd /var/tmp/root
# find -d . -type d | xargs rmdir 2>/dev/null

                               (
                               /dev/null                               )

/var/tmp/root /                               .

/var/tmp/root                               "."                               가                               .
                               /var/tmp/root /var/tmp/root/root

                               . ls -a

가                               diff(1)                               :

# diff /etc/shells /var/tmp/root/etc/shells

/var/tmp/root/etc/shells                               /var/tmp/root/etc/shells
.
.

```


/etc 가 .

date(1) :

```
# mkdir /var/tmp/root-`date "+%Y%m%d"`
```

19.4.12 /dev

Note: FreeBSD 5.0

devfs(5) .

mergemaster(8) 가

가 .

```
/var/tmp/root/dev/MAKEDEV /dev :
```

```
# cp /var/tmp/root/dev/MAKEDEV /dev
```

/etc mergemaster(8) MAKEDEV 가

```

/dev 가 . , ,
major minor .
가 가 awk(1) :
```

```
# cd /dev
```

```
# ls -l | awk '{print $1, $2, $3, $4, $5, $6, $NF}' > /var/tmp/dev.out
```

:

```
# sh MAKEDEV all
```

/var/tmp/dev2.out .

가

```
# diff /var/tmp/dev.out /var/tmp/dev2.out
```

가

```
# sh MAKEDEV sd0s1
```

19.4.13 /stand

Note: FreeBSD 5.2

```
/rescue make installworld  
/stand
```

```
/stand
```

```
/stand/sysinstall
```

```
( /usr)
```

```
# cd /usr/src/release/sysinstall
```

```
# make all install
```

19.4.14

```
shutdown (8)
```

```
# shutdown -r now
```


19.4.15

```
FreeBSD . !
가 .
/etc /etc/magic file(1)
:

# cd /usr/src/usr.bin/file
# make all install
```

19.5.16

```
19.4.16.1 world 가?
CVSup
world 가
:
```

```
src/games/cribbage/instr.c
src/games/sail/pl_main.c
src/release/sysinstall/config.c
src/release/sysinstall/media.c
src/share/mk/bsd.port.mk
```

```
가 make all install
src/lib/libc/stdlib world
( 가 ).
FreeBSD - STABLE
FreeBSD - CURRET
```

19.4.16.2 11 ()

. 가?

. world

가 . 가

make 가 가 .

가

19.4.16.3 world /usr/obj 가?

/usr/obj 가 . "make
world"
/usr/obj 가 (340MB).

"make world"

/usr/obj 가

. /usr/obj 가

가 . FreeBSD .

19.4.16.4 가?

가 .

() "make world" (gcc(1)
make(1))

가 .
(ls(1) grep(1))

```
(  
( ):  
)
```

```
... fix the problem ...  
# cd /usr/src  
# make -DNOCLEAN all
```

"make world"

"make world"

:

Building everything..

19.4.16.5 world

가?

-
- /usr/src /usr/obj 가
- ccd(4) (
)
- (/etc/make.conf ``NOPROFILE=true").

- `/etc/make.conf` `-O -pipe` CFLAGS `. -O2`
`-O -O2` 가 `. -pipe`
 ()
- `-jn` `make(1)`
- `/usr/src` 가 `noatime` ()
)
 가
- `# mount -u -o noatime /usr/src`
- `:` `/usr/src` 가 가
 (`/usr`) `/usr/src` 가
 가
- `/usr/obj` 가 `async` ()
)
 가
- `:` 가
- `/usr/obj` 가
 가
- `# mount -u -o async /usr/obj`
- `/usr/obj` 가

19.4.16.6 가 가?

```
# chflags -R noschg /usr/obj/usr  
# rm -rf /usr/obj/usr  
# cd /usr/src  
# make cleandir  
# make cleandir
```

make cleandir

make buildworld

가 uname -a FreeBSD

19.5

CPU.

NFS

19.5.1

가

가

world

. make world

CPU 가

```

        /usr/obj  /usr/src
가          /usr/src
        NFS
        /etc/make.conf
        /etc/make.conf  KERNCONF          가
        KERNCONF
        /usr/src/sys/arch/conf
        가
    
```

19.5.2

```

        가          19.4.7.2
world          가
        /usr/src  /usr/obj  NFS
        가
shutdown now          world
mergemaster
    
```

19.5.3

```

        /usr/ports
        /etc/make.conf
distfiles          NFS          root  가
        DISTDIR          WRKDIRPREFIX
        DISTDIR
PACKAGES
    
```