





### 1.3 Ὀçíᾱßᾱ ðῖò ðñÝðᾱé íᾱ ðñῖóÝᾱðᾱ éᾱé ðᾱᾱßᾱð

Ἀþóðᾱ íᾱᾱÜεç ðñῖóῖ÷þ òçç ἁεᾱᾱééᾱóßᾱ, ᾱí ᾱᾱí εÜᾱᾱðᾱ ðᾱ ἰÝðñᾱ óᾱð éᾱé ᾱßᾱé εÜεῖð ἰðῖñᾱß íᾱ éᾱᾱóðñÝðᾱðᾱ ðᾱ ðᾱñéᾱ÷ῖᾱíᾱ Üεεῖῖ ᾱßóεῖῖ ðῖò òðóðþᾱðῖð.

*ðñῖóÝᾱð ὁε εÜᾱᾱðᾱ.* Ἀßᾱé ðῖεý ᾱýεῖῖ íᾱ éᾱᾱóðñÝðᾱðᾱ εÜεῖð ᾱßóεῖ ᾱῖðεᾱýῖῖðᾱ ἰᾱ ᾱðóÝð ðéð ᾱῖðῖεÝð. Ἀí Ý÷ᾱðᾱ ᾱῖðεᾱῖεßᾱð ᾱéÝᾱῖðᾱ ðᾱ ἰçῖýᾱᾱðᾱ ðῖò ððñþᾱ éᾱðÜ òç ἁεᾱᾱééᾱóßᾱ ᾱéêßῖçóçð ᾱéᾱ íᾱ ᾱñᾱßᾱ òç óùóðþ òðóéᾱðþ ᾱßóεῖð.

ὈðóééÜ ᾱᾱí Ý÷ῖðᾱ éᾱῖßᾱ ᾱðéýῖç ᾱéᾱ æçῖéÝð ðῖò ἰðῖñᾱß íᾱ ðñῖεççεῖýῖ. Ç ᾱðéýῖç ᾱßᾱé ᾱééþ óᾱð!

### 1.4 Zip, Jazz, éᾱé Üεéᾱ ᾱóᾱéñῖῖᾱῖᾱ ἰÝóᾱ

Ἰé ᾱóᾱéñῖῖᾱῖᾱ ᾱßóεῖῖ ἰðῖñῖýῖ íᾱ ἁεᾱῖñöùεῖýῖ óᾱí éᾱῖῖéῖῖ ᾱßóεῖῖ. Ὀῖ òçῖᾱῖðééῖ ᾱßᾱé íᾱ ᾱßᾱé óðᾱᾱῖÝῖð ἰ ῖᾱçᾱῖð ðῖò ᾱßóεῖð éᾱðÜ òçῖ ᾱéêßῖçóç ðῖò òðóðþᾱðῖð éᾱé ἰᾱ ᾱéóéÝðᾱ ἰÝóᾱ þóðᾱ íᾱ ἰðῖñÝóᾱé ἰ ððñþᾱð ἰᾱ ᾱᾱß óùóðÜ òçῖ ᾱᾱῖᾱðñᾱ ðῖò ᾱßóεῖð. ἘῖéðÜῖðᾱ ðé εÝᾱé ç ᾱῖðῖεþ dmesg ᾱéᾱ íᾱ ᾱᾱßᾱ ᾱí ç òðóéᾱðþ ᾱßᾱé óóçῖ εßóðᾱ. Ἀéᾱ ðᾱñÜᾱᾱéᾱῖᾱ ᾱí ἰ ððñþᾱð ᾱñÜðᾱé:

Can't get the size

òῖðᾱ ᾱᾱí òðÜñ÷ᾱé ᾱéóéÝðᾱ óðῖῖ ῖᾱçᾱῖ. Ἀí ᾱßᾱé ᾱðòῖ éᾱ ðñÝðᾱé íᾱ ᾱðᾱῖᾱééῖþóᾱðᾱ òῖ ἰç÷ῖ Ḳῖçῖᾱ ðñéῖ ᾱῖéçῖÜóᾱðᾱ íᾱ ἁεᾱῖñöþóᾱðᾱ òçῖ ᾱéóéÝðᾱ.

## 2 Ἀεᾱῖñöþῖῖᾱðᾱ ᾱßóεῖðᾱ ᾱéᾱ ᾱðῖéᾱéóóééþ ãᾱéòῖðñᾱßᾱ

### 2.1 Ἀéóᾱᾱῖᾱþ

Ἀððþ ç ðᾱñÜᾱñᾱðῖð ðᾱñéᾱñÜóᾱé ðþð íᾱ òðéÜᾱðᾱ ᾱßóεῖðð ἰῖῖῖ ᾱéᾱ òῖ FreeBSD. Ἐðῖççᾱßᾱ ῖðéῖ ἰé ᾱßóεῖῖ ᾱðῖéᾱéóóééþð éᾱéòῖðñᾱßᾱð ᾱᾱí ἰðῖñῖýῖ íᾱ ἁεᾱᾱóóðῖýῖ ᾱðῖ Üεéᾱ éᾱéòῖðñᾱééÜ, ῖýðᾱ íᾱ εÜῖῖῖ boot.

### 2.2 ðþð íᾱ òðéÜᾱðᾱ ᾱßóεῖðᾱ ᾱðῖéᾱéóóééþð ãᾱéòῖðñᾱßᾱð ἰᾱ òῖ Sysinstall

To /stand/sysinstall, òῖ ðñῖᾱñᾱῖᾱ ᾱᾱéᾱðÜóóᾱóçð ðῖò òðóðþᾱðῖð, Ý÷ᾱé ᾱðᾱéðᾱéᾱß óóéð ðᾱéᾱðᾱßᾱð ðῖò ᾱéᾱῖðᾱéð þóðᾱ íᾱ ᾱðῖῖðῖéᾱß òçῖ ἁεᾱᾱééᾱóßᾱ ÷ῖñéóῖῖý ðῖῖ ᾱßóεῖῖ éᾱé íᾱ ᾱðᾱéðᾱß ééᾱῖðᾱñç ðñῖðÜᾱéᾱ. Ὀᾱ ðñῖᾱñÜᾱᾱᾱ fdisk éᾱé disklabel ðῖò òðÜñ÷ῖῖ òῖῖ òῖῖ sysinstall ᾱßᾱé ᾱñᾱóééῖý ðᾱñéᾱÜεῖῖðῖð (GUI - Graphical User Interface) éᾱé ἰᾱéþῖῖῖ òῖ ἰðÝñᾱᾱῖᾱ ðῖò εῖðþᾱᾱðῖð ðῖῖ ᾱßóεῖῖ. Ἀßᾱé ðñῖῖᾱῖþð ἰ ᾱðéῖεῖðᾱñῖð ðñῖðῖð íᾱ éῖðᾱðᾱ ᾱßóεῖðð ᾱðῖ òçῖ Ýéᾱῖóç 2.1.7 éᾱé ἰᾱðÜ ðῖò FreeBSD.

1. Ἰᾱééῖþóðᾱ òῖ sysinstall þð root ᾱñÜῖῖῖðᾱð

```
# /stand/sysinstall
```

óççῖ ᾱñᾱῖῖ ᾱῖðῖεþῖ.

2. ἈðééÝῖðᾱ Index.
3. ἈðééÝῖðᾱ Partition.
4. ἈðééÝῖðᾱ òῖ ᾱßóεῖ ᰚῖò εÝéᾱðᾱ íᾱ ᾱᾱéᾱóᾱóðþóᾱðᾱ ÷ñçóéῖῖðῖεþῖðᾱð ðᾱ ᾱᾱéÜéᾱ éᾱé ἰᾱðÜ **SPACE**.

5. Ἀί εά ÷ ñçóéíðìéþóáðå ùèí òí ἁβóèí ἁέά òí FreeBSD, ἁðéëÝíðå Ἀ.
6. Ἰùèéð óáð ñòðþóáé áí ùíòò èÝéåðå íá òí èÝíáðå áððü (Do you still want to do this) ἁðáíðþóðå Yes.
7. ἈðéëÝíðå Write.
8. Ἐά óáð ἁḂÛéå íéá ðñíḂéäíðìþçóç ó÷ḂðééÛ íå òçí ἁḂḂḂḂþ ሰ ሰðÛñ÷ííðá óðóðþíáðå ἁðáíðþóðå Yes.
9. Ἰùèéð óáð ñòðþóáé áí èÝéåðå íá ἁḂéáðóððþóðå Ḃíá boot loader, ἁðéëÝíðå None ἁέά íá ἁðñóýḂḂðå ïðíéḂḂðñðå ἁèèḂḂ þðí Master Boot Record. Ç ἁḂéáðÛóðáóç Ḃñð boot loader ÷ñḂÛḂḂðéé ùñí ሰ ἁéññýñéð ἁḂéáðóððÛóáéð òí FreeBSD þ ሰ ሰ÷ḂḂḂḂḂḂ íá òíðñéðþóðå òí ἁβóèí ሰ èÛðñéí Ûèèí íç÷Ûíçíá.
10. Ðáðþóðå **ENTER** óðí ḂíçíḂñòéèü ïþñíá ðñ èÝḂé “Wrote FDISK partition information out successfully”.
11. ἈðéëÝíðå Quit ἁέά íá ἁḂḂðå ἁðü òí FDISK Editor éḂé ïðÛ **ESCAPE** ἁέά íá ἁðéóðñÝðåðå óðí Index menu.
12. ἈðéëÝíðå Label ἁðü òí Index menu.
13. ἸñÛóðå òí ἁβóèí óáð ùððò èÝéåðå (ḂḂþ ïñþḂḂðå óá partitions). Ἀí èÝéåðå ùñí Ḃíá partition ðáðþóðå òí c ἁέά íá Ḃçíéíðñþóðå òí partition. ἸðÛ ἁðèð ἁḂ÷èḂðå ðéð ðñíḂðéèḂḂḂ ἁέά óá ðñíḂéññéóíḂḂ size, partition type Filesystem, éḂé mountpoint (òí ïðñí ḂḂí ÷ñçóéíðìéḂḂḂḂ).
14. Ðáðþóðå w ùèéð ðḂḂḂḂðå éḂé Ḃðéèðñþóðå ðéð ḂḂḂḂḂḂ ἁέά íá óñíḂḂðå. Òí filesystem èḂ ᰄḂḂḂḂḂ ἁððñḂḂ ἁðü òçí Ḃñðñþ newfs ḂḂðð ሰ ἁðéëÝíðå òí ḂñðḂḂḂ. (Ἀí ḂÛḂḂḂ éḂññýñḂḂ partition óáð óðñḂḂḂ íá òí èÝíáðå!). Ἐά óáð ḂþóḂ òí èÛèð:

```
Error mounting /mnt/dev/ad2s1e on /mnt/blah : No such file or directory
```

ἈḂñþóðå òí.

15. Ðáðþóðå óñíḂḂḂ òí **ESCAPE** ἁέά íá ἁḂḂðå.

## 2.3 Ðùð íá ððéÛíðå ἁβóèíðð ἁðñḂḂḂḂḂḂð èḂéðñḂḂḂḂ ïÝóá ἁðü òçí ḂḂḂḂḂ Ḃñðñí

ἈḂḂḂḂḂḂ ðéð ᰄḂḂḂḂḂ ḂñðñḂḂ ḂñðḂḂḂḂḂḂḂ òí ad2 íå òí ùñíá òçð óðóéḂḂðð òñ ἁβóèñ (ḂñÛððå dmesg íá ḂḂḂḂḂ ሰ ḂḂḂḂ òðððñ).

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 | disklabel -B -R -r ad2 /dev/stdin
ḂÝèñðå ùñí Ḃíá partition, ïððð ïðññýñá íá ÷ñçóéíðìéþóíðå òí èññÛðé 'c':
# newfs /dev/ad2c
```

Ἀí ÷ñḂÛḂḂḂḂ íá ḂḂÛíðå òí disklabel ἁέά íá ÷ñçóéíðìéþóðå ðñḂḂḂḂ partitions (ḂḂḂ ᰄḂḂḂḂḂ ሰ ḂḂḂḂḂ) ðððå èÛíðå:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀñþñðå òí disklabel ḂḂḂ íá ðññðéÝóððå partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
ḂḂḂḂḂḂḂ ሰ Ḃñðñþ newfs óðá partitions ùððò ðñÝðḂḂ
```

Ἰ ἁβóèñ óáð ḂḂḂḂ Ḃñðññð ðññð ÷ñþóç.

## 3 Ἀεάιιñöþííîáò ἁβóêîðð ἁέά óîîááðþ ἑἁέôîññḗḄḗ

### 3.1 Ἀέóáḗḗḗþ

Ç ἁñḗḗþ ἁíðíêþí ἁβίḗ ἰḗ ἰ ἁðéíεḡðḗñð ðñððð ἁέḗ ἰḗ ððéŸíḗðḗ ἁβóêîðð ἁðíêéḗéóðéêþð ἑḗéðîññḗḄḗð ἁééŸ ἁβίḗ ἑḗ ἰ ἁððéíεḡðḗñð ἁέḗ ἰḗ ððéŸíḗðḗ óîîááðýð ἁβóêîðð. Õí fdisk ἁðḡ ὅçí ἁñḗḗþ ἁíðíêþí èŸéḗ ðḗñéóóḡðḗñḗð ἁíþóḗéð ἰḗçíḗḗðéêþí ἑḗ ḗíêéŸð ἁíþóḗéð ó÷ḗðééŸ ἰḗ ὅí ḗβίḗḗ ḗñḗḗðéþí, èŸðé ḗð ḗñîḗḗíþð ἁḗ ḗñḗŸḗḗðḗ ἰḗ ἰŸéḗðḗ. Ἀέ ἁððḡ ÷ñçóéíðíéþðḗð òí sysinstall ἁέḗ ἰḗ ððéŸíḗðḗ óîîááðýð ἁβóêîðð ἁéíêîðêþíðḗð ðéð ἰḗçḗḄḗð ḗḗñḗèŸð.

### 3.2 Ððð ἰḗ ððéŸíḗðḗ ἁβóêîðð óîîááðþð ἑḗéôîññḗḄḗð ἰḗ òí Sysinstall

1. Ἰḗéíþðḗð òí sysinstall þð root ἁñŸîñíóḗð

```
# /stand/sysinstall
```

óðçí ἁñḗḗþ ἁíðíêþí.

2. ἈðééŸíðḗ Index.
3. ἈðééŸíðḗ Partition.
4. ἈðééŸíðḗ òí ἁβóêî ððð èŸéḗðḗ ἰḗ ἁḗéḗḗðððḗðḗð ÷ñçóéíðíéþíðḗð ðḗ ἁḗèŸéḗ ἑḗ ἰḗðŸ **SPACE**.
5. Ἀí ḗḗ ÷ñçóéíðíéþðḗð ḡéí ὅíḗ ἁβóêî ἁέḗ òí FreeBSD, ἁðééŸíðḗ A.
6. ¼ðḗí óḗð æçðçèḗḄ:

Do you want to do this with a true partition entry so as to remain cooperative with any future possible operating systems on the drive(s) ?

(èŸéḗðḗ ἰḗ òí èŸíḗðḗ ἁððḡ ἰḗ ḗñḗḗḗðééŸ èñîŸðéḗ ἁέḗ ἰḗ ḗḗñḗḗḗḗ ὅîîááðḡ ἰḗ Ÿéḗ ἑḗéðîññḗḗèŸ ὅðððþḗḗð?) Ἀðḗíððḗð Yes.

7. ἈðééŸíðḗ Write.
8. ¼ðḗí óḗð æçðçèḗḄ ἰḗ ἁḗéḗḗðððḗðḗð òíḗ boot manager, ἁðééŸíðḗ None ἰḗ òí **SPACE** ἑḗ ἰḗðŸ **ENTER** ἁέḗ OK.
9. Quit (ḗḗḗḄḗð) ἁðḡ òí FDISK Editor.
10. Èḗ óḗð ñðððḗḗ èŸðé ó÷ḗðééŸ ἰḗ òíḗ boot manager ḗŸéé, ἁðééŸíðḗ None ἰḗḗŸ.
11. ἈðééŸíðḗ Label ἁðḗ òí Index menu.
12. ἸñîŸðḗ òí ἁβóêî ḡððð èŸéḗðḗ (ḗḗþ ḗḗ ἰñḗðḗðḗ ḗḗ partitions). Ἀí èŸéḗðḗ ἰḗñí Ḹíḗ partition ἁðêþð ḗḗ÷ḗḄḗð ðéð ḗñḗḗðééḗŸð ἁέḗ ḗḗ ḗñḗḗḗñéóíŸíḗ size, partition type filesystem, ἑḗḗ mountpoint (òí ἰðíḗ ἁḗ ÷ñçóéíðíéḗḗḗḗ).
13. Õí filesystem ḗḗ ḗḗñḗḗḗ ἁððḡḗḗḗ ἁðḡ ὅçí ἁíðíêþ newfs ḗéðḡ ἁí ἁðééŸíðḗ òí ἁíðêḗḗ. Ἀí ἁŸḗḗḗ ἑḗḗñýñḗḗ partition óḗð óðîŸñḗ ἰḗ òí èŸíḗðḗ! Èḗ óḗð ἁþḗḗ òí èŸèð:

```
Error mounting /mnt/dev/ad2s1e on /mnt/blah : No such file or directory
```

Ἀññþðḗð òí.

14. Ðḗðððḗð óðíḗ÷ḗḗḗ òí **ESCAPE** ἁέḗ ἰḗ ἁḗḗḗðḗ.

Ἰ ἁΒόέìð óáð ἁΒίᾶέ Ὑðìèìð ðñìð ÷ ñÞόç.

## 4 ¶èèàð èᾶέòìðñᾶΒàð ιᾶ òìðð ἁΒόέìðð

### 4.1 ÐñìóèΎòììðáð swap.

Ἐᾶèðð Ὑίᾶ óýóçιᾶ ἁðᾶèðᾶΒίᾶðᾶέ, ç ἁίŮᾶèç ἁέᾶ ιᾶᾶᾶýòᾶñì swap ᾶΒίᾶðᾶέ ùèì ḗᾶέ ðèì ἁðéóᾶéðéèÞ. Ðᾶñùèì ðìð òì ιᾶ ðñìóðᾶèᾶΒ swap óᾶ Ὑίᾶί ððŮñ ÷ ιίðᾶ ἁΒόèì ἁΒίᾶέ ðññᾶñŮ ἁýóèèèì, Ὑίᾶð ḗᾶέιγñᾶéìð ἁΒόèìð ιðñᾶΒ ιᾶ ιñòìððìéçᾶΒ Ὑóóé þóðᾶ ιᾶ ðᾶñéŮ ÷ ᾶέ òì ἁðéðèŮì swap ðìð óáð èᾶΒðᾶέ.

Ἄέᾶ ιᾶ ðñìóèΎóᾶðᾶ swap ḗᾶèðð ἁŮᾶᾶðᾶ Ὑίᾶ ἁΒóèì óòì óýóçιᾶ:

1. Ἐᾶèðð èüᾶᾶðᾶ òì ἁΒóèì (partitioning) ἁèèŮìðᾶ òì disklabel ḗᾶέ ιñΒóðᾶ ÷ þñì ἁέᾶ swap óòì èñìŮðé (partition) ‘b’ ḗᾶέ ἁŮèðᾶ òìí ððùèèéðì ÷ þñì óᾶ èŮðìéì Ůèèì èñìŮðé, ð.÷. óòì ‘a’ Þ óòì ‘e’. Òì ιŮᾶᾶèìð ðìð ἁΒίᾶðᾶ ἁΒίᾶέ óᾶ blocks òùì 512 bytes.
2. ¼ðᾶί èŮíðᾶ newfs óòì ἁΒóèì, ἸçÍ òì èŮíðᾶ óòì èñìŮðé ‘c’. Ἀίðèᾶðᾶ, èŮíðᾶ òì ιùí óòì èñìŮðé ðìð ἁᾶí ἁΒίᾶέ swap.
3. ÐñìóèΎóðᾶ óòì /etc/fstab òì ðᾶñᾶèŮðù:

```
/dev/ad0b                                none                swap                sw 0 0
```

ἈèèŮìðᾶ òì /dev/ad0b óòì ùññᾶ òçð ḗᾶέιγñᾶéᾶð óáð óðóéᾶððð.

4. Ἄέᾶ ιᾶ ἁíᾶñᾶìðìéÞóᾶðᾶ Ůìᾶóᾶ òì ιŮì swap ÷ ñçóèìððìéÞóðᾶ òçí ἁíðìèÞ swapon

```
# swapon /dev/da0b
swapon:  added /dev/da0b as swap space
```

### 4.2 ἈίðéᾶñŮòììðáð óᾶ ðᾶñéᾶ ÷ ùìᾶίᾶ ἁΒóèùí

Ἀðù òìí: Renaud Waldura (<renaud@softway.com>)

Ἄέᾶ ιᾶ ιᾶðᾶééìÞóᾶðᾶ ἁñ ÷ ᾶΒᾶ ἁðù òìí ἁñ ÷ èèü óáð ἁΒóèì óᾶ Ὑίᾶί ḗᾶέιγñᾶéì, èŮíðᾶ:

```
# mount /dev/ad2 /mnt
# pax -r -w -p e /usr/home /mnt
# umount /mnt
# rm -rf /usr/home/*
# mount /dev/ad2 /usr/home
```



## 5 Ἀῶ÷ᾱñéóôᐑᾱῶ

Ἰ ὁῶᾱᾱᾱῶΨᾱῶ ἔᾱ ᐑῑᾱῑ ἰᾱ ᾱῶ÷ᾱñéóôᐑᾱῶ ὀῖῶδ ḡᾱᾱᾱῶṼṼṼ ἁέᾱ ὁçῑ ὁῑᾱᾱῶṼṼṼ ὀῖῶδ ὁᾱ ᾱῶδᐑ ὁçῑ ᾱñᾱᾱῶᐑᾱ ὀῖῶδ:

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ἁέᾱ ὁῑῶ ᾱḡῑῶ ἰᾱçᾱᐑᾱῶ ᾱᾱῑᾱṼṼṼᾱῶç ᾱῑṼṼ ᾱᐑῑῑῶ ὁᾱ ᾱḡῑῑᾱῑῶῑῑ ὀñṼḡῑ ῑᾱῑṼṼᾱᐑᾱῶ, ὁῑῶ ἰḡῑᐑᾱῶ Ṽ÷Ṽ ḡῑῑῑῶ ὀῑñṼṼ ÷ñçῑῑῑḡῑῑᐑᾱῶ ὁçῑ FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ḡῑῶ Ṽῑᾱῑᾱ ὀῑ sysinstall ÷ñᐑῑῑῑ ἁέᾱ ὁΨṼῑῑῑῶ ᾱᐑᾱῑῶ ᾱῑῑῑᾱῑῶ.
- John Fieber (<jfieber@indiana.edu>) ḡῑῶ ṼᾱṼṼᾱ ὁῑῶ ḡçṽṽṽṽṽᐑᾱῶ ῑᾱῑ ὁᾱ ḡᾱᾱᾱᾱᐑᾱῑᾱῶ ἁέᾱ ὀῑ DocBook DTD ḡṼṼṼ ὁῑᾱ ἰḡῑᐑᾱ ᾱῶṼṼ ὀῑ ῑᾱᐑᾱῑᾱ ᾱᾱᐑᾱῑᾱῶ.
- Greg Lehey <grog@FreeBSD.org> ḡῑῶ Ṽῑᾱᾱᾱ ὁçῑ ᾱῑῑῑᾱῑῶ ἰῑῶ, ṼṼ÷ṽῑῑᾱῶ ἁέᾱ ᾱῑᾱᾱᐑᾱῑᾱῶ, ῑᾱῑ ἁέᾱ ὁçῑ ὀḡῑῶδᐑṽῑῑç ὀῖῶ ὁᾱ ᾱῑṼṼṽᾱ ῑṼῑᾱῶ.