

Ἀέαιũñöùόç Ἀδῖεçêãðôéêπί ἸΎούι ἁέα ×ñÞόç ìà ôῖ FreeBSD

ἰάò óýíôῖῖò ἰäçãüò

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Ôῖ FreeBSD ἁβῖάé Ἰά éáôῖ÷ðñùῖΥῖ ἁἰδῖñéêÜ óýἰἰῖῖ ôῖò FreeBSD Foundation.
ἰé èΥἰἰἰéò lomega, Zip, éáé Jaz ἁβῖάé ἁβôḁ éáôῖ÷ðñùῖΥἰἰ ἁἰδῖñéêÜ óýἰἰῖῖḁ ἁἰδῖñéêÜ óýἰἰῖῖḁ ôçò
lomega Corporation óðéò ÇῖùῖΥἰἰḁ Ðῖḁḁḁḁḁ ḁ/ḁḁḁ ḁḁ Üḁḁḁ ÷þñḁḁ.
ἰé èΥἰἰἰḁ Motif, OSF/1, éáé UNIX ἁβῖάé éáôῖ÷ðñùῖΥἰἰ ἁἰδῖñéêÜ óýἰἰῖῖḁ éáé ἰé èΥἰἰἰḁ ḁ ðñÜóḁḁ IT
DialTone éáé The Open Group ἁβῖάé ἁἰδῖñéêÜ óýἰἰῖῖḁ ôῖò The Open Group óðéò ÇῖùῖΥἰἰḁ Ðῖḁḁḁḁḁ
ḁḁḁ ḁḁ Üḁḁḁ ÷þñḁḁ.
Ðῖḁḁḁḁ ḁðü ḁéò èΥἰἰἰḁ ḁ ðñÜóḁḁ ἰé ἰðῖḁḁ ÷ñçóéῖἰðῖῖῖῖḁ ḁðü ôῖðḁ éḁḁḁḁḁḁḁḁḁḁḁ ḁ ðῖðḁ
ðüḁçòḁḁ ḁῖðḁ ḁḁḁ ἰḁ ḁḁḁḁḁḁḁḁ ḁḁ ḁñῖḁḁḁḁ ḁῖðḁ ḁḁḁḁḁḁḁḁ ἁἰδῖñéêÜ óýἰἰῖῖḁ. ¼ðῖò ḁðḁḁḁ
ἁἰḁἰḁḁḁḁḁ ḁḁ ḁðḁḁ ḁῖ ḁḁḁḁḁḁ ḁḁ ḁḁḁ ḁḁḁ ḁḁḁḁḁḁ ḁῖḁḁḁḁ ḁḁ ḁḁḁḁ ḁῖḁḁḁḁḁ ḁῖò FreeBSD üḁḁ
ḁβῖάé ḁḁḁḁḁḁ ἰḁ ḁβῖάé ἁἰδῖñéêÜ óýἰἰῖῖḁ, éḁ ḁḁḁḁ Ἰḁ ḁðü ḁḁ ḁḁḁḁḁḁ: “TM” ḁ “®”.

Ôῖ ḁḁḁḁ Ḃḁḁḁḁḁ ḁḁḁḁḁḁḁḁ ḁḁ ἰḁ èüḁḁḁ ḁḁ ḁῖḁḁḁ (slices), èḁḁḁḁḁḁḁḁ (partition) éáé
ῖḁḁḁḁḁḁḁḁ (format/ḁḁḁḁḁḁḁḁ) óḁḁçñῖḁḁ ḁβḁḁḁḁ éáé ḁḁḁḁḁḁ ἰΥḁḁ ḁῖò ḁñῖḁḁḁḁḁḁ ḁḁḁ ÷ñÞόç ἰḁ ḁῖ
FreeBSD. Ôḁ ḁḁḁḁḁḁḁḁḁḁ ḁῖḁḁḁḁḁḁ ḁῖò FreeBSD 2.2 ḁḁḁḁ ḁῖḁḁḁḁ ḁῖḁḁḁḁḁḁ éáé ḁḁḁḁ Üḁḁḁ
ḁḁḁḁḁḁḁ. Ôῖ ḁḁḁḁḁ Ḃ÷ḁḁ ḁῖḁḁḁḁḁḁ ḁḁḁ ḁçῖ Ḃḁḁḁḁ 4 ḁῖò FreeBSD.

1 Ἀḁḁḁḁḁḁḁ éáé ἰñéóῖḁḁ

1.1 Ἀḁḁḁḁḁ

Ôῖ ἰḁ ḁñῖḁḁḁḁḁḁ ḁβḁḁḁḁ ἰḁ ḁðḁḁḁ÷ḁ ḁḁ Ἰḁ ḁðḁḁḁ÷ῖ ḁḁḁḁḁḁ ḁβῖάé ÷ḁḁḁḁḁḁḁḁḁḁ ḁḁḁ Ḃῖḁḁḁḁḁ ḁḁḁ÷ḁḁḁḁḁḁ
óðḁḁḁḁḁḁ. Ôῖ èüḁḁḁ, ḁῖ èḁḁḁḁḁḁḁ éáé ç ḁñῖḁḁḁḁḁ ḁβḁḁḁ ḁḁḁḁḁḁ éḁḁḁḁḁḁ ḁñῖḁḁḁ÷ḁ éáé òḁḁḁḁ ḁḁḁḁḁḁ ḁῖḁḁḁḁ.
ἰḁ ḁḁḁḁḁ èÜḁḁ ἰðῖḁḁ ἰḁ ḁῖḁḁḁḁḁḁ Ḃῖḁḁ ῖḁḁḁḁḁḁ ḁβḁḁḁ ḁḁ ḁḁḁḁḁḁḁḁḁḁ. Ἀðḁḁ ḁῖ Ḃḁḁḁḁḁ ḁñÜóḁḁḁ ḁḁ
ðñῖðḁḁḁḁḁ ἰḁ ḁðῖḁḁḁḁḁḁ ç ḁḁḁḁḁḁḁḁ éáé ἰḁ ḁðῖḁḁḁ÷èῖῖ ḁðḁ÷ḁḁḁḁ. Ἀðḁḁ÷ḁð, ḁῖḁḁḁḁḁḁ ḁðḁḁ÷ḁḁḁḁ
ḁñḁḁḁḁḁḁḁ (èḁñḁḁ ḁῖò sysinstall), ḁḁḁḁ ḁñḁḁḁḁḁḁ ḁḁḁḁḁḁḁ ḁῖò FreeBSD, Ḃ÷ḁḁ ḁḁḁḁḁḁḁ ḁçῖ ḁḁḁḁḁḁḁḁḁ.

Ôðḁḁḁḁ÷ḁḁḁ ḁḁḁḁḁḁ ḁñḁḁḁḁ (modes) ῖḁḁḁḁḁḁḁḁḁ:

- [illegible]

[illegible]

ÐÝíá áðí ðçí áðéeíáÐ ðíððíð éáéðíðíáð ððÛí÷íð áýí ìÝèíáé ððçðíáðíð ðíð áðéíð. Ì ðíðíð ÷íçðéíðíéáð ðí ãíáééáí ãáéáðÛóðáçð ðíð óóóðíáðíð /stand/sysinstall. Áðí ðí 2.1.7-RELEASE éáé ìáðÛ ç sysinstall áðèíðíéáð ðí óððéíð ðíð áðéíð áðáéáÐ áðéðíÝðáé ðçí áðáðéáðð áééáÐ óðí label (ðððéíð) éáé óðá ðííáðá (partitions) ðíð áðéíð. ÁðððÝíð óáð áðéðíÝðáé íá áðèççáýóáðá ðéð áééáÝð ìíð óðíð óðáéáíéíÝíð áðéíð ÷íðíð íá áðçíáÛáé ðíðð ððúéíðíðð. Ì ááýóáíðð ðíððíð áíáé íá áéðáéÝóáðá áéÛíðíð áíðéÝð ìá ðí ÷Ýíé áðí ðçí áíáíð áíðéíð ùð root. Áí áðééÝíáðá ðçí áðíééáóðééÐ éáéðíðíáð ÷íáéÛáðá íá áéðáéÝóáðá ìíð 2-3 áíðéÝð áíð ìá ðí sysinstall ðíÝðáé áíðéÝóáðá ééáÛéé ðáíáðÛíð.

1.2 Ĩnéóìïß

Ç áéá÷âßñéóç äßöêùí òôí UNIX® Ý÷áé äþóáé íÝá Ýíííé óá òðŨñ÷íõóáð ëÝíáéð. Ôí ðánaéŨòù èáíéëüäéí áîçääß òçí íñíëüäß ðíõ ÷ñçóéíðíëíüíá óá áóòù òí èáßíáíí èáé òòí FreeBSD äáíééŨ (ðñíõóáðð).

- [illegible]

1.3 ΟçἰᾱḂᾱ ðῖò ðñÝðᾱέ ἰᾱ ðñῖóÝἰᾱðᾱ ἑᾱέ ðᾱᾱḂᾱð

Ἀþóðᾱ ἰᾱᾱÜεç ðñῖóῖ÷þ ðόç ᾱέᾱᾱέᾱóḂᾱ, ᾱῖ ᾱᾱῖ εÜᾱᾱðᾱ ðᾱ ἰÝðñᾱ óᾱð ἑᾱέ ᾱḂἰᾱέ εÜεῖð ἰðῖñᾱḂ ἰᾱ ἑᾱᾱóðñÝðᾱðᾱ ðᾱ ðᾱñéᾱ÷ῖᾱῖᾱ Üεεῖῖ ᾱḂóεῖῖ ðῖò ðóððῖᾱðῖð.

ðñῖóÝἰðᾱ ðé εÜἰᾱðᾱ. ἈḂἰᾱέ ðῖεý ᾱýεῖῖ ἰᾱ ἑᾱᾱóðñÝðᾱðᾱ εÜεῖð ᾱḂóεῖ ᾱῖðéᾱýῖῖðᾱð ἰᾱ ᾱððÝð ðéð ᾱῖðῖεÝð. Ἀῖ Ý÷ᾱðᾱ ᾱῖðéᾱῖḂᾱð ᾱéÝᾱῖðᾱ ðᾱ ἰçῖýἰᾱðᾱ ðῖò ððñῖᾱ ἑᾱðÜ ðç ᾱέᾱᾱέᾱóḂᾱ ᾱéêḂῖçóçð ᾱéᾱ ἰᾱ ᾱñᾱḂᾱ ðç óùóðþ ððóéᾱðþ ᾱḂóεῖð.

ÖðóééÜ ᾱᾱῖ Ý÷ῖðἰᾱ ἑᾱἰḂᾱ ᾱðéýῖç ᾱéᾱ æçῖéÝð ðῖò ἰðῖñᾱḂ ἰᾱ ðñῖεççεῖýῖ. Ç ᾱðéýῖç ᾱḂἰᾱέ ᾱééþ óᾱð!

1.4 Zip, Jazz, ἑᾱέ Üεéᾱ ᾱóᾱéñῖῖἰᾱῖᾱ ἰÝóᾱ

Ἰé ᾱóᾱéñῖῖᾱñé ᾱḂóεῖῖ ἰðῖñῖýῖ ἰᾱ ᾱéᾱῖñöùεῖýῖ óᾱῖ ἑᾱñῖéῖḂ ᾱḂóεῖῖ. Õῖ óçἰᾱῖðééü ᾱḂἰᾱέ ἰᾱ ᾱḂἰᾱέ óðῖᾱἰÝñð ἰ ῖᾱçᾱüð ðῖò ᾱḂóεῖð ἑᾱðÜ ðçῖ ᾱéêḂῖçóç ðῖò ðóððῖᾱðῖð ἑᾱέ ἰᾱ ᾱéðéÝðᾱ ἰÝóᾱ þóðᾱ ἰᾱ ἰðῖñÝóᾱé ἰ ððñῖᾱð ἰᾱ ᾱᾱḂ óùóðÜ ðçῖ ᾱᾱῖᾱðñḂᾱ ðῖò ᾱḂóεῖð. ἘῖéðÜῖðᾱ ðé εÝᾱé ç ᾱῖðῖεþ dmesg ᾱéᾱ ἰᾱ ᾱᾱḂᾱ ᾱῖ ç ððóéᾱðþ ᾱḂἰᾱέ óóçῖ εḂóðᾱ. Ἀéᾱ ðᾱñÜᾱᾱéᾱῖᾱ ᾱῖ ἰ ððñῖᾱð ᾱñÜðᾱé:

Can't get the size

öüðᾱ ᾱᾱῖ ððÜñ÷ᾱé ᾱéðéÝðᾱ óðῖῖ ῖᾱçᾱü. Ἀῖ ᾱḂἰᾱέ ᾱððü ἑᾱ ðñÝðᾱέ ἰᾱ ᾱðᾱῖᾱééῖþóᾱðᾱ òῖ ἰç÷Üῖçἰᾱ ðñéῖ ᾱῖéçῖÜóᾱðᾱ ἰᾱ ᾱéᾱῖñöþóᾱðᾱ ðçῖ ᾱéðéÝðᾱ.

2 Ἀéἰῖñöþῖῖἰᾱðᾱ ᾱḂóéῖðð ᾱéᾱ ᾱðῖéᾱᾱéóðéêþ ἑᾱéðῖðñᾱḂᾱ

2.1 Ἀéóᾱᾱüᾱþ

Ἀððþ ç ðᾱñÜᾱñᾱðῖð ðᾱñéᾱñÜóᾱé ðþð ἰᾱ ððéÜἰᾱðᾱ ᾱḂóéῖðð ἰüñῖ ᾱéᾱ òῖ FreeBSD. ἘðῖçéᾱḂᾱ üðé ἰé ᾱḂóéῖῖ ᾱðῖéᾱᾱéóðéêþð ἑᾱéðῖðñᾱḂᾱð ᾱᾱῖ ἰðῖñῖýῖ ἰᾱ ᾱéᾱᾱóðῖýῖ ᾱðü Üεéᾱ ἑᾱéðῖðñᾱééÜ, ῖýðᾱ ἰᾱ εÜñῖóῖ boot.

2.2 Ðþð ἰᾱ ððéÜἰᾱðᾱ ᾱḂóéῖðð ᾱðῖéᾱᾱéóðéêþð ἑᾱéðῖðñᾱḂᾱð ἰᾱ òῖ Sysinstall

To /stand/sysinstall, òῖ ðñüᾱñᾱῖᾱ ᾱᾱéᾱðÜóðᾱóçð ðῖò ðóððῖᾱðῖð, Ý÷ᾱé ᾱðᾱéðᾱéᾱḂ óðéð ðᾱéᾱððᾱḂð ðῖò ᾱéᾱüóᾱéð þóðᾱ ἰᾱ ᾱðῖῖðῖᾱḂ ðçῖ ᾱéᾱᾱéᾱóḂᾱ ÷ññéóῖý ðüῖ ᾱḂóεῖῖ ἑᾱέ ἰᾱ ᾱðᾱéðᾱḂ ééᾱüðᾱñç ðñῖððÜᾱéᾱ. Õᾱ ðñῖᾱñÜἰᾱðᾱ fdisk ἑᾱé disklabel ðῖò ððÜñ÷ῖóῖ ðῖò ðῖò sysinstall ᾱḂἰᾱέ ᾱñᾱðééῖý ðᾱñéᾱÜεῖῖðῖð (GUI - Graphical User Interface) ἑᾱέ ἰᾱéþñῖóῖ òῖ ἰðÝñᾱῖᾱ ðῖò εῖðḂἰᾱðῖð ðüῖ ᾱḂóεῖῖ. ἈḂἰᾱέ ðñῖóᾱῖþð ἰ ᾱðéῖεüðᾱñῖð ðñüðῖð ἰᾱ éüðᾱðᾱ ᾱḂóéῖðð ᾱðü ðçῖ Ýéᾱῖóç 2.1.7 ἑᾱέ ἰᾱðÜ ðῖò FreeBSD.

1. Ἰᾱᾱéῖþóðᾱ òῖ sysinstall þð root ᾱñÜῖῖῖðᾱð

```
# /stand/sysinstall
```

óóçῖ ᾱñᾱῖþ ᾱῖðῖεþῖ.

2. ἈðééÝἰðᾱ Index.
3. ἈðééÝἰðᾱ Partition.
4. ἈðééÝἰðᾱ òῖ ᾱḂóεῖ ðῖò εÝéᾱðᾱ ἰᾱ ᾱᾱéᾱóᾱóðþóᾱðᾱ ÷ñçóéῖῖðῖéþῖðᾱð ðᾱ ᾱᾱéÜéᾱ ἑᾱέ 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 ἁḂÛéåé íéá ðñíḂéäíðìþçόç ó÷ḂðééÛ íå ôçí ḂḂñḂöþ óå ððÛñ÷ííóá óðóðþíáðå ἁðáíðþóðå Yes.
9. Ἰùèéð óáð ñòðþóáé áí èÝéåðå íá ḂḂéáðóðþóðå Ýíá boot loader, ἁðéëÝíðå None ἁέά íá ἁðñóýḂḂðå ðñéḂḂðñå ἁèéḂḂ þòí Master Boot Record. Ç ḂḂéáðÛóðáóç Ḃñüð boot loader ÷ñḂéÛḂḂðéé ùñí óå éḂéñýñéð ḂḂéáðóðÛóáéð òí FreeBSD þ áí ó÷ḂḂéÛḂḂðéé íá òðñéḂðþóðå òí ἁβóèí óå èÛðñéí Ûèèí íç÷Ûíçá.
10. Ðáðþóðå **ENTER** óðí ḂçíḂñòéèü ðññíḂ Ḃñ èÝḂé “Wrote FDISK partition information out successfully”.
11. ἈðéëÝíðå Quit ἁέά íá ḂḂḂðå ἁðü òí FDISK Editor éḂé ððÛ **ESCAPE** ἁέά íá ḂðéóðñÝðåðå óðí Index menu.
12. ἈðéëÝíðå Label ἁðü òí Index menu.
13. ἸñÛóðå òí ἁβóèí óáð ùðüð èÝéåðå (ḂḂ ðñḂḂḂðå óå partitions). Ἀí èÝéåðå ùñí Ýíá partition ðáðþóðå òí c ἁέά íá ḂçíèðñḂðåðå òí partition. ἸðÛ ἁðèð ḂḂ÷èḂðå ðéð ðñíḂðééñÝð ἁέά óå ðñíḂéññéóíÝíá size, partition type Filesystem, éḂé mountpoint (òí ððñí ḂḂ ÷ ñçóéíðìéḂḂðéé).
14. Ðáðþóðå w ùèéð ðḂḂéðþóðå éḂé Ḃðéèðñþóðå ðéð ḂèéḂḂÝð ἁέά íá óñíḂ÷Ḃðåðå. Òí filesystem èḂ ᰄñḂóðḂ ἁððñḂḂ ἁðü ôçí Ḃññèþ newfs Ḃèðüð áí ḂðéëÝíðå òí ḂñḂḂḂðñ. (Ἀí ḂÛḂḂḂ éḂéñýñḂéí partition óáð óðñÝñḂé íá òí èÝíáðå!). Ἐά óáð ḂþóḂé òí èÛèð:

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

Ἀññþóðå òí.

15. Ðáðþóðå óñíḂ÷ḂñḂ òí **ESCAPE** ἁέά íá ḂḂḂðå.

2.3 Ðüð íá ððéÛíðå ἁβóèíðð ἁðñéḂḂéóðéèþð èḂéðññḂḂḂðò ðÝóá ἁðü ôçí ḂñḂñìþ Ḃññèþí

ἈèðḂéÝóðå ðéð ᰄñḂḂÛðñ ḂññèÝð ḂñèéḂḂéóðñíóð òí ad2 íå òí ùññḂ ôçð óðóéḂðð òñ ἁβóèñ (ḂñÛððå dmesg íá ḂèÝñḂḂ Ḃí ḂḂḂé òüóðü).

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 | disklabel -B -R -r ad2 /dev/stdin
ἘÝèññḂ ùññ Ýíá partition, ðððð ððñññḂ íá ÷ ñçóéíðìéþóíðå òí èññÛðé 'c':
# newfs /dev/ad2c
```

Ἀí ÷ñḂéÛḂḂðéé íá ḂèèÛíðå òí disklabel ἁέά íá ÷ ñçóéíðìéþóðå ðñéḂḂðè partitions (ḂḂ ᰄñÛḂḂḂḂḂ Ḃí èÝéåðå swap) ðüðå èÛíðå:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀññþðå òí disklabel ḂḂé íá ðññéÝóððå partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
ḂèðḂéÝóðå ôçí Ḃññèþ newfs óðå partitions ùðüð ðñÝðḂḂ
```

Ἰ ἁβóèñ óáð ḂḂḂḂ Ḃññèñð ðññð ÷ ñþóç.

3 Ἀεάιιñöþííîáò ἁßóêîðð ἁέἁ óîîἁἁòþ ἑἁέôîñḡḡḡḡ

3.1 Ἀέóἁḡḡḡḡþ

Ç ἁḡḡḡḡþ ἁíðîêþí ἁßíἁέ íἁí í ἁðéíεüðḡḡḡð ðñüðîð ἁέἁ íἁ ððéŸíḡḡḡ ἁßóêîðð ἁðíεεἁέóðéêþð ἑἁέôîñḡḡḡḡ ἁέεŸ ἁßíἁέ ἑἁέ í ἁððéíεüðḡḡḡḡ ἁέἁ íἁ ððéŸíḡḡḡ óîîἁἁóíýð ἁßóêîðð. Õí fdisk ἁðü ðçí ἁḡḡḡḡþ ἁíðîêþí εÝεἁé ðḡḡéóóüðḡḡḡḡ ἁíþḡἁέð ìἁεçíἁðéêþí ἑἁέ ðíεεÝð ἁíþḡἁέð ó÷ḡðééŸ íἁ ðíí ðßíἁéἁ éñíἁðéêþí, éŸðé ðîð ðñîḡἁíþð ἁḡí ÷ñḡéŸḡḡḡḡḡ íἁ ìŸéἁḡḡḡ. Ἀέ ἁððü ÷ñçóéíîðíéþðḡḡ ðí sysinstall ἁέἁ íἁ ððéŸíḡḡḡ óîîἁἁóíýð ἁßóêîðð ἁéíεîðêþíðḡḡ ðéð ìἁçḡḡḡð ðḡḡḡéŸðü.

3.2 Ððð íἁ ððéŸíḡḡḡ ἁßóêîðð óîîἁἁòþ ἑἁέôîñḡḡḡḡ íἁ ðí Sysinstall

1. Ἰḡḡéíþðḡḡ ðí sysinstall þð root ḡñŸîííḡḡḡ

```
# /stand/sysinstall
```

óðçí ḡñḡḡḡþ ἁíðîêþí.

2. ἈðééÝíðḡ Index.
3. ἈðééÝíðḡ Partition.
4. ἈðééÝíðḡ ðí ἁßóêîðð ðîð εÝéḡḡḡ íἁ ἁḡéἁḡḡḡḡþðḡḡḡ ÷ñçóéíîðêþíðḡḡ ḡḡ ἁḡéŸḡḡḡ ἑἁέ ìḡŸ **SPACE**.
5. Ἀí ἑἁ ÷ñçóéíîðêþíðḡḡḡ üéí ðíí ἁßóêîð ἁέἁ ðí FreeBSD, ἁðééÝíðḡ A.
6. ¼ḡḡí ḡḡð æçðçèḡḡḡ:

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) ?

(εÝéḡḡḡ íἁ ðí éŸíḡḡḡ ἁððü íἁ ðñḡḡḡḡḡééŸ éñîŸðéἁ ἁέἁ íἁ ðḡḡḡḡḡḡḡ óîîἁἁðü íἁ Ÿḡḡḡ ἑἁέôîñḡḡḡḡḡ
óðððþíḡḡḡ?) Ἀðḡíðþðḡḡ Yes.

7. ἈðééÝíðḡ Write.
8. ¼ḡḡí ḡḡð æçðçèḡḡḡ íἁ ἁḡéἁḡḡḡḡþðḡḡḡ ðíí boot manager, ἁðééÝíðḡ None íἁ ðí **SPACE** ἑἁέ ìḡŸ **ENTER** ἁέἁ OK.
9. Quit (ḡḡḡḡḡḡḡ) ἁðü ðí FDISK Editor.
10. Ἐἁ ḡḡð ñüðþḡḡḡ éŸðé ó÷ḡðééü íἁ ðíí boot manager ðŸḡḡ, ἁðééÝíðḡ None íἁíŸ.
11. ἈðééÝíðḡ Label ἁðí ðí Index menu.
12. ἸñîŸḡḡḡ ðí ἁßóêîð üððð εÝéḡḡḡ (ḡḡþ ἑἁ ìñḡḡḡḡḡ ḡḡ partitions). Ἀí εÝéḡḡḡ ìüñí Ýíἁ partition ἁðêþð ḡḡ÷ḡḡḡḡ ðéð ðñíḡḡééíḡÝð ἁέἁ ḡḡ ðñíḡḡéíñéóíÝíἁ size, partition type filesystem, ἑἁέ mountpoint (ðí ìðíßí ḡḡí ÷ñçóéíîðêþíḡḡḡḡ).
13. Õí filesystem ἑἁ ðḡḡḡḡḡḡḡ ἁððüḡḡḡḡ ἁðü ðçí ἁíðîêþí newfs ἁéðüð ἁí ἁðééÝíḡḡḡ ðí ἁíðḡḡḡḡ. Ἀí ḡŸḡḡḡḡ ἑἁéñýñḡḡḡ partition ḡḡð óðîŸŸñḡé íἁ ðí éŸíḡḡḡ! Ἐἁ ḡḡð ἁþḡḡ ðí éŸḡḡ:

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

Ἀḡñþðḡḡ ðí.

14. Ðḡðþðḡḡ óðíḡ÷üḡḡḡ ðí **ESCAPE** ἁέἁ íἁ ḡḡḡḡḡḡḡ.

Ἰ ᾱβóêῖð óᾱð ᾱβῖᾱέ Ὡῖῖῖð ðñῖð ÷ñᐑόç.

4 ¶ēēᾱò ēᾱéōῖñᾱᐑᾱò ἰᾱ òῖð ᾱβóêῖð

4.1 ᐑñῖóēΎōῖῖᾱò swap.

Ἐᾱêᐑò Ὡῖᾱ óýóçῖᾱ ᾱðᾱêðᾱβῖᾱðᾱέ, ç ᾱῖᯚᾱêç ᾱέᾱ ἰᾱᾱᾱýóᾱñῖ swap ᾱβῖᾱðᾱέ ῖῖῖ ἔᾱé ðéῖ ᾱðéóᾱéðéêᐑ. ᐑᾱñῖῖῖ ðῖð òῖ ἰᾱ ðñῖóðᾱêᾱᐑ swap óᾱ Ὡῖᾱῖ ððᯚñ ÷ῖῖᾱ ᾱβóêῖ ᾱβῖᾱέ ðññᾱñᯚ ᾱýóêῖῖ, Ὡῖᾱð ἔᾱéῖῖñᾱéῖð ᾱβóêῖð ἰðῖñᾱᐑ ἰᾱ ῖñῖῖðῖéçᾱᐑ Ὡðóé ᐑóðᾱ ἰᾱ ðᾱñéΎ ÷ᾱé òῖ ᾱðéðēΎῖ swap ðῖð óᾱð ēᾱᐑðᾱé.

Ἄέᾱ ἰᾱ ᐑñῖóēΎóᾱðᾱ swap ἔᾱêᐑò ᾱᯚᾱðᾱ Ὡῖᾱ ᾱβóêῖ óῖῖ óýóçῖᾱ:

1. Ἐᾱêᐑò ēῖᾱᾱðᾱ òῖ ᾱβóêῖ (partitioning) ᾱēῖᯚῖᾱ òῖ disklabel ἔᾱé ῖñᐑóðᾱ ÷ᐑñῖ ᾱέᾱ swap óῖῖ ēñῖᯚᯚé (partition) ‘b’ ἔᾱé ᾱᯚῖðᾱ òῖῖ ððῖῖῖᯚᯚᯚ ÷ᐑñῖ óᾱ ēᯚᯚᯚᯚᯚ ᯚῖῖᯚ ēñῖᯚᯚé, ð.÷. óῖῖ ‘a’ ᐑ óῖῖ ‘e’. Ὀῖ ἰΎᾱᾱῖð ðῖð ᾱβῖᾱðᾱ ᾱβῖᾱέ óᾱ blocks òῖῖ 512 bytes.
2. Ὡðᾱῖ ēᯚῖᾱðᾱ newfs óῖῖῖ ᾱβóêῖ, Ἰçῖ òῖ ēᯚῖᾱðᾱ óῖῖ ēñῖᯚᯚé ‘c’. Ἀῖðᐑᾱðᾱ, ēᯚῖᾱð òῖ ῖῖῖ óῖῖ ēñῖᯚᯚé ðῖð ᾱᾱῖ ᾱβῖᾱέ swap.
3. ᐑñῖóēΎóᾱð ὃῖῖ /etc/fstab òῖ ðᾱñᾱéᯚᯚᯚ:

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

Ἀēῖᯚᯚᯚ ὃῖῖ /dev/ad0b óῖῖ ῖñῖᾱ òçð ἔᾱéῖῖñᾱéᾱð óᾱð óðóéᾱðᐑð.

4. Ἄέᾱ ἰᾱ ᾱῖᾱñᾱῖðῖéᐑóᾱðᾱ ᯚῖᾱðᾱ òῖ ἰΎῖ swap ÷ñçóêῖῖðῖéᐑóᾱð òçῖ ᾱῖðῖᐑᐑ swapon

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

4.2 Ἀῖðéᾱñᯚᯚᯚᯚᯚ óᾱ ðᾱñéᾱ ÷ῖῖᾱῖᾱ ᾱβóêῖῖ

Ἀðῖ òῖῖ: Renaud Waldura (<renaud@softway.com>)

Ἄέᾱ ἰᾱ ἰᾱðᾱéῖῖᐑóᾱðᾱ ᾱñ ÷ᾱᐑᾱ ᾱðῖ òῖῖ ᾱñ ÷éêῖ óᾱð ᾱβóêῖ óᾱ Ὡῖᾱῖ ἔᾱéῖῖñᾱéῖ, ēᯚῖᾱð:

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

4.3 ÖœéÜîôå åíùìÝíîò ãßóëîò àå ôî CCD

Áđĩ ôĩĩ: Stan Brown (<stanb@awod.com>)

Iā ōi Concatenated Disk Driver, P āēēēpō CCD, iōiñāBōā iā Y ÷ āōā ðiēēyō ōiēiōō āBōēiōō āēē ū iā ōōiðāñēōYñiōāē
 ūō Y iāō. Ç āēāāēāōBā ēY ūāōāē ōōā ÷ þiāōōç (striping). Iā ōçi āēēēēēēçōç Y ÷ āōā ēāēyōāñā āðīōāēYōiāōā ōōçi
 ōā ÷ yōçōā āðāēāB ñēñ ūēiōāē iē āāñāōYō ēāē iē āiāñiþōāēō ōōiōō āBōēiōō. Āēā ūōōā ōēō manual pages ccd(4) ēāē
 ccdconfig(8) P ōçi āñ ÷ ēēP ōāēBāā ōiō CCD (<http://stampede.cs.berkeley.edu/ccd/>) āēā ðāñēōōōōāñāō ēāðōñYñāēāō.

Ā́éá íá ôñŸíâôâ CCD đēÝíí áái ÷ñâĀæáoôâ áéáéü đõñÞíá. Ìâ ôçí áíôĭēÞ ccdconfig, ôĩñôÞíâôáé ôĩ éáôŸēēçĩ
KLD áóôũíâôâ áí ĭ đõñÞíâô áái Ý÷áé Þăç ôđĩóôÞñéíç áéá CCD.

Ôá CCD ôöëÜ÷îíôáé óá partitions ôýôïö 4.2BSD. Áí èÝëäôá íá ÷ñçöëüðîëöóôôâ üëí ôíí äöôëí êáé ðÜëé ðñÝðáé íá ôöëÜíôâ Ýíá íÝí partition. Äéá ðáñÜüäéäíá, ç áíôíëð **disklabel -e** ðîññá íá íá ääíäé:

```
#          size      offset      fstype    [fsize bsize bps/cpg]
c: 60074784         0      unused          0         0         0 # (Cyl. 0 - 59597)
```

Άάρ ιδññâßôâ íá ÷ ñçôèîüðñēĐôâôâ ôï partition c άέα CCD, äöüóñí áßíáé öýðñö *unused*. Áíôßèâôâ äçíèíôñâĐôââ Ýíá íÝí
 partition äêñéâðò ßäéíò íääÝèíòð áέéÜ öýðñö 4.2BSD:

```
#          size      offset      fstype    [fsize bsize bps/cpg]
c: 60074784         0      unused         0         0         0 # (Cyl.    0 - 59597)
e: 60074784         0    4.2BSD         0         0         0 # (Cyl.    0 - 59597)
```

Ā́éá íá áçierōñāPóáôâ Yía íYī CCD, âêôâĒYóôâ ôéô đāñáēŬôù áíôīēYò. ĐāñēānŬoīoī đpò íá đñīróēYóáôâ ôñāđò
 āđôēīròđ. Áđēđò áēēŬīôâ ôéô ôôôēāôYò uđīô ÷ñāēŬăôáē. Êôīçēāđôâ uôē íē āđôēīē đñYđăē íá āđíăē *uñēīē*.

```
# cd /dev ; sh MAKEDEV ccd0

# disklabel -r -w da0 auto
# disklabel -r -w da1 auto
# disklabel -r -w da2 auto

# disklabel -e da0
ᏍᏏᏉᏉᏉᏉᏉ ᏉᏐᏐᏐᏐ 4.2BSD
# disklabel -e da1
ᏍᏏᏉᏉᏉᏉᏉ ᏉᏐᏐᏐᏐ 4.2BSD
# disklabel -e da2
ᏍᏏᏉᏉᏉᏉᏉ ᏉᏐᏐᏐᏐ 4.2BSD

# ccdconfig ccd0 273 0 /dev/da0e /dev/da1e /dev/da2e

# newfs /dev/ccd0c
```

Ç ôêĤ 273 âġíáé ôĭ ĩŸääèò ôĭõ stripe. Åġíáé ĭ áñéèüò ôĭĭ sectors (512 bytes ĭ êâéŸíáo) óá êÛèâ block äääñŸíuĭ ôĭõ CCD. Èá ðñŸðâé íá âġíáé ôĭõèÛ÷éóóĭ 128 kB, êâé äâĭ ðñŸðâé íá âġíáé äŸíâĭç ôĭõ 2.

Ôpñá ìðĩñáßôâ íá êÛíáôâ mount êáé íá ÷ñcôéiĩðĩéPóáôâ ôi CCD óáo ìÝóù ôcò óóóéãPò /dev/ccd0c.

já déu aóíáôu éáé ãóÝééêôí áíáééáéôéêú ôíô CCD áíáé ôí Vinum. Ðãñéóóúôãñãò ðëçñíöíñßãò óóí Vinum Project
 home page (<http://www.vinumvm.org/>).

5 Ἀῶ÷ᾱñέóôᐑᾱò

Ἰ óðᾱᾱñᾱῶΨᾱò èᾱ ᐑèᾱèᾱ ῑᾱ ᾱῶ÷ᾱñέóôᐑᾱé òῖòð ḁᾱñᾱéŬòù ᾱéᾱ òçῑ óóῑᾱéóöῖñŬ òῖòð óᾱ ᾱóðᐑ òçῑ ᾱñᾱᾱóᐑᾱ òῖòð:

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ᾱéᾱ òéð ᾱðēΨò ῑᾱçᾱᐑᾱò ᾱᾱéᾱòŬóðᾱóçð ᾱῑùð ᾱᐑóēῖò óᾱ ᾱðῖéᾱéóóéēü òñüðῖ ῗᾱéóῖῑñᾱᐑᾱò, òéð ῑðῖᐑᾱò Ψ÷ù ðῖēēΨò öῖñΨò ÷ñçóéῖñðῖéᐑᾱé óóçῑ FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ðῖò Ψéᾱῑᾱ òῖ sysinstall ÷ñᐑóéῖῖ ᾱéᾱ òΨòῖéῖò ᾱᐑᾱῖòð ᾱῖöēᾱéΨò.
- John Fieber (<jfieber@indiana.edu>) ðῖò Ψᾱùóᾱ òéð ðēçñῖῖῖñᐑᾱò éᾱé óᾱ ḁᾱñᾱᾱᾱᐑᾱῑᾱóᾱ ᾱéᾱ òῖ DocBook DTD ðŬῖù óóᾱ ῑðῖᐑᾱ ᾱóðü òῖ éᾱᐑᾱῖñ ᾱᾱóᐑᾱæᾱðᾱé.
- Greg Lehey <grog@FreeBSD.org> ðῖò Ψῗᾱᾱῖᾱ òçῑ ᾱῖöēᾱéŬ ῖῖò, øŬ÷ñῖῖóᾱð ᾱéᾱ ᾱῑᾱēñᐑᾱᾱéᾱò, éᾱé ᾱéᾱ òçῑ òðῖóðᐑñéῑç òῖò óᾱ ᾱéŬöῖñᾱ èΨῑᾱóᾱ.