

Ἀέαιũñöùόç Ἀδιέçêãðôéêπί ἸΎούι ἁέα ×ñÞόç ìà ôī FreeBSD

ἰάò óýíôīīīò ìäçãüò

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Ôī FreeBSD ἁβίἁé Ἰίἁ éἁôī÷ ðñùìŸīī àìðīñéêü óýìἁīēī ôīô FreeBSD Foundation.
Ἰé èŸīἁéò lomega, Zip, éἁé Jaz ἁβίἁé ἁβôἁ éἁôī÷ ðñùìŸīἁ àìðīñéêü óýìἁīēἁ Þ àìðīñéêü óýìἁīēἁ ôçò
lomega Corporation óðéò ÇìùìŸīἁò Ðīēéðἁßἁò Þ/éἁé óἁ Üēἁἁ ÷ þñἁò.
Ἰé èŸīἁéò Motif, OSF/1, éἁé UNIX ἁβίἁé éἁôī÷ ðñùìŸīἁ àìðīñéêü óýìἁīēἁ éἁé Ἰé èŸīἁéò Þ ðñÜóἁéò IT
DialTone éἁé The Open Group ἁβίἁé àìðīñéêü óýìἁīēἁ ôīô The Open Group óðéò ÇìùìŸīἁò Ðīēéðἁßἁò
éἁé óἁ Üēἁἁ ÷ þñἁò.
ÐīēéŸò ἁðü óéò èŸīἁéò Þ ðñÜóἁéò Ἰé Ἰðīßἁò ÷ ñçóéīīðīēīŸīóἁé ἁðü ôīôð éἁóἁóéἁἁóἁóŸò Þ ôīôð
ðùēçôŸò ôīôð ἁéἁ ἰἁ ἁéἁēñβīīôī óἁ ðñīüüíóἁ ôīôð èἁùñīŸīóἁé àìðīñéêü óýìἁīēἁ. ¼ðīô ἁðôŸò
àìðἁíßἁēīóἁé óἁ ἁðôü ôī èἁβīἁīī éἁé ἁéἁ üóἁò ἁðü ἁðôŸò ἁīüñβἁἁé ç ἸiÜἁἁ ἈíÜðððīçò ôīô FreeBSD üòé
ἁβίἁé ðéἁἁíüī ἰἁ ἁβίἁé àìðīñéêü óýìἁīēἁ, èἁ ἁἁβôἁ Ἰίἁ ἁðü óἁ óýìἁīēἁ: “TM” Þ “®”.

Ôī ðἁñüī Ḃἁἁἁἁἁἁ ᰁἁἁἁñÜóἁé ᰁᰁò ἰἁ èüðἁðἁ óἁ ðīᰁἁðἁ (slices), èñīἁðéÜóἁðἁ (partition) éἁé
ññôīðīēᰁᰁðἁðἁ (format/ἁéἁīüñöùòç) óèēçñīŸò ἁβóēīðò éἁé ðἁñüīἁἁ ἰŸóἁ ðīô ðñīñβἁēīóἁé ἁéἁ ÷ ñÞόç ìà ôī
FreeBSD. Ôἁ ᰁἁἁἁἁᰁᰁἁἁἁ ḁīēēīÜóðçἁí óôī FreeBSD 2.2 ἁéèÜ ēīἁἁéÜ ḁīôἁḁŸīôī éἁé óðéò Üēἁἁ
ἁéἁüóἁéò. Ôī èἁβīἁīī Ÿ÷ἁé ḁīçἁññèἁß ἁéἁ ôçī Ÿéἁīôç 4 ôīô FreeBSD.

1 ἈéóἁἁḁḁÞ éἁé Ἰñéóīīß

1.1 ἈἁíéèÜ

Ôī ἰἁ ðñīóéŸἁἁé ἁβóēīðò ἰἁ ἁðéòð÷βἁ óἁ Ἰίἁ ððŸñ÷īī óýóðçἁ ἁβίἁé ÷ ἁñἁéðçñéóðéèü ḁñüð Ḃἁἁἁñīò ἁéἁ÷ἁéñéóðÞ
óðóðᰁἁðἁ. Ôī èüðēīī, ôī èñīÜðéἁóἁἁ éἁé ç ðñīóéÞç ἁβóèñ ἁðἁéðἁß éἁéἁβðἁñç ðñīôī÷Þ éἁé òúóðÞ óýìἁīç ἁíðēᰁᰁ.
ἰἁ ðéἁἁñ èÜēīð ἰðīñἁß ἰἁ ḁīἁóἁíβóἁé Ἰίἁí Ἰēüēçñī ἁβóēī óἁ ḁἁðἁññèἁðἁ. Ἀðôü ôī Ḃἁἁἁἁἁἁ ḁñÜóðçἁ ùò
ðñīððÜἁἁἁ ἰἁ ἁðēīðīēçἁß ç ἁéἁἁéἁóᰁἁ éἁé ἰἁ ἁðīðἁð÷èŸī ἁðð÷ᰁἁἁ. Ἀððð÷þð, ἁíἁíἁᰁᰁð ððἁñ÷üíðüī
ḁñἁἁἁἁᰁᰁᰁ (èðñβüò ôīô sysinstall), óðéò ðñüóἁἁᰁð ἁéἁüóἁéò ôīô FreeBSD, Ÿ÷īôī ḁἁἁἁᰁᰁᰁ ôçī ἁéἁἁἁἁᰁᰁᰁ.

ÔðŸñ÷īôī ḁŸī ðéἁἁñᰁ ðñüðīé (modes) ñññōīðīßçòçð:

- [illegible]

[illegible]

ÐÝíá áðí ðçí áðéeíáÐ ðíððíð éäéeíðíðíáð ððÛí÷íðí ìÝèíáíé óðçðíáðíð ðíð áðéeíð. Ì ðíðíðíð ÷íçóéeíðíéáð ðí
 áíáäéeáíí áäéáðÛóðóáçð ðíð óðóðíáðíð /stand/sysinstall. Áðí ðí 2.1.7-RELEASE éäé íáðÛ ç sysinstall
 áðíðíéáð ðí óððéeíí ðíð áðóéíí áðäéáÐ áðéðíÝðäé ðçí áðáðéáðíð äéeáÐ óðí label (ðððéíð) éäé óðá ðííáðá
 (partitions) ðíð áðóéíí. ÁðéðéÝíí óáð áðéðíÝðäé íá áðíèçéáÝóáðá ðéð äéeáÝð ìííí óðíð óðäéäéíéÝíí áðóéí ÷íðíðð
 íá áðçíáÛäéé ðíðð ððíéðéðíð. Ì ááÝóáííð ðíððíð áííáé íá äéðäéÝóáðá äéÛóííáð áíðíéÝð ìá ðí ÷Ýíé áðí ðçí áíáííð
 áíðíéðí ùð root. Áí áðéeÝíáðá ðçí áðíèçéáðóééÐ éäéeíðíðíá ÷íðäéÛäéáðá íá äéðäéÝóáðá ìííí 2-3 áíðíéÝð áíð ìá ðí
 sysinstall ðíÝðäé áíðéÝóáðá ééáÛéé ðíáíðÛíð.

1.2 Īñéóìĭß

Ç áéá÷âßñéóç äßöêùí òôí UNIX® Ý÷áé äþóáé íÝá Ýíñíé óá òðŨñ÷íõóáð ëÝíáéð. Ôí ðáñáéŨòù èáñéëüüáéí áîçáâðçí ìñíëüáß ðíõ ÷ñçóéñðíëíüíá óá áóòù òí èáßíáñí éáé òòí FreeBSD äáñééŨ (ðñíõóáðð).

- [illegible]

1.3 Οçìáßá ðìò ðñÝðáέ íá ðñìóÝìáððá έάέ ðáãßáððò

Ἀþððá ìáãÛέç ðñìóí÷þ ðçç áέάάέέάóßá, áí ááí èÛááððá ðá ìÝðñá óáð έάέ áßìáέ èÛέìò ìðññáß íá έáðáóðñÝðáððá ðá ðáñέá÷÷ìáíá Ûέέùí áßóέùí ðìò ððððþíáððò.

ðñìóÝìðá ðέ èÛìáððá. Ἀßìáέ ðñéý áýέìéí íá έáðáóðñÝðáððá èÛέìò áßóέí áìòέáýñìðáððò ìá áððÝððò ðέð áíðìéÝðð. Ἀí Ý÷÷áððá áìòέáñέßáððò áέÝáíðá ðá ìçíýìáððá ðìò ððñþíá έáððÛ ðç áέάάέέάóßá áέέßíççðð áέá íá áñáßðá ðç óùóðþ ðððέáðþ áßóέìò.

ÖðóέέÛ ááí Ý÷÷ìðìá έáìßá áðέýíç áέá æçìéÝðð ðìò ìðññáß íá ðñìèççέýí. Ç áðέýíç áßìáέ áέέþ óáð!

1.4 Zip, Jazz, έάέ Ûέέá áðáέñìýìáíá ìÝóá

Ἰέ áðáέñìýìáñέ áßóέìé ìðññýí íá áέáìññòùέýí óáí έáñìéέìß áßóέìé. Òí óçìáíðέέù áßìáέ íá áßìáέ óðñáñÝñð ì ðáçáùð ðìò áßóέìò έáððÛ ðçí áέέßíççðç ðìò ððððþíáððò έάέ ìá áέóέÝðá ìÝóá þððá íá ìðññÝóáέ ì ððñþíáððò íá ááß óùóððÛ ðçí ááùìáðñßá ðìò áßóέìò. ἘìέðÛìðá ðέ èÝáέ ç áíðìéþþ dmesg áέá íá ááßðá áí ç ðððέáðþ áßìáέ óðçí èßððá. Ἀέá ðáñÛááέáíá áí ì ððñþíáððò áñÛðáέ:

Can't get the size

òùðá ááí ððÛñ÷÷ áέ áέóέÝðá óðñì ðáçáù. Ἀí áßìáέ áððù έá ðñÝðáέ íá áðáíáέέέíþðáððá òí ìç÷÷Ûíçá ðñéí áìέέìÛðáððá íá áέáìññòþðáððá ðçí áέóέÝðá.

2 Ἀέáìññöþñìíðáððò áßóέììò áέá áðìèέέáέóðέέþð èáέòììñãßá

2.1 Ἀέóáãùãþ

Ἀððþ ç ðáñÛáñáððò ðáñέáñÛðáέ ðþð íá ððέÛìáððá áßóέìò ìùñí áέá òí FreeBSD. Ἐðìççáßðá ìðέ ìέ áßóέìé áðìèέáέóðέέþð èáέòììñãßáððò ááí ìðññýí íá áέάááóðìýí áðù Ûέέá èáέòììñãέέÛ, ðýðá íá èÛññí boot.

2.2 ðþð íá ððέÛìáððá áßóέììò áðìèέέáέóðέέþð èáέòììñãßáððò ìá òí Sysinstall

To /stand/sysinstall, òí ðññáññáíá ááέáððÛóðáçðð ðìò ððððþíáððò, Ý÷÷áέ áðáέðáέáß óðέð ðáέáððáßáððò ðìò áέáùóáέð þððá íá áðέìðìéáß ðçí áέάáέέάóßá ÷÷ñéóìýý ðùí áßóέùí έάέ íá áðáέðáß èέáùðáñç ðñìòðÛέáέá. Òá ðññáñÛìáððá fdisk έáέ disklabel ðìò ððÛñ÷÷ìí óðì sysinstall áßìáέ áñáðέέéý ðáñέáÛέñíððò (GUI - Graphical User Interface) έάέ ìáέþññí òí ìðÝñááíá ðìò èìþßíáððò ðùí áßóέùí. Ἀßìáέ ðññíóáíþð ì áðέìéùðáññò ðññðìò ìá èùðáððá áßóέìò áðù ðçí Ýέáñóç 2.1.7 έάέ ìáððÛ ðìò FreeBSD.

1. Ἰáέέíþððá òí sysinstall þð root áñÛññíðáððò

```
# /stand/sysinstall
```

óðçí áñáññþ áíðìéþí.

2. ἈðέέÝìðá Index.
3. ἈðέέÝìðá Partition.
4. ἈðέέÝìðá òí áßóέì ðìò èÝέáððá íá ááέáðáóðþðáððá ÷ñçóέììðìéþíðáððò ðá ááέÛέέá έάέ ìáððÛ **SPACE**.

5. Ἀί ἑᾶ ÷ ñçóéíðìéþᾱᾱᾱ üëí òí ᾗðᾱéí ᾗέᾶ òí FreeBSD, ᾗðéëÝíᾱ Ἀ.
6. Ἰüëéð ᾱᾱð ñᾱðþᾱé ᾱí üíòüð èÝéᾱᾱ ἱᾱ òí èÝíᾱᾱ ᾱðü (Do you still want to do this) ᾱðáíðþᾱᾱ Yes.
7. ἈðéëÝíᾱ Write.
8. Ἐᾶ ᾱᾱ ᾗᾗÜëᾱé ἱέᾱ ðñíᾱéäíðìþçóç ó÷ᾱðéëÜ ἱᾱ òçí ᾗᾗñᾱöþ ᾱᾱ ððÜñ÷ííᾱ ᾱᾱððíᾱᾱ ᾱðáíðþᾱᾱ Yes.
9. Ἰüëéð ᾱᾱð ñᾱðþᾱé ᾱí èÝéᾱᾱ ἱᾱ ᾗᾗéᾱᾱᾱðþᾱᾱ Ḳíᾱ boot loader, ᾗðéëÝíᾱ None ᾗέᾶ ἱᾱ ᾱðüýᾱᾱᾱ ἱðìéᾱᾱþðíᾱ ᾱéëᾱᾱþ ᾱᾱ Master Boot Record. Ç ᾗᾗéᾱðÜᾱᾱᾱ ᾱíüð boot loader ÷ ñᾱéÜᾱᾱᾱé üüí ᾱᾱ éᾱéíýñéᾱð ᾗᾗéᾱᾱᾱðÜᾱᾱ òí FreeBSD þ ᾱí ó÷ᾱᾱéÜᾱᾱᾱ ἱᾱ òíðìéᾱðþᾱᾱ òí ᾗðᾱéí ᾱᾱ èÜðìéí Üëëí íç÷Üíçᾱ.
10. Ðᾱðþᾱᾱ **ENTER** ᾱᾱ ᾱíçíᾱñᾱᾱéëü ἱþíᾱ Ḳíᾱ èÝᾱé “Wrote FDISK partition information out successfully”.
11. ἈðéëÝíᾱ Quit ᾗέᾶ ἱᾱ ᾗᾗᾱðᾱ ᾱðü òí FDISK Editor ἑᾱé ἱᾱðÜ **ESCAPE** ᾗέᾶ ἱᾱ ᾱðéᾱðñÝᾱᾱᾱ ᾱᾱ Index menu.
12. ἈðéëÝíᾱ Label ᾱðü òí Index menu.
13. ἸñÜᾱᾱ òí ᾗðᾱéí ᾱᾱ üðüð èÝéᾱᾱ (ᾱᾱþ ἱñþᾱᾱᾱ ᾱᾱ partitions). Ἀί èÝéᾱᾱ üüí Ḳíᾱ partition ðᾱðþᾱᾱ òí c ᾗέᾶ ἱᾱ ᾱçíéíᾱñᾱþᾱᾱ òí partition. ἸᾱðÜ ᾱðéðᾱ ᾗᾱ÷ᾱᾱᾱ ᾱᾱð ðñíᾱðéëᾱÝᾱ ᾗέᾶ ᾱᾱ ðñíᾱéᾱñéᾱᾱᾱ Ḳíᾱ size, partition type Filesystem, ἑᾱé mountpoint (òí ἱðìþí ᾗᾱí ÷ ñçóéíðìéᾱᾱᾱ).
14. Ðᾱðþᾱᾱ w Ἰüëéð ᾱᾱᾱᾱᾱᾱᾱ éᾱé ᾗðéᾱðñþᾱᾱ ᾱᾱ ᾱéᾱᾱÝᾱ ᾗέᾶ ἱᾱ ᾱᾱᾱ÷ᾱᾱᾱ. Òí filesystem ἑᾱ ᰄᾱᾱᾱᾱᾱ ᾱᾱᾱᾱᾱ ᾱðü ᲁçí ᾱíðìéþ newfs ᾱᾱᾱᾱ ᾱí ᾗðéëÝíᾱᾱ òí ᾱíðᾱᾱᾱ. (Ἀί ᾱÜᾱᾱᾱ éᾱéíýñᾱéí partition ᾱᾱ ᾱᾱᾱÝñᾱé ἱᾱ òí èÝíᾱᾱ!). Ἐᾶ ᾱᾱ ᾱþᾱᾱ òí èÜëð:

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

Ἀññþᾱᾱ òí.

15. Ðᾱðþᾱᾱ ᾱᾱᾱ÷ᾱᾱᾱ òí **ESCAPE** ᾗέᾶ ἱᾱ ᾗᾗᾱðᾱ.

2.3 Ðüð ἱᾱ ᾱᾱÜíᾱᾱ ᾗðᾱéíðᾱ ᾱðìéᾱᾱéᾱᾱᾱðᾱ èᾱéᾱᾱᾱᾱᾱ ἱÝᾱᾱ ᾱðü ᲁçí ᾗñᾱìþ ᾱíðìéþí

ἈᾱᾱᾱÝᾱᾱ ᾱᾱ ᰄᾱᾱᾱÜᾱ ᾱíðìéÝᾱ ᾱíðéᾱᾱᾱᾱᾱᾱᾱ òí ad2 ἱᾱ òí üññᾱ ᲁçð ᾱᾱᾱᾱᾱð ᲁíᾱ ᾗðᾱᾱ (ᾗñÜᾱᾱ dmesg ἱᾱ ᾗᾱÝᾱᾱᾱ ᾱí ᾗᾱᾱ ᲁᾱᾱᾱ).

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 | disklabel -B -R -r ad2 /dev/stdin
ÈÝéíᾱᾱ üüí Ḳíᾱ partition, ἱðüðᾱ ἱðìñýᾱ ἱᾱ ÷ ñçóéíðìéþᾱᾱᾱ òí èññÜᾱé 'c':
# newfs /dev/ad2c
```

Ἀί ÷ ñᾱéÜᾱᾱᾱᾱ ἱᾱ ᾱᾱÜíᾱᾱ òí disklabel ᾗέᾶ ἱᾱ ÷ ñçóéíðìéþᾱᾱᾱ ðìéᾱᾱðÜ partitions (ᾗᾱ ᰄᾱñÜᾱᾱᾱᾱ ᾱí èÝéᾱᾱ swap) ᲁᾱᾱ èÜíᾱ:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀñþíᾱ òí disklabel ᾗᾱ ἱᾱ ᰄñíᾱᾱᾱᾱ partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
ᾱᾱᾱᾱÝᾱᾱ ᲁçí ᾱíðìéþ newfs ᾱᾱ partitions üðüð ðñÝðᾱᾱ
```

Ἰ ᾗðᾱᾱ ᾱᾱ ᾗᾱᾱ Ḳíᾱᾱᾱ ᰄññ ÷ ñþóç.

3 Äéàìñöþííîàò äßóêîõ ãéá óõîääôP ëäéôîõñãßá

3.1 Áéóá~ù~þ

Ç añaniÞ ářıreþı ábíae íarı áoeıeuoãñıo õnuõıo áea ía ooeÜıaoã aboeıoõ aõıeeaeoóoeþo eãeoıoñabão aeeÜ abıae eae í
 äoóeuoãñıo áea ía ooeÜıaoã ooıaaorıyo aboeıoõ. Öı fdisk aõu oçı añaniÞ ářıreþı eÝeae ðãneeóuoãñão arpoãeo
 íaeçıaoóeeþı eae õreeÝo arpoãeo ÷-äoeÜ ıa oıı õbıaeã enıaoeþı, eÜoe õıo õñıorıþo aar ÷-ñãeÜxãoãe ía ıÜeãão. Æe
 aõou ÷-ñçoeeııõıeeþooã oı sysinstall áea ía ooeÜıaoã ooıaaorıyo aboeıoõ aeııeõeþıoã oeo ıacãbão ðãñaeÜou.

3.2 Ðò à ööÜîàòä äßöëîõ òõîääòÐò ääëîîññãßàò à òî Sysinstall

1. ÎâêíÐóââ ôï sysinstall bè root ãñÜöïíóáò

```
# /stand/sysinstall
```

óôçí ãñàììÐ áíôïëbí.

2. ÅðëëÝíðå Index.
3. ÅðëëÝíðå Partition.
4. ÅðëëÝíðå ðí æßðëí ðíð ëÝëåðå íå ååëåðåóðßðåðå ÷ñçóëíðíëíðíåðå ðå ååëÜëéå éåé íåðÜ **SPACE**.
5. Áí èå ÷ñçóëíðíëíðíåðå üëí ðíí æßðëí ãéå ðí FreeBSD, åðëëÝíðå A.
6. ¼ðåíí óåð æçðçèåß:

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)?

(ÈYéaòá íá ôí eÜíáòá áòòü íá ðñááíáòéèÜ emÜòéá áéá íá ðáñáíáBíáé óòíááòüò íá Üééá éáéòíòñáéèÜ óóóóPíáóá?) ÁðáíòPóóá yes.

7. **ΆδεέΎίοά Write.**
8. **¼οάί οάδ æçðçëâß íá âãêäóäóðÞóäòä òíí boot manager, áδεέΎίοά None íä òí **SPACE** éáé íäòÛ **ENTER** áéá OK.**
9. **Quit (âãâßòä) áðu òí FDISK Editor.**
10. **Èá οάδ ñùòÞóáé èÛòé ó÷-äòéèü íä òíí boot manager ðÛéé, áδεέΎίοά None íáfÛ.**
11. **ΆδεέΎίοά Label áði òí Index menu.**
12. **ÍñÛóοä òí äßòëí üðùò èΎéäòä (âäÞ éä ïñßóäòä óá partitions). Áí èΎéäòä íüíí Ύία partition áðëÞò ää÷-èäßòä óéð ðñíäðéëíáΎð áéá óá ðñíêäëíñéóíΎία size, partition type filesystem, éáé mountpoint (òí ïðíßí äáf ÷ ñçóéííðíéäßòáé).**
13. **Ôí filesystem éä ðãñáòóäß äóòüííóä áðu òçí áíòíëÞ newfs äêòùò áí áδεέΎίòä òí áíòðèäòí. Áí âÛæäòä éáéíýñáëí partition óáð óòíòΎñáé íá òí èÛíäòä! Èá óáð äÞóáé òí èÛèòð:**

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

ÁãíïÞóôå ôï.

14. ÐáôÞóóâ óõíã÷üìáíá ôï **ESCAPE** ãéá íá âãâðôã.

Ἰ ᾱβóêῖð óᾱð ᾱβῖᾱέ Ὡῖῖῖð ðñῖð ÷ñῑóç.

4 Ἥέῃᾱò ῃᾱέòῖòñᾱḂᾱò ἰᾱ òῖð ᾱβóêῖð

4.1 ḂñῖóèΨóῖῖᾱò swap.

Ἐᾱêῑ Ὡῖ ὀύóçῖᾱ ᾱðᾱêðᾱβῖᾱðᾱέ, ç ᾱῖῖᾱêç ᾱέᾱ ἰᾱᾱᾱῖῖᾱñῖ swap ᾱβῖᾱðᾱέ ῖῖῖ ῃᾱέ ðéῖ ᾱðéóᾱéðéêῑ. Ḃᾱñῖῖῖ ðῖð òῖ ἰᾱ ðñῖóðᾱêᾱḂ swap óᾱ Ὡῖᾱῖ ððῖñ÷ῖῖᾱ ᾱβóêῖ ᾱβῖᾱέ ðññᾱñῖ ᾱῖῖῖῖῖ, Ὡῖᾱð ῃᾱῖῖῖñᾱéῖð ᾱβóêῖð ἰðῖñᾱḂ ἰᾱ ῖñῖῖðῖῖéçᾱḂ Ὡðóé ῑóðᾱ ἰᾱ ðᾱñéΨ÷ᾱέ òῖ ᾱðéðéΨῖ swap ðῖð óᾱð ῃᾱḂᾱέ.

Ἄέᾱ ἰᾱ ḂñῖóèΨóᾱð swap ῃᾱêῑ ᾱῖᾱðᾱ Ὡῖ ᾱβóêῖ òῖῖ ὀύóçῖᾱ:

1. Ἐᾱêῑ ῃῖᾱᾱðᾱ òῖ ᾱβóêῖ (partitioning) ᾱéῖῖῖᾱ òῖ disklabel ῃᾱέ ῖñḂóðᾱ ÷ῑñῖ ᾱέᾱ swap òῖῖ ῃñῖῖᾱ (partition) ‘b’ ῃᾱέ ᾱῖῖᾱ òῖῖ ððῖῖῖῖð ÷ῑñῖ ὃᾱ ῃῖῖῖῖ ῖῖῖῖ ῃñῖῖᾱ, Ḃ.÷. òῖῖ ‘a’ ῑ òῖῖ ‘e’. Ὀῖ ἰΨᾱᾱῖð ðῖð ᾱβῖᾱðᾱ ᾱβῖᾱέ óᾱ blocks òῖῖ 512 bytes.
2. ῖᾱᾱῖ ῃῖᾱðᾱ newfs òῖῖ ᾱβóêῖ, Ἰçῖ òῖ ῃῖᾱðᾱ òῖῖ ῃñῖῖᾱ ‘c’. ἈῖðḂᾱðᾱ, ῃῖᾱðᾱ òῖ ῖῖῖ òῖῖ ῃñῖῖᾱ ðῖð ᾱᾱῖ ᾱβῖᾱέ swap.
3. ḂñῖóèΨóᾱ òῖῖ /etc/fstab òῖ Ḃᾱñᾱῖῖᾱ:

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

Ἀéῖῖῖᾱ òῖ /dev/ad0b òῖῖ ῖñῖᾱ òçð ῃᾱῖῖῖñᾱéᾱð óᾱð òðóéᾱðḂð.

4. Ἄέᾱ ἰᾱ ᾱῖᾱñῖῖῖῖῖᾱ ῖᾱᾱᾱ òῖ ἰΨῖ swap ÷ñçóῖῖῖῖῖᾱ òçῖ ᾱῖῖῖῖῖ swapon

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

4.2 Ἀῖðᾱñῖῖῖῖᾱò ὃᾱ Ḃᾱñᾱ÷ῖᾱῖᾱ ᾱβóêῖῖ

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

Ἄέᾱ ἰᾱ ἰᾱðᾱéῖῖῖᾱðᾱ ᾱñ÷ᾱḂ ᾱðῖ òῖῖ ᾱñ÷éêῖ óᾱð ᾱβóêῖ ὃᾱ Ὡῖᾱῖ ῃᾱῖῖῖñᾱéῖ, ῃῖᾱðᾱ:

```
# 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, iōiñāβōā íá Ÿ ÷ āōā ðīēēyō ōīēīōō āβōēīōō āēēŸ íā ōōīðāñēōŸñīōāē
 ōō Ÿíāō. Ç āēāāēēāōā ēŸŸāōāē ōōā ÷ pīāōōç (striping). Iā ōçí āēēēūēēçōç Ÿ ÷ āōā ēāēyōāñā āðīōāēŸōīāōā ōōçí
 ōā ÷ yōçōā āðāēāP ñēñŸēīōāē íē āāñāōŸō ēāē íē áíāñpōāēō ōōīōō āβōēīōō. ĀēāŸŸōōā ōēō manual pages ccd(4) ēāē
 ccdconfig(8) P ōçí āñ ÷ ēēP ōāēBāā ōīō CCD (<http://stampede.cs.berkeley.edu/ccd/>) āēā ðāñēōōōūōāñāō ēāðōñŸñāēāō.

Ā́éá íá ôñŸíâôâ CCD đēÝíí áái ÷ñâĀæáoôâ áéáéü đõñÞíá. Ìâ ôçí áíôĭēÞ ccdconfig, ôĩñôÞíâôáé ôĩ éâôŸēēçĩ
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 ðáñÜäáéäíá, ç áíôíëð **disklabel -e** ðññáß 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 äèñéâðò ßäèíò íääÝèíòð áέèÛ 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 áēēŬiôâ ôéô ôôôēāôYò uđiō ÷ñāēŬăôáē. Èôīçēāđôâ 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 Ἀð÷ᾗñéóôþᾱò

Ἰ óðᾗᾗᾗᾗᾗÝᾱò èᾱ þèᾗèᾱ íᾱ ᾗð÷ᾗñéóôþᾱé òĩòð ðᾗᾗᾗᾗᾗᾗᾗᾗ ᾗéᾱ òçí óðíᾗéóóöñᾗᾗ ᾗĩòð óᾱ ᾗòðþ òçí ᾗñᾗᾗóþᾱ òĩòð:

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ᾗéᾱ òéð ᾗðēÝò ἰᾗçᾗᾗᾗð ᾗᾗéᾱòᾗóðᾗóçò ᾗíùð ᾗþóēĩò óᾱ ᾗðíēᾗéóóéü òñüðĩ ēᾗéóíñᾗᾗᾗᾗð, òéð ἰðĩᾗᾗᾗ ᾗ÷ù ðĩēēÝð òñᾗÝð ÷ñçóēñðĩéþᾱé óóçí FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ðĩò ᾗéᾗᾗ ᾗĩ sysinstall ÷ñþóēñ ᾗéᾱ òÝòíēĩò ᾗᾗᾗòð ᾗĩòēᾗéÝð.
- John Fieber (<jfieber@indiana.edu>) ðĩò ᾗᾗùóᾱ òéð ðēçñĩññᾗᾗð éᾱé óᾱ ðᾗᾗᾗᾗᾗᾗᾗᾗᾗ ᾗéᾱ òĩ DocBook DTD ðᾗᾗᾗ óᾱ ἰðĩᾗᾗ ᾗððü òĩ ēᾗᾗᾗñ ᾗᾗóᾗᾗᾗᾗᾗ.
- Greg Lehey <grog@FreeBSD.org> ðĩò ᾗēᾗᾗᾗ òçí ᾗĩòēᾗᾗᾗ ἰĩò, øᾗ÷ñĩóᾗð ᾗéᾱ ᾗᾗᾗñᾗᾗᾗᾗᾗ, éᾱé ᾗéᾱ òçí òðĩóðþñéĩç òĩò óᾱ ᾗéᾗᾗñᾗ èÝᾗᾗᾗ.