

Ἀέαιũñöùόç Ἀδῐ̀εçêãðôéêþí ÌÝóùí ãéá ×ñþόç ìå ôῐ FreeBSD

ἰάò óýíôῐῐῐò ῐäçãüò

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Ôῐ FreeBSD áβῐ́áé Ḃῐ́ éáôῐ÷ðñùῐÝῐῐ àῐðῐñéêü öýῐäῐῐῐ òῐò FreeBSD Foundation.
ἰé èÝῐáéò lomega, Zip, éáé Jaz áβῐ́áé áβôã éáôῐ÷ðñùῐÝῐ́ àῐðῐñéêü öýῐäῐῐῐ ð áῐðῐñéêü öýῐäῐῐῐ òçò
lomega Corporation óðéò ÇῐùῐÝῐ́ð ðῐééðãßàò ð/éáé óã Üëëãð ÷þñãð.
ἰé èÝῐáéò Motif, OSF/1, éáé UNIX áβῐ́áé éáôῐ÷ðñùῐÝῐ́ àῐðῐñéêü öýῐäῐῐῐ éáé ἰé èÝῐáéò ð ðñÜóáéò IT
DialTone éáé The Open Group áβῐ́áé àῐðῐñéêü öýῐäῐῐῐ òῐò The Open Group óðéò ÇῐùῐÝῐ́ð ðῐééðãßàò
éáé óã Üëëãð ÷þñãð.
ðῐéëÝò áðü òéò èÝῐáéò ð ðñÜóáéò ἰé ῐðῐßàð ÷ñçóéῐῐðῐῐýῐóáé áðü òῐò éãóáóéããóóðÝò ð òῐò
ðüèçòÝò òῐò ãéá ἰá äéãêñßῐῐῐῐ óã ðñῐüῐῐóá òῐò éãñῐýῐóáé àῐðῐñéêü öýῐäῐῐῐ. ¼ðῐò áððÝò
àῐðáῐßæῐῐóáé óã áððü òῐ éãßῐῐῐ éáé ãéá üóãð áðü áððÝò àῐññßæãé ç ἰῐÜãá ÁῐÜðððῐçò òῐò FreeBSD üòé
áβῐ́áé ðééáῐῐῐ ἰá áβῐ́áé àῐðῐñéêü öýῐäῐῐῐ, éã äãßôã Ḃῐ́ áðü óã öýῐäῐῐῐ: “TM” ð “®”.

Ôῐ ðãñῐῐ Ḃããããῐ ðãñéãñÜóáé ððò ἰá èüøãðã óã ðῐßῐðã (slices), èῐῐῐðéÜóãðã (partition) éáé
ῐñῐῐῐῐῐῐðãðã (format/äéãῐũñöùóç) óèèçñῐýð áβóèῐðò éáé ðãñῐῐῐῐ ἰÝóá ðῐò ðñῐñßæῐῐóáé äéá ÷ñþόç ἰã ôῐ
FreeBSD. Ôã ðãñãããßῐῐῐῐῐ äῐèéÜóðçéáῐ óôῐ FreeBSD 2.2 áèèÜ èῐäéèÜ äῐòéãýῐῐῐ éáé óðéò Üëëãð
äéãüóáéð. Ôῐ éãßῐῐῐ Ḃ÷äé äῐçῐññèãß äéá òçῐ Ḃéäῐóç 4 òῐò FreeBSD.

1 Ἀéóããüãþ éáé ἰñéóῐῐß

1.1 ἈáῐéèÜ

Ôῐ ἰá ðñῐóéÝðáéð áβóèῐðò ἰá äðéðð÷ßã óã Ḃῐ́ òðÜñ÷ῐῐ óýóðçῐá áβῐ́áé ÷ãñãèðçñéóðéèü áñüð Ḃῐðãñῐῐ äéá÷äéñéóðþ
óðóðßῐðῐð. Ôῐ èüøéῐῐ, ôῐ èῐῐÜðéãóῐá éáé ç ðñῐóéðèç áβóèῐῐ äðãéðãß äéããððãñç ðñῐῐῐ÷þ éáé óùóðþ óýῐðáῐç áῐðῐῐῐ.
ἰá ðééãñῐ èÜῐð ῐðῐñãß ἰá äῐãóáῐßóáé Ḃῐ́ῐ ἰèüèèçñῐ áβóèῐῐ óã äãððãññèãððã. Áððü ôῐ Ḃããããῐ ãñÜóðçéã üò
ðñῐððÜèãéá ἰá äðῐῐῐῐéçãß ç äéãäééãóðã éáé ἰá äðῐðãð÷èýῐ áðð÷ßῐðã. Ἀððð÷þð, áῐῐῐῐððáéð òðãñ÷ῐῐðῐῐ
ãñããéãßῐῐ (èðññüð òῐò sysinstall), óðéð ðñῐóóãðãð äéãüóáéð òῐò FreeBSD, Ḃ÷ῐῐῐ äãèðèðóáé òçῐ äéãäééãóðã.

ÔðÜñ÷ῐῐῐ äýῐ ðééãñῐß ðñῐðῐῐ (modes) ῐñῐῐῐῐῐççòð:

- **οἰαῶP εἰεῖοἰῶP (compatibility mode):** Ἀεαῖυνῶος οἰο ἁβῶεἰο πῶα ιά Y ÷ ἀέ Y ιά ὀβίαῖα οἰπιαῶοι (slice table) εἰε ιά ιῶἡP ιά ÷ nῥοῖιῶεῖα ὀανῖεῖα αῶ ὕεα εἰεῖοἰῶεῖU ὀοῶPιαῶα.
- **ἀδιεῖαῶοέεP εἰεῖοἰῶP (dedicated mode),** ιᾶεῖY ὀἡY ὀYᾶῶε εἰε ἀεῖβιαῶία ἀδιεῖαῶοέεP εἰεῖοἰῶP: Ἀεαῖυνῶος αῖο ἁβῶεἰο ÷ ἡP ὀβίαῖα partitions. Ἀῶο ὀYᾶε ὀY ἁεῖαῶα ὀο ὀἡῶεῶο ἁβῶεἰο ὀεῖεῶαῖ αῖU Y ις-FreeBSD εἰεῖοἰῶεῖ οYὀῶία ὀεῖαῖι ις ιῶἡP ιά ἁε οἱ ἁβῶεἰ. ῤ Yεῶαῶς ἀεῖβιαῶία αῖαYἡᾶε ὀἡ εἰαῶἡ οἰο ὕε οἱ οYὀῶία ιῶἡP ιά ις αῖαῖἡP ἡYᾶἡ ἁβῶεἰ ἡἡἡἡῖYἡ εἰε ὀοῖι ὀἡ ὀἡ.

Ὀῶε ὀἡῶεῶαῖ ὀἡῶὀP ὀYᾶε ὀYᾶεῖαῶοέεP εἰεῖοἰῶP ἁβίαῖ ι ὀεῖεῶαῖ ὀἡὀἡ ιά ὀοῖα εἰε ιά ÷ nῥοῖιῶεῖα ὀα ὀὀἡ ÷ ἡὀα ὀοῶPιαῶα, ὀοῖι Yᾶε εἰεῖYᾶεἰο ἁβῶεἰο ὀἡPεῶ ὀἡἡPᾶῶεἰ ἡἡἡ ὀY FreeBSD. ὀἡἡἡ ὀἡ ὀYᾶῶP εἰεῖοἰῶP ἁεῶαῖεYᾶε ιYᾶῶ ὀYᾶεῖαῶοἡἡεῖοῶα (interoperability) ια ιᾶεἡὀεYᾶ ἁεῶαῶὀὀὀὀ, ἁβίαῖ ὀεἰ ὀYὀεῖ.

ὀYᾶ αῶ ὀY ὀYῖP ὀἡὀἡ εἰεῖοἰῶP ὀὀἡ ÷ ἡἡ Yἡ ιYῖεἡ ὀοῖPιαῶἡ οἰο ἁβῶεἰο. ἢ ὀἡPἡ ÷ nῥοῖιῶεῖα ὀY ἡἡἡἡP ἡεῶὀὀὀ οἰο ὀοῶPιαῶἡ /stand/sysinstall. Ἀῶο οἱ 2.1.7-RELEASE εἰε ιᾶU ῤ sysinstall ὀYὀἡἡ ὀY ὀPῶεἡ ὀY ἁβῶεἡ ὀYᾶP ὀYὀἡYᾶε ὀY ὀYὀἡἡ ὀYᾶP ὀY label (ὀPῶἡ) εἰε ὀα οἰπιαῶα (partitions) ὀY ἁβῶεἡ. ἈὀὀYἡ ὀα ὀYὀἡYᾶε ιά ὀYῖYᾶὀὀ ὀε ὀYᾶYᾶ ὀY ὀY ὀYᾶῖPἡἡYἡ ἁβῶεἡ ÷ ἡP ιά ὀYᾶἡYᾶε ὀYὀ ὀYὀἡὀὀ. ἢ ὀYὀἡ ὀἡὀἡ ἁβίαῖ ιά ὀYὀἡYᾶὀὀ ὀYὀἡὀ ὀYὀἡYᾶ ὀY ὀY ÷ Yἡ ὀY ὀY ὀYᾶἡP ὀYὀἡP ὀY root. Ἀἢ ὀYᾶYᾶ ὀY ὀYῖYᾶὀὀ εἰεῖοἰῶP ὀYὀἡἡP ÷ ἡYᾶὀὀ ιά ὀYὀἡYᾶὀὀ ὀY 2-3 ὀYὀἡYᾶ ὀY ια οἱ sysinstall ὀYᾶ ὀYὀYᾶ ὀYὀYᾶ ὀYὀὀ ὀYᾶὀὀ.

1.2 ἡῶἡ

ῤ ὀY ÷ ἁἡῶς ἁβῶεἡ ὀY UNIX® Y ÷ ἀέ ὀYᾶε ιYᾶ Yἡἡᾶ ὀα ὀὀἡ ÷ ἡὀὀ ὀYᾶὀ. ὀY ὀYᾶὀU ὀYὀὀὀ ὀYᾶὀ ὀY ὀYᾶὀ ὀY ÷ nῥοῖιῶεῖYᾶ ὀα ὀὀοἡ ὀY εἰPἡἡ εἰε ὀY FreeBSD ὀYὀὀ (ὀYὀὀP).

- **οἰαῶP εἰεῖοἰῶP (compatibility mode):** ῤ Ἀεαῖυνῶος οἰο ἁβῶεἰο πῶα ιά Y ÷ ἀέ Y ιά ὀβίαῖα οἰπιαῶοι (slice table) εἰε ιά ιῶἡP ιά ÷ nῥοῖιῶεῖα ὀανῖεῖα ια ὕεα εἰεῖοἰῶεῖU ὀοῶPιαῶα. Ἀἡὀὀ ὀY ὀY ὀYῖYᾶὀὀ ὀYὀὀὀ.
- **(ἀεῖβιαῶία) ἀδιεῖαῶοέεP εἰεῖοἰῶP:** ῤ Ἀεαῖυνῶος οἰο ἁβῶεἰο εἰεU ὀYὀἡἡ ὀἡὀἡ πῶα ιά ις ὀYᾶY ÷ ἀέ ὀβίαῖα ὀYὀὀ (slice table). Ἀβίαῖ ὀY ὀYὀῖ ὀYᾶῖαὀα ὀY ὀY ἁβῶεἰο ιῶἡP ιά ις ὀYᾶYᾶ ὀα ις-FreeBSD εἰεῖοἰῶεῖU ὀοῶPιαῶα. Ἀἡὀὀ ὀY ὀYᾶὀP εἰεῖοἰῶP.
- **ἁβῶεἰο:** ἢ ὀYὀἡ ἁβῶεἡ, ὀα CDROM, ἢ ιᾶῖὀYὀ-ὀYὀYὀ ὀYὀὀYὀ εἰε ὀα ὀYὀἡYᾶ ιYᾶ Yὀ Zip®/Jaz® ἁβίαῖ ιᾶῖYὀ αῶο ὀYὀὀYὀ ιᾶῖP ὀYὀPᾶὀὀ ὀYὀYὀ ὀY ÷ nῥοῖιῶεῖYᾶ ὀYᾶ. ῤ ὀYὀP ὀY ÷ P εἰεῖοἰῶP ὀYὀP ὀY ιYὀἡ ὀYὀPᾶὀὀ Yᾶ P ὀYὀὀὀὀὀ ἁβῶεἡ ἢ ὀYὀἡ ὀYὀὀYὀὀὀ αῶο Yᾶ ἡὀYἡ, ὀY ἢ εἰε ὀYὀP ὀYᾶὀ ὀα Yᾶ ἡἡὀὀ ὀYἡ ὀY ὀYὀἡ εἰε ὀYᾶYᾶ αῶο ὀY ἁβῶεἡ P ὀYὀὀ ὀYᾶἡYᾶ ὀα ὀYὀἡ. ὀY ὀYὀἡ ὀYᾶὀ ια ιᾶὀἡP ὀYὀἡ ὀYὀὀ ὀYὀὀYᾶ ÷ ὀYὀὀὀὀὀὀ ὀY ἁβῶεἡ (ιᾶῖὀὀP ἡP, ὀYὀὀὀὀὀὀ, εὀ.) ὀY ὀY ὀYᾶὀἡ ὀYᾶὀ ια “ἡP ÷ ἡὀὀ” ὀYὀP ὀY ὀYὀὀ ὀYὀὀὀ ὀY ὀYὀὀ.
- **οἰP (slice):** ἢ ὀYὀὀὀὀ ὀYὀ ἁβῶεἡ. ὀYὀὀ ια ὀα ὀYὀὀὀ ὀY PC ιὀἡYᾶ ια ὀὀἡ ÷ ἡY ÷ ἡ 4 οἰπιαῶα ὀα Yᾶἡ ἁβῶεἡ. ὀα οἰπιαῶα ὀYὀὀὀὀ ὀY ὀY ÷ ὀYὀὀ ὀYὀὀ (sectors). ὀὀἡ ÷ ἡ Yᾶ “ὀYᾶὀ ὀYὀὀ” (slice table) ὀY ὀYᾶY ÷ ὀY ὀYὀὀὀ ὀY ὀα οἰπιαῶα εἰε ÷ nῥοῖιῶεῖPὀ αῶο ὀY BIOS ὀY ια ὀYὀ αῶο ὀY ιὀἡP ια ὀYὀὀ ὀY ὀYὀὀ. ἢ ὀYᾶὀ ὀYὀὀ ὀYὀὀ ὀYᾶὀ “ὀYᾶὀ ὀYὀὀP” (partition table) ὀα ὀYὀὀ DOS ὀY ὀY ÷ ἡὀὀ ὀY ὀY ὀYὀὀὀ fdisk.
- **ὀYὀὀ (partition):** ἢ ὀYὀὀὀὀ ὀYὀ οἰπιαῶἡ. ὀYὀὀ ÷ nῥοῖιῶεῖPὀ ὀY ὀYὀὀ ὀY ὀYὀὀYὀὀ ὀY ὀYὀὀ (slices) οἰο ἁβῶεἡ ὀY FreeBSD. ὀYὀ ὀYὀὀ ὀY ÷ ὀYὀ (filesystem) P ὀYὀὀὀὀὀ ὀYὀὀ (swap area) ὀY ἁβῶεἡ ὀYὀὀὀ ὀα Yᾶ ὀYὀὀ. ὀα ὀYὀὀ ὀY ÷ ὀYὀ ια ὀY ὀYὀὀ disklabel.
- **ὀYὀὀ (sector):** ῤ ἢὀὀὀὀ ὀYὀὀὀὀ ὀYὀ ἁβῶεἡ. ὀYὀὀ ÷ ἡ ιYᾶὀ 512 bytes.

1.3 Οçιᾱβᾱ ðῖò ðñÝðᾱέ ιᾱ ðñῖóÝᾱðᾱ ἑᾱέ ðᾱᾱβᾱð

Ἀþòᾱ ιᾱᾱÜεç ðñῖóι÷þ òç ᾱέᾱᾱέᾱóβᾱ, ᾱί ᾱᾱí εÜᾱᾱðᾱ ðᾱ ἰÝðᾱ ὁᾱð ἑᾱέ ᾱβῖᾱέ εÜεῖð ἰðῖñᾱß ιᾱ ἑᾱᾱóðñÝðᾱðᾱ ὁᾱ ðᾱñéᾱ÷üᾱῖᾱ Üεεüí ᾱβóεüí ðῖò òðóðþᾱðῖð.

ðñῖóÝᾱð ὁε εÜᾱðᾱ. Ἀβῖᾱέ ðῖεý ᾱýεῖῖ ιᾱ ἑᾱᾱóðñÝðᾱðᾱ εÜεῖð ᾱβóεῖ ᾱῖðéᾱýῖῖðᾱð ιᾱ ᾱðóÝð ðéð ᾱῖðῖεÝð. Ἀί Ý÷ᾱðᾱ ᾱῖðéᾱῖεβᾱð ᾱéÝᾱῖðᾱ ὁᾱ ἰçῖýᾱðᾱ ðῖò ðñþþᾱ ἑᾱóÜ òç ᾱέᾱᾱέᾱóβᾱ ᾱéêþῖçðçð ᾱéᾱ ιᾱ ᾱñᾱβᾱð ὁç òúóðþ òðóéᾱðþ ᾱβóεῖð.

ÖðóééÜ ᾱᾱí Ý÷ῖðᾱ ἑᾱῖβᾱ ᾱðéýῖç ᾱéᾱ æçῖéÝð ðῖò ἰðῖñᾱß ιᾱ ðñῖεççεῖýῖ. Ç ᾱðéýῖç ᾱβῖᾱέ ᾱééþ ὁᾱð!

1.4 Zip, Jazz, ἑᾱέ Üεéᾱ ᾱóᾱéñῖῖᾱῖᾱ ἰÝóᾱ

Ἰé ᾱóᾱéñῖῖᾱῖᾱ ᾱβóεῖ ἰðῖñῖýῖ ιᾱ ᾱéᾱῖñöùεῖýῖ ὁᾱí ἑᾱῖῖéῖß ᾱβóεῖ. Õῖ òçῖᾱῖðééü ᾱβῖᾱέ ιᾱ ᾱβῖᾱέ ὁῖῖᾱᾱῖÝῖð ἰ ῖᾱçᾱüð ðῖò ᾱβóεῖð ἑᾱóÜ òçῖ ᾱéêþῖçðçð ðῖò òðóðþᾱðῖð ἑᾱέ ιᾱ ᾱéðéÝðᾱ ἰÝóᾱ þðᾱ ἰᾱ ἰðῖñÝðᾱέ ἰ ðñþþᾱð ιᾱ ᾱᾱß òúóðÜ òçῖ ᾱᾱüᾱðñᾱ ðῖò ᾱβóεῖð. ἘῖéðÜῖðᾱ ðé εÝᾱé ç ᾱῖðῖεþ dmesg ᾱéᾱ ιᾱ ᾱᾱβᾱ ᾱί ç òðóéᾱðþ ᾱβῖᾱέ òçῖ εβóðᾱ. Ἀéᾱ ðᾱñÜᾱᾱéᾱῖᾱ ᾱί ἰ ðñþþᾱð ᾱñÜðᾱé:

Can't get the size

òúðᾱ ᾱᾱí òðÜñ÷ᾱé ᾱéðéÝðᾱ ὁῖῖῖ ῖᾱçᾱü. Ἀί ᾱβῖᾱέ ᾱððü ἑᾱ ðñÝðᾱέ ιᾱ ᾱðᾱῖᾱéééῖþðᾱðᾱ òῖ ἰç÷Üῖçῖᾱ ðñéῖ ᾱῖéçῖÜðᾱðᾱ ιᾱ ᾱéᾱῖñöþðᾱðᾱ òçῖ ᾱéðéÝðᾱ.

2 Ἀéᾱῖñöþῖῖῖðᾱð ᾱβóéῖðð ᾱéᾱ ᾱðῖéᾱᾱéóðéêþ ἑᾱéðῖðñᾱβᾱ

2.1 Ἀéóᾱᾱüᾱþ

Ἀððþ ç ðᾱñÜᾱñᾱðῖð ðᾱñéᾱñÜðᾱé ðþð ιᾱ òðéÜῖðᾱ ᾱβóéῖðð ἰüῖῖ ᾱéᾱ òῖ FreeBSD. Ἐðῖçéᾱβᾱð ἰðé ἰé ᾱβóéῖé ᾱðῖéᾱᾱéóðéêþð ἑᾱéðῖðñᾱβᾱð ᾱᾱí ἰðῖñῖýῖ ιᾱ ᾱéᾱᾱᾱóðῖýῖ ᾱðü Üεéᾱ ἑᾱéðῖðñᾱééÜ, ῖýðᾱ ιᾱ εÜῖῖῖ boot.

2.2 ðþð ιᾱ òðéÜῖðᾱ ᾱβóéῖðð ᾱðῖéᾱᾱéóðéêþð ἑᾱéðῖðñᾱβᾱð ιᾱ òῖ Sysinstall

To /stand/sysinstall, òῖ ðñüᾱñᾱῖᾱ ᾱᾱéᾱóÜðóðᾱçð ðῖò òðóðþᾱðῖð, Ý÷ᾱé ᾱðᾱéðᾱéᾱß òðéð ðᾱéᾱððᾱβᾱð ðῖò ᾱéᾱüðᾱéð þðᾱ ἰᾱ ᾱðῖῖðῖᾱß òçῖ ᾱéᾱᾱéᾱóβᾱ ÷ññéóῖῖý ðüῖ ᾱβóéüí ἑᾱέ ιᾱ ᾱðᾱéðᾱß ééᾱüðᾱñç ðñῖðÜᾱᾱéᾱ. Õᾱ ðñῖᾱñÜῖᾱðᾱ fdisk ἑᾱé disklabel ðῖò òðÜñ÷ῖῖ ὁῖῖ sysinstall ᾱβῖᾱέ ᾱñᾱðééῖý ðᾱñéᾱÜεῖῖðῖð (GUI - Graphical User Interface) ἑᾱέ ἰᾱéþῖῖῖ òῖ ἰðÝñᾱᾱῖᾱ ðῖò εῖðβῖᾱðῖð ðüῖ ᾱβóéüí. Ἀβῖᾱέ ðñῖðᾱþð ἰ ᾱðéῖεüðᾱñῖð ðñüðῖð ιᾱ éüðᾱðᾱ ᾱβóéῖðð ᾱðü òçῖ Ýéᾱῖç 2.1.7 ἑᾱέ ἰᾱðÜ ðῖò FreeBSD.

1. Ἰᾱᾱéῖþðᾱ òῖ sysinstall þð root ᾱñÜῖῖῖðᾱð

```
# /stand/sysinstall
```

òçῖ ᾱñᾱῖþ ᾱῖðῖþῖ.

2. ἈðééÝῖðᾱ Index.
3. ἈðééÝῖðᾱ Partition.
4. ἈðééÝῖðᾱ òῖ ᾱβóéῖ ðῖò εÝéᾱðᾱ ιᾱ ᾱᾱéᾱðᾱóðþðᾱðᾱ ÷ñçóéῖῖðῖῖðᾱð ðᾱ ᾱᾱéÜéᾱ ἑᾱέ ἰᾱðÜ **SPACE**.

5. Ἀί εά ÷ ñçóéíðìéþóáðå ùèí òí ἁβóèí ἁέά òí FreeBSD, ἁðéëÝíðå Ἀ.
6. Ἰùèéò óáò ñòþóáé áí ùíòò èÝéåðå íá òí èÝíáðå áðòü (Do you still want to do this) ἁðáíòþóðå Yes.
7. ἈðéëÝíðå Write.
8. Ἐά óáò ἁḂÛéå íéá ðñíḂéäíðìþçόç ó÷ḂðééÛ íå ôçí ἁḂñḂöþ óå ððÛñ÷ííóá óðóðþíáðå ἁðáíòþóðå Yes.
9. Ἰùèéò óáò ñòþóáé áí èÝéåðå íá ἁḂéáðóðþóáðå Ýíá boot loader, ἁðéëÝíðå None ἁέά íá ἁðñóýḂḂðå ðñéḂḂðñðå ἁèḂḂþ óòí Master Boot Record. Ç ἁḂéáðÛóðáóç Ḃñò boot loader ÷ ñḂéÛḂḂðéé ùñí óå éḂéñýñéð ἁḂéáðóðÛóáéò òí FreeBSD þ áí ó÷ḂḂéÛḂḂðå íá òðñéḂðþóáðå òí ἁβóèí óå èÛðñéí Ûèèí íç÷Ûíçá.
10. Ðáðþóðå **ENTER** óòí ḂçíḂñòéèü ðññíḂ Ḃñ èÝḂé “Wrote FDISK partition information out successfully”.
11. ἈðéëÝíðå Quit ἁέά íá ἁḂḂðå ἁðü òí FDISK Editor éḂé ððÛ **ESCAPE** ἁέά íá ἁðéóðñÝðåðå óòí Index menu.
12. ἈðéëÝíðå Label ἁðü òí Index menu.
13. ἸñÛóðå òí ἁβóèí óáò ùðò èÝéåðå (ḂḂ ðñḂḂðå óå partitions). Ἀí èÝéåðå ùñí Ýíá partition ðáðþóðå òí c ἁέά íá ḂçíèðñḂðåðå òí partition. ἸðÛ ἁðèð ἁḂ÷èḂðå ðéð ðñíḂðéçíḂÝð ἁέά óå ðñíḂéññéóíÝíá size, partition type Filesystem, éḂé mountpoint (òí ððñí ḂḂ ÷ ñçóéíðìéḂḂðéé).
14. Ðáðþóðå w ùèéò ðḂḂéðþóáðå éḂé ἁðéèðñþóðå ðéð ḂèḂḂÝð ἁέά íá óñíḂ÷βóðå. Òí filesystem èḂ ᰄḂḂððḂ ἁðòüḂḂḂ ἁðü ôçí Ḃññèþ newfs Ḃèòüð áí ἁðéëÝíðå òí ḂñðḂḂðñ. (Ἀí ḂÛḂðå éḂéñýñḂḂí partition óáò óðñÝñḂé íá òí èÝíáðå!). Ἐά óáò ḂþóḂé òí èÛèð:

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

ἈḂñþóðå òí.

15. Ðáðþóðå óñíḂ÷ùíḂí ᲀ **ESCAPE** ἁέά íá ἁḂḂðå.

2.3 Ðùò íá ððéÛíðå ἁβóèíðò ἁðñéḂḂéóðéèþò èḂéòíðñḂḂðò ðÝóá ἁðü ôçí ḂñḂñð Ḃññèþí

ἈèðḂéÝóðå ðéð ᰄḂḂḂÛò ḂññèÝð ḂññéḂḂéóðñíóðå òí ad2 íå òí ùñíá ôçð óðóéḂðð òí ἁβóèí (ḂñÛððå dmesg íá ḂḂÝḂḂḂ Ḃí ḂḂḂé òùóðü).

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

Ἀí ÷ ñḂéÛḂḂðéé íá ḂèÛÛíðå òí disklabel ἁέά íá ÷ ñçóéíðìéþóáðå ðñéḂḂðè partitions (ḂḂ ᰄḂñÛḂḂḂḂḂ Ḃí èÝéåðå swap) ðüðå èÛíðå:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀññðå òí disklabel ḂḂ íá ðñíðéÝóððå partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
ḂèðḂéÝóðå ôçí Ḃññèþ newfs óðå partitions ùðò ðñÝðḂḂ
```

Ἰ ἁβóèíðò óáò ḂḂḂḂé Ýðñéñð ðññð ÷ ñþóç.

3 Ἀεάιιñöþííîáò ἁßóêîðð ἁέἁ óîîἁἁòþ ḗἁéôîñḗḗḗ

3.1 Ἀέóἁḗḗḗþ

Ç ἁḗἁḗþ ἁíðèþí ἁßἁé ἰḗ ἰ ἁðèḗḗðḗḗð òñḗðð ἁéἁ ἰḗ òðéŸîḗḗ ἁßóêîðð ἁðèḗḗéóðééþð ḗἁéðîñḗḗḗ ἁéŸ ἁßἁé ḗἁé ἰ ἁððèḗḗðḗḗð ἁéἁ ἰḗ òðéŸîḗḗ óîîἁἁóýð ἁßóêîðð. Òí fdisk ἁðḗ ḗçí ἁḗἁḗþ ἁíðèþí èŸḗἁ ḗḗḗéóóḗðḗḗḗ ἁíþḗḗð ἰḗçἰἁðééþí ḗἁé ðèḗŸð ἁíþḗḗð ó÷ḗðéŸ ἰḗ òí ðßἁḗḗ ḗñἁðéþí, èŸðé ððð ðñîḗḗð ἁḗ ḗñḗŸḗḗḗ ἰḗ ἰŸḗḗḗ. Ἀé ἁððḗ ÷ñçóéîððéþðḗ òí sysinstall ἁéἁ ἰḗ òðéŸîḗḗ óîîἁἁóýð ἁßóêîðð ἁéḗḗðèþðḗð ðéð ἰḗçḗḗð ḗḗḗḗŸð.

3.2 Ððð ἰḗ òðéŸîḗḗ ἁßóêîðð óîîἁἁòþ ḗἁéôîñḗḗḗ ἰḗ òí Sysinstall

1. ἰḗḗéþðḗḗ òí sysinstall þð root ἁḗŸîñḗḗḗ

```
# /stand/sysinstall
```

óðçí ἁḗἁḗþ ἁíðèþí.

2. ἈðéḗŸîḗ Index.
3. ἈðéḗŸîḗ Partition.
4. ἈðéḗŸîḗ òí ἁßóêîðð èŸḗḗḗ ἰḗ ἁḗḗḗḗḗðḗḗḗ ÷ñçóéîððéþðḗð ḗἁ ἁḗŸḗḗḗ ḗἁé ἰḗðŸ **SPACE**.
5. Ἀἰ ḗἁ ÷ñçóéîððéþðḗḗ ḗḗ òí ἁßóêîð ἁéἁ òí FreeBSD, ἁðéḗŸîḗ A.
6. ¼ḗḗ ḗḗð ççðçèḗḗ:

```
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) ?
```

(ÈŸḗḗḗ ἰḗ òí èŸîḗḗ ἁððḗ ἰḗ ḗñḗḗḗḗḗŸ èñîŸðéἁ ἁéἁ ἰḗ ḗḗḗḗḗḗ ḗḗḗḗḗ ἰḗ Ÿḗḗḗ ḗἁéðîñḗḗḗŸ
óðððḗḗḗ?) Ἀðḗḗðḗḗ Yes.

7. ἈðéḗŸîḗ Write.
8. ¼ḗḗ ḗḗð ççðçèḗḗ ἰḗ ἁḗḗḗḗḗðḗḗḗ òí boot manager, ἁðéḗŸîḗ None ἰḗ òí **SPACE** ḗἁé ἰḗðŸ **ENTER** ἁéἁ OK.
9. Quit (ἁḗḗḗḗ) ἁðḗ òí FDISK Editor.
10. Èἁ ḗḗð ñḗðḗḗ èŸðé ó÷ḗðéŸ ἰḗ òí boot manager ðŸḗḗ, ἁðéḗŸîḗ None ἰḗŸ.
11. ἈðéḗŸîḗ Label ἁðḗ òí Index menu.
12. ἰñîŸḗḗ òí ἁßóêîð ḗððð èŸḗḗḗ (ḗḗþ ḗἁ ἰñḗḗḗḗ ḗἁ partitions). Ἀἰ èŸḗḗḗ ἰḗŸ Ḹἁ partition ἁðèþð ἁḗ÷ḗḗḗ ḗḗð ðñἁðéḗḗŸð ἁéἁ ḗἁ ðñḗḗḗñḗḗŸḸἁ size, partition type filesystem, ḗἁé mountpoint (òí ἰðḗḗ ἁḗ ÷ñçóéîððéḗḗḗ).
13. Òí filesystem ḗἁ ḗḗḗḗḗḗ ἁððḗḗḗḗ ἁðḗ ḗçí ἁíðèþ newfs ἁéðḗ ἁἰ ἁðéḗŸîḗ òí ἁíðḗḗḗ. Ἀἰ ἁŸḗḗḗ ḗἁḗñŸḗḗḗ partition ḗḗð óðîŸŸḗḗ ἰḗ òí èŸîḗḗ! Èἁ ḗḗð ἁḗḗ òí èŸḗḗ:

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

Ἀḗñḗḗ òí.

14. Ðḗðḗḗ ḗḗḗ÷ḗḗ òí **ESCAPE** ἁéἁ ἰḗ ἁḗḗḗḗ.

Ἰ ᾱβóêῖð óᾱð ᾱβῖᾱέ Ὶôῖêῖð ðñῖð ÷ñῑóç.

4 Ἥêêᾱð êᾱéôῖðñᾱḂᾱð ἰᾱ ôῖð ñβóêῖð

4.1 ḂñῖóèῚôῖῖð swap.

Ἐᾱêῑ Ὶῖ ᾱóóçῖᾱ ᾱðᾱêðᾱβῖᾱðᾱέ, ç ᾱῖῚᾱê ᾱέᾱ ἰᾱᾱᾱῖóᾱñῖ swap ᾱβῖᾱðᾱέ ῖêῖ ᾱᾱέ ðéῖ ᾱðéóᾱéðéêῑ. Ḃᾱñῖêῖ ðῖð òῖ ἰᾱ ðñῖóðᾱêᾱḂ swap óᾱ Ὶῖᾱῖ ððῚñ ÷ῖῖðᾱ ᾱβóêῖῖ ᾱβῖᾱέ ðññᾱñῚ ᾱῖóêῖῖ, Ὶῖᾱð ᾱᾱῖῖῖñᾱéῖð ᾱβóêῖð ἰðῖñᾱḂ ἰᾱ ῖñòῖðῖéçᾱḂ Ὶóóé ῑóðᾱ ἰᾱ ðᾱñéῚ ÷ᾱέ òῖ ᾱðéðêῖῖ swap ðῖð óᾱð êᾱḂðᾱέ.

Ἄέᾱ ἰᾱ ḂñῖóèῚôῖῖð swap ᾱᾱêῑ ᾱῚᾱðᾱ Ὶῖ ᾱβóêῖῖ óòῖ ᾱóóçῖᾱ:

1. Ἐᾱêῑ êῖᾱᾱðᾱ òῖ ᾱβóêῖῖ (partitioning) ᾱêῖῚῖðᾱ òῖ disklabel ᾱᾱ ῖñḂóðᾱ ÷ῑñῖ ᾱέᾱ swap óòῖ êñῖῚðé (partition) ‘b’ ᾱᾱέ ᾱῚᾱðᾱ òῖῖ ððῖῖῖðῖ ÷ῑñῖ óᾱ êῚῖðῖῖ Ὶêῖῖ êñῖῚðé, Ḃ.÷. óòῖ ‘a’ ῑ óòῖ ‘e’. Ὀῖ ἰῚᾱᾱèð ðῖð ᾱβῖᾱðᾱ ᾱβῖᾱέ óᾱ blocks òῖῖ 512 bytes.
2. Ὶóᾱῖ êῚῖðᾱ newfs óòῖῖ ᾱβóêῖῖ, Ἰçῖ òῖ êῚῖðᾱ óòῖ êñῖῚðé ‘c’. ἈῖðḂᾱðᾱ, êῚῖðᾱ òῖ ῖῖῖ óòῖ êñῖῚðé ðῖð ᾱᾱῖ ᾱβῖᾱέ swap.
3. ḂñῖóèῚôῖῖð óòῖ /etc/fstab òῖ ḂᾱñᾱéῚð:

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

ἈêῖῚῖðᾱ òῖ /dev/ad0b óòῖ ῖñῖᾱ òçð ᾱᾱῖῖῖñᾱéᾱð óᾱð óðóéᾱðḂ.

4. Ἄέᾱ ἰᾱ ᾱῖᾱñᾱῖðῖéῑῑðᾱðᾱ Ὶῖᾱðᾱ òῖ ῖῚῖ swap ÷ñçóêῖῖðῖéῑῑðᾱðᾱ òçῖ ᾱῖðῖῑῑ swapon

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

4.2 ἈῖðéᾱñῚῖῖῖðᾱð óᾱ ðᾱñéᾱ ÷ῖῖᾱῖᾱ ᾱβóêῖῖ

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

Ἄέᾱ ἰᾱ ἰᾱðᾱéῖῖðᾱðᾱ ᾱñ ÷ᾱḂ ᾱðῖ òῖῖ ᾱñ ÷éêῖ óᾱð ᾱβóêῖῖ óᾱ Ὶῖᾱῖ ᾱᾱῖῖῖñᾱéῖ, êῚῖðᾱ:

```
# 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 ōiēiōō āβōēiōō āēēŸ íā ōōiðānēōŸñīiōāē
 ōō Ÿíāō. Ç āēāāēēāōā ēŸŸāōāē ōōā ÷ pīāōōç (striping). Iā ōçí āēēēūēēçōç Ÿ ÷ āōā ēāēyōāñā āðīōāēŸiōiāōā ōōçí
 ōā ÷ yōçōā āðāēāP ñēñŸēiōāē iē āāñāōŸō ēāē iē áíāñpōāēō ōōiōō āβōēiōō. ĀēāŸŸōōā ōēō manual pages ccd(4) ēāē
 ccdconfig(8) P ōçí āñ ÷ ēēP ōāēBāā ōiō CCD (<http://stampede.cs.berkeley.edu/ccd/>) āēā ðāñēōōōūōāñāō ēāðōñŸñāēāō.

Ā́éá íá òñŸíâôâ CCD ðēÝíí âáí ÷ñâēÜæâóââ âéâéü ðõñÞíá. Ìâ ôçí áíôíēÞ ccdconfig, öĩñðÞíâôâé ôí éâôÜēēçĩ
KLD áóôüíâôâ áí ĩ ðõñÞíâôâ âáí Ý÷âé Þæç õðĩóôÞñéíç 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 āđíáē *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 Ἀõ÷ᾗñéóôßàò

Ἰ óðᾗᾗᾗᾗᾗÝᾗò èᾗ þèᾗèᾗ íᾗ ᾗõ÷ᾗñéóôþóᾗé òĩòð ðᾗᾗᾗᾗᾗᾗᾗᾗ ᾗéᾗ òçí óòíᾗéóòñᾗᾗᾗ ᾗĩòð óᾗ ᾗóðþ òçí ᾗᾗᾗᾗóßᾗ ᾗĩòð:

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ᾗéᾗ òéð ᾗðēÝò ᾗᾗçᾗßᾗð ᾗᾗéᾗòᾗóðᾗóçð ᾗíùð ᾗßóēĩò óᾗ ᾗðìèèᾗéóóéèᾗ òñùðĩ èᾗéóòñᾗᾗᾗᾗᾗð, òéð ᾗðĩßᾗð Ý÷ù ðĩèēÝð òñᾗÝð ÷ñçóéñðĩèéþóᾗé óóçí FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ðĩò Ýéᾗíᾗ òĩ sysinstall ÷ñþóéñ ᾗéᾗ òÝòìéĩò ᾗßᾗĩòð ᾗĩòèᾗéÝð.
- John Fieber (<jfieber@indiana.edu>) ðĩò Ýᾗùóᾗ òéð ðèçñĩññᾗᾗð èᾗé óᾗ ðᾗᾗᾗᾗᾗᾗᾗᾗᾗᾗ ᾗéᾗ òĩ DocBook DTD ðᾗᾗᾗ òóᾗ ᾗðĩßᾗ ᾗóðᾗ òĩ èᾗßᾗᾗñ ᾗᾗóßᾗᾗᾗᾗᾗᾗ.
- Greg Lehey <grog@FreeBSD.org> ðĩò Ýèᾗᾗᾗ òçí ᾗĩòèᾗᾗᾗᾗ ᾗĩò, øᾗ÷ᾗñíóᾗð ᾗéᾗ ᾗíᾗᾗᾗᾗᾗᾗᾗᾗ, èᾗé ᾗéᾗ òçí òðĩóðþñéĩç òĩò óᾗ ᾗéᾗᾗᾗᾗᾗ èÝᾗᾗᾗᾗ.