



- **οἰαάοP εἰεοἰοῖαβᾶ (compatibility mode):** Ἀεαῖυνουός οἷο ἀβόεἰο πόα ιά Y ÷ ἀέ Yἱά θβἱάεα οἰΠἱάουἱ (slice table) εἱε ιά ἱθἱῖαβ ιά ÷ nçοεἱἱθἱεεᾶβ θᾶνἸεεεᾶ αἱἡ Ἰεεᾶ εἱεοἰοῖαεἸ οἰοἰΠἱάα.
- **ἀδιεεαόοεεP εἱεοἰοῖαβᾶ (dedicated mode),** ἱᾶεἸYδ οἱῖYδ εYᾶαόᾶε εἱε ἀδεεβἱᾶοἱᾶ ἀδιεεαόοεεP εἱεοἰοῖαβᾶ: Ἀεαῖυνουός αἱἡ ἀβόεἰο ÷ ἱῖαβ θβἱάεα partitions. Ἀἱἡ εἸἱᾶε ὅçἱ εἱεἱεεἱαόᾶ ὅçδ θῖἡοεᾶὅçδ ἀβόεἰο ἀεἱεἡοᾶῖ εἱεἸ Yἱᾶ ιç-FreeBSD εἱεοἰοῖαεἸ οYόὅçἱᾶ θεεἱἡἱ ιά ιç ἱθἱῖαβ ιά ἱᾶε οἱ ἀβόεἰ. Ç Yεοῖαὅç ἀδεεβἱᾶοἱᾶ αἱᾶYῖᾶὅᾶε ὀοἱ εβἱᾶοἱ οἷο ἡὅε οἱ οYόὅçἱᾶ ἱθἱῖαβ ιά ιçἱ αἱᾶἱῖῖᾶε Yἱᾶἱ ἀβόεἰ ἱῖῖῖῖῖῖYἱἱ εᾶδ\* ἀὅουἱ οἱἱ ὀῖῖῖ.

Οἱεὅ θᾶῖεοἰᾶῖᾶθ θᾶῖεθὅπᾶὅε ç ἀδιεεαόοεεP εἱεοἰοῖαβᾶ ἱβἱᾶε ι ἀεἱεἡοᾶῖᾶθ ὀῖῖῖῖῖῖ ιά ὀὅεᾶβ εἱε ιά ÷ nçοεἱἱθἱεεᾶβ ὀᾶ ὀἸἸ ÷ ἱἱᾶ ὀἰοἰΠἱάα, ἱὅουἱ Yἱᾶὅ εἱεἱἱἱῖᾶεἰο ἀβόεἰο ὀοἱPεἡδ θῖῖῖῖᾶᾶὅᾶ ἱῖἱἱ ἱεᾶ οἱ FreeBSD. Ὤᾶῖῖῖ ὅἱο ç οἰαάοP εἱεοἰοῖαβᾶ εἱεᾶὅᾶεβᾶε ιYᾶεὅç εἱεᾶεἱοἰοῖαεἸὅçὅᾶ (interoperability) ιᾶ ἱᾶεἱἱὅεἸYδ ἱᾶεᾶὅᾶὅἸὅᾶὅ, ἱβἱᾶε ὀεἱ θἱεYὅεἱεç.

ἸYῖᾶ αἱἡ ὅçἱ ἀδεεἱᾶP ὀῖῖῖῖῖῖ εἱεοἰοῖαβᾶδ ὀἸἸ ÷ ἱἱἱ ἱYἱἱἱε ὀὅçὅβἱᾶὅἱο οἷο ἀβόεἰο. Ἰ θῖῖὅἱο ÷ nçοεἱἱθἱεᾶβ οἱ ἱῖᾶεἱᾶἱ ἱᾶεᾶὅἸὅᾶὅ οἷο ὀἰοἰΠἱᾶὅἱο /stand/sysinstall. Ἀἱἡ οἱ 2.1.7-RELEASE εἱε ἱᾶὅ ç sysinstall ἀεἱἱἱἱᾶβ οἱ ὀἰὅεἱἱ οἱἱ ἀβόεἱἱ ἱᾶεᾶP ἀδεὀῖYᾶε ὅçἱ ἀἱᾶὅεᾶᾶδ ἱεἱᾶᾶP ὀοἱ label (ὀβὅεἰο) εἱε ὀᾶ οἰΠἱᾶὅᾶ (partitions) οἱἱ ἀβόεἱἱ. ἈδεὅεYἱἱ ὀᾶδ ἀδεὀῖYᾶε ιά ἀδιεεᾶYὅᾶὅ ὅεὅ ἱεἱᾶYδ ἱῖἱ ὀοἱ ὀᾶεᾶῖῖῖYἱἱ ἀβόεἰ ÷ ἱῖᾶβ ιά ἱᾶçῖᾶἸᾶε ὀἱὅδ ὀἱῖῖῖὅἱὅ. Ἰ ἱᾶYὅᾶῖᾶθ ὀῖῖῖῖῖ ἱβἱᾶε ιά ἱεὅᾶεYὅᾶὅ ἱεἸὅῖῖᾶθ ἱἱῖῖYδ ιᾶ οἱ ÷ Yῖἱ ἱᾶἱ ὅçἱ ἱᾶἱἱP ἱἱῖῖῖἱ ἡὅ root. Ἀἱ ἀδεεYἱᾶὅ ὅçἱ ἀδιεεαόοεεP εἱεοἰοῖαβᾶ ÷ ῖᾶεἸᾶὅᾶ ιά ἱεὅᾶεYὅᾶὅ ἱῖἱ 2-3 ἱἱῖῖYδ ἱῖἱ ιᾶ οἱ sysinstall θῖῖYᾶε ἱἱὅεYὅᾶὅ εἱᾶἸἱε ὀᾶᾶὅἸἱ.

## 1.2 ἱῖεοἱῖ

Ç ἱεᾶ ÷ ἱῖῖὅç ἀβόεἱἱ ὀοἱ UNIX® Y ÷ ἀε ἱὅᾶε ἱYᾶ Yἱἱἱᾶ ὀᾶ ὀἸἸ ÷ ἱἱὅᾶ εYἱᾶὅ. Οἱ ὀᾶᾶεἸὅἱ εἱἱεἱᾶεἱ ἱῖçᾶᾶ ὅçἱ ἱῖῖῖᾶβ ὅἱο ÷ nçοεἱἱθἱεἱYἱᾶ ὀᾶ ἱὅἱ οἱ εᾶἱἱἱἱ εἱε ὀοἱ FreeBSD ἱἱἱἱἱ (θῖῖῖὅᾶὅ).

- **οἰαάοP εἱεοἰοῖαβᾶ (compatibility mode):** ç ἱεαῖυνουός οἷο ἀβόεἰο πόα ιά Y ÷ ἀέ Yἱᾶ θβἱάεα οἰΠἱᾶουἱ (slice table) εἱε ιά ἱθἱῖαβ ιά ÷ nçοεἱἱθἱεεᾶβ θᾶνἸεεεᾶ ιᾶ Ἰεεᾶ εἱεοἰοῖαεἸ οἰοἰΠἱάα. Ἀἱὅβᾶὅἱ ὅçδ ἀδιεεαόοεεP εἱεοἰοῖαβᾶδ.
- **(ἀδεεβἱᾶοἱᾶ) ἀδιεεαόοεεP εἱεοἰοῖαβᾶ:** ç ἱεαῖυνουός οἷο ἀβόεἰο εᾶὅἸ ὀYὅἱεἱἱ ὀῖῖῖῖῖ πὅᾶ ιά ιçἱ θᾶῖεY ÷ ἀε θβἱάεα ὀἱçἱἸὅἱἱ (slice table). Ἀβἱᾶε ὀεἱ ἱYἱῖεç ἱεἱᾶεἱᾶὅᾶ ἱεἱἸ ι ἀβόεἰο ἱθἱῖαβ ιά ιç ἱἱὅᾶYᾶ ὀᾶ ιç-FreeBSD εἱεοἰοῖαεἸ οἰοἰΠἱάα. Ἀἱὅβᾶὅἱ ὅçδ οἰαάοP εἱεοἰοῖαβᾶδ.
- **ἀβόεἰο:** Ἰε ὀεεçῖῖᾶβ ἀβόεἱᾶ, ὀᾶ CDROM, ἱε ἱᾶἱçὅἱ-ἱὅὅεYδ ὀὅὅᾶὅYδ εἱε ὀᾶ ἱὅᾶῖῖἱἱἱᾶ ἱYὅᾶ Zip®/Jaz® ἱβἱᾶε ἱᾶῖεYδ αἱἡ ὅεὅ ὀὅὅᾶὅYδ ἱᾶεεὅP ἀδιεPεᾶὅὅçδ ἱᾶἱἱYἱἱ ὅἱο ÷ nçοεἱἱθἱεἱYἱὅᾶε ὀβἱᾶᾶ. Ç ἱᾶὅεP ἱᾶ ÷ P εἱεοἰοῖαβᾶδ ἱὅὅἱ ὀἱἱ ἱYὅἱ ἀδιεPεᾶὅὅçδ Yἱᾶὅ P θᾶῖεὅὅὅᾶῖᾶ ἀβόεἱε ἱε ἱὅἱῖε θᾶῖεὅὅYὅἱὅᾶε αἱἡ Yἱᾶ ἱὅYῖᾶ, ἱῖἱ ἱεᾶ εᾶὅᾶP εἱἱᾶὅᾶε ὀᾶ Yἱᾶ ἱῖῖὅἸὅε ὀἸἱἱ ὀὅçἱ εᾶὅβἱᾶ ὀἱὅ ἀβόεἰο εἱε ἱεᾶἸᾶε αἱἡ οἱ ἀβόεἰ P ἱᾶἸὅᾶε ἱᾶἱἱYἱᾶ ὀᾶ ἱὅἱἱ. Οἱ ἱᾶἸὅἱἱ ἱβἱᾶὅᾶε ιᾶ ἱᾶὅᾶἱP εἸὅἱεἱὅ ὀὅὅεἱY ÷ ἱᾶᾶὅçῖῖὅὅεἱY ὀἱὅ ἀβόεἰο (ἱᾶἱçὅεεP ῖἱP, ἱἱᾶεᾶὅὅεἸὅçὅᾶ, εἱὅ.) ἱῖἱ οἱ ἱεἸᾶὅἱᾶ ἱβἱᾶὅᾶε ιᾶ “ἱῖἱ-ἱᾶὅç” ἱεἱᾶᾶἱ ὀὅçἱ βᾶεᾶ ὀὅὅεP εἱεἸὅçὅᾶ ὀἱὅ ἀβόεἰο.
- **οἰΠἱᾶ (slice):** Ἰβᾶ ὀἱᾶεᾶῖᾶῖᾶ ἱᾶἡ ἀβόεἰο. ΟYἱὅἱᾶ ιᾶ ὀᾶ θῖῖὅὅὅᾶ οἱἱ PC ἱθἱῖἱYἱᾶ ἱᾶ ὀἸἸ ÷ ἱἱἱ ἱY ÷ ῖἱ 4 οἰΠἱᾶὅ ὀᾶ Yἱᾶἱ ἀβόεἰ. Ὀᾶ οἰΠἱᾶὅᾶ ἀδιὅᾶεἱYἱὅᾶε ἀἱἱ ὀἱᾶ ÷ ἱἱἱῖὅδ ὀῖᾶᾶδ (sectors). ὈἸἸ ÷ ἱᾶ Yἱᾶὅ “θβἱᾶεᾶ ὀἱçἱἸὅἱἱ” (slice table) ὅἱο θᾶῖεY ÷ ἱᾶ ὀεçῖῖὅἱᾶδ ἱεᾶ ὀᾶ οἰΠἱᾶὅᾶ εἱε ÷ nçοεἱἱθἱεᾶὅᾶε αἱἡ οἱ BIOS ἱεᾶ ιᾶ ἱᾶᾶβ αἱἡ ὅYἱ ἱθἱῖαβ ιά ἱᾶεἱPὅᾶε ὀἱ οYὅὅçἱᾶ. Ἰ θβἱᾶεᾶ ὀἱçἱἸὅἱἱ εYᾶᾶὅᾶε εἱε “θβἱᾶεᾶ εἱῖᾶὅεἱP” (partition table) ὀᾶ ἱῖῖῖᾶβ DOS ὅἱο ὀὅἸ ÷ ἱᾶὅᾶε ἀἱἱ οἱ θῖῖᾶῖᾶἱᾶ fdisk.
- **εἱῖἸὅᾶ (partition):** Ἰβᾶ ὀἱᾶεᾶῖᾶῖᾶ ἱᾶἡ οἰΠἱᾶὅἱο. ὈἱPεἡδ ÷ nçοεἱἱθἱεᾶὅᾶε ἱεᾶ ἱἱὅἱῖἸ ὀὅὅδ ὀἱᾶεᾶῖᾶYὅᾶε ὀἱἱ ὀἱçἱἸὅἱἱ (slices) ὀἱὅ ἀβόεἰο ὀοἱ FreeBSD. ἸἸᾶ ὀYὅὅçἱᾶ ἱᾶ ÷ ἱᾶἱἱ (filesystem) P ἱᾶὅᾶῖᾶYἱὅᾶὅ ἱῖὅçδ (swap area) ὀοἱἱ ἀβόεἰ ἱᾶὅᾶὅᾶε ὀᾶ Yἱᾶ εἱῖἸὅᾶ. Ὀᾶ εἱῖἸὅᾶ ὀὅἸ ÷ ἱἱὅᾶε ιᾶ οἱ ἱᾶᾶᾶᾶἱἱ disklabel.
- **ὀῖῖYᾶὅ (sector):** Ç ἱεἱῖῖὅᾶῖᾶ ὀἱᾶεᾶῖᾶῖᾶ ἱᾶἡ ἀβόεἰο. ὈἱPεἡδ Y ÷ ἱᾶ ἱYᾶᾶἱὅ 512 bytes.

### 1.3 ΟçíᾱḄᾱ ðìò ðñÝðᾱέ íᾱ ðñìóÝíᾱðᾱ ἑᾱέ ðᾱᾱḄᾱð

Ἀþòᾱᾱ íᾱᾱÜèç ðñìóí÷þ òçç ἁέᾱᾱέἑᾱóḄᾱ, ᾱí ᾱᾱí èÜᾱᾱðᾱ ðᾱ ἰÝðñᾱ óᾱð ἑᾱέ ᾱḄíᾱέ èÜèò ìðñᾱḄ íᾱ ἑᾱᾱóðñÝðᾱðᾱ ðᾱ ðᾱñéᾱ÷üᾱíᾱ Üèèüí ᾱḄóèüí ðìò òðóðþíᾱðìò.

*ÐñìóÝíᾱð ὁέ èÜíᾱðᾱ.* ἈḄíᾱέ ðñéý ᾱýèíèí íᾱ ἑᾱᾱóðñÝðᾱðᾱ èÜèò ᾱḄóèí ᾱìðèᾱýñíðᾱð ἰᾱ ᾱððÝð ðéð ᾱíðìèÝð. Ἀí Ý÷ᾱðᾱ ᾱìðèᾱñèḄᾱð ᾱéÝᾱíðᾱ ὁᾱ ἰçíýíᾱðᾱ ðìò ððñþíᾱ ἑᾱðÜ òç ἁέᾱᾱέἑᾱóḄᾱ ᾱèèḄíççð ᾱéᾱ íᾱ ᾱñᾱḄᾱ òç òüóðþ òðóèᾱðþ ᾱḄóèò.

ÖðóéèÜ ᾱᾱí Ý÷íðìᾱ ἑᾱíḄᾱ ᾱðèýíç ᾱéᾱ æçìéÝð ðìò ìðñᾱḄ íᾱ ðñìèèççèýíý. Ç ᾱðèýíç ᾱḄíᾱέ ᾱéèþ óᾱð!

### 1.4 Zip, Jazz, ἑᾱέ Üèèᾱ ᾱðᾱéññíýᾱíᾱ ἰÝóᾱ

Ἰé ᾱðᾱéññíᾱñé ᾱḄóèíè ἰðññíýí íᾱ ἁéᾱññöüèýíý óᾱí ἑᾱññéèñḄ ᾱḄóèíè. Õí òçíᾱíðéèü ᾱḄíᾱέ íᾱ ᾱḄíᾱέ òðñᾱñÝñð ἰ ðᾱçᾱüð ðìò ᾱḄóèò ἑᾱðÜ òçí ᾱèèḄíççð ðìò òðóðþíᾱðìò ἑᾱέ ἰᾱ ᾱéðéÝðᾱ ἰÝóᾱ þðᾱ ἰᾱ ἰðñÝðᾱέ ἰ ððñþíᾱð ἰᾱ ᾱᾱḄ òüóðÜ òçí ᾱᾱñᾱðñḄᾱ ðìò ᾱḄóèò. ÈíèðÜíðᾱ ðé èÝᾱέ ç ᾱíðìèþ dmesg ᾱéᾱ íᾱ ᾱᾱḄᾱ ᾱí ç òðóèᾱðþ ᾱḄíᾱέ òðçí èḄóðᾱ. Ἀéᾱ ðᾱñÜᾱᾱéᾱíᾱ ᾱí ἰ ððñþíᾱð ᾱñÜðᾱé:

Can't get the size

öüðᾱ ᾱᾱí òðÜñ÷ᾱé ᾱéðéÝðᾱ òðññ ðᾱçᾱü. Ἀí ᾱḄíᾱέ ᾱððü ἑᾱ ðñÝðᾱέ íᾱ ᾱðᾱíᾱèèèíþóᾱðᾱ òí ἰç÷Üíçíᾱ ðñéí ᾱìèèÜðᾱðᾱ íᾱ ἁéᾱññöþóᾱðᾱ òçí ᾱéðéÝðᾱ.

## 2 Ἀéᾱññöþññíðᾱð ᾱḄóèíðò ᾱéᾱ ᾱðìèèᾱéóðéèþ èᾱéðìðñᾱḄᾱ

### 2.1 Ἀéóᾱᾱñᾱþ

Ἀððþ ç ðᾱñÜᾱñᾱðìò ðᾱñéᾱñÜðᾱé ðþð íᾱ òðéÜíᾱðᾱ ᾱḄóèíðò ïüñ ᾱéᾱ òí FreeBSD. ÈðìççᾱḄᾱ ïüðé ïé ᾱḄóèíè ᾱðìèèᾱéóðéèþð èᾱéðìðñᾱḄᾱð ᾱᾱí ἰðññíýí íᾱ ἁéᾱᾱᾱóðíýí ᾱðü Üèèᾱ èᾱéðìðñᾱéèÜ, ïýðᾱ íᾱ èÜññí boot.

### 2.2 Ðþð íᾱ òðéÜíᾱðᾱ ᾱḄóèíðò ᾱðìèèᾱéóðéèþð èᾱéðìðñᾱḄᾱð ἰᾱ òí Sysinstall

To /stand/sysinstall, òí ðññᾱñᾱñᾱ ᾱᾱéᾱðÜóðᾱçð ðìò òðóðþíᾱðìò, Ý÷ᾱé ᾱðᾱéðᾱéᾱḄ òðéð ðᾱèᾱððᾱḄᾱð ðìò ᾱèᾱüðᾱéð þðᾱ ἰᾱ ᾱðèíðìéᾱḄ òçí ἁéᾱᾱéἑᾱóḄᾱ ÷ññéóññý ðññ ᾱḄóèñ ἑᾱέ ἰᾱ ᾱðᾱéðᾱḄ èᾱññðᾱñç ðññðÜèᾱéᾱ. Õᾱ ðññᾱñÜñᾱðᾱ fdisk ἑᾱέ disklabel ðìò òðÜñ÷íðí òðí òðí sysinstall ᾱḄíᾱέ ᾱñᾱðéèñý ðᾱñéᾱÜèñíðò (GUI - Graphical User Interface) ἑᾱέ ἰᾱèþññíðí òí ἰðÝñᾱᾱíᾱ ðìò èñðḄíᾱðìò ðññ ᾱḄóèñ. ἈḄíᾱέ ðññíðᾱíþð ἰ ᾱðèñèüðᾱññìð ðññðìð íᾱ èñðᾱðᾱ ᾱḄóèíðò ᾱðü òçí Ýèᾱñóç 2.1.7 ἑᾱέ ἰᾱðÜ ðìò FreeBSD.

1. Ἰᾱᾱéíþóðᾱ òí sysinstall þð root ᾱñÜññíðᾱð

```
# /stand/sysinstall
```

òðçí ᾱñᾱññþ ᾱíðìèþí.

2. ἈðéèÝíðᾱ Index.
3. ἈðéèÝíðᾱ Partition.
4. ἈðéèÝíðᾱ òí ᾱḄóèí ðìò èÝèᾱðᾱ íᾱ ᾱᾱéᾱðᾱóðþóᾱðᾱ ÷ñçóèññðìéþíðᾱð ðᾱ ᾱᾱèÜèᾱ ἑᾱέ ἰᾱðÜ **SPACE**.

5. Ἀί εά ÷ ñçóéíðìéþóáðå ùè òí äßóèí ἁέά òí FreeBSD, ἄðéëÝíðå Ἀ.
6. Ἰùèéð óáð ñòðþóáé áí ùíòò èÝéåðå íá òí èÝíáðå áððü (Do you still want to do this) ἄðáíðþóðå Yes.
7. ἈðéëÝíðå Write.
8. Ἐά óáð äåÛéåé íéá ðñíäéäíðìþçόç ó÷äðéèÛ íå ôçí äåññäöþ óå ððÛñ÷ííóá óðóðþíáðå ἄðáíðþóðå Yes.
9. Ἰùèéð óáð ñòðþóáé áí èÝéåðå íá äåéáðóðþóáðå Ýíá boot loader, ἄðéëÝíðå None ἁέά íá ἄðñýñåðå ðñéåäþðìå äééäþ óòí Master Boot Record. Ç äåéáðÛóðáóç áñüð boot loader ÷ ñåÛæäðéé ùñí óå éáéñýñéåð äåéáðóðÛóáéð òí FreeBSD þ áí ó÷äæÛæäðéé íá òðñéåðþóáðå òí äßóèí óå èÛðìéí Ûèèí íç÷Ûíçá.
10. Ðáðþóðå **ENTER** óòí áçíäñòðéèü ðñíäéäíðìþçé "Wrote FDISK partition information out successfully".
11. ἈðéëÝíðå Quit ἁέά íá äåäßðå áðü òí FDISK Editor éáé ððÛ **ESCAPE** ἁέά íá ἄðéóðñÝðåðå óòí Index menu.
12. ἈðéëÝíðå Label áðü òí Index menu.
13. ἸñÛóðå òí äßóèí óáð ùððò èÝéåðå (äåþ ðñþæðå óå partitions). Ἀí èÝéåðå ùñí Ýíá partition ðáðþóðå òí c ἁέά íá äçíéíðñäðåðå òí partition. ἸðÛ ἄðèð ää÷èäßðå ðéð ðñíäðééñÝð ἁέá óå ðñíéæéñéóíÝíá size, partition type Filesystem, éáé mountpoint (òí ððñí ääí ÷ ñçóéíðìéþóáé).
14. Ðáðþóðå w ùèéð ðææèþóáðå éáé ἄðéèðñþóðå ðéð äééäñÝð ἁέá íá óñí÷÷ðåðå. Òí filesystem èá ðåñáóðäß áððüðåðå áðü ôçí áñíðèþ newfs äéððò áí ἄðéëÝíðå òí áñðèäðí. (Ἀí äÛæäðéé éáéñýññéí partition óáð óðñÝññéé íá òí èÝíáðå!). Ἐά óáð äþóáé òí èÛèð:

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

Ἀññþóðå òí.

15. Ðáðþóðå óñí÷÷ñíá òí **ESCAPE** ἁέά íá äåäßðå.

## 2.3 Ðùò íá ððéÛíðåðå äßóèíðò ἄðñéæéóðéèþð èáéðññäðåò ðÝóá áðü ôçí äñäíðþ áñíðèþí

ἈéðæÝóðå ðéð ðåñéèÛðñ áñíðèÝð áñééæéóððíóáð òí ad2 íå òí ùñíá ôçð óðóéäððò òí äßóèí (äñÛððå dmesg íá äèÝññðå áí äßíéé òðððü).

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

Ἀí ÷ ñåÛæäðéé íá äéèÛíðå òí disklabel ἁέá íá ÷ ñçóéíðìéþóáð ðñéæäðèÛ partitions (ἁέá ðåñÛæéäñá áí èÝéåðå swap) ðððå èÛíðå:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀñþðå òí disklabel ἁέá íá ðñíðéÝóáðå partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
äéðæÝóðå ôçí áñíðèþ newfs óðå partitions ùððò ðñÝðäé
```

Ἰ äßóèí óáð äßíéé Ýðñéñð ðñð ÷ ñþόç.

## 3 Ἀεάιιñöþííîáò ἁßóêîðð ἁέἁ óîîἁἁòþ ἑἁέôîñḡḡḡḡ

### 3.1 Ἀέóἁḡḡḡḡþ

Ç ἁḡḡḡḡþ ἁíðîêþí ἁßἁέἁ íἁí ἡ ἁðèðèüðḡḡḡḡ ðñüðîð ἁέἁ íἁ ððéŸîḡḡḡ ἁßóêîðð ἁðîèèἁέóðððð ἑἁέôîñḡḡḡḡ ἁέèŸ ἁßἁέἁ ἑἁέ ἡ ἁððèðèüðḡḡḡḡ ἁέἁ íἁ ððéŸîḡḡḡ óîîἁἁóîýð ἁßóêîðð. Õîí fdisk ἁðü ðçí ἁḡḡḡḡþ ἁíðîêþí èŸèἁé ðḡḡéóóüðḡḡḡḡ ἁíþóἁéð ìἁèçîἁðéêþí ἑἁé ðîèèŸð ἁíþóἁéð ó÷ḡðéèŸ ἡ ðîí ðßἁἁéἁ èñîἁðéêþí, èŸðé ðîð ðñîḡἁíþð ἁḡí ÷ñḡéŸḡḡḡḡḡ íἁ ìŸèἁḡḡ. Ἀέ ἁððü ÷ñçóéîîðîéþðḡḡ ðîí sysinstall ἁέἁ íἁ ððéŸîḡḡḡ óîîἁἁóîýð ἁßóêîðð ἁéîîðèþíðḡḡ ðéð ἡçḡḡḡḡ ðḡḡḡḡŸð.

### 3.2 Ððð íἁ ððéŸîḡḡḡ ἁßóêîðð óîîἁἁòþ ἑἁέôîñḡḡḡḡ ἡ ðîí Sysinstall

1. Ìḡḡéíþðḡḡ ðîí sysinstall þð root ḡḡŸîñḡḡḡḡ

```
# /stand/sysinstall
```

óðçí ḡḡḡḡḡþ ἁíðîêþí.

2. ἈðéèŸîðḡ Index.
3. ἈðéèŸîðḡ Partition.
4. ἈðéèŸîðḡ ðîí ἁßóêîðð ðîð èŸèἁḡḡ íἁ ἁḡḡἁἁἁðððḡḡḡḡ ÷ñçóéîîðîéþíðḡḡ ḡἁ ἁḡḡŸèἁἁ ἑἁé ìḡŸ **SPACE**.
5. Ἀí ἑἁ ÷ñçóéîîðîéþðḡḡ üèî ðîí ἁßóêîð ἁέἁ ðîí FreeBSD, ἁðéèŸîðḡ 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) ?

(èŸèἁḡḡ íἁ ðîí èŸîḡḡḡ ἁððü ἡ ᰑḡḡḡḡḡèèŸ èñîŸðéἁ ἁέἁ íἁ ᰑḡḡḡḡḡḡḡ óîîἁἁḡḡ ἡ Ÿèèἁ ἑἁέôîñḡḡḡèèŸ óðððþἁἁḡḡ?) Ἀðḡḡþðḡḡ Yes.

7. ἈðéèŸîðḡ Write.
8. ¼ḡḡí ḡḡð æçðçèḡḡḡ íἁ ἁḡḡἁἁἁðððḡḡḡ ḡîí boot manager, ἁðéèŸîðḡ None ἡ ðîí **SPACE** ἑἁé ìḡŸ **ENTER** ἁέἁ OK.
9. Quit (ḡḡḡḡḡḡ) ἁðü ðîí FDISK Editor.
10. Èἁ ḡḡð ñüðþḡἁé èŸðé ó÷ḡðéèŸ ἡ ðîí boot manager ðŸèè, ἁðéèŸîðḡ None íἁíŸ.
11. ἈðéèŸîðḡ Label ἁðî ðîí Index menu.
12. ÌñîŸðḡḡ ðîí ἁßóêîð üðüð èŸèἁḡḡ (ḡḡþ ἑἁ ḡḡḡḡḡḡ ḡἁ partitions). Ἀí èŸèἁḡḡ ìüñ Ÿíἁ partition ἁðèþð ḡḡ÷èḡḡḡ ḡéð ðñîḡðéèîŸð ἁέἁ ḡἁ ðñîèἁéîñéóîŸíἁ size, partition type filesystem, ἑἁé mountpoint (ðîí ðîðîþí ḡḡí ÷ñçóéîîðîéḡḡḡḡ).
13. Õîí filesystem ἑἁ ᰑḡḡḡḡḡḡ ἁððüḡḡḡ ἁðü ðçí ἁíðîêþí newfs ἁéðüð ἁí ἁðéèŸîðḡ ᰑîí ἁíðèἁḡḡ. Ἀí ḡŸḡḡḡḡ ἑἁéñýñḡḡḡ partition ḡḡð óðîŸŸñḡḡ íἁ ðîí èŸîḡḡḡ! Èἁ ḡḡð ἁþḡἁé ðîí èŸèðð:

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

Ἀḡḡþðḡḡ ðîí.

14. Ðḡðþðḡḡ óðíḡ÷üḡḡḡ ðîí **ESCAPE** ἁέἁ íἁ ḡḡḡḡḡḡ.

Ἰ ᾱᐁóêῖð óᾱð ᾱᐁῖᾱέ Ὶòῖêῖð ðñῖð ÷ñᐁóç.

## 4 ¶ēēᾱò ēᾱéòῖñᾱᐁᾱò ἰᾱ òῖð ᾱᐁóêῖð

### 4.1 ᐁñῖóēῚòῖῖᾱò swap.

Ἐᾱêᐁ Ὶῖᾱ óýóçῖᾱ ᾱðᾱêðᾱᐁῖᾱóᾱέ, ç ᾱῖῚᾱêç ᾱέᾱ ἰᾱᾱᾱýᾱñῖ swap ᾱᐁῖᾱóᾱέ ῖēῖ ἑᾱέ ðēῖ ᾱðéóᾱêðéêᐁ. ᐁᾱñῖēῖ ðῖð òῖ ἰᾱ ðñῖóðᾱēᾱᐁ swap óᾱ Ὶῖᾱῖ ððῚñ÷ῖῖᾱ ᾱᐁóêῖ ᾱᐁῖᾱέ ðññᾱñῚ ᾱýóêῖῖ, Ὶῖᾱð ἑᾱéῖῖñᾱéῖð ᾱᐁóêῖð ἰðῖñᾱᐁ ἰᾱ ῖñῖῖðῖéçᾱᐁ Ὶóóé ᐁóðᾱ ἰᾱ ðᾱñéῚ÷ᾱέ òῖ ᾱðéðēῚῖ swap ðῖð óᾱð ēᾱᐁðᾱέ.

Ἄέᾱ ἰᾱ ᐁñῖóēῚᾱðᾱ swap ἑᾱêᐁ ᾱῚᾱðᾱ Ὶῖᾱ ᾱᐁóêῖ óῖῖ óýóçῖᾱ:

1. Ἐᾱêᐁ ēῖᾱᾱᾱ òῖ ᾱᐁóêῖ (partitioning) ᾱēēῚῖᾱ òῖ disklabel ἑᾱέ ῖñᐁóðᾱ ÷ᐁñῖ ᾱέᾱ swap óῖῖ ēñῖῚóé (partition) ‘b’ ἑᾱέ ᾱῚēðᾱ òῖῖ ððῖēῖðῖ ÷ᐁñῖ óᾱ ēῚðῖēῖ Ὶēēῖ ēñῖῚóé, ð.÷. óῖῖ ‘a’ ᐁ óῖῖ ‘e’. Ὀῖ ἰῚᾱᾱèð ðῖð ᾱᐁῖᾱðᾱ ᾱᐁῖᾱέ óᾱ blocks òῖῖ 512 bytes.
2. Ὶóᾱῖ ēῚῖᾱðᾱ newfs óῖῖ ᾱᐁóêῖ, Ἰçῖ òῖ ēῚῖᾱðᾱ óῖῖ ēñῖῚóé ‘c’. Ἀῖðᐁᾱðᾱ, ēῚῖᾱ òῖ ῖῖῖ óῖῖ ēñῖῚóé ðῖð ᾱᾱῖ ᾱᐁῖᾱέ swap.
3. ᐁñῖóēῚᾱðᾱ óῖῖ /etc/fstab òῖ ðᾱñᾱēῚᾱ:

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

ἈēēῚῖᾱ òῖ /dev/ad0b óῖῖ ῖñῖᾱ òçð ἑᾱéῖῖñᾱéᾱð óᾱð óðóēᾱðᐁ.

4. Ἄέᾱ ἰᾱ ᾱῖᾱñᾱῖðῖéᐁᾱðᾱ Ὶῖᾱóᾱ òῖ ῖῚῖ swap ÷ñçóēῖῖðῖéᐁᾱ òçῖ ᾱῖðῖᐁᐁ swapon

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

### 4.2 ἈῖóēᾱñῚῖῖῖᾱò ᾱᾱ ðᾱñéᾱ÷ῖῖᾱῖᾱ ᾱᐁóêῖῖ

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

Ἄέᾱ ἰᾱ ἰᾱðᾱéῖῖᐁᾱðᾱ ᾱñ÷ᾱᐁ ᾱðῖ òῖῖ ᾱñ÷ēēῖ óᾱð ᾱᐁóêῖ óᾱ Ὶῖᾱῖ ἑᾱéῖῖñᾱéῖ, ēῚῖᾱ:

```
# 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>)

Ià ôi Concatenated Disk Driver, Ð áëëëþò CCD, ðïñáßòá íá Ý÷-ðòá ðñëëýð ùíëéðò ßòóëéðò áëëÛ íá óðíðáñéöÝñíüðáë ùò Ýíáð. Ç áëáááëáóßá ëÝÝáðáë óðá÷-þñáðóç (striping). Ià ôçí áðëëüëëçóç Ý÷÷ðá éäëýðáñá áðüðáëÝíüðáá óðçí ðá÷ýðçðá áðáëäÐ ñëñÜæíüðáë íë áááñáöÝð éäëë íë áñáñíþóáëð óðüðò ßòóëéðò. ÁëáÜðòðá ðéð manual pages ccd(4) éäë ccdconfig(8) Ð ôçí áñ÷ëÐ ðáëßáá ðíò CCD (<http://stampede.cs.berkeley.edu/ccd/>) áëá ðáñéóóúðáñáð éäððñÝñáëð.

Ā́éá íá ôñŸíâôâ CCD đēÝíí ááí ÷ñâĀæáoôâ áéáéü đõñPíá. ĩâ ôçí áíôĭēP ccdconfig, ôĩñôPíâôáé ôĩ éáôŪēēçĩ  
KLD áóôũíâôá áí ĩ đõñPíâô ááí Ý÷áé Păc ôđĩóôPñéíç áéá CCD.

Ôá CCD ôöëÜ÷îíôáé óá partitions ôýôïö 4.2BSD. Áí èÝëäôá íá ÷ñçóëüðîëëóáôá üëí ôüí äëöëí êáé ðÜëé ðñÝðáé íá ôöëÜíäôá 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)
```

Ääi ïðññâöâ íá ÷ ñçöèïðññâöâ öi partition c äéá CCD, äöüóñí äñíáé öýðïö *unused*. Áíöèââöä äçíéíöññâöâ Ýíá íÝí partition äéñéâðö ßäéíö íääÝèíöð áééÜ öýðïö 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 áçierōnāPóáôĀ Yía íYī CCD, âêôâĒYóôâ ôéô đăăăĒŪôû áíôîĒYô. ĐăăăĒŪôîôî đpò íá đñîróĒYóáôĀ ôñăđô  
 âđôêîrôđ. Áđêđô âêĒŪôă ôéô ôôôêăôYô uđîr ÷ñăĒŪăăôăĒ. Êôîçăăđôă uôê îé âđôêîĒ đñYđăĒ íá âđăăĒ *uñêrê*.

```
# cd /dev ; sh MAKEDEV ccd0
```

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

```
# disklabel -e da0  
ᐃᑦᑎᑦᐱᑦᐱᑦᐱᑦ ᐃᑦᑎᑦᐱᑦᐱᑦ ᐃᑦᐱᑦᐱᑦᐱᑦ 4.2BSD  
# disklabel -e da1  
ᐃᑦᑎᑦᐱᑦᐱᑦᐱᑦ ᐃᑦᑎᑦᐱᑦᐱᑦ ᐃᑦᐱᑦᐱᑦᐱᑦ 4.2BSD  
# disklabel -e da2  
ᐃᑦᑎᑦᐱᑦᐱᑦᐱᑦ ᐃᑦᑎᑦᐱᑦᐱᑦ ᐃᑦᐱᑦᐱᑦᐱᑦ 4.2BSD
```

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

```
# newfs /dev/ccd0c
```

Ç ôêĤ 273 âßíáé ôĭ ĩŸääèò ôĭô stripe. Åßíáé ĩ áñèèùò ôùĭ sectors (512 bytes ĩ êâéŸíáo) óá êÛèâ block äääñŸíuĭ ôĭô CCD. Èá ðñŸðâé íá âßíáé ôĭôÛ÷éóóĭ 128 kB, êâé äâĭ ðñŸðâé íá âßíáé äŸíâĭç ôĭô 2.

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

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

## 5 Ἀð÷ᾗñéóôþᾗ

Ἰ óðᾗᾗᾗᾗÝᾗ òᾗ þᾗᾗᾗ ἰᾗ ᾗð÷ᾗñéóôþᾗᾗ òíðð ðᾗᾗᾗᾗᾗᾗ ᾗᾗ ᾗçí óóíᾗᾗóöíñᾗ ᾗíðð óᾗ ᾗððþ ᾗçí ᾗñᾗᾗóþᾗ ᾗíðð:

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ᾗᾗ ᾗᾗð ᾗðᾗÝð ἰᾗçᾗþᾗð ᾗᾗᾗᾗᾗᾗᾗᾗᾗᾗ ᾗíùð ᾗþᾗᾗᾗ ᾗᾗ ᾗðíᾗᾗᾗᾗᾗᾗ ᾗñùðí ᾗᾗᾗᾗᾗᾗᾗᾗᾗᾗ, ᾗᾗ ἰðíþᾗð ᾗ÷ù ðíᾗᾗÝð ᾗíñÝð ÷ñçóᾗñðíᾗþᾗᾗ ᾗçí FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ðíð ᾗᾗᾗᾗ ᾗí sysinstall ÷ñþᾗᾗᾗ ᾗᾗ ᾗÝᾗᾗᾗᾗ ᾗþᾗᾗð ᾗᾗᾗᾗᾗᾗᾗ.
- John Fieber (<jfieber@indiana.edu>) ðíð ᾗᾗᾗᾗ ᾗᾗð ðᾗçñíᾗᾗñþᾗð ᾗᾗ ᾗᾗ ᰇᾗᾗᾗᾗᾗᾗᾗᾗ ᾗᾗ ᾗí DocBook DTD ðᾗᾗ ᾗᾗ ἰðíþᾗ ᾗððᾗ ᾗí ᾗᾗᾗᾗᾗ ᾗᾗᾗᾗᾗᾗᾗ.
- Greg Lehey <grog@FreeBSD.org> ðíð ᾗᾗᾗᾗ ᾗçí ᾗᾗᾗᾗᾗᾗ ἰᾗð, øᾗ÷ñíᾗᾗ ᾗᾗ ᾗᾗᾗñþᾗᾗᾗᾗ, ᾗᾗ ᾗᾗ ᾗçí ᾗðíᾗðþñᾗᾗ ᾗíð ᾗᾗ ᾗᾗᾗᾗᾗ ᾗÝᾗᾗᾗ.