



- **οἰαάοP εἰεοἰοῖαβᾶ (compatibility mode):** Ἀεαῖυνουός οἷο ἀβόεἰο πόα ιά Y ÷ ἀε Yἱά θβἱάεα οἰΠἱάοῖι (slice table) εἱε ιά ἰδιῖαβ ιά ÷ nçοεἰἰδιεεαβ δάνUεεεα αῖυ Uεεα εἱεοἰοῖαεU οἰοἰΠἱάοα.
- **ἀδιεεαόοεεP εἱεοἰοῖαβᾶ (dedicated mode),** ἱἀεεYδ οἰnYδ εYᾶαοἱε εἱε ἀδεεβἱαοἱά ἀδιεεαόοεεP εἱεοἰοῖαβᾶ: Ἀεαῖυνουός αῖυδ ἀβόεἰο ÷ ἰnῖδ θβἱάεα partitions. Ἀῖυδ εUἱἱε οἱ εἱεεεεαοἱά οἱδ θnυοεαοἱδ ἀβόεἰο ἀεἰεῖυοἱnç εεU Yἱά ιç-FreeBSD εἱεοἰοῖαεU οYοἱα δεεἱῖι ιά ιç ἰδιῖαβ ιά ἀε οἱ ἀβόεἰ. Ç Yεοῖαοç ἀδεεβἱαοἱά αἱαYἱῖαοἱ οἱἱ εβἱαοἱ οἱο ὑοε οἱ οYοἱα ἰδιῖαβ ιά ιç αἱαἱῖnῖβοἱε Yἱἱ ἀβόεἰ ἱnἱοἱδιεεYἱἱ εἱαδ\* ἀοῖι οἱἱ οnυἱ.

Οἱοε δᾶnεοῖυοἱἱαδ δᾶnεδἰοἱαεδ ç ἀδιεεαόοεεP εἱεοἰοῖαβᾶ ἀβἱἱε ι ἀεἰεῖυοἱἱαδ οnυἱοἱ ιά οἱεαβ εἱε ιά ÷ nçοεἰἰδιεεαβ οἱ οἱUἱ ÷ ἱἱά οἱοἰΠἱάοα, αῖυοἱ Yἱἱ εἱεἱῖnῖαεἱο ἀβόεἰο οἱPεῖδ θnἱἱnῖαοἱε ἱῖἱ ἀε οἱ FreeBSD. Δᾶnυεἱ δἱο ç οἰαάοP εἱεοἰοῖαβᾶ εἱαοἱεβᾶε ιYἱεοἱ εἱεεεοἰοῖαεεUοἱα (interoperability) ιἱ ἱἱεἱἱοεεYδ ἱἱεεαοἱUἱαεδ, ἀβἱἱε δεἱ διεYδἱεç.

ΔYἱἱ αῖυ οἱ εἱεεἱᾶP οnυἱοἱ εἱεοἰοῖαβᾶδ οἱUἱ ÷ ἱἱι ἱYἱἱε οἱεοἱἱαοἱο οἱο ἀβόεἰο. Ἰ δnἰοἱο ÷ nçοεἰἰδιεεαβ οἱ ἱἱἱεεἱἱ ἱἱεεἱUἱοἱαοἱ οἱο οἱοἰΠἱάοἱο /stand/sysinstall. Ἀῖυ οἱ 2.1.7-RELEASE εἱε ἱαδU ç sysinstall ἀεἱἱεἱἱ οἱ οἱPοεἱἱ οἱ ἀβόεἱ ἀδᾶεἱP ἀδεοἱYἱἱε οἱ ἀδᾶεἱἱαδ εἱεεἱP οἱ label (οἱοεἱο) εἱε οἱα οἰΠἱάοα (partitions) οἱ ἀβόεἱ. ἈδεδYἱἱ οἱα ἀδεοἱYἱἱε ιά ἀδιεεαYἱοἱα οἱε εἱεεἱYδ ἱῖἱ οἱἱ οἱαεἱεἱYἱἱ ἀβόεἰ ÷ ἰnῖδ ιά ἀδçἱἱᾶε οἱοδ οἱυεἱεἱοἱο. Ἰ ἱYἱοἱἱ οnυἱοἱ ἀβἱἱε ιά εἱοἱεYἱοἱα εUἱοἱἱαδ ἱἱἱεYδ ιἱ οἱ ÷ Yἱε αἱ οἱ ἱἱἱἱP ἱἱἱεἱἱ ὑδ root. Ἀἱ ἀδεYἱἱα οἱ ἀδιεεαόοεεP εἱεοἰοῖαβᾶ ÷ nἱεUᾶοἱ ιά εἱοἱεYἱοἱα ἱῖἱ 2-3 ἱἱἱεYδ ἱἱP ιἱ οἱ sysinstall δnYἱἱ ἱἱεYἱἱα εἱUἱε δᾶἱἱUἱ.

## 1.2 ἱἱεοἱἱ

Ç εἱε ÷ ἱἱἱεç ἀβόεἱ οἱ UNIX® Y ÷ ἀε ἱPοἱε ἱYἱ Yἱἱεἱ οἱ οἱUἱ ÷ ἱἱοἱδ εYἱἱεδ. Οἱ δᾶἱἱεUἱ εἱἱεῖυαεἱ ἱçἱἱβ οἱ ἱἱἱἱἱἱ δἱο ÷ nçοεἰἰδιεεYἱἱ οἱ αῖοἱ οἱ εἱἱἱἱ εἱε οἱ FreeBSD ἱἱἱεU (δnἱἱἱPδ).

- **οἰαάοP εἱεοἰοῖαβᾶ (compatibility mode):** ç εἱεἱυνουός οἱο ἀβόεἰο πόα ιά Y ÷ ἀε Yἱἱά θβἱάεα οἰΠἱάοῖι (slice table) εἱε ιά ἰδιῖαβ ιά ÷ nçοεἰἰδιεεαβ δάνUεεεα ιἱ Uεεα εἱεοἰοῖαεU οἱοἰΠἱάοα. Ἀἱἱεἱοἱ οἱδ ἀδιεεαόοεεPδ εἱεοἰοῖαβᾶδ.
- **(ἀδεεβἱαοἱά) ἀδιεεαόοεεP εἱεοἰοῖαβᾶ:** ç εἱεἱυνουός οἱο ἀβόεἰο εἱαδU οYἱεἱἱ οnυἱἱ πόα ιά ιç δᾶnYἱ ÷ ἀε θβἱάεα οἱUἱ (slice table). Ἀβἱἱε δεἱ ἱYἱεç εἱεεεεαοἱ εἱεU ι ἀβόεἰο ἰδιῖαβ ιά ιç ἱἱεἱἱε οἱ ιç-FreeBSD εἱεοἰοῖαεU οἱοἰΠἱάοα. Ἀἱἱεἱοἱ οἱδ οἰαάοPδ εἱεοἰοῖαβᾶδ.
- **ἀβόεἰο:** Ἰε οεεçἱἱβ ἀβόεἱε, οἱ CDROM, ἱε ἱἱἱçοἱ-ἱδἱεYδ οἱοεἱYδ εἱε οἱ αἱεἱἱἱἱἱἱ ἱYἱἱ Zip®/Jaz® ἀβἱἱε ἱἱἱεYδ αῖυ οἱε οἱοεἱYδ ἱἱεεPδ ἀδιεPεἱοἱδ ἱἱἱYἱἱ δἱο ÷ nçοεἰἰδιεεYἱἱε οἰΠἱἱ. Ç ἱἱεεP ἱἱ ÷ P εἱεοἰοῖαβᾶδ ἀοἰP οἱ ἱYἱἱ ἀδιεPεἱοἱδ Yἱἱ P δᾶnεοῖυοἱἱε ἀβόεἱε ἱε ἱἱἱἱε δᾶnεοἱYἱἱἱε αῖυ Yἱἱ ἱἱYἱ, ἱἱP ἱεἱ εἱἱἱP εἱἱἱἱε οἱ Yἱἱ ἱἱἱUἱε δUἱἱ οἱ εἱἱἱ οἱο ἀβόεἰο εἱε εἱἱἱᾶε αῖυ οἱ ἀβόεἰ P ἱἱUἱε ἱἱἱYἱ οἱ αῖοἱ. Οἱ ἱἱUἱεἱ ἱἱἱἱε ιἱ ἱἱἱἱἱP εUἱἱεἱ οἱοεἱY ÷ ἱἱἱεἱεἱεἱοἱεἱY οἱο ἀβόεἰο (ἱἱἱἱεP ἱἱP, ἱἱἱεἱεἱεἱεἱοἱα, εεδ.) ἱἱP οἱ εἱUἱἱἱ ἱἱἱἱε ιἱ “ἱἱ ÷ ἱἱἱç” εἱεἱἱP οἱ Bἱἱε οἱοεεP εἱεἱοἱα οἱο ἀβόεἰο.
- **οἰΠἱἱ (slice):** Ἰἱἱ ἱἱἱεἱἱἱἱ οἱυδ ἀβόεἰο. ΟYἱἱἱἱ ιἱ οἱ δnυοἱδ οἱ PC ἱἱἱἱἱ ἱἱ οἱUἱ ÷ ἱἱἱ ἱY ÷ nἱ 4 οἰΠἱἱἱ οἱ Yἱἱἱ ἀβόεἰ. Οἱ οἰΠἱἱἱ ἀδιἱἱεἱἱἱεἱ ἀἱ οἱἱ ÷ ἱἱἱἱἱδ οnἱἱδ (sectors). ΟἱUἱ ÷ ἀε Yἱἱ “θβἱἱεἱ οἱUἱοἱ” (slice table) δἱο δᾶnYἱ ÷ ἀε δεçἱἱἱἱἱἱ εἱε οἱ οἰΠἱἱἱ εἱε ÷ nçοεἰἰδιεεἱἱε αῖυ οἱ BIOS εἱε ιἱ ἱἱἱ αῖυ δἱY ἰδιῖαβ ιἱ ἱἱεἱPἱε οἱ οYοἱα. Ἰ θβἱἱεἱ οἱUἱοἱ εYἱἱἱε εἱε “θβἱἱεἱ εἱἱἱἱἱP” (partition table) οἱ ἱἱἱἱἱἱ DOS δἱο οἱUἱ ÷ ἱἱἱεἱ ἀἱ οἱ δnἱἱἱἱἱ fdisk.
- **εἱἱUἱε (partition):** Ἰἱἱ ἱἱἱεἱἱἱἱ οἱυδ οἰΠἱἱἱο. ΟἱPεῖδ ÷ nçοεἰἰδιεεἱἱεἱ εἱε ἱἱἱἱἱU οἱεδ ἱἱἱεἱἱYἱἱεἱ οἱ οἱUἱοἱ (slices) οἱο ἀβόεἰο οἱ FreeBSD. ΕUἱε οYοἱα ἱἱ ÷ ἱἱἱἱ (filesystem) P ἱἱἱἱἱἱἱἱἱἱἱ ἱἱἱἱ (swap area) οἱἱ ἀβόεἱ ἱἱἱἱἱεἱ οἱ Yἱἱ εἱἱUἱε. Οἱ εἱἱUἱεἱ οἱUἱ ÷ ἱἱἱἱε ιἱ οἱ ἱἱἱἱἱἱἱ disklabel.
- **οnYἱδ (sector):** Ç ἱεἱἱἱἱἱἱ ἱἱἱεἱἱἱἱ οἱυδ ἀβόεἰο. ΟἱPεῖδ Y ÷ ἀε ἱYἱἱεἱο 512 bytes.

### 1.3 ÓçἰᾱḄᾱ öῖö ðñÝðᾱέ ἰᾱ ðñῖóÝἰᾱöᾱ ἑᾱέ ðᾱᾱḄᾱö

Ἀþóᾱ ἰᾱᾱÜεç ðñῖóῖ÷þ öçç ᾱέᾱᾱέᾱᾱᾱᾱ, ᾱῖ ᾱᾱῖ εÜᾱᾱᾱ ᾱᾱ ἰÝᾱᾱ ᾱᾱᾱ ἑᾱέ ᾱḄἰᾱε εÜεῖö ἰðῖñᾱḄ ἰᾱ ἑᾱᾱᾱöñÝḄᾱᾱ ᾱᾱ Ḅᾱñᾱ÷÷ῖᾱῖᾱ Üεεῖῖ ᾱḄöεῖῖ öῖö ööóðῖᾱöῖö.

*ðñῖóÝἰᾱ öé εÜἰᾱöᾱ.* ἈḄἰᾱε ðῖεý ᾱýεῖῖ ἰᾱ ἑᾱᾱᾱöñÝḄᾱᾱ εÜεῖö ᾱḄöεῖ ᾱῖöεᾱýῖᾱᾱ ἰᾱ ᾱöðÝð öéð ᾱῖöῖεÝð. Ἀῖ Ý÷ᾱᾱ ᾱῖöεᾱῖḄᾱᾱ ᾱéÝᾱῖᾱ ᾱᾱ ἰçῖýἰᾱᾱᾱ öῖö ðññῖᾱ ἑᾱöÜ öç ᾱέᾱᾱέᾱᾱᾱ ᾱéεḄῖçöçð ᾱéᾱ ἰᾱ ᾱñᾱḄᾱ öç öüöóþ ööóᾱöþ ᾱḄöεῖö.

ÖöóéεÜ ᾱᾱῖ Ý÷ῖöἰᾱ ἑᾱἰḄᾱ ᾱöεýῖç ᾱéᾱ æçῖéÝð ðῖö ἰðῖñᾱḄ ἰᾱ ðñῖεççεῖýῖ. Ç ᾱöεýῖç ᾱḄἰᾱε ᾱéεþ ᾱᾱö!

### 1.4 Zip, Jazz, ἑᾱέ Üεᾱᾱ ᾱöᾱéñῖῖἰᾱῖᾱ ἰÝᾱᾱ

Ἰé ᾱöᾱéñῖῖᾱñῖ ᾱḄöεῖ ἰðῖñῖýῖ ἰᾱ ᾱéᾱῖñöüεῖýῖ ᾱῖ ἑᾱñῖεῖḄ ᾱḄöεῖ. Öῖ öçῖᾱῖöéεῖ ᾱḄἰᾱε ἰᾱ ᾱḄἰᾱε öῖᾱᾱἰÝñö ἰ ῖᾱçᾱüð öῖö ᾱḄöεῖö ἑᾱöÜ öçῖ ᾱéεḄῖçöç öῖö ööóðῖᾱöῖö ἑᾱέ ἰᾱ ᾱéöéÝᾱᾱ ἰÝᾱᾱ þóᾱ ἰᾱ ἰðῖñÝᾱé ἰ ðññῖᾱð ἰᾱ ᾱᾱḄ öüöóÜ öçῖ ᾱᾱῖᾱöñḄᾱ öῖö ᾱḄöεῖö. ἘῖéöÜῖᾱ öé εÝᾱé ç ᾱῖöῖεþ dmesg ᾱéᾱ ἰᾱ ᾱᾱḄᾱ ᾱῖ ç ööóᾱöþ ᾱḄἰᾱε ööçῖ εḄöᾱ. Ἀéᾱ ḄᾱñÜᾱᾱéᾱῖ ᾱῖ ἰ ðññῖᾱð ᾱñÜḄᾱé:

Can't get the size

öüᾱ ᾱᾱῖ öðÜñ÷ᾱé ᾱéöéÝᾱᾱ öῖῖῖ ῖᾱçᾱü. Ἀῖ ᾱḄἰᾱε ᾱööü ἑᾱ ðñÝðᾱé ἰᾱ ᾱðᾱῖᾱééῖþᾱᾱᾱ öῖ ἰç÷Üῖçῖᾱ ðñῖῖ ᾱῖéçῖÜᾱᾱᾱ ἰᾱ ᾱéᾱῖñöþᾱᾱ öçῖ ᾱéöéÝᾱᾱ.

## 2 Ἀéᾱῖñöþῖῖᾱᾱᾱ ᾱḄöεῖöð ᾱéᾱ ᾱðῖᾱᾱéöóöéεþ ἑᾱéöῖöñᾱḄᾱ

### 2.1 Ἀéöᾱᾱüᾱþ

Ἀöðþ ç ðᾱñÜᾱñᾱöῖð ðᾱñᾱᾱÜᾱᾱé ðþö ἰᾱ ööéÜἰᾱᾱ ᾱḄöεῖöð ἰüñῖ ᾱéᾱ öῖ FreeBSD. ἘöῖçᾱḄᾱᾱ ῖöé ἰé ᾱḄöεῖ ᾱðῖᾱᾱéöóöéεþð ἑᾱéöῖöñᾱḄᾱᾱ ᾱᾱῖ ἰðῖñῖýῖ ἰᾱ ᾱéᾱᾱᾱöῖýῖ ᾱðü Üεᾱᾱ ἑᾱéöῖöñᾱᾱéÜ, ῖýᾱᾱ ἰᾱ εÜñῖῖ boot.

### 2.2 ðþö ἰᾱ ööéÜἰᾱᾱ ᾱḄöεῖöð ᾱðῖᾱᾱéöóöéεþð ἑᾱéöῖöñᾱḄᾱö ἰᾱ öῖ Sysinstall

To /stand/sysinstall, öῖ ðñüᾱñᾱῖᾱ ᾱᾱᾱöÜöóᾱöçð öῖö ööóðῖᾱöῖö, Ý÷ᾱé ᾱðᾱéöᾱᾱḄ öóéð öᾱᾱᾱöᾱḄᾱö öῖö ᾱᾱüᾱᾱéð þóᾱ ἰᾱ ᾱðῖᾱῖᾱḄ öçῖ ᾱéᾱᾱéᾱᾱᾱ ÷ññῖöῖý öüῖ ᾱḄöεῖῖ ἑᾱέ ἰᾱ ᾱðᾱéöᾱḄ ἑᾱᾱüöᾱñç ðñῖöðÜᾱᾱᾱ. Öᾱ ðñῖᾱñÜἰᾱᾱᾱ fdisk ἑᾱé disklabel ðῖö öðÜñ÷ῖῖ öῖῖ sysinstall ᾱḄἰᾱε ᾱñᾱöéῖý ðᾱñᾱᾱÜεῖῖð (GUI - Graphical User Interface) ἑᾱé ἰᾱịþῖῖῖ öῖ ἰðÝñᾱᾱῖ öῖö εῖḄḄἰᾱöῖö öüῖ ᾱḄöεῖῖ. ἈḄἰᾱε ðñῖῖᾱῖþð ἰ ᾱöεῖῖüöᾱñῖö öñüðῖö ἰᾱ εüḄᾱᾱ ᾱḄöεῖöð ᾱðü öçῖ Ýᾱῖᾱöç 2.1.7 ἑᾱé ἰᾱöÜ öῖö FreeBSD.

1. Ἰᾱᾱῖῖþᾱᾱ öῖ sysinstall þð root ᾱñÜῖῖῖᾱᾱ

```
# /stand/sysinstall
```

öççῖ ᾱñᾱῖþ ᾱῖöῖịịị.

2. ἈðῖᾱÝἰᾱ Index.
3. ἈðῖᾱÝἰᾱ Partition.
4. ἈðῖᾱÝἰᾱ öῖ ᾱḄöεῖ öῖö εÝᾱᾱᾱ ἰᾱ ᾱᾱᾱᾱᾱöðþᾱᾱ ÷ñçöéῖῖðῖịịịịð ᾱᾱ ᾱᾱᾱÜᾱᾱ ἑᾱέ ἰᾱöÜ **SPACE**.

5. Ἀί εᾶ ÷ ñçóéíðìéþóᾶᾱ üëí òí ἁβóëí ἁέά òí FreeBSD, ἁðéëÝíᾱ Ἀ.
6. Ἰüëéð óᾶð ñòþóᾶé áí üíòüð èÝéᾶᾱ íᾶ òí èÛíᾶᾱ ἁðü (Do you still want to do this) ἁðáíðþóᾶ Yes.
7. ἈðéëÝíᾱ Write.
8. Ἐᾶ óᾶð ἁᾶÛéᾶé ιέᾶ ðñíᾶéäíðìþçóç ó÷ᾶðéëÛ ιᾶ ôçí ἁᾶñᾶöþ óᾶ ððÛñ÷ííᾱ óðóðþíᾱᾱ ἁðáíðþóᾶ Yes.
9. Ἰüëéð óᾶð ñòþóᾶé áí èÝéᾶᾱ íᾶ ἁᾶéᾱᾱóðþóᾶᾱ Ýíᾶ boot loader, ἁðéëÝíᾱ None ἁέᾶ íᾶ ἁðïýᾶᾱᾱ ïðíéᾶᾱþðíᾱ ἁëéᾶᾱþ òí Master Boot Record. Ç ἁᾶéᾱðÛóᾱᾱç ἁíüð boot loader ÷ ñᾶéÛᾶᾱᾱé üüí óᾶ éᾶéñýñéᾶð ἁᾶéᾱᾱóðÛᾱᾱéð òí FreeBSD þ áí ó÷ᾶᾶéÛᾶᾱᾱ íᾶ òíðíᾶðþóᾶᾱ òí ἁβóëí óᾶ èÛðíéí Ûëëí ιç÷Ûíçᾶ.
10. Ðᾱðþóᾶ **ENTER** òí ἁíçíᾶñüðéëü ιþíᾱ ḡíò èÝᾶ “Wrote FDISK partition information out successfully”.
11. ἈðéëÝíᾱ Quit ἁέᾶ íᾶ ἁᾶᾱβᾱ ἁðü òí FDISK Editor éᾶé ιᾶðÛ **ESCAPE** ἁέᾶ íᾶ ἁðéóðñÝᾱᾱᾱ òí Index menu.
12. ἈðéëÝíᾱ Label ἁðü òí Index menu.
13. ἸñÛóᾱ òí ἁβóëí óᾶð üðüð èÝéᾶᾱ (ᾶᾱþ ññᾱᾶᾱ ᾱᾶ partitions). Ἀί èÝéᾶᾱ üüí Ýíᾶ partition ðᾱðþóᾱ òí c ἁέᾶ íᾶ ἁçíéíðñᾶþóᾱᾱ òí partition. ἸᾶðÛ ἁðéðð ἁᾶ÷ᾶᾱβᾱ òéð ðñíᾶðéëᾶÝð ἁέᾶ ᾱᾶ ðñíᾶéññéóíÝíᾶ size, partition type Filesystem, éᾶé mountpoint (òí ïðíþí ἁᾶí ÷ ñçóéíðìéᾶᾱᾱ).
14. Ðᾱðþóᾱ w üüéð òᾶᾶéþóᾱᾱ éᾶé ἁðééðñþóᾱ ᾱéð ἁᾶᾶᾶÝð ἁέᾶ íᾶ óíᾶ÷βᾱᾱᾱ. Òí filesystem èᾶ ðᾶñᾱóᾱᾱ ἁðüᾱᾱᾱ ἁðü ôçí ἁíðíéþ newfs ἁéüüð áí ἁðéëÝíᾱᾱ òí ἁíðᾶᾱᾱ. (Ἀί ἁÛᾶᾱᾱ éᾶéñýñᾶéí partition óᾶð óðïÝñᾶé íᾶ òí èÛíᾶᾱ!). Ἐᾶ óᾶð ἁþᾱᾶé òí èÛëð:

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

Ἀññþóᾱ òí.

15. Ðᾱðþóᾱ óðíᾶ÷üíᾶíᾶ òí **ESCAPE** ἁέᾶ íᾶ ἁᾶᾱβᾱ.

## 2.3 Ðüð íᾶ òðéÛíᾶᾱ ἁβóëíðò ἁðíëᾶᾶéóðéèþð èᾶéðíðñᾶᾱò ïÝᾱᾶ ἁðü ôçí ἁñᾶìþ ἁíðíéþí

ἈéðᾶéÝóᾱ ᾱéð ðᾶñᾶéÛüð ἁíðíéÝð ἁíðéᾶᾶéçóþíᾱᾱ òí ad2 ιᾶ òí üññᾶ ôçð óðóᾶᾱþð òíò ἁβóëíð (ἁñÛᾱᾱ dmesg íᾶ ἁᾶÝᾶñᾶᾱ ἁí ἁβíᾶé òüóðü).

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 | disklabel -B -R -r ad2 /dev/stdin
ÈÝéíðᾱ üüí Ýíᾶ partition, ïðüðᾱ ïðñíçᾱ íᾶ ÷ ñçóéíðìéþóíᾱ òí èññÛðé 'c':
# newfs /dev/ad2c
```

Ἀί ÷ ñᾶéÛᾶᾱᾱé íᾶ ἁᾶᾶÛíᾶᾱ òí disklabel ἁέᾶ íᾶ ÷ ñçóéíðìéþóᾱᾱ ðíᾶᾶðᾶÛ partitions (ἁέᾶ ðᾶñÛᾶᾶᾶᾶ ἁí èÝéᾶᾱ swap) òüᾱ èÛíᾶ:

```
# dd if=/dev/zero of=/dev/ad2 count=2
# disklabel /dev/ad2 > /tmp/label
Ἀñþíᾱ òí disklabel ἁέᾶ íᾶ ðñíðéÝᾱᾱᾱ partitions:
# vi /tmp/label
# disklabel -B -R -r ad2 /tmp/label
ᾶéðᾶéÝóᾱ ᾱçí ἁíðíéþ newfs ᾱᾱᾶ partitions üðüð ðñÝðᾶé
```

Ἰ ἁβóëíð óᾶð ἁβíᾶé Ýðíéíðð ðñíð ÷ ñþόç.

## 3 Ἀεάιιñöþííîáò ἁßóêîðð ἁέἁ óîîἁἁð Ëἁéôîñḡḡḡḡ

### 3.1 Ἀέóἁḡḡḡḡ

Ç ἁḡḡḡḡ ἁíðîêþí ἁßἁέ ἰḗ ἰ ἁðêîüðḡḡḡ ðñððð ἁέἁ ἰḗ ððéÛîḡḡ ἁßóêîðð ἁðîêêἁéóðéêðð ḡἁéðîñḡḡḡ ἁéÛ ἁßἁέ ḡἁé ἰ ἁððêîüðḡḡḡ ἁέἁ ἰḗ ððéÛîḡḡ óîîἁἁîýð ἁßóêîðð. Õî fdisk ἁðü ðçí ἁḡḡḡḡ ἁíðîêþí èÝḡḡ ḡḡḡéóóüðḡḡḡ ἁíþḡἁéð ἰḗçíἁðéêþí ḡἁé ḡîêêÝð ἁíþḡἁéð ó÷ḡðééÛ ἰḗ ðí ḡßἁḡḡ ḡñἁἁðéþí, èÛðé ḡîð ḡñîḡἁíþð ἁḗ ḡñḡÛḡḡḡḡ ἰḗ Ûḡḡḡḡ. Ἀé ἁððü ÷ñçóéîððéþðḡ ðí sysinstall ἁέἁ ἰḗ ððéÛîḡḡ óîîἁἁîýð ἁßóêîðð ἁéîîðêþíðḡðð ðéð ἰḗçḡḡḡ ḡḡḡḡÛð.

### 3.2 Ððð ἰḗ ððéÛîḡḡ ἁßóêîðð óîîἁἁððð ḡἁéôîñḡḡḡḡ ἰḗ ðí Sysinstall

1. ἰḗéîððḡḡ ðí sysinstall þð root ḡñÛîñḡḡḡ

```
# /stand/sysinstall
```

óðçí ḡñḡḡḡ ἁíðîêþí.

2. ἈðééÝîðḡ Index.
3. ἈðééÝîðḡ Partition.
4. ἈðééÝîðḡ ðí ἁßóêîððð èÝḡḡḡ ἰḗ ἁḡḡḡḡḡḡððḡḡḡ ÷ñçóéîððéêþíðḡðð ḡḡ ἁḡḡḡḡḡ ḡἁé ἰḗðÛ **SPACE**.
5. Ἀí ḡḡ ÷ñçóéîððéêþíðḡḡḡ üêî ðí ἁßóêîð ἁέἁ ðí FreeBSD, ἁðééÝîðḡ A.
6. ¼ḡḡḡ ḡḡð æçðçèḡḡ:

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) ?

(ÈÝḡḡḡ ἰḗ ðí èÛîḡḡ ἁððü ἰḗ ḡñḡḡḡḡḡèÛ èñîÛðéἁ ἁέἁ ἰḗ ḡḡḡḡḡḡḡ ḡîîἁἁðð ἰḗ Ûḡḡḡ ḡἁéðîñḡḡḡèÛ  
óððððḡḡḡ?) Ἀðḡḡððḡḡ Yes.

7. ἈðééÝîðḡ Write.
8. ¼ḡḡḡ ḡḡð æçðçèḡḡ ἰḗ ἁḡḡḡḡḡḡððḡḡḡ ðí boot manager, ἁðééÝîðḡ None ἰḗ ðí **SPACE** ḡἁé ἰḗðÛ **ENTER** ἁέἁ OK.
9. Quit (ḡḡḡḡḡḡ) ἁðü ðí FDISK Editor.
10. Èἁ ḡḡð ñðððḡḡ èÛðé ó÷ḡðééü ἰḗ ðí boot manager ḡÛḡḡ, ἁðééÝîðḡ None ἰḗðÛ.
11. ἈðééÝîðḡ Label ἁðî ðí Index menu.
12. ÌñîÛðḡḡ ðí ἁßóêîð üððð èÝḡḡḡḡ (ḡḡþ ḡḡ ἰñḡḡḡḡ ḡḡ partitions). Ἀí èÝḡḡḡḡ ἰüñ ḡḡḡ partition ἁðêþð ḡḡ÷ḡḡḡḡ ðéð ḡñḡḡðééḡḡ ἁέἁ ḡḡ ḡñḡḡḡḡḡéóîÝḡḡ size, partition type filesystem, ḡἁé mountpoint (ðí ἰðîßí ḡḡḡ ÷ñçóéîððéḡḡḡḡ).
13. Õî filesystem ḡḡ ḡḡḡḡḡḡḡ ἁððüḡḡḡ ἁðü ðçí ἁíðîêþí newfs ḡéðüð ἁí ἁðééÝîḡḡ ðí ἁíðḡḡḡḡ. Ἀí ḡÛḡḡḡ ḡἁéñýñḡḡḡ partition ḡḡð óðîÝñḡḡ ἰḗ ðí èÛîḡḡḡ! Èἁ ḡḡð ἁþḡḡ ðí èÛèðð:

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

Ἀḡñððḡḡ ðí.

14. Ðḡðððḡḡ óðḡḡ÷üḡḡḡ ðí **ESCAPE** ἁέἁ ἰḗ ḡḡḡḡḡḡ.



### 4.3 ÖœéÜîôå åíùìÝíîò ãßóëîò àå ôî CCD

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

Ià ôi Concatenated Disk Driver, Ð áëëëþò CCD, ðiñáßòá íá Ý÷ðòä ðrëëýð üüëëðò äßöëïðó áëëÜ íá ööððánëöÝñíüðáë üð Ýíáð. Ç áëáááëáöá ëÝÝáðáë öðá÷þíáðöç (striping). Ià öçí äðëëüëëçöç Ý÷ðòä éáëýðáñá äðüðáëÝíüðáë öçí öá÷ýöçöá äðáëäÞ ñëñÜæíüðáë íë áááñáöÝð éáë íë áíáñíþóáëð öðüðò äßöëïðó. ÁëáÜöðá öéð manual pages ccd(4) éáë ccdconfig(8) Ð öçí áñ÷ëÞ ðáëßáá öüö CCD (<http://stampede.cs.berkeley.edu/ccd/>) áéá ðáñëöóüðáñáð 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 ôđĩóôPñéíc 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*. Áíöèââöâ äçíéíöññâöâ Ýíá íÝí partition äéñéâðö ßäéíö íââÝèíöð 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. ĐăăăăŪôîôî đpò íá đñîróĒYóáôĀ ôñăđô  
 âđôêîrôđ. Áđêđô âêĒŪôôă 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
ᏏᏏᏏᏏᏏᏏᏏᏏ ᏏᏏᏏᏏᏏ ᣎ ᏏᏏᏏᏏᏏ 4.2BSD
# disklabel -e da1
ᏏᏏᏏᏏᏏᏏᏏᏏ ᏏᏏᏏᏏᏏ ᣎ ᏏᏏᏏᏏᏏ 4.2BSD
# disklabel -e da2
ᏏᏏᏏᏏᏏᏏᏏᏏ ᏏᏏᏏᏏᏏ ᣎ ᏏᏏᏏᏏᏏ 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 áñéèiùò ôuĭ 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 ðëçñíôíñbãò óóí Vinum Project  
 home page (<http://www.vinumvm.org/>).

## 5 Ἀõ÷ᾗñéóôßàò

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

- Darryl Okahata (<darrylo@hpnmhjw.sr.hp.com>) ᾗéᾗ òéð ᾗðēÝò ᾗᾗçᾗßᾗð ᾗᾗéᾗòᾗóðᾗóçð ᾗíùð ᾗßóēĩò óᾗ ᾗðìèèᾗéóóéèù òñùðĩ èᾗéóóíðᾗᾗᾗᾗð, òéð ᾗðĩßᾗð Ý÷ù ðĩèēÝð òñᾗÝð ÷ñçóéñðĩéþóᾗé óóçí FreeBSD-questions.
- Jordan K. Hubbard <jkh@FreeBSD.org> ðĩò Ýéᾗíᾗ òĩ sysinstall ÷ñþóéñ ᾗéᾗ òÝòĩéĩò ᾗßᾗĩòð ᾗĩòèᾗéÝð.
- John Fieber (<jfieber@indiana.edu>) ðĩò Ýᾗùóᾗ òéð ðèçñĩññᾗᾗð èᾗé óᾗ ðᾗᾗᾗᾗᾗᾗᾗᾗᾗᾗ ᾗéᾗ òĩ DocBook DTD ðᾗᾗᾗ óᾗᾗ ᾗðĩßᾗ ᾗóðù òĩ èᾗßᾗᾗñ ᾗᾗóßᾗᾗᾗᾗᾗ.
- Greg Lehey <grog@FreeBSD.org> ðĩò Ýèᾗᾗᾗ ᾗçí ᾗĩòèᾗᾗᾗ ᾗĩò, øᾗ÷ᾗñíóᾗð ᾗéᾗ ᾗíᾗᾗᾗᾗᾗᾗᾗᾗ, èᾗé ᾗéᾗ òçí òðĩóððñéíç òĩò óᾗ ᾗéᾗᾗᾗᾗ èÝᾗᾗᾗᾗ.