

Ç ĩñãŨíùóç ôùí Âêäüóãùí ôĩõ FreeBSD

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\$FreeBSD: release/8.4.0/el_GR.ISO8859-7/articles/releng/article.xml 39632

2012-10-01 11:56:00Z gabor \$

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Άδου οĩ Ũñēñĩ ðāñēāñŨōāē ôçĩ áíôēíāðþðēóç ēāē ĩñãŨíùóç ôçð ñŨāāð áíŨððôĩçð ôĩõ FreeBSD, ũôĩí áöĩñŨ óôçĩ ðñĩāðĩēíāóßā ðĩēĩðēēþĩ āēäüóãùĩ ôĩõ Êāēðĩõñāēēĩý Óðóðßíāðĩõ FreeBSD. Âĩçāāß ĩā ēāððñŨñāēā ôçĩ ĩāēĩāĩēĩāßā ðĩõ ÷ñçóēĩĩðĩēāßðāē āēā ðēð āðßóçĩāð āēäüóāēð ôĩõ FreeBSD ēāē ðāñēāñŨōāē óā āñāāēāßā ðĩõ āßíāē āēāēÝóēíā óā ũôĩõð āíāēāóŨñĩíóāē ĩā ðāñŨāĩĩĩ ðāñāĩāðñĩðĩēçĩÝĩāð āēäüóāēð ôĩõ FreeBSD āēā āóùðāñēēß ð āĩðĩñēēß ÷ñßóç ēāē áíŨððôĩç ðñĩũĩĩôũĩ.

Ðßíāēāð Ðāñēā÷ñŨŨĩ

1 Âéóāãũāß	1
2 Ç Âēāāēēāóßā Âçĩēĩõñāßāð ĩēāð çāĩóçð	2
3 ĩāóāāēþðôēóç ôçð çāĩóçð	5
4 Âēāññß ôũĩ Âēäüóãùĩ	8
5 Âðāēðāóēĩũðçðā	9
6 ĩāēßíāóā ðĩõ Ðßñāĩā áðũ ôçĩ çāĩóç 4.4 ôĩõ FreeBSD	10
7 ĩāēēĩñōēēÝð Êāðāðēýĩóāēð	10
8 Âð÷āñēóðßāð	11
9 ÁíāōĩñÝð	11

1 Âéóāãũāß

Ç áíŨððôĩç ôĩõ FreeBSD āßíāē ĩēā ðĩēý āĩē÷ðß āēāāēēāóßā. Ôĩ FreeBSD áðĩðāēāßðāē áðũ óðĩāēóōĩñÝð ÷ēēēŨāũĩ āĩēñßðũĩ áðũ ũēĩ ôĩĩ ēũóĩĩ. Ç ñŨāā ôĩõ FreeBSD ðāñŨŨ÷āē ðñũóāāóç ĩÝóũ āĩßĩðĩĩõ CVS[1] óā ũēĩõð, Ýðóē þóðā ĩā ĩðĩñāß ũðĩēĩð ēÝēāē ĩā āāē ĩçýĩāóā log, āēāōĩñŨð (patches) ðĩõ Ý÷ĩĩĩ óā āēŨōĩñā development branches, ēāē Ũēēā ÷āñāēðçñēóðēēŨ ðĩõ āĩçēĩýĩ ôçĩ áíŨððôĩç, óā ĩðĩßā ðñĩēýððĩĩĩ áðũ ôçĩ ÷ñßóç āĩũð áððóçñĩý óðóðßíāðĩõ āēā÷āßñēóçð ēþāēēā. Áðũ ðñĩðŨēāóā ēāē ôĩĩ ðēĩ ôçĩāíðēēũ ðāñŨāĩĩĩā Ýēĩçð āēā Ýĩā ĩāāŨēĩ āñēēũ áðũ óāēāĩðĩý÷ĩõ ðñĩāñāĩĩāóēóðŨð áðũ ũēĩ ôĩĩ ēũóĩĩ óōĩ FreeBSD. Âßíāē ðñĩóāĩŨð, āÝāāēā, ðũð ðĩēý óýĩðñā ēā āß÷ā āßíāē āĩðāēþð ÷āĩðēēß ç ēāðŨóðāóç āĩ āß÷āĩ ũēĩē, áðũ ũēĩ ôĩĩ ēũóĩĩ, ðñũóāāóç ĩā āñŨðĩĩĩ óôĩĩ ēþāēēā. Âē' áððũ, ĩũĩĩ

[illegible]

Ίε οα÷γδαοίε πδενιβ άφΰδδοιçο οίο FreeBSD άάρ άοπφίο έάε θρεγ ÷νφφί άέα οί ίαεάεΰνεοία οίο οδδδπίαοίο άφΰδδοιçο οά ίέα Ύεάις ίά θρεΰδçοά οίο ίά άβίεάε ίά ÷ñçóείθιεάβοάε άονΎυδ. Άέα ίά εδεδάβ άδου οί άβεεçιά, ç άφΰδδοιç άβίαοάε άαδου÷πφίά οά άοί δανΰεεçεά φφφΰδέα. Ί εγνείρ εφφφδ άφΰδδοιçο άβίαέ ι *HEAD* þ *trunk* οόι CVS repository ίάδ, άφφδφδ έάε υδ “FreeBSD-CURRENT”, þ “-CURRENT” άί οφίφφβά.

[illegible][illegible]

Ότiά ÷ þð óóÝεññiόάέ áðu ðiðð ÷ ñþóðáð iáo áráoiñÝð ðñiáεçÏÜðui éáé áéðþóáéð áéá éáéñýñéá ÷ áñáéðçñéóóééÏ, éáðÏ ðç áéÏñéáéá ðið éýéεið ðçð èÏéá Ýéáiðçð. Íé áráoiñÝð ðñiáεçÏÜðui áéóÏáñiόáé óðçí áÏóç **GNATS**[9] ÝÝóu e-mail, iá ðçí áðáññiáþ send-pr(1), þ ÝÝóu ðið web-interface ðið ðáñÝ ÷ áóáé óðçí áéáýðéóíç <http://www.FreeBSD.org/send-pr.html>. Áéðuð áðu óéð áéÏoiñáð éþóðáð çéáéðñiñééý ðá÷ ðáññáþið iá èÝiá óá óá÷iééÏ ÷ áñáéðçñéóóééÏ ðið FreeBSD ððÏñ÷áé éáé ç éþóóá FreeBSD Quality Assurance mailing list (<http://lists.FreeBSD.org/mailman/listinfo/freebsd-qa>), ç iðñiá ðáñÝ ÷ áé Ýiá öüñið iá áé óðæçðþóáéð ó÷áðééÏ iá óéð éáððñÝñáéáð ðçð “iñáÏüóçð ðui áéäüóáñ”.

[illegible]

Οι ΌιΠιά 2 ἀϊçάαβ ια εαδδδνΥνάεαδ οά αεΰοινα όδΰάεα όçδ αεάαεεαόβαδ διο ανβρεάοαε δβου αδυ εΰεα Υεαιόç. ιΥ÷νε εαε οά αΠιαόα διο ιαçαίγί όδçι ιαδααεβδδεόç διο όδδδΠιαδιο εαε οι ΌιΠιά 3 αϊçάαβ όçι βαέα όç αεάαεεαόβα όçδ ιαδααεβδδεόçδ. Οι ΌιΠια 5 δανεανΰοαε δυδ ιδινάβ ιά αδαεδαεάβ δι ααόεευ όγόçια αδυ ονβδιδδ εαε οι ΌιΠια 6 δανεανΰοαε εΰδιεά αδυ οά δνΰαιαόα διο ιΰεαιά αδυ όçι αεάαεεαόβα Υεαιόçδ διο FreeBSD 4.4. ΌΥειδ, οι ΌιΠια 7 δανιρόεΰαεε εΰδιεαδ αδυ όεδ εαδανεγίοαεδ διο εΥειδια ιά δΰπναε ç ανΰδδδιç όδι ιΥεει.

2 Ç Äéääéêáóßá Äçïéïõñãßàò ìéàò êäïóçò

Iε ιΥάδ άέάυάέδ όιθ FreeBSD όέÜ÷-ííóάέ άδύ όίí -STABLE έíμύ άíÜδόίόδ όάííθθίθ έÜέά όΥόόάíάέδ ίííάδ. Ç áέάέέάάόβá θííάόίέίάόβáδ ίέάδ Ýέάίόόδ ίάέέíÜάέ ό÷άάύ 45 ιΥííάδ θíέί όçí άίάίάíüíάíç çíáííçíβá Ýέάίόόδ, üάί í óðáyέóíθ άέάύάύ όιθ FreeBSD óóÝέíάέ Ýíá áíÜüíá óóέδ έβóóáδ όüí θííáííáíάέóóóíí áέά ίά óðáíέíóáέ óóíθδ θííáííáíάέóóóÝδ üέέ Ý÷íóí 15 ιΥííάδ έάέíü ίά έÜííóí üðέάδ áέέάÝδ έÝέíóí, θíέί όí ðÜάüíá όíθ έβáέέá. ΙΥόά óá

áðòü òîí ēáēñü, ðîēēîĬ ðñîññāñîáðēóóŸ òēŪîîîí íēá óáēñŪ áðü áēēááŸ ðîō Ÿ ÷ îîí îāĬíáē ðēŸîí āîüóóŸ ùò “îāēāēāñĬóîáóá MFC”. Ĭ üñîð MFC óçîāĬíáē “Merge From CURRENT” ēáē ðñēēñŪôāē óçí āēāēēáóĬá ðñîóāñîñāĬð òîō ēĬāēēá íēáð āîēēíáóîŸíç ðēēáāĬð áðü òîí -CURRENT ðāēñāíáðēēü ēîñîü áíŪððôîç òóîí óðāēāñü -STABLE ēîñîü.

2.1 ĩāā ÷ îō ĒĬāēēá

ÔñēŪîóá çîŸñāð ðñēí óçí áíáíāîüîáíç çîñññçíĬá Ÿēāîóçð, Ĭ ēĬāēēáð òîō repository áéóŸñ ÷ āðáē óā íēá ðāñĬîñî “ēāēóóóŸñçóçð”. ÉáðŪ óç āēŪñēāēá áððĬð òçð ðñēñüāîð, üēāð íē āēēááŸ òóîñ -STABLE ēîñîü ðñŸðāē íá Ÿ ÷ îîí óçí Ÿāēñēóç òçð ñŪāā ÌñāŪîúôç òùí Āēäüôâüí <re@FreeBSD.org>. Ĭē āēēááŸ ðîō āðēóñŸðñîóáē óā áððĬ óçí ðāñĬîñî ðîō āēāñēāĬ 15 çîŸñāð āĬíáē:

- ĀēîñēĬóāēð āîüóóĬí ðñîāēçîŪðüí.
- ĀíçîāñĬóāēð óóçí ðāēîçñĬúóç.
- ĀēēááŸ ò ÷ āðēēŸ ìā óçí áóðŪēāēá.
- ĬēēñŸ ðēēááŸ òóîðð ðāçāîŸð òððēāðĬí, üðüð ð.÷. ç ðñîóēĬēç òùí IDs íŸüí óððēāðĬí.
- ĬðîēāĬðîîā Ūēēç āēēáāĬ ðēóðāŸāē ç ñŪāā áíŪððôîçð üðē ðñŸðāē íá āĬíáē, ìā òî áíáíāîüîāñî ðŪîóā ñĬóēî.

ĬāðŪ ðēð ðñĬóāð 15 ĬŸñāð ēāēóóóŸñçóçð, òðēŪ ÷ íāðáē íēá āîēēíáóðēēĬ Ÿēāîóç āēá íá ÷ ñçóēîñîðîēçēāĬ óáí āîēēîĬ òçð ðāēēēĬð Ÿēāîóçð ēáē Ĭ ēĬāēēáð áéóŸñ ÷ āðáē óā íēá ðāñĬîñî “ðāāĬíáðîð”. ðēŸîí āĬíáē ðîēŸ ðēí āŸóēîēî íá āĬîîîí íŸāð āēēááŸ òðî óŸóóçíá, āēóüð ēē áí āēîñēĬñîîí ēŪðîēî ðîēŸ óîāāñü bugĬ ēŪðîēî ðñüāēçíá áóðŪēāēáð. ÉáðŪ óç āēŪñēāēá òîō ðāāĬíáðîð òîō ēĬāēēá, òîōēŪ ÷ ēóóîí ĬĬá āîēēíáóðēēĬ Ÿēāîóç òðēŪ ÷ íāðáē ēŪēā āāāñŪāā, ĬŸ ÷ ñē íá āĬíáē Ÿôîēîç ç ðāēēēĬ Ÿēāîóç. Ôēð çîŸñāð āēñēāĬð ðñēí óçí ðāēēēĬ Ÿēāîóç, ç ñŪāā ðîō āĬíáē òðāŸēðîç āēá ðēð āēäüôāēð āĬíáē óā óóîā ÷ Ĭ āðēēîēîñüĬá Ĭā óçí ñŪāā áóðŪēāēáð, óçí ñŪāā óóîðĬñçóçð òçð ðāēîçñĬúóçð, ēáē óçí ñŪāā óóîðĬñçóçð òùí ports, āēá íá āāāāēüēîŸí ðüð üēā óā áðāñāĬóçðā ēñîŪðēá āēá íēá ðēĬñç Ÿēāîóç āĬíáē āēáēŸóēíá.

2.2 ĒĬóóā ĀēŸā ÷ îō òçð ÔāēēēĬð ĩāîîóçð

¼ðáí āñēāðŸ ðîēēíáóðēēŸ ðēäüôāēð Ÿ ÷ îîí āĬíáē āēáēŸóēíāð, Ÿ ÷ îîí āîēēíáóðāĬ áðü āñēāðü ēüóîñ ēáē üēá óā óîāāñŪ ēŸíáðā Ÿ ÷ îîí áíáēðēēāĬ, ç ðāēēēĬ Ÿēāîóç ìðñāĬ íá āñ ÷ Ĭóāē.

2.2.1 ĀçîēîññāĬá òîō ĒîñîŸŸ ēāîîóçð

¼ðüð ðñēēñŪôāîá óóçí áéóāāüāĬ, íē ēîñîñĬ RELENG_X_Y āĬíáē íēá ó ÷ āðēēŪ íŸá ðñîóēĬēç óóçí ĬāēîāîēîāĬá òùí āēäüôāĬí íāð. Ôî ðñĬðîí āĬíá óóçí āçîēîññāĬá áððîŸ òîō ēîñîŸŸ āĬíáē íá āāāāēüēāĬðā üðē āîōēāŸāðā Ĭā óçí ðāēāððāĬá Ÿēāîóç òîō ðçāāĬîð ēĬāēēá áðü òîí RELENG_X ēîñîü áðü òîí îðîĬî ēā òðēŪîāðā òî íŸî ēîñîü.

```
/usr/src# cvs update -rRELENG_4 -P -d
```

Ôî áðüîāñî āĬíá āĬíáē íá āçîēîññāĬóāðā íēá āðēēŸðā (tag) óóî óçíāĬí āēēĬíçóçð òîō ēîñîŸŸ, Ĭóðā íá ìðñāĬðā íá āāĬðā ðēð āēáóîñŸð Ĭā óçí āñ ÷ Ĭ òîō ēîñîŸŸ āŸēîēā óóî ĬŸēēî Ĭā òî CVS:

```
/usr/src# cvs rtag -rRELENG_4 RELENG_4_8_BP src
```

Éáē òüðā ìðñāĬðā íá āçîēîññāĬóāðā òî íŸî ēîñîü Ĭā:

```
/usr/src# cvs rtag -b -rRELENG_4_8_BP RELENG_4_8 src
```

Οδηγός: Το `RELEASE_*` αρχείο `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία.

Το `RELEASE_*` αρχείο `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία. Το `RELEASE_*` αρχείο `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία.

2.2.2 Αρχή του Απριλίου

Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία. Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία.

- `doc/en_US.ISO8859-1/books/handbook/mirrors/chapter.xml`
- `doc/en_US.ISO8859-1/books/porters-handbook/book.xml`
- `doc/share/xml/freebsd.ent`
- `src/Makefile.incl`
- `src/UPDATING`
- `src/gnu/usr.bin/groff/tmac/mdoc.local`
- `src/release/Makefile`
- `src/release/doc/en_US.ISO8859-1/share/xml/release.dsl`
- `src/release/doc/share/examples/Makefile.relnotesng`
- `src/release/doc/share/xml/release.ent`
- `src/share/examples/cvsup/standard-supfile`
- `src/sys/conf/newvers.sh`
- `src/sys/sys/param.h`
- `src/usr.sbin/pkg_install/add/main.c`
- `www/en/docs.xml`
- `www/en/cgi/ports.cgi`
- `ports/Tools/scripts/release/config`

Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία. Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία.

- `src/release/doc/en_US.ISO8859-1/relnotes/common/new.xml`
- `src/release/doc/en_US.ISO8859-1/errata/article.xml`

Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία. Οι `RELEASE_*` αρχεία `RELEASE_*` είναι η βάση των CVS-meisters και οι `RELEASE_*` αρχεία.

Áöŷŷ ŷēēēçñùēāß ç ðñŷäöŷēŷäöāß ôçð ŷŷäð äðßöçŷçð ŷēäŷöçð, ðñŷðäē ŷä äŷçŷāñþŷöäð ŷāñēēŪ āñ÷āßä äēä ŷä äŷçŷāñþŷöäð ôŷŷ ēüöŷŷ äēä ôç ŷŷä ŷēäŷöç òiō FreeBSD.

- `www/en/includes.xsl`
- `www/en/includes.xml`
- `www/es/includes.xml`
- `www/en/releases/*`
- `src/share/misc/bsd-family-tree`

2.2.3 Äçŷēŷññāßä òuì Āöēēāðŷŷ ôçð ēäŷöçð

ŷäðäŷ ç ôäēēēß ŷēäŷöç āßŷäē ŷöŷēŷ, ç ðāñāēŪðü āŷöŷēß ēä äçŷēŷññāßŷöäē ôçŷ äöēēŷöä RELENG_4_8_0_RELEASE.

```
/usr/src# cvs rtag -rRELENG_4_8 RELENG_4_8_0_RELEASE src
```

ŷē ððäŷēðŷŷ ôçð Öäēŷçñßüçð ēäē òuì Ports āßŷäē äððŷß ðŷð ðñŷðäē ŷä äçŷēŷññāßŷöŷŷ öēð äöēēŷöäð RELEASE_4_8_0 öää ēäðŪēēçēä äŷŷöñā ðçäāßŷö ēþäēēä.

ŷāñēēŷö òŷñŷö, ŷðññāß ŷä ÷ñāēäöðāß ŷä āßŷŷŷ ēŪðŷēäð äēēäŷöð öāēäöðāßä öēēāŷ ŷäðŪ ôçŷ öŷðŷēŷöçç òuì äöēēäðŷŷ. ĀāŷēēŪ, āāŷ āßŷäē äŷöēŷŷŷ ŷä āßŷäē ēŪðē öŷöŷŷ äöŷŷ òŷ CVS äðēðñŷðäē ŷä ŷäöäēŷŷöäē ēŪðŷēŷöð öēð äöēēŷöäð ŷä āŷöŷŷöð üðüð `cvs tag -d tagname filename`. Āßŷäē ðŷŷŷ öçŷäŷöēēü üüüð äððŷöð ŷē äēēäŷöð ôçð öāēäöðāßäð öēēāŷð ŷä öçŷäēüŷŷŷ ŷä öēð öüöðŷöð äöēēŷöäð äēä ôçŷ öðäēäñēŷŷŷ ŷēäŷöç. ŷē äðßöçŷäð äēäüöäēð òŷð FreeBSD ðñŷðäē ŷä āßŷäē ðŷŷöä äŷēŷŷŷ ŷä äŷäðāñä÷ēŷŷŷ. Öŷðēēŷöð äēēäŷöð ööŷ ðāñāēŪēēŷŷ öŷð ŷç÷äŷēŷŷ òuì äēäüöäüŷ āāŷ äðēðñŷðŷŷöäē.

3 ŷäöäāēþöðēöç ôçð ēäŷöçð

ŷē “äēäüöäēð” öŷð FreeBSD ŷðñŷŷŷ ŷä ŷäöäāēüðöēöçŷŷŷ äðü ŷðŷŷŷāþðŷöä ŷ÷äē ŷŷä ö÷äöēēŪ āñþāñŷŷ ŷç÷ŷŷŷä ēäē ðñüöääöç ööŷ repository öŷð ðçäāßŷö ēþäēēä. (ŷäŷē ŷ÷ŷŷ äððß ôç äöŷäðüðçðä, äöŷŷ ðāñŷ÷ŷŷä ðñüöääöç ŷŷöü äŷŷŷŷŷ CVS! Āāßöä öŷ Āā÷äēñßäēŷ öŷð FreeBSD äēä ðāñēööüðāñāð ēäððñŷñāēäð.) Ç ŷŷŷç äēäēēß äðäßöççç āßŷäē ŷä ððŪñ÷äē ððŷöðþñēŷç ööŷŷ ððñþŷä öäð äēä ôçŷ öðöēäðß vn(4). (Ööŷ -CURRENT, äððß ç öðöēäðß ŷ÷äē äŷöēēäðäöäēāß äðü ôçŷ ŷŷä öðöēäðß āßöēŷö ääöēöŷŷŷ öä ŷŷþç md(4).) Āŷ ç öðöēäðß āāŷ āßŷäē äŷöüŷäöüŷŷŷç ööŷŷ ððñþŷä öäð, öüðä ŷ ēäðŪēēçēŷöð ŷäçäüð ēä öŷñöüēāß äöðüŷäðä üðäŷ äēðäēäöðāß ç äŷöŷēß vnconfig(8) ēäðŪ ôç äēŪñēäēä ôçð öŪöçð äöŷŷŷäöðäð öŷð ŷŷöŷŷ äēēßŷççð. ŷäē öä āñāäēäßä ðŷð ÷ñäēŪäŷŷöäē äēä ŷä ŷäöäāēüðöðßöäðä ŷēä ŷēäŷöç āßŷäē äēäēŷöēŷä öä ŷŷñöß ðçäāßŷö ēþäēēä ööŷŷ ēäðŪēŷŷŷ `src/release`. ĀððŪ öä āñāäēäßä ŷ÷ŷŷŷ üð öēŷðü ŷä ðāñŷ÷ŷŷŷ üðē ÷ñäēŪäŷöäē äēä ŷä ðßäŷŷŷöäē ŷē äēäüöäēð öŷð FreeBSD ŷä ŷŷä öŷŷäðß ēäē öðäēäñēŷŷŷ ðñüðŷŷ. ŷēä ðēþñçð ŷēäŷöç ŷðññāß ŷä ŷäöäāēüðöēöçð ÷ñçöēŷŷŷŷŷöäð äððŪ öä āñāäēäßä ŷä ŷēä ēäē ŷŷŷŷ äŷöŷēß, ööŷðāñēēäŷäŷñŷŷçð ēäē ôçð äçŷēŷññāßäð āŷüð ISO āñ÷āßŷö ēäðŪēēçēŷ äēä ŷä ēäāß öä CDROM, ŷē äöēēŷöäð äēēßŷççð, ēäēþð ēäē ŷ ēäðŪēēçēŷöð āäēäðŪöäöçð ŷŷöü FTP. Āððß ç äŷöŷēß āßŷäē öðöēēß ç `make release`.

3.1 Ç äŷöŷēß `make release`

Āēä ŷä ŷäöäāēüðöðßöäð äðēðð÷þð ŷēä ŷēäŷöç, ðñŷðäē ðñþöä ŷä ððŪñ÷ŷŷŷ öä ēäðŪēēçēä āñ÷āßä ŷŷöä ööŷŷ ēäðŪēŷŷŷ /usr/obj. ŷðññāßöä ŷä öä äçŷēŷññāßŷöäð āßöä ŷä ôçŷ äŷöŷēß `make world` þ äðēŪ `make buildworld`. Āēä ŷä

ðáðý÷-áé áðßóçð ç ìáðááëðððéóç òçð Ýêäîóçð ðñÝðáé íá äðáððá ðéð éáðÛëëçéäð ðéíÝð éáé ðá èÛðíéäð ìáðááëçðÝð:

- CHROOTDIR - Ì éáðÛëíäðð ðîõ èá ÷ ñçóéíðíéçéäð ðáí ðáñéáÛëëí chroot áéá üëç òçí ìáðááëðððéóç òçð Ýêäîóçð.
- BUILDNAME - Õî üñíá òçð Ýêäîóçð ðîõ èá ìáðááëüðððáððá.
- CVSROOT - Ì éáðÛëíäðð ðóñí ððíßí áñßðéáðáé òí CVS repository.
- RELEASETAG - Ç áðééÝðá CVS ðîõ áíðéóðíé÷÷ ðß ðóçí Ýêäîóç òçí ððíßá èÝéäðá íá ìáðááëüðððáððá.

Áí ááí Ý÷-ððá ðäç ðñüóááóç ðá èÛðíéí ðíðéëü CVS repository ìá ðñí èðáééá ðîõ FreeBSD, ððíñáððá ðÛíðá íá ððéÛíáððá òí áéëü óáð ðíðéëü CVS mirror ìá òí CVSup (http://www.FreeBSD.org/doc/en_US.ISO8859-1/books/handbook/synching.html#CVSUP). ÕðÛñ÷-áé Ýíá supfile, ððí áñ÷-ðßí /usr/share/examples/cvsup/cvs-supfile, òí ððíßí ððíñáððá íá ÷ ñçóéíðíéçéäððá áéá íá áíðéñÛððáððá òí CVS repository ðîõ FreeBSD ððí áéëü óáð ðíðéëü mirror.

Áí ðáñáëáßðáððá òçí áðééÝðá RELEASETAG, ðððá èá ìáðááëüðððéóðáß íéá ðëðñçð Ýêäîóç áðü òçí èíñððð ðîõ HEAD (äç. ðîõ -CURRENT) èíññí. Ìé áêäüóáéð ðîõ ððéÛ÷ñíðáé áðü áððüí òñí èíññí, ððíðèðð áíáðÝññíðáé ðáí “-CURRENT snapshots”.

ÕðÛñ÷-ðñí éáé ððééÝð Ûëëäð ìáðááëçðÝð ðîõ ððíññí íá ÷ ñçóéíðíéçéçí áéá íá ðáñáíáððíðíéçéäððá òçí Ýêäîóç ðáð. Ìé ðéí ððééÝð áðü áððÝð ðéð ìáðááëçðÝð ðáñéñÛððíðáé ðóçí èíñððð ðîõ áñ÷-ðßíð src/release/Makefile. Ç áêñéáðð áíðíð ðîõ ÷ ñçóéíðíéçéäð áéá íá ððéá÷-ðáß ç áðßóçð Ýêäîóç 4.7 ðîõ FreeBSD (x86 ðéáððüñíá) ððáí:

```
make release CHROOTDIR=/local3/release \
    BUILDNAME=4.7-RELEASE \
    CVSROOT=/host/cvs/usr/home/ncvs \
    RELEASETAG=RELENG_4_7_0_RELEASE
```

Õí Makefile ðîõ ÷ ñçóéíðíéçéäð áéá íá ìáðááëüðððáíðáé ìé áêäüóáéð ððíñáß íá ÷ ùñéóðáß ðá áñéäðÛ ìá÷-ùñéóðÛ ìáðáíý ðîõð áðíáðá.

- Äçíéðñáßá áñüð éáéáññý ðáñéáÛëëíððð ðá íéá ìá÷-ùñéóðð éáñáñ÷-ßá éáðáëüüñí ìá òçí áíðíðð “make installworld”.
- Áíáñüáð áðü òí CVS ìéäð éáéññéáð Ýêäîóçð ðîõ ðçäáßíð èðáééá ðîõ ðððððíáððð, òçð ðáèíçññüóçð éáé òñí ports ìÝðá ðóçí éáñáñ÷-ßá éáðáëüüñí ìáðááëðððéóçð òçð Ýêäîóçð.
- Ñðéíðáéð ðñí áñ÷-ðßí ððñí éáðÛëíäð /etc éáé /dev ìÝðá ððí ðáñéáÛëëí chroot.
- ÁéðÝéáóç òçð áíðíðð chroot ìÝðá ðóçí éáñáñ÷-ßá éáðáëüüñí ðîõ áðíéíÛððçéä, áéá íá ìçí ððíñáß òí áñüðáñéëü ðáñéáÛëëí íá áðçñáÛðáé òç ìáðááëðððéóç òçð Ýêäîóçð.
- ÁéðÝéáóç òçð áíðíðð make world ìÝðá ððí ðáñéáÛëëí chroot.
- Ìáðááëðððéóç ðñí áéðáëÝóéñí ðîõ áßíáé ò÷-áðééÛ ìá òí óýóðçíá Kerberos.
- Ìáðááëðððéóç ðîõ ððñðíá GENERIC.
- Äçíéðñáßá áñüð ðáéééñý éáðáëüüñí ððñí ððíßí èá ìáðááëüðððéóðíý éáé èá áðíèçéäððéñý ìé áéðáëÝóéñáð ìñðÝð ðñí ðáéééðí ðáéÝðñí.
- Ìáðááëðððéóç éáé ááéáðÛððáóç ðñí áñááéáßí ðîõ ÷ ñáéÛáñíðáé áéá òçí ðñíáðíéíáððá òçð Ýêäîóçð éáé òç ìáðáðñíðð òçð ðáèíçññüóçð áðü òñí ðçäáßíð èðáééá (SGML) ðá html éáé áñ÷-ðßá éáéíÝñð ðîõ èá ððññáñýñí òçí Ýêäîóçð.
- Ìáðáðñíðð éáé ááéáðÛððáóç òçð ðáèíçññüóçð (áá÷-áéñßáéá ÷ ñðððç, áéóáñüáééÛ éáßíáíá, óçíáéðáéð Ýêäîóçð, èßððáð ððíááðððçðáðð ðéééñý, èèð.)

- ĩāóāāēpôôéoc òuĩ “òõĩðéáõĩŸĩũĩ” (crunched) āēôāēŸóēĩũĩ ðĩō éā ÷ ñçóēĩĩðĩēçēĩŸĩ óôéô āéóēŸôôāô āāēáôŨóóáocò.
- Āçĩēĩōñābā òuĩ ðāēŸôũĩ ôçò āāēáôŨóóáocò éāē òuĩ ðāēŸôũĩ ðçāābĩō ēpāēēā.
- Āçĩēĩōñābā òuĩ ĩŸóũĩ āēēbĩçóçò éāē ôçò āéóēŸôôāô “fixit”.
- Āçĩēĩōñābā ôçò éāñāñ÷bāô éāóāēüũĩ āēā ôçĩ āāēáôŨóóáocò ĩŸóũĩ FTP.
- (ðñĩíēñāôēēŸ) Āçĩēĩōñābā òuĩ ISO āñ÷ābũĩ āēā ĩŸóā CDROM/DVD media.

Āēā ðāñéóóũôāñāð ðēçñĩōĩñbāð ó÷āôēēŨ ĩā ôçĩ āēāāēēáóbā āçĩēĩōñābāð ĩēāð Ÿēāĩôçò, āābôā ôçĩ óāēbāā ôāēĩçñbũôçò release(7).

3.2 ĩāóāāēpôôéoc òuĩ XFree86

Ōĩ āñāóēēũ ðāñēāŨēēĩ **XFree86** ābĩāē Ÿĩā ôçĩāĩóēēũ ēñĩŨôē ēŨēā Ÿēāĩôçò āēā ðĩēēĩŸð ÷ ñpôóāð ðĩō ēŸēĩōĩ òĩ FreeBSD āēā óóāēĩŸð āñāóābāð. ðñēĩ ôçĩ Ÿēāĩôç 4.6-RELEASE òĩō FreeBSD, ĩē āðbôçĩāð āēüüóāēð òĩō FreeBSD ÷ ñçóēĩĩðĩēĩŸóāĩ ôçĩ Ÿēāĩôç 3.x òuĩ **XFree86**. Ĩ ðēĩ āŸēĩēĩð ðñũðĩð ĩā ĩāóāāēũôôbôāðā áôðŸð ôéð āēüüóāēð ābĩāē ĩā ÷ ñçóēĩĩðĩēĩpôāðā òĩ ðñũāñāĩā src/release/scripts/X11/build_x.sh. Áôðũ òĩ ðñũāñāĩā áðāēðāb ĩā ābĩāē pāç óôçĩŸĩā óôĩ óŸóçĩŨ óáð òũōĩ òĩ ðāñēāŨēēĩ XFree86 üōĩ éāē ç āēpôóā Tcl/Tk. ĩāôŨ ôçĩ ĩāóāāēpôôéoc òuĩ éāðŨēēçēũĩ X servers, òĩ ðñũāñāĩā éā ðāēāðŨñāē üēā óā āñ÷ābā óā óðēēĩāŸð āñ÷ābũĩ ðĩō ðāñēĩŸĩāē ĩā āñāē òĩ sysinstall(8) ĩŸóā óôĩ ēāðŨēēĩāĩ XF86336 óôĩ ĩŸóĩ āāēáôŨóóáocò.

ĩāēēĩpĩóáð ĩā ôçĩ Ÿēāĩôç 4.6-RELEASE òĩō FreeBSD, òĩ sysinstall(8) āāēāēéóðŨ ôçĩ Ÿēāĩôç 4.x òuĩ XFree86, óāĩ ēāñĩēēŨ ðāēŸóā. ÁôðŨ ĩðĩñāb ĩā ābĩāē ābôā óā ðāēŸóā ðĩō āçĩēĩŸñāçôā òĩ cluster òuĩ ports p ĩðĩēāāðĩôā Ũēēā ðāēŸóā ðĩō Ÿ÷ĩōĩ āçĩēĩōñāçēāb āðũ Ÿĩā ports tree ĩā ôçĩ ēāðŨēēçç āðēēŸóā.

Ōçĩābũôç: Ābĩāē ðĩēŸ ôçĩāĩóēēũ ĩā áóāēñŸóāðā āðũ òĩ āñ÷ābĩ /etc/make.conf ĩðĩēāóāpðĩôā òĩðēēŸð ñôēĩbôāēð Ÿ÷āðā ēŨĩāē. Āēā ðāñŨāāēāĩā, āāĩ ābĩāē ēāēp ēāŸā ĩā āēāĩŸĩāðā āēôāēŸóēĩā ðĩō Ÿ÷ĩōĩ ĩāóāāēũôôéóðāb óā ēŨðĩēĩ óðāēāēñēĩŸĩĩ óŸóçĩā ĩā ĩñēóĩŸĩç ôçĩ óēĩp ôçò ĩāóāāēçôpð CPUTYPE āēā āāēôéóðĩðĩbçôç òuĩ āēôāēŸóēĩũĩ āēā ēŨðĩēĩ óðāēāēñēĩŸĩĩ āðāĩāñāóðp.

3.3 ðñĩāñŨĩĩāóā Ōñbôũĩ (“ports”)

Ç Óðēēĩāp òuĩ Ports òĩō FreeBSD (<http://www.FreeBSD.org/ports>) ābĩāē ĩēā óðēēĩāp ĩā ðāñéóóũôāñā āðũ 24,000 ðñĩāñŨĩĩāóā āðũ òñbôĩôð, ðĩō ābĩāē āēāēŸóēĩā āēā FreeBSD. ĩē ĩñŨāā Āēā÷ābñéocò òuĩ Ports <portmgr@FreeBSD.org> ābĩāē òðāŸððĩēē āēā ôçĩ óôĩôpñçôç āĩũð āŸĩôñĩō āðũ ðçāābĩ ēpāēēā āēā óā ports, ðĩō ĩðĩñāb ĩā ÷ ñçóēĩĩðĩēçēāb āēā ĩā āçĩēĩōñāçēĩŸĩĩ óā ðāēŸóā ĩā óā ðñĩāñŨĩĩāóā ðĩō óðñāŸĩōĩ ôéð āðbôçĩāð āēüüóāēð òĩō FreeBSD.

Ç āēāāēēāóbā óôĩôpñçôçò ôçò óðēēĩāpð òuĩ ports ābĩāē ēŨôē ðĩō āāĩ ĩðĩñĩŸĩā ĩā ēāēŸøĩðĩā āāp. ĩā ĩā÷ũñéóðũ Ũñēñĩ, ĩā òbôēĩ Ç ĨñāŨtúoc ēāĩôçò òuĩ ðāēŸôũĩ ĒĩāēóĩēēŸ āðũ Ōñbôĩôð (./releng-packages/article.html), ēāēŸðāē áðũ òĩ ēŸĩā.

3.4 Āñ÷ābā ISO ôçò ēāĩôçò

ĩāēēĩpĩóáð ĩā ôçĩ Ÿēāĩôç 4.4 òĩō FreeBSD, ç ĩñŨāā ĀĩŨððôĩçð òĩō FreeBSD áðĩôŨóéóā ĩā āēāĩŸĩāē ēāē óā ôŸóóāñā ISO āñ÷ābā ðĩō ðñpôā ðĩōēĩŸóāĩ ĩē āðāēñābāð *BSDi/Wind River Systems/FreeBSD Mall* óôéð “āðbôçĩāð” āēāmŸð CDROM ðĩō Ÿēāĩāĩ. ēŨēā Ÿĩā āðũ óā ôŸóóāñā ISO āñ÷ābā ðñŸðāē ĩā ðāñēŸ÷āē Ÿĩā āñ÷ābĩ README.TXT ðĩō

ðǎñéǎñÛöǎé óǎ ðǎñéǎ÷ìíǎíǎ òîõ ǎßóéîõ, êé Ýíǎ ǎñ÷ǎßí CDROM.INF ðîõ ðǎñéÝ÷ǎé ìǎðǎ-ðéçñîîññǎð ǎéǎ íǎ ìðññǎß òî ðñüǎñǎìǎ sysinstall(8) íǎ ǎéÝǎñǎé éǎé íǎ ÷ñçóéîîðíéðóǎé áðòü òî ǎßóéî, éǎéð òé Ýíǎ ǎñ÷ǎßí filename.txt ðîõ ðǎñÝ÷ǎé íéǎ éßóðǎ ǎñ÷ǎßüí òîõ CDROM. Áðòð ç éßóðǎ ìðññǎß íǎ ǎçíéîñǎçéǎß ðíéý áðéÛ, ùð ǎíðò:

```
/stage/cdrom# find . -type f | sed -e 's/^\./\\/' | sort > filename.txt
```

Íé óðǎéǎñéíÝíǎð áðǎéððóǎéð ǎéǎ éÛéǎ Ýíǎ áðü áðòÛ óǎ CD ðǎñéǎñÛîîíóǎé ðǎñǎéÛòü:

3.4.1 Áßóéîð 1

Í ðñðòðð ǎßóéîð ǎßíǎé ó÷ǎǎüí áðíééǎéóóééÛ áðîðÝéǎóíǎ òçð ǎíóíéðð make release. Íé ìüíǎð ǎééǎǎÝð ðîõ ðñÝðǎé íǎ ǎßíóíí óóíí éǎðÛéíǎí disc1 ǎßíǎé ç ðñíóéðéç ðîõ éǎðÛéíǎí tools, òüí XFree86, éǎé üóí òî ǎóíǎðüí ðǎñéóóüðǎñüí ðǎéÝòüí ìðññíý íǎ ÷ñÝóíóíí óóíí ǎßóéî. Í éǎðÛéíǎí tools ðǎñéÝ÷ǎé ǎñǎǎéǎßá ðîõ áðéðñÝðíóíí óǎ ÷ñðóðǎð Ûééüí éǎéðîñǎééðí óðóðçíÛòüí íǎ óðéÛíóíí óéð ǎéóéÝððǎð ǎééßíçóçð. Áðòüð ì ðñðòðð ǎßóéîð ðñÝðǎé íǎ óðéÛ÷ǎéǎé bootable Ýðóé ðóðǎ íǎ ìðññíý íé ÷ñðóðǎð òüí ìüíðÝñíüí ððíéíǎéóðí íǎ áðíóǎýǎíóíí òî óðÛǎéí ǎçíéîñǎßáð òüí ǎéóéǎððí ǎééßíçóçð.

Áí íéǎ ǎéǎóíñǎðééð Ýéǎíóç òüí XFree86 éǎ ǎéǎíÝíǎðǎé ìǎ òçí Ýéǎíóç áðòð, ðñÝðǎé íǎ ǎçíǎñüéǎß òî ðñüǎñǎìǎ sysinstall(8) ǎéǎ òçí íÝǎ éÝóç éǎé íé ñǎçǎßáð ǎǎéǎðÛóðǎóçð. Í ó÷ǎðééüð éðǎééǎð òðÛñ÷ǎé óóíí éǎðÛéíǎí src/release/sysinstall óóíí -STABLE éíñüü ð óóíí éǎðÛéíǎí src/usr.sbin/sysinstall óóíí -CURRENT éíñüü. ÓðǎéǎñéíÝíǎ, óǎ ǎñ÷ǎßǎ dist.c, menus.c, éǎé config.c éǎ ÷ñǎéǎóðǎß íǎ ǎçíǎñüéíýí.

3.4.2 Áßóéîð 2

Í ǎǎýðǎñîð ǎßóéîð ǎßíǎé áðßóçð áðîðÝéǎóíǎ òçð ǎíóíéðð make release éǎðÛ Ýíǎ ìǎǎÛéí ìÝñîð. Áðòüð ì ǎßóéîð ðǎñéÝ÷ǎé Ýíǎ “live filesystem” ðîõ ìðññǎß íǎ ÷ñçóéíðíéçéǎß áðü òî sysinstall(8) ǎéǎ íǎ ǎíǎðǎóóíýí ðñíǎéðíǎóǎ óǎ íéǎ ǎǎéǎðÛóðǎóç òîõ FreeBSD. Éé áðòüð ì ǎßóéîð ðñÝðǎé íǎ ǎßíǎé bootable. Éǎ ðñÝðǎé áðßóçð íǎ ðǎñéÝ÷ǎé Ýíǎ óðíðéǎóíÝíí ǎíðßǎñǎóíí òîõ CVS repository óóíí éǎðÛéíǎí CVSROOT éǎé ǎǎßǎìǎóǎ áðü ǎìðñééÛ ðññǎñÛíǎóǎ óóíí éǎðÛéíǎí commerce.

3.4.3 Áßóéíé 3 éǎé 4

Íé óðüéíéðíé ǎðí ǎßóéíé ðǎñéÝ÷ǎéí ǎðéðñüóéǎðǎ ðǎéÝóǎ éíǎéóíééíý ǎéǎ òî FreeBSD. Óǎ ðǎéÝóǎ éǎ ðñÝðǎé íǎ ǎßíǎé ñǎǎíðíéçíÝíǎ, Ýðóé ðóðǎ éÛéǎ ðǎéÝóí íǎ ǎßíǎé óóíí ðǎéí ǎßóéí ìǎ üéǎ óǎ ðǎéÝóǎ áðü óǎ ñðíǎ ǎíǎñðÛóǎé ǎéǎ íǎ ǎǎéǎðǎóðǎéǎß éǎé íǎ òñÝíǎé. ðǎñéóóüðǎñǎð ðéçñîîññǎð ǎéǎ òçí ǎçíéîñǎßá áðòðí òüí ǎßóéüí ǎíǎóÝñííóǎé óóíí Ûñéñí Ç ÎñãÛîùóç éǎíóçð òüí ðǎéÝòüí Éíǎéóíééíý áðü Òñßóíðð (./releng-packages/article.html).

4 Áéǎíñð òüí Áêäüüóàùí

4.1 ÁíððçñǎðçðÝð FTP

¼ðǎí ç Ýéǎíóç ǎßíǎé Ýóíéíç, Ý÷ǎé ǎíééíǎóðǎß ǎéðǎíðð, éǎé Ý÷ǎé ðǎéǎðǎñéóðǎß ǎéǎ ǎéǎíñð, ì éýñéîð FTP ǎíððçñǎðçðð ðñÝðǎé íǎ ǎçíǎñüéǎß. Íé áðßóçíéé ǎíððçñǎðçðÝð FTP òîõ FreeBSD ǎßíǎé üéíé mirrors ǎíüð éýñéîð ǎíððçñǎðçðð óóíí ñðíßí Ý÷ǎéí ðññóǎǎóç ìüíí Ûééíé FTP ǎíððçñǎðçðÝð. Áðòüð ì ǎíððçñǎðçðð ǎßíǎé ǎíüóðüð ùð ftp-master. ¼ðǎí ç Ýéǎíóç ǎßíǎé Ýóíéíç, ðñÝðǎé íǎ ǎçíǎñüéíýí óǎ ðǎñǎéÛòü ǎñ÷ǎßǎ óóíí ftp-master:

[/pub/FreeBSD/index.html](#)

λέα ἀδῆP web οἶαῖβᾶᾶ ὄιῳ ὄᾶῖῆY ÷ ᾶῖ ᾶῖβῆοᾶῶ οᾶ ᾶῖUοῖῖῖῖῖῖ οῖῖᾶῖῖῖῖῖῖ FTP ῖᾶῖῖῖῖῖῖῖ ᾶῖᾶ οῖῖ ὀῖY ÷ ῖῖῖᾶ Yῖᾶῖῖῖῖ ὀῖῖ FreeBSD.

```
/pub/FreeBSD/releases/arch/x.y-RELEASE/
```

Í éadóUeräno ádu öiri rðirBi iðinryí íá áBrrðí ääéáoáoóóÜöáoéð iYóu FTP, üðuð öiri Y÷äé ðnriáoieiÜöáé ç áfóieP make release.

```
/pub/FreeBSD/ports/arch/packages/packages-X.Y-release/
```

¼ëá ôá ðñĩĩãôããëùôôéóìÝíá ðáéÝôá ãéá ôçì ôñÝ÷ĩõóá Ýëäĩõç.

```
/pub/FreeBSD/releases/arch/X.Y-RELEASE/tools
```

Îéá óõïâîëëêP óõïôùîâõóç ãéá ôîí êáôÛëîãî .../.../.../tools.

/pub/FreeBSD/releases/arch/X.Y-RELEASE/packages

```

λέά όοίâîëëêP όοίôùîâóóç äéá ôîí êáoÜëîāī .../.../ports/i386/packages-X.Y-release.

```

```
/pub/FreeBSD/releases/arch/ISO-IMAGES/X.Y/X.Y-* .iso
```

Ôá áñ÷åßá ISO.

Ἄεά ḁāñēōōūōāñāō ḁēçñīōīñḁāō ó÷āōēēŬ īā ôçī īñāŬīūōç ôūī mirror āēāñḁō FTP ôīō FreeBSD, ḁāñāēāēḁ āāḁōā ôī Ŭñēñ ŌōēŬ÷īīōāō Ḃīā FreeBSD mirror (../hubs/).

Ιδιόηα ίά θΰνηαε αήεαοΎο ηηαο αδϋ όςί οόέαηθ όιρ έα αίγλαήνυέαβ ι ftp-master ιΨ ÷ ήέ ίά αίγλαήνυείρϊ όόςί
δεάείθςόβα όιρδ όά δηηόιρ άδεθΎαίρ FTP mirror ία όςί ρΐΎά Ύέαίρς. Άδέαΰέαόάε ιε οδαΐέοήιε Ύέαίρςδ ίά
οόίάψήςείρϊ ία όςί ϑέαέοήίέη έβόόά ουί mirror sites όιρ FreeBSD
(http://lists.FreeBSD.org/mailman/listinfo/freebsd-hubs) δήεί αίάέίέρπρίοι όςί αάίέη έέαέαόείυόςόά όςδ ρΐΎά
Ύέαίρςδ οόιρδ αίρδϑήαόςόΎο FTP.

4.2 Àíáðáñáũùã òúi CD-ROM

[illegible]

5 Åăăêôáóéìüôçôá

[illegible]

5.1 Äçĭēĭōñāßá ÐñĭóáñĭōĭÝĭñĭ Äéóēāōōþĭ Äēēßĭçóçð.

ÐĭēēÝð āāēāóáóōŨóāēð Ý÷ĭōĭ ðĭēýðēĭēāð áðāēðþóāēð ðĭō ĭðĭñāß ĭā òç óāēñŨ ðĭōð ĭá áðāēðĭýĭ òçĭ ðñĭóēþēç ðñāēóóüðāñĭ ĭāçāþĭ Þ āñāāēāßñĭ ÷ñþóçç òóēð āēóēÝððāð āāēāðŨóóáçðð. Ĩ “ĭðāēŨēēēĭð” òññðĭð ĭá ðĭ ēŨĭāðā áððü āßĭāē ĭá ēŨĭāðā òēð āēēāāÝð óāð òñĭ ēāðŨēĭāĭ ðĭō Ý÷āē äōĭēĭŨóāē ĭāðŨ ðĭ òÝēĭð òçð ç āēāāēēāóßá make release:

- ÐāñŨóðā òā patches óāð Þ ðñĭóēÝóðā òā āðēðēÝĭñ āñ÷āß ĭÝóā òñĭ ēāðŨēĭāĭ chroot òçð Ýēāĭóçð.
- `rm ${CHROOTDIR}/usr/obj/usr/src/release/release.[59]`
- ĭāðāāēüððóðā ðŨēē òĭ sysinstall(8), òĭ ðñþĭāĭ, Þ ũðĭēā Ũēēā ðñĭāñŨñāðā Ý÷ĭōĭ āðçñāāóðāß áðü òēð āēēāāÝð óāð.
- `chroot ${CHROOTDIR} ./mk floppies`

ĭē ĭÝāð āēóēÝððāð āāēāðŨóóáçðð ēā äçĭēĭōñāçēĭýĭ òñĭ ēāðŨēĭāĭ \${CHROOTDIR}/R/stage/floppies.

ĀĭāēēāēðēēŨ, ĭðĭñāßðā ĭá ÷ñçóēĭðĭēþóāðā òĭ make target boot.flp, Þ ĭðĭñāßðā ĭá òñÝĭāðā áðāðēāßāð òĭ script ðĭō äçĭēĭōñāßá òā òðððĭāðā āñ÷āßñĭ src/release/scripts/doFS.sh.

ĭðĭñāßðā āðßóçð ĭá ēāñĭßóðāð þóðā āēēÝð óāð āēēāāÝð ĭá ðñāāóðĭýĭ ĭā ĭññðþ patch òçĭ Ýēāĭóç ũðüð ēā òēēŨ÷ĭāðāē, āßñĭðāð òēĭþ òçĭ ĭāðāāēçðþ LOCAL_PATCH ũðāĭ òñÝĭāðā òçĭ āĭðĭēþ make release.

5.2 Ðñĭāñāĭāðßæĭĭóāð òĭ sysinstall

Ōĭ āñāāēāßĭ āāēāðŨóóáçðð ēāē ñýēĭóçðð òĭō FreeBSD, òĭ sysinstall(8), ĭðĭñāß ĭá ðñĭāñāĭāðēóðāß āēā ĭá ēŨĭāē ðēĭ āýēĭēāð òēð áðññāðĭðĭēçĭÝĭāð āāēāóáóōŨóāēð òā ðĭēēŨ ĭç÷āĭþĭāðā. Áððü òĭ ÷āñāēðçñēóðēēü òĭō ðñĭāñŨñāðĭð ĭðĭñāß ĭá ÷ñçóēĭðĭēçēāß òā òñĭāðāóĭñ ĭā ðĭ PXE[13] òçð Intel āēā ĭá ĭāēēĭþóāē ç āāēāðŨóóáçðð áðü òĭ āßēððĭ, Þ òā òñĭāðāóĭñ ĭā ðñĭóáñĭōĭÝĭāð āēóēÝððāð āēēßĭçóçðð ēē Ýĭā sysinstall script. ĭá ðāñŨāāēāĭā áðü òÝðĭēĭ sysinstall script ĭðĭñāßðā ĭá āñāßðā òðĭ āñ÷āßñĭ src/release/sysinstall/install.cfg.

6 ĭāēþĭāðā ðĭō Ðþñāĭā áðü òçĭ êäĭóç 4.4 òĭō FreeBSD

Ç āēāāēēāóßá āðĭēĭāðāð òçð Ýēāĭóçð 4.4 òĭō FreeBSD ĭāēßĭçóçā āðßóçĭā òçĭ ĭç Áðāĭýóðĭð 2001. ĭāðŨ áðü áððþ òçĭ çĭāññĭçĭā, ũēāð ĭē āēēāāÝð òñĭ ēĭñĭñ RELENG_4 òĭō FreeBSD Ýðñāðā ĭá Ý÷ĭōĭ Ýāēñēóç áðü òçĭ ĨŨāā ĨñāŨñóçð òñĭ Āēäüóäñĭ <re@FreeBSD.org>. Ç ðñþçç āĭēēĭāóðēēþ Ýēāĭóç āēā òçĭ āñ÷ēðāēðĭēēþ x86 Ýāēĭā āēāēÝóēĭç òóēð 16 Áðāĭýóðĭð, ēē āēĭēĭðēþēçēā áðü 4 āēñĭā āĭēēĭāóðēēÝð āēäññāēð ðĭō ĭāþāçóāĭ òçĭ òāēēēþ Ýēāĭóç òóēð 18 òĭō ÓāððÝĭāñç. Ĩ òðāýēðñð áóðŨēāēāð Ýðāēĭā òçĭāĭðēēññēĭ ēāðŨ òçĭ āēŨñēāēā òçð òāēāððāßāð āāāñŨāāð ēāēþð ēŨðĭēā ðñĭāēþĭāðā áóðŨēāēāð āñÝēçēāĭ òā ðñĭçāĭýĭāĭāð, āĭēēĭāóðēēÝð āēäññāēð. ÓññēēēŨ, ðŨĭñ áðü 500 email òðŨēēçēāĭ òçĭ ĨŨāā ĨñāŨñóçð òñĭ Āēäüóäñĭ <re@FreeBSD.org> òā āēŨóçĭā ĭēēññðāññ áðü Ýĭā ĭþĭā.

Ç ēĭēĭñóçðā òñĭ ÷ñçóðþĭ ĭāð Ýēāĭā óāðÝð ũðē ç áóðŨēāēā ēāē ç óðāēāñññóçðā ĭēāð Ýēāĭóçð āāĭ ēŨ 'ðñāðā ĭá ēððēŨæāðāē āēā ēāĭāññ ðāññð ðñĭēāóĭßāð Þ çĭāññĭçĭāð ðĭō Ý÷ĭōĭ òāēāß óāĭ òðü ÷ĭē áðü ðñēĭ. Ōĭ FreeBSD Ý÷āē ĭāāāēþóāē āñāĭāðēēŨ ēāðŨ òç āēŨñēāēā òçð æñþð òĭō óāĭ óýóççĭā, ēāē ç āĭŨāēç āēā óðāēāñēĭÝĭç ðĭēðēēþ ēāē ĭñāŨñóçç āēā òçĭ äçĭēĭōñāßá ĭÝñĭ āēäññāñ āßĭāē ðēÝĭñ óāĭāñþ ðñāēóóüðāññ áðü ðĭōÝ. Áððþ ç āĭŨāēç ēā āßĭāē āēñĭā ðēĭ çĭāĭðēēþ ēāēþð òĭ FreeBSD ēā āñ÷āßāē ĭá ĭāðāýŨñāðāē òā ĭÝāð ðēāðñññāð.

7 ÌǎĕĕĩĩôéêÝò Êáôǎõèýíóǎéò

[illegible]

- [illegible]

8 Ã÷áñéóôßàò

Εὰ Πεᾶέα ἰά ἀο÷ἀνεόόΠουὸ οῖν Jordan Hubbard, θῖο ἱτὸ Ὑάουα ὀγί ἀδεᾶένβΑ ἰά δῦΝὺ ἐὔθιερά αἴυ ὀγί ἀδῆγίς ὀδυ ὘εᾶιτόϗ 4.4 οῖο FreeBSD, εᾶεϑ ἕᾶε ᾶεᾶ ὑεϗ ὀγί ᾶιρεᾶεὔ θῖο ὘÷ᾶε ἐὔἰᾶε ᾶᾶρ ἕᾶε ÷νῡἰεᾶ ᾶεᾶ ἰά ᾶβἰᾶε οῖ FreeBSD ἀόου θῖο ᾶβἰᾶε οᐒἰᾶᾶ. Ὄοόεὔ, ϗ ὘εᾶιτόϗ ᾶᾶρ εᾶ Ρῃᾶί θῖο ὘ ᾶοἰᾶούἰ ἰά ἱεῖἔεϗνῡεᾶβ ÷νβῃδ ὑεϗ ὀγί ὄ÷ᾶόεᐒ ἰᾶ ὀγί ὘εᾶιτόϗ ᾶιρεᾶεὔ θῖο ὘εᾶἰᾶ ἱέ Satoshi Asami <asami@FreeBSD.org>, Steve Price <steve@FreeBSD.org>, Bruce A. Mah <bmah@FreeBSD.org>, Nik Clayton <nik@FreeBSD.org>, David O'Brien <o'brien@FreeBSD.org>, Kris Kennaway <kris@FreeBSD.org>, John Baldwin <jhb@FreeBSD.org> ἕᾶε ὑεῖἔ ἱέ ὀδυῖεἰθεῖε θῖο ἀό÷ἱεῖγἰᾶε ἰᾶ ὀγί ᾶῖὔθῃὀῖθ ὀῖο FreeBSD. ÈὔÈὔ ᾶθᐒὅϗ ἰᾶ ἀο÷ἀνεόόΠουὸ οῖο Rodney Grimes <rgrimes@FreeBSD.org>, Poul-Henning Kamp <phk@FreeBSD.org>, ἕᾶε ὑεῖτοδ ὀῖτοδ ὘εῖτοδ θῖο ᾶᾶᯚᵂὀὀεᾶί ᾶεᾶ ἰᾶ ὀόεὔἡῖο ὀᾶ ᾶᾶᾶεᾶᐒ ᾶεᾶ ὀόδ ᾶεᾶὑᾶόδ ὀόόδ θᾦΡᾶὀ ἰᯚᾦᾶὀ ὀδυ ᾶῖεῖ῏ᾶᐒᾶὀ οῖο FreeBSD. Ἀόου οἰ ὘ᾦᾦᾦ ὘÷ᾶε ᾶὗ὇ᾦᾶὀᾶᐒ ᾶὑ ἕᾶᐒἰᾶ ὄ÷ᾶόεὔ ἰᾶ ὀγί ἡᾦᾶὔἡὁϗ ὀῡ ᾶεᾶὑᾶὀῡἰ ᾶὑ οῖ CSRG[14], ὀγί ἥὔᾶᾶ οῖο NetBSD[11], ἕᾶε ὀγί θᾦῡὀᾶὀ ᾶεᾶ ἱεᾶ ᾶεᾶᾶεᾶὀᐒ ἡᾦᾶὔἡὁϗ ὀῡ ᾶεᾶὑᾶὀῡἰ οῖο John Baldwin[12].

9 ÁíáöïñÝò

- [1] CVS - Concurrent Versions System <http://www.cvshome.org>
- [2] CVSup - The CVS-Optimized General Purpose Network File Distribution System
<http://www.polstra.com/projects/freeware/CVSup>
- [3] <http://bento.FreeBSD.org>
- [4] FreeBSD Ports Collection <http://www.FreeBSD.org/ports>
- [5] The libh Project <http://www.FreeBSD.org/projects/libh.html>

- [6] FreeBSD Committers
http://www.FreeBSD.org/doc/en_US.ISO8859-1/articles/contributors/staff-committers.html
- [7] FreeBSD Core-Team http://www.FreeBSD.org/doc/en_US.ISO8859-1/articles/contributors/staff-core.html
- [8] FreeBSD Handbook http://www.FreeBSD.org/doc/en_US.ISO8859-1/books/handbook
- [9] GNATS: The GNU Bug Tracking System <http://www.gnu.org/software/gnats>
- [10] FreeBSD PR Statistics <http://www.FreeBSD.org/prstats/index.html>
- [11] NetBSD Developer Documentation: Release Engineering <http://www.NetBSD.org/developers/releng/index.html>
- [12] John Baldwin's FreeBSD Release Engineering Proposal <http://people.FreeBSD.org/~jhb/docs/releng.txt>
- [13] PXE Jumpstart Guide http://www.FreeBSD.org/doc/en_US.ISO8859-1/articles/pxe/index.html
- [14] Marshall Kirk McKusick, Michael J. Karels, and Keith Bostic: *The Release Engineering of 4.3BSD*
(<http://docs.FreeBSD.org/44doc/papers/releng.html>)