

# ÃâêáôÛóôáóç áíüò CVS Repository — ï ôñüðïò ôïõ FreeBSD

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\$FreeBSD: release/8.4.0/el\_GR.ISO8859-7/articles/cvs-freebsd/article.xml 39632  
2012-10-01 11:56:00Z gabor \$

ΔιάöιάôêêÛ Äêêáéþιάôá © 2001, 2002, 2003 Stijn Hoop

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Ôï FreeBSD áβιάé Ýία éáôï÷ ðñüìÝïí àìðñéêêü óýìáïëï òïõ FreeBSD Foundation.  
ÐïêêÛò áðü óéò ëÝíáéò þ òñÛóáéò ïé ïðïßáð ÷ ñçóéïïðïëïýíóáé áðü òïõ éáóáóéáóáóôÛò þ òïõ  
ðüêçôÛò òïõ áéá íá áéáêñßïïí óá ðñïüüíóá òïõ èäüñïýíóáé àìðñéêêü óýìáïëá. ¼ðïõ áðôÛò  
àìðáíßæïïóáé óá áðü òï èáßíáïí éáé áéá ùóáð áðü áðôÛò àíüñßæáé ç ìïÛáá ÁíÛððôçò òïõ FreeBSD ùóé  
áβιάé ðééáíüí íá áβιάé àìðñéêêü óýìáïëá, éá ááßóá Ýία áðü óá óýìáïëá: “TM” þ “®”.

Ôï Ûñèñï áðü ðáñéáñÛóáé óá áßιάóá ðïõ Ýéáíá áéá íá áäéáóáóðþü Ýία CVS repository ðï ÷ ñçóéïïðïëïáß  
óá βáéá áñ÷áßá àÝóçð áñóïëþï (scripts) íá áðôÛò ðï ÷ ñçóéïïðïëïáß éáé òï FreeBSD project óçç áéêþ ðïõ  
áäéáðÛóáóç. Ç óðáéáñéïíÝç ðñïýÝáéóç Ý÷áé áñéáðÛò ðéáíáéðßιάóá Ýíáíóé ïéáð òððïðïëïýíóç CVS  
áäéáðÛóáóç, ùððò ðëï èäðñáñþ Ýéá÷÷ ðñüóááóçð óðï àÝíóñï òï èþáééá éáèþ éáé áðüüíáð  
ðáñááüþ áðáíÛáíóðñí email íá èäðñÝñáéð áéá èÛéá áééáþ óðï ðçááßï èþáééá (commit).

## 1 Áéóáãüãþ

Ôá ðáñéóóüðáñá projects áéáýéáñï ëïáéóïëéïý (free software) éáé áñé÷÷ïý èþáééá (open source) ÷ ñçóéïïðïëïýí òï  
CVS óáí óýóçç íá áéÝá÷÷ï òï èþáééü òïõ. Ðáñüëï ðï òï CVS áβιάé ðïëý éáéü óá áðüüí òï òñÝá Ý÷áé éé áðü òï  
íáñßáéü òï óá áéáððßιάóá éáé áäóíáíßáð. ïéá áðü áðôÛò óéò áäóíáíßáð áβιάé òï ùóé ç èïëþ ÷ ñþç èþáééá ïðñáß  
áñþáíñá íá ïáçáþóáé óá Ýíáí áéá÷÷áéóóéêü áðéÛéðç, áéáééü áí òðÛñ÷áé ç áðééðßá íá ðñïóáóáððïýí ïñóïÝíá  
èñïÛóéá òï àÝíóñï òï èþáééá áðü èïëþ ðñüóááóç.

Ç ïïÛáá ÁíÛððôçò òïõ FreeBSD ÷ ñçóéïïðïëïáß áéðáñþ òï CVS. ÁéáéÝóáé áððóçð ïéá ïááÛéç áÛóç áðü  
ðñáñáíáíáðéóôÛò áðü ðïêêÛò áéáíñáðééÝð ÷ þñáð. Áíáððý÷÷éáí èïëðñí ïáñééü áñ÷áßá àÝóçð áñóïëþ áéá íá  
èÛñïí ðçç áéá÷÷áñéóç òï repository ðëï áýéïç. Ðñüóááóá óá áñ÷áßá áðôÛò áíáéáññþçéáí éáé éáñíééïðïëïýí  
áðü òï Josef Karthausser <joe@FreeBSD.org> áéá íá áβιάé ðëï áýéïëï íá ÷ ñçóéïïðïëïýí éáé óá Ûééá Ýñáá. Ôï  
Ûñèñï áðü ðáñéáñÛóáé ïéá ïÝéïñ ÷ ñþçð áððñï ðñí íÝñí áñ÷áßá àÝóçð áñóïëþ.

Ἀέα ἰά ἰδῖν Ὑοὰὸ ἰά ÷ ἡς οἰρῶι εἰσὶ πᾶσιν ἰά οἱ ἐαεῦσάνι ὀνηθῖ οἰὸ δῆς ἡν ἰοῖν βαδ ἀοῖ ὅτῳ ὕπνετο ἐα θη Ὑδαε ἰά  
ἀφῖν βαδᾶσιν οἰὸ ἀσῶε Ὑο ἰαεὺσάντῳ ἐαεῖσιν ἡν βαδ ὅτῳ **CVS**.

## 2 Đñþôç ÃẽêáôÛóôáóç

[illegible]

## 2.1 Áñ÷éêïðïßçóç ôïõ repository

Οι ὁηρῶι ὁηῦᾶι ὁῶ εᾶ ὁηῦᾶε ἰᾶ εῦἰᾶῶ ὑῶἰ ὀῶᾦᾶῶ ῒἰ ἰῦἰ repository ᾶἰᾶᾶ ἰᾶ ᾶᾶῶ ὀῶἰ CVS ἰᾶ ὀἰ  
 ᾶἢ÷ἑἰᾶἰᾶᾶ:

```
% cvs -d path-to-repository init
```

Áðöü ëÝæé öôi **CVS** íá äciéiõñãÞóæé öôi öÜêæi æéá÷ ðñéócò **CVSROOT**, üðïö öðiaáßiïí üêò íé ðánaiaðñiðieÞóæéð.

## 2.2 C iñÜää ôiõ repository

Όπως έα άγιείονάΠοίονά όςί νΰάά όόςί ιδίβά έα άίΠέάε όί repository. ¼είε ίε committers έα δñÝδαέ ίά άίΠείοί όά άόδΠ όςί νΰάά, πόόά ίά ιδñίίί ίά άñÜοίό όόί repository. Άέά όί όείδñ άόδñ έα ÷ñςόέιδñΠοίονά όςί βάέά νΰάά δñ ÷ñςόέιδñέάβ άέ' άόδñ όί όείδñ έάέ όί FreeBSD, όςί νΰάά ncvs.

```
# pw groupadd ncvs
```

ÌàòÜ, èà ðñÝðàé íá àèòàéÝóàòà òçí áíòíèÞ chown(8) óðíí öÜèàèí ìá ðánÜìàòíí òçí ñÜáá ðíò ìüèèð ðñíòéÝóáòà, èÝòííóáð Ýóóé òçí ñÜáá óòçí ìðíßá áíðèàé ì èáðÜèíàð:

```
# chown -R :ncvs path-to-your-repository
```

Áõôü âíáóöäëβææ üôé êáíáβò äáí èà ìðĩñáβ íá ãñÛøæé óôĩ repository áí äáí áíÐêæé óôcí óúóôÐ ñÛäá.

## 2.3 Đáßñĩĩĩôáo ôĩĩ ỏçãáßĩ êpăéeêá

[illegible]

## 2.4 ÁíóéãñÜöííôáò ôá scripts ôíõ FreeBSD

ἄφωδᾶνα, ἀφωέανῶροισι οἱ ῥααβὶ ἐπαέέα αἰο οἱ CV\$ROOT εἰοῦῆιαι οἷο FreeBSD οἱ ἀέέυ ιᾶο repository. Αἱ ἁβωᾶ ὀφίεέοι ῶρο ιᾶ οἱ CVS, βωοο ιᾶ οᾶο ὄανῶοᾶ αἰο οἱ ιοᾶέι ιᾶ ὄνιᾶοᾶβωᾶο ιᾶ εῦιᾶοᾶ import ὀᾶ scripts, ὀᾶ ιᾶ

[illegible]

Άἱ ἁβιάε ἐαέ οὐοῖ ὀρίαιόεεῦ οἱ αἱ ς ὀανάδῶῦ ὀάνῶἁνάοῖδ ἁαῖ ὀαὸ ὀάβῶἁόαε ὀῖῖῖ ἱαέῦεἁἁἁ—οἱ ὀἁέεεῦ ἁδῖοῦῖῖῖῖῖ  
 ἁβιάε οἱ βᾶεῖ. Ἄδῶῦ ἁεῦἁῖὀἁ οἱῖ `CVSROOT` ὀῦῖῖῖ ἁέε αἱόεἁἁῦὀῖὀἁ ὀἁ `FreeBSD` ἁἁ÷ἁβᾶ ὀῦῖῖ ἁδῖ ὀἁ ἁέεῦ ὀαὸ  
 ὀἱὀέεῦ (ἁὀἁβᾶ÷ὀἁ) αἱὀβᾶἁἁὀἁ:

```
% cvs -d path-to-your-repository checkout CVSRROOT
% cd CVSRROOT
% cp ../CVSRROOT-freebsd/* .
% cvs add *
```

[illegible]

## 2.5 Tá scripts

Ὁπρᾶ Ὡ÷ὰὸα ὁδῆι ὁὔεαῖρ ἁναὰὸβαὸ ὁὰὸ Ὡῖα ἀεῖνᾶῖὸ ἀὶὸβαῖαῖὸ ὁῖρ scripts ὁῖρ ὁῖ βαῖῖ ὁῖ FreeBSD project ÷ ἡῖὸῖῖῖῖῖῖ ὁδῆι ἀεῖῖ ὁῖὸ repository. Ἰῖᾶ ὁᾶῖῖῖῖῖ ὁῖὸ ὁᾶ ὁῖ ÷ ἡῖὸῖῖῖῖῖ ὁῖ eὔᾶ ἁῖ ÷ ᾶῖ ὁᾶῖῖῖῖῖῖῖῖῖῖ ὁᾶῖῖῖῖῖῖῖῖῖῖ.

- `access` - οἱ ἀν÷ἄβι ἀδού ἀὰ ÷ ñçóεἰῖῖεἶἄβδᾶέ ὀδέδ ὀῖçééοἱÝῖᾶδ ἄἄἔᾶδᾶὀὀὀὀὀὀ **CVS**. × ñçóεἰῖῖεἶἄβδᾶέ ἱῖῖ ὀὀçῖ ἄἔἔἔἔἔἔ ἄἔἔᾶὀὀὀὀὀὀ ὀῖῖ FreeBSD project, ἄἔᾶ ἰᾶ ἄἔÝᾶ÷ᾶὀᾶἔ ç ðñüὀᾶὀὀç ὀὀῖ repository. Ἰὀῖῖἄβδᾶ ἰᾶ ἄὀἔῖῖÝὀᾶὀᾶ ἄὀὀ ὀἱ ἀν÷ᾶβι ἰᾶ ἄἄῖ ὀᾶὀ ἰᾶἔᾶὀὀÝῖἄἔ ἰᾶ ÷ ñçóεἰῖῖεἶἔἔἔἔἔἔ ἔὀὀἔ ὀÝὀἔἔἔ ὀὀç ἄἔἔἔ ὀᾶὀ ἄἄἔᾶὀὀὀὀὀὀ.
- `avail` - οἱ ἀν÷ᾶβι ἀδού ἄἔÝᾶ÷ᾶἔ ὀçῖ ðñüὀᾶὀὀç ὀὀῖ repository ἰᾶὀὀ ἔᾶὀὀἔἔἔἔἔἔ ἔᾶ ἰᾶ ἄὀἔῖῖἄβδᾶ ἰὀὀᾶὀ ÷ ñçóὀἔἔ ὀὀῖὀὀ ἰὀἔἔἔὀὀ ἔÝἔᾶὀᾶ ἰᾶ ἰᾶὀᾶὀᾶ ðñüὀᾶὀὀç ὀὀῖ repository, ὑὀὀὀ ἄὀὀὀçὀ ἔᾶἔ ἰᾶ ἰὀἄἄἄἄἄἄÝὀᾶὀᾶ commits ὀᾶ ἄὀὀὀᾶἄἄἄἄ ἔᾶὀἔὑἄἄἄἄ ἔᾶ ἰᾶ ὀἱ ðñüὀᾶἄἄὑὀᾶὀᾶ ὀὀᾶ ἰᾶ ὀᾶἄἔÝ÷ᾶἔ ὀἔὀ ἰὀὀᾶὀ ÷ ñçóὀἔἔ ἔᾶἔ ὀῖὀὀ ὀᾶἔÝἔὀὀὀ ὀῖὀ ἔᾶ ὀὀὀἄἄ÷ἔἔἔ ὀὀῖ ἄἔἔὑ ὀᾶὀ repository.
- `cfg.pm` - οἱ ἀν÷ᾶβι ἀδού ἰἄἄῖçῖᾶἔ ὀἔὀ ἄὀἔἔἔὀᾶὀ ὀᾶὀ ἔᾶἔ ὀᾶἄÝ÷ᾶἔ ὀἔὀ ἰᾶ ἰἄἔὀῖᾶ ἄὀἔἔἔὀᾶὀ. Ἀἄῖ ὀᾶἄÝὀᾶἔ ἰᾶ ἄἔἔὀἄὀᾶ ἄὀὀ ὀἱ ἀν÷ᾶβι. Ἀἰὀἔἔᾶὀᾶ, ἔᾶ ὀᾶἄÝὀᾶἔ ἰᾶ ὀἱὀἔἔᾶὀὀὀᾶ ὀἔὀ ἄἔἔÝὀ ὀᾶὀ ἄἔἔᾶÝὀ ὀἔὀὀ ἄὀἔἔὀᾶὀ ὀὀῖ ἀν÷ᾶβι `cfg_local.pm`.
- `cfg_local.pm` - οἱ ἀν÷ᾶβι ἀδού ὀᾶἄἔÝ÷ᾶἔ ὀἔὀ ὑἔᾶὀ ὀἔὀ ἄὀἔἔᾶὑἄἄἄἄ ὀᾶἄἄἄÝὀἄἄἄἄ ὀῖὀ ὀὀὀὀὀᾶὀὀὀ. ἔᾶ ὀᾶἄÝὀᾶἔ ἰᾶ ἔὀὀᾶὀ ἰὀἔἔᾶὀὀὀᾶ ἄὀἔἔὀᾶὀ ὀᾶὀ ἄᾶἔ, ὑὀὀὀ ὀᾶ ὀἔἔᾶ ἄἔᾶἔὀὀὀç ἔᾶ ὀὀÝἔἄἄὀᾶ ὀᾶ email ἄὀὀ ἔὀἔᾶ commit, ὀᾶ ὀἔἔὀὀὀ ἄὀὀ ἔᾶ ἄὀἔὀἄἄÝὀᾶὀᾶ ἰᾶ ἄἄἄἄὀᾶἔ commit, ἔἔὀ. ὀᾶἄἔὀὀὀὀᾶἄὀ ὀἔçἄἄἄἄἄὀ ὀ÷ᾶὀἔἔὀ ἰᾶ ἄὀὀ ἔᾶ ἄἄἄὀᾶ ὀᾶἄἔὀὀ.
- `checkoutlist` - οἱ ἀν÷ᾶβι ἀδού ὀᾶἄἔἔἄἄὀᾶὀ ὑἔᾶ ὀᾶ ἀν÷ᾶβᾶ ὀῖὀ ἄἄὀἔἄἄὀᾶἔ ἔὀὀὀ ἄὀὀ ὀῖὀ ἔἔᾶ÷ἔἔ ὀῖὀ **CVS** ὀὀῖὀ ἔᾶὀὀἔἔἔἔἔἔ ὀὀὀὀὀ ἄὀὀ ὀᾶ ὀἄἄἔἔἄἄἄἄἄἄἄἄ ἄụὀἔἔἔἔἔἔ ἄἰὀἔἔἔ `cvs init`. ἔᾶ ὀᾶἄÝὀᾶἔ ἰᾶ ὀἱ ἄἔἔὀᾶὀᾶ ἄἔᾶ ἰᾶ ἄὀἔῖῖÝὀᾶὀᾶ ἰἄἄἔὀὀ, ὀ÷ᾶὀἔἔὀ ἰῖῖῖ ἰᾶ ὀἱ FreeBSD, ἀν÷ᾶβᾶ.
- `commit_prep.pl` - οἱ script ἄὀὀὀ ἄὀὀᾶἔᾶἄ ἄἔὀὀἄἄἄὀὀ ἄἔÝᾶ÷ἔὀὀ ὀἄἔἔ ἄὀὀ ἔὀἔᾶ commit, ἰᾶὀἔἔᾶ ἰᾶ ὀἔὀ ἄὀἔἔὀᾶὀὀ ὀῖὀ ἔ÷ᾶὀ ἔὀᾶὀ ὀὀῖ ἀν÷ᾶβι `cfg_local.pm`. Ἀἄῖ ἔᾶ ÷ ἄἄἔᾶὀὀᾶ ἰᾶ ὀᾶἄἄὀᾶὀ ἄὀὀ ὀἱ ἀν÷ᾶβι.
- `commitcheck` - οἱ script ἄὀὀὀ ἔᾶἔᾶὀᾶἔ ἰὀὀὀᾶὀᾶ ἄὀὀ ὀἱ **CVS**. ὀἄἄὀᾶ ἄἔÝᾶ÷ᾶἔ, ÷ ñçóεἰῖῖεἶἔἔἔἔἔἔ ὀἱ ὀἄἄἄἄἄἄἄἄ `cvs_acls.pl`, ἰᾶ ἰᾶ committer ἔ÷ᾶἔ ὀἄἄὀᾶὀç ὀὀῖ ὀὀἔἔἔἔἄἄἄἄἄἄἄ ἰÝἄἄἄ ὀῖὀ ἄÝἄἄἄἄ ὀῖὀ ἔἔᾶἔᾶ, ἔᾶἔ ἰᾶὀὀ ἄὀὀᾶἔᾶἄ ὀἱ `commit_prep.pl` ὀῖὀ ἄὀὀᾶἔᾶἄ ὀῖὀὀ ἄἔὀὀἄἄἄὀὀὀ pre-commit ἄἔÝᾶ÷ἔὀὀ. Ἀἰ ἄἄῖ ὀὀὀἄἄἄἄ ἔὀὀἔἔ ὀἄἄἔἔᾶ ὀὀὀὀ

æſŸa÷iðð æððŸyð, ðuðð ðŸ **CVS** èà àðèðñŸðæè ððŸ commit íà óðfà÷βóæè. Äáf èà ÷ñæèáóððβ íà ðæñŸŸàðð áððu ðŸ àñ÷àβŸ.

- [illegible]

[illegible]

- [illegible]

## 2.6 Ôñïðïðïépíôáò ôá scripts

[illegible]

1. Áí aái ēYēāōā íá ÷ñçóéúíðíēíPóāōā óēō ēāēōíōñāāōō óúí scripts íē íðíāō ÷ñçóéúíðíēíYíōāē āðíēēāēóōēēŪ āðū òí FreeBSD, íðíñāōā íá āōāēñYóāōā íā āóōŪēāēā òí āñ ÷āñ access:

```
% cvs rm -f access
```

2. Ἀείνεþþόα ὀι ἀν÷ᾶβι avail þόα ἰά ᾱᾶἔÝ÷ᾶέ ὀἰῶ ᾶέῬ῱῱῱῱῱ ὀᾶέÝ῱῱῱ ὀἰῶ repository ὀἰῶ ἱ῱῱῱῱ ῆÝ῱῱῱ ἰᾶ ᾶέÝᾶ῱῱ ὀ῱῱ ὀ῱῱῱῱῱. Ὄ῱῱῱ᾶ῱ὀᾶ῱῱ ῱῱῱ ῆᾶ ᾶ῱ὀ῱῱῱῱῱ ᾶ῱῱ᾶ ᾶ῱῱ᾶ῱ ὀ῱῱ | CVSROOT ᾶ῱῱῱῱, ᾶ῱῱῱῱῱ ῆᾶ ᾶ῱῱῱ᾶ῱῱῱ ᾶ῱῱ᾶ ῆᾶ ὀἱ ᾶᾶὀ῱ ὀᾶ῱ ἰᾶ ὀἱ ᾶὀ῱ᾶ῱ ᾶ῱ᾶ.

[illegible]

3. Αέινεηπόά οί άν÷άβι cfg\_local.pm πόά ίά άανέΥ÷άέ οέό άδέεραΥό ότö άδέεοιαβόά. Δεί οάάέάεινέΥία, έά όηΥάέ ίά άέΥάαόά οέό άάηάέÜü όηιόιόέπόέιαό άδέεραΥό:

- `%TEMPLATE_HEADERS` - ΆόόΥό ιέ άόέέάόάέβääό άάάίάñáŰæííóáé áđú óá log scripts, éáé òíðíèääòííóáé èŰòù áđú òí mail òíò èŰèá commit áí òðŰñ÷íòí éáé äáí äßíáé èáíŸó òòí íßíóíá òíò commit. ÄáíéèŰ, íðíñáßòá íá áóáénŸóáòá òéò éáóá÷ ùñßóáéò PR éáé MFC after—áóíŸ áóòŸó ò÷ äòßæííóáé íá òí bug tracking óýóóçíá òíò FreeBSD éáé òíí òñùðí ðíò áéá÷ áénñæáòáé òí FreeBSD óá branches òíò repository òíò. Éáé òòóéèŰ íðíñáßòá íá ðñíóéŸóáòá òéò äééŸó óáò.
- `$MAIL_BRANCH_HDR` - Áí èŸŸèáòá íá ðñíóðßèáòáé áóòùíáóá íéá áðéèáòáéßää óá èŰèá commit íßíóíá mail, ç íðíßá éá ðñéñáñŰóáé òí branch óòí íðíßí Ÿáéíá òí óòáèèñéíŸí commit, íñßóòá òçí òèíß áóòß íá óáéñéŰæáé íá òçí áéèß óáò äáèéáòŰóóáóç. Áòßóòá òçí èáíß áí äáí áðéèòíáßòá íá ðñíóðßèáòáé áóòùíáóá íéá óŸóíéá áðéèáòáéßää.
- `@COMMIT_HOSTS` - Íñßóòá òçí òèíß áóòß óá íéá èßóóá áđú óóóòßíáóá (hosts), áđú óá íðíßá áðéòñŸðáòáé íá äßíííóáé commits.
- `$MAILADDRS` - Ÿòèíßóòá áóòß òçí òèíß óòí email òíò áéá÷ áéñéóòß ß óá íéá áéáyèðíóç èßóóáò òóçí íðíßá èŸŸèáòá íá ðçääáßííòí óá mail òùí commit íçíòíŰòùí.
- `@LOG_FILE_MAP` - ÁèèŰíòá áóòù òí array ùðòù áðéèòíáßòá. ÈŰèá regexp áíðéóóíé÷ áß óòí óòáèèñéíŸí òŰèáèí óòíí íðíßí áßíáóáé òí commit, éáé òí log íßíóíá òíò commit áðíèçèáyáòáé èŰòù áđú òíí éáòŰèíäí CVSROOT, óòíí òðíéáòŰèíäí commitlogs, óòí äñ÷ áßí ðíò áíáóŸñáòáé òóçí áíóßóóíé÷ ç äääñáòß òíò ðßíáéá `@LOG_FILE_MAP`.
- `$COMMITCHECK_EXTRA` - Áí äáí èŸŸèáòá íá ÷ñçóéííðíéßóáòá òíòð ßáéíòð äèŸā÷íòð ðñùóááóçò íá òí FreeBSD, éá ðñŸðáé íá áóáénŸóáòá òíí íñéóíù òçò òèíßð `$COMMITCHECK_EXTRA` áđú òí äñ÷ áßí áóòù.

**Όχι!Βουό:** Ç äëäãP öçø ðãñáíYõññø §IDHEADER äßíáë äããöçíYññ üöë èä äñöëYðäë üññ óä ðëäðöññíàð FreeBSD. ÁíãñðÜðäë äðü äëäëëYð ïàðáðñññYð öñø FreeBSD óññ **CVS**.

Ἰδιναβόα ἰά ἀεΨάραόα ὀι ἀν÷αβῖ cfg. pm ἀέα ἰά ἀαβόα θιεΨό Ὑεεάο θαῖαῖΨὀνιροδ ἰθιναβόα ἰά ἀεεῤῗαόα, ἀεεῤ ἰε θαῖαόῤῗῦ ἀβῖάε ἰε ὀεί ὀῶῖῤεαέο ἀ῀εεῖαΨό.

4. Άðáíáñááóðáðá ðí áñ÷áßí exclude áέα íά áóáέñÝóáðá ðέð áέάέέÝð έάóá÷ññðάέð ðíð FreeBSD (üðüð üέάð ðέð áñáñÝð ðíð íάέέñíýí íά ^ports/ έðέ.). Άέðüð áððíý, áÜέðά óά ó÷üέέα ðέð áñáñÝð ðíð íάέέñíýí íά ^CVSROOT/, έάέ ðñíóέÝóóά íέα áñáñP ðíð έά ðáñέÝ÷άέ íüñí ðí ^CVSROOT/. Άóíý áάέάðάóðάέß í wrapper, íðñíáðá íά ðñíóέÝóóά ðí áέέü óáð header óóá áñ÷áßá ðíð áñðóέñíóάέ íÝóά óóñí έάðÜέíáñ CVSROOT έάέ íά áðάíáðÝñáðá ðέð áñáñÝð áððÝð, áέέÜ ðñíð ðí ðáññí áðέÜ έά óáð áçíέíñáðóíðí ðñíáέðíáðά üðáí έά ðñíóðáέðóáðά íά έÜíáðά commit áñäüðáñá.
5. Άñíßíðά ðí áñ÷áßí modules, έάέ áóáέñÝóóά üέάð ðέð ó÷áðέέÝð íά ðí FreeBSD έάóá÷ññðάέð. ðñíóέÝóóά óά áέέÜ óáð modules áí ðí áðέέðíáðá.
- 6.

**Όçíáßüóç:** Όí áðíά áððü áßíάέ áðáñáððçðí íüñí áí Ý÷áðά íñßóáέ έÜðíέα ðέíP óççí ðáñÜíáðñí \$IDHEADER ðíð áñ÷áßíð cfg\_local.pm (ç íðñá äíðέáýάέ íüñí áðüóñí ÷ñçóέñíðíέáßáðά óççí ðñíðñíέçíÝÝç Ýέáñóç ðíð CVS ðíð Ý÷άέ ðí FreeBSD).

Άέíñèðóáð ðí áñ÷áßí options þóðά íά óáέñέÜάέé íά ðí tag ðíð íñßóáðά óðí áñ÷áßí cfg\_local.pm. Íέα áíάάPðççç έάέ áíðέέáðÜóóáóç ðíð FreeBSD óά üέí ðí áñ÷áßí áßíάέ áñέáðP.

7. Άðáíáñááóðáðá ðí áñ÷áßí rcstemplate þóðά íά ðáñέÝ÷άέ óά ðάέά keywords íά áððÜ ðíð Ý÷áðά íñßóáέ óðí cfg\_local.pm.
8. ðñíάέñáðέέÜ, áóáέñÝóóά ðíðð áέÝá÷íðð ðíð FreeBSD áðü ðí áñ÷áßí tagcheck. Íðñíáðá áðέÜ íά ðñíóέÝóóά exit 0 óççí áñ÷P ðíð áñ÷áßíð áέα íά áðáíáñáñðíέPóáðά üέíðð ðíðð áέÝá÷íðð óðí tagging.
9. Όí óáέáððáßí ðñÜáíά ðíð ðñÝðáέ íά áßíάέ, áßíάέ íά óέáíñáðððáðá üέέ óά commitlogs íðñíýí íά áðíέçέáððíýí. Óά CVS scripts ðíð FreeBSD áðíέçέáýíðí áððÜ óά logs óðñí ððíέáðÜέíáñ commitlogs ðíð έάðάέüáñð CVSROOT. Άððüð í ðÜέáñðð ðñÝðáέ íά áçíέíñáççèß, íðüðά έÜíðά óά áέüέíðέá:

```
% mkdir commitlogs
% cvs add commitlogs
```

Όðñά, áóíý áέÝáñáðά óά ðÜíðά ðñíóáέðέέÜ, έá ðñÝðáέ íά έÜíáðά commit ðέð áέέάáÝð óáð. Öñííðßóá íά áßóáð óßáññíé üέέ Ý÷áðά áðóáέ óðñí ááððü óáð ðñüóááóç óðñí ðÜέáñ CVSROOT íÝóά áðü ðí áñ÷áßí avail ðñέí έÜíáðá íðέáððíðá, áðüóñí óççí áíðßèáðç ðáñßððüóç έά έέáέððáðά ðñí ááððü óáð Ýñ. Íðüðά, ðñííðßóáð óά ðÜíðά íά áßíάέ üðüð áðέέðíáðá, έάέ íüñí ðüðά áðóðά óά áέüέíðέá:

```
% cvs commit -m '- Initial FreeBSD scripts commit'
```

## 2.7 ΆíέέíÜάέííðάð óççí ΆάέáðÜóóáóç

Άßóðά Ýóíέíé áέα óççí ðñðçç óáð äíέέíP: íά forced commit óðí áñ÷áßí avail, áέα íά óέáíñáðððáðá üέέ üέá äíðέáýíðí üðüð έá Ýðñáðá.

```
% cvs commit -f -m 'Forced commit to test the new CVSROOT scripts' avail
```

¶í üέá ðÜíá έάέÜ, óðá÷áñçðPñέα! ,÷áðά έáðáðÝñáέ íά óððáðá íέα ðέPñüð έάέíñáέέP áάέáðÜóóáóç ðñí FreeBSD scripts áέα ðí repository óáð. Óççí ðáñßððüóç ðíð ðí CVS áíάέíñέèß íά ðáñáðñíέÝóáέ áέα έÜðέ, áðέóðñÝððά óóέð ðñíçáíýíáíð áíüðçðáð έάέ áέÝáñðά íáíÜ üέέ Ý÷áðά áέðáέÝóáέ óüóðÜ üέá óά ðñíçáíýíáíá áðíáðά.

### 3 Åéäêþ ÄãéáôÛóâáç ôïõ FreeBSD Project

Οι Βαέι οι FreeBSD project ÷ ηςοείηθιέας ιέα άεάοηθο άεάοιηάοέεθ άεάοÜóóáoς, ς ιθίβα ÷ ηςοείηθιέας άδθόçò  
 άη÷άβα άδθ οιθ οθροÜεάει freebsd οιθ CVSROOT θιθ ÷ ηςοείηθιέαςόάε όοι FreeBSD. Οι project ÷ ηάεÜεάόάε εÜóε  
 όÝοιέι ευάθ οιθ ιάάÜειθ άηέειρý όυι committers, θιθ άεάοιηάοέεÜ εά Ýθηάθ ιά άίθειθι υέιέ όοι Βαέι group. ρόε,  
 άçιέιθηάθεçεά Ýιáo άδευó wrapper ι ιθίβιθ άοίρ θηθόά άιáoóάεθάε όά όυόóÜ άεάέόόάθόθηέά όυι committers,  
 άεεÜεάε ιάόÝθάέόά όι group id όά άόόυ οιθ repository.

Ἄν ἐὰν οἱ ἀέεῦ ὁὰδ repository ÷ nāēŬāāḁāē eŬōē árŬērai, ὁὰ āPiáḁā ḁiō eā ḁnŬāē íā āēterōēPḁāḁā āēterōēŕí  
 ḁānāēŬōū. ÁēēŬ ḁnḁḁā ḁḁ eŬññā íēā ḁŕiōñc āḁēḁēuḁcḁc ḁūi ḁ÷ āḁēēŕi āñ÷ āāŭi.

### 3.1 Άν÷άΒα ðĩ ÷ñçóèìïðíéíýíôáé óôçí áéáéêþ åãéáôÛóôáóc ôĩ FreeBSD

- `access` - `οἱ ἀν÷ὰβι ἀδού` ἀέ Ἰα÷ἀέ οέδ δέçññöññßàð áéá óá áééáéñíáðá ðñúóááóçð. Èá ðñÝðáé íá οἱ áðáñáñááóóáßðá áñÙεἰάá Ἰóóé þóðá íá ðáñέέáñáÙíáé üéá óá ìÝέç öñð project óáð.
- `freebsd/commitmail.pl` - `οἱ ἀν÷ὰβι ἀδού` ááñ ÷ñçóεἰðñέáßðáé ðéá, áέέÙ ðáñáñÝíáé áéá éóóññέéñýð éúáñðð. Ááñ éá ÷ñáéáóóáß íá áðáñáñááóóáßðá áδού οἱ ἀν÷ὰβι.
- `freebsd/cvswrap.c` - ðñüéáéðáé áéá οἱ ðçááβι éþáééá öñð CVS wrapper ðñð éá ðñÝðáé íá ááéáóáóðþóáðá áéá íá ìðñÝóñññ üεἰé íé Ἰέáá÷íé ðñúóááóçð ðáééέÙ íá áññéÝñññ. Ðáñέóóúðñáðð δέçññöññßàð áéá ðç áéááééáóáß áððþ éá áñáßðá ðáñáέÙðù. Èá ðñÝðáé íá áέññéþóáðá óá paths óóéð ACCESS éáé REALCVS ìáέññáñññéÝð þóðá íá óáέññέÙεἰññ ìá ðç áέέþ óáð ááéáðÙóóáóç.
- `freebsd/mailsend.c` - `οἱ ἀν÷ὰβι ἀδού` ÷ñáέÙæáðáé áéá ðçñ ó÷áðéέþ ìá óéð éßóóáðð óá÷ðáñññáßñð ááéáðÙóóáóç öñð FreeBSD. Ááñ éá ÷ñáéáóóáß íá ðáέñÙíáðá οἱ ἀν÷ὰβι ἀδού.

### 3.2 Ç äéáäëêáóßá

1.  $\tilde{\text{A}}\epsilon\iota\eta\epsilon\pi\acute{o}\delta\alpha\ \acute{o}\iota\ \acute{\alpha}\eta\div\tilde{\text{A}}\beta\iota\ \text{access}\ \mu\acute{o}\delta\alpha\ \acute{\iota}\acute{\alpha}\ \delta\alpha\eta\epsilon\acute{\Upsilon}\div\acute{\alpha}\epsilon\ \acute{\iota}\upsilon\acute{\iota}\iota\ \acute{o}\iota\ \acute{\alpha}\epsilon\acute{\epsilon}\upsilon\ \acute{o}\acute{\alpha}\delta\ \text{username}.$
2.  $\tilde{\text{A}}\epsilon\iota\eta\epsilon\pi\acute{o}\delta\alpha\ \acute{o}\iota\ \acute{\alpha}\eta\div\tilde{\text{A}}\beta\iota\ \text{cvswrap.c}\ \mu\acute{o}\delta\alpha\ \acute{\iota}\acute{\alpha}\ \delta\alpha\eta\epsilon\acute{\Upsilon}\div\acute{\alpha}\epsilon\ \acute{o}\iota\ \acute{o}\upsilon\acute{o}\upsilon\ \text{path}\ \acute{\alpha}\acute{\epsilon}\acute{\alpha}\ \acute{o}\zeta\ \acute{\alpha}\epsilon\epsilon\text{P}\ \acute{o}\acute{\alpha}\delta\ \acute{\alpha}\acute{\alpha}\acute{\epsilon}\acute{\alpha}\acute{o}\tilde{\Upsilon}\acute{o}\acute{o}\acute{\alpha}\acute{o}\zeta. \acute{\text{A}}\acute{o}\delta\upsilon\ \acute{\iota}\eta\text{B}\acute{\alpha}\acute{o}\acute{\alpha}\acute{\epsilon}\ \acute{\iota}\delta\ \acute{\iota}\acute{\epsilon}\acute{\alpha}\ \acute{\iota}\acute{\alpha}\epsilon\eta\acute{\iota}\acute{\alpha}\acute{\iota}\acute{o}\iota\epsilon\text{P}\ \acute{o}\iota\acute{o}\ \acute{\iota}\eta\tilde{\Upsilon}\acute{\alpha}\acute{o}\acute{\alpha}\acute{\epsilon}\ \text{ACCESS}. \acute{\text{E}}\acute{\alpha}\ \delta\eta\acute{\Upsilon}\delta\acute{\alpha}\epsilon\ \acute{\alpha}\delta\text{B}\acute{o}\zeta\ \acute{\iota}\acute{\alpha}\ \acute{\alpha}\acute{\epsilon}\acute{\epsilon}\tilde{\Upsilon}\acute{\iota}\acute{\alpha}\acute{o}\acute{\alpha}\ \acute{\epsilon}\acute{\alpha}\epsilon\ \acute{o}\iota\ \acute{\iota}\upsilon\eta\acute{\alpha}\ \acute{\alpha}\eta\div\tilde{\text{A}}\beta\iota\acute{o}\ \acute{o}\iota\acute{o}\ \delta\eta\acute{\alpha}\acute{\iota}\acute{\alpha}\acute{o}\acute{\epsilon}\acute{o}\acute{\epsilon}\acute{\Upsilon}\ \text{cvs}\ \text{binary}\ \acute{\alpha}\acute{\iota}\ \acute{\alpha}\acute{o}\delta\text{P}\ \acute{o}\iota\acute{o}\ \acute{o}\delta\tilde{\Upsilon}\tilde{\text{N}}\div\acute{\alpha}\epsilon\ \acute{\alpha}\acute{\alpha}\ \acute{\alpha}\beta\acute{\iota}\acute{\alpha}\acute{\epsilon}\ \zeta\ \acute{o}\upsilon\acute{o}\text{P}\ \acute{\alpha}\acute{\epsilon}\acute{\alpha}\ \acute{o}\zeta\ \acute{\alpha}\epsilon\epsilon\text{P}\ \acute{o}\acute{\alpha}\delta\ \delta\acute{\alpha}\eta\text{B}\delta\acute{o}\delta\upsilon\acute{o}\zeta. \acute{\text{O}}\acute{\iota}\ \acute{\epsilon}\acute{\alpha}\eta\acute{\iota}\acute{\epsilon}\acute{\epsilon}\upsilon\ \text{cvswrap.c}\ \acute{\epsilon}\acute{\alpha}\upsilon\eta\eta\acute{\alpha}\ \delta\upsilon\delta\ \acute{\epsilon}\acute{\alpha}\ \acute{\alpha}\acute{\iota}\acute{o}\acute{\epsilon}\acute{\alpha}\acute{o}\acute{\alpha}\acute{o}\text{P}\mu\acute{o}\acute{o}\acute{\alpha}\ \acute{o}\zeta\acute{\iota}\ \acute{\alpha}\acute{\iota}\acute{o}\iota\epsilon\text{P}\ \text{cvs}\ \acute{o}\acute{\alpha}\ \acute{\alpha}\delta\text{B}\delta\acute{\alpha}\acute{\alpha}\ \acute{o}\acute{o}\acute{o}\text{P}\acute{\iota}\acute{\alpha}\acute{o}\iota\ \acute{\iota}\acute{\alpha}\ \acute{o}\iota\ \text{cvwrap}, \acute{\epsilon}\acute{\epsilon}\ \zeta\ \acute{\alpha}\eta\div\acute{\epsilon}\epsilon\text{P}\ \acute{\alpha}\acute{\iota}\acute{o}\iota\epsilon\text{P}\ \text{cvs}\ \acute{\epsilon}\acute{\alpha}\ \acute{\iota}\acute{\alpha}\acute{o}\acute{\alpha}\acute{o}\acute{\alpha}\eta\acute{\alpha}\ \acute{o}\acute{o}\iota\ \acute{\alpha}\eta\div\tilde{\text{A}}\beta\iota\ /\text{usr/bin/ncvs}.$

Ôi áéêü iîõ áíôßôõðî ôîõ ãñ÷ãßîõ cvswrap.c Ý÷áé ôá áéüëîëá:

```
#define ACCESS "/local/cvsroot/CVSR00T/access"
#define REALCVS "/usr/bin/ncvs"
```

- [illegible]

İlaââeüôôßôâ ôîî êbâeâ đĩö Ý÷ââ Pâc âeîñebôâe bôââ íá đăñeÝ÷âe ôâ ôuôôÜ paths:

```
% cc -o cvs cvswrap.c
```



[illegible]

```
# mv /usr/bin/cvs /usr/bin/ncvs
# mv cvs /usr/bin/cvs
# chown root:ncvs /usr/bin/cvs /usr/bin/ncvs
# chmod o-rx /usr/bin/ncvs
# chmod u-w,g+s /usr/bin/cvs
```

Ἄδου ἀαεάεεοόῦ οἱ wrapper οάι οçi αἱ ἱνεοῖιῡ cvs αἰοῖεP, εῦἱἱοάο Ὑοόε οβἱροῖἱ uόε ἰοῖεῖοἱPοῖοἱ εἰεPοἱε ἰά  
 ÷ἡçοῖἱἰεῖPοἱε οἱ repository, εἰ ḏἡὙἰἰε ἰά Ὑ ÷ἰε οἱ εἰοῖῖεἰἰ ἰḏἱοἱἰἰ ḏἡἱοἱἰἰ.

4. Ἰδιναβὼα ὀπνά ἰά ἀοάεν Ὑῶαδῶα ὑεῖοδ ὀιοδ ÷ ἡβῶαδ ἄδῦ ὀι repository group ὀαδ. 1/4εῖε ἰε Ὑεᾶᾶ÷ἰε δῆυῶαῶοç δᾶ ἄβῆῖῖῶᾶε ἄδῦ ὀῖῖ wrapper, ἕᾶε ἰ βᾶεῖδ ἰ wrapper δᾶ εὐὙῶᾶε ὀῖ ἰῖῖῖᾶῖ group ἰᾶ ὀῖ ἰδῖῖῖ δᾶ ἄβῖᾶῶᾶε ἕᾶε ç ὀᾶεῖῖῖ δῆυῶαῶοç.

### 3.3 ÅĖÝã÷ííôáò ôçí åãêáôÛóôáóç

İ wrapper ðñÝðǎé ðēÝñí íá áßíáé Ýðíēñò. Ìðññáßòá ööóéêÛ íá ôî äñēēìÛóáòâ êÛññíóáò Ýíá forced commit óôî äñ÷âßí access:

```
% cvs commit -f -m 'Forced commit to test the new CVSROOT scripts' access
```

ÎáíÛ, áí áõõü áðïõ÷÷æ, æÝãîã üøë üéã ôã ðãñãÛüü âÞíãã Ý÷ïï æøæãóôãß óùóôÛ.