

Αἰῶνιόδοχος αἰὺν CVS Repository — ἡ ὁνὺδιὸ ὁῖο FreeBSD

Stijn Hoop

stijn@win.tue.nl

\$FreeBSD: doc/el_GR.ISO8859-7/articles/cvs-freebsd/article.sgml,v 1.13
2008/12/08 03:10:51 keramida Exp \$

Διᾱοῖαῶεῖ Ἀέεᾱέπιαῶᾱ © 2001, 2002, 2003 Stijn Hoop

Ὁῖ FreeBSD ἁβιάε Ἰία εᾱοῖ ÷ ὁῖνὺῖ ἁῖδιῖνέεῦ ὀγῖᾱῖῖ ὁῖο FreeBSD Foundation.
Ἰῖεῖ ἄδῦ ὁέο εῖῖᾱέο ἁ ὁῖνὺᾱέο ἰε ἰδιῖᾱο ÷ ἡῖόεῖῖδιεῖῖῖᾱέ ἄδῦ ὁῖοᾱ εᾱᾱᾱᾱᾱᾱᾱᾱᾱ ἁ ὁῖοᾱ
δῦεῖῖ ὁῖοᾱ ᾱεᾱ ἰᾱ ᾱεᾱῖῖῖῖῖῖ ὁᾱ ὁῖνὺῖῖῖῖῖ ὁῖοᾱ εᾱῦῖῖῖῖῖῖῖ ἁῖδιῖνέεῦ ὀγῖᾱῖῖ. ¼ᾱῖ ἄᾱᾱᾱ
ἁῖᾱῖῖῖῖῖῖ ὁᾱ ἄᾱᾱ ὁῖ εᾱῖῖῖῖ ἔᾱε ᾱεᾱ ῦᾱᾱ ἄδῦ ἄᾱᾱᾱ ἁῖῖῖῖῖῖ ἔ ἰῖῖῖῖ Ἀῖῖᾱᾱᾱᾱᾱ ὁῖο FreeBSD ῦᾱῖ
ἁβιάε ὁεᾱῖῖῖ ἰᾱ ἁβιάε ἁῖδιῖνέεῦ ὀγῖᾱῖῖ, εᾱ ἁᾱᾱᾱ Ἰία ἄδῦ ὁᾱ ὀγῖᾱῖῖ: “TM” ἁ “®”.

Ὁῖ ῖῖῖῖ ἄᾱᾱ ὁᾱῖῖῖῖῖῖ ὁᾱ ἁβῖᾱᾱ ὁῖο Ἰεᾱῖᾱ ᾱεᾱ ἰᾱ ἁᾱᾱᾱᾱᾱᾱᾱ Ἰία CVS repository ὁῖο ÷ ἡῖόεῖῖδιεῖῖῖ ὁῖ
ὁᾱ ἁεᾱ ἁῖ ÷ ἁῖᾱ ἁῖῖῖ ἁῖῖῖῖ (scripts) ἰᾱ ἄᾱᾱ ὁῖο ÷ ἡῖόεῖῖδιεῖῖῖ ἔᾱε ὁῖ FreeBSD project ὁῖ ἁεῖῖ ὁῖο
ἁᾱᾱᾱᾱᾱᾱᾱ. ῖ ὁᾱᾱᾱῖῖῖῖῖ Ἰῖῖ ὁῖνὺῖῖῖῖ Ἰ ÷ ἁε ἁῖῖᾱᾱᾱ ὁεᾱῖῖᾱᾱᾱᾱ Ἰίαῖᾱῖ ἰεᾱᾱ ὁᾱᾱᾱᾱᾱᾱᾱᾱᾱ Ἰῖῖῖ CVS
ἁᾱᾱᾱᾱᾱᾱᾱᾱ, ῦᾱᾱ ὁῖ εᾱᾱᾱῖῖῖ Ἰῖῖ ÷ ἰ ὁῖνὺᾱᾱᾱᾱᾱ ὁᾱῖ ἁῖῖῖῖ ὁῖο εῖῖᾱῖᾱ ἔᾱῖᾱ ἔᾱε ἁᾱᾱᾱᾱᾱᾱ
ὁᾱᾱᾱᾱᾱᾱ ἁᾱῖῖῖῖῖῖ email ἰᾱ εᾱᾱᾱῖῖῖῖῖ ᾱεᾱ εῖῖᾱ ἁεῖᾱᾱ ὁᾱῖ ὁῖᾱῖῖ εῖῖᾱῖᾱ (commit).

1 Ἀέᾱᾱῦᾱᾱ

Ὁᾱ ὁᾱῖᾱᾱᾱᾱᾱᾱ projects ἁεᾱῖᾱᾱῖῖ ἔῖᾱῖῖῖῖῖ (free software) ἔᾱε ἁῖῖῖ ÷ ὁῖῖ εῖῖᾱῖᾱ (open source) ÷ ἡῖόεῖῖδιεῖῖῖ ὁῖ
CVS ὁᾱ ὀγῖᾱᾱᾱ ἁεῖᾱ ÷ ἰῖ ὁῖο εῖῖᾱῖᾱ ὁῖοᾱ. ὁᾱῖῖῖ ὁῖο ὁῖ CVS ἁβιάε ὁῖῖῖ ἔᾱῖῖ ὁᾱ ἁᾱᾱῖ ὁῖῖ ὁῖνὺᾱ Ἰ ÷ ἁε ἔε ἁᾱᾱ ὁῖ
ἰᾱῖῖᾱῖῖ ὁῖο ὁᾱ ἁεᾱᾱᾱᾱᾱᾱ ἔᾱε ἁᾱῖῖῖῖῖ. ἰεᾱ ἁᾱᾱ ἁᾱᾱᾱ ὁᾱᾱ ἁᾱῖῖῖῖῖ ἁβῖᾱῖ ὁῖ ῦᾱῖ ῖ ἔῖῖῖ ÷ ἡᾱῖῖ εῖῖᾱῖᾱ ἰᾱῖῖῖῖ
ἁῖῖῖῖ ἰᾱ ἰᾱῖᾱᾱᾱ ὁᾱ Ἰίαῖ ᾱεᾱ ÷ ἁεῖᾱᾱᾱᾱᾱ ἁᾱῖῖῖῖ, ἁεᾱῖῖ ἁῖ ὁᾱῖῖ ÷ ἁε ῖ ἁᾱῖῖῖῖ ἰᾱ ὁῖῖᾱᾱᾱᾱᾱᾱᾱ ἰῖῖῖ Ἰία
εῖῖῖῖῖ ὁῖο ἁῖῖῖῖῖ ὁῖο εῖῖᾱῖᾱ ἁᾱᾱ ἔῖῖῖ ὁῖνὺᾱᾱᾱᾱ.

ῖ ἡῖῖῖ Ἀῖῖᾱᾱᾱᾱ ὁῖο FreeBSD ÷ ἡῖόεῖῖδιεῖῖῖ ἁεᾱᾱᾱ ὁῖ CVS. Ἀεᾱῖῖᾱῖ ἁᾱᾱᾱ ἰεᾱ ἰᾱᾱῖῖ ἁῖῖῖ ἁᾱᾱ
ὁῖῖῖῖῖῖῖῖῖ ἁᾱᾱ ὁῖῖῖῖ ἁεᾱῖῖῖῖῖῖῖ ÷ ἡῖῖῖ. Ἀῖᾱᾱᾱ ÷ ὁῖῖῖῖ ἔῖῖῖῖ ἰᾱῖῖῖ ἁῖ ÷ ἁῖᾱ ἁῖῖῖ ἁῖῖῖῖ ἁεᾱ ἰᾱ
εῖῖῖῖ ὁῖῖ ἁεᾱ ÷ ἁῖῖῖῖ ὁῖο repository ὁῖῖ ἁῖῖῖῖ. ὁῖνὺᾱᾱᾱᾱ ὁᾱ ἁῖ ÷ ἁῖᾱ ἁᾱᾱ ἁῖᾱᾱῖῖῖῖῖ ἔᾱε ἔᾱῖῖῖῖῖῖῖῖῖῖ
ἁᾱᾱ ὁῖῖ Josef Karthausser <joe@FreeBSD.org> ἁεᾱ ἰᾱ ἁβῖᾱῖ ὁῖῖ ἁῖῖῖῖ ἰᾱ ÷ ἡῖόεῖῖδιεῖῖῖῖῖ ἔᾱε ὁᾱ ῖῖῖ Ἰῖῖῖ. Ὁῖ
ῖῖῖῖ ἁᾱᾱ ὁᾱῖῖῖῖῖ ἰεᾱ ἰῖῖῖῖ ÷ ἡᾱῖῖῖ ἁᾱᾱᾱ ὁῖῖ ἰῖῖῖ ἁῖ ÷ ἁῖῖῖ ἁῖῖῖῖ ἁῖῖῖῖῖ.

Ἀεᾱ ἰᾱ ἰᾱῖῖῖῖῖῖ ἰᾱ ÷ ἡῖόεῖῖδιεῖῖῖῖῖ ἰᾱ ὁῖῖ ἔᾱῖῖῖῖ ὁῖῖῖ ὁᾱ ὁῖῖῖῖῖῖῖ ἁᾱᾱᾱ ὁῖο ῖῖῖῖῖ ἔᾱ ὁῖῖῖῖ ἰᾱ
ἁῖῖῖῖῖῖ ὁᾱ ἁᾱᾱῖῖ ἰᾱῖῖῖῖῖ ἔᾱῖῖῖῖῖῖ ὁῖο CVS.

2 Đñþòç ÅãêáôÛóôáóç

[illegible]

2.1 Áñ÷éêïðïßçóç ôïñ repository

Ὁι ὀηποῖ δὴν Ὑμᾶς θῶο ἐὰ δὴν Ὑδαε ἰά εὐτᾶοᾶ ὑδαί οὐδ' αἶα ὁδ' ἰα repository ἀβίαε ἰά θαβόα οὐδ' CVS ἰά οἱ
ἀν÷ἐειρδιεβόαε:

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

Áðöü ëÝáé öôi **CVS** íá äçieíõñāPóáé öií öÜêäëi äéá÷āññéócò **CVSROOT**, üðĩõ öôiâáβñĩõĩ üêàò íé ðañáíâõñĩðiePóáéò.

2.2 Ç ĩŮää ôĩõ repository

Όπως έα άçíεíοñāΠόíοíā όçí ñŨāά όόçí íðíßā έα άíΠêäé όí repository. ¼ëré íé committers έα ðñÝðäé íá άíΠêíοí όá άόòΠ όçí ñŨāά, ποόά íá íðñíñý íá āñŨóíοí όόí repository. Ăéá όí όéíðu άόòu έα ÷ñçóéñíðíêΠόíοíā όçí ßäéá ñŨāά ðíò ÷ñçóéñíðíéāß äé' άόòu όí όéíðu éäé όí FreeBSD, όçí ñŨāά ncvs.

```
# pw groupadd ncvs
```

ÌàòÜ, èà ðñÝðàé íá àèòàéÝóàðà ðçí áíòíèÞ chown(8) óðíí òÜèàèí ìà ðánÜìàðñí ðçí ñÜàá ðíò ìúèéð ðñíòéÝóáðà, èÝòííóáð Ýðóé ðçí ñÜàá óðçí ìðíá áíðèé ì èáðÜèàíð:

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

Áõöü âíáoöäëßæäé üôê êáíåò äái èà ìďĩñåß íá ãñÛøäé óôï repository áí äái áíÐêäé óôcí óúóôÐ ñÛäá.

2.3 Ðáßñĩĩĩôáò ôĩĩ ðçãáßĩ êpăéeêá

Όρπά εά δὴ Ὡθαε ἱά ἀδιεῖς Ῥοάοα οἰί εάο Ὡεῖαι `CVSROOT` ἀδῦ οἰ repository οἶο FreeBSD. Ἀόοῦ ἀβῖαόαε ἀγέρεα, εὔφῖρδοαὸ check out ἀδῦ ἱά ἱάε÷οῖο δῆῦοάαόοδ FreeBSD CVS mirror. Ἀάβῶα οἰ ὁ÷ἀοεῦ εάο Ὡεαεί οἶο ἀα÷ἀεῖβαεῖ (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/anoncvs.html) ἀεά δᾶνεοόοἀᾶᾶδ δῆῆῖοῖῖᾶᾶ. Ἀό οἶε ἱόῖῖα ὑοε ἱ δῆᾶβῖο ἐπαεεάο εά ἀδιεῖεἀοᾶβ οἶί εάο Ὡεῖαι `CVSROOT-freebsd` δῖο ἀᾶῶεἀοάε ἱ ἱόά οἶί δὴ Ὡ÷ῖοα εάο Ὡεῖαι.

2.4 ÁíôéãñÜöííôáò ôá scripts ôïõ FreeBSD

34060āna, aī0eānŪ0r0iā 0īr 0ḡaaBī ēpaēēā aḡu 0īr **CVSROOT** ēa0Ūēīrī 0ī0 FreeBSD 00ī aēēu iā0 repository. Āī āB0ōā 00īḡēē0īŶīr0 iā 0ī **CVS**, B0u0 īā 0ā0 ḡānŪōāē aḡu 0ī iōāēu īā ḡnī0ḡāēp0ā0ā īā eŪīfā0ā import 0ā scripts, 0ā iēā ḡnī0ḡŪēāēā īā aBīāē ḡ060āna ī 00ā ÷ nīīē0īu0 iā 0ē0 ēa0īḡēīŶō āēau0āē0 ā0ēīu0ānīr0. Ū00u0ī, āḡīāēēīŶā0āē u0ē 0ī **CVS** ḡānī0ḡŪēāēā iēā aḡ0ēāē0ī0n0āBā 0ḡḡī ḡānēī÷p aḡ0p: ʎ0āī āē0Ūāā0ā 0ḡaaBī ēpaēēā īŶōā 00ī **CVSROOT** 0Ūēāēī, āāī ēā āīcīānḡēīŶī 0ā āḡānāB0c0ā ān÷āBā āēā÷āBnē0c0. Āēā īā īḡnŶōā0ā īā 0ī eŪīfā0ā īā 0ā āīāāunB0āē, ēā ḡnŶāē

íá εÜíáðá checkin íá÷ ùñέóóÜ εÜεά άñ÷άβï áöüý Ý÷άðá ðáεάέþóáé íá ðçí áέóάüüãP, ÷ Üñíðáð Ýðóέ ðçí áíßá ðïð cvs import. ΆðñÝüð, ç ðñïðáέíüíáíç ïÝεíüð áβíáé áðεÜ íá áíðέάñÜøáðá ðá scripts.

Άάí áβíáé έάé ðüóï ççíáíðέέü ðï áí ç ðáñáðÜñ ðáñÜñáóïð ááí óáð üáβíáðáé ðïý íáεÜεάñç—ðï ðáέέέü áðïðÝεÝóíá áβíáé ðï βáέí. ΆðεÜ áεÝáíðá ðïí CVSROOT öÜεάέí έάé áíðέάñÜøáðá ðá FreeBSD άñ÷άβá ðÜñ áðü ðá áέéÜ óáð ðïðέéÜ (áðáβñá÷ðá) áíðβáñáðá:

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

Όçíáέþóá üέé ðέέáíüðáðá έá ðÜñáðá íáñέéÝð ðñíáέüðíεPóáέð ó÷άóέéÜ íá ðï üέé íáñέéíß öÜεάέé ááí έá áíðέáñáóïýí. Άáí ðáέñÜεάé. Άáí ðïðð ÷ñáéÜεáðáðá áðöüýð ðïðð έáðáέüüñðð.

2.5 Tá scripts

Όþñá Ý÷άðá óóïí öÜεάέí áñááóβáð óáð Ýíá áέñέáÝð áíðβáñáðï ðüí scripts ðïð ðï βáέí ðï FreeBSD project ÷ñçóέíðíεáß óóí áέéü ðïð repository. Íέá ðáñβέçøç ðïð óá ðé ÷ñçóέíáýáé ðï εÜεά άñ÷άβï ðáñέέáíáÜíáðáé ðáñáéÜðü.

- `access` - ðï άñ÷άβï áðüü ááí ÷ñçóέíðíεáßðáé óóéð óóíçέóíÝíáð ááέáðáóóÜðáéð ðïð CVS. ×ñçóέíðíεáßðáé üñí óóçí áέáέεP ááέáðÜððáóç ðïð FreeBSD project, áέá íá áεÝá÷άðáé ç ðñüóááóç óóí repository. Ìðñáβðá íá áóáέñÝóáðá áðüü ðï άñ÷άβï áí ááí óáð áíáέáðÝñáé íá ÷ñçóέíðíεPóáðá εÜðé öÝðíέí óðç áέεP óáð ááέáðÜððáóç.
- `avail` - ðï άñ÷άβï áðüü áεÝá÷άé ðçí ðñüóááóç óóí repository áíÜ έáðÜεíáí P άñ÷άβï. ÍÝóá óá áðüü, ïðñáβðá íá έáέíñβóáðá ñÜáð ÷ñçóðñí óóíðð ïðñíðð εÝεáðá íá áþóáðá ðñüóááóç óóí repository, üðüð áðβçðð έáé íá áðááñÝóáðá commits óá áðβðááí έáðáέüüñð P άñ÷άβïð. Έá ðñÝðáé íá ðï ðñíóáñüüðáðá þóðá íá ðáñéÝ÷άé ðéð ñÜáð ÷ñçóðñí έáé ðïðð óáéÝéíðð ðïð έá ððÜñ÷ïí óóí áέéü óáð repository.
- `cfg.pm` - ðï άñ÷άβï áðüü áñíçíáýáé ðéð ñðéíβóáéð óáð έáé ðáñÝ÷άé ðéð áí' ññέóüý ñðéíβóáéð. Άáí ðñÝðáé íá áέéÜíáðá áðüü ðï άñ÷άβï. Áíðβέáðá, έá ðñÝðáé íá ðïðíεáðPóáðá ðéð áέéÝð óáð áέéááÝð óóéð ñðéíβóáéð óóí άñ÷άβï `cfg_local.pm`.
- `cfg_local.pm` - ðï άñ÷άβï áðüü ðáñéÝ÷άé üéáð ðéð ñðéíεäüíáíáð ðáñáíÝðñíðð ðïð óóóðþáðïð. Έá ðñÝðáé íá εÜíáðá ïðíεáðáððíðá ñðéíβóáéð óáð ááþ, üðüð óá ðíέá áέáýéðíóç έá óóÝéñíóáé ðá email áðü εÜεά commit, óá ðíéíðð hosts έá áðέðñÝðáðáé íá áβñíóáé commit, έέð. ðáñέóóüðáñáð ðεçñíöíñßáð ó÷άóέéÜ íá áðüü έá áñáβðá ðáñáéÜðü.
- `checkoutlist` - ðï άñ÷άβï áðüü ðáñέέáíáÜíáé üεá ðá άñ÷άβá ðïð áñβóέííðáé εÜðü áðü ðïí Ýεää÷í ðïð CVS óóí έáðÜεíáí áðüü—üεá áέðüð áðü ðá ðñíέáέíñέóíÝíá άñ÷άβá ðïð äçíεíðñááß ç áíðíεP cvs init. Έá ðñÝðáé íá ðï áέéÜíáðá áέá íá áóáέñÝóáðá íáñέéÜ, ó÷άóέéÜ üñí íá ðï FreeBSD, άñ÷άβá.
- `commit_prep.pl` - ðï script áðüü áέðáέáß áéÜöíñíðð áεÝá÷íðð ðñέí áðü εÜεά commit, áíÜεíáá íá ðéð ñðéíβóáéð ðïð Ý÷άðá εÜíáé óóí άñ÷άβï `cfg_local.pm`. Άáí έá ÷ñáέáóðáß íá ðáέñÜíáðá áðüü ðï άñ÷άβï.
- `commitcheck` - ðï script áðüü έáέáßðáé áðáðéáβáð áðü ðï CVS. ðñþóá áεÝá÷άé, ÷ñçóέíðíεþíóáð ðï ðñüáñáíá cvs_acls.pl, áí ï committer Ý÷άé ðñüóááóç óóí óðáέáðñέíÝñí ïÝñíð ðïð äÝíðñíð ðïð εþáέéá, έáé íáðÜ áέðáέáß ðï `commit_prep.pl` ðïð áέðáέáß ðïðð áéÜöíñíðð pre-commit áεÝá÷íðð. Áí ááí ððÜñíáé εÜðíέí ðñüáεçíá óóíðð áεÝá÷íðð áðöüýð, ðüðá ðï CVS έá áðέðñÝðáé óóí commit íá óóíá÷βóáé. Άáí έá ÷ñáέáóðáß íá ðáέñÜíáðá áðüü ðï άñ÷άβï.

- [illegible]

2.6 Ôñïðïðïépíôáò ôá scripts

[illegible]

1. Áí ááf eYÉaòá íá ÷ ñçóéúíðíēíPóáòá óéð eáēóíñāBāð ðúí scripts íē íðíBāð ÷ ñçóéúíðíēíYíóáē áðíēēáēóóēēŨ áðú ðí FreeBSD, íðíñāBāð íá áóáēñYóáòá íā áóóŨēáēá ðí āñ ÷ āBí access:

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

2. Ἀεὶνεῖς πόα οἱ ἀν÷ᾶβι avail πόα ἰά δᾶνεῖ ÷ᾶε οἰῶδ ᾶεῦοἰνῖοδ ὁᾶεῖεῖοδ οἰῶ repository ὁοἰῶδ ἰδῖβῖοδ εῖεᾶῶ ἰᾶ ᾶεῖᾶἰᾶῶ ὁῖ ὀνῶῶᾶῶς. Ὀεᾶῖοἰᾶῶῶᾶῶ ἰῶε εᾶ ᾶεᾶῶῖνᾶῶᾶ ἰᾶῖᾶῶ ὁῖ avail | CVSROOT ᾶἰἰᾶῖ, ᾶεᾶῖεῖῶδ εᾶ ᾶῖεᾶᾶῶᾶ ᾶεῖᾶ ᾶᾶε οἰ ᾶᾶῶῶ ὁᾶδ ἰᾶ οἱ ᾶῶἰᾶῖ ᾶῖᾶ.

[illegible]

3. Αέρινηπόδα οι άν-δρες `cfg_local.pm` πόδα ία δάνεΨ÷αε οέο αδέεραΨό δρο αδέεοιαβόα. Δεί σοαεαεειΨία, εα δνΨαε ία αεΨαίαο οέο δαναεΨου ονιδιρεπόειαδ αδέεραΨό:

- [illegible]

ΌçiaBuòç: Ç äëëäP òçò ðäñáíYòñïò \$IDHEADER äßíäë ääöçíYíí üðë ëä äïtëYðäë iüñí óä ðëäóðüñíàò FreeBSD. ÄíäñÜðäë äüü äëäëëYð íäðäðñíðYð òïò FreeBSD óôí **CVS**.

ἸδιναΒοῶ ἰά ἀεΨάριᾶῶ ὅι ἀν÷ᾶβῖ ^{cfg}.pm ἀεᾶ ἰά ἀᾶβῶ ὀεΨῶ Ὑεεᾶ ὀᾶᾶῖῖᾶᾶᾶ ἰδιναΒοῶ ἰά ἀεᾶῖᾶᾶ, ἀεᾶ ἰε ὀᾶᾶᾶᾶῖῖ ᾶβῖᾶε ἰε ὀεῖ ὀᾶῖᾶᾶᾶ ᾶᾶᾶᾶᾶᾶ.

4. Άðáíáñááóðáßðá ðï áñ÷áßï exclude áέα íá áóáέñÝóáðá ðέð áέάέέÝð έάóá÷ññßóáέð ðïð FreeBSD (üðüð üέáð ðέð áñáñÝð ðïð íáέέñýí íá ^ports/ έðέ.). Άέðüð áððý, áÜέðá óá ó÷üέέá ðέð áñáñÝð ðïð íáέέñýí íá ^CVSROOT/, έάέ ðñïέÝóóá íέα áñáñß ðïð έá ðáñέÝ÷άέ üññ ðï ^CVSROOT/. Áóý áάέáðáóðάέß ï wrapper, ïðñáßðá íá ðñïέÝóóá ðï áέέü óáð header óóá áñ÷áßá ðïð áñßóέñíóάέ ïÝóá óóñí έάðÜέñá CVSROOT έάέ íá áðáíáðÝñáðá ðέð áñáñÝð áððÝð, áέέÜ ðñïð ðï ðáññí áðέÜ έá óáð áçíέññáßóñí ðñíáέßíáðá üðáí έá ðñíóðάέßóá íá έÜíáðá commit áñüðáñá.
5. Áññßðá ðï áñ÷áßï modules, έάέ áóáέñÝóóá üέáð ðέð ó÷áðέέÝð íá ðï FreeBSD έάóá÷ññßóáέð. ðñïέÝóóá óá áέέÜ óáð modules áí ðï áðέέðíáßðá.
- 6.

Όçíáßüóç: Õï áßíá áððü áßíάέ áðáñáßðçðïí üññ áí Ý÷áðá ïñßóάέ έÜðñέα óέñß óçñí ðáñÜíáðñí \$IDHEADER ðïð áñ÷áßïð `cfg_local.pm` (ç ïðñá äïðέáýάέ üññ áóüóñí ÷ñçóέñíðñέáßðá óçñí ðñíðñíέçñíÝç Ýέáñóç ðïð CVS ðïð Ý÷άέ ðï FreeBSD).

Άέññèßóá ðï áñ÷áßï options ðóðá íá óáέñέÜάέ íá ðï tag ðïð ïñßóáðá óðï áñ÷áßï `cfg_local.pm`. Íέα áíάάèßóç έάέ áíðέέáðÜóóάόç ðïð FreeBSD óá üέñ ðï áñ÷áßï áßíάέ áñέáð.

7. Άðáíáñááóðáßðá ðï áñ÷áßï `rcstemplate` ðóðá íá ðáñέÝ÷άέ óá ßάέα keywords íá áððÜ ðïð Ý÷áðá ïñßóάέ óðï `cfg_local.pm`.
8. ðñíάέñáðέέÜ, áóáέñÝóóá ðïðð áέÝá÷ñð ðïð FreeBSD áðü ðï áñ÷áßï `tagcheck`. ïðñáßðá áðέÜ íá ðñïέÝóóá `exit 0` óçñí áñ÷ß ðïð áñ÷áßï áέα íá áðáíáññðñέßóá üέñðð ðïðð áέÝá÷ñð óðï tagging.
9. Õï óáέáðóáßï ðñÜñíá ðïð ðñÝðάέ íá áßíάέ, áßíάέ íá óέáññáððóáßðá üέέ óá commitlogs ïðññýí íá áðñέçέáððýí. Õá CVS scripts ðïð FreeBSD áðñέçέáýñí áððÜ óá logs óðñí ððñέáðÜέñá commitlogs ðïð έáðάέüññ CVSROOT. Áððüð ï ðÜέáñð ðñÝðάέ íá áçíέññáçέáß, ïðüðá έÜíðá óá áέüññέá:

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

Õðñá, áóý áέÝáñáðá óá ðÜíðá ðñíóáέðέέÜ, έá ðñÝðάέ íá έÜíðá commit ðέð áέέáÝð óáð. Õññíóßóá íá áßóá ðßáñññέ üέέ Ý÷áðá áßóάέ óðñí ááððü óáð ðñüóááóç óðñí ðÜέáñ CVSROOT ïÝóá áðü ðï áñ÷áßï `avail` ðñέí έÜíðá ïðέáßðñá, áóüóñí óçñí áíðßέáðç ðáñßððüóç έá έέάέáßóáðá ðñí ááððü óáð Ýñ. ïðüðá, ðññíóßóá óá ðÜíðá íá áßíάέ üððð áðέέðíáßðá, έάέ üññ ðüðá áßóáðá óá áέüññέá:

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

2.7 ΆñέέíÜάέñíóáð óçñí ΆάέáðÜóóάόç

Άßóá Ýñέññέ áέα óçñí ðñßðç óáð äñέñß: íá forced commit óðï áñ÷áßï `avail`, áέα íá óέáññáððóáßðá üέέ üέá äñέéáýñí üððð έá Ýðñáðá.

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

¶í üέá ðÜíá έάέÜ, óðá÷áñçðßñέα! ,÷áðά έáðáðÝñάέ íá óðßóáðá íέα ðèßñðð έάέññáέèß áάέáðÜóóάόç ðññ FreeBSD scripts áέα ðï repository óáð. Óçñí ðáñßððüóç ðïð ðï CVS áñάέññέáß íá ðáñáðññέÝóάέ áέα έÜðέ, áðέóðñÝððá óóέð ðññáýññáíáð áññóçðáð έάέ áέÝáñá íáñÜ üέέ Ý÷áðά áέðάέÝóάέ óüóðÜ üέá óá ðññáýññáíá áßíáðá.

3 Άεάέê Þ ÅæåáÜóóάόç ðïð FreeBSD Project

Ôï Þåéï ðï FreeBSD project ÷ñçóéïïðïéåß íéå æéåðñð æéåðñåðéê Þ åæåáÜóóάόç, ç ïðïßá ÷ñçóéïïðïéåß åðßóçð áñ÷åßå áðü ðïð ððïðÜéåïï freebsd ðïð CVSROOT ðïð ÷ñçóéïïðïéåßðåé óðï FreeBSD. Ôï project ÷ñåÜæåðåé êÜðé ðÝðïéï euau ðïð íååÜéïð áñééïïý ðüï committers, ðïð æéåðñåðéêÜ éå Ýðñåðå íå áíðéïïí üéïé óðï Þåéï group. Þóé, æçïéïñåðéçåå Ýíåð áðéüð wrapper ï ïðïßð áðïïý ðñððå áíåððåßæåé óå óüóðÜ æéåðéóðåððñéå ðüï committers, æéêÜæåé íåðÝðåéóå ðï group id óå áððü ðïð repository.

Áí éåé ðï æéêü óåð repository ÷ñåÜæåðåé êÜðé áíÜéïïí, óå åðïåðå ðïð éå ðñÝðåé íå æéïéðéððåðåðå æéïéðéïïí ðåñåéÜðü. ÁéêÜ ðñððå áð êÜïïïíå íéå óýïïñç åðéóéüðçóç ðüï ó÷åðéðí áñ÷åßüí.

3.1 Άñ÷åßå ðïð ÷ñçóéïïðïéïïéåé óóçí æéåéê Þ åæåáÜóóάόç ðïð FreeBSD

- `access` - ðï áñ÷åßå áððü æéÝá÷éé ðéð ðéçñïïññðåð æéå óå æééåðïåðåðå ðñüóååóçð. Éå ðñÝðåé íå ðï åðåñåñåóðåðå áíÜéïïíå Ýðéé þððå íå ðåñééåíåÜíåé üéå óå ïÝéç ðïð project óåð.
- `freebsd/commitmail.pl` - ðï áñ÷åßå áððü ååí ÷ñçóéïïðïéåßðåé ðéå, æéêÜ ðåñåñÝíåé æéå éóðïñééïý euäïðð. Áåí éå ÷ñåéóðåß íå åðåñåñåóðåðå áððü ðï áñ÷åßå.
- `freebsd/cvswrap.c` - ðñüéåéóåé æéå ðïð ðçååßí êðåééå ðïð CVS wrapper ðïð éå ðñÝðåé íå åæåóðåðððåðåðå æéå íå ïðñÝðïïí üéïé íé Ýéåå÷éé ðñüóååóçð ðåéêÜ íå äïðéÝðïïí. Ðåñéóóüðåñåð ðéçñïïññðåð æéå óç æéåééåðåß áððÞ éå åñåðåðå ðåñåéÜðü. Éå ðñÝðåé íå æéñððåðåðå óå paths óðéð ACCESS éåé REALCVS íåññïïíïéÝð þððå íå ðåéñéÜéïïí íå óç æéêÞ óåð åæåáÜóóάόç.
- `freebsd/mailex.c` - ðï áñ÷åßå áððü ÷ñåÜæåðåé æéå óçí ó÷åðéêÞ íå ðéð éßóðåð óå÷ðåññåßï åæåáÜóóάόç ðïð FreeBSD. Áåí éå ÷ñåéóðåß íå ðåññÜíåðå ðï áñ÷åßå áððü.

3.2 Ç æéåééåéóåß

1. Åéñððåðå ðï áñ÷åßå `access` þððå íå ðåñéÝá÷éé ðïð ðïð æéêü óåð username.
2. Åéñððåðå ðï áñ÷åßå `cvswrap.c` þððå íå ðåñéÝá÷éé ðïð óüóðü path æéå óç æéêÞ óåð åæåáÜóóάόç. Áððü ïñðåðåé üð íéå íåññïïíïéÞ ðïð ïññÜæåðåé ACCESS. Éå ðñÝðåé åðßóçð íå æéêÜðå éåé ðï üññå áñ÷åßå ðïð ðñåñïéééïý cvs binary áí áððÞ ðïð ððÜñ÷éé ååí åßíåé ç óüóðÞ æéå óç æéêÞ óåð ðåññððüç. Ôï éåññééü `cvswrap.c` éåññåß ðüð éå áíéééåðåðððåðåðå óçí áíéïéÞ cvs óå åðßðåñí óóóðïåðïð íå ðï cvwrap, éé ç áñ÷éêÞ áíéïéÞ cvs éå íåðåðåññåß óðï áñ÷åßå `/usr/bin/ncvs`.

Ôï æéêü ïð áíéððððï ðïð áñ÷åßå `cvswrap.c` Ýáé óå æéüéïðéå:

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

3. Ôï åðüññí åðïå åßíåé íå åæåóðåðððïïïíå ðïð wrapper æéå íå åßíåðåß óßåïññé üðé éå åßíåðåé ç íåðåðñïð óðï óüóðü group üðåí åßíåðåé commit. Ï ðçååßðð êðåééåð æé' áððü åñðéåðåé óðï áñ÷åßå `cvswrap.c` óðïí éåðÜéïïí CVSROOT.

Íåðåæüððððå ðïð êðåééåð ðïð Ýáéðå ðåç æéñððåé þððå íå ðåñéÝá÷éé ðïð óå óüóðÜ paths:

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


Ὁδὸς ὁδοῦ ÷ ἀέα ἀεἰἀόἀοῶΠῶἀ οἱ γΥῖ cvs ἀεὼἀεΨοείη ἀετῆρῶἐπρῶἀὼ ὅα ἀεϋῆιρῶἐὰ ἀΠιᾶόα (ἐὰ ὃñΥῖἀε ίά ἀΒῶόἀ root
ἀέα οἱ ἀΠιᾶ ἀῶου):

```
# 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 οἷ wrapper οάι ôçí âî inéoiîý cvs âiôieP, eÜñiôað Ýóóε óβ̄arōñi uóε iðieíoaPðioâ èaεPóaε íá ÷ñçóéiiðieíPóaε ôi repository, èá ðñÝðáε íá Ý÷-âε óá éáoÜëççéâ aðBðááâ ðñuóááoçð.

4. Ἰδιναβὼα ὀπνά ἰά ἀοάειν Ὑῶαδὰ ὑεῖοδ ὀιοδ ÷ ἡβὼαδ ἀδὺ ὀι repository group ὀαδ. 1/4ειέ ἰε Ὑῶα ÷ ἰε ὀἡῶαῶαῶδ ἐὰ ἄβῆῖῖῶαῶ ἀδὺ ὀἡ wrapper, ἐὰ ἰ βᾶειδ ἰ wrapper ἐὰ ἐὺῶαῶ ὀἡ ἀῖῤῥᾶῖ group ἰὰ ὀἡ ἰῶβῖ ἐὰ ἄβῖῶαῶ ἐὰς ς ὀᾶῖῖῖβ ὀἡῶαῶαῶς.

3.3 ÅĖÝã÷íîáò ôçí åãêáôÛóôáóç

İ wrapper ðñÝðǎé ðēÝıı íá áßıáé Ýðıēıñò. İðıñǎßòǎ ööóéêÛ íá ôı äıēēıÛóáòǎ êÛıııóáò Ýıá forced commit óôı ǎñ÷ǎßı access:

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

ÎáíÛ, áí áõõü áðïý÷áé, æÝãîä üöé üéä ôä ðãñäÛüü âÞíäôä Ý÷ïí æêðæäóôâß óúóôÛ.