

1

Άεά íá ìðñÝóôôá íá ÷ ñçóέìðìéΠóôôá ìá òìí έάέýôáñì òñüðì òέò ðέçñìòìñßàð áðòìý òìò Ûñèñìò έά ðñÝðáέ íá ãìññææôôá òέò ááóέέÝð ìáèìäìòð èάέðìññßàð òìò CVS.

2 Ðñòç ÅãéáôÛóôóôç

Ðñìáέäìðìçç: Άβίáέ έάέΠ έäÝá íá äέôáέÝóôôá äέá ðñòç òìñÛ áðòΠ òç äέääέέáóá ÷ ñçóέìðìéΠíðáð Ýíá έäì ãìéέìáóðέέü repository, äέá íá áβίáέ äÝááέì üðέ έä έäóáììΠóôôá üέäð òέò óðíÝðáέäð. Ðñέí ìáέέìΠóôôá óέäìññáððáßðá üðέ Ý÷äôá ðñüóôáðá backups, óá ìðìá äääðçìÝíá äìðέäýìì!

2.1 Άñ÷έέìðìçççç òìò repository

Ôì ðñòì ðñÛäìä ðìò έä ðñÝðáέ íá èÛíäôá üðáí óðΠíäôá Ýíá ìÝì repository áβίáέ íá ðáßðá óðì CVS íá òì äñ÷έέìðìéΠóáέ:

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

Áððü èÝáέ óðì CVS íá äçìέìññáΠóáέ òìí òÛέäέì äέá÷äßñέçð CVSROOT, üðìò óðìäáßììì üέäð ìέ ðáñäìäðñìðìéΠóáέð.

2.2 Ç ìÛäá òìò repository

Ôπñá έä äçìέìññáΠóììä òçì ìÛäá óðçì ìðìá έä áìΠέáέ òì repository. ¼έìέ ìέ committers έä ðñÝðáέ íá áìΠέìì óá áðòΠ òçì ìÛäá, þóðá íá ìðñìýì íá ãñÛììì òðì repository. Άέá òì óέìðü áððü έä ÷ ñçóέìðìéΠóììä òçì βáέá ìÛäá ðìò ÷ ñçóέìðìéäá äέ' áððü òì óέìðü έáέ òì FreeBSD, òçì ìÛäá ncvs.

```
# pw groupadd ncvs
```

ÌäðÛ, έä ðñÝðáέ íá äέôáέÝóôôá òçì áìðìέΠ chown(8) óðì òÛέäέì ìá ðáñÛìäðñì òçì ìÛäá ðìò ìüέð ðñìέέÝóôôá, èÝðììóáð Ýðóέ òçì ìÛäá óðçì ìðìá áìΠέáέ ì έäðÛέìä:

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

Áððü äìáóóáέßæáέ üðέ έäíäðð ääí έä ìðìñáß íá ãñÛðáέ óðì repository áí ääí áìΠέáέ óðçì óððòΠ ìÛäá.

2.3 Ðáβñìììóáð òìí ðçäáβìì έπäέέá

Ôπñá έä ðñÝðáέ íá áðìέðΠóáðá òìí έäðÛέìäì CVSROOT áðü òì repository òìò FreeBSD. Áððü äβíäðáέ äýέìέá, èÛììóáð check out áðü Ýíá áñìέ÷ððð ðñüóäáçð FreeBSD CVS mirror. Άäðá òì ó÷äóέü έäðÛέáέì óðì ää÷äέñßáέì (http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/anoncv.html) äέá ðáñέóóüðáñäð ðέçñìòìñßàð. Áð ððìèÝóììä üðέ ì ðçäáβìì έπäέέáð έä áðìέçέäððáß óðì έäðÛέìäì CVSROOT-freebsd ðìò äñβέέäðáέ ìÝóá óðì ðñÝ÷ììðá έäðÛέìä.

2.4 ÁìέäñÛìììóáð óá scripts òìò FreeBSD

¼óðáñá, áìέäñÛìììä òìí ðçäáβìì έπäέέá áðü òì CVSROOT έäðÛέìäì òìò FreeBSD óðì äέέü ìäð repository. Áí äßóðá óðìçέέóìÝñì ìá òì CVS, βóðð íá óáð ðáñÛóáέ áðü òì ìóáέü íá ðñìóðáέΠóáðá íá èÛíäôá import óá scripts, óá ìέá

ὁπρὸς Ἐὰ ἐὰν τὰ ἀβίαι γόοιαν τὴ οὐα ÷ πηρέσιον τὰ οὐδ ἐαυτοῖς Ἰδο ἀεουάοδ ἀσρευσόαντο. Ὑπόουι, ἀδιαέειργαδάς υἱὲ δι
CVS δανιροῦς Ἐὰ ἐὰν τὰ ἀδωἐαείριον παβα ὀδφι δανεί÷ ð αὐοð: Ἱδαί ἀεὺ Ἐὰ ἀοὰ δçααβί ἐπαέέα τῇ ὅα ὀδι cvsroot ὁ Ἐὰ ἐα,
 ἀαί ἐα ἀγίαλινυέργι ὀα ἀδανὰ βόδφῶ ἀν÷ ð βα ἀε÷ ð βινέοçð. Ἀεα τὰ ἰθιν Ἰ ὀα ὀα τὰ εὔτῶα τὰ ὀα ἀτάσυν βοάε, ἐα δν Ἰ δαε
 τὰ εὔτῶα checkin τὰ ÷ νινέο ὀ Ἐὰ ἀν÷ ð βι αἰργ Ἰ ÷ ἀοὰ ὀα ἐα ἐποάε τὰ ὀφι ἀεὺ ἀναῦα, ÷ ὑμνωάδ Ἰ ὀοὲ ὀφι αἵ βα ὀτο
 cvs import. Ἀδν Ἰ ὑδ, ç δν ὀα ἐσύναιç τῇ Ἰ ἐταρὸ ἀβίαι ἀδεῦ τὰ ἀιδεάν Ἰ ὀα ὀα scripts.

Άἱ ἁβιάε ἐαέ οὐοῖ ὀρίαιόεεῦ οἱ αἱ ς ὀανάδῴῦ ὀάνῴἁνάοῖδ ἁαῖ οἶο ὀάβῳάε δῖεῖ ἱαέῴεαῖς—οἱ ὀαέεεῦ ἀδῖοῴεῖῴα
 ἁβιάε οἱ βᾶεῖ. Ἀδέῴ ἁεῖῴἁῖδ οἱ `CVSROOT` ὀῴεαεῖ ἐαέ αἰόεᾶῖῴῶῶ ὀά `FreeBSD` ἁῖ÷ἁβᾶ ὀῴῖῖ ἁδῖ ὀά ἁέεῴ οἶδ
 οἱδῖεῴ (ἁδᾶβᾶ÷ὀά) αἰὀβᾶῖῴᾶ:

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

[illegible]

2.5 Tá scripts

[illegible]

- `access` - οἱ ἀν÷ἄβι ἀδού ἀὰ ÷ ñçóεἰῖῖεἶἄβδῶἔ ὀδέδ ὀῖçééοἱÝῖἄδ ἄἔἔἄὀὀὀὀὀὀὀ **CVS**. × ñçóεἰῖῖεἶἄβδῶἔ ἱῖῖ ὀὀçῖ ἄἔἔἔἔἔἔἔ ἄἔἔἄὀὀὀὀὀὀ ὀῖῖ FreeBSD project, ἄἔἔ ἰἄ ἄἔÝἄ÷ἄὀἔἔ ç ðñῡὀἄὀὀç ὀὀῖ repository. Ἰὀῖῖἄβδῶ ἰἄ ἄὀἔῖῖÝὀἄὀἄ ἄὀὀὀ ὀῖ ἄñ÷ἄβῖ ἄἰ ἄἄἰ ὀἄὀ ἄἰἔἔἄὀÝῖἄἔ ἰἄ ÷ ñçóεἰῖῖεἶἔἔἔἔἔἔἔ ἔὀὀἔ ὀÝὀἰἔἰ ὀὀç ἄἔἔἔ ὀἄὀ ἄἔἔἄὀὀὀὀὀὀ.
- `avail` - οἱ ἀν÷ἄβι ἀδού ἄἔÝἄ÷ἄἔ ὀçῖ ðñῡὀἄὀὀç ὀὀῖ repository ἄἰὀ ἔἄὀὀἔἄἰἄἰ **P** ἄñ÷ἄβῖ. ἸÝὀἄ ὀἄ ἄὀὀὀ, ἰὀῖῖἄβδῶ ἰἄ ἔἄἔἔ἖἖἖἖἖἖἖ ἰὀὀὀὀ ÷ ñçóὀἔἔ ὀὀὀὀὀ ἰὀ἖἖἖἖ὀ ἔÝἔἔὀἄ ἰἄ ἄἔὀἄὀἄ ðñῡὀἄὀὀç ὀὀῖ repository, ὑὀὀὀ ἄὀὀὀçὀ ἔἄἔ ἰἄ ἄὀἄἄἰῖÝὀἄὀἄ commits ὀἄ ἄὀὀὀἄἄἰ ἔἄὀἔὑὑἄἰὀ **P** ἄñ÷ἄβῖὀ. Ἐἄ ὀñÝὀἄἔ ἰἄ ὀῖ ὀñὀὀἄ἖἖ὑὀἄὀἄ ἔὀὀἄ ἰἄ ὀἄñἔÝ÷ἄἔ ὀἔὀ ἰὀὀὀὀ ÷ ñçóὀἔἔ ἔἄἔ ὀῖὀὀ ὀἄἔÝἔ἖἖ὀὀ ὀῖὀ ἔἄ ὀὀὀñ÷÷ἰὀἰ ὀὀἰ ἄἔἔὑ ὀἄὀ repository.
- `cfg.pm` - οἱ ἀν÷ἄβι ἀδού ἄñῖçῖἄÝἄἔ ὀἔὀ ñὀἔ἖἖ὀἄἔὀ ὀἄὀ ἔἄἔ ὀἄñÝ÷ἄἔ ὀἔὀ ἄἰ' ἰñἔὀἰÝ ñὀἔ἖἖ὀἄἔὀ. Ἄἄἰ ὀñÝὀἄἔ ἰἄ ἄἔἔὀἰἄὀἄ ἄὀὀὀ ὀῖ ἄñ÷ἄβῖ. Ἀἰὀἔ἖἖ὀἄ, ἔἄ ὀñÝὀἄἔ ἰἄ ὀῖὀἔἔἄὀἔὀὀἄὀ ὀἔὀ ἄἔἔÝὀ ὀἄὀ ἄἔἔἄÝὀ ὀἔὀὀ ñὀἔ἖἖ὀἄἔὀ ὀὀἰ ἄñ÷ἄβῖ `cfg_local.pm`.
- `cfg_local.pm` - οἱ ἀν÷ἄβι ἀδού ὀἄñἔÝ÷ἄἔ ὑἔἄὀ ὀἔὀ ñὀἔ἖ἔἄὑἰἄἰἄ ὀἄñἄἰÝὀñ἖἖ὀὀ ὀῖὀ ὀὀὀὀἔἄὀὀὀ. Ἐἄ ὀñÝὀἄἔ ἰἄ ἔὀὀἰἄὀ ἰὀἔἄὀἄἔὀἄὀ ñὀἔ἖἖ὀἄἔὀ ὀἄὀ ἄἄἔ, ὑὀὀὀ ὀἄ ὀἰἔἄ ἄἔἄἔὀἰὀç ἔἄ ὀὀÝἔ἖἖ἰὀἄἔ ὀἄ email ἄὀὀ ἔὀἔἄ commit, ὀἄ ὀἰἔ἖ὀὀ ὀἄὀ ἔἄ ἄὀἔὀñÝὀἄὀἄἔ ἰἄ ἄ἖἖἖ἰὀἄἔ commit, ἔἔὀ. ὀἄñἔὀὀὀὀἄñἄὀ ὀἔç἖἖἖἖἖἖἖ ὀ÷ἄὀἔἔὀ ἰἄ ἄὀὀὀ ἔἄ ἄñἄὀὀ ὀἄñἄἔὀὀὀ.
- `checkoutlist` - οἱ ἀν÷ἄβι ἀδού ὀἄñἔἔἄἰἄὀἰἄἔ ὑἔἄ ὀἄ ἄñ÷ἄ἖ἄ ὀῖὀ ἄñὀἔ἖἖ἰὀἄἔ ἔὀὀὀ ἄὀὀ ὀῖἰ ὀἔἔἄ÷ἰ ὀῖὀ **CVS** ὀὀἰἰ ἔἄὀὀἔἄἰἄ ἄὀὀὀ—ὑἔἄ ἄἔὀὀὀ ἄὀὀ ὀἄ ὀñ἖ἔἔ἖἖἖ὀἔὀÝἰἄ ἄñ÷ἄ἖ἄ ὀῖὀ ἄ἖἖἖἖἖἖἖἖ ç ἄἰὀ἖ἔἔ `cvs init`. Ἐἄ ὀñÝὀἄἔ ἰἄ ὀῖ ἄἔἔὀἰἄὀἄ ἄἔἄ ἰἄ ἄὀἔῖῖÝὀἄὀἄ ἰἄñἔἔὀ, ὀ÷ἄὀἔἔὀ ἱῖῖἰ ἰἄ ὀῖ FreeBSD, ἄñ÷ἄ἖ἄ.
- `commit_prep.pl` - οἱ script ἄὀὀὀ ἄἔὀἄἔἄ἖ ἄἔὀὀ἖἖἖ὀὀ ἄἔÝἄ÷ἰὀὀ ὀñἔἰ ἄὀὀ ἔὀἔἄ commit, ἄἰὀἔἄἄ ἰἄ ὀἔὀ ñὀἔ἖἖ὀἄἔὀ ὀῖὀ Ý÷ἄὀἄ ἔὀἰἄἔ ὀὀἰ ἄñ÷ἄ἖ἄ `cfg_local.pm`. Ἄἄἰ ἔἄ ÷ ñἄἔἄὀὀ἖ ἰἄ ὀἄἔỖὀἰἄὀ ἄὀὀὀ ὀῖ ἄñ÷ἄ἖ἄ.
- `commitcheck` - οἱ script ἄὀὀὀ ἔἄἔἄ἖ὀἄἔ ἄὀἄὀἔἄ἖ἄὀ ἄὀὀ ὀῖ **CVS**. ὀñἔὀἄ ἄἔÝἄ÷ἄἔ, ÷ ñçóεἰῖῖεἶἔἔἔἔἔ ὀῖ ὀñῡἄἄἰἰἄ `cvs_acls.pl`, ἄἰ ἰ committer Ý÷ἄἔ ὀñῡὀἄὀὀç ὀὀἰ ὀὀἔἔἄἔ἖἖ἔἔÝἰἰ ἰÝ἖἖ὀ ὀῖὀ ἄÝἰὀ἖ὀ ὀῖὀ ἔἔἔἔἔἄ, ἔἄἔ ἰἄὀὀ ἄἔὀἄἔἄ἖ ὀῖ `commit_prep.pl` ὀῖὀ ἄἔὀἄἔἄ἖ ὀῖὀὀ ἄἔὀὀ἖἖἖ὀὀὀ pre-commit ἄἔÝἄ÷ἰὀὀ. Ἀἰ ἄἄἰ ὀὀὀñ἖἖ἄἔ ἔὀὀ἖἖ ὀñῡἄἔ἖ἄ ὀὀὀὀ

æſŸa÷iðð aððirýð, ðuðð ði **CVS** eð aððeðñŸðæð ðði commit íá òðfá÷βóæð. Äáf eð ÷ñæéáóððβ íá ðæñŸiððð áððu ði añ÷ðβi.

- [illegible]

[illegible]

- [illegible]

2.6 Ôñïðïðïépíôáò ôá scripts

[illegible]

1. Áí ááí ēYēāōā íá ÷ñçóéúíðíēíPóāōā óéō ēāēōíōñāñāō óúí scripts íē íðíñāō ÷ñçóéúíðíēíYíōāē āðíēēāēóóēēŪ āðú òí FreeBSD, íðíñāōā íá āōāēñYóāōā íā āóóŪēāēā òí āñ ÷āñí access:

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

2. Ἀείνεþþόα ὀι ἀν÷ᾶβι avail þόα ἰά ᾱᾶἡÝ÷ᾶέ ὀἰῶ ᾱέῶἰἡἰῶ ὀᾶέÝἡἰῶ ὀἰῶ repository ὀἰῶ ἰῶἰῶ ἡἡᾶῶ ἰᾶ ᾱᾶἡἡᾶ ὀῑ ὀἡῶᾶᾶ. Ὀἡἡἡᾶᾶᾶᾶ ἡῶ ἡ ᾱᾶὀῑᾶᾶᾶ ἡἡᾶᾶ ἡἡᾶᾶ ὀῑ avail | CVSROOT ᾱᾶἡᾶ, ᾱᾶῶᾶ ἡ ᾱῶᾶᾶᾶᾶ ᾱῶᾶ ἡᾶ ὀἡ ᾱᾶῶ ὀᾶ ἰᾶ ὀἡ ᾱῶᾶᾶ ᾱᾶ.

[illegible]

3. Αέινεηπόά οι άν÷άβι cfg_local.pm πόά ίά άανέΥ÷άέ οέό άδέεραΥό ότo άδέεοιαβόά. Δεί οάάέάεινέΥία, έά όηΥάέ ίά άέΥάαόά οέό άάναέΌό όηιόιόέπόέιαό άδέεραΥό:

- `%TEMPLATE_HEADERS` - ΆόόΥό ιέ άόέέάόάέβääό άάάίάñáŰæííóáέ áđú óá log scripts, έάέ όίđíεάόííóáέ έŰóú άđú όί mail όίó έŰεά commit άί όđŰñ÷íóí έάέ άáí άβίάέ έárŲó όόί íŲíóíá όίó commit. ΆáíέέŰ, íđíñáβóá íá áóáénŲóáόá όέó έáόá÷ŰñŲóáέό ŲŲ έάέ MFC after—άóíŲ áóóŲó ó÷ άóβæííóáέ íá όί bug tracking óýóόçíá όίó FreeBSD έάέ όίí όñŰđí đíó áéá÷áénβæáόáέ όί FreeBSD óá branches όίó repository όίó. Έάέ όóóέέŰ íđíñáβóá íá đñíóέŲóáόá όέó áέέŲó óáđ.
- `$MAIL_BRANCH_HDR` - Άί έŲέάόá íá đñíóóβéáόáέ áóóŰíáόá íéá áđέέáóáέβää óá έŰεά commit íŲíóíá mail, ç íđíβá éá đāéñāŰóáέ όí branch όόí íđíβí Ųáéíá όí óóāéāñéíŲí commit, íñβóόá όçí όéíŲ áóóŲ íá óáéñéŰæáέ íá όçí áέέŲ óáđ āāéáóŰóóáόç. ΆóŲóóá όçí έárŲ άί άáí áđέέóíáβóá íá đñíóóβéáόáέ áóóŰíáόá íéá óŲíóíéá áđέέáóáέβää.
- `@COMMIT_HOSTS` - Íñβóόá όçí όéíŲ áóóŲ óá íéá έβóóá áđú óóóóŲíáόá (hosts), áđú óá íđíβá áđέóñŲđáόáέ íá āβíííóáέ commits.
- `$MAILADDRS` - Ųđéíβóόá áóóŲ όçí όéíŲ όóí email όίó áéá÷áéñέóóŲ Ų óá íéá áéáyέđíóç έβóóáóđ óόçí íđíβá έŲέάόá íá đçāāβíííóí óá mail óŰí commit íçíóíŰóúí.
- `@LOG_FILE_MAP` - ΆέέŲíóá áóóŰ όí array Űđóú áđέέóíáβóá. ÊŰεά regexp áíóέóóíé÷áβ όóí óóāéāñéíŲí όŰεāéí όóíí íđíβí áβíáόáέ όí commit, έάέ όí log íŲíóíá όίó commit áđíεçέáyáόáέ έŰóú áđú όíí έáóŰéíāí CVSROOT, óóíí όđíέáóŰéíāí commitlogs, óóí āñ÷áβí đíó áíáóŲñáόáέ óόçí áíóβóóíé÷ç āāāñáóŲ όíó đβíáέá @LOG_FILE_MAP.
- `$COMMITCHECK_EXTRA` - Άί άáí έŲέάόá íá ÷ñçóéííđíéŲóáόá όíóđ βáéíóđ áéŲā÷íóđ đñŰóááόçđ íá όí FreeBSD, éá đñŲđáέ íá áóáénŲóáόá όíí íñέóíŰ όçó όéíŲó \$COMMITCHECK_EXTRA áđú όí āñ÷áβí áóóŰ.

Όχι!Βασιός: Ç äëëäâP öçö öâñáíYöññö \$IDHEADER äßíäë äääöçíYññ üöë ëä äñöëYöäë ïññ öä öëäöðññìäð
FreeBSD. ÄñäñÜöäë äðü äëäëëYö ìäðäöññöYö öñö FreeBSD öññ **CVS**.

Ἰδιναβόα ἰά ἀεΨάῖαόα ὀι ἀν÷αβῖ cfg. pm ἀέα ἰά ἀαβόα θῖεΨό Ὑεεάο θἀναΨόνῖρο ἰθῖναβόα ἰά ἀεεῤῖαόα, ἀεεῤ ἰε θἀναθῤῖ ἄβῖαε ἰε ὀεῖ ὀοῖβεαέο ἀδεεῖαΨό.

4. Άðáíáñááóðáððá ðï áñ÷áðí exclude áέα íá áóáέñÝóáðá ðέð áέáέέÝð έάóá÷ññðóáέð 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 áñáñð ðïð έá ðáñέÝ÷άέ üññ ðïð ^CVSROOT/. Áóý áάέáðáóðάέáð ï wrapper, ïðñáððá íá ðñïέÝóóá ðï áέέü óáð header óóá áñ÷áðá ðïð áñðóέñíóάέ ïÝóá óóñ έάðÜέñá CVSROOT έάέ íá áðáíáðÝñáðá ðέð áñáñÝð áððÝð, áέέÜ ðñïð ðï ðáññí áðέÜ έá óáð áçíέññáðóñí ðñíáέðíáðá üðáí έá ðñíóðάέðóáðá íá έÜíáðá commit áñüðáñá.
5. Áññíðá ðï áñ÷áðí modules, έάέ áóáέñÝóóá üέáð ðέð ó÷áðέέÝð íá ðïð FreeBSD έάóá÷ññðóáέð. ðñïέÝóóá óá áέέÜ óáð modules áí ðï áðέέðíáððá.
- 6.

Όçíáðüόç: Όñ áðíá áððü áðíάέ áðáñáððóç ðï üññ áí Ý÷áðá ïñðάέ έÜðñέα óέñð óçñ ðáñÜñáðññ \$IDHEADER ðïð áñ÷áðíð cfg_local.pm (ç ïðñá äñðέáýάέ üññ áóüóññ ÷ñçóέññðñέáððá óçñ ðñíðññέçñÝç Ýέáñόç ðïð CVS ðïð Ý÷άέ ðïð FreeBSD).

Άέññðóá ðï áñ÷áðí options þóá íá óáέñέÜάέ íá ðïð tag ðïð ïñðάðá óðñ áñ÷áðí cfg_local.pm. Íέα áíáάðóç έάέ áñέέέáðὐóáόç ðïð FreeBSD óá üέñ ðïð áñ÷áðí áðíάέ áñέáðð.

7. Άðáíáñááóðáððá ðï áñ÷áðí rcstemplate þóá íá ðáñέÝ÷άέ óá ðάέá keywords íá áððÜ ðïð Ý÷áðá ïñðάέ óðñ cfg_local.pm.
8. ðññάέñáðέέÜ, áóáέñÝóóá ðïðð áέÝá÷ñð ðïð FreeBSD áðü ðïð áñ÷áðí tagcheck. ïðñáððá áðέÜ íá ðñïέÝóóáð exit 0 óóçñ áñ÷áðð ðïð áñ÷áðí áέα íá áðáíáññðñέðóáðá üέñðð ðïðð áέÝá÷ñð óðñ tagging.
9. Όñ óáέáððáðñ ðñÜñá ðïð ðñÝðάέ íá áðíάέ, áðíάέ íá óέáññáððóáððá üέέ óá commitlogs ïðññýí íá áðñέçέáððýí. Óá CVS scripts ðïð FreeBSD áðñέçέáýññ áððÜ óá logs óðñ ððñέáðÜέñá commitlogs ðïð έáðάέüññ CVSROOT. Áððüð ï ðÜέáñð ðñÝðάέ íá áçíέññáçέáð, ïðüðá έÜñðá óá áέüññέá:

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

Όðñá, áóý áέÝáñáðá óá ðÜñóá ðññáέðέέÜ, έá ðñÝðάέ íá έÜñáðá commit ðέð áέέááÝð óáð. ðñññðóá íá áðóáð óðáñññέ üέέ Ý÷áðá áðάέ óðñ ááððü óáð ðñüóááόç óðñ ðÜέáñ CVSROOT ïÝóá áðü ðïð áñ÷áðí avail ðñέñ έÜñáðá ïðέáððñðá, áóüóñ óóçñ áñðέáðç ðáñðððüόç έá έέáέððáðá ðññ ááððü óáð Ýñ. ïðüðá, ðñññðóáðá óá ðÜñóá íá áðíάέ üððð áðέέðíáððá, έάέ üññ ðüðá áðóáð óá áέüññέá:

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

2.7 ΆñέέñÜέññóáð óçñ Άάέáðὐóáόç

Άðóá Ýñññέ áέα óçñ ðñðç óáð äñέñð: íá forced commit óðñ áñ÷áðí avail, áέα íá óέáññáððóáððá üέέ üέá äñέéáýññ üððð έá Ýðñáðá.

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

¶í üέá ðÜñá έάέÜ, óðá÷áñçððñέα! ,÷áðá έáðáðÝñάέ íá óððáðá íέα ðέðñüð έάέññáέέð áάέáðὐóáόç ðññ FreeBSD scripts áέα ðïð repository óáð. Óóçñ ðáñðððüόç ðïð ðïð CVS áñáέññέáð íá ðáñáðññέÝóáέ áέα έÜðέ, áðέóðñÝððá óóέð ðññáýññáñáð áññóçðáð έάέ áέÝáñðá íáñÜ üέέ Ý÷áðá áέðáέÝóáέ óüóðÜ üέá óá ðññáýññáñá áðíáðá.

3 ΆεάέêÞ ÅæéáÜóóάόç ðïð FreeBSD Project

Ôï Bàéï ðï FreeBSD project ÷ñçóéïïðïéåß íéå æéáðñðð æéáðññáðéêÞ åæéáÜóóάόç, ç ïðïßå ÷ñçóéïïðïéåß åðßóçð áñ÷åßå áðü ðïð ððïðÜéåêï freebsd ðïð CVSROOT ðïð ÷ñçóéïïðïéåßððéå óðï FreeBSD. Ôï project ÷ñæÜæåððéå êÜðé ðÝðïéï euau ðïð íååÜéïð áñééïïý ðùï committers, ðïð æéáðññáðéêÜ éå Ýðñåðå íå áñðéïïí üéïé óðï Bàéï group. ðóé, æçïéïñåðéçéå Ýíåð áððüð wrapper ï ïðïßð áðïïý ðñððå áñåóððæßæéå ðå óùóðÜ æéåðéóðððñéå ðùï committers, æéêÜæéå íåðÝðéåðå ðï group id ðå áððü ðïð repository.

Áí éåé ðï æéêü óåð repository ÷ñæÜæåððéå êÜðé áñÜéïñ, ðå åðñåðå ðïð éå ðñÝðéå íå æéïéðéððåðå æéïéðéïý ðåñåéÜðü. ÁæÜ ðñððå áð êÜïïïñå íéå óýïïñç åðéóéüðçóç ðùï ó÷åðéðí áñ÷åßüí.

3.1 Åñ÷åßå ðïð ÷ñçóéïïðïéïýðéå óðçí æéáéêÞ åæéáÜóóάόç ðïð FreeBSD

- `access` - ðï áñ÷åßå áððü æéÝå÷æéå ðéð ðéçñïïññåðð æéå ðå æééæéðñåðå ðñüóåðçðð. Èå ðñÝðéå íå ðï åðñåñåððððå áñÜéïñå Ýðéé þððå íå ðåñééåñåÜíåé üéå ðå ïÝçç ðïð project óåð.
- `freebsd/commitmail.pl` - ðï áñ÷åßå áððü ååí ÷ñçóéïïðïéåððéå ðéå, æéêÜ ðåñåñÝíåé æéå éóðïñééïý euäïðð. Ååí éå ÷ñæéåðððéå íå åðñåñåððððå áððü ðï áñ÷åßå.
- `freebsd/cvswrap.c` - ðñüéæéððéå æéå ðïð ðççåßï éðæééå ðïð CVS wrapper ðïð éå ðñÝðéå íå åæéåðððððåððå æéå íå ïðñÝðïïí üéïé íé Ýéåå÷é ðñüóåðçðð ðæéêÜ íå äïðéÝðïï. ðåñéóóüðåñåðð ðéçñïïññåðð æéå ðç æéåæéåððå áððð éå åñåððå ðåñåéÜðü. Èå ðñÝðéå íå æéñððððå ðå paths óðéð ACCESS éåé REALCVS íåñññåïïéÝð þððå íå ðæéñéÜéïïí íå ðç æéêÞ óåð åæéáÜóóάόç.
- `freebsd/mailex.c` - ðï áñ÷åßå áððü ÷ñæÜæåððéå æéå ðçí ó÷åðéð íå ðéð éßðððð ðå÷ðåññåßïð åæéáÜóóάόç ðïð FreeBSD. Ååí éå ÷ñæéåðððéå íå ðæéñÜíåðå ðï áñ÷åßå áððü.

3.2 Ç æéåæééåððå

1. Åéñðððå ðï áñ÷åßå `access` þððå íå ðåñéÝ÷æéå üüï ðï æéêü óåð username.
2. Åéñðððå ðï áñ÷åßå `cvswrap.c` þððå íå ðåñéÝ÷æéå ðï óùóðü path æéå ðç æéêÞ óåð åæéáÜóóάόç. Áððü ïññåððéå ðð íéå íåñññåïïéð ðïð ïññÜæåððéå ACCESS. Èå ðñÝðéå åðßóçð íå æéêÜðå éåé ðï üññå áñ÷åßå ðïð ðñåññåðééïý cvs binary áñ áððð ðïð ððÜñ÷æé ååí åßñéå ç óùóðð æéå ðç æéêÞ óåð ðåññðððç. Ôï éåññééü `cvswrap.c` éåññåß ðüð éå áíééæåððððððåððå ðçí áñéïð cvs óå åðßðåññåðððððð íå ðï cvwrap, êé ç áñ÷éêÞ áñéïð cvs éå íåðåðññéåß óðï áñ÷åßå `/usr/bin/ncvs`.

Ôï æéêü ïð áñéððððï ðïð áñ÷åßå `cvswrap.c` Ý÷æé ðå æéüéïðéå:

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

3. Ôï åðñåññåß åðñå æéå íå åæéåðððððïïñå ðïð wrapper æéå íå åßñåððå ðßåïññé üðé éå åßñåððéå ç íåðåðññåððéå óðï óùóðü group üðåí åßñåððéå commit. Ï ðççåßïð éðæééåð æé' áððü åñððéåððéå óðï áñ÷åßå `cvswrap.c` óðïñ éåðÜéïñ CVSROOT.

Íåðåæüðððððå ðïð éðæééå ðïð Ý÷æéððæéå þððå íå ðåñéÝ÷æéå ðå óùóðÜ 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 οἷ wrapper óái ôçí âî ñéοἷῡ cvs âîòēP, eÜñîòað Ὑóεé óBârōñi uóε ïðîēíòâPðîòâ èâεPóâé íá
 ÷ñçóéñîðîēPóâé òî repository, èá ðñÝðâé íá Ὑ÷âé óá éáoÜēççéâ aðBðâââ ðñuóââóçð.

4. Ἰδιναβὼα ὀπνά ἰά ἀοάεν Ὑῶαδῶα ὑεῖρὸδ οἰτὸδ ÷ ἡβῶαδῶα ἀδῦ οἰ repository group ὁάδ. 1/4εῖε ἰε Ὑῶα ÷ ἰε ὀνῦῶαῶοç ἑά ἄβῖρῖῶάε ἀδῦ οἷ wrapper, ἑάε ἰ βᾶεῖδ ἰ wrapper ἑά εὐῖῶάε οἷ ἀφῖῤεῖῖ group ἰα οἷ ὀδῖβ ἑά ἄβῖῶάε ἑάε ç ὀᾶεῖῖβ ὀνῦῶαῶοç.

3.3 ÅĖÝã÷ííôáò ôçí åãêáôÛóôáóç

İ wrapper ðñŸðǎé ðēŸıı íá áßíáé Ÿðíēı̈ð. İðıñǎßòá òöóéêÛ íá ôî äıēēı̈Ûóáòâ êÛıııóáð Ÿíá forced commit óôı āñ÷âßı
access:

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

ÎáíÛ, áí áõõü áðíõý÷áé, æÝãîã üöé üéá ôá ðãñáðÛüü âÞíáôá Ý÷íí æêðæãóôãß óúóôÛ.