

Αἱεῶὐόαόç áüò CVS Repository — ἱ öñüðïò ôïö FreeBSD

Stijn Hoop

stijn@win.tue.nl

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

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Ὀἱ FreeBSD ἁβἱᾱέ ῒᾱ ἑᾱῶἱ ÷ ðñüìŸîἱ àἰðîñééü öŷἱᾱἱῖ ὀἱö FreeBSD Foundation.

ΔἱεῖŸò ᾱῶü öéò ἑŸἱᾱéò Þ öñŸóᾱéò ἱé ἱῶἱᾱð ÷ ñçóéἱðἱéἱŸἱᾱé ᾱῶü ὀἱö ἑᾱῶᾱῶᾱῶᾱῶŸò Þ ὀἱö ðüēçöŸò ὀἱö ᾱéᾱ ἱᾱ ᾱéᾱḗñḂἱῶἱ ὀᾱ ðñüüἱᾱὀᾱ ὀἱö ἑᾱññἱŸἱᾱé àἰðîñééÛ öŷἱᾱἱῖ. ¼ðἱö ᾱῶöŸò àἰῶᾱἱḂἱᾱὀᾱ ὀᾱ ᾱῶöü ὀἱ ἑᾱḂἱᾱἱ ἑᾱῖ ᾱéᾱ üᾱᾱ ᾱῶü ᾱῶöŸò àἱüñḂᾱῖ ç ἱἱÜᾱᾱ ΑἱÜðöðἱçò ὀἱö FreeBSD üᾱé ἁβἱᾱé ðéᾱᾱἱἱ ἱᾱ ἁβἱᾱé àἰðîñééÛ öŷἱᾱἱῖ, ἑᾱ ἁᾱḂᾱ ῒᾱ ᾱῶü ὀᾱ öŷἱᾱἱῖ: “TM” Þ “®”.

Ὀἱ Ûñḗñἱ ᾱῶöü ðñḗḗñŸᾱῖ ὀᾱ ἁβἱᾱᾱ ὀἱö ῒᾱᾱᾱ ᾱéᾱ ἱᾱ ἁᾱῶᾱᾱᾱᾱᾱᾱ ῒᾱ CVS repository ὀἱö ÷ ñçóéἱðἱéἱᾱ ὀᾱ Ḃᾱῖ ἁñ÷ᾱḂᾱ ἁŸἱçð ἁἱῶἱḂἱ (scripts) ἱᾱ ᾱῶöÛ ὀἱö ÷ ñçóéἱðἱéἱᾱ ἑᾱῖ ὀἱ FreeBSD project ὀç ᾱéḗÞ ὀἱö ἁᾱῶᾱᾱᾱᾱᾱ. Ç ὀᾱᾱḗñḗἱŸἱç ðñἱóŸᾱῖç ῒ÷ᾱῖ ἁñᾱᾱöÛ ðḗñἱᾱḗᾱᾱᾱ ῒᾱἱᾱῖ ἱᾱᾱ ὀðἱðἱῖçἱŸἱçð CVS ἁᾱῶᾱᾱᾱᾱᾱᾱ, üðüð ðῖἱ ἑᾱðñḗñᾱÞ ῒᾱᾱ÷ἱ ðñüᾱᾱᾱᾱᾱ ὀᾱἱ ἁŸἱᾱñἱ ὀἱö ἑḂᾱῖᾱ ἑᾱḗð ἑᾱῖ ᾱῶöüᾱᾱç ðñḗᾱᾱᾱÞ ᾱῶᾱἱÜᾱñüᾱᾱἱ email ἱᾱ ἑᾱðḱñŸñᾱῖᾱ ᾱῖᾱ ἑÛḗᾱ ᾱῖῖᾱÞ ὀᾱἱ ḱçᾱᾱḂἱ ἑḂᾱῖᾱ (commit).

1 ἈέῶᾱᾱᾱᾱÞ

Ὀᾱ ðñḗᾱῶöüðñᾱ projects ᾱḗᾱŸḗñἱö ἑἱᾱῶἱῖῖῖ (free software) ἑᾱῖ ἁñῖ÷ὀἱŸ ἑḂᾱῖᾱ (open source) ÷ ñçóéἱðἱéἱŸἱ ὀἱ CVS ὀᾱἱ ὀŷὀçἱᾱ ἁῖŸᾱ÷ἱᾱ ὀἱö ἑḂᾱῖᾱ ὀἱöð. Δᾱñüῖἱ ὀἱö ὀἱ CVS ἁβἱᾱῖ ḱἱῖŸ ἑᾱῖü ὀᾱ ᾱῶöüἱ ὀἱἱ ὀñŸᾱ ῒ÷ᾱῖ ἑῖ ᾱῶöü ὀἱ ἱᾱñḂᾱῖü ὀἱö ὀᾱ ἁῖᾱὀḱἱᾱᾱ ἑᾱῖ ᾱᾱὀἱᾱḂᾱð. ἱᾱ ᾱῶü ᾱῶöŸò ὀῶᾱ ᾱᾱὀἱᾱḂᾱð ἁβἱᾱῖ ὀἱ üᾱῖ ç ἑἱῖÞ ÷ ñÞçç ἑḂᾱῖᾱ ἱðñᾱḂ ᾱñḂᾱἱᾱ ἱᾱ ἱᾱçᾱḂᾱῖ ὀᾱ ῒᾱἱ ᾱῖᾱ÷ᾱḗᾱὀῶῖü ᾱῶῖÛḗç, ᾱῖᾱῖᾱ ἁἱ ὀðÛñ÷ᾱῖ ç ᾱðῖᾱḱᾱ ἱᾱ ðñἱῶᾱᾱᾱὀḱἱŸἱ ἱñῖᾱἱ ῒᾱ ḗñÛᾱῖ ὀἱö ἁŸἱᾱñἱᾱ ὀἱö ἑḂᾱῖᾱ ᾱῶü ἑἱῖÞ ðñüᾱᾱᾱç.

Ç ἱñÜᾱᾱ ΑἱÜðöðἱçò ὀἱö FreeBSD ÷ ñçóéἱðἱéἱᾱ ᾱḗᾱḂᾱ ὀἱ CVS. ἈῖᾱῖŸᾱῖ ᾱðḂὀçð ἱᾱ ἱᾱᾱÛḗç ἁÛὀç ᾱῶü ðñἱᾱñἱᾱᾱᾱᾱᾱᾱ ᾱῶü ḱἱῖŸᾱ ᾱῖᾱḱἱᾱᾱᾱᾱ ÷ Ḃñᾱð. ΑἱᾱðöŸ÷ḗçᾱἱ ἑἱḗḱἱἱ ἱᾱñῖᾱ ἁñ÷ᾱḂᾱ ἁŸἱçð ἁἱῶἱḂἱ ᾱῖᾱ ἱἱñἱᾱ ὀçἱ ᾱῖᾱ÷ᾱḂñῖç ὀἱö repository ḱῖἱ ἁŸῖἱḗç. Δñüᾱᾱᾱᾱ ὀᾱ ἁñ÷ᾱḂᾱ ᾱῶöÛ ἁἱᾱḗᾱñḂḗçᾱἱ ἑᾱῖ ἑᾱñἱῖῖḱἱḗḂḗçᾱἱ ᾱῶü ὀἱἱ Josef Karthausser <joe@FreeBSD.org> ᾱῖᾱ ἱᾱ ἁβἱᾱῖ ḱῖἱ ἁŸῖἱἱ ἱᾱ ÷ ñçóéἱðἱéἱçἱŸἱ ἑᾱῖ ὀᾱ Ûḗᾱ ῒñᾱᾱ. Ὀἱ Ûñḗñἱ ᾱῶöü ðñḗḗñŸᾱῖ ἱᾱ ἱŸḗἱἱ ÷ ñÞççð ᾱὀḂἱ ὀἱἱ ἱŸἱἱ ἁñ÷ᾱḂᾱ ἁŸἱçð ἁἱῶἱḂἱ.

Ἀέα ἰά ἰδῖν Ὑοὰὸ ἰά ÷ ἡς οἰρῶ ἱεῖ ροὰὸ ἰά οἱ εἰσὺ ἀνὶ ὀνυθὶ δὲ δ᾽ ἐκ τῶν βᾶδ ἀοῖς τοῦ ὕπνου ἐὰ δὴ Ὑδαὲ ἰά
ἀφῆλ βαδᾶ δὲ ἀποείῃ ἰαεὺ αἰτὸ εἰσὶ ὄνα βᾶδ τοῦ CYS.

2 Đñþôç ÃêáôÜóôáoç

[illegible]

2.1 Áñ÷éêïðïßçóç ôïõ repository

Οι ὁηρῶι ὁηῦᾶι ὁῶ εᾶ ὁηῦᾶε ἰᾶ εῦἰᾶὼ ὑὼἰ ὀᾶἰᾶὼ ῒἰ ἰῦἰ repository ᾶἰᾶε ἰᾶ ᾶᾶᾶ ὀἰ **CVS** ἰᾶ ὀἰ
 ᾶἰ÷εἰῖᾶἰᾶᾶ:

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

Áðöü ëÝáë óöî **CVS** íá äciéiõñãÞóáë öîî öÜêæî äéá÷äÞñéócò **CVSROOT**, üðîõ óðîíááßîíîí üêàò íé ðáñáîíäðñîðîéÞóáëò.

2.2 C iñÜää ôiõ repository

Όπως έα άγιείονάΠοίονά όςί νΰάά όόςί ιδίβά έα άίΠέάε όί repository. ¼έρέ ιέ committers έα δñÝδαέ ίά άίΠέίόί όά άόδΠ όςί νΰάά, πόόά ίά ιδινίγί ίά άñÜοίόί όόί repository. Άέά όί όέίδñ άόδñ έα ÷ñςόέιδίέΠοίονά όςί βάέά νΰάά δñ ÷ñςόέιδίέάβ άέ' άόδñ όί όέίδñ έάέ όί FreeBSD, όςί νΰάά ncvs.

```
# pw groupadd ncvs
```

ÌàòÜ, èà ðñÝðàé íá àèòàéÝóàòà òçí áíòíèÞ chown(8) óðíí öÜèàèí ìá ðánÜìàðñí 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 äái èà ìðĩñáβ íá ãñÛøæé óôï repository áí äái áíÐêæé óôcí óúóôÐ ñÛäá.

2.3 Ðáßñĩĩĩôáò ôĩĩ ðçãáßĩ êpăéeêá

[illegible]

2.4 ÁíóéãñÜöííôáò ôá scripts ôíõ FreeBSD

ἄφωδᾶνα, ἀφῶεᾶν Ὑποῖα ὀφ ῥααβῖ ἐπαέεᾶ αῦ ὀφ **CVS**ROOT ἐᾶῶ Ὑεῖᾶ ὀῶ **FreeBSD** ὀφ ἱεῦ ἱᾶῶ repository. Ἀῖ Ἀῶῶᾶ ὀφ ῑεῖῶ Ὑῖ ἱᾶ ὀφ **CVS**, ῶῶ ἱᾶ ὀᾶ ὀᾶν Ὑᾶεᾶ αῦ ὀ ἱᾶεῖ ἱᾶ ὀνῖῶῶᾶ ῶᾶᾶ ἱᾶ ὀ Ὑῖᾶᾶ import ὀᾶ scripts, ὀᾶ ἱεᾶ

[illegible]

Άἱ ἁβιάε ἐαέ οὐοῖ ὀρίαιόεεῦ οἱ αἱ ς ὀανάδῦῖν ὀάνῦἁνάοῖδ ἁαῖ οἶο ὀάβῖαόαε ὀῖεῖ ἱαέῦεἁνϭ—οἱ ὀἁεέεῦ ἁδῖοῦῖῖῖῖῖ
 ἁβιάε οἱ βᾶεῖ. Ἄδῦ ἁεῖἁῖὀἶ οἱῖ `CVSROOT` ὀῦεἁεῖ ἐαέ αἱόεἁνῦὀῖὀἶ ὀἶ `FreeBSD` ἁν÷ἁβᾶ ὀῦῖν ἁδῖ ὀἶ ἁέεῦ ὀἶο
 οἱδῆεῦ (ἁδᾶβᾶ÷ὀἶ) αἱὀβᾶῖἁῖὀἶ:

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

[illegible]

2.5 Tá scripts

Ὁπρᾶ Ὡ÷ὰὸα ὁδῖι ὁὔεαεῖ ἀνααὸβαὸ ὁαὸ Ὡῖα ἀεῖαῖὩδ ἀὸβᾶῖαῖ ὁῖι scripts ὁῖο ὁῖ βαεῖ ὁῖ FreeBSD project ÷ ῖῖὸεῖῖῖῖῖ ὁδῖι ἀεῖῖ ὁῖο repository. Ἰεᾶ ὁᾶῖῖῖῖ ὁῖο ὁᾶ ὁε ÷ ῖῖὸεῖῖῖῖ ὁῖ eὔεᾶ ᾶῖ÷ ᾶῖῖ ὁᾶῖῖῖῖᾶῖῖῖᾶῖ ὁᾶῖᾶῖῖῖῖᾶῖ.

- `access` - οἱ ἀν÷ἄβι ἀδού ἀὰ ÷ ñçóεἰῖῖεἶἄβδῶἔ ὀδέδ ὀῖçééοἱÝῖἄδ ἄἔἔἄὀὀὀὀὀὀὀ **CVS**. × ñçóεἰῖῖεἶἄβδῶἔ ἱῖῖ ὀὀçῖ ἄἔἔἔἔἔἔἔ ἄἔἔἄὀὀὀὀὀὀ ὀῖῖ FreeBSD project, ἄἔἔ ἰἄ ἄἔÝἄ÷ἄὀἄἔ ç ðñῡὀἄὀὀç ὀὀῖ repository. Ἰðῖῖἄβδῶ 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 ἔἄñ÷ἄβῖ. ἸÝὀἄ ὀἄ ἄὀὀὀ, ἰðῖῖἄβδῶ ἰἄ ἔἄἔἔἔἔἔἔἔἔἔ ἰὀὀὀὀ ÷ ñçóὀἔἔ ὀὀῖὀὀ ἰðῖὀὀὀ ἔÝἔἄὀἄ ἰἄ ἄἔὀἄὀἄ ðñῡὀἄὀὀç ὀὀῖ repository, ὑðὀὀ ἄðὀὀçὀ ἔἄἔ ἰἄ ἄðἄἄἰὀÝὀἄὀἄ commits ὀἄ ἄðὀὀἄἄἰ ἔἄὀἄἔὑἄἰὀ ἔἄñ÷ἄβῖ. ἔἄ ðñÝðἄἔ ἰἄ ὀῖ ðñῡὀἄἡὑὀἄὀἄ ἔὀὀἄ ἰἄ ðἄñἔÝ÷ἄἔ ὀἔὀ ἰὀὀὀὀ ÷ ñçóὀἔἔ ἔἄἔ ὀῖὀὀ ὀἄἔÝἔἰὀὀ ὀῖὀ ἔἄ ὀðὀñ÷÷ἰὀἰ ὀὀῖ ἄἔἔὑ ὀἄὀ repository.
- `cfg.pm` - οἱ ἀν÷ἄβι ἀδού ἄñῖçῖἄÝἄἔ ὀἔὀ ñὀἔἰὀὀἄἔὀ ὀἄὀ ἔἄἔ ðἄñÝ÷ἄἔ ὀἔὀ ἄἰἰ ἡñἔὀῖÝ ñὀἔἰὀὀἄἔὀ. Ἄἄἰ ðñÝðἄἔ ἰἄ ἄἔἔὀἰἄὀἄ ἄὀὀὀ ὀῖ ἀñ÷ἄβῖ. Ἀἰὀἔἄὀἄ, ἔἄ ðñÝðἄἔ ἰἄ ὀῖðῖἔἄὀἔὀὀὀἄὀ ὀἔὀ ἄἔἔÝð ὀἄὀ ἄἔἔἄÝð ὀὀὀὀ ñὀἔἰὀὀἄἔὀ ὀὀῖ ἀñ÷ἄβῖ `cfg_local.pm`.
- `cfg_local.pm` - οἱ ἀν÷ἄβι ἀδού ðἄñἔÝ÷ἄἔ ὑἔἄὀ ὀἔὀ ñὀἔἰἔἄὑἰἄἰἄ ᰄὀ ðἄñἄἰÝðñῖὀὀ ὀῖὀ ὀὀὀὀἔἄὀὀὀ. ἔἄ ðñÝðἄἔ ἰἄ ἔὀὀἰἄὀ ἰðῖἔἄὀἔἔὀἄ ñὀἔἰὀὀἄἔὀ ὀἄὀ ἄἄἔ, ὑðὀὀ ὀἄ ðῖἔἄ ἄἔἄἔὀὀὀç ἔἄ ὀὀÝἔἡἰὀἄἔ ὀἄ email ἄðὀ ἔὀἔἄ commit, ὀἄ ðῖἔἰὀὀ hosts ἔἄ ἄðἔὀñÝðἄὀἄἔ ἰἄ ἄἔἡἰὀἄἔ commit, ἔἔð. ðἄñἔὀὀὀὀἄñἄð ðἔçñῖὀἡἰἄὀ ὀ÷ἄὀἔἔὀ ἰἄ ἄὀὀὀ ἔἄ ἄñἄὀὀ ᰄὀἄἔὀὀὀ.
- `checkoutlist` - οἱ ἀν÷ἄβι ἀδού ðἄñἔἔἄἰἄὀἰἄἔ ὑἔἄ ὀἄ ἀñ÷ἄβἄ ᰄὀ ἄñὀἔἡἰὀἄἔ ἔὀὀὀ ἄðὀ ὀῖἰ ὀἔἄἄ÷ἰ ὀῖὀ **CVS** ὀὀῖἰ ἔἄὀὀἔἄἰἄ ἄὀὀὀ—ὑἔἄ ἄἔὀὀὀ ἄðὀ ὀἄ ðñῖἔἄἔἡñἔὀἰÝἰἄ ἀñ÷ἄβἄ ᰄὀ ἄἔἰἔὀἡἄἄç ḡ ἄἰὀἔἔἔ `cvs init`. ἔἄ ðñÝðἄἔ ἰἄ ὀῖ ἄἔἔὀἰἄὀἄ ἄἔἄ ἰἄ ἄὀἔῖῖÝὀἄὀἄ ἡἄἔἔὀ, ὀ÷ἄὀἔἔὀ ἱῖῖἰ ἰἄ ὀῖ FreeBSD, ἀñ÷ἄβἄ.
- `commit_prep.pl` - οἱ script ἄὀὀὀ ἄἔὀἄἔἄἔ ἄἔὀὀἡἰὀὀ ἄἔÝἄ÷ἰὀὀ ðñἔἰ ἄðὀ ἔὀἔἄ commit, ἄἰὀἔἄἄ ἰἄ ὀἔὀ ñὀἔἰὀὀἄἔὀ ᰄὀ ὀ ὀ÷ἄὀ ἔὀἰἄἔ ὀὀῖ ἀñ÷ἄβῖ `cfg_local.pm`. Ἄἄἰ ἔἄ ÷ ñἄἔἄὀὀἄἔ ἰἄ ðἄἔἡὀἰἄὀἄ ἄὀὀὀ ὀῖ ἀñ÷ἄβῖ.
- `commitcheck` - οἱ script ἄὀὀὀ ἔἄἔἄὀἄἔ ἄðἄὀἔἄἄὀ ἄðὀ ὀῖ **CVS**. ðñἔὀἄ ἄἔÝἄ÷ἄἔ, ÷ ñçóεἰῖῖεἶἔἔἔἔἔ ὀῖ ðñῡἄἄἡἰἄ `cvs_acls.pl`, ἄἰ ἰ committer ὀ ḡἔ ðñῡὀἄὀὀç ὀὀῖ ὀὀἔἄἔἄἡἔἡἔἡἰ ἰÝἡἡὀ ὀῖὀ ἄÝἰὀἡὀ ὀῖὀ ἔἔἔἔἔ, ἔἄἔ ἡὀὀ ἄἔὀἄἔἄ ὀῖ `commit_prep.pl` ᰄὀὀ ἄἔὀἄἔἄἔ ὀῖὀὀ ἄἔὀὀἡἰὀὀὀ ἔἔἔἔἔ ἄἔÝἄ÷ἰὀὀ. Ἀἰ ἄἄἰ ὀðὀñῖἡἔ ἔὀὀῖἔ ᰄñῡἄἔἔἄ ὀὀῖὀὀ

ᾷἔῲᾳ÷ἰὀὀ ᾷὀὀῡῡ, ὀῡὀᾷ ὀὀ CVS ἔᾷ ᾷὀἔὀῡῲᾷἔ ὀὀ commit ἰᾷ ὀὀἰᾳ÷Ḃὀᾷ. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ.

- `commitinfo` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ÷ḡḳὀἑἰḡἰἔᾷḂὀᾷ ᾷῡ ὀὀ CVS ὀὀ ἰᾷ ᾷἰὀᾷὀḂὀᾷ ḡἰἔἰ script ἰᾷ ᾷἔὀᾷἔῲᾷ ḡḡἔἰ ᾷῡ ἔῲἔᾷ commit—ὀḳ ᾷἔἔḂ ἰᾷ ḡᾡḡḂḡḡὀḳ ᾷὀὀ ὀὀ ḡῡἔἰ ἔᾷἔῡḡḡᾷ ὀὀ `commitcheck`. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ.
- `config` - ὀὀ ᾳḡ÷ᾳḂἰ ḡὀἔἰḂὀᾷῡἰ ᾷἔ' ᾷὀὀ ὀὀ repository. ἔᾷ ḡḡῲḡᾷ ἰᾷ ἔῲῲᾷᾷ ᾷἔᾷᾷῲὀ ὀ' ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ ᾳῲῲᾷᾷ ἰᾷ ὀἔὀ ᾳῲᾷᾷ ὀᾷḳ, ᾷἔἔῲ ἰἔ ḡᾡἑὀὀὀᾷḡἰἔ ᾷἔᾳ÷ᾷἑἑὀḳ ἰḡἰἡῲἰ ἰᾷ ᾷὀḂὀἰἰ ὀἔὀ ᾳἰ' ἡἑὀἡῲ ḡὀἔἰḂὀᾷἔḡ. ḡᾡἑὀὀὀᾷḡᾡḡ ḡἔḳḡἰὀἡḂᾷḡ ᾷἔᾳ ὀἔὀ ᾷἔῲὀἡḡᾡ ᾷὀᾷὀὀḳὀᾷ ᾷὀἔἔἰᾳḂἰ ḡἰὀ ῲ÷ᾷὀ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ἰḡḡᾡḂὀᾷ ἰᾷ ᾳḡᾡḂὀᾷ ὀὀ ᾳḡ÷ᾷἑḡḂᾷἔἰ ὀὀ CVS.
- `cvs_acls.pl` - ὀὀ script ᾷὀὀ ᾷἔῲᾳ÷ᾷἔ ὀḳ ὀᾷὀὀὀḳὀᾷ ὀὀ committer, ἔᾷ ᾳἰ ᾷὀἔὀῡῲᾷἔ ᾷὀὀ ἰᾷ ῲ÷ᾷἔ ḡḡὀᾷᾷὀ ὀὀ ᾳῲἰḡἰ ὀὀ ἔḂᾷἔἔᾷ. ᾷὀὀ ᾳḂᾷὀᾷ ἰᾷ ᾳῲὀ ὀὀ ᾳḡ÷ᾳḂἰ `avail`. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ.
- `cvsignore` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ἔᾷἑἡḡḂᾷἰὀᾷ ὀᾷ ᾳḡ÷ᾳḂᾳ ḡἰὀ ὀὀ CVS ᾳᾳἰ ἔᾷ ḡḡῲḡᾷ ἰᾷ ᾷὀἔὀῡῲᾷἔ ὀὀ `checkin` ὀὀ ὀὀ repository. ἰḡḡᾡḂὀᾷ ἰᾷ ᾷḡᾳḡᾡᾷὀᾷḂὀᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ ᾳῲῲᾷᾷ ἰᾷ ὀἔὀ ᾷἔἔῲὀ ὀᾷ ḡḡἰὀἔἰḂὀᾷἔḡ. ḡᾡἑὀὀὀᾷḡᾡḡ ḡἔḳḡἰὀἡḂᾷḡ ᾷἔᾳ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ἔᾷ ᾳḡᾡḂὀᾷ ὀὀ ᾳḡ÷ᾷἑḡḂᾷἔἰ ὀὀ CVS.
- `cvswrappers` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ÷ḡḳὀἑἰḡἰἔᾷḂὀᾷ ᾷῡ ὀὀ CVS ᾷἔᾳ ὀḳ ᾳἰᾡᾡἰḡἰḂὀḳ Ḃ ᾷḡᾳḡᾡἰḡἰḂὀḳ ὀὀ keyword expansion, Ḃ ᾷἔᾳ ὀὀ ᾳἰ ἔῲḡἰἔἰ ᾳḡ÷ᾳḂἰ ἔᾷ ḡḡῲḡᾷ ἰᾷ ᾳὀἔᾷὀḡḂᾷᾷᾷ ὀỀ binary. ἰḡḡᾡḂὀᾷ ἰᾷ ᾷḡᾳḡᾡᾷὀᾷḂὀᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ ᾳῲῲᾷᾷ ἰᾷ ὀἔὀ ᾷḡἔἔὀἡḂᾷḡ ὀᾷḳ. ḡᾡἑὀὀὀᾷḡᾡḡ ḡἔḳḡἰὀἡḂᾷḡ ὀ÷ᾷἔἔῲ ἰᾷ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ἰḡḡᾡḂὀᾷ ἰᾷ ᾳḡᾡḂὀᾷ ὀὀ ᾳḡ÷ᾷἑḡḂᾷἔἰ ὀὀ CVS. ὀḳἰᾷἔḂὀᾷ ḡῡỀ ἰἔ ᾷḡἔἔỰῲὀ ÷ḡ ἔᾷ ḡᾷ ᾳἰὀἔᾷῲὀἰ ὀὀὀὀ ᾷἔᾳ client/server ÷ḡḂὀḳ ὀὀ CVS.
- `edithook` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ᾳᾳἰ ÷ḡḳὀἑἰḡἰἔᾷḂὀᾷ ḡἔᾳ, ᾷἔἔῲ ᾳἰᾷἔἰὀἔᾷḂ ἰᾷ ὀḡῲḡḡ÷ᾷἔ ᾷἔᾳ ἔὀὀἡἑἔῲῡ ἔῡᾳἰὀỀ. ἰḡḡᾡḂὀᾷ ἰᾷ ὀᾷḂὀᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ.
- `editinfo` - ὀὀ CVS ÷ḡḳὀἑἰḡἰἔᾷḂ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ ᾷἔᾳ ḡᾡḡἔᾷḳ ὀῡἰ editors. ὀὀ FreeBSD ᾳᾳἰ ÷ḡḳὀἑἰḡἰἔᾷḂ ᾷὀḂ ὀḳ ἔᾷἔὀἡḡᾷἔῡὀḳὀᾷ ᾷἔᾷḂ ḳ ᾳḡἰᾳḂᾳ ὀὀ log ἰḳῲἰᾳὀỀ ᾳḂᾷὀᾷ ᾷῡ ὀᾷ `verifymsg` ἔᾷ `logcheck` ᾳḡ÷ᾳḂᾳ. Ἀḡἔἔῲἰᾳ ἰᾷ ᾳḂᾷὀᾷ ῲὀἔ ᾷὀὀ ᾷḡᾷἔᾷḂ ḳ ÷ḡḂὀḳ ὀὀ `editinfo` ῲ÷ᾷἔ ἔῲḡἔᾳ ḡḡᾷἔḂᾷὀᾷ ἰᾷ ὀᾷ commits ᾷῡ ἰᾷἑḡἔῲ ἔᾷ ἰᾷ ὀᾷ commits ḡἰὀ ÷ḡḳὀἑἰḡἰἔῲἰ ὀἔὀ ᾷḡἔỰῲὀ ÷Ḃ Ḃ ÷Ḃ. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ᾷὀὀ ὀὀ ᾳḡ÷ᾳḂἰ.
- `exclude` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ḡᾡἑῲῲ÷ᾷἔ ἔᾷἡἰἔἔῲὀ ᾷἔὀḡῲὀᾷἔḡ (regular expressions) ḡἰὀ ÷ḡḳὀἑἰḡἰἔῲἰᾷ ᾷῡ ὀὀ ḡḡὡᾡᾡἰᾳ `commit_prep.pl` ᾷἔᾳ ἰᾷ ḡḡἰᾷἔἡἑὀὀἰῲ ὀᾷ ᾳḡ÷ᾳḂᾳ ḡἰὀ ᾳἰ ᾳḂᾷἔ ᾷḡᾡᾡḂὀḳὀἰ ἰᾷ ḡᾡἑῲῲ÷ἰᾳ ᾷḡἔἔᾷὀᾷἔᾷᾳ ᾷḡỔὀḡḡὀḳὀỀ (revision header). ὀḳḳἰ ᾳᾷἔᾷὀᾷὀᾷὀ ὀὀ FreeBSD, ὡἔᾳ ὀᾷ ᾳḡ÷ᾳḂᾳ ἔῲὀ ᾷῡ ῲἔᾷὀỀὀḳὀỀ (revision control) ᾳḂᾷἔ ᾷḡᾡᾡḂὀḳὀἰ ἰᾷ ḡᾡἑῲῲ÷ἰᾳ ἰἔᾳ ᾷḡἔἔᾷὀᾷἔᾷᾳ ᾷḡỔὀḡḡὀḳὀỀ (ὡḡὀỀ \$FreeBSD\$). ¼ἔᾳ ὀᾷ ἰῲῡᾷὀᾷ ᾳḡ÷ᾳḂἰ ḡἰὀ ὀᾷἑḡἔῲᾷἰὀἰ ἰᾷ ὀἰὀἔῲ÷ἔὀὀἰ ἰἔᾳ ᾷῡ ὀἔὀ ᾳḡᾡἰῲ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀỀῲ ᾳἰἔḡἡῲἰᾷ ᾷῡ ὀἰ ὀᾷἔᾷἑḡἑἰῲἰ ῲἔᾷᾳ÷ἰ. ἔᾷ ḡḡῲḡᾷ ἰᾷ ḡḡỔὀἔῲὀᾷ ὀἔὀ ᾳῲῲᾷᾷ ἔᾷἡἔἔῲὀ ᾷἔὀḡῲὀᾷἔ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ὡỀᾳἰ ἔῲῲᾷᾷ `checkin` ᾳḡ÷ᾳḂᾳ ḡἰὀ ᾳἰ ᾳḂᾷἔ ᾷḡᾡᾡḂὀḳὀἰ ἰᾷ ḡᾡἑῲῲ÷ἰᾳ ᾷḡἔἔᾷὀᾷἔᾷᾳ ᾷḡỔὀḡḡὀḳὀỀ. ἔᾷὀ ὀḳ ᾷἔῲḡᾷἔᾳ ὀḳ ᾳᾷἔᾷὀᾷὀᾷὀỀ ὀῡἰ ἰῲῡἰ scripts ᾷἔῲᾳ÷ἰὀ, Ḃὀὀ ἰᾷ ᾳḂᾷἔ ἔᾷἔῡὀᾡᾳ ἰᾷ ᾳἰᾷἑḡᾡḂὀᾷ ἰᾷ ἔᾷὀῲᾷỀỀ `CVSROOT/` ᾷῡ ὀἰ ῲἔᾷᾳ÷ἰ ὀῡἰ headers.
- `log_accum.pl` - ḡḡὡἔᾷἔᾷἔ ᾷἔᾳ ῲἰ script ḡἰ ḡᾷḡἡἰᾷ ὀὀ log ἰḂἰὀᾳ ὡḡὀ ᾷὀὀ ᾳḂᾷὀᾷ ᾷῡ ὀὀ `logcheck` script, ἔᾷ ὀὀ ḡḡỔὀἔῲᾷἔ ὀὀ ὀῲỀỀ ᾳῲὀ ᾳḡ÷ᾳḂἰ log ὀὀ repository, ῲὀἔἔ Ḃὀᾷ ἰᾷ ὀḡῲḡỀỀỀ ᾳὀᾷἔᾷḂᾷḡ ᾷῡ ὀᾷ commit logs. ἈḡḂὀỀ, ᾳἰᾷἔᾷᾳῲᾷ ἰᾷ ὀᾷḂἔᾷἔ ῲἰ mail ὀḳḳἰ email ᾷἔᾷỔὀỀỀỀ ḡἰὀ ῲ÷ᾷᾷ ᾳḳỔὀᾷἔ (ὀὀ `cfg_local.pm`). ὀἰἰᾡᾡᾳḂᾷὀᾷἔ ἰᾷ ὀὀ CVS ἰῲὀ ὀὀ ᾳḡ÷ᾳḂἰ `loginfo`. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ.
- `logcheck` - ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ ᾳḡỰᾳῲᾷἔ ὀὀ commit log ἰḂἰὀᾳ ḡἰ ḡᾡῲῲ÷ἰᾳ ἰἔ committers, ἔᾷ ḡḡỔὀᾷἔᾷḂ ἔᾷὀ ἔῲḡἰἔỀ ḡḡỀỀ ἰᾷ ὀὀ ἔᾷἡἔỔỀỀỀỀỀỀỀỀ. ὀἰἰᾡᾡᾳḂᾷὀᾷἔ ἰᾷ ὀὀ CVS ἰῲὀ ὀὀ ᾳḡ÷ᾳḂἰ `verifymsg`. Ἀᾷἰ ἔᾷ ÷ḡᾷἔᾷὀᾷḂ ἰᾷ ḡᾷἑḡῲᾷᾷ ὀὀ ᾳḡ÷ᾳḂἰ ᾷὀὀ.

ΌγιαΒυός: Οἱ script αἰαῖῶῶῶῶῶῶ ἁῶῶ ἰῶῶ ὀῶῶῶῶ ἁῶῶῶῶῶ ὀῶῶ FreeBSD ὀῶῶ **CVS:** Ḷ ἁῶῶῶῶ ἁὀὀῶ ἰῶῶῶῶῶῶῶῶ ὀῶῶ log ἰῶῶῶῶ ἁὀῶῶ ἁὀὀῶ Ḷ ÷ ἁῶ ὀῶῶῶῶῶῶῶῶῶ ἁὀῶ ὀῶ script. Ḷ ἁῶῶῶῶῶ Ḷ ἁὀῶῶῶ ὀῶῶ **CVS** ὀῶῶῶῶῶ ἁὀῶ ἁὀῶῶῶ ἁὀῶῶ ὀῶῶῶῶ, ἰὀὀὀὀ ὀῶ logcheck ἁὀ ἰὀῶῶῶ ἰῶ ἁὀῶῶῶ ἰῶῶῶῶῶῶῶῶῶῶῶῶ ὀῶῶ log ἰῶῶῶῶ, ἁῶῶ ἰὀῶῶῶ ἰῶ ἁῶḶῶῶῶ ὀῶῶ ὀῶῶῶῶ ἁὀῶ Ḷ ÷ ἁῶ ὀὀὀὀῶῶῶῶῶ ἁὀῶῶ. Ἀὀῶ ὀḶ Ḷ ἁὀῶῶῶ 1.11.2 ἁῶῶ ἰὀὀῶ ὀῶ Ḷῶῶῶ ὀῶ **CVS** ἰὀῶῶῶ ἰῶ ὀῶῶῶὀὀῶῶ ἰῶ Ḷ ÷ ἁῶ ὀḶ Ḷῶῶῶ ὀὀὀὀῶῶῶῶῶ ἰὀ ἁὀὀῶ ὀῶ Ḷ ÷ ἁῶ Ḷ Ḷ ἁὀῶῶῶ ὀῶῶ FreeBSD ἰὀ ὀḶ ἁὀῶῶῶῶ
RereadLogAfterVerify=always ὀῶῶ ἁῶ ÷ ἁḶῶ config.

- [illegible]

2.6 Ôñïðïðïéþíôáò 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 ἡᾶ ᾱᾶὀῑᾶᾶᾶ ᾱᾶᾶ ᾱᾶᾶὀῑ ὀῑ avail | CVSROOT ᾱᾶᾶᾶ, ᾱᾶᾶᾶ ἡᾶ ᾱᾶᾶᾶᾶᾶ ᾱᾶᾶ ἡᾶ ὀἡ ᾱᾶᾶ ὀᾶ ἰᾶ ὀἡ ᾱᾶᾶᾶ ᾱᾶᾶ.

[illegible]

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

- `%TEMPLATE_HEADERS` - ΆόόΥό ιέ άόέέάόάέβääό άάάίάñáÜæííóáέ áδú óá log scripts, έάέ öíðíεάöííóáέ éÜòú áδú öí mail öíö éÜεά commit áí öðÜñ÷íöí έάέ äáí äßíáέ έáíÝó öóí íÞíöíá öíö commit. ÄáíέéÜ, íðíñáßöá íá áóáέñÝóáöá öéó έáóá÷ üñÞóáέó PR έάέ MFC after—áöíÝ áóóÝó ó÷ äóβæííóáέ íá öí bug tracking óýóóçíá öíö FreeBSD έάέ öíí öñüðí ðíö áέá÷ áέñßæáóáέ öí FreeBSD óá branches öíö repository öíö. Έάέ ööóέéÜ íðíñáßöá íá ðñíóέÝóáöá öéó äέéÝó óáó.
- `$MAIL_BRANCH_HDR` - Áí éÝέáóá íá ðñíóóβεääóáέ áóóüíáóá íέá áðέέáóáέβää óá éÜεά commit íÞíöíá mail, ç íðíßá έá ðñáέñÜöóáέ öí branch öóí íðíßí Ýáέíá öí óóáέáñέñíÝíí commit, íñßóóá öçí öéíÞ áóóÞ íá óáέñέÜæáέ íá öçí áέέÞ óáó äáέáóÜóóáóç. ÁóÞóóá öçí έáíÞ áí äáí áðέέöíáßöá íá ðñíóóβεääóáέ áóóüíáóá íέá óÝöíέá áðέέáóáέβää.
- `@COMMIT_HOSTS` - Íñßóóá öçí öéíÞ áóóÞ óá íέá έßóóá áδú óóóóÞíáóá (hosts), áδú óá íðíßá áðέöñÝðáóáέ íá äßíííóáέ commits.
- `$MAILADDRS` - Ñöéíßóóá áóóÞ öçí öéíÞ öóí email öíö áέá÷ áέñέóóÞ Þ óá íέá áέáýέðíóç έßóóáó öóçí íðíßá éÝέáóá íá ðçääáßííöí óá mail öúí commit íçíöíÜöúí.
- `@LOG_FILE_MAP` - ÁέέÜíóá áóóü öí array üðüó áðέέöíáßöá. ÊÜεά regexp áíóέóóíé÷ áß öóí óóáέáñέñíÝíí öÜεáέí öóíí íðíßí áßíáóáέ öí commit, έάέ öí log íÞíöíá öíö commit áðíεçέáýáóáέ éÜòú áδú öíí έáóÜέíäí CVSROOT, öóíí öðíέáóÜέíäí commitlogs, öóí äñ÷áßí ðíö áíáóÝñáóáέ öóçí áíóóóóíé÷ ç äāāāóÞ öíö ößíáέá @LOG_FILE_MAP.
- `$COMMITCHECK_EXTRA` - Áí äáí éÝέáóá íá ÷ñçóέííðíéÞóáóá öíöð βáέíöð äéÝā÷íöð ðñüóááóçó íá öí FreeBSD, έá ðñÝðáέ íá áóáέñÝóáöá öíí íñέóíü öçó öéíÞð \$COMMITCHECK_EXTRA áδú öí äñ÷áßí áóóü.

Όχι!Βασιός: Ç äëëäâP òçò ðáñáíYòññò §IDHEADER áßíáë äääòçíYíñ üòë èä äñöëYðäë üññ óä ðëáðòñññìð
FreeBSD. ÁíáñòÜðáë áðñ äëäëëYð ìáðáðñññYð òñò FreeBSD óññ **CVS**.

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

4. Άðáíññάάόðáðá ðí áñ÷áßí exclude áέά íά áóáέñÝóáðá ðέð áέáέέÝð éάóá÷ññðóáέð ðíð FreeBSD (üðüð üέáð ðέð ãñáñÝð ðíð íáέέñíýí íá ^ports/ έðέ.). Άέðüð áððíý, áÜέðá óá ó÷üέέá ðέð ãñáñÝð ðíð íáέέñíýí íá ^CVSROOT/, έάέ ðñíóέÝóóá íέά ãñáñP ðíð éá ðññéÝ÷áé íüñí ðí ^CVSROOT/. Áóíý ááέάðáóðáέáß í wrapper, ïðíñáðá íά ðñíóέÝóóá ðí áέέü óáð header óóá áñ÷áßá ðíð ãñðóέííóáέ íÝóá óóíí éáðÜέíáí CVSROOT έάέ íά áðáíáðÝñáðá ðέð ãñáñÝð áððÝð, áέέÜ ðñíð ðí ðáñuí áðέÜ éá óáð áçíέíðñáðóíðí ðñíáέðíáðá üðáí éá ðñíóðáέðóáðá íά έÜíáðá commit áññüðáñá.
5. Áñíßíðá ðí áñ÷áßí modules, έάέ áóáέñÝóóá üέáð ðέð ó÷áðέέÝð íá ðí FreeBSD éάóá÷ññðóáέð. ðñíóέÝóóá óá áέέÜ óáð modules áí ðí áðέέðíáðá.
- 6.

Όçíáßüόç: Όí áðíá áððü áßíáέ áðáñáððçðí íüñí áí Ý÷áðá ïñðóáέ έÜðíέá ðέíP óóçí ðáñÜíáðñí \$IDHEADER ðíð áñ÷áßíð cfg_local.pm (ç íðíßá äíðέáýáέ íüñí áðüóíí ÷ñçóέííðíέáðá ðçí ðñíðíðíέçíÝýç Ýέäíόç ðíð CVS ðíð Ý÷áέ ðí FreeBSD).

Άέíñèðóá ðí áñ÷áßí options þóá íά óáέñéÜáέ íá ðí tag ðíð ïñðóáðá óðí áñ÷áßí cfg_local.pm. Íέά áíáάPðçç έάέ áíðέέáðΰóóáόç ðíð FreeBSD óá üέí ðí áñ÷áßí áßíáέ áñέáðP.

7. Άðáíññάάόðáðá ðí áñ÷áßí rcstemplate þóá íά ðññéÝ÷áé óá ðáέá keywords íá áððÜ ðíð Ý÷áðá ïñðóáέ óðí cfg_local.pm.
8. ðñíáέñáðέέÜ, áóáέñÝóóá ðíðð áέÝá÷íðð ðíð FreeBSD áðü ðí áñ÷áßí tagcheck. ïðíñáðá áðέÜ íά ðñíóέÝóóá exit 0 óóçí áñ÷P ðíð áñ÷áßíð áέά íά áðáíññáíðíέPóáðá üέíðð ðíðð áέÝá÷íðð óðí tagging.
9. Όí óáέáððáßí ðñÜáíá ðíð ðñÝðáέ íά áßíáέ, áßíáέ íά óέáíðñáððáðá üέέ óá commitlogs ïðíñíý íά áðíέçέáððíýí. Óá CVS scripts ðíð FreeBSD áðíέçέáýíðí áððÜ óá logs óðíí ððíέáðÜέíáí commitlogs ðíð éáðáέüáíð CVSROOT. Áððüð í ðÜέáέðð ðñÝðáέ íά áçíέíðñáçèáß, ïðüðá έÜíðá óá áέüέíðέá:

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

Όðñá, áóíý áέÝáíðá óá ðÜíðá ðñíóáέðέέÜ, éá ðñÝðáέ íά έÜíðá commit ðέð áέέááÝð óáð. Õñííððóá íά áßóá óßáíðñíé üέέ Ý÷áðá áðóáέ óðíí ááððü óáð ðñüóááόç óðíí ðÜέáέí CVSROOT íÝóá áðü ðí áñ÷áßí avail ðñέí έÜíðá ïðέáððíðá, áðüóíí óóçí áíðßèáðç ðññðððüç éá έέáέððáðá ðíí ááððü óáð Ýñ. ïðüðá, ðñííððóá óá ðÜíðá íά áßíáέ üððð áðέέðíáðá, έάέ íüñí ðüðá áðóáð óá áέüέíðέá:

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

2.7 ΆíέέíÜáέííðáð ðçí Άáέáðΰóóáόç

Άßóá Ýóíέíé áέá ðçí ðñðçç óáð äíέέíP: íά forced commit óðí áñ÷áßí avail, áέά íά óέáíðñáððáðá üέέ üέá äíðέáýíðí üððð éá Ýðñáðá.

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

¶í üέá ðÜíá έáέÜ, óðá÷áñçðPñέá! ,÷áðá éáðáóÝñáέ íά óððáðá íέá ðέPñüð éáέíðñáέέP ááέáðΰóóáόç ðñí FreeBSD scripts áέá ðí repository óáð. Óóçí ðññðððüç ðíð ðí CVS áíáέíðέáß íά ðáñáðííέÝóáέ áέá έÜðέ, áðέóðñÝððá óóέð ðñíçáíýíáíð áíüðçðáð έάέ áέÝáíðá íáíÜ üέέ Ý÷áðá áέðáέÝóáέ óüóðÜ üέá óá ðñíçáíýíáíá áðíáðá.

3 Άεάέê Þ ÅæäáÜóóάόç ðïð FreeBSD Project

Ôï Þäéï ðï FreeBSD project ÷ñçóéïïðïéåß íéå æéåðñð æéåðñäóéê Þ åæäáÜóóάόç, ç ïðïßå ÷ñçóéïïðïéåß åðßóçð åñ÷åßå áðü ðïð ððïðÜéåïï freebsd ðïð CVSROOT ðïð ÷ñçóéïïðïéåßðåé óðï FreeBSD. Ôï project ÷ñåÜæåðåé êÜðé ðÝðïéï euau ðïð íååÜéïð åñééïï ðüï committers, ðïð æéåðñäóéêÜ éå Ýðñåðå íå áïðéïï ïéïé óðï Þäéï group. ðóé, åçïéïñåðççå Ýíåð áðüð wrapper ï ïðïßð áðïï ðñðåå åíåððåßæåé óå óüóðÜ æéåðéóðåððñéå ðüï committers, æéêÜæåé íåðÝðåéóå ðï group id óå áðüð ðïð repository.

Áí éåé ðï æéêü óåð repository ÷ñåÜæåðåé êÜðé áïðéïï, óå åðíåðå ðïð éå ðñÝðåé íå æéïéðéðåðåðå æéïéðéïï ðåñåéÜðü. ÅéêÜ ðñðåå áð êÜïïïå íéå óýïïñç åðéóéððçóç ðüï ó÷åðéðí åñ÷åßüí.

3.1 Åñ÷åßå ðïð ÷ñçóéïïðïéïïéåé óóçí æéåéê Þ åæäáÜóóάόç ðïð FreeBSD

- `access` - ðï åñ÷åßå áðüð åéÝå÷éé ðéð ðççñïïññðåð æéå óå æééåðíåðåðå ðñüóååóçð. Èå ðñÝðåé íå ðï åðåñåñåóðåðå áïðéïåå Ýðéé þóðå íå ðåñééåíåÜíåé ïéå ïéå óå ïÝçç ðïð project óåð.
- `freebsd/commitmail.pl` - ðï åñ÷åßå áðüð ååí ÷ñçóéïïðïéåßðåé ðéå, æéêÜ ðåñåñÝíåé æéå éóðïñééïï euäïðð. Ååí éå ÷ñåéåóðåß íå åðåñåñåóðåðå áðüð ðï åñ÷åßå.
- `freebsd/cvswrap.c` - ðñüéåéóåé æéå ðïð ðççåßå ðñåééå ðïð CVS wrapper ðïð éå ðñÝðåé íå åæåóðåðåðåðåðå æéå íå ïðñÝðïï ïéïé íé Ýéåå÷éé ðñüóååóçð ðåéêÜ íå åïðéÝðïï. Ðåñéóóüðåñåð ðççñïïññðåð æéå óç æéåéåéåóåß åððÞ éå åñåðåðå ðåñåéÜðü. Èå ðñÝðåé íå æéñðåðåðåðå óå paths óéðð ACCESS éåé REALCVS íåññïïïéÝð þóðå íå ðåéñéÜéïï íå óç æéêÞ óåð åæäáÜóóάόç.
- `freebsd/mailsend.c` - ðï åñ÷åßå áðüð ÷ñåÜæåðåé æéå óçí ó÷åðéêÞ íå ðéð éßóðåð óå÷åññåßïð åæäáÜóóάόç ðïð FreeBSD. Ååí éå ÷ñåéåóðåß íå ðåññÜíåðå ðï åñ÷åßå áðüð.

3.2 Ç æéåééåéåóåß

1. Åéñðåðåðå ðï åñ÷åßå `access` þóðå íå ðåñéÝ÷éé ïïð ðï æéêü óåð username.
2. Åéñðåðåðå ðï åñ÷åßå `cvswrap.c` þóðå íå ðåñéÝ÷éé ðï óüóðü path æéå óç æéêÞ óåð åæäáÜóóάόç. Åðü ïñðååðåé ïð íéå íåññïïïéðð ðïð ïññÜæåðåé ACCESS. Èå ðñÝðåé åðßóçð íå æéêÜðå éåé ðï ïññå åñ÷åßå ðïð ðñåñåðééïý cvs binary áí åððÞ ðïð ððÜñ÷éé ååí åßíåé ç óüóðÞ æéå óç æéêÞ óåð ðåññððüç. Ôï éåññééü `cvswrap.c` éåññåß ðüð éå áíééååðåðåðåðåðåé óçí áíéïðÞ cvs óå åðßðååí óóóðíåðïð íå ðï cvwrap, êé ç åñ÷éêÞ áíéïðÞ cvs éå íåðåðåñåß óðï åñ÷åßå `/usr/bin/ncvs`.

Ôï æéêü ïïð áíéððððï ðïð åñ÷åßå `cvswrap.c` Ý÷éé óå æéüéïðéå:

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

3. Ôï åðüåñí åðíå åßíåé íå åæåóðåðåðåðåðåðå ðïð wrapper æéå íå åßíåðåðå ðßåïðñéé ïðé éå åßíåðåé ç íåðåðñïðÞ óðï óüóðü group ïðåí åßíåðåé commit. Ï ççåßïð éðåééåð æé' áðüð åñðéåðåé óðï åñ÷åßå `cvswrap.c` óðïé éåðÜéïï CVSROOT.

Íåðåæüððððåðå ðïð éðåééå ðïð Ý÷ééðå ðåç æéñðåðåé þóðå íå ðåñéÝ÷éé óåð óå óüóðÜ paths:

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


Ὁδὸς ὁδοῦ ÷ ἀέα ἀεἰἀόἀοῶΠῶἀ οἱ γΥῖ cvs ἀεὼἀεΨοείῃ ἀετῆρῶἐπρῶἀὼ ὅα ἀεϋεῖρῶἐὰ ἀΠιᾶόα (ἐὰ ὄñΥῖἀε 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 ñéοἷý cvs âîôîē, eÜñîoáo Ὑóεé óbâronî uóε ïðîéíoâPðîoâ èâεPóâé íá
 ÷ñçóéñîðîéPóâé òî repository, èá ðñÝðâé íá Ὑ÷âé óá éáoÜëççéá αðBðááá ðñuóááoçð.

4. Ἰδιναβὼα ὀπνά ἰά ἀοάεν Ὑῶαδῶα ὑεῖρὸδ οἰτὸδ ÷ ἡβῶαδὸ ἀδῦ οἰ repository group ὁάδ. 1/4εῖε ἰε Ὑεᾶᾶ ÷ ἰε δῆυῶαῶοçδ ἐὰ ἄβῆῖρὶῶάε ἀδῦ οἷ wrapper, ἐὰε ἰ βᾶεῖδ ἰ wrapper ἐὰ ἐὙῶᾶε οἰ ἀῖῤεῖᾶἰ group ἰὰ οἰ ἰδῖβἰ ἐὰ ἄβῆᾶῶάε ἐὰε ç ὁᾶεῖῖβ δῆυῶαῶοç.

3.3 ÅĖÝã÷ííôáò ôçí åãêáôÛóôáóç

İ wrapper ðñŸðǎé ðēŸıı íá áßíáé Ÿðíēı̈ð. İðıñǎßòá òòóéêÛ íá ôı äıēēıÛóáòâ êÛıııóáð Ÿıá forced commit óôı añ÷÷âßı access:

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

ÎáíÛ, áí áõõü áðïõ÷÷æé, æÝãîã üöé üéá ôá ðãñáðÛüü âÞíáôá Ý÷ïï æêðæãóôãß óúóôÛ.