

# Αἱεῶὐόαός αἱὐò CVS Repository — ἱ ὀñüðïò 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 \$

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\$FreeBSD: release/8.4.0/el\_GR.ISO8859-7/articles/cvs-freebsd/article.xml 39632  
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Ὀἱ FreeBSD ἁβἱᾱῆ Ἰᾱᾱ ἑᾱᾱἱ ÷ ðñüìŸïᾱ ἁἱðñῆῆÛ ὀŷἱᾱῆῖ ὀἱᾱ FreeBSD Foundation.  
ðἱῆῆŸᾱ ἁðü ὀῆᾱ ἑŸἱᾱῆᾱ ð ὀñŸᾱῆᾱ ἱῆ ἱðἱᾱᾱ ÷ ñçᾱῆἱðἱῆἱŷἱᾱῆ ἁðü ὀἱᾱ ἑᾱᾱᾱῆᾱᾱᾱᾱᾱŸᾱ ð ὀἱᾱ  
ðüῆçᾱŸᾱ ὀἱᾱ ἁῆᾱ ἱᾱ ἁῆᾱῆñᾱἱᾱ ὀᾱ ðñἱüἱᾱᾱ ὀἱᾱ ἑᾱññἱŷἱᾱῆ ἁἱðñῆῆÛ ὀŷἱᾱῆᾱ. ¼ðἱᾱ ἁðᾱŸᾱ  
ἁἱðᾱἱᾱἱᾱἱᾱ ὀᾱ ἁðᾱ ὀἱ ἑᾱᾱἱᾱἱ ἑᾱῆ ἁῆᾱ ὕᾱᾱ ἁðü ἁðᾱŸᾱ ἁἱññᾱῆᾱ ḡ ἱᾱᾱᾱ ἈἱŸᾱᾱᾱᾱᾱᾱ ὀἱᾱ FreeBSD ὕᾱῆ  
ἁβἱᾱῆ ὀῆᾱἱᾱ ἱᾱ ἁβἱᾱῆ ἁἱðñῆῆÛ ὀŷἱᾱῆᾱ, ἑᾱ ἁᾱᾱᾱ Ἰᾱᾱ ἁðü ὀᾱ ὀŷἱᾱῆᾱ: “™” ð “®”.

Ὀἱ ὐñῆñἱ ἁðᾱ ḡñῆᾱñŸᾱῆ ὀᾱ ἁᾱᾱᾱ ὀἱᾱ Ἰῆᾱᾱ ἁῆᾱ ἱᾱ ἁᾱῆᾱᾱᾱᾱᾱ Ἰᾱᾱ CVS repository ὀἱᾱ ÷ ñçᾱῆἱðἱῆἱᾱᾱ  
ὀᾱ ᾱῆᾱ ἁñ ÷ ἁᾱ ἁŸᾱᾱ ἁἱᾱῆᾱ (scripts) ἱᾱ ἁðᾱŸᾱ ὀἱᾱ ÷ ñçᾱῆἱðἱῆἱᾱᾱ ἑᾱῆ ὀἱ FreeBSD project ὀç ἁῆῆᾱ ὀἱᾱ  
ἁᾱῆᾱŸᾱᾱᾱᾱ. Ç ὀᾱᾱῆᾱῆñἱŸᾱ ḡñἱᾱŸᾱῆᾱ Ἰ ÷ ἁῆ ἁñῆᾱᾱ ḡᾱñἱᾱῆᾱᾱ Ἰᾱᾱᾱ ἱῆᾱ ὀððἱðἱῆᾱŸᾱᾱ CVS  
ἁᾱῆᾱŸᾱᾱᾱᾱ, ὕðᾱ ḡῆἱ ἑᾱðñᾱñᾱ Æῆᾱ ÷ ἱñᾱᾱᾱᾱᾱ ὀᾱ ἁŸἱᾱ ὀἱᾱ ἑᾱῆᾱ ἑᾱῆᾱ ἑᾱῆ ἁðᾱἱᾱᾱᾱ  
ðᾱñᾱᾱᾱᾱ ἁᾱᾱŸᾱñᾱᾱᾱ email ἱᾱ ἑᾱðᾱñŸᾱῆᾱ ἁῆᾱ ἑŸᾱ ἁῆᾱᾱ ὀᾱ ḡçᾱᾱᾱ ἑᾱῆᾱ (commit).

## 1 Ἀῆᾱᾱᾱᾱᾱ

Ὀᾱ ḡñῆᾱᾱᾱᾱᾱ projects ἁῆᾱῆᾱñἱ ἑἱᾱῆἱῆἱŸ (free software) ἑᾱῆ ἁñῆ ÷ ὀἱŸ ἑᾱῆᾱᾱ (open source) ÷ ñçᾱῆἱðἱῆἱŷἱ ὀἱ  
CVS ὀᾱ ὀŷᾱᾱᾱ ἁῆŸᾱ ÷ ὀἱᾱ ἑᾱῆᾱŸ ὀἱᾱ. ḡᾱñᾱῆἱ ὀἱᾱ ὀἱ CVS ἁβἱᾱῆ ḡἱῆŸ ἑᾱῆᾱ ὀᾱ ἁðᾱἱ ὀἱᾱ ὀñŸᾱ Ἰ ÷ ἁῆ ἑῆ ἁðᾱ ὀἱ  
ἱᾱñᾱῆᾱ ὀἱᾱ ὀᾱ ἁῆᾱᾱᾱᾱᾱ ἑᾱῆ ἁᾱᾱᾱᾱᾱ. ἱῆ ἁðü ἁðᾱŸᾱ ὀῆᾱ ἁᾱᾱᾱᾱᾱ ἁβἱᾱῆ ὀἱ ὕᾱῆ ḡ ἑἱῆᾱ ÷ ñᾱᾱ ἑᾱῆᾱ ἱðñᾱᾱ  
ᾱñᾱᾱᾱ ἱᾱ ἱᾱçᾱᾱᾱ ὀᾱ Ἰᾱᾱ ἁῆᾱ ÷ ἁῆᾱᾱᾱᾱ ἁᾱῆŸᾱᾱ, ἁῆᾱῆŸ ἁἱ ὀðŸñ ÷ ἁῆ ḡ ἁðῆᾱᾱᾱ ἱᾱ ḡñᾱᾱᾱᾱᾱᾱᾱ ἱñῆᾱἱ Ἰᾱᾱ  
ἑñŸᾱᾱ ὀἱᾱ ἁŸἱᾱñἱ ὀἱᾱ ἑᾱῆᾱ ἁðü ἑἱῆᾱ ḡñᾱᾱᾱᾱᾱ.

Ç ἱñᾱᾱ ἈἱŸᾱᾱᾱᾱ ὀἱᾱ FreeBSD ÷ ñçᾱῆἱðἱῆἱᾱᾱ ἁῆᾱñᾱ ὀἱ CVS. ἈῆᾱŸᾱῆ ἁðᾱᾱ ἱῆ ἱᾱᾱŸᾱ ἁŸᾱ ἁðü  
ðñᾱñᾱἱᾱᾱᾱᾱᾱ ἁðü ḡἱῆŸᾱ ἁῆᾱñᾱᾱᾱᾱᾱ ÷ ðñᾱᾱ. Ἀἱᾱðᾱ ÷ ḡçᾱἱ ἑἱᾱᾱ ἱᾱñῆŸ ἁñ ÷ ἁᾱ ἁŸᾱᾱ ἁἱᾱᾱñᾱᾱᾱᾱ ἑᾱῆ ἑᾱñῆῆἱðἱῆᾱᾱᾱ  
ἁðü ὀἱᾱ Josef Karthausser <joe@FreeBSD.org> ἁῆᾱ ἱᾱ ἁβἱᾱῆ ḡἱῆŸ ἱᾱ ÷ ñçᾱῆἱðἱῆἱŷἱ ἑᾱῆ ὀᾱ ὐῆῆᾱ Ἰñᾱᾱ. Ὀἱ  
Ÿñῆñἱ ἁðᾱ ḡñῆᾱñŸᾱῆ ἱῆ ἱŸῆᾱ ÷ ñᾱᾱᾱ ἁðᾱᾱ ὀᾱ ἱŸἱ ἁñ ÷ ἁᾱñ ἁŸᾱᾱ ἁἱᾱῆᾱ.

Άεά íá ìðñÝóáôá íá ÷ ñçóέìðñéΠóáôá ìá ôìí έάέγóáñí ðñüðìí óéò ðεçñììòñáò áóòìγ òìò Ûñèñìò έá ðñÝðáέ íá áñññæáôá óéò ááóέέÝð ìáεüäìòð έάέðìññáðò ôìò CVS.

## 2 Ðñòç ÁεάôÛóôáôç

**Ðñìáέäìðçóç:** Άβίáέ έάεΠ έáÝá íá áέóáέÝóáôá áέá ðñòç òìñÛ áóòΠ òç áέáάέέáóá ÷ ñçóέìðñéΠíóáò Ýíá έáñü äìέέìáóóέέü repository, áέá íá áβίáέ áÝááέì üóέ έá έáóáññΠóáôá üέáð óéò óóíÝðáέáð. Ðñέí ìáέέíΠóáôá óέáññáòðáðá üóέ Ý÷áðá ðñüóáóá backups, óá ððñá áááðçÝíá äìέäýìí!

### 2.1 Άñ÷έέìðñçóç ôìò repository

Ôì ðñòì ðñÛäìä ðìò έá ðñÝðáέ íá εÛíáôá üóáí óðΠíáôá Ýíá íÝì repository áβίáέ íá ðáðá óòì CVS íá ôì áñ÷έέìðñéΠóáέ:

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

Áóòü εÝáέ óòì CVS íá äçìέññáΠóáέ ôìí öÛέáέì áέá÷áβñέçð CVSROOT, üðìò óòìááβñìí üέáð ìέ ðáññáòñìðñéΠóáέð.

### 2.2 Ç ñÛáá ôìò repository

Ôπñá έá äçìέññáΠóíòìä òçí ñÛáá óòçí ððñá έá áíΠέáέ ôì repository. ¼έìέ ìέ committers έá ðñÝðáέ íá áíΠέìí óá áóòΠ òçí ñÛáá, þóóá íá ìðññýí íá áñÛòìòì óòì repository. Άέá ôì óέìðü áóòü έá ÷ ñçóέìðñéΠóíòìä òçí βáέá ñÛáá ðìò ÷ ñçóέìðñéΠáέ áέ' áóòü ôì óέìðü έáέ ôì FreeBSD, òçí ñÛáá ncvs.

```
# pw groupadd ncvs
```

ÌáðÛ, έá ðñÝðáέ íá áέóáέÝóáôá òçí áíðìέΠ chown(8) óòì öÛέáέì ìá ðáñÛíáòñì òçí ñÛáá ðìò ìüέð ðñìóέÝóáôá, έÝòìíóáð Ýóóέ òçí ñÛáá óòçí ððñá áíΠέáέ ì έáðÛέññò:

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

Áóòü áñáóóáέβæáέ üóέ έáñáðð ááí έá ððñáβ íá áñÛðáέ óòì repository áí ááí áíΠέáέ óòçí óúóòΠ ñÛáá.

### 2.3 Ðáβññìíóáò ôìí ðçááβì έπáέέá

Ôπñá έá ðñÝðáέ íá áðìέðΠóáôá ôìí έáðÛέññ CVSROOT áðü ôì repository ôìò FreeBSD. Áóòü áβíáóáέ áγέìέá, εÛñìíóáð check out áðü Ýíá áññ÷ðð ðññüóááçð FreeBSD CVS mirror. Άáðá ôì ó÷áóέü έáðÛέáέì óòì áá÷áέñβáέì ([http://www.FreeBSD.org/doc/el\\_GR.ISO8859-7/books/handbook/anoncv.html](http://www.FreeBSD.org/doc/el_GR.ISO8859-7/books/handbook/anoncv.html)) áέá ðáñέóóüðáññð ðεçñììòñáò. Áð ððìέÝóíòìä üóέ ì ðçááβìò έπáέέáð έá áðìέçέáððáβ óòì έáðÛέññ CVSROOT-freebsd ðìò áñβóέáóáέ ìÝóá óòì ðñÝ÷ñíóá έáðÛέññ.

### 2.4 ÁíóέáñÛòìíóáò óá scripts ôìò FreeBSD

¼óóáññá, áíóέáñÛòìíóá ôìí ðçááβì έπáέέá áðü ôì CVSROOT έáðÛέññ ôìò FreeBSD óòì áέέü ìáð repository. Áí áβóóá óòìçέέóìÝñì ìá ôì CVS, βóüð íá óáð ðáñÛóáέ áðü ôì ìóáέü íá ðñìóðáέΠóáôá íá εÛíáôá import óá scripts, óá ìέá

[illegible]

Άἱ ἁβιάε ἐαέ οὐοῖ ὀρίαιόεεῦ οἱ αἱ ς ὀανάδῴῦ ὀάνῴᾱνάοῖδ ἁαῖ ὀαὸ ὀάβῳάε δῖεῖ ἰαέῴεαῖς—οἱ ὀαέεεῦ ἀδῖὸῤῥῥῳἰά  
 ἁβιάε οἱ βᾶεῖ. Ἀδέῴ ἁεῤῥᾱῖδᾱ οἱῖ CVSROOT ὀῴεαεῖ ἐαέ αἰόεᾱῖῴῤῥᾱ ὀά FreeBSD ἁῖ÷ᾱβᾱ ὀῴῖῥῥ ἁδῖ ὀά ἁέεῴ ὀαὸ  
 οἱδῖεῴῤῥ (ἁδᾱβῥᾱ÷ὀά) αἰὸβᾱῖᾱῖᾱ:

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

Ὁς ἰαερόα υἱὸς θεοῦ αὐτοῦ εἰς τὸ ὕψος τῆς γῆς ἐπὶ τῆς ἀριστερῆς τοῦ θρόνου ἐκάθισεν καὶ οἱ υἱοὶ τῆς γῆς οὐκ αἶσαν αὐτοῦ. Ἀλλ' ὁ θεὸς ὕψους. Ἀλλ' οὐκ ἐπὶ τῆς ὕψους αὐτοῦ οὐκ ἐκάθισεν.

## 2.5 Tá scripts

Ὁπρᾶ Ὡ÷ὰὸα ὁδῖι ὁὔεαεῖ ἀνααὸβαὸ ὁαὸ Ὡῖα ἀεῖεαῖδ ὁίὸβαῖαὸῖ ὁῖι scripts ὁῖο ὁῖ βαεῖ ὁῖ FreeBSD project ÷ ἡῖοεῖιῖῖεαῖ ὁδῖι ἀεῖῖ ὁῖο repository. Ἰεᾶ ὁᾖἡῖεῖοῖ ὁῖο ὁᾶ ὁε ÷ ἡῖοεῖαῖεᾶ ὁῖ eὔεα ἁῖ÷ ἁῖῖ ὁᾖεῖεαῖ Ὡῖῖαὸε ὁᾖᾖεῖῖῖ.

- [illegible]

æeYā÷iōð aōōiYōð, ōūðā ði **CVS** eā āðēōñYøæē ōðī commit íá ōōfā÷βōæē. Äāf eā ÷ñæēáóóāß íá ðæēñŪiāōā áōðū ði āñ÷āßi.

- [illegible]

**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 ἰὶ ἁὀῶῶῶ ἰῶῶῶῶῶῶῶῶῶῶ ὀῶῶ log ἰῶῶῶῶ, ἁῶῶ ἰὀῶῶῶ ἰὶ ἁῶῶῶῶ ὀῶῶ ὀῶῶῶῶ ἁὀῶ Ḷ ÷ ἁῶ ὀὀὀὀῶῶῶῶῶ ἁὀῶῶ. Ἀὀῶ ὀḶ Ḷ ἁὀῶῶῶ 1.11.2 ἁῶῶ ἰὀὀὀ ὀῶῶ Ḷ ὀῶῶ ὀῶ **CVS** ἰὀῶῶῶ ἰὶ ὀὀὀὀὀὀὀὀ ἰὶ Ḷ ÷ ἁῶ ὀḶ Ḷ ὀὀὀὀ ὀὀὀὀὀὀὀὀ ἰὶ ἁὀὀῶ ὀῶῶ Ḷ ÷ ἁῶ Ḷ ἁὀῶῶῶ ὀῶῶ FreeBSD ἰὶ ὀḶ ἁὀῶῶῶῶ  
RereadLogAfterVerify=always ὀῶῶ ἁῶ ÷ ἁὀῶ config.

- **loginfo** - οἱ ἀν÷ἀβι ἀδού ÷ ἡγορεύῃθεῖαβθάέ ἀδού οἱ **CVS** ἀέα οἱ Ἱέαᾶ÷ι οἷο θῖο ἐὰ οὐ Ἱεῖνῖοῦῶ ἱέ δεῖῇνῖοῖνβᾶο οὐῖ logs. Ἀᾶρ ἀῖαῇαῖθεῖαβθάέ οἱ θῇνῖαῇαῖῖῖῖ **log\_accum.pl**. Ἀᾶ ἱ ἐὰ ÷ ἡᾶέαόοᾶβ ἱᾶ θᾶῇῇἸῖαόᾶ ἀόδου οἱ ἀν÷ἀβι.
- **modules** - οἱ ἀν÷ἀβι ἀδού ᾶέαόϋῇᾶβ ὁϋ ῥᾶῇᾶῖῖοῗῗῗ οἷο ὁϋῖᾶόᾶ οἷο **CVS**. Ἐὰ θῇ Ἱῥᾶῗ ἱᾶ ἀόᾶῇ Ἱόᾶᾶ ὁᾶ **FreeBSD** modules ἀδού ὁϋ ῗῇ ῗᾶῖῖῖῗῗ Ἱῗῗῖῗ. Ἰῥῖῇᾶβᾶ ἱᾶ ᾶῥᾶῖᾶῇᾶόᾶβᾶᾶ ἀδού οἱ ἀν÷ἀβι ἀῖἸῗῗᾶ ἱᾶ ὁῗο ᾶῥῗῗῗᾶᾶ ὁᾶᾶ. ῥᾶῇῗῗῗᾶῇᾶᾶ δεῖῇῇῖῖῖῖᾶᾶ ᾶῗᾶ οἱ ἀν÷ἀβι ἀδού ᾶβῖᾶῗ ᾶῗῗῗῗῗῗ ὁἷᾶ ᾶᾶ÷ᾶῇῇᾶῗῗ οἷο **CVS**.
- **notify** - οἱ ἀν÷ἀβι ἀδού ÷ ἡγορεύῃθεῖαβθάέ ἀδού οἱ **CVS** ὁῥῖ ῥᾶῇᾶῥᾶᾶᾶᾶ ῥῖο ἑἸῥῖῗῗ ῥῖῥῗῗᾶᾶᾶ ᾶῖῗῗῗῗ ῥᾶῇᾶῗῗῗῗῗῗ ὁᾶ ἑἸῥῖῗῗ ἀν÷ἀβι. Ἀᾶ ἱ ÷ ἡγορεύῃθεῖαβθάέ ὁἷᾶ repository οἷο **FreeBSD**. Ἰῥῖᾶβᾶ ἱᾶ ᾶῥᾶῖᾶῇᾶόᾶβᾶᾶ ἀδού οἱ ἀν÷ἀβι ἀῖἸῗῗᾶ ἱᾶ ὁῗο ᾶῥῗῗῗᾶᾶ ὁᾶᾶ. ῥᾶῇῗῗῗᾶῇᾶᾶ δεῖῇῇῖῖῖῖᾶᾶ ᾶῗᾶ οἱ ἀν÷ἀβι ἀδού ᾶβῖᾶῗ ᾶῗῗῗῗῗῗ ὁἷᾶ ᾶᾶ÷ᾶῇῇᾶῗῗ οἷο **CVS**.
- **options** - οἱ ἀν÷ἀβι ἀδού ὁ÷ᾶᾶᾶᾶᾶᾶ Ἰῖᾶᾶ ἱᾶ ὁϋ **FreeBSD** Ἱῗῗῖῗ οἷο **CVS** ῗῗῗ ὁῥῖᾶᾶᾶᾶᾶᾶ ἱῖῖῖ ἀδού ἀᾶᾶ ῗῗ Ἱῗῗῖῗ οἷο **Debian**. ῥᾶῇῗῗ÷ᾶ ὁἷᾶ ὁἷ keyword ῥῖο ἐὰ ᾶβῖᾶᾶῗ expand ὁᾶᾶ revision headers. Ἐὰ θῇ Ἱῥᾶῗ ἱᾶ ὁῇῖῖῖῖῗῗᾶᾶ οἱ ἀν÷ἀβι ἀδού ᾶῗᾶ ἱᾶ ᾶβῖᾶῗ ᾶῗῗῗ ἱᾶ ὁϋ Ἱῗῗῖῗ ῥῖο Ἱ÷ᾶᾶ ᾶῗᾶᾶᾶ ὁἷᾶ ἀν÷ἀβι **cfg\_local.pm** (ᾶῖ ᾶῥῖᾶᾶᾶᾶᾶ ἱᾶ ÷ ἡγορεύῃθεῖᾶᾶᾶ ἀᾶᾶᾶ ὁϋ ῗῗῗῗῗῗῗῗῗῗ, ῥῖο θῇῖο οἱ ῥᾶῇῖῖ ᾶῖῗῗᾶᾶ ὁῗᾶᾶᾶ ἱῖῖῖ ἱᾶ ὁϋ Ἱῗῗῖῗ οἷο **CVS** ῥῖο Ἱ÷ᾶῗ οἱ **FreeBSD**).
- **rcsinfo** - οἱ ἀν÷ἀβι ἀδού ᾶῖῗῗῗῗῗ÷ᾶᾶ ὁᾶῗῗῗῗῗ οἷο repository ὁᾶ ἀν÷ᾶβᾶ template, ῡῥῡᾶ ῥ.÷. οἱ **rcstemplate**. Ἀῖῖ ἱῇῗῗῖῖ, οἱ **FreeBSD** ÷ ἡγορεύῃθεῖᾶβ Ἱῖᾶ template ᾶῗᾶ ῖῗῗῗῗῗ οἱ repository. Ἰῥῖᾶβᾶ ἱᾶ ῥῖῗῗῗῗῗᾶᾶ ῗῗῗ Ἰῗῗᾶ ὁἷᾶ ἀν÷ἀβι ἀδού ᾶῖ οἱ ᾶῥῗῗῗᾶᾶᾶ.
- **rcstemplate** - οἱ ἀν÷ἀβι ἀδού ᾶβῖᾶῗ οἱ template ῥῖο ἐὰ ᾶῖῖῖ ὁᾶῗῗῗ ἱῗῗῗῗῗ ὁᾶᾶ ᾶῗῗῗῗῗ checkin. Ἐὰ θῇ Ἱῥᾶῗ ἱᾶ ᾶῥᾶῖᾶῇᾶόᾶβᾶᾶ ἀδού οἱ ἀν÷ἀβι ᾶᾶᾶ ἱᾶ ῥᾶῇᾶῇἸῖᾶᾶ ὁῗο ᾶῗῗῗῗῗᾶᾶ ὁἷᾶ ἀν÷ᾶβι **cfg\_local.pm**.
- **tagcheck** - οἱ ἀν÷ᾶβι ἀδού ᾶῗῗᾶ÷ᾶῗ ὁϋ ῥᾶῇᾶᾶᾶ ὁῥῖ ÷ ἡᾶᾶ ὁῖᾶ tags ὁἷᾶ repository. ῗ ῗᾶῖῖῗῗ Ἱῗῗῖῗ οἷο **FreeBSD** ᾶᾶ ᾶῥῗῗῗῗῗ tags ἱᾶ ἱῖῖῖᾶᾶ ῡῥῡᾶ **RELENG\***, ῗῗῗᾶ ὁῥῗ ᾶῗᾶῗῗῗᾶᾶ ᾶῗῗῗῗᾶᾶ ὁῖᾶ ᾶᾶᾶᾶῖῖῖ ᾶῗῗῗῗῗ. Ἐὰ θῇ Ἱῥᾶῗ ἱᾶ ᾶῥᾶῖᾶῇᾶόᾶβᾶᾶ οἱ ἀν÷ᾶβι ἀδού ἀῖἸῗῗᾶ ἱᾶ ὁῗο ᾶῗῗῗ ὁᾶᾶ ἀῖἸῗῗᾶᾶ ῥῖῗῗῗᾶᾶᾶ.
- **taginfo** - οἱ ἀν÷ᾶβι ἀδού ᾶῖῗῗῗῗῗ÷ᾶᾶ ῗῗῗῗῗᾶᾶᾶ ὁῖᾶ tags ὁᾶ ὁᾶῗῗῗῗῗ οἷο repository ἱᾶ ῥῖῖᾶῇἸῖᾶᾶ ᾶῗῗᾶ÷ῖᾶ, ῡῥῡᾶ οἱ **tagcheck**. Ἀᾶ ἱ ἐὰ ÷ ἡᾶέαόοᾶβ ἱᾶ ὁῇῖῖῖῖῗῗᾶᾶ ἀδού οἱ ἀν÷ᾶβι.
- **unwrap** - οἱ ἀν÷ᾶβι ἀδού Ἰῖῖᾶβ ἱᾶ ÷ ἡγορεύῃθεῖῗῗῗ ᾶῗᾶ οἱ ἀᾶᾶῖᾶᾶᾶ “**unwrap**” ὁῖᾶ binary ἀν÷ᾶβῖῖ (ᾶᾶᾶᾶ **cvswrappers**) ὁἷᾶ checkout. Ἀᾶ ἱ ÷ ἡγορεύῃθεῖᾶβᾶᾶ ὁῥῖ ὁῇ Ἱ÷ῖᾶᾶ ᾶῗῗᾶᾶᾶᾶᾶ ὁἷο **CVS** ᾶῗᾶ οἱ **FreeBSD** ᾶῥῗῗᾶ ᾶᾶ ῗῗῗῗῗᾶᾶ ὁῗᾶᾶ ἱᾶ ὁᾶ ᾶῥᾶῇῗῗῗᾶᾶ ὁἷᾶ ᾶᾶᾶᾶᾶᾶ ἱᾶ ὁῇῖῖῖῖῗῗᾶᾶ οἱ ἀν÷ᾶβι ἀδού.
- **verifymsg** - οἱ ἀν÷ᾶβι ἀδού ᾶῖῗῗῗῗῗ÷ᾶᾶ ῥῗῗῗῗᾶᾶῗῗῗῗῗ οἷο repository ὁᾶ ῥῖῖᾶῇἸῖᾶᾶ

## 2.6 Ôñïðïðïépíôáò ôá scripts

[illegible]

1. Áí aái ēYēāōá íá ÷ñçóéúíðíēíPóāōā óēō ēāēōíōñāñāō ðúí scripts íē íðíñāō ÷ñçóéúíðíēíýíōāē āðíēēāēóōēēŨ āðú ðí FreeBSD, íðíñāōā íá āōāēñYóāōā íā āóóŨēāēā ðí āñ ÷āñí access:

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

2. Ἀείνεþþόα ὀι ἀν÷ᾶβι avail þόα ἰά ᾱᾶἡÝ÷ᾶέ ὀἰῶ ᾶέῶἰἡἰῶ ὀᾶέÝἡἰῶ ὀἰῶ repository ὀἰῶ ἰῶἰῶ ἡἡᾶῶ ἡἡᾶῶ ἰᾶ ᾶἡἡᾶῶ ὀῑ ὀἡἡᾶῶ. Ὀἡἡᾶῶᾶᾶᾶ ἡῶ ἡᾶ ᾶᾶὀᾶᾶᾶ ἡᾶᾶ ἡᾶᾶὀᾶ ὀῑ avail | CVSROOT ᾶᾶᾶᾶ, ᾶᾶῶῶ ἡᾶ ᾶᾶᾶᾶᾶᾶ ᾶᾶᾶ ἡᾶ ὀἡ ᾶᾶᾶ ὀᾶ ἰᾶ ὀἡ ᾶᾶᾶᾶ ᾶᾶ.

[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:

- [illegible]

Όχι!Βουό: Ç äëäãÐ öçø ðãñáíÝõññõ \$IDHEADER áßíáë äãäççíÝññ üöë ëä äñöëÝöäë ïññí òá ðëáðõññíàð  
FreeBSD. ÁíáñðÜöáë áðñ äëäëëÝð ïàðáðññÝð òñ FreeBSD òñ **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. 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 üñí 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 ðáñüí áðέÜ έá óáð áçíέññáðóñí ðñíáέðíáðá üðáí έá ðñíóðάέðóáðá íá έÜíáðá commit áñüüðáñá.
5. Áñíðíðá 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:** Όï áðíá áððü áðíάέ áðáñáððóçïí üñí áí Ý÷áðá ïñðóάέ έÜðñέα óέñð óçí ðáñÜíáðñí \$IDHEADER ðïð áñ÷áðíð cfg\_local.pm (ç ïðñá áñðέáýάέ üñí áóüóñí ÷ñçóέñíðñέαððá óçí ðñíðñíέçíÝç Ýέáñόç ðïð CVS ðïð Ý÷άέ ðïð FreeBSD).

Άέññèðóáð ðï áñ÷áðí options þóðá íá óáέñέÜάέ íá ðïð tag ðïð ïñðóáðá óðí áñ÷áðí cfg\_local.pm. Íέα áíáάèðçόç έάέ áñðέέáðὐóóáόç ðïð FreeBSD óá üέí ðïð áñ÷áðí áðíάέ áñέáðð.

7. Άðáíáñááóðáððá ðï áñ÷áðí rcstemplate þóðá íá ðáñέÝ÷άέ óá ðάέά keywords íá áððÜ ðïð Ý÷áðá ïñðóάέ óðí cfg\_local.pm.
8. ðñíáέñáðέέÜ, áóáέñÝóóá ðïðð áέÝá÷ñð ðïð FreeBSD áðü ðïð áñ÷áðí tagcheck. ïðñáððá áðέÜ íá ðñïέÝóóáð exit 0 óçí áñ÷ð ðïð áñ÷áðí áέα íá áðáíáñáñðñέðóáðá üέñðð ðïðð áέÝá÷ñð óðí tagging.
9. Όï óáέáððáðí ðñÜáíá ðïð ðñÝðάέ íá áðíάέ, áðíάέ íá óέáññáððóáðá üέέ óá commitlogs ïðññýí íá áðñέçέáððýí. Óá CVS scripts ðïð FreeBSD áðñέçέáýñí áððÜ óá logs óðñ ððñέáðÜέñá commitlogs ðïð έáðάέüññ CVSROOT. Áððüð ï ðÜέáñð ðñÝðάέ íá áçíέññáçέáð, ïðüðá έÜíðá óá áέüññέá:

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

Όðñá, áóý áέÝáñáðá óá ðÜíðá ðñíóáέðέέÜ, έá ðñÝðάέ íá έÜíðá commit ðέð áέέááÝð óáð. Õññíððóá íá áððá óðáñññέ üέέ Ý÷áðá áðóάέ óðñ ááððü óáð ðñüóááόç óðñ ðÜέáñ CVSROOT ïÝóá áðü ðïð áñ÷áðí avail ðñέí έÜíðá ïðέáððíðá, áóüóñ óçí áñðέáðç ðáñðððüόç έá έέáέððóáðá ðñí ááððü óáð Ýñ. ïðüðá, ðññíððóáðá óá ðÜíðá íá áðíάέ üððð áðέέðíáððá, έάέ üñí ðüðá áðóðá óá áέüññέá:

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

## 2.7 ΆñέέíÜάέñíðáð óçí Άάέáðὐóóáόç

Άððá Ýñέññέ áέα óçí ðñðç óáð áñέñð: íá forced commit óðí áñ÷áðí avail, áέα íá óέáññáððóáðá üέέ üέá áñðέáýñí üððð έá Ýðñáðá.

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

¶í üέá ðÜíá έάέÜ, óðá÷áñçððñέα! ,÷áðá έáðáðÝñάέ íá óððóáðá íέα ðèðñüð έάέññáέέð áάέáðὐóóáόç ðñí FreeBSD scripts áέα ðïð repository óáð. Óçí ðáñðððüόç ðïð ðïð CVS áñáέññέáð íá ðáñáðññέÝóάέ áέα έÜðέ, áðέóðñÝððá óóέð ðñçáñýñáñáð áñüðçðáð έάέ áέÝáñðá íáñÜ üέέ Ý÷áðá áέðáέÝóάέ óüóðÜ üέá óá ðñçáñýñáñá áðíáðá.

### 3 Åéëêþ ÄãéáôÛóâáóç ôïõ FreeBSD Project

Οι Βαέι οι FreeBSD project ÷ ηςοείηθιέας ιέα άεάοηθό άεάοιηάοέεθ άεάοόόόάος, ς ιθίβα ÷ ηςοείηθιέας άδθόοό άη÷άβα άδθ οι οθροΰεάει freebsd οιθ CVSROOT θιθ ÷ ηςοείηθιέάθάε οθι FreeBSD. Οι project ÷ ηάεΰάαάε εΰόε οΰιέι ευάθ οιθ ιάαΰειθ άηέειρϑ ούι committers, θιθ άεάοιηάοέεΰ εά ΰθηάθ ιά άιθιθιθ υέιέ οθι Βαέι group. θόε, άιέιθιθάθεα ΰιάό άδευθ wrapper ι ιθιθιθ άοίρ θηθόά άιάόόάεάε όά ούόόΰ άεάέόόάόθθιέά ούι committers, άεεΰάε ιάόΰάέόά θι group id όά άόόθ οιθ repository.

Ἄν ἐὰν οἱ ἀέεῦ ὁὰδ repository ÷ nāēÜ̃āāōāē eÜōē árÜ̃ērai, òā āPīāōā ðiō eā ðñÝōāē íā āēterōēPōāōā āēterōēYí  
 ðāñāēÜ̃ōū. ÁēēÜ̃ ðñbōā āō eÜ̃ññā íēā óYiōñc āðēōēūðcóc òūi ó÷ āðēēbī āñ÷ āßūi.

### 3.1 Άν÷άΒα ðĩ ÷ñçóèĩĩðĩéĩýĩôáé óôçĩ áéáéêþ åãéåôÛóôáóc ôĩõ FreeBSD

- `access` - `οἱ ἀν÷ὰβι ἀδού` ἀέ Ἰά÷ἀέ οέδ δέçññïññßð æά όά æέæέπιάόά δñúάάόçð. Èά δñÝðæέ ίά οἱ ἀδάρññάάόόάßðά άίÙεἰάά Ἰόόέ þóάά ίά δāñέέάñÙἰάέ üέά όά ìÝέç òïð project óάð.
- `freebsd/commitmail.pl` - `οἱ ἀν÷ὰβι ἀδού` ἀάἰ ÷ñçóέἰðἰέάßðάέ δέά, æέέÙ δāñάἰÝἰάέ æά έóóññέέἰýð έüāἰðð. Ἀάἰ έά ÷ñāέάóóάß ίά δāñññāάóóάßðά ἀδού οἱ ἀν÷ὰβι.
- `freebsd/cvswrap.c` - δñüέæόάέ æάά οἱἰ δçāάβἰ έþāέέά οἱð CVS wrapper ðἰð έά δñÝðæέ ίά āāέάóάóðþάðά æάά ίά ðññÝóἰἰἰ üέἰέ ἰέ Ἰέāñ÷ἰέ δñúάάάóçð ðāέέέÙ ίά āἰðέÝἰἰἰ. δāñέóóúðññāð δέçññïññßð æάά όç æάāέέáóá ἀóðþ έά āñßðά δāñāέÙðð. Èά δñÝðæέ ίά æéññþóáðά όά paths óóèð ACCESS έάέ REALCVS ìáέññāἰἰἰέÝð þóáά ίά óáέñέÙέἰἰἰ ìā όç æέέþ óáð āāέάðÙóóάóç.
- `freebsd/mailsend.c` - `οἱ ἀν÷ὰβι ἀδού` ÷ñāέÙæāðάέ æάά όçἰ ó÷āέέþ ìā óèð έßóóðð όά÷ðāñññāβἰð āāέάðÙóóάóç ðἰð FreeBSD. Ἀάἰ έά ÷ñāέάóóάß ίά δāέñÙἰāðά οἱ ἀν÷ὰβι ἀδού.

### 3.2 Ç äéáäëêáóßá

1.  $\tilde{\text{A}}\epsilon\iota\eta\epsilon\pi\acute{o}\delta\alpha\ \acute{o}\iota\ \acute{\alpha}\eta\div\tilde{\text{A}}\beta\iota\ \text{access}\ \pi\acute{o}\delta\alpha\ \acute{\iota}\acute{\alpha}\ \delta\alpha\eta\epsilon\acute{\Upsilon}\div\acute{\alpha}\epsilon\ \iota\upsilon\acute{\iota}\iota\ \acute{o}\iota\ \acute{\alpha}\epsilon\epsilon\upsilon\ \acute{o}\acute{\alpha}\delta\ \text{username}.$
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}\ \pi\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{\text{U}}\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{\nu}\acute{o}\ \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{\text{U}}\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}\epsilon\tilde{\text{U}}\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{\acute{\alpha}}\acute{o}\delta\text{P}\ \acute{o}\iota\acute{o}\ \acute{o}\delta\tilde{\text{U}}\eta\div\acute{\alpha}\epsilon\ \acute{\acute{\alpha}}\acute{\alpha}\ \acute{\acute{\alpha}}\beta\acute{\iota}\acute{\alpha}\acute{\epsilon}\ \zeta\ \acute{o}\upsilon\acute{o}\delta\text{P}\ \acute{\acute{\alpha}}\acute{\epsilon}\acute{\alpha}\ \acute{o}\zeta\ \acute{\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}\acute{\iota}\acute{\iota}\acute{\epsilon}\acute{\epsilon}\upsilon\ \text{cvswrap.c}\ \acute{\epsilon}\acute{\alpha}\upsilon\eta\eta\acute{\alpha}\ \delta\acute{\upsilon}\delta\ \acute{\epsilon}\acute{\alpha}\ \acute{\acute{\alpha}}\acute{o}\acute{\epsilon}\acute{\epsilon}\acute{\alpha}\acute{o}\acute{\alpha}\acute{o}\delta\text{P}\acute{o}\acute{\alpha}\acute{o}\acute{\alpha}\ \acute{o}\zeta\acute{\iota}\ \acute{\acute{\alpha}}\acute{o}\iota\epsilon\text{P}\ \text{cvs}\ \acute{o}\acute{\alpha}\ \acute{\acute{\alpha}}\delta\text{B}\delta\acute{\alpha}\acute{\alpha}\ \acute{o}\acute{o}\acute{o}\delta\text{P}\acute{\iota}\acute{\alpha}\acute{o}\iota\acute{o}\ \acute{\iota}\acute{\alpha}\ \acute{o}\iota\ \text{cvwrap}, \acute{\acute{\epsilon}}\acute{\epsilon}\ \zeta\ \acute{\acute{\alpha}}\eta\div\acute{\acute{\epsilon}}\epsilon\text{P}\ \acute{\acute{\alpha}}\acute{o}\iota\epsilon\text{P}\ \text{cvs}\ \acute{\acute{\epsilon}}\acute{\alpha}\ \acute{\iota}\acute{\alpha}\acute{o}\acute{\alpha}\acute{o}\acute{\alpha}\eta\acute{\epsilon}\acute{\alpha}\ \acute{o}\acute{o}\iota\ \acute{\acute{\alpha}}\eta\div\tilde{\text{A}}\beta\iota\ /\text{usr/bin/ncvs}.$

Ôi áéêü iïõ áíôßôõðî ôïõ ãñ÷ãßïõ cvswrap.c Ý÷áé ôá áéüëïðéá:

```
#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
```



