Balancing packaging and IP clearance in AOO FreeBSD's port

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Who am I and why am I giving this talk?

- Mechanical Engineer, bla, bla

- FreeBSD committer

- Apache OpenOffice committer.

- Resume available ;).

What is FreeBSD?

- Record breaking performance (ftp cdrom).

- Hotmail, Yahoo.

- Cisco Ironport, Isilon, Citrix, NetApp.

- Apple MacOS X, iOS

- Illumos.

- Debian kFreeBSD.

FreeBSD: a free Operating System

- Based on BSD 4.4 lite: there is a design!

- Berkeley license: GPL not welcome.

- VM, UFSv2, jails, malloc, well known and documented.

- Rock Stable Performance

- Optional but stable: ZFS and Dtrace.

- You have used it!

FreeBSD ports: some history

- 24,011 ports available.

- cd /usr/ports/editors/openoffice-3

- make install

- That's it!

- Related to pkgsrc, Gentoo, Debian, Darwin ports.

What about OpenOffice.org?

- Huge: 7'633 000 LOC -June(2011)

- C++ (60%), HTML (18%), XML (8.5%), Java (6%)

- Criticized by the FSF: extensions and Java.

- Criticized by Novell and others for JCA.

- Not really a threat for MS?

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Apache OpenOffice™

- Non restrictive licensing.
- Credible Governance.
- Can Apache do for the Office what FreeBSD has done for Apple?

Dependencies and Packaging concerns

- Transition from internal version in OOo to system versions in the port.

- Kill the GNU: not as difficult as it seemed?.

- Get the internal versions updated even when we don't use them.

Specifics: getting rid of GNU dependencies

- Things that had to be removed.

- Things that had to be replaced:

- Things that had to be updated.

- Internal code changes for the FreeBSD port.

Copyleft stuff that was removed (cleaned?).

- Glibc (including regex derivative).

- Gettext

- Libsrvg, libcroco, libgsf, gdkpixbug

- Berkeleydb

- Mysql, libwpd, Pentaho

Copyleft code that was replaced

- Lpsolve (Coin-OR)

- Libneon (serf)

- Liberation Fonts (ChromeOS)

- SVG stuff.(alg@)

- Lcc cpp (ucpp) actually non-commercial license.

Changes required for FreeBSD

- More that 28 issues known (maho@)

- bash has performance issues. checkbashisms

- Gnucopy -ru, not portable.

- Gnutar

- Mktemp

- Gnu patch (still working on this)

If it ain't broken don't fix it … oops it's broken!

- System libraries can break the build.

- Old libraries have bugs

- New libraries can have ABI changes.

- Usually newer libraries build on more compilers/OS.

- You know easily when you broke something.

Other Apache Projects

- Updated to stable but compatible versions:

- Apache Tomcat 5.5.35

- Apache commons (log – lang- httpclient -codec)

- Lucene 2.9.4

- Serf brought APR.

- Some day: beanshell, pdfbox ?

Updates based on the FreeBSD port

- Python 2.7.3

- Boost 1.48

- Expat 2.1.0

- Jpeg 8d

- Vigra 1.6.0

- Mdds 0.3.1

- Still missing (tough) icu and STLPort.

Future Perspectives

- FreeBSD will replace all the GNU toolchain with CLANG. New Xcode will need this as well.

- BSD and Solaris buildbots would be good.

- We are building a reputation of stability and performance. Features are not a priority.

Some Lessons

- There is a growing tendency for non-copyleft code. Companies pay salaries.

- It is possible to contribute to your favorite coding project without being the best coder but having a strategy.

- Updating the API is a good idea before merging new code.