

FreeBSD: 4 years of pkg

A end less journey

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Once upon a time... the binary packages

From the package point of view

- ▶ No binary upgrade
- ▶ Inconsistencies
- ▶ Lots of failing scripts
- ▶ No signing support
- ▶ No predictable updates
- ▶ Sacrifice of chicken mandatory
- ▶ DO NOT EVER TOUCH AGAIN WHEN YOU MANAGE TO INSTALL

Once upon a time... the ports tree

What about the ports tree:

- ▶ fragile (no destdir/stagedir)
- ▶ work to some extent (thanks portmaster/portupgrade)
- ▶ inconsistent and creative:
 - ▶ script could be found in any language
 - ▶ 20 ways to badly do one thing
 - ▶ 8 sides wheels keeps being reinvented
- ▶ Better than web archive
- ▶ Overlink all over the place (hi libtool)

History

- ▶ September 2010: First commit
- ▶ March 2011: [ECFT] pkgng 0.1-alpha1
- ▶ January 2012: 1.0 beta1: pkg enters in the ports tree
- ▶ August 2012: 1.0
- ▶ October 2012: FreeBSD current switch to pkg
- ▶ April 2013: Dragonfly 3.4 is released with pkg
- ▶ November 2013: Dragonfly 3.6 is released only supporting pkg
- ▶ June 2013: 1.1
- ▶ November 2013: 1.2
- ▶ January 2014: FreeBSD 10.0 only support pkg
- ▶ July 2014: 1.3
- ▶ September 2014: pkg_install EOL
- ▶ December 2014: 1.4



Mistakes

- ▶ Started as a pet project
- ▶ Not enough strong directions
- ▶ Regression/Unit tests added very late
- ▶ Too much compromise accepted
- ▶ Lack of "project" communication

Improvements

- ▶ Cleaning up/removing all the compatibility stuff
- ▶ More test driven development
- ▶ Reduce the scope of what pkg(8) should do
- ▶ Focus on stabilising what we have
- ▶ Attract new developers
- ▶ Give more clear directions, ROADMAP

Roadmap

- ▶ Provides/Requires
- ▶ Flexible dependencies
- ▶ sub packages (ports related)
- ▶ flavours/alternatives (ports related)
- ▶ List of supported ABI
- ▶ Maybe extensibility: plugins? lua? duktape?
- ▶ Transactions
- ▶ More regression tests
- ▶ 3rd party repositories:
 - ▶ ports tree
 - ▶ yum (aka linux packages)
 - ▶ CPAN

Packaging base

- ▶ 4 meta packages (kernel, base, developement, debug)
- ▶ Fine grain small packages
- ▶ 3 way merge to handle /etc files
- ▶ Packages for RELEASES and security fixes
- ▶ Packages for STABLE branches
- ▶ Packages for HEAD

Questions?

Thanks