FreeBSD: 4 years of pkg
A endless journey

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FreeBSD

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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, development, 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