Portmgr — Behind the Scenes

René Ladan

EuroBSDCon

2021-09-19

Overview

- What is portmgr? (briefly)
- History
- Technical
- People
- Closing

What is portmgr?

YES	NO
The Ports Management	portmgr owns all of Mk/
Team is responsible for	portmgr is intentionally evil
overseeing the overall	portmgr sets policies unilaterally
direction of the Ports Tree,	
building packages, and	
personnel matters	

History \rightarrow Origins

Twentieth anniversary of the FreeBSD Ports Tree (2014): https://www.youtube.com/watch?v=LiFq5D-zmBs

History \rightarrow Why portmgr?

Information from Kirill Ponomarev (krion@)

- create the packages for all releases on tinderbox,
- support and maintain pkg(8) and its predecessor in base
- test all critical changes in ports/Mk before committing them.

History \rightarrow Tinderbox?

- was a package build tool written in PHP before its successor Poudrière was written in Shell
- was run decentralized on hardware managed by volunteers,
 Poudrière is run centralized in the FreeBSD cluster

$\mathsf{History} \to \mathsf{Back}$ in the Day

- repository copies with CVS, mimicking Subversion
- tree locks (for preparing releases, or large updates like GNOME)
- no quarterly branches
- no public pre-built packages, except at release time
- no license framework

$\mathsf{History} \to \mathsf{Back}$ in the Day

For ports themselves:

- no staging
- no USES (e.g. kmod, to abstract away common boiler plate code)
- no flavors (variations of the same port still restricted to FreeBSD, e.g. A4 vs letter or full-blown vs lightweight)
- imperative instead of declarative style

Technical → Policymaking

- controlled at https://www.freebsd.org/portmgr/charter/ by core
- turned into a set of policies at https://www.freebsd.org/portmgr/policies/
- package building, documentation, security, legal aspects, overall direction of the Ports Tree, arbitrate disputes related to ports

Technical → Building Packages

- automated tasks in the package building cluster for main and quarterly, for all supported FreeBSD releases + main on Tier 1 and some Tier 2 architectures
- packages updates are built multiple times a week

People \rightarrow Who is Who?

- Adam Weinberger (adamw@): human resources
- Antoine Brodin (antoine@): package building, package cluster configuration
- Baptiste Daroussin (bapt@): pkg(8), framework, core@ liaison
- Bryan Drewery (bdrewery@): package building, poudriere(8), re@ liaison
- Mathieu Arnold (mat@): framework, documentation clusteradm@ liaison
- René Ladan (rene@): secretary, grim reaper, garbage collector
- Steve Wills (swills@): miscellaneous
- Tobias Berner (tcberner@): lurker (trainee)

All the alumni: https://docs.freebsd.org/en/articles/contributors/#contrib-portmgralumni/



People \rightarrow Other Teams

- accounts: to notify about new/retiring developers aka committers
- clusteradm: for hardware, e.g. package builders
- re: to synchronize package sets for FreeBSD releases
- core: above committer updates, but also . . .

The core@ Team

The core Team is a group of FreeBSD developers elected bi-yearly by active FreeBSD developers. They are the internal representation of the FreeBSD Project and communicate both "upwards" with the FreeBSD Foundation and "downwards" with delegate teams, such as portmgr.

People → Personnel Handling

- Voting on new committers and their mentors
- Safekeeping idle committers
- Welcoming back safekept committers

People → Portmgr Rollover

- people retire
- ask new people
- draw in new lurkers

People → Things to Improve on

- Communication could be better social media is high maintenance
- Split off into new teams (e.g. pkgmgr), otherwise re-organize?

Closing \rightarrow Audience

Questions & Answers