Care and Feeding of OpenBSD Porters

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Me

- Systems Administrator at RIT Software Engineering
- Using UNIX since 1990
- First BSDs were 4.3 and 4.3 Tahoe also in 1990
- Started using OpenBSD about 2.9
- Started serious porting November 2018
- Joined OpenBSD Project April 2019 (kmos@)
What we’ll talk about

• Misconceptions
• Ideal Updates
• Porting Realities
• Getting Work Noticed
• Tips
• Tools
• Resources
Some Quick Terms

- Consumers
- Bulk Build
- Current
- Stable
- Linkers
- BUILD/RUN/LIB/TEST DEPENDS
- Arches
Misconceptions

• Porting Something New

• Porting on -current isn’t important

• Only porters can review ports

• Maintainer is a prestige status

• OpenBSD porters are just jerks who ignore us on purpose
Porting Something New

• “The very best thing I can do for the project is port something new.”
  – One port isn’t super useful
  – There are hundreds of ports that need updating

• Porting new stuff is good

• Updating, maintaining, and/or removing existing stuff is better
Porting on -current isn’t important

• This is something I thought in the past
  - Me: rolls eyes “Like it really makes a difference”

• Ports infrastructure changes constantly
  - We constantly improve our tools
  - MODPY_PYTEST
  - PERMIT_PACKAGE_* → PERMIT_PACKAGE
  - New make targets

• A submission from -stable has to be ported to -current
Only porters can review ports

- If this needed to be a one slide presentation: “TEST OUR S#!%”

- Even just “this worked for me” or “this blows up” is helpful

- It gives needed feedback

- It helps tell busy porters whether this port is or isn’t worth their limited time

- It exposes you to more ports knowledge

- *Be nice though!*
Maintainer is a prestige status

- Ports are not Pokemon, comic books, or baseball cards
  - There is no award

- MAINTAINER is a promise
  - A point of contact
  - Expected to respond

- An unresponsive maintainer is an obstacle
  - “maintainer timeout” → they didn’t respond, we’re going ahead anyway
Porters are jerks who ignore you on purpose

- There are 10715 packages for amd64 in snapshots
- There aren’t even 100 OpenBSD porters
- Some porters do bulk builds on top of maintaining their ports and doing work in other areas of the tree
- Generally have day jobs and a non-OpenBSD life
- Only so much time and attention to spare
- Even OpenBSD developers have trouble getting their stuff noticed
Ideal Updates

- Brings software up to date
- Breaks nothing else in ports
- Builds on all architectures
- Just works in bulk builds
- Gets everyone a pony
Ports Realities

- Too many ports, too few porters
- Too much work to be done
- Everything always changes
- It is supposed to be fun
- Lots of emails
- You might just get missed (I do)
Getting Work Noticed

• Tell us
  – What you changed
  – What you tested
  – Impact on any consumers
  – Changelog for software you are updating
  – What architecture(s) you test on

• *Make it easy for others to review your work*

• Consistent, solid work gets noticed
Porter Anti-patterns

- Mr./Mx./Ms. Vague
- Fire hose
- Dishonesty
- Bomb Thrower

*Will get you the wrong kind of notice!*
Tips

- Always be honest
- Take critique well
  - You could have just been ignored
- Make checklists
- Take it slow; you can’t learn everything at once
The OpenBSD Porter's Handbook

  - Intimidating
  - Incomplete in places
  - Still a good reference
- Can always be improved because ports keeps changing
Choosing a port to update

- https://portroach.openbsd.org/
  - Tracks out of date ports

- Lists are by maintainer

- In particular, look at ports “maintained by” “the openbsd ports mailing-list”
  - They are ports without a listed maintainer
Being OK with abandoning a port

• “Oh, look. CDparanoia needs an update.”
  – (lots of screaming)

• “I’ve used WorkRave in the past.”
  – (more screaming)

• You are learning. Come back later.
Porting Tools

- /usr/ports/infrastructure
  - bin/
    - portcheck(1)
    - portgen(1)
  - templates/
    - Makefile.template (intimidating)
    - mk.conf.template
    - rc.template
Porting Tools (continued)

- https://github.com/danieljakots/obsd-ports-tools
  - showvictims.py ← Super Useful
  - kshrc ← Many aliases and shell functions

- https://github.com/kmosiejczuk/kmos-ports-tools
  - My own set of aliases and config files

- https://marc.info
  - openbsd-ports
  - openbsd-ports-cvs
Python Ports

- Python is a special child in ports
  - Python 2.7 vs 3.x
  - lang/python module (see port-modules(5))
    - MODPY_EGG_VERSION
    - MODPY_SETUPTOOLS
    - MODPY_PYTEST
    - etc.
- Best way to learn? Look at other python ports
Questions?

- As a high school teacher of mine said: “Questions? Comments? Cheap shots?”
Thanks

- Pamela, who sat down and showed me how to update a Python port

- Stuart Henderson, for all the invaluable knowledge and advice
  - If Stuart tells you something – *Listen*

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