Testing for Ports

Let’s verify that things work properly!
Why do testing?

• Do I have to say this? :)
• And yet, many don’t do it.
• Fewer bug reports!
• Failures cascade
Value of Testing

• Example: Testing perl modules helped me find that we needed to build perl with -pthread

• Discovered many missing dependencies in Perl modules

• Helped discover categories of failure (ex: some tests need the network) which led to revisions in test framework
What’s been done

• Testing (lots!) of Perl modules
• Adding lots of TEST_DEPENDS
• See http://wiki.freebsd.org/Perl#Test_Dependencies
• Test Framework created
Testing Perl Modules

- Call standard "make test" on all p5-* ports
- Check result
Testing for p5-Pod-Coverage-0.22

PERL_DL_NONLAZY=1 /usr/local/bin/perl5.12.4 "-MExtUtils::Command::MM" "-e" "test_harness(0, 'blib/lib', 'blib/arch')" t/*.t

  t/01compile.t ..... ok
  t/04cvgv.t ........ ok
  t/06trustme.t ..... ok
  t/05parentage.t ... ok
  t/03import.t ...... ok
  t/02simple.t ...... ok
  t/07pod.t .......... ok
  t/08tie.t .......... ok
  t/09whitespace.t .. ok

All tests successful.

Files=9, Tests=71, 0 wallclock secs (0.06 usr 0.00 sys + 0.66 cusr 0.13 csys = 0.85 CPU)
Result: PASS

Testing completed for p5-Pod-Coverage-0.22
Test Framework

• A framework for calling tests that ship with software
• Could be anything
• Simple call, check return status
• Started with Perl, want to extend this to everything
Test Framework

- Enables users to opt into testing
- Users can also ignore failure
- Can opt into testing only for certain ports
- See PR ports/164896
How to use Test Framework

• Enable testing of your port: in port Makefile, set USE_TESTS, create “test” make target

• Enable testing on all ports on your system: USE_TESTS in /etc/make.conf

• Enable testing of all p5- ports: WITH_PERL_TESTS in /etc/make.conf
Whats Next?

• Refine framework to the point that it’s acceptable for the ports tree and get it committed
• Add more hooks for existing test frameworks
• Add tests to all the ports
Obligatory Meme