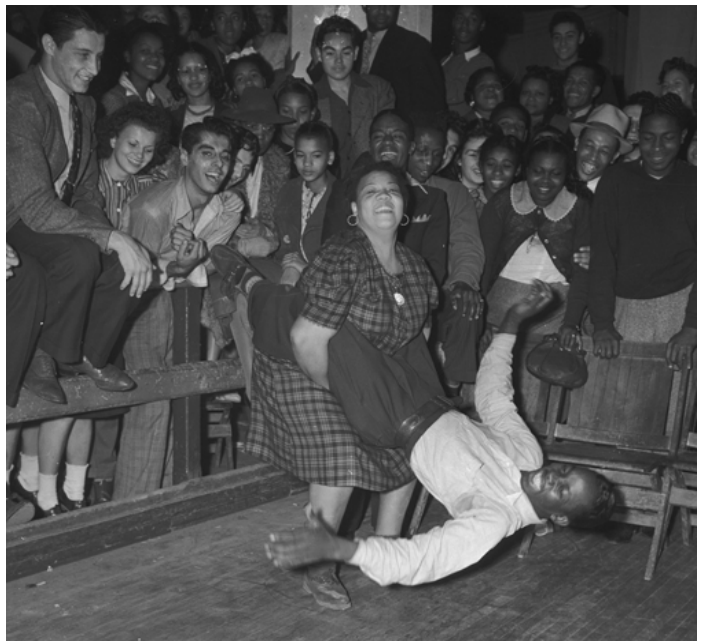
Testing CASH Music

Jonathan "Duke" Leto



What is Continuous Integration (CI) ?

Continually and automatically testing code, usually with relevant notifications.

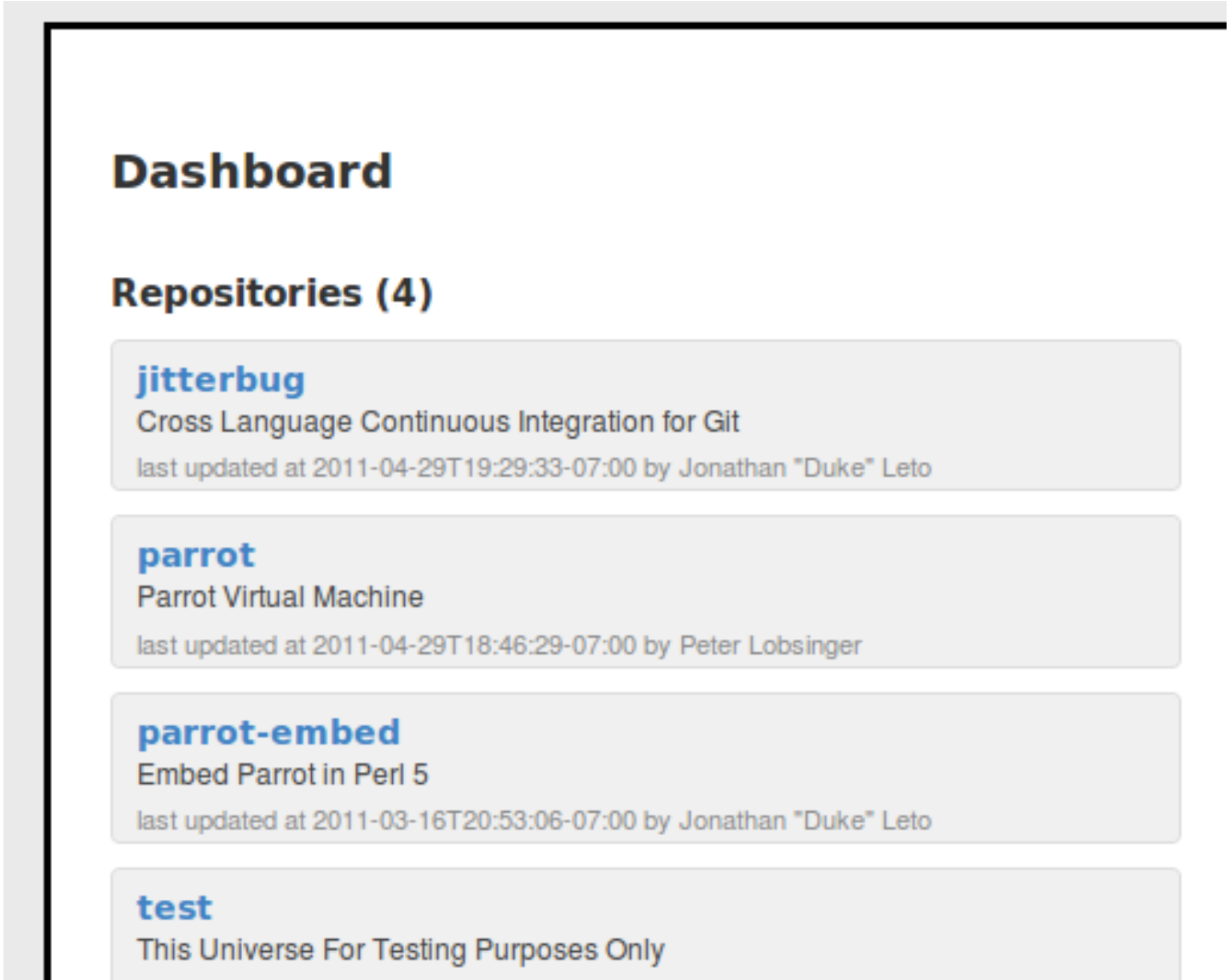
Why is CI Useful?

- Know the exact commit that broke something
- Automate testing many different combinations of different versions of libraries, languages, OS's, browsers, etc...
- Quickly identifies tests that only pass on the authors machine due to implicit assumptions

What problems does Jitterbug solve?

- People forgetting to run the test suite
- People forgetting to notify others when they see breakage
- Not having a visual interface to which commits passed and which failed a test suite

What does Jitterbug look like?



Dashboard

Repositories (4)

jitterbug
Cross Language Continuous Integration for Git
last updated at 2011-04-29T19:29:33-07:00 by Jonathan "Duke" Leto

parrot
Parrot Virtual Machine
last updated at 2011-04-29T18:46:29-07:00 by Peter Lobsinger

parrot-embed
Embed Parrot in Perl 5
last updated at 2011-03-16T20:53:06-07:00 by Jonathan "Duke" Leto

test
This Universe For Testing Purposes Only

What does Jitterbug look like? (2)

Dashboard / jitterbug / build history

"Cross Language Continuous Integration for Git"

2011-04-29

Make the command-line arg of the builder --config to match jitterbug_db

Jonathan "Duke" Leto
2011-04-29T19:29:33-07:00

perl-v5.10.1 **PASS**

commit 7d4f2cd6db48e527f4822fe318ff
on refs/heads/master
built in 14 seconds

Add more docs about the build_process config key

Jonathan "Duke" Leto
2011-04-29T10:46:10-07:00

perl-v5.10.1 **PASS**

What does Jitterbug look like? (3)

Create a document | Expand all | Collapse all | Forward all | Turn on highlighting | Turn off highlighting | Translate co

[Cxgn-devel] [jitterbug] FAIL sgn @ 5768ba81 make broken-image tests work with relative links too cxgn | X

jitterbug@sgn.cornell.edu to rmb32, cxgn-devel show details 11:29 AM (11 hours ago) Reply t

Jitterbug Web Interace : http://jitterbug.sgn.cornell.edu:8090
sgn : http://jitterbug.sgn.cornell.edu:8090/project/sgn
Failing Commit Diff: https://github.com/solgenomics/sgn/commit/5768ba8129e627cb365a011ee81f844f57cacc11

Test Summary Report
---
t/SGN/Controller/Organism.t (Wstat: 65280 Tests: 5 Failed: 0)
Non-zero exit status: 255
Parse errors: No plan found in TAP output
t/cview/map.t (Wstat: 512 Tests: 90 Failed: 2)
Failed tests: 89-90
Non-zero exit status: 2
t/image/add_image.t (Wstat: 65280 Tests: 0 Failed: 0)
Non-zero exit status: 255
Parse errors: No plan found in TAP output

Current Features

- Integrates seamlessy with Github post-receive hooks
- Can run tests for Perl 5/6, Parrot, Ruby and Makefile-based projects
- Highly customizable YAML configuration file
- Email notifier
- Supports custom build/test scripts
- Pretty web interface

Getting Jitterbug

- git clone git://github.com/franckcuny/jitterbug.git
- cd jitterbug
- perl Build.PL
- ./Build installdeps # install dependencies
- ./Build test # run tests

Will release to CPAN Real Soon Now

Doing the Jitterbug

- vi config.yml # Customize YAML config
- perl jitterbug.pl -p 8080 # Web interface
- perl scripts/jitterbug_db –config config.yml –deploy
- perl scripts/builder.pl -c config.yml
- Add http://example.com:8080/hook/ as a Github post-receive URL

Customizing Jitterbug

Interesting config file options...

- reuse_repo - Reuse git repos instead of recloning
- stack_tasks - Test every commit, not just current HEAD
- perlbrew - use perlbrew to test under many versions/builds of Perl
- email_on_pass - whether to send emails for PASSing test suites

Customizing Jitterbug (2)

SQLite by default, but any database can be used

Customizing Jitterbug (3)

Per-repo config

Future Goals

- Jitterbug wants to support running tests in many more languages, including
  - Python
  - Javascript
  - PHP
- Code coverage
- Graphic visualization

Get involved!

- Install Jitterbug and test your projects
- Join #dancer on irc.perl.org for help
- Submit a pull request for an issue! https://github.com/franckcuny/jitterbug
- http://lumberjaph.net/jitterbug

Thanks!

- Franck Cuny
- Boyce Thompson Institute for Plant Research

Stalk Me

- http://leto.net
- @dukeleto / !leto on twitter/identi.ca
- http://linkedin.leto.net
- Slides available at http://github.com/leto/presentations