# Jenkins, Bhyve, and Webdriver: Continuous Integration testing on FreeNAS

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# What is Jenkins?

- System which provides tools for Continuous Integration, Testing
- Open source (MIT licensed)
- Written by Kohsuke Kawaguchi

# How do I install it?

# pkg install devel/jenkins

- Depends on OpenJDK
- Needs a few few entries in /etc/rc.conf
- Additional installation notes:
http://forums.freebsd.org/showthread.php?p=239397

File   Edit   View   History   Bookmarks   Tools   Help

Dashboard [Jenkins]   ╋

10.5.90.116:8180/jenkins//          ▾  Google

# Jenkins                                                              search   ?

Jenkins                                                    ENABLE AUTO REFRESH

                                                            ✎ add description

New Job

People                  **All**  ╋

Build History           | S | W | **Name** ↓ | **Last Success** | **Last Failure** | **Last Duration** | |
Manage Jenkins          |---|---|---|---|---|---|---|
                        |   | ☀ | FreeNAS | 2 hr 10 min - #214 | 1 day 2 hr - #209 | 1 hr 4 min | ⏱ |
**Build Queue**         |   | ☀ | TrueNAS-master | 2 hr 10 min - #128 | 2 days 21 hr - #111 | 44 min | ⏱ |
No builds in the queue. | ● | ☀ | TrueNAS-stable-9.0 | 20 hr - #48 | N/A | 47 min | ⏱ |
                        | ● | ☀ | TrueOS-feature-unified_freebsd | 4 days 22 hr - #10 | N/A | 6 min 25 sec | ⏱ |
**Build Executor Status** | ● | ☀ | TrueOS-feature-unified_freebsd_i386 | 8 days 17 hr - #2 | N/A | 3 hr 13 min | ⏱ |
# | **Status**

**master**              Icon:  S M L

1 | Building FreeNAS #215                    Legend   📶 RSS for all   📶 RSS for failures   📶 RSS for just latest builds
    ▬▬▬▬▬          ✖

2 | Building TrueNAS-master
    #129       ✖
    ▬▬▬▬▬

**jenkins2**

1 | Idle
2 | Idle
3 | Idle
4 | Idle

📄 Help us localize this page          Page generated: Nov 7, 2013 8:57:50 AM   REST API   Jenkins ver. 1.528

# How do I configure it?

- Easy to use web interface for configuration
- Functionality extensible via
  3rd party plugins (over 700)

# Where do I get help?
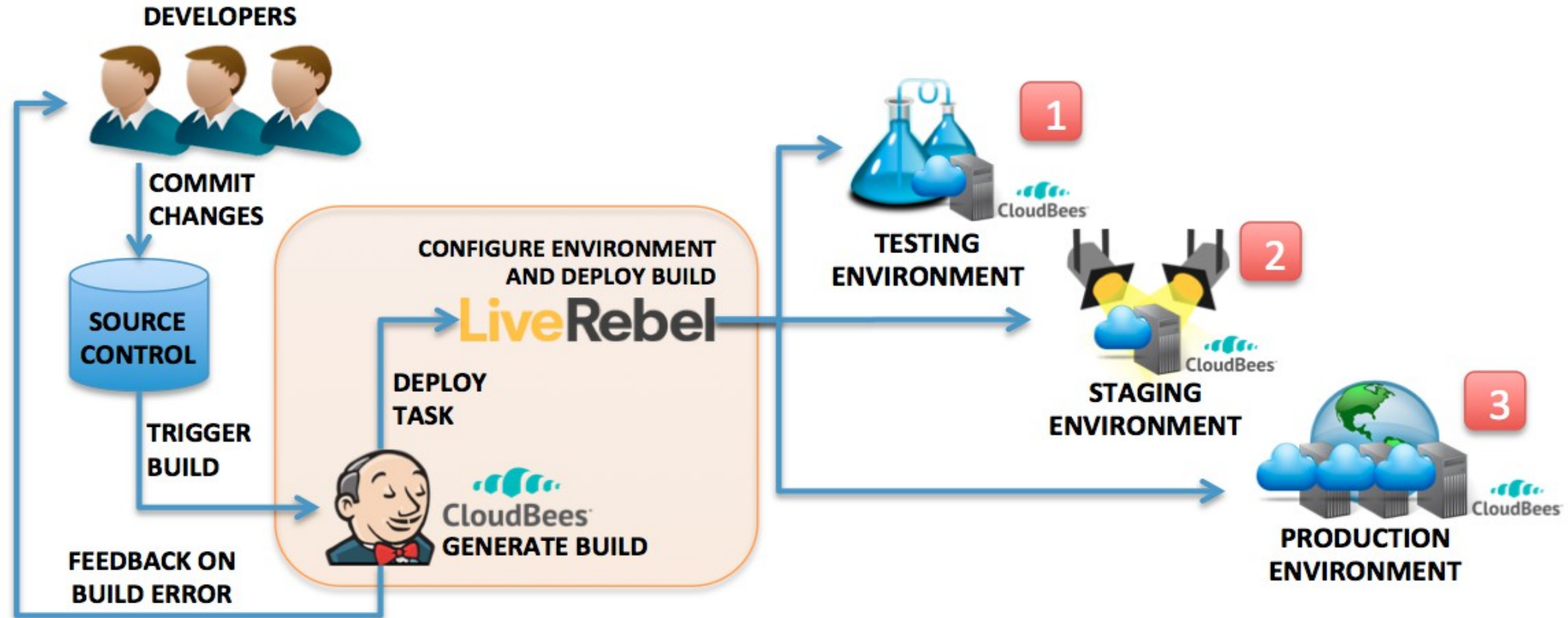
- http://jenkins-ci.org , active community
- Books
- Conferences
- Consulting companies, http://cloudbees.com

# Jenkins User Conference 2003

# How do I use it?

# How am I trying to use Jenkins?

Developer → SCM (git) → Build → Test → Deploy
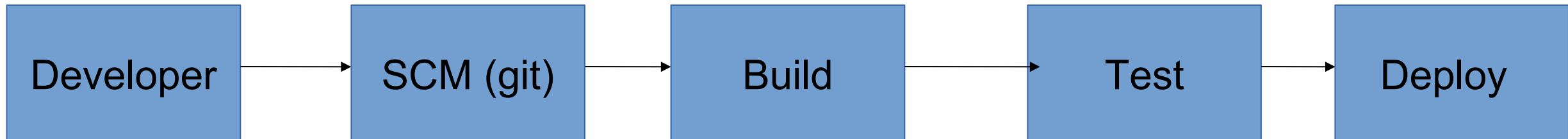
# BHyve

- BSD Hypervisor, in FreeBSD 10
- works great for booting/testing images
- Python pexpect over serial interface to drive installer
- thanks to Neel, Peter

# Webdriver

- Framework for automated web app testing
- Built into Firefox
- I'm using Python Splinter library to interface with Webdriver:

http://splinter.cobrateam.info

# Webdriver example using Python splinter library

```python
from splinter import Browser

browser = Browser()
browser.visit("http://www.yahoo.com")
browser.find_by_id("p_13838465-p").fill("FreeBSD vendor summit")
browser.find_by_id("search-submit").click()
```

# Special Thanks

- FreeBSD ports team
- BHyve team

# FreeNAS and TrueNAS

- #1 Open-Source NAS software
- Take a look and try it out!
  http://www.freenas.org


- TrueNAS:
  http://www.ixsystems.com/truenas