Contribute to Open Source Software with Red Hat

Vineet Reynolds · Kaushal Madappa

Objectives

Learn how contributing to Open Source Software (OSS) helps you, and how to contribute.

Why should you contribute to OSS?

- OSS development == Real world development
- Work on projects that matter
- Build an independently verifiable resume
- Work with and learn from Really Smart People™

Real world development

- Collaborative, team-based work

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- Produce deliverables for end-users
- Develop good practices on using good tools:
  - SCM - Git, SVN, Hg
  - Build - make, Maven, Gradle, Rake
  - CI - Jenkins, Go, Travis, Teamcity
  - Issue management - Bugzilla, JIRA, Mantis, Trac, Redmine
  - Review contributions - Gerrit, GitHub, Bitbucket
  - User documentation - Asciidoc, Docbook, Publican

Work on projects that matter

Good open source projects:

- Do not exist for vanity
- Target a particular problem or set of related problems
- Provide solutions for businesses and individuals

They're integral to today's computing infrastructure.

Work on projects that matter

- Many open source projects are sponsored by foundations and large companies.
- Contributions associate you with their work and culture.
- Contributions also signal your knowledge about the problem and its solutions.

Some stats on the Linux Kernel

From the Annual Linux Development Report 2013

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- with growing numbers from mobile and embedded industries.

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Wolfson Microelectronics

Contributions are independently verifiable and undisputable facts.

Why does it matter?

Independently Verifiable

- The burden of proof is not always on you.
- Contributions are public: they can be examined and verified by others.
- Contributions can be verified in release notes, mailing list archives, bug trackers, commit logs, and more.

Undisputable

- Projects guarantee all accredidation is accurate.
- An accepted contribution has added value to the project.
- Your code speaks for itself.

> *… a real-world portfolio of work gives you an edge when applying for jobs. Contributing to an open source project provides you with that real-world portfolio …*

— Leslie Hawthorn

An example

Open Source (11) show all

angularjs-scaffoldx-plugin — *GitHub, May 2013 - Jan 2014; followed by 6 people; forked 6 times*

java | freemarker | metawidget | angularjs | jax-rs | rest

core — *GitHub, Apr 2011 - Current; followed by 134 people; forked 108 times*

java | freemarker | eclipse-jdt | metawidget | jax-rs | jsf | scaffolding | jpa | cdi | maven | aether

arquillian-container-wls — *GitHub, Oct 2011 - Jan 2013; followed by 6 people; forked 6 times*

java | weblogic | jmx

ticket-monster — *GitHub, May 2012 - Current; followed by 101 people; forked 174 times*

javascript | jpa | jax-rs | ejb | jquery | jquery-mobile | angularjs | backbone.js | twitter-bootstrap-3

jboss-wfk-quickstarts — *GitHub, Sep 2013 - Current; followed by 2 people; forked 23 times*

javascript | cordova | jquery-mobile | jquery | angularjs | backbone.js

6 more

Work with and learn from Really Smart People™

- Smart people tend to work with other smart people.
- An OSS project with smart people draws and fosters others.
- Many of them will be glad to help you learn. Take them up on it.
- Very high quality of discussion. No bike-shedding.

Work with and learn from really Smart People™

Learning takes many forms:

- Understanding and fixing bugs.
- Performing code reviews or having your code reviewed.
- Deliberation over ideas.
- Designing and implementing new features.

If you are engaged in the project, you will be learning.

Getting started with OSS

- **Choose a project to contribute to.**
  - Preferably one that you already use.
- **Become very familiar with it.**
  - Get involved on mailing lists, IRC, etc.
  - Discover problem areas. Use the issue tracker.
  - Learn about the processes. Some projects require contributions in only one form.
- **Discuss on resolving issues and adding features.**
- **Submit a patch.**

- Be courteous.
- Communicate well. Be accurate with technical and project-specific jargon.
- Learn the political waters. Every project has them.
- Remember that you will make mistakes. Learn from them!

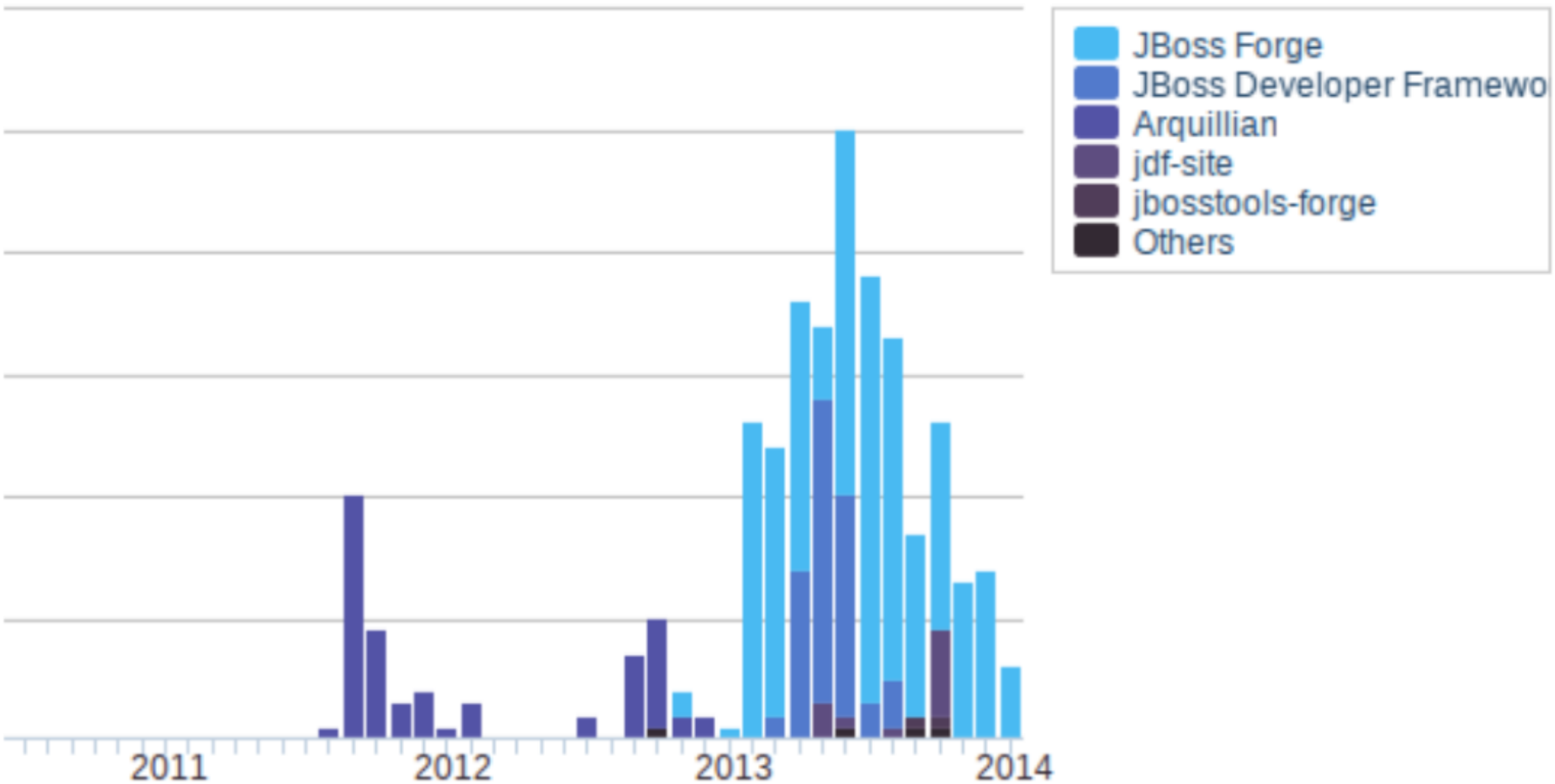
A sustained contribution model

- Be persistent. Continued contributions build respect.
- Become a committer. You can do anything now !
  - …within reason :)
- Become very knowledgeable in an subject area. Create demand for you.
- Be open to new opportunities:
  - Presenting at conferences
  - Reviewing books about the project, or even authoring them.
  - Supporting related projects that build on yours.
  - Consulting for companies part/full-time.

Reflect, recalibrate

Most experienced in	Java
First commit	over 2 years ago
Most recent commit	3 days ago
Has made	392 commits
Joined Ohloh	over 2 years ago
Contributed to	8 projects
Contributed to projects in	2 organizations including: Arquillian Universe and JBoss
Contributed on behalf of	1 organization including: Red Hat, Inc.

Reflect, recalibrate



The Gluster Community

> *To create the world's largest and most dynamic community for open software-defined storage*
>
> – The Gluster Community Goal

A bit of history

- Starts as an attempt to build supercomputers using commodity hardware
- Storage becomes a bigger challenge and focus shifts to GlusterFS
- GlusterFS starts getting noticed and people start using it

A bit of history

- Better management arrives and adoption of GlusterFS increases
- Red Hat becomes the primary sponsor for the Gluster community
- Grows into a community for open source, software-defined storage

GlusterFS is

- an open source, distributed, clustered, parallel, scale-out … filesystem
- runs on commodity hardware
- fully posix compliant
- user friendly :)
- easily extensible

…and much more.

Contributing to the GlusterFS community

- **Install and use GlusterFS**
  - http://www.gluster.org/download
  - http://www.gluster.org/QuickStart
- **Join #gluster IRC channel on freenode.net**
- **Subscribe to the gluster-users mailing list**
  - http://www.gluster.org/interact/mailinglists/
- **Interact with other users and give feedback**
- **File bugs**
  - https://bugzilla.redhat.com/enter_bug.cgi?product=GlusterFS

Contributing to the GlusterFS project

- Join #gluster-dev on freenode and the gluster-devel@nongnu.org mailing list
- Pick something you want to work on:
  - http://is.gd/glusterfs_new_bugs
  - http://is.gd/glusterfs_backlog
  - If you want to do something not present in the above two places, start a discussion and get it on there
- Read the development workflow document at http://gluster.org/simpledevworkflow
- Contribute code!

Gluster community is more than GlusterFS

- Register on http://forge.gluster.org - the home of Open Source software-defined storage development
- Contribute to a project of your choice
- …or start your own project and announce it to the community

Kickstart your contributions with this small contest

- Visit http://titanpad.com/gluster-misspellings and pick something to fix
- Fix it and submit the fix
- Show the submission at the Red Hat booth
- Win goodies!!

Credits

- Slides generated with Asciidoctor and DZSlides backend
- Original slide template - Dan Allen & Sarah White