

# Building CI system with Gerrit and Jenkins

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2014-07-22

“Continuous Integration is a software development practice where members of a team integrate their work frequently, usually each person integrates at least daily - leading to multiple integrations per day. Each integration is verified by an automated build (including test) to detect integration errors as quickly as possible. [...]”

— Martin Fowler

## Gerrit Code Review

- Web based code review and project management tool,
- 100% pure Java SSH and HTTP Git backed (JGit),
- central source repository,
- pre-commit review (clean history!),
- magic branches – refs/for/branch
- auto-merge
- ACLs,
- LDAP integration,
- Prolog Submit Rules!
- ...

# Who use Gerrit?

- Android,
- OpenStack,
- Wikimedia,
- LibreOffice,
- eBay,
- QT,
- ...

# Terminology

- **Change** – a single commit and unit of a review. Changes are reviewed and submitted to Git repository.
- **Patch Set** – a version of a change. After each time a change is modified, it will receive a new patch set.
- **Score** – a value for approval category. Indicates if change is approved and can be submitted to the Git repository.
- **Approval Category** – name for a scope that is checked during review process.
- **Submit** – action that allows Gerrit to merge a change to Git repository.
- **Abandon** – action that archives a change. An abandoned change can be restored later.
- **Project** – Git repository.

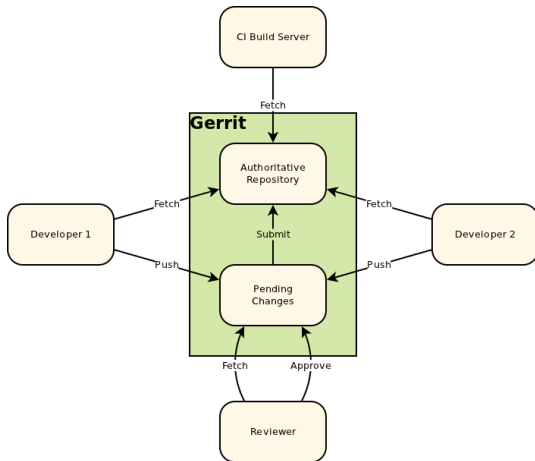
- Everybody knows Jenkins...
- OpenSource CI server,
- easy to install and use,
- > 300 plugins,
- jenkins-job-builder,
- Gerrit Trigger!

## Must have plugins

- Green Balls,
- Email-ext,
- Job Config History,
- Timestamper







# Demo!

<https://gist.github.com/wybczu/cc18c7055f091e0919cd>

Questions?

## Further Reading I

-  <https://wiki.jenkins-ci.org/display/JENKINS/Home>
-  <https://gerrit-documentation.storage.googleapis.com/Documentation/2.9/index.html>
-  <http://qt-project.org/wiki/Gerrit-Introduction>
-  [http://www.mediawiki.org/wiki/Gerrit/Code\\_review](http://www.mediawiki.org/wiki/Gerrit/Code_review)
-  <https://github.com/openstack-infra/git-review>