



EGit and JGit 3.0 Release Review

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About



EGit is an Eclipse Team provider for Git. Git is a distributed SCM, which means every developer has a full copy of all history of every revision of the code, making queries against the history very fast and versatile. The EGit project is implementing Eclipse tooling for the JGit Java implementation of Git.

JGit is an EDL (BSD) licensed, lightweight, pure Java library implementing Git.

Introduction



EGit and JGit are Technology sub projects.

- <http://eclipse.org/egit>
- <http://eclipse.org/jgit>

This release is the 15th release for both projects at Eclipse.org, and the goal is to build an Eclipse community around Git.

Committer Diversity



There are many individuals and companies involved with EGit (19 committers) and JGit (13 committers)

- Ageto
- CollabNet
- Dewire
- GitHub
- Google
- IBM
- Twitter
- SAP
- Tasktop

JGit Features



Features

- Support recursive merge strategy, is now default merge strategy
- Add NameRevCommand for describing IDs in terms of renames
- Add ArchiveCommand for creating an archive file for a tree
- TagCommand now also supports creating lightweight tags
- Allow to provide OutputStream for push so that server messages can be sent to the client during push
- Basic Java 7 support. Internal only (symlink support not yet visible)
- Allow users to show server messages while pushing

Performance Improvements

- New bitmap index for pack files created by JGit's garbage collector enables that JGit can now serve fetch/clone a lot faster than native git
- Several performance improvements for pack handling
- Speed up clone/fetch with large number of refs
- DateRevQueue (used by RevWalk) is faster for many commits

API Changes

- Internal storage API moved to internal packages

Many bug fixes

Complete list of improvements in [New and Noteworthy](#)

EGit Features



Features

- Add rename detection to the quickdiff provider
- Add rename detection to the history file diff viewer
- Allow reset to any supported commit-ish expression
- Improve support for Team APIs
 - GitFileHistory now returns the full history of its target
- Support 3 way comparison where possible
- Allow users to show server messages while pushing
- Show fast forward modes in Merge dialog
- Usability improvements in staging view, history view and compare editor

Performance improvements

- Performance improvements for commit dialog
- see JGit performance improvements

Many bug fixes

API and supported platform versions

- former public packages have been marked internal since they were never intended to be API, open bugs if you want EGit APIs
- minimum supported Eclipse platform version for EGit 3.0 is 3.8.2/4.2.2
- merged import feature into egit feature

Find complete list of improvements in [New and Noteworthy](#)

GitHub Connector Features



- Adapt github connector to use JGit/EGit 3.0
- Switch UserPlan fields to long instead of int
 - This expected size can be common for large Enterprise installs.
- Add service support for contents API

Non Code Aspects



User Guide and extensive Contributor Guide

- http://wiki.eclipse.org/EGit/User_Guide
- http://wiki.eclipse.org/EGit/GitHub/User_Guide
- http://wiki.eclipse.org/JGit/User_Guide
- http://wiki.eclipse.org/EGit/Contributor_Guide
- <http://wiki.eclipse.org/EGit/GitHub/ContributorGuide>

Lively discussion on mailing lists and EGit forum show a growing community:

- <http://dev.eclipse.org/mhonarc/lists/jgit-dev/maillist.html>
- <http://dev.eclipse.org/mhonarc/lists/egit-dev/maillist.html>
- http://www.eclipse.org/forums/index.php?t=thread&frm_id=48

Bugzilla (as of 2013-06-02)



- JGit

- 88 bugs open, 52 enhancements
- 18 bugs & 3 enhancements fixed since last release

- EGit

- 573 bugs open, 255 enhancements
- 116 bugs & 23 enhancements fixed since last release

Committers - JGit



- Chris Aniszczyk (Twitter)
- Christian Halstrick (SAP)
- Colby Ranger (Google)
- David Borowitz (Google)
- Gunnar Wagenknecht (Ageto)
- Kevin Sawicki (GitHub)
- Mathias Kinzler (SAP)
- Matthias Sohn (SAP)
- Robin Rosenberg (Dewire)
- *Robin Stocker (Independent) - **New***
- Sasa Zivkov (SAP)
- Shawn Pearce (Google)
- Stefan Lay (SAP)

Committers - EGit



- Andrew Niefer (IBM)
- Benjamin Muskalla (Tasktop)
- Chris Aniszczyk (Twitter)
- Christian Halstrick (SAP)
- Dani Megert (IBM)
- Dariusz Luksza (CollabNet)
- Gunnar Wagenknecht (Ageto)
- Jens Baumgart (SAP)
- Kevin Sawicki (GitHub)
- Mathias Kinzler (SAP)
- Matthias Sohn (SAP)
- Mik Kersten (Tasktop)
- Mykola Nikishov (Independent)
- Remy Suen (IBM)
- Robin Rosenberg (Dewire)
- Robin Stocker (Independent)
- Shawn Pearce (Google)
- Stefan Lay (SAP)
- Tomasz Zarna (Tasktop)

Community



Significant new code contributions from the community in 3.0

Gerrit Code Review: <http://git.eclipse.org/r/>

- JGit

- CQ 7065, André Dietisheim (Red Hat): [Allow users to show server messages while pushing](#)

- EGit

- CQ 7175, Laurent Goubet (Obeo): [Use the source revision instead of local data for synchronizations](#)
- CQ 7176, Laurent Goubet (Obeo): [GitFileHistory should return the full history of its target](#)

IP Logs



- JGit

https://bugs.eclipse.org/bugs/show_bug.cgi?id=408755

- EGit

https://bugs.eclipse.org/bugs/show_bug.cgi?id=408736

Schedule



- 3.0 - June 2013 (Kepler)
- 3.1 - Sept 2013 (Kepler SR1)
- 3.2 - Dec 2013
- 3.3 - Feb 2014 (Kepler SR2)

Project Plan



Available at

- <https://projects.eclipse.org/projects/technology.egit/releases/3.0.0/plan>
- <https://projects.eclipse.org/projects/technology.jgit/releases/3.0.0/plan>

Themes

- Usability
- Enable use without native git
- Documentation improvements
- Building a community