

# What's New in Gerrit 2.12 and 2.13 What's coming in 2.14

Gerrit User Summit 2016

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## Statistics

	2.14	2.13	2.12	2.11	2.10	2.9	2.8	2.7
Date	--	Sep '16	Nov '15	Apr '15	Jan '15	Jul '14	Dec '13	Sep '13
Commits *	769 ***	2632	1357	1330	632	1281	1373	272
Issues **	--	85	132	69	30	43	72	9
Contributors	39 ***	83	43	51	49	48	54	31

↑  
*2.13 is by far the biggest release*

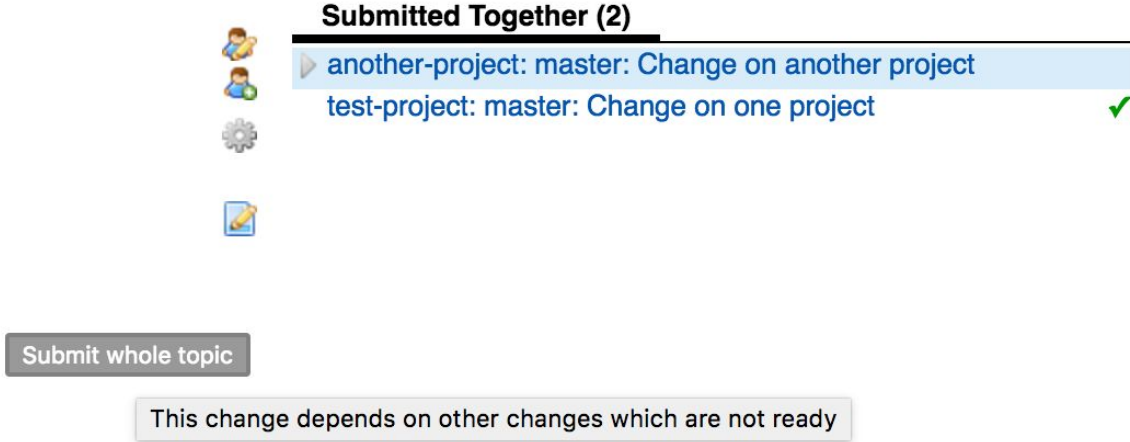
\* Not including merge commits    \*\* Including fixes on dot releases    \*\*\* As of 2016/10/27

## New in 2.12

- Submit whole topic
- Submit change with ancestors
- Signed push

# Submit Whole Topic

Submit changes with same topic across projects in one operation  
Block submit of changes until all are ready



The screenshot shows a user interface for submitting changes. At the top, there is a section titled "Submitted Together (2)" with a horizontal line underneath. To the left of this section are three icons: a person with a checkmark, a person with a checkmark, and a gear. Below these icons is a blue button with a pencil icon. The "Submitted Together (2)" section contains two entries: "another-project: master: Change on another project" and "test-project: master: Change on one project". A green checkmark is visible to the right of the second entry. Below the submission area is a grey button labeled "Submit whole topic". At the bottom, a grey box contains the text "This change depends on other changes which are not ready".

*Note: This feature is disabled by default*

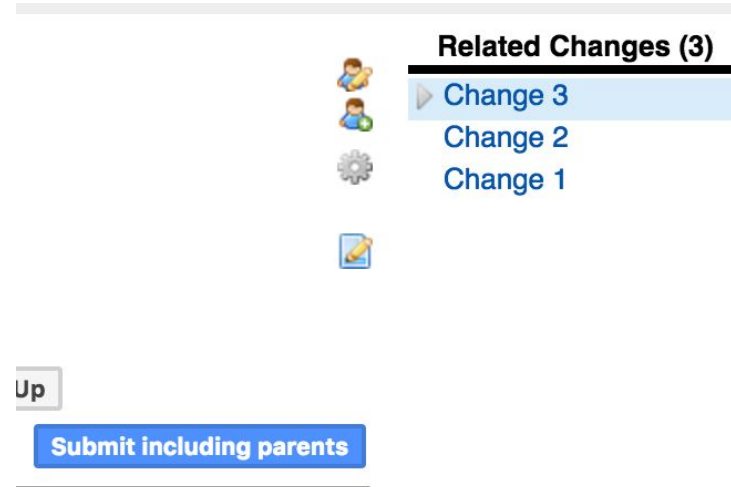
# Submit Changes with Ancestors

Submitting a change causes ancestors to also be submitted

Instead of submitting each one top down

No more merge queue - submit either succeeds or fails

No more “Submitted, Merge Pending” state



# Signed Push

Users can add GPG key(s) to account

Admin can enable / require signed push per project

Email notification when a key is changed (also for SSH keys)

Change screen shows signed push status for changes

David Pursehouse 

Push certificate is valid and key is trusted

*Note: signed push is broken until 2.12.4*

## New in 2.13

- Support for Git LFS
- Metrics
- Hooks plugin
- Allow to see diff of merge commits
- Allow to reject implicit merges

# Support for Large File Storage (LFS) plugin

LFS support can be provided by a plugin

Reference implementation in the 'lfs' plugin

- Support for File System and/or Amazon S3
- Uses LFS server implementation provided by JGit

Custom plugin could also implement LFS itself



# Metrics

Metrics can be sent to external monitoring systems

- Process info
- Cache statistics
- HTTP response statistics
- and more: <https://gerrit-review.googlesource.com/Documentation/metrics.html>

Reference implementations:

- Elastic Search
- Graphite
- JMX / jconsole

# Hooks plugin

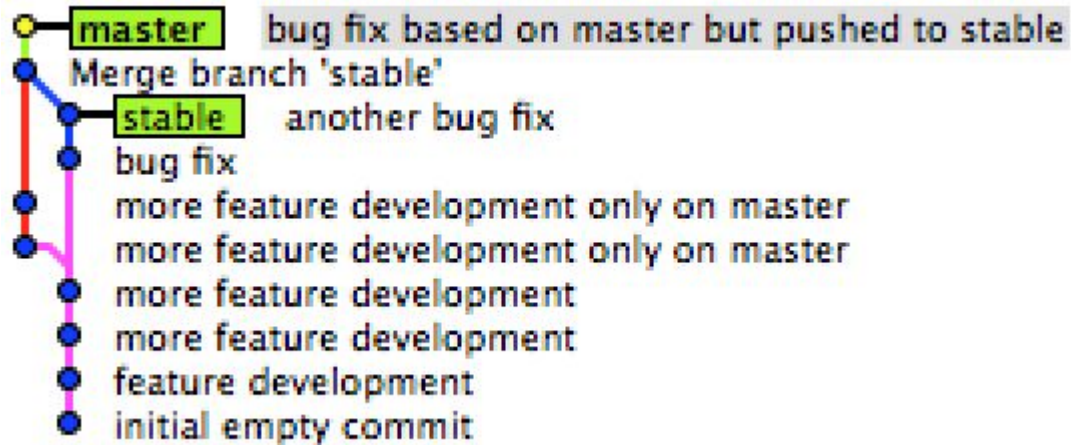
Server-side hooks functionality moved to a plugin

Drop-in replacement:

- Same functionality
- Same configuration

# Reject implicit merges

New option to reject changes pushed to wrong branch



# Diff of merge commits

Parent(s) 4807acdb507221aed7d3acc141bb2a1ed94a11ad  
55a07fc6a5a847d4e37cdaef3481e3d5a2acfbca  
Change-Id I39a30eec32b6cb0ef02622b8a328f5be345ebf8a



2: e60800  
1: e8e615  
Auto Merge  
Parent 1  
Parent 2

Files

Open All

Diff against



Parent 1

Parent 2

Edit

## File Path

- Commit Message
- Merge List
- Documentation/database-setup.txt
- gerrit-acceptance-tests/src/test/java/com/google/gerrit/acceptance/rest/change/AbstractSubmit.java
- gerrit-acceptance-tests/src/test/java/com/google/gerrit/acceptance/server/project/ProjectWatchIT.java
- gerrit-gwtui/src/main/java/com/google/gerrit/client/change/CommitBox.java
- gerrit-gwtui/src/main/java/com/google/gerrit/client/change/CommitBox.ui.xml
- gerrit-server/src/main/java/com/google/gerrit/server/git/BatchUpdate.java
- gerrit-server/src/main/java/com/google/gerrit/server/git/MergeUtil.java
- gerrit-server/src/main/java/com/google/gerrit/server/git/RebaseSorter.java
- gerrit-server/src/main/java/com/google/gerrit/server/git/strategy/RebaseSubmitStrategy.java

## Coming in 2.14...

- Assignee field for changes
- Improved reviewer suggestion
- Email: HTML, new templates, inbound email
- Support for Robot comments
- Polymer UI
- Elastic Search ?






# Change Assignees

Changes can be assigned to specific user

New search operator: `assignee`

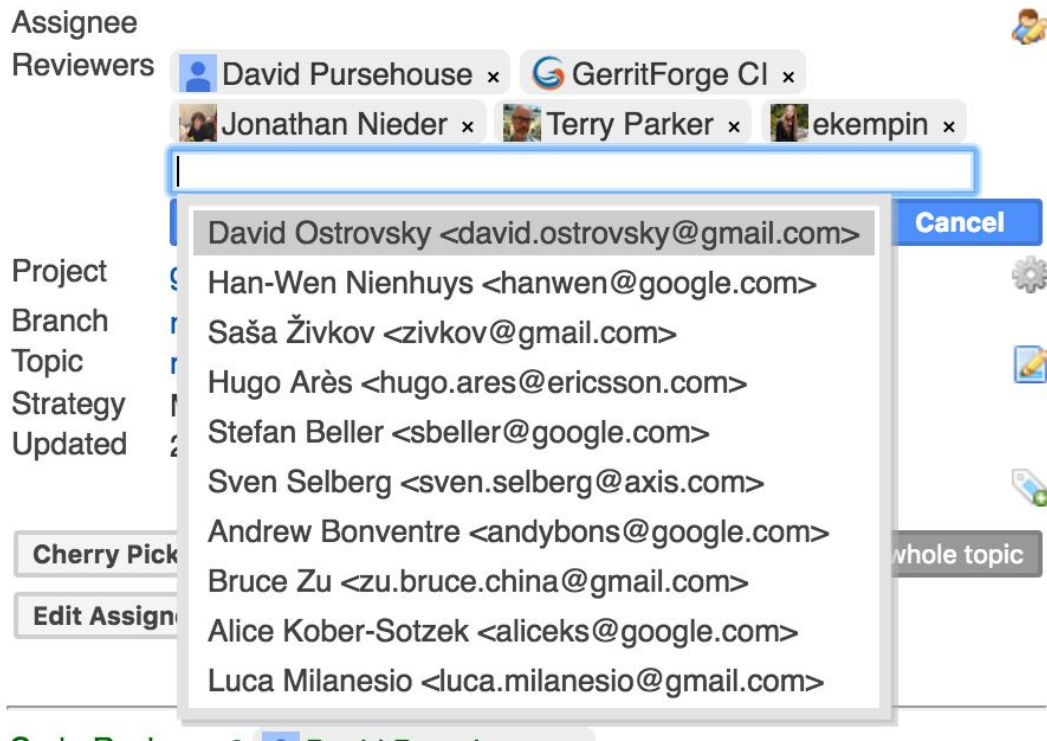
Assigned changes are highlighted in dashboards

Search for status:open

	<i>Subject</i>	<i>Status</i>	<i>Owner</i>	<i>Assignee</i>	<i>Project</i>	<i>Branch</i>
☆	Release notes for Gerrit 2.13.3		 David Pursehouse	 David Pursehouse	homepage	md-pages
☆	bazel: wct tests.		 Han-Wen Nienhuys		gerrit	master
☆	Bazel: Allow to consume jgit from development tree		 David Ostrovsky		gerrit	master
☆	Rename ewah dependency to javaewah		 David Ostrovsky		gerrit	master

# Reviewer Suggestion (1)

Default suggestion:  
reviewers who have  
recently reviewed user's  
changes



The screenshot shows a Gerrit review interface. At the top, the 'Assignee' is 'GerritForge CI'. Below it, the 'Reviewers' list includes 'David Pursehouse', 'Jonathan Nieder', 'Terry Parker', and 'ekempin'. A search input field is active, and a dropdown menu displays a list of suggested reviewers. The suggestions are:

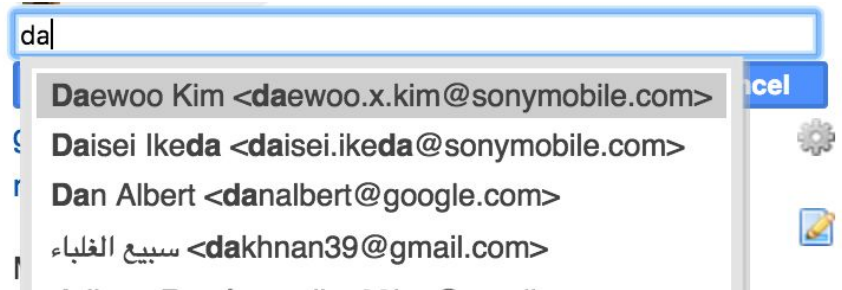
- David Ostrovsky <david.ostrovsky@gmail.com>
- Han-Wen Nienhuys <hanwen@google.com>
- Saša Živkov <zivkov@gmail.com>
- Hugo Arès <hugo.ares@ericsson.com>
- Stefan Beller <sbeller@google.com>
- Sven Selberg <sven.selberg@axis.com>
- Andrew Bonventre <andybons@google.com>
- Bruce Zu <zu.bruce.china@gmail.com>
- Alice Kober-Sotzek <aliceks@google.com>
- Luca Milanese <luca.milanesio@gmail.com>

Other visible elements include a 'Cherry Pick' button, an 'Edit Assignee' button, and a 'whole topic' button. The interface also features a sidebar with 'Project', 'Branch', 'Topic', 'Strategy', and 'Updated' sections, and a top-right navigation area with icons for user, settings, edit, and notifications.

## Reviewer Suggestion (2)

Filtered suggestion:

- Reviewers who have recently reviewed user's changes, filtered by typed characters
- Accounts from the index
- Suggestions from plugins





# Email

New template framework allows HTML emails

Velocity templates are deprecated

Inbound email - more info in Patrick's talk

# Support for robot comments

Differentiate between human and automated reviews

More info in Edwin's talk

# Polymer UI

Switch between Polymer and GWT

Many improvements in Polymer UI

More details in Andrew's talk