Continuous Integration and Automated Code Review in Open Source Projects

Adrián Tóth

Brno University of Technology, Faculty of Information Technology

Božetěchova 1/2. 612 66 Brno - Královo Pole

xtotha01@fit.vutbr.cz



Introduction



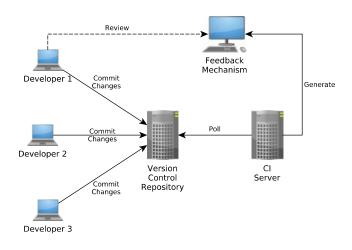
Continuous Integration & Automated Code Review

Red Hat, Inc. 🧠 & ManagelQ 😥

ManagelQ Bot

Components of CI System





ManagelQ Bot



• Ruby 2.3.6



- Sidekiq
 - background processing for Ruby
 - nonrecurring & recurring workers
- Octokit
 - Ruby toolkit for the GitHub API









Objectives



- Pronto¹ integration
- MiqBot's own Pronto¹ Formatter
- Gitter² integration (yell if master is broken)
- Github Status API³ integration
- Remove unnecessary unmergeable comments
- Commands
 - pull request review request from specified user(s)
 - remove pull request review request from specified user(s)
 - remove assigned user(s)
- Automated review request of a new pull request

¹github.com/prontolabs/pronto

²github.com/kristenmills/ruby-gitter

³developer.github.com/v3/repos/statuses

Pronto Integration





europbot commented 7 minutes ago

Member + ① ...

Checked commits europ/festrepo@ 163866-...287895e with ruby 2.3.6, rubocop 0.52.1, haml-lint 0.20.0, and yamlint 1.10.0

A flies checked, 7 offenses detected

header.yaml

- Line 1, Col 1 - document-start - missing document start "---"

space.haml

Line 1 - Line contains trailing whitespace

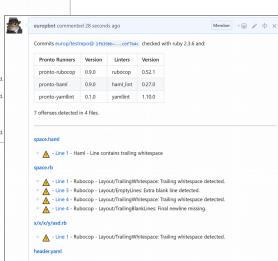
space.rb

- □ Line 1, Col 14 Layout/TrailingWhitespace Trailing whitespace detected.
- I Line 3, Col 1 Layout/EmptyLines Extra blank line detected.
- Line 4, Col 14 Layout/TrailingWhitespace Trailing whitespace detected.
- I Line 4, Col 15 Layout/TrailingBlankLines Final newline missing.

x/x/x/v/asd.rb

• | - Line 1, Col 13 - Layout/TrailingWhitespace - Trailing whitespace detected.





- A - Line 1 - YAMLLintRunner - 1:1: [warning] missing document start "---" (document-start)

Gitter Integration



travis monitor: gitter token: branches:

- repo: "owner/name"

branch: "name"

gitter room: "owner/name"

- repo: "owner/name" branch: "name"

gitter_room: "owner/name"

- repo: "owner/name" branch: "name"

gitter room: "owner/name"



Adrián Tóth BOT @europbot



📠 🔔 "master" in "xtest123/testrepo" is broken 🚺 💥



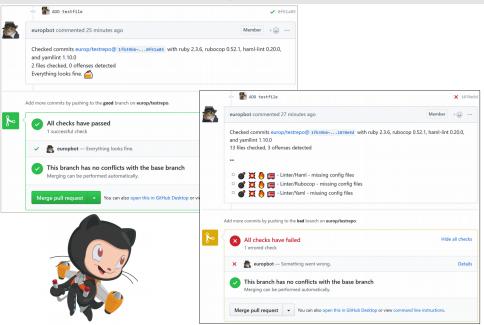
Adrián Tóth BOT @europbot





GitHub Status API Integration

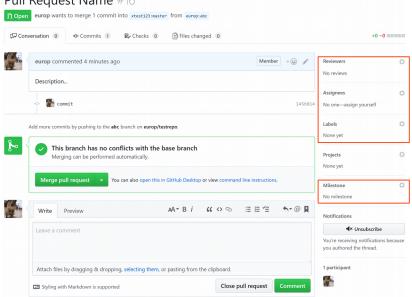




Interface Commands



Pull Request Name #16



Thank You For Your Attention!

Question



Podle zadání jste měl vyhodnotit zkušenosti vývojářů s vylepšenou verzí a diskutovat o dalším vývoji s vedoucími vývojáři. Toto je pokryto v závěru souhrnným vyjádřením pana J. Freye, není úplně jasný další vývoj v rámci Red Hatu. Upřesněte prosím.