Gitlab Configuration Details

Version 1.18-SNAPSHOT

2019-01-11

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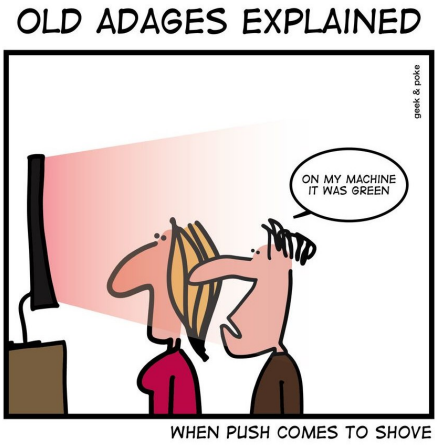
Table 1. History

Date	Author	Detail
2018-12-11	bcouetil	- Added reveal plugins and background - Fixed reveal css following change in structure in asciidoc-reveal master (from previous version : 1.1.3) - Implemented Zenika layout in HTML and PDF - Reported back reveal-js enhancements
2018-11-28	bcouetil	- Updated reveal css for all syntax elements, for both light and dark themes : asciidoc-syntax-quick-reference is now nicely output - Refactored light and dark css, extracting common items into reveal-zenika.css - Added syntax quick reference in all format generated and linked in asciidoc page
2018-11-02	bcouetil	- reorganized asciidoc best practices - added some Geek & Poke images - reveal.js themes Zenika dark + light + parallax - updated asciidoc/reveal versions in pom.xml
2018-09-19	bcouetil	- Sample asciidoctor maven project published on Github - Github & LinkedIn links - Sample project tree - new images + resizing and positioning
2018-09-05	bcouetil	Minor changes
2018-08-29	bcouetil	Asciidoc HTML look & feel changes
2018-08-24	bcouetil	Reworked asciidoc index.html
2018-08-24	bcouetil	Icones added for download + favicon added for webpage
2018-08-23	bcouetil	Initial commit



1. Introduction

Gitlab in his free online plan offers some nice features :

- 2,000 CI pipeline minutes per group per month on our shared runners
- Unlimited private projects and collaborators
  - Built-in CI/CD
  - Cycle Analytics
  - Issue Boards
  - Time tracking
  - Preview your changes with Review Apps
  - Publish static websites for free with GitLab Pages
  - Git LFS 2.0 support

2. Server configuration

TODO

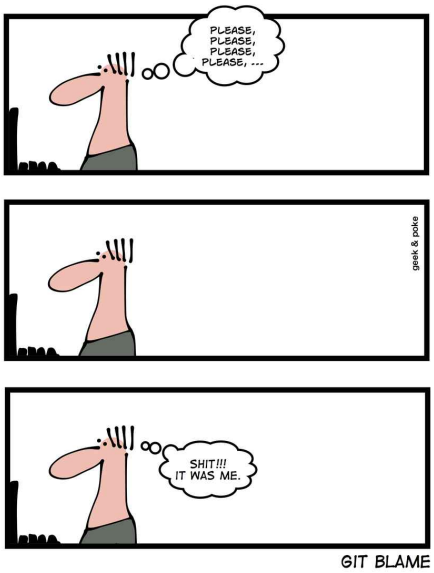
3. Project creation

- Create a project in web interface.
  - check **Create README.md** or else **master** branch is not created
- Import git project in Eclipse
- Change git config, adding :

```
[user]
  name = yourname
  email = youraccount@yourprovider.com
```

3.1. Configure rebase without merge commit

- In the web interface, go to **Project** → **Settings** → **General** → **Merge request**, and configure as follow :
  - ☑ Fast-forward merge
  - ☑ Only allow merge requests to be merged if the pipeline succeeds
  - ☐ Only allow merge requests to be merged if all discussions are resolved

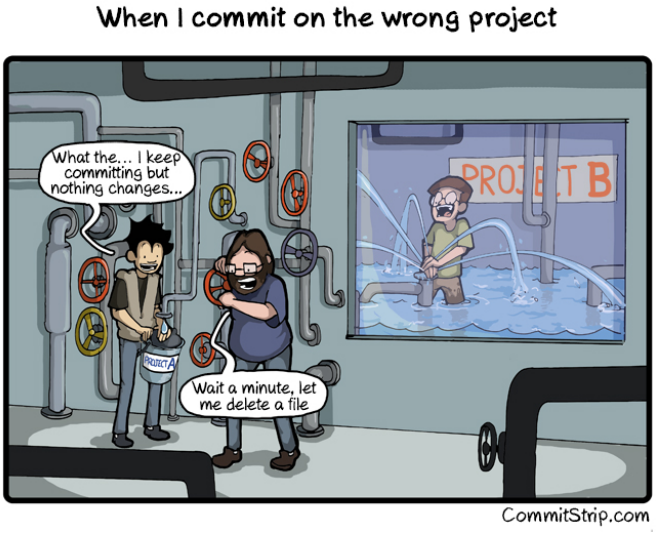


3.2. Protect master branch

Gitlab workflow is not as straightforward as Gerrit's (see below). In Eclipse, it's too easy to push to master instead of our current Merge Request's branch.

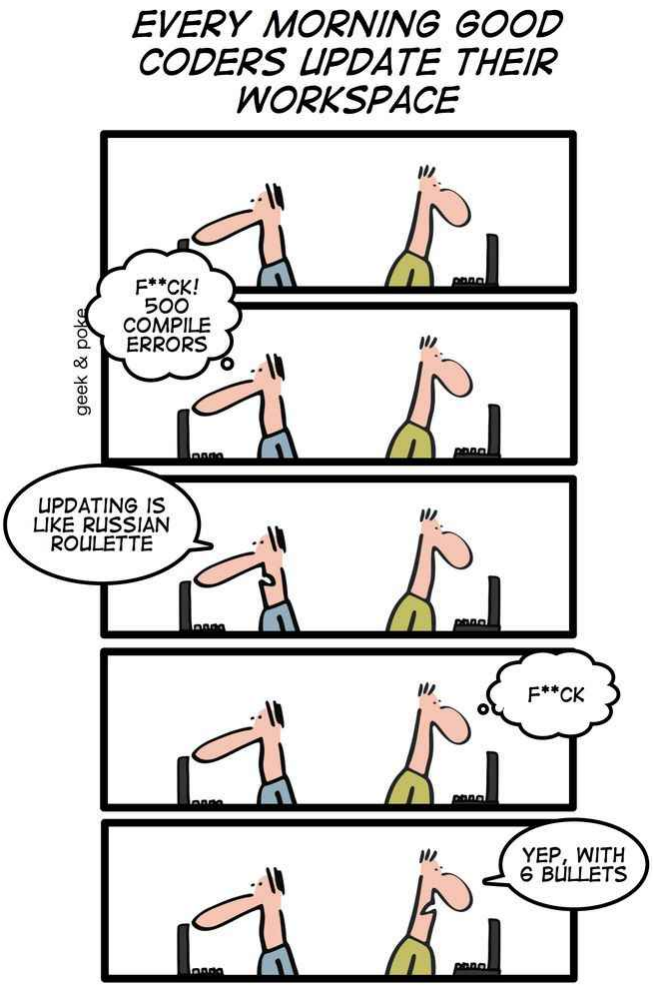
Here is how to protect it :

- In Gitlab interface, navigate to your project → **Settings** → **Repository** → expend **Protected Branches** and configure :
  - Branch = **master**
  - Allowed to merge = **Maintainers**
  - Allowed to push = **No one**



3.3. Configure Eclipse

Clone the repository as you would do for any Git repository, see Eclipse Best Practices for details.



3.4. Merge Requests workflow

We assume that we will be the only one to push on that branch, so we do not check-out the branch, and just push there. This helps do fewer interactions in Eclipse.

Initialize the change

- In Gitlab
  - Go to **Issues** → **New issue**
  - Set information and create
  - Click **Create merge request**
- In Eclipse
  - right click on your repo → **Pull**
    - The branch should appear under **Branches** → **Remote Tracking**
  - In **Remotes** → **origin**, right click on the second address and choose **Configure Push...**
  - Click **Add...**

    Remote branch = <type the number to get the full branch>

    ☑ Force update

    The specification should be something like

    ```
    +HEAD:refs/heads/4-minor-asciidoc-changes
    ```

    Press **OK** then **Save**

Eclipse should now be ready to handle smoothly Gitlab workflow. You can check your repository git config which should be like :

git/config

```
[core]
  repositoryformatversion = 0
  filemode = false
  logallrefupdates = true
[remote "origin"]
  url = https://gitlab.com/bcouetil/academy.git
  fetch = +refs/heads/*:refs/remotes/origin/*
  push = +HEAD:refs/heads/4-minor-asciidoc-changes
[branch "master"]
  remote = origin
  merge = refs/heads/master
  rebase = true
[user]
  name = myname
  email = myaccount@myprovider.com
```

dev iterations

- The first time
  - Update your files...
  - Go to **Git Staging** view
  - Stage your files
  - Hit **Commit and Push...** and **Close**
- On each new iteration do the same and

  ☑ toggle ON **Amend**

  change the text if needed

Don’t toggle on **Add Change-Id**, this changes the behavior of **Commit and Push…** towards Gerrit style.

More details and screenshots in Eclipse Best Practices

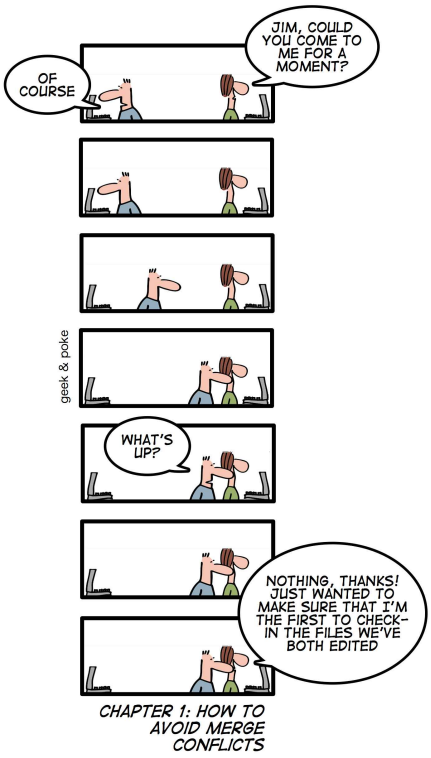
Now a pipeline should be launched in Gitlab interface.

Merge in Gitlab

Browse the Merge Request in Gitlab

☑ Remove source branch

Pull in Eclipse to be up to date



3.5. Pipeline creation

Pipeline

```
image: maven:latest

stages:
  - build
  - test
  - deploy

variables:
  # https://gitlab.com/gitlab-org/gitlab-ce/blob/master/lib/gitlab/ci/templates/Maven.gitlab-ci.yml
  MAVEN_OPTS: "-Dhttps.protocols=TLSv1.2 -Dmaven.repo.local=$CI_PROJECT_DIR/.m2/repository
-Dorg.slf4j.simpleLogger.log.org.apache.maven.cli.transfer.Slf4jMavenTransferListener=WARN
-Dorg.slf4j.simpleLogger.showDateTime=true -Djava.awt.headless=true"
  #MAVEN_CLI_OPTS: "-s cg-settings.xml --batch-mode"
  MAVEN_CLI_OPTS: "--batch-mode"

cache:
  paths:
    - .m2/repository
```

```
build:
  stage: build
  script:
    - apt-get update -qq && apt-get install -qq --assume-yes libc6-i386
    - mvn clean dependency:purge-local-repository
    - mvn install -DskipTests -Dassembly.skipAssembly=true -Dadoc.skip=true
  only:
    - master

# the pipeline step must be named 'pages' for gitlab to deploy locally (in addition to github)
pages:
  stage: build
  script:
    #- ./src/scripts/asciidocOnlyModified.sh
    - ./src/scripts/asciidocHistory.sh .
    - apt-get update -qq && apt-get install -qq --assume-yes graphviz
    - git config --global user.email "gitlab@noreply.com"
    - git config --global user.name "GitLab"
    - mkdir public
    # SAMPLE (launched from his folder to avoid ./ problems)
    - cd cg-asciidoctor-sample
    - mvn $MAVEN_CLI_OPTS
    - cd ..
    - mv --verbose cg-asciidoctor-sample/src/docs/asciidoc/*.adoc cg-asciidoctor-sample/target/generated-docs/
    - mv --verbose cg-asciidoctor-sample/target/generated-docs public/sample
    # ACADEMY
    - mvn $MAVEN_CLI_OPTS generate-resources --non-recursive
    - mv --verbose src/docs/asciidoc/*.adoc target/generated-docs/
    - mv --verbose src/docs/asciidoc/subdocs target/generated-docs/subdocs
    - mvn $MAVEN_CLI_OPTS scm-publish:publish-scm
    - mv target/generated-docs/* public/
  artifacts:
    paths:
      # nothing else than public folder will work :(
      - public
  #only:
  #  - master


unit-test:
  stage: test
  script:
    - mvn clean
    - mvn test -Dcheckstyle.skip=true -Dadoc.skip=true -pl cg-utils
  only:
    - master

integration-test:
  stage: test
  script:
    - mvn clean
    - mvn verify failsafe:verify -Dcg.ut.skip=true -Dcheckstyle.skip=true -Dadoc.skip=true -pl cg-utils
  only:
    - master

assembly:
  stage: deploy
  script:
    - mvn clean
    - mvn install -DskipTests -Dcheckstyle.skip=true -Dadoc.skip=true -pl cg-utils
  only:
    - master
```

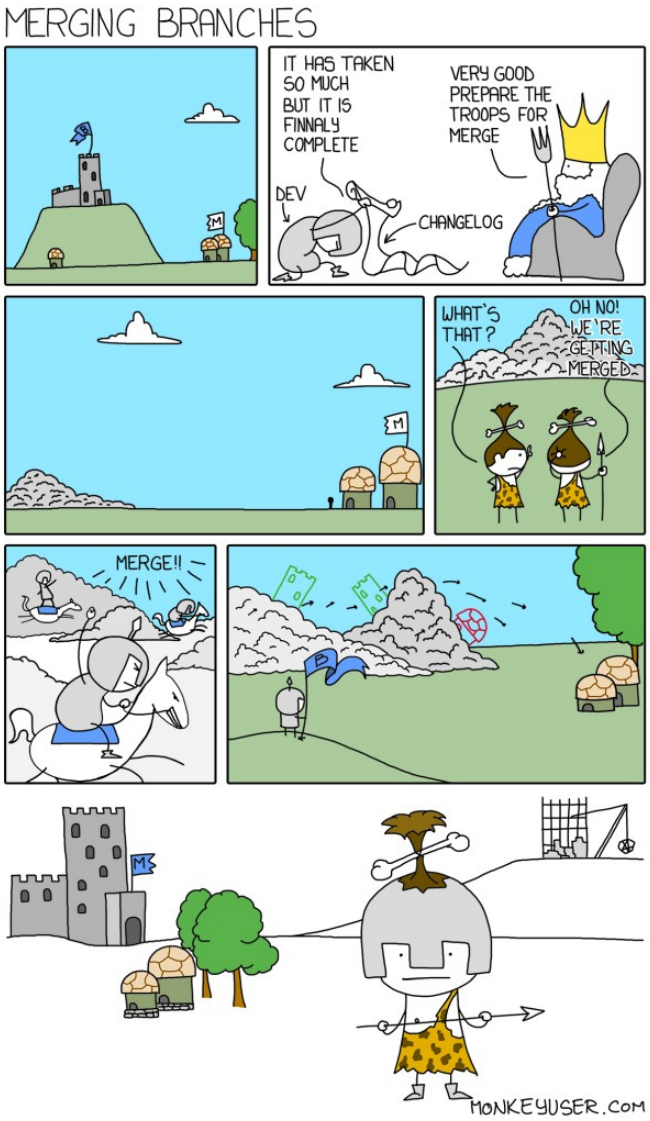
4. Troobleshooting

4.1. I pushed on a deleted branch

If you have accidently pushed on a merged branch, it will be recreated.

You have to :

- Reset mixed on the master
- Configure your push to the good branch
- Push
- Delete the other branch



5. Appendix

5.1. Revision marks

Differences since last tag