

Issues, Branches, Forks, Requests, CI, and Workflows

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Available at

[https://homepages.laas.fr/gsaurel/talks/
git-forges.pdf](https://homepages.laas.fr/gsaurel/talks/git-forges.pdf)

Under License



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Source

`https://gitlab.laas.fr/gsaurel/talks :`
`git-forges.md`

Discussions

`https://im.laas.fr/#/room/#git-forges:laas.fr`

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Introduction

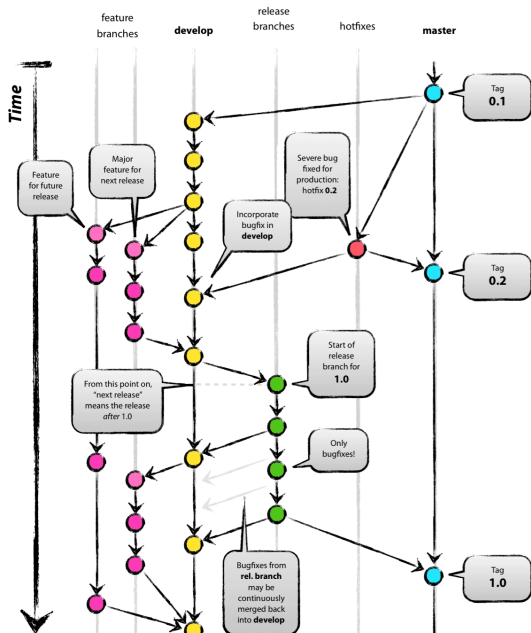
- Software management
 - git repository (web, HTTPS, SSH)
 - authorizations
 - issue tracker

- 1 domain
 - 2 username *OR* group (organization)
 - 3 project
- `https:// gitlab.laas.fr / gsaurel / talks`
 - `https:// github.com / gepetto /
example-adder`

- bug fix / feature request
- Github / Gitlab: #4
- referencable from git:
 - `git commit -m "add test for user input, ref #4"`
 - `git commit -m "sanitize user input, fix #4"`

Branches

Goal



- default: master or main
- devel, stable
- issue/5
- topic/something

Forks

- scission (software development)
 - document motivations
 - rename
 - change logo / website etc.
 - ensure compatibility
- collaboration (git forges)
 - try to keep synchronized

- scission (software development)
 - document motivations
 - rename
 - change logo / website etc.
 - ensure compatibility
- **collaboration (git forges)**
 - try to keep synchronized

```
git clone --recursive \
    git@gitlab.laas.fr:gsaurel/example-
adder.git
cd example-adder
git remote add gepetto \
    git@gitlab.laas.fr:gepetto/example-
adder.git
```

```
git clone --recursive \
    git@gitlab.laas.fr:gsaurel/example-
adder.git
cd example-adder
git remote add gepetto \
    git@gitlab.laas.fr:gepetto/example-
adder.git

git pull gepetto master
git push origin master
```

```
# ~/.ssh/config
```

```
Host gl
```

```
    HostName gitlab.laas.fr
```

```
    User git
```

```
git clone --recursive gl:gsaurel/example-adder
```

Requests

The screenshot displays the GitLab web interface for a project named 'example-adder'. The left sidebar contains a navigation menu with options: Project information, Repository, Issues (0), Merge requests (0), CI/CD, Security & Compliance, Deployments, Monitor, Infrastructure, Packages & Registries, Analytics, Wiki, Snippets, and Settings.

The main content area shows a notification at the top: 'You pushed to devel at Guilhem Saurel / example-adder 7 minutes ago' with a 'Create merge request' button. Below this, the project details for 'example-adder' are shown, including 'Project ID: 165', '14 Commits', '4 Branches', '10 Tags', '1.5 MB Files', and '13 MB Storage'. A description states: 'This is an example project, to show how to use Gepetto's tools'. It also mentions 'Forked from Gepetto / example-adder'.

A progress bar indicates the status of the merge request. Below the bar, the 'master' branch is selected, and the 'example-adder / +' branch is being merged. Buttons for 'History', 'Find file', 'Web IDE', 'Download', and 'Clone' are visible.

The commit details section shows a commit by 'Guilhem Saurel' titled 'release: Update package.xml version to 4.0.2', authored 1 month ago, with a commit hash of '70b0d164'. Below the commit details, there are buttons for 'Upload File', 'README', 'BSD 2-Clause "Simplified" License', 'CI/CD configuration', 'Add CHANGELOG', 'Add CONTRIBUTING', 'Add Kubernetes cluster', and 'Configure Integrations'.

At the bottom, a table header is visible with columns for 'Name', 'Last commit', and 'Last update'.

Figure 2: Merge Request

```
git push -o merge_request.create \  
        -o merge_request.target=devel \  
        origin topic/something
```

The screenshot shows the GitHub interface for the repository 'nim65s / example-adder'. At the top, there's a search bar and navigation links for Pull requests, Issues, Marketplace, and Explore. The repository name is 'nim65s / example-adder' with a 'Public' badge. Below the repository name, it says 'forked from Gepetto/example-adder'. The main navigation bar includes links for Code, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. A notification bar indicates 'devel had recent pushes 2 minutes ago' with a 'Compare & pull request' button. Below this, there are buttons for 'Go to file', 'Add file', and 'Code'. A status bar shows 'This branch is up to date with Gepetto:master.' and options to 'Contribute' or 'Fetch upstream'. The commit history shows a recent commit: 'nim65s release: Update package.xml version to 4.0.2' by '70b0d16' on '8 Dec 2021' with '14 commits'. Below the commit history is a table of files:

File	Description	Time
cmake @ 84f1ae1	[Cmake] Add Submodule	2 months ago
include/example-adder	[Bindings] Add Python bindings	2 months ago
python	[Bindings] Add Python bindings	2 months ago
src	[bin] Add gepetto-example-adder executable	2 months ago
tests	[Tests] Check main executable	2 months ago
.gitlab-ci.yml	[CI] Add gitlab-ci.yml	2 months ago

On the right side, there's an 'About' section with a description: 'This is an example project, to show how to use Gepetto's tools'. It also includes links to the Readme, BSD-2-Clause License, 0 stars, 2 watching, and 4 forks. Below the 'About' section are 'Releases' (10 tags) and 'Packages'.

Figure 3: Pull Request

Required: <https://cli.github.com/>

```
gh pr create
```

CI

```
# .gitlab-ci.yml
image: gitlab.laas.fr:4567/gsaurel/talks

build:
  script:
    - make

test:
  script:
    - make test
```

```
git config --global alias.mwps "push \
    -o merge_request.create \
    -o merge_request.target=devel \
    -o merge_request.merge_when_pipeline_succeeds \
    -o merge_request.remove_source_branch"

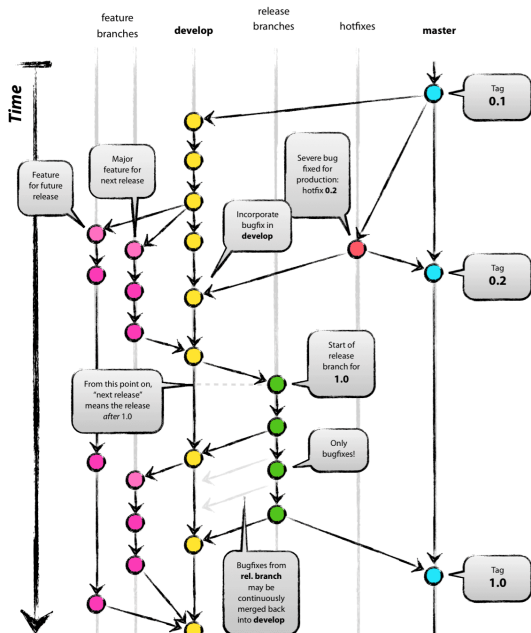
git mwps origin topic/something
```

```
# .github/workflows/build.yml
name: Build
on: [push,pull_request]

jobs:
  build:
    name: Transpile markdown sources into PDF
    runs-on: nim65s/talks
    steps:
      - uses: actions/checkout@v2
      - run: make
```

Workflows

Example



End notes

<https://learngitbranching.js.org/>

<https://nvie.com/posts/a-successful-git-branching-model/>

<https://docs.github.com/en/get-started/quickstart/github-flow>

Thanks for your time :)