



**Using Git Hooks to Help Your
Engineering Teams Work
Autonomously**

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Quick Facts About Zalando Tech

- Tech HQ in Berlin
- Other tech offices in Dublin, Helsinki, Dortmund, Mönchengladbach, Erfurt
- +700 technologists
- Nearly everything produced in-house

Why?

Why do we need hooks and rules?

How?

How should the rules be enforced?

Dark Ages of SVN

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- Bash script

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- ~~Bash script~~
- Python Hook

The Age of the Git Hook

The Age of the Git Hook - First Plan

- A common code base for git and svn

The Age of the Git Hook - First Plan

- A common code base for git and svn
- Pre-receive hook

The Age of the Git Hook - First Feedback

- Git is not SVN



The Age of the Git Hook - First Feedback

- Git is not SVN
- People don't use Git the same way

The Age of the Git Hook - Plan B

- A dedicated hook for Git

The Age of the Git Hook - Plan B

- A dedicated hook for Git
- Allow teams to tailor the hooks to their needs

The Age of the Git Hook - Customization

```
"*playground-*":  
    check_from: 9999-01-01T00:00  
TEAM1/*:  
    check_from: 2014-01-08T00:00  
    allowed_projects: [PROJECT1]  
    extra_on_push: [jira.fix_version]  
    merge_to_feature: [live, master]  
TEAM1/repository42:  
    allowed_projects: [PROJECT1, PROJECT2]  
TEAM2/*:  
    allowed_projects: [PROJECT3]  
    check_from: 2014-03-31T12:30  
    disable_on_push: [git.is_feature_or_bugfix_branch]
```


The Age of the Git Hook - Problems

- Centralized configuration

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- Checking code style is slow

The Age of the Git Hook - Problems

- Centralized configuration
- Trying to check commits on a push
 1. Git history is not linear
 2. Merging to/from a long lived branch
- Checking code style is slow
- Inflexible

The Age of the Git Hook - Problems

- Centralizing Git

The Age of Autonomy

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- Local git hooks

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- **Optional**, a helper not a blocker

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The Age of the Autonomy

- Local git hooks
- Optional, a helper not a blocker
- Extensible, one size doesn't fit all
- Open Source

The Age of the Autonomy - Turnstile

<https://github.com/zalando/turnstile>

<https://pypi.python.org/pypi/turnstile-core>



Turnstile - How to install it

```
$ pip install turnstile-core
```



Turnstile - How to use it

- Add a `.turnstile.yml` file to your repository



Turnstile - How to use it

- Add a `.turnstile.yml` file to your repository

checks:

- specification
- branch-release
- protect-master

specification:

allowed_schemes: ['https']

branch-release:

pattern: '^v(?:\d|_|\.)+\$\$'

Turnstile - How to use it

- Add a .turnstile.yml file to your repository
- Install the hooks on your repository:

```
$ turnstile install
```

Turnstile - More than a hook

- Core subcommands:

- config
- install
- remove
- specification
- upgrade
- version

Turnstile - Extending Turnstile

```
setup(  
    name='turnstile-codevalidator',  
    ...  
    entry_points={  
        'turnstile.commands':  
            ['codevalidator = turnstile_cv.command'],  
        'turnstile.pre_commit':  
            ['codevalidator = turnstile_cv.check']})
```

Turnstile - Extending Turnstile

- Entry points
 - `turnstile.commands`
 - `turnstile.commit_msg`
 - `turnstile.pre_commit`

What we learned

- Don't get stuck in the past

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- Develop in the open

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- Don't get stuck in the past
- Develop in the open
- Build tools not barriers

Ask Questions

<https://pypi.python.org/pypi/turnstile-core>

<https://github.com/zalando/turnstile>

<https://turnstile.readthedocs.org>

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