
Git Hooks

— What They Are and How to Use —
Them

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What's a Git hook?

- Automatic scripts running when certain Git events occur
- Allows to customize Git behaviour



Conceptual overview

Use cases:

- Encouraging a specific commit policy
- Altering project environment
- CI workflows

Hooks can be:

- Local
- Server-side



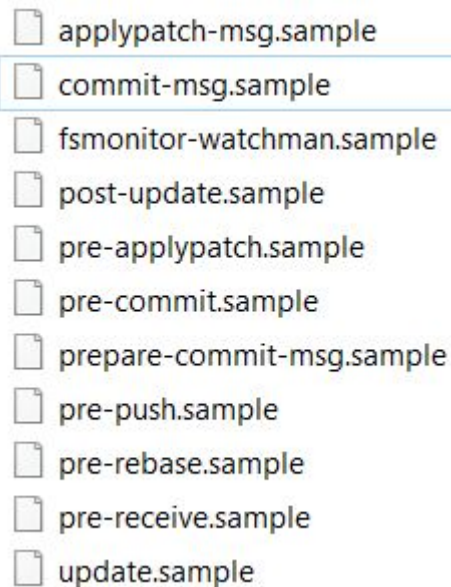
Location

PROJECTPATH/.git/hooks/

- Always contains some sample hooks

To activate a hook:

- Remove .sample extension (or create your own hook file)



A list of sample Git hooks files, each preceded by a small document icon. The file 'commit-msg.sample' is highlighted with a blue border. The list includes:

- applypatch-msg.sample
- commit-msg.sample
- fsmonitor-watchman.sample
- post-update.sample
- pre-applypatch.sample
- pre-commit.sample
- prepare-commit-msg.sample
- pre-push.sample
- pre-rebase.sample
- pre-receive.sample
- update.sample

```
#!/bin/sh
echo "# Please include a useful commit message!" > $1
```

Caveat

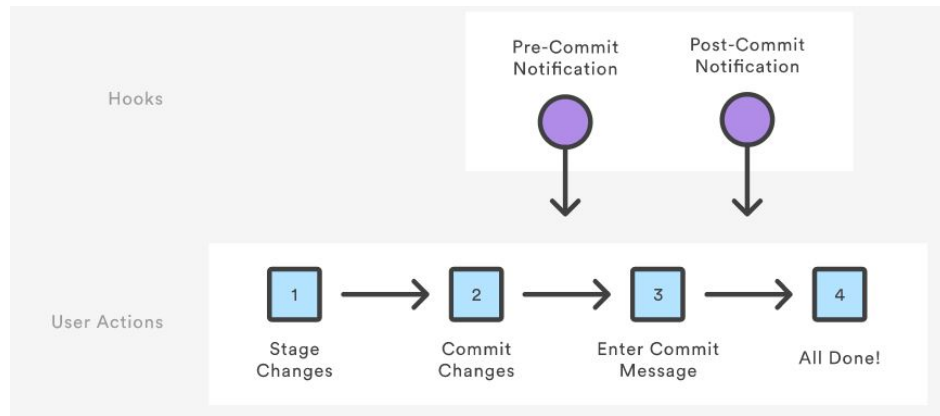
- Local to current Git repo
- Can be changed by anybody with access
- Important to configure hooks across a team correctly.
- Not cloned with git clone command
- Not under version control

Work-around:

- Store actual hooks in the project directory and create a symlink

Hooks

- Local hooks are used as guidelines rather than hard restrictions.
- Still possible to reject commits that don't qualify using server-side hooks.



Local Hooks

- `pre-commit`
- `prepare-commit-msg`
- `commit-msg`
- `post-commit`

pre-commit

- Executed before committing
- Useful for running tests

prepare-commit-msg

- Called after pre-commit
- Can be used for adding info to the text editor where the commit message will be entered

commit-msg

- Called after the user enters a commit message.
- Can be useful for message formatting and warnings.
- Can alter the message file in-place

post-commit

- Called immediately after commit-msg
- Used for notifications

References

Git Hooks, Atlassian, URL: <https://www.atlassian.com/git/tutorials/git-hooks>

Customizing Git - Git Hooks, URL:

<https://git-scm.com/book/en/v2/Customizing-Git-Git-Hooks>

Git Hooks, URL: <https://githooks.com/>