Tutorial

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Everything Git!

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1. Introduction

- Applications
  - Backups, Collaboration, Organization
- Benefits
  - Speed
  - Simple design
  - Parallel branches
  - Fully distributed
- Example project using Git.
- Found at – git-scm.com

2. Installation

- Linux

```
# apt-get install git
# yum install git
```

- Mac

```
# brew install git
```

- Windows
  - Installer from git-scm.com

3. Configuration & First repo

```
$ git config --global user.name “Name”
$ git config --global user.email “e-mail-id”
$ git config --global core.editor “emacs -nw”
$ git config --global color.ui true
$ git config --global credential.helper cache

$ git init first-repo

$ git clone repo-remote-url
```

4. Staging


```
$ git status
$ echo “First file.” > README
$ git diff

$ git add README
$ git rm README

$ git diff –cached

$ git commit -m “commit message”
```

5. File Status Lifecycle

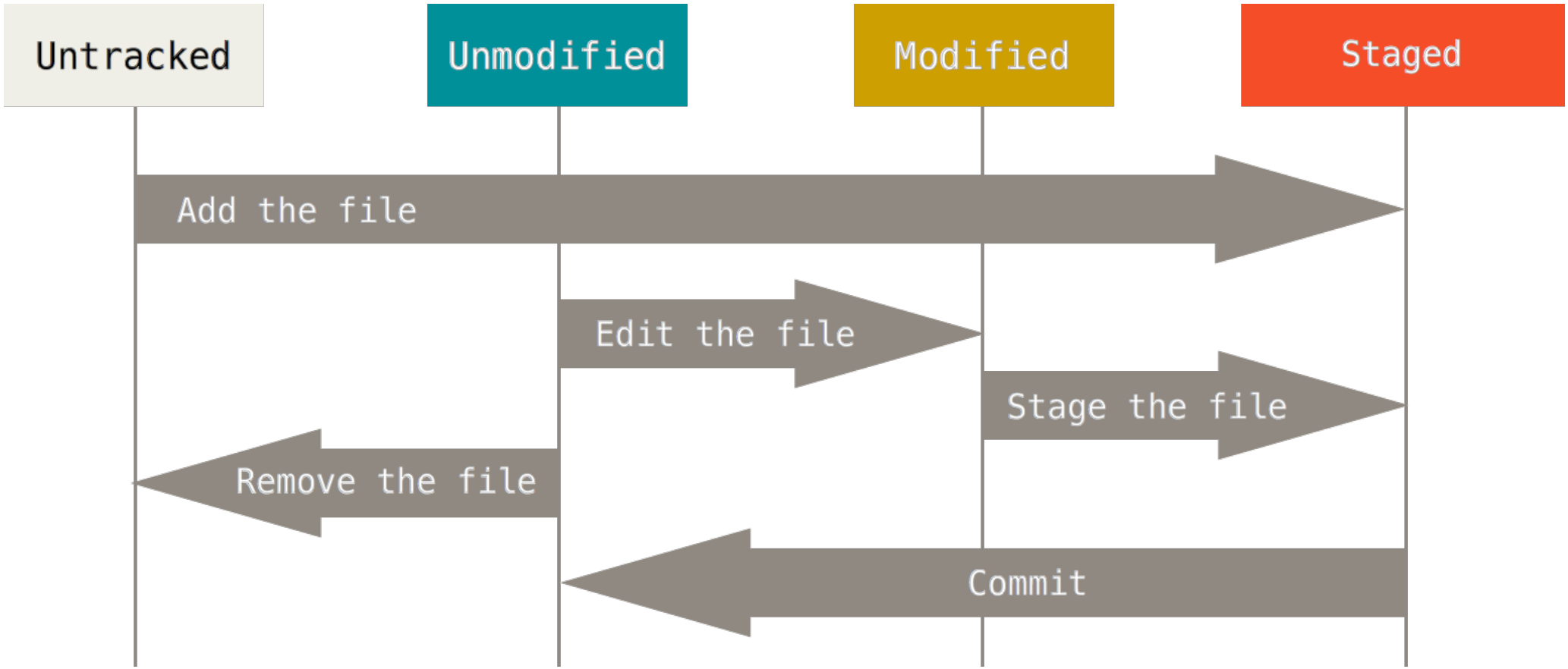

Image Source: http://git-scm.com/book/en/v2/book/02-git-basics/images/lifecycle.png

6. Undo

```
$ git commit --amend

$ git reset HEAD
$ git reset HEAD file

$ git checkout file
```

7. Log

```
$ git log
$ git log --author='name'
          --pretty=oneline
          --graph
          --oneline
          --decorate
          --all
$ git show
```

8. Remote

```
$ git remote add origin

$ git push -u origin master
$ git pull origin master

$ git fetch
$ git merge
```

9. Branching

```
$ git branch -b branch-name
$ git checkout branch

$ git checkout -b branch-name

$ git push origin branch-name

$ git branch -d branch-name
$ git push origin --delete branch-name
```

10. Tagging

```
$ git tag -a tag-name -m “message”
$ git push --tags

$ git show tag-name
$ git checkout tag-name

$ git tag -d tag-name
$ git push origin :refs/tags/tag-name
```

Thank you!