

# Git

- A Briefing -

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## Where does it come from?

### Facts sheet

- ▶ homepage: [git-scm.com](https://git-scm.com)
- ▶ written in C, Bourne shell, Tcl, Perl
- ▶ started by Linus Torvalds
- ▶ under GPL available for Win/Mac/Linux
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### Biggest difference to cvs/svn

git is a **distributed version control system** which has equivalent functionality than cvs/svn, but adds (among others) the option to **have the complete revision tree locally!**

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- ▶ before starting, declare yourself

```
$ git config --global user.name "Peter Steinbach"
$ git config --global user.email "steinbac@mpi-cbg.de"
$ git config --global core.editor emacs
...aliases, diffstyle, colors ...
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  - ▶ in `$HOME/.gitconfig`
  - ▶ `$ git config --list`

## Using it the svn way

acquiring a projects code

```
$ git clone https://github.com/skluth/INIParser.git
```

```
$ git pull # for any relevant updatesa
```

---

<sup>a</sup>merge step occurs locally and may not destroy the central repository

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### adding files

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$ git add . # adds all files and subdirectories
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### adding files

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### committing changes

```
$ git commit -m "nicer error messages during tests" GNUmakefile
```

## Using it the svn way

studying changes

```
$ git log --since="1 weeks ago"
```

```
commit 8b80015abb393a66382c3e6ca12ae0af7f961d6f
```

```
Author: Peter Steinbach <Peter.Steinbach@tu-dresden.de>
```

```
Date: Thu Oct 4 13:07:56 2012 +0200
```

```
    added license
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```
$ git show 8b80015a:
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### publishing changes

```
$ git push
```

(only possible if local files are up-to-date, i.e. issue `$ git pull` first)