

# A 5 minute introduction to Dulwich

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25 October 2010

# Project goals

A 5 minute  
introduction to  
Dulwich

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- ▶ Complete, independent, Python library that supports the Git file formats and network protocols
  - ▶ compatible with C git
  - ▶ independent of C git
- ▶ “Pure Python”
  - ▶ C implementations are sometimes available, but optional (for improved performance)
- ▶ *NOT* a UI
  - ▶ although it would be great to see a UI based on Dulwich

## “Git as first-class citizen in the Bazaar world”

- ▶ started by Rob Collins in 2005
- ▶ originally invoked “git” manually
- ▶ later changed to use stgit
- ▶ Jelmer Vernooij took over maintainance in 2008
  - ▶ switched to python-git based bindings, renamed to dulwich

<https://launchpad.net/bzr-git>

- ▶ “python-git” project by James Westby in 2007, as a one-weekend hack
- ▶ Renamed to “Dulwich” to avoid confusion with GitPython
  - ▶ Youtube is a great place to stumble upon great project names <sup>1</sup>
- ▶ originally developed in lockstep with bazaar

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<sup>1</sup><http://www.youtube.com/watch?v=Hty04tmpPdk>

- ▶ Basic objects read/write (Tree, Blob, Tag, Commit)
- ▶ Pack (read/write)
- ▶ Smart server client / server
- ▶ HTTP Smart server
- ▶ Index (read/write)
- ▶ Patch parsing/generation
- ▶ Fastimport/fastexport

# Dulwich users

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- ▶ hg-git
- ▶ bzt-git
- ▶ rabbitvcs
- ▶ anyvc
- ▶ ...

# Other Python Git implementations

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- ▶ git-python
  - ▶ invokes cgit
  - ▶ recently started implementing more natively
- ▶ PyGit
  - ▶ pinin' for the fjords?

- ▶ completer implementation
  - ▶ history walking
  - ▶ notes
  - ▶ rename detection
- ▶ improved performance
  - ▶ pack delta's
  - ▶ large packs
- ▶ optional libgit support (?)



# Resources

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- ▶ <http://samba.org/~jelmer/dulwich>
- ▶ Repo: <git://git.samba.org/jelmer/dulwich.git>
- ▶ IRC: *#dulwich* on *Freenode*
- ▶ Mailing list: [dulwich-users@lists.launchpad.net](mailto:dulwich-users@lists.launchpad.net)
- ▶ Bugs: <https://bugs.launchpad.net/dulwich>