



INTRODUCTION TO GIT

USING WINDOWS & POWERSHELL

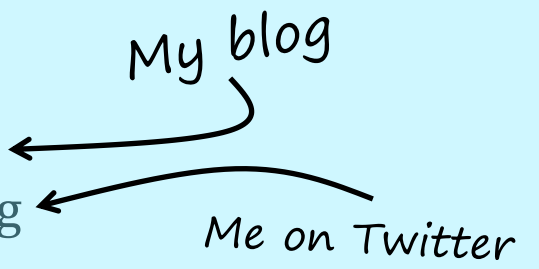
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OVERVIEW - GIT

- Distributed version control system
- Originally created for the Linux kernel project
- Runs on Linux/Unix, OS X & Windows
- Website: <http://git-scm.com>



OVERVIEW - POWERSHELL

- Command shell environment
 - ...and scripting language
- Built on top of .NET
- .NET object pipeline, not strings
- Many built-in command aliases to make you feel at home
 - `dir, ls` → `Get-ChildItem`

WHY POWERSHELL?

- Bash
 - Powerful, but somewhat out of place
- Command.exe
 - Welcome to the past
- PowerShell
 - Powerful
 - Customisable
 - Good for other tasks
 - (not single-purpose like 'Git Bash')

GIT CONCEPTS

- Distributed version control
 - There is no central server (unlike SVN, CVS etc)
 - ...although there can be if you like
 - All history, branches & tags stored locally on your machine
 - Commits, diffs and merges are *fast*
 - You can push and pull changes in your local repository to remote copies
 - Excellent for collaboration (open source)

GIT CONCEPTS

- *Proper* branches & tags
 - Not just copies of the tree like Subversion
 - ‘trunk’ → ‘master’
- Branch per feature
 - Easy and cheap branching + fast merges
 - Trivial to create a branch, write a feature and merge back into master

DEMO



ENVIRONMENT

- MSysGit <http://code.google.com/p/mysysgit/>
 - Git
 - OpenSSH
 - GitGUI/GitK
- PowerShell
 - and some scripts to enhance the experience
- Console <http://sourceforge.net/projects/console/>
- DiffMerge <http://www.sourceforge.com/diffmerge/>

- TortoiseGit <http://code.google.com/p/tortoisegit/>

POWERSHELL + GIT

- Add custom aliases
 - `git status` → `gs`
- Tweak the prompt
- Scripts to add more
 - SSH Agent

DEMO



OTHER COOL GIT STUFF

- GitHub <http://github.com/>
 - “Social coding”
 - Lots of open source projects there - popular
 - Forking (create your own copy of a project’s repository)
 - “Pull requests” – easy way to notify upstream repos of your wish to pull in your changes
- Gitorious <http://gitorious.org/>
 - Like GitHub
 - But open-source, so you can download and run your own
- Gitis
 - Easy way to run a git server
 - Linux/Unix & Windows (Cygwin)
 - Configured through its own special git repository which it hosts

How recursive 😊



Try it out for
yourself



THAT'S ABOUT ALL

Questions?

*Thanks for listening to
my babbling*

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*More Git & PowerShell
stuff on my blog*

