

# Introduction to Git and Github

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BUILDS Tutorial Series, Fall 2013

# What is Git?

- An unpleasant or contemptible person.
- A distributed revision control and source code management.
- Originally developed by Linus Torvalds (“creator” of Linux) for kernel code management
- Version control is any practice that tracks and provides control over changes to source code [Wikipedia, Version Control]
- Other version control systems: Mercurial (hg), SVN, CVS, and GNU bazaar.
- BUILDS uses Git and Github.
  - For example, the builds.cc website is hosted on github and instead of using a blog engine, like Wordpress, we use git to push posts and updates.

# Demo #1

The basics. Now follow along!

- `git init`
- `git add`
- `git status`
- `git commit`

# Demo #2

## Branching

- `git branch`
- `git checkout`
- `git merge`

# Github

## What is Github anyway?

- Adds a “social” aspect to git.
- Acts as a place to dump your code, let other people download it, improve on it, etc.
- Free for Open Source Projects.
- You can make groups (like “BUILDS-”) for managing between people.
- Can fork and create pull requests.
- Go to <http://github.com>

# Demo #3

Gitting things from the cloud.

- `git clone`
- `git push`
- `git pull`
- `git remote` (brief)

# Demo #4

## Making a Pull Request, or, Working Together

- Go to  
`http://www.github.com/BUILDS-/git-tutorial-demo`
- Fork it!
- Clone it!
- Edit it!
- Commit it and push it!
- Submit a pull request for it!

# Eng-Git

Want to be private? or have ITAR problems?

- Michael Abed created <http://eng-git.bu.edu>
- Requires you be on the BU network
- Uses SSH public keys (Github also has this feature)
- Free public or private repos with some nice features
- Best for private or ITAR compliant projects that you don't want to leave BU.



# Questions?

Slides can be found at

<https://github.com/BUILDS-/builds-workshops>