Project management

Options

- Installing collaborative version control on AFS is not impossible but very difficult with permissions
- Therefore, we will encourage the following:
  - Google code (Git or SVN repository)
  - GitHub
  - Local version control (SVN/Git)
- The only difference between using Google and a local repository is Google is visible to the outside world.

Open source licence(s)

- We recommend you release your code under the GPL. Details here:
  - http://opensource.org/licenses/gpl-3.0.html

- In short, you maintain the rights to the code and others can modify it, but they must credit you as original developers and release it to the public domain.

Git vs. subversion?

- **Subversion**
- Subversion is a well-known centralized VCS and the most widely used for open source projects.
- Subversion can scale to support larger projects, but it works especially well for small/medium sized projects.
- Subversion also works well for teams where most software contributions are expected from other team members.
- **Mercurial/Git**
- Mercurial and Git are Distributed Version Control Systems (DVCS) that enables developers to work “offline” and define more complex workflows such as peer-to-peer pushing/pulling of code.
- DVCS makes it easier for outside contributors to contribute to projects, as cloning and merging of remote repositories is very easy.
- Large projects with multiple developers and external contributors benefit the most from DVCS because of the ease of branching and tagging. Smaller projects typically only experience the benefit of being able to work offline.

Google

- Google provides free project management support to open source projects with the following features:
  - SVN/Git/Mercurial backend
  - Wiki to document project
  - Mailing lists including Google groups
  - Issue/bug tracking

Customizing a project

- **Project Summary** subtab -- You can modify some of the options that you set during project creation, as well as set up blogs, analytics, and a custom project logo. This also provides another opportunity to set up project labels, which will help others find your project.
- **Project Members** subtab -- You can add new owners or committers to the project.
- **Source** subtab -- You can elect to have non-project members review your code.

Fostering a collaborative environment

- You'll also likely want to set up mailing lists for notifications of commits and issue changes. The emails allow project members and others to keep track of changes to the source code that might affect them.
- If you need to create mailing lists, you may want to use Google Groups.
- Add (your-project-name)@googlecode.com as an allowed poster to all mailing lists that will receive notifications.
- In your project, click the **Administer** tab.
- Click the **Source** subtab.
- In the Activity Notifications area, enter mailing lists that will receive notifications of **All commits** and click **Save Changes**.
- Click the **Issue Tracking** subtab.
- In the Activity Notifications area, enter mailing lists that will receive notifications of **All issue changes** and click **Save Changes**.

Checking out

- For instructions on how to check out a project's repository from the command line, go to the **Source** tab. Any user, regardless of whether they have a Google account, can check out and browse the repository anonymously, while project owners and committers are granted full read and write permissions. You can add project owners and committers at the Administer tab.

Issue tracker

- The **Issues** tab is a great way to keep track of the ongoing features, tasks, and bugs in your project. It allows multiple project members to see what others are currently doing.

- After you click the **New issue** subtab to create a new issue, please note the **Labels** fields. Labels are strings that are meaningful to the project members. When an issue label contains a dash, such as Priority-Medium, it is interpreted as a key-value pair that you can use like a custom field.
- The prefix before the first dash is the key.
- The part after the first dash is the value.
- You can configure the issue list to show a column for any prefix. You can also search for the values within a specific custom field by using prefix:value.

FAQ (Google)

- **Why would I want to host my open source project on Google Code?**
- Our project-hosting service is simple, fast, reliable, and scalable, so that you can focus on your own open source development.
- **Are there any restrictions on who can use the site?**
- Just a couple. You'll need to be in a country where Google is able to conduct business, and your project needs to be open source.
- **Are you going to put ads on my project page?**
- No. Ads aren't part of Google Code at this time.
- **How long does it take for my project to be approved for hosting?**
- As soon as you create a project, it's available for use.
- **Can I use Google Code to host projects that aren't open source?**
- Nope. Open source projects only.
- **Why open source projects only?**
- Most proprietary software projects have funding, and can therefore afford to pay for commercially offered development tools and environments. The goal of hosting on Google Code is to promote healthy open source development by offering hosted tools that most open source projects can't afford.

Other FAQs

- http://code.google.com/p/support/wiki/SubversionFAQ
- http://code.google.com/p/support/wiki/IssueTrackerFAQ
- http://code.google.com/p/support/wiki/GitFAQ

Create a new project

Instantly create your open source hosting project by filling out the form below. For your project, you'll receive:

- Git, Mercurial, and Subversion code hosting
- Download/release hosting
- Integrated source code browsing and code review tools
- An issue tracker and project wiki

Learn more

Project name

Example: my-project-name

Project summary

Description

Version control system

- Git
- Mercurial
- Subversion

Source code license

Select a license...

Project label(s)

add another row

Create project

ndfund-minesweeper

ND++ implementation of a minesweeper program

Project Information

Starred by 0 users
Project feeds

Code license
GNU GPL v3

Labels
Game, minesweeper, OOP, Academic

Members
scott.emrich

Your role
Owner

Semester project for Fundamentals of Computing II, spring 2012, illustrating open source principles and allowing students to develop and build on a minesweeper implementation.

Sharing Project Data

Feeds: Atom feeds make it easy to track projects using your favorite feed reader. Google Reader allows you to read feeds in your web browser. I

Gadgets: You can use gadgets to track a project outside of Google Code. It's also possible to add gadgets to a wiki page.

CSV: Issue data can be exported in comma-separated value (CSV) format. These plain text files can be imported into many spreadsheet prograr ound on the lower right corner of the issue list page.

Links

Project Information	Gadget
Downloads	Atom | Gadget
Wiki	Atom | Gadget
Issue Updates	Atom | Gadget
Issues	CSV | Gadget
Source Changes	Atom | Gadget
Code Search	Gadget


ndfund-minesweeper
ND++ implementation of a minesweeper program
Project Home
Downloads
Wiki
Issues
Source
Administer
New issue
Search
Open issues
for
Search
Tip: Type ? for issue tracker ke
Select: All None
Actions...
ID
Type
Status
Priority
Milestone
Owner
Summary + Labels

Command-line access

If you plan to make changes, use this command to check out the code as yourself using HTTPS:

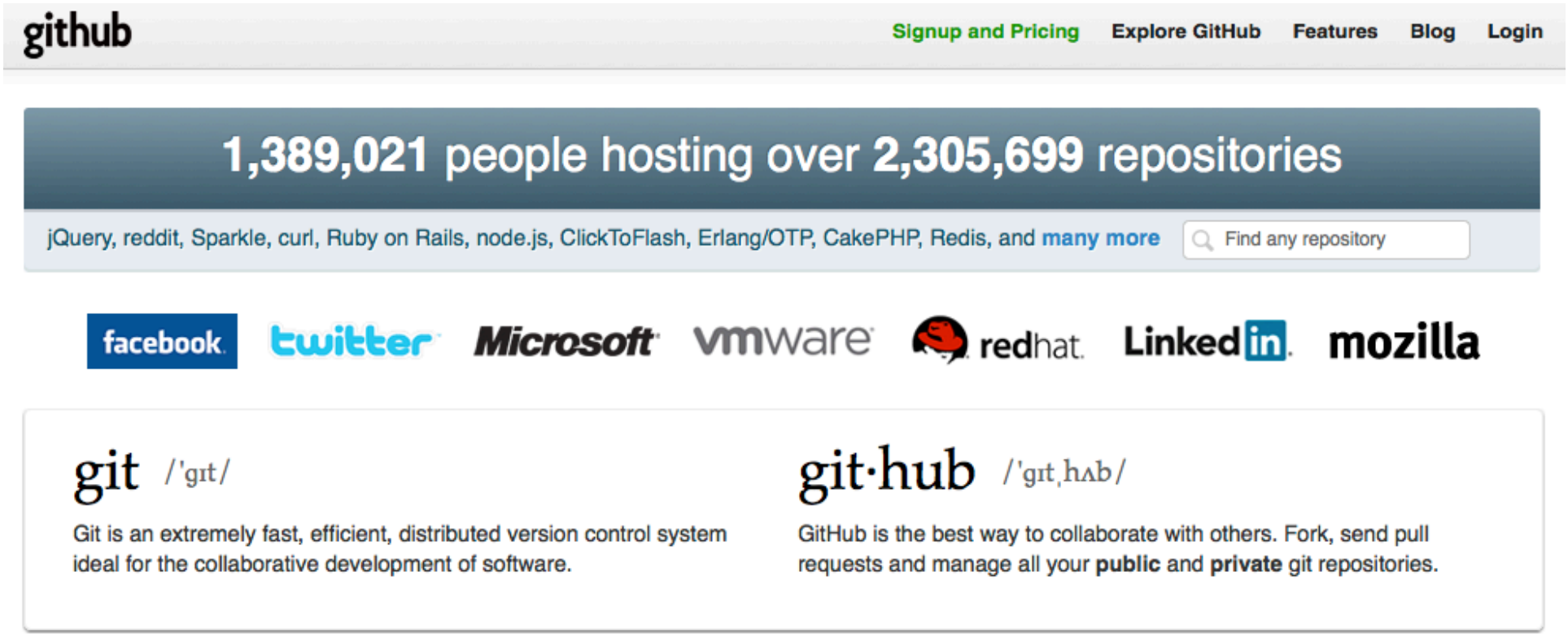
```
# Project members authenticate over HTTPS to allow committing changes.
svn checkout https://ndfund-minesweeper.googlecode.com/svn/trunk/ ndfund-minesweeper --username scott.emrich@gmail.com

When prompted, enter your generated googlecode.com password.
```

Use this command to anonymously check out the latest project source code:

```
# Non-members may check out a read-only working copy anonymously over HTTP.
svn checkout http://ndfund-minesweeper.googlecode.com/svn/trunk/ ndfund-minesweeper-read-only
```

svn import https://ndfund-minesweeper.googlecode.com/svn/trunk/ --username scott.emrich@gmail.com -m "importing code for first time”

svn up https://ndfund-minesweeper.googlecode.com/svn/trunk/ --username scott.emrich@gmail.com


github
Signup and Pricing
Explore GitHub
Features
Blog
Login
1,389,021 people hosting over 2,305,699 repositories
jQuery, reddit, Sparkle, curl, Ruby on Rails, node.js, ClickToFlash, Erlang/OTP, CakePHP, Redis, and many more
Find any repository
facebook
twitter
Microsoft
vmware
redhat
LinkedIn
mozilla
git /ˈgɪt/
Git is an extremely fast, efficient, distributed version control system ideal for the collaborative development of software.
git·hub /ˈgɪtˌhʌb/
GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your public and private git repositories.

github Search... Explore Gist Blog Help VectorBase

VectorBase ProTip™ You can use `git add --interactive` to stage part of your working copy for commit. News Feed

News Feed | Your Actions | Pull Requests | Issues

GitHub Bootcamp If you are still new to things, we've provided a few walkthroughs to get you started.

Set Up Git
A quick guide to help you get started with Git.

Create A Repository
Create the place where your commits will be stored.

Fork a Repository
Copy a repo to create a new, unique project from its contents.

Be social
Follow a friend.
Watch a project.

sethnr pushed to master at sethnr/natdiv-rest a month ago

4783e73 deleted old flybase data (can be re-created from public flybase chado)

bobular opened pull request 1 on VectorBase/ExpressionMap 3 months ago

Tabbed tutorials, permalinkable queries
2 commits with 253 additions and 21 deletions

Your Repositories (4) New repository

Find a repository...

All Repositories | Public | Private | Sources | Forks

VectorBase/**GDAV**

VectorBase/**ExpressionMap**

github:mac

Mac OS X 10.6+ 64-bit

Download the latest
1.1.7 — January 10th 2012

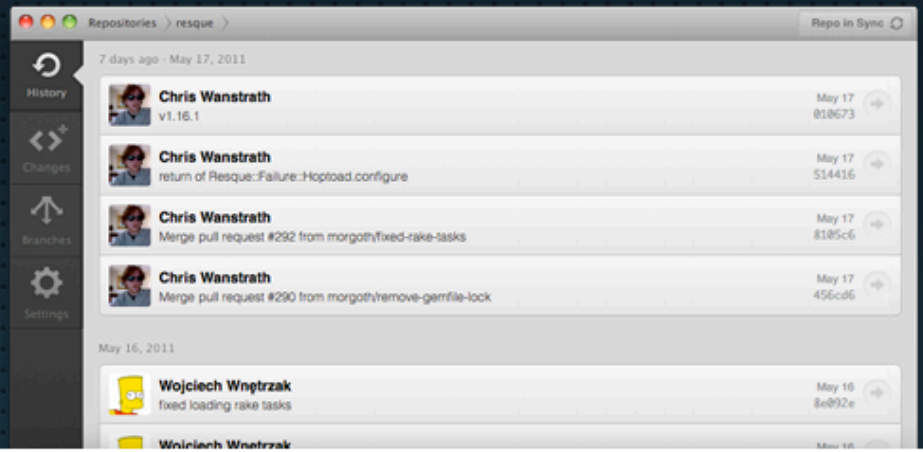
Introducing GitHub for Mac

The easiest way to share your code with GitHub

Download GitHub for Mac

Free to download, free to use

Overview Help Release Notes



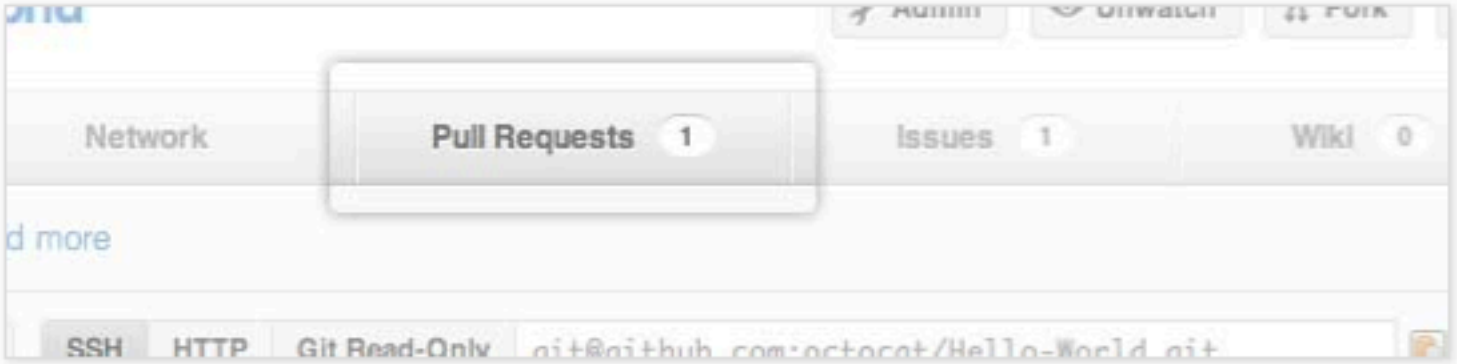
✓ Clone repositories ✓ Browse history ✓ Commit changes ✓ Branch code ✓ Share code on github.com

Release manager?

Then: More Things You Can Do

You've done some of the most basic social interaction GitHub has to offer, but don't stop there! Check out these other social features:

- **Pull Requests**



You may find yourself wanting to contribute to someone else's project, whether to add features or to fix bugs. After making changes, you can let the original author know about them by sending a pull request.

A Quick Note on Collaborative Development Models

There are two popular models of collaborative development on GitHub:

1. The *Fork + Pull Model* lets anyone fork an existing repository and push changes to their personal fork without requiring access be granted to the source repository. The changes must then be pulled into the source repository by the project maintainer. This model reduces the amount of friction for new contributors and is popular with open source projects because it allows people to work independently without upfront coordination.

2. The *Shared Repository Model* is more prevalent with small teams and organizations collaborating on private projects. Everyone is granted push access to a single shared repository and topic branches are used to isolate changes.

Pull requests are especially useful in the *Fork + Pull Model* because they provide a way to notify project maintainers about changes in your fork. However, they're also useful in the *Shared Repository Model* where they're used to initiate code review and general discussion about a set of changes before being merged into a mainline branch.