Revision Control Systems Git (revision control)

What is git and why should I use it?

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Marcus Geduld, 30 years of coding.

50.2k Views • Upvoted by Carlos Matias La Borde, Coder for most of my life Marcus has 7 endorsements in Computer Programming.

Originally Answered: What is Git used for? What does it do exactly?

Git allows a team of people to work together, all using the same files. And it helps the team cope with the confusion that tends to happen when multiple people are editing the same files.

There are many ways it can be set up and configured, but at my job, here's how we use it: when a new employee starts, he downloads all the files from Github, which is an online server we're all connected to.

So he has his local version of the files, I have my local version, our boss has his local version, etc.

When I make a change to some files, I go through the following process in the Terminal. (There are GUI clients for Git, but I prefer working on the command line.)

> git pull

That pulls the latest changes down from github. If there are conflicts between those and my local ones, it tells me what they are, file-by-file, line-by-line, and I now have a chance to reconcile those differences.

After editing the files or creating new ones, I run this command:

> git add .

Which adds all of my local changes to git, so that git knows about them. The dot after add specifically means to add all the changes I've made, e.g. new files I've added to my local folder or changes I've made to existing files. If I want, I can add only specific files, e.g.

> git add myNewFile.js

I now write a comment about the adds I just made.

> git commit -m "Fixed a major bug which stopped reports from printing."

Finally, I upload my changes to the server.

> git push

Now, when my colleagues do a ...

> git pull

... they will get my changes, and they will be notified if any of them conflict with their local versions.

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There are all kinds of cool, useful commands for rolling back changes to a particular time or state. But probably the most useful thing about Git is branching. Let's say my team is working on code for an Asteroids game, and I get the idea for making spinning asteroids. This will involve making some major changes to the existing asteroids code, and I'm a little scared to do that. No worries, I can just make a branch.

First of all, I'll check which branches exist:

```
1 > git branch
2 master*
```

So there's currently only one branch on my local machine, called master. The star by it means that's the branch I'm currently working in. I'll go ahead and create a new one:

```
> git branch spinningAsteroids
```

That creates a copy of all the files in master. I'll now move into that branch.

```
1 > git checkout spinningAsteroids
2 > git branch
3 master
```

I now spend a coup not worrying about Support call. They've found a critical bug and I need to fix it asap. No worries...

> git checkout master

```
... fix bug ...
```

```
1 > git pull
2 > git add .
3 > git commit -m "Fixed critical bug with high scores."
4 > git push
```

Now I can resume my work with spinningAsteroids.

```
1 > git checkout spinningAsteroids
2 > git branch
3 master
4 spinningAsteroids*
```

... work, work, work ...

Okay, I'm now happy with my spinning asteroids, and I want to merge that new code into the main code base, so...

```
1 > git checkout master
2 > git branch
3 master*
4 spinningAsteroids
```

> git merge spinningAsteroids

Now the code from my branch is merged into the main code-base. I can now upload it.

```
1 > git pull
2 > git add .
```

3 > git commit -m "added new cool feature! Spinning asteroids!!!" 4 > git push

There are many ways to use Git. This is just one of them.

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Eran Kampf, Internet Entrepreneur, Big Data geek

3.3k Views

Git a distributed source control system.

Why you should use it? because its simpler, faster, and easier to use than traditional "centralized" source control systems.

This site pretty much sums things up:

http://whygitisbetterthanx.com/

Written 20 Dec 2011 • View Upvotes

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Sutiam Lee, I love github

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Originally Answered: What is Git used for? What does it do exactly?

Simply put, git is a source code management system. Marcus has given a very nice highlevel overview to help you get start using Git. But if you are seriously about learning how to use Git effectively, definitely go check out this free online book http://progit.org/book/ "Pro Git" is the absolute best git book out there, it'll teach you git form inside out.

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Originally Answered: What is Git used for? What does it do exactly?

Jane is at city X and her mom is at city Y.

Jane's mom wants to cook a dish and wants Jane's help in it. They want to collaborate with each other in cooking this dish (building a software).

There are three utensils in this story -- one master pan, where the actual food is being prepared, two 'dev' pans; one for Jane and another for her mom, for them to experiment. They add stuff, balance ingredients, etc. in the 'dev' pan. In git terms, these are branches within a repository.

Once they find a mix that tastes good in the 'dev' pan, they merge it with the 'master' pan. And that's how they **commit** each of their contributions towards the dish.

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Git is a source code management (SCM) system. There are many different source code management systems out there and Git fall into the category of a distributed version control system (DVCS). It takes a "peer-to-peer" approach to version control as opposed to a "Client-Server" approach like version control systems like Subversion (SVN).

Want to decide what system is going to be best for you and your development?

Jack Repenning wrote a great Blog Article on Git or Subversion: http://blog.collab.net/cloudforg...

In Summary:

- If you plan to maintain parallel, largely shared but permanently somewhat different lines of the same product, use Git.
- If you have compelling requirements for a single, certain, master copy of your work, use Subversion.

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Originally Answered: What is Git? What does it do? Why should I use it?

What is Git in layman's terms?

What is git and why should I use it?

I am new to programming, what is the best way to learn how to use Git and eventually start a project on GitHub?

What is Git used for? What does it do exactly?

Before posting any such question which has been asked numerous times before, perform a search on quora or google. Plz don't make quora another 'Yahoo Answers' '.

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Harsh Jha, Blog at http://harshtechtalk.com 5.9k Views

Originally Answered: What is Git used for? What does it do exactly?

GIT is a version controlled system which you can use to maintain code for your project. It helps you to save your project at different versions, so that you can retrieve a previous version of your project without any problem. Source codes(or files) are saved in repositories. You check out the files from a version, make some changes, save it and commit changes to create a newer version of your project.

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A picture is worth a thousand words,

A great demo is worth hours of explanation.

Spend your 15 minutes here, this is one of the best git introduction interactive tutorials.

Try Git

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Brian Cooksey · Request Bio

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Originally Answered: What is Git used for? What does it do exactly?

I did a non-technical writeup about version control (including Git): Don't Let Tech Lingo Hold You Back: 7 Common Developer Terms Explained

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Originally Answered: What is Git used for? What does it do exactly?

its like central repository where you can put your all codes and all are working on it and if new worker will come it will update the latest copy from central repository means git (Its same as SVN, a central repository) and now work on it and after finishing his work, he will update in repository.

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ANSWERS THAT NEED IMPROVEMENT

WHY?

Jacob Babu

Originally Answered: What is Git used for? What does it do exactly?

hello everyone ...m new to android..hoping for ur help and support

Written 24 May 2013

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