

Setup Git for cocos2d for iPhone

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Getting the latest cocos2d version from github

Install & Configure git

This lesson will guide you through the installation process for git but just what is necessary to obtain the cocos2d source code. Installing git is already well documented by the folks at github so i'll often refer to their instructions but i've condensed it to the absolutely necessary information so that you can race through that process a lot quicker.

Create GitHub account

You want a free account, so use this link to [sign up with github for free](#). While you are waiting for the github confirmation email you can continue with the next two steps which don't require you to have a github account.

Download and Install Git Package

Filename ▼	Summary + Labels ▼
git-1.7.0.3-intel-leopard.dmg	Git Installer 1.7.0.3 - OS X - Leopard - Intel Featured
git-1.7.0.2-intel-leopard.dmg	Git Installer 1.7.0.2 - OS X - Leopard - Intel Featured
git-1.6.5.1-UNIVERSALbinary-leopard.dmg	Git Installer 1.6.5 - OS X - Leopard - Universal Binary Featured
OpenInGitGui-2.0.zip	OpenInGitGui-2.0 Featured

[Click this link to download the latest git version.](#)

You'll see a list of downloads like above but version numbers may differ. Just pick the topmost file, mount the .dmg and install the package (.pkg file).

Generate SSH keys for Git

Generating an SSH key may seem daunting at first. It's not that bad. Just follow the instructions and type into Terminal what is displayed on the screenshots of the GitHub instructions.

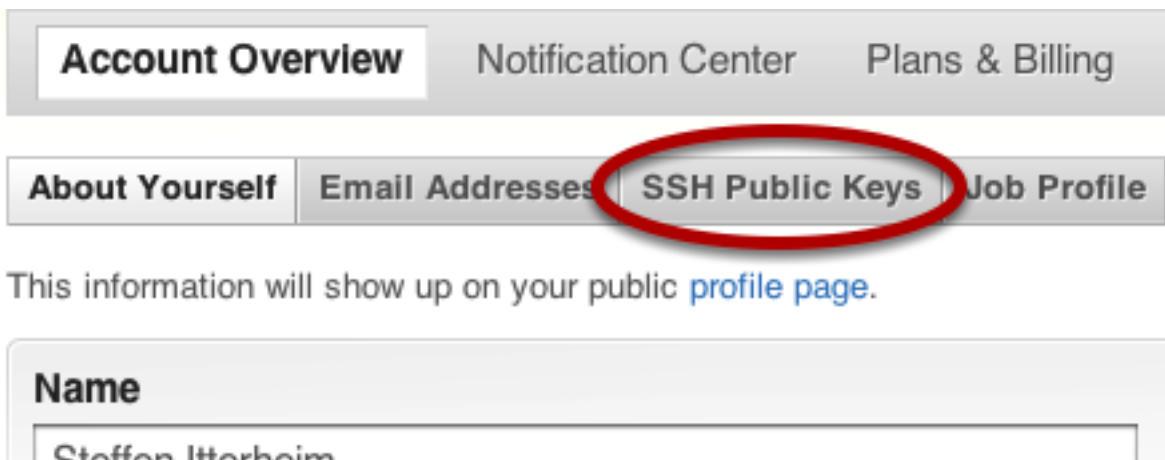
If you know that you don't have an SSH key yet i've recreated the command sequence here for your convenience. Open Terminal.app and simply replace your e-mail address with the one you signed up with on github:

```
cd ~/.ssh
ssh-keygen -t rsa -C "YOUR@EMAIL.ADDRESS"
cat ~/.ssh/id_rsa.pub | pbcopy
```

The last command puts the SSH key into your clipboard. If you overwrite your clipboard contents just re-enter the first and last command into Terminal.app.

[Refer to the instructions on github in case you are having trouble with my descriptions.](#)

Add SSH key to your git account



The screenshot shows the GitHub account settings page. At the top, there are three tabs: "Account Overview", "Notification Center", and "Plans & Billing". Below these, there are four more tabs: "About Yourself", "Email Addresses", "SSH Public Keys", and "Job Profile". The "SSH Public Keys" tab is circled in red. Below the tabs, there is a text box labeled "Name" containing the text "Steffen Itterheim".

Login to your github account and [go to your account settings](#).
Click on the SSH Public Keys button.

Paste your SSH key





The screenshot shows the "Add SSH key" form. It has two main sections: "Title" and "Key". The "Title" section has a text input field. The "Key" section has a large text area for pasting the SSH key. At the bottom of the form, there is a button labeled "Add key" and the text "or [cancel](#)".

Our RSA fingerprint is 16:27:ac:a5:76:28:2d:36:63:1b:56:4d:eb:df:a6:48

Paste your SSH key into the text-box labelled "Key". Title is used to identify your key in case you have many, enter any text you like. Then click "Add key" and you are almost done.

Configure git with username & token

Administrative Information

Username		rename
Password	*****	change
API Token		
Global git config information		Cancel your account

There are a few settings git requires. Enter the commands below in Terminal.app and replace YOURLOGIN with your github login and e-mail address. Your API Token is shown on your [Account Settings](#) page on the right hand side when you are on the "Account Overview" Tab. Copy the token and paste it below instead of YOURTOKEN. If you ever change your github password, you have to update your token as well.

```
git config --global user.name "YOURLOGIN"  
git config --global user.email "YOUR@EMAIL.ADDRESS"  
git config --global github.user YOURLOGIN  
git.config --global github.token YOURTOKEN
```

That's it. You're ready to use git!

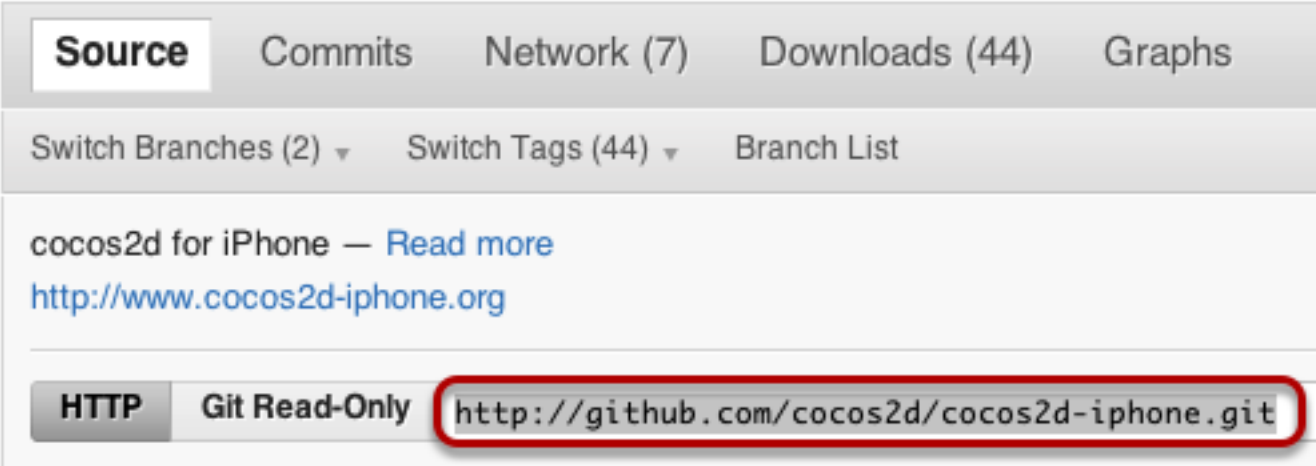
If you're having trouble with this step, refer to the [instructions on github to setup your name, email and github token](#).

Download cocos2d source code from github

We will now download the latest version of the cocos2d source code from its git repository to a folder on your hard drive.

Locate the cocos2d-iphone repository

 **cocos2d / cocos2d-iphone**



Source Commits Network (7) Downloads (44) Graphs

Switch Branches (2) ▾ Switch Tags (44) ▾ Branch List

cocos2d for iPhone — [Read more](#)
<http://www.cocos2d-iphone.org>

HTTP Git Read-Only `http://github.com/cocos2d/cocos2d-iphone.git`

cocos2d v0.99.2-rc



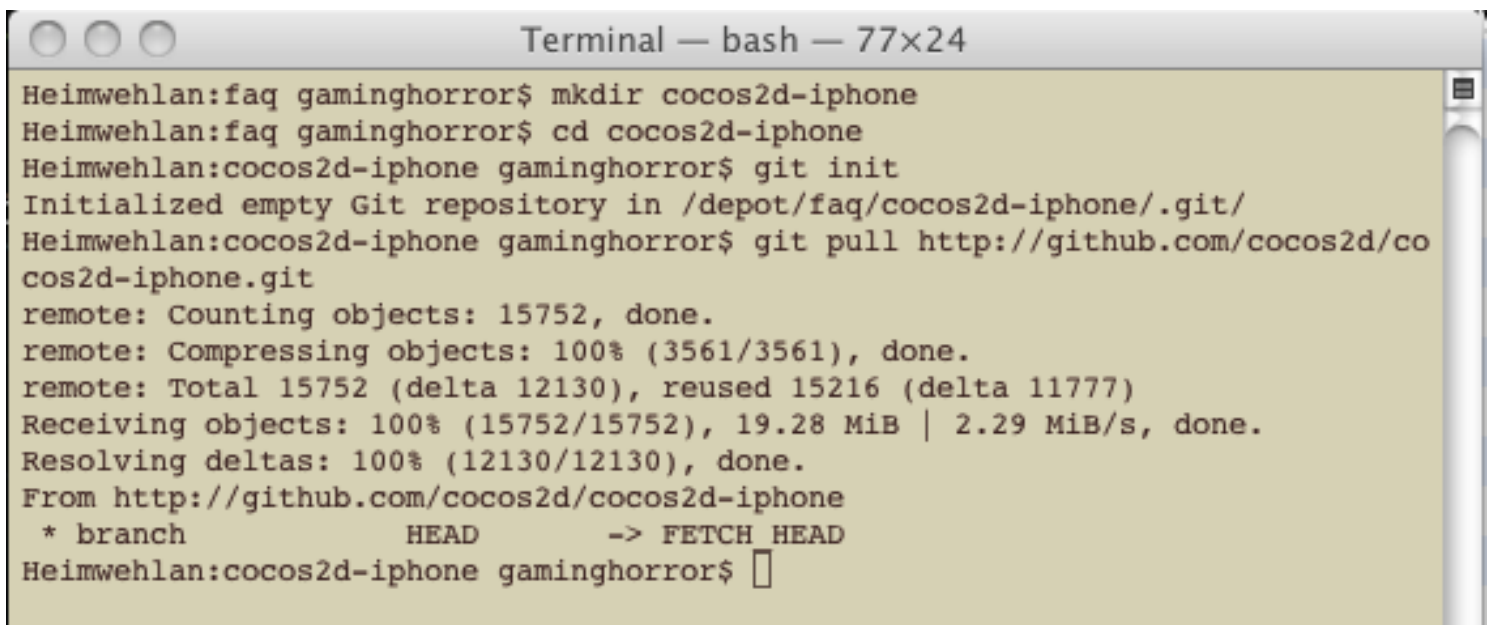
ricardoquesada (author)

April 15, 2010

cocos2d-iphone /

Click on this link to [open the cocos2d-iphone git repository](#) in github, or search for "cocos2d-iphone" on github. You'll notice the "Git Read-Only" URL, copy that and keep it in the clipboard for the next step.

Create a local directory and clone the repository

A screenshot of a macOS Terminal window titled "Terminal — bash — 77x24". The terminal shows a user named Heimwehlan performing several Git commands in a directory named "cocos2d-iphone". The commands and their outputs are: 1. "mkdir cocos2d-iphone" (no output). 2. "cd cocos2d-iphone" (no output). 3. "git init" (output: "Initialized empty Git repository in /depot/faq/cocos2d-iphone/.git/"). 4. "git pull http://github.com/cocos2d/cocos2d-iphone.git" (output: "remote: Counting objects: 15752, done.", "remote: Compressing objects: 100% (3561/3561), done.", "remote: Total 15752 (delta 12130), reused 15216 (delta 11777)", "Receiving objects: 100% (15752/15752), 19.28 MiB | 2.29 MiB/s, done.", "Resolving deltas: 100% (12130/12130), done.", "From http://github.com/cocos2d/cocos2d-iphone", "* branch HEAD -> FETCH HEAD"). The terminal ends with a prompt "Heimwehlan:cocos2d-iphone gaminghorror\$".

```
Heimwehlan:faq gaminghorror$ mkdir cocos2d-iphone
Heimwehlan:faq gaminghorror$ cd cocos2d-iphone
Heimwehlan:cocos2d-iphone gaminghorror$ git init
Initialized empty Git repository in /depot/faq/cocos2d-iphone/.git/
Heimwehlan:cocos2d-iphone gaminghorror$ git pull http://github.com/cocos2d/co
cos2d-iphone.git
remote: Counting objects: 15752, done.
remote: Compressing objects: 100% (3561/3561), done.
remote: Total 15752 (delta 12130), reused 15216 (delta 11777)
Receiving objects: 100% (15752/15752), 19.28 MiB | 2.29 MiB/s, done.
Resolving deltas: 100% (12130/12130), done.
From http://github.com/cocos2d/cocos2d-iphone
 * branch          HEAD          -> FETCH HEAD
Heimwehlan:cocos2d-iphone gaminghorror$
```

To initially download an existing repository from github, we use the "pull" command of the git tool. But first you should create an empty directory somewhere on your hard drive. You might want to name it "cocos2d-iphone" - in any case **name the folder only with letters, digits, hyphen and underscore**, all other characters can cause problems later on, even spaces! After that we'll download cocos2d-iphone into the new directory. These 3 commands entered in Terminal.app do this for you:

```
mkdir cocos2d-iphone
cd cocos2d-iphone
git init
git pull http://github.com/cocos2d/cocos2d-iphone.git
```

You should see something similar as in the screenshot above. That's it, you have successfully downloaded (pulled) cocos2d-iphone from its github repository. For subsequent updates, you only need to pull the code again.

If all you ever want to do is to be able to update cocos2d to the latest version at any time then the pull command is all you need to know.

Get the latest version of cocos2d-iphone

As a reminder, here's how to update cocos2d to the latest version.

Get the latest version of cocos2d-iphone

```
Terminal — bash — 77x24
Heimwehlan:cocos2d-iphone gaminghorror$ git pull http://github.com/cocos2d/co
cos2d-iphone.git
From http://github.com/cocos2d/cocos2d-iphone
 * branch          HEAD          -> FETCH_HEAD
Already up-to-date.
Heimwehlan:cocos2d-iphone gaminghorror$
```

To update the cocos2d-iphone source code to the latest version, change to the directory where you initially downloaded cocos2d-iphone and enter in Terminal.app:

git pull <http://github.com/cocos2d/cocos2d-iphone.git>

It's the same command you used to initially download the source code.

Warning: updating cocos2d-iphone may break your code in unexpected ways!



Just a heads up: when you pull a new cocos2d-iphone version from the git repository there's always a chance that changes made to the engine will break your code. Actually, that is very likely to happen. There may be functions removed, parameters added, variables renamed and plenty of other things changed that may cause your code not to compile. Even if your code compiles the changes to the cocos2d engine may introduce strange bugs and weird behavior. First and foremost it is your responsibility to fix these issues, unless of course there's really a bug in the cocos2d engine itself, which can also happen. This extra work is something you have to come to terms with if you want to develop at the bleeding edge of iPhone game development.

The best strategy for you to remain a happy cocos2d-iphone programmer may seem counter-intuitive at first: pull new cocos2d-iphone updates frequently, as often as daily and before you start working on your code. Even if you don't need a specific bugfix or feature. That way, whatever may break it will most likely be very easy to identify and fix. But if you wait weeks or months before doing a cocos2d-iphone engine update, you may actually be better off not doing it at all and instead just use the

cocos2d Project Templates and stick to the cocos2d-iphone version you start your project with. Just know that you'll hardly be able to benefit from the latest cocos2d engine bugfixes and features - it's the price you pay for taking the easy route at the start of a project.

There's one exception to the "update cocos2d daily" rule though: if you get close to releasing your game to the App Store, or completing the latest patch for your game, you should not pull the latest cocos2d-iphone version for a while. Especially not at the very last minute. Chances are that something might break that you'll miss but your users will find out about and give you bad reviews because of it. So while you're stabilizing your own build, one of the rules to ensure that your code remains free of bugs and weird side-effects is not to update the underlying game engine, or any code that you haven't written yourself for that matter. Even if the change to the engine may seem trivial - you never know! So wait until after the App or patch is released before you perform another engine update. And by "released" i mean released, not just submitted to Apple for review. You need to be able to quickly submit another build in case of a rejection by Apple.

Contributing to cocos2d-iphone (just the concept)

I don't fully cover contributions to cocos2d-iphone, only the concept. I think that would go too far here. If you are interested to learn this let me know.

The concept

You'll need to fork the cocos2d-iphone repository on github. Then you'll download this version and make your changes. When you're done with your changes, you can upload them with this command sequence:

git add .

git commit -a -m "describe what you have changed/added here"

git push

At that point your changes are still only for you, they are in github but only in your fork of cocos2d-iphone. To make the changes public you need to merge your fork back to cocos2d-iphone. Please consult Ricardo before doing so. At the minimum your change needs to be a bugfix for a reported bug, or an enhancement that a lot of people would appreciate. If that's not the case just keep the changes in your fork of cocos2d-iphone. That way you can update to the latest cocos2d-iphone without having to throw away your personal changes to the engine because git will help you merge your changes with any changes made to cocos2d-iphone.