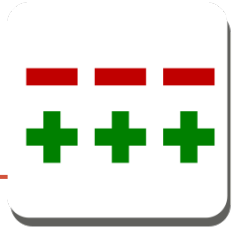
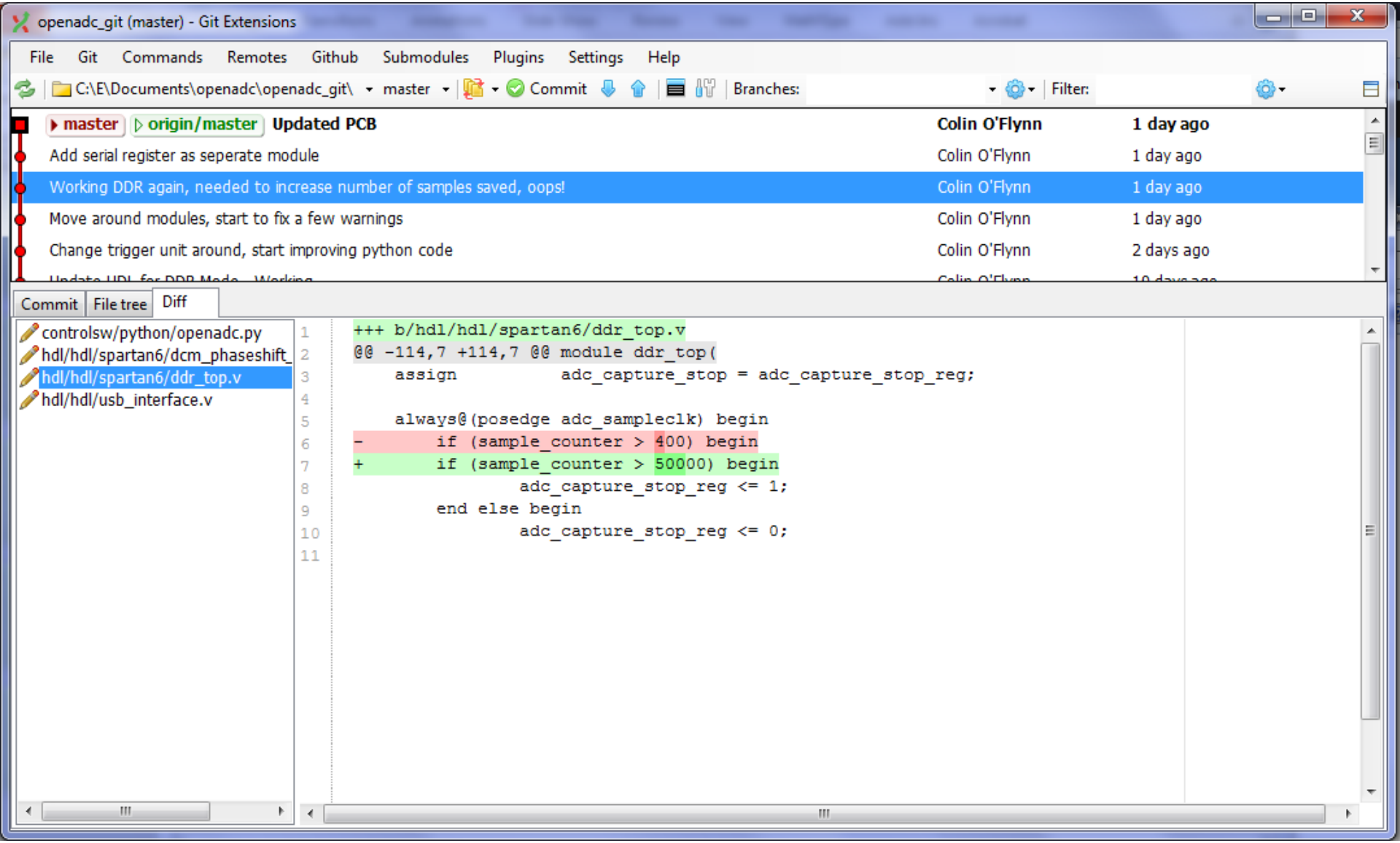
REVISION CONTROL WITH GIT

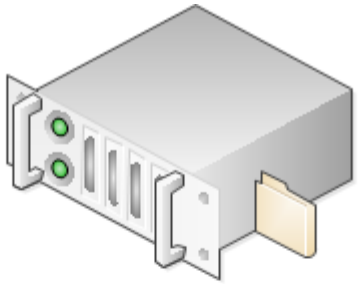


Colin O’Flynn

What is Revision Control?



Why Revision Control



Main Repository



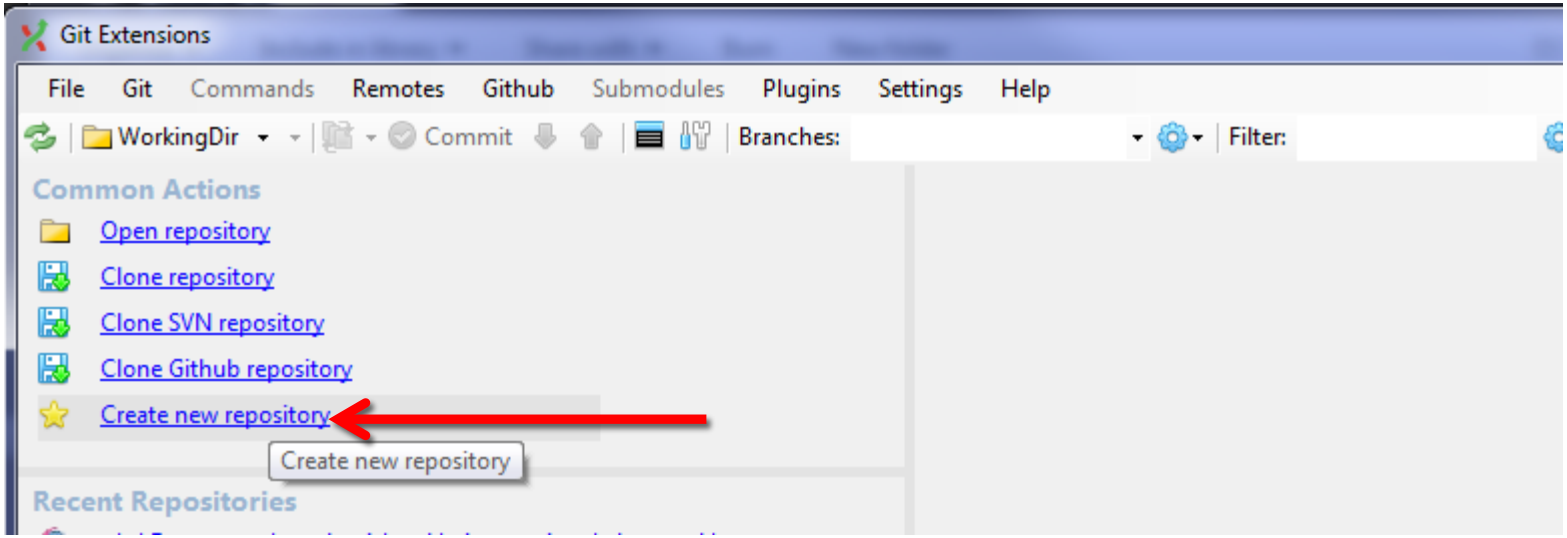
Revision Control: Never go Without it!

- Get back to “known good” code
- See what changed between versions
- See who changed what (and who to blame if things break)
- Easily create multiple ‘branches’ of your code
  - e.g.: You want to add a new feature, so you create a ‘branch’ of your code. You commit your incomplete code to this branch – but can easily switch back to the ‘main’ branch where everything works

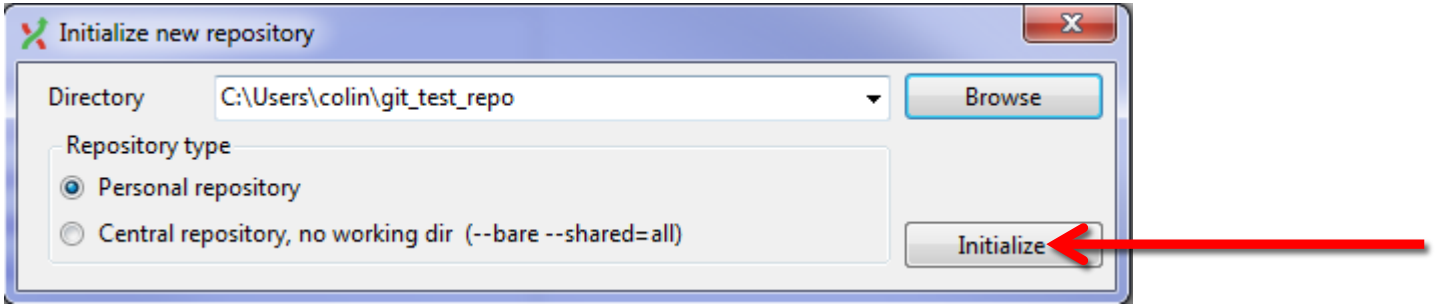
Getting Started

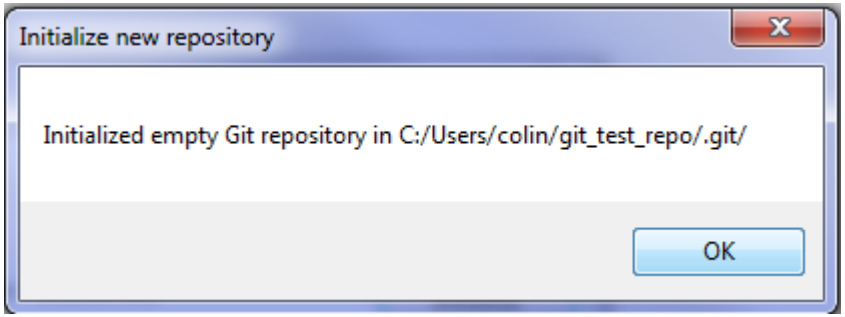
- For Windows I use ‘Git Extensions’ (free)
  - http://code.google.com/p/gitextensions/
- Other tools for Linux/Mac including command line

Your First Local Git Repository

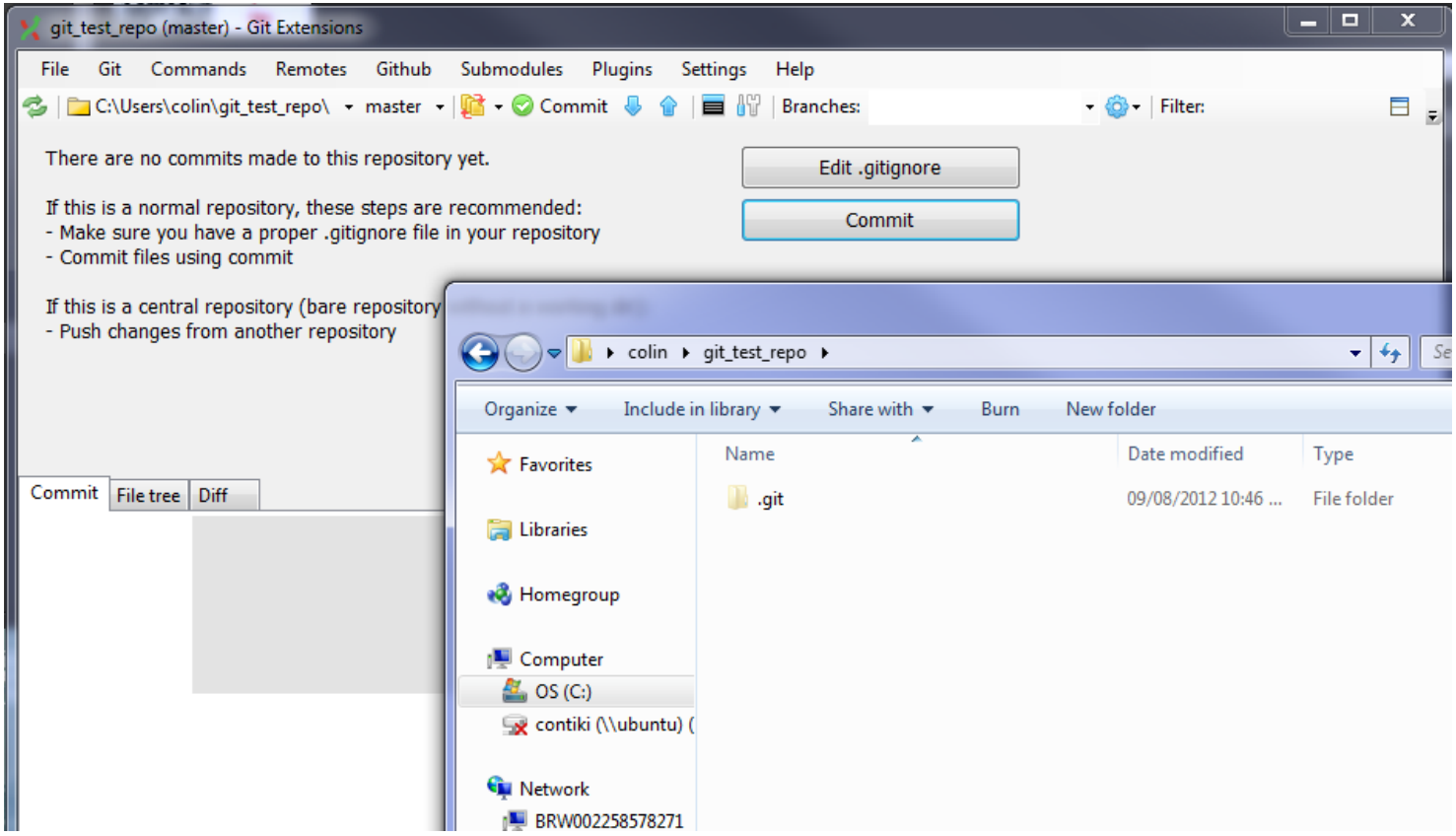


Your First Local Git Repository

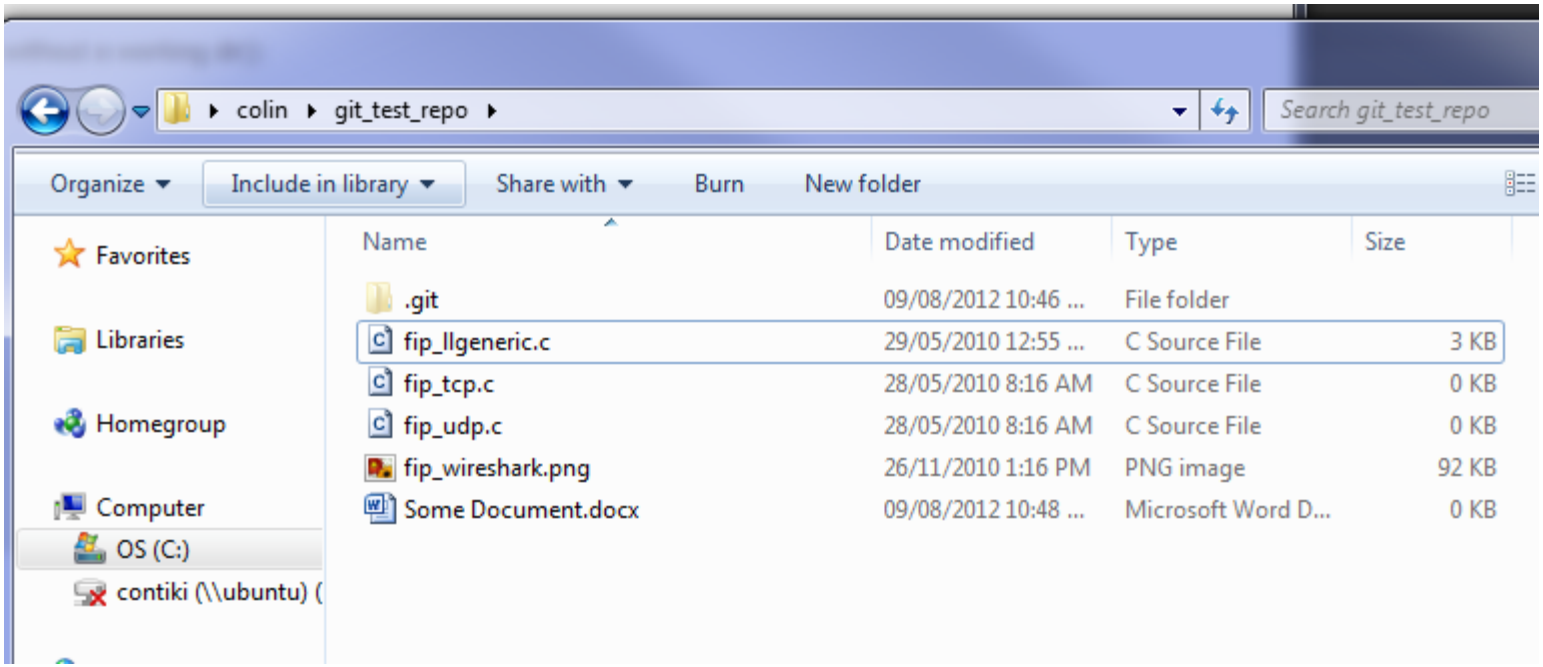




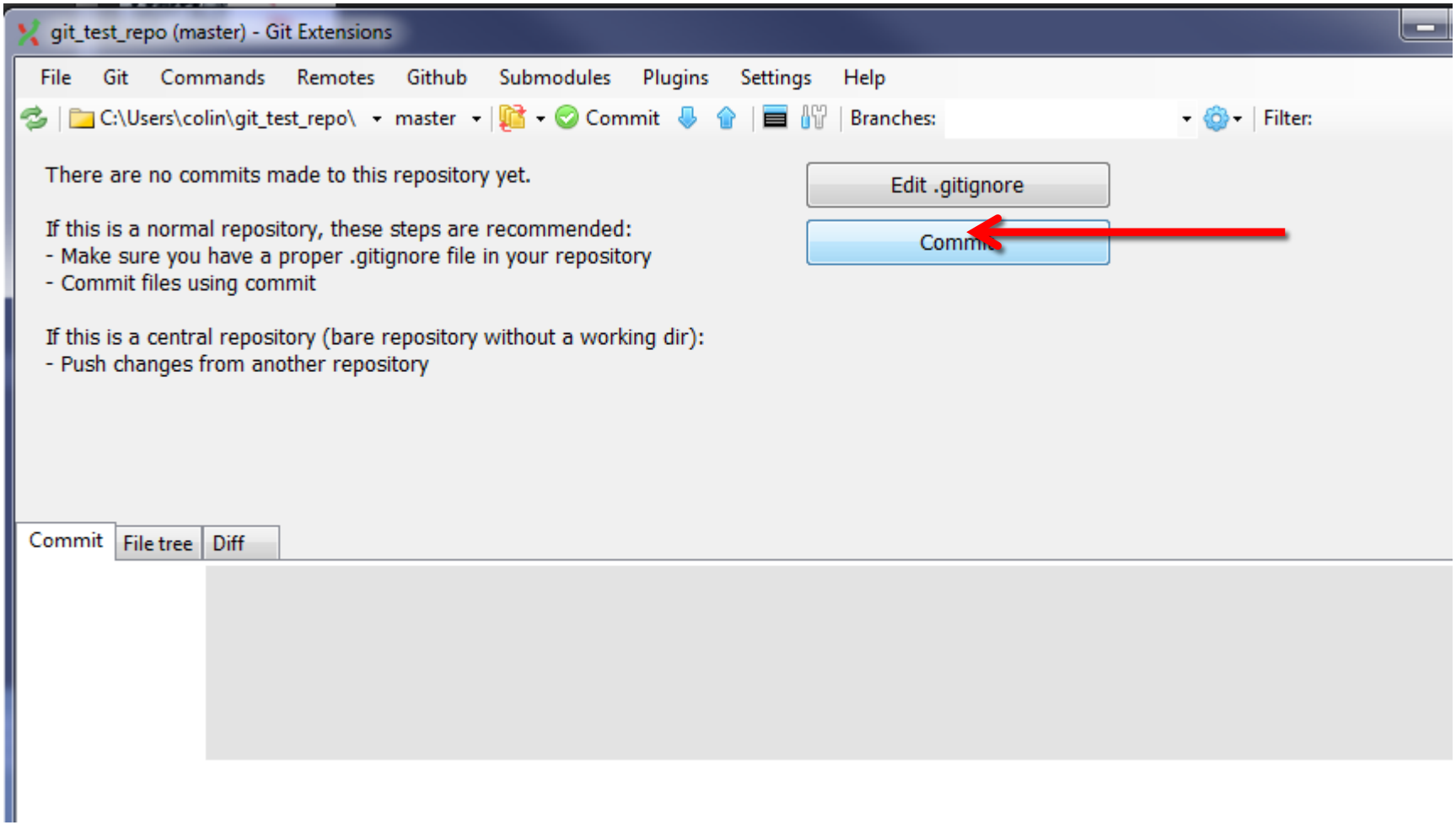
Open the repository



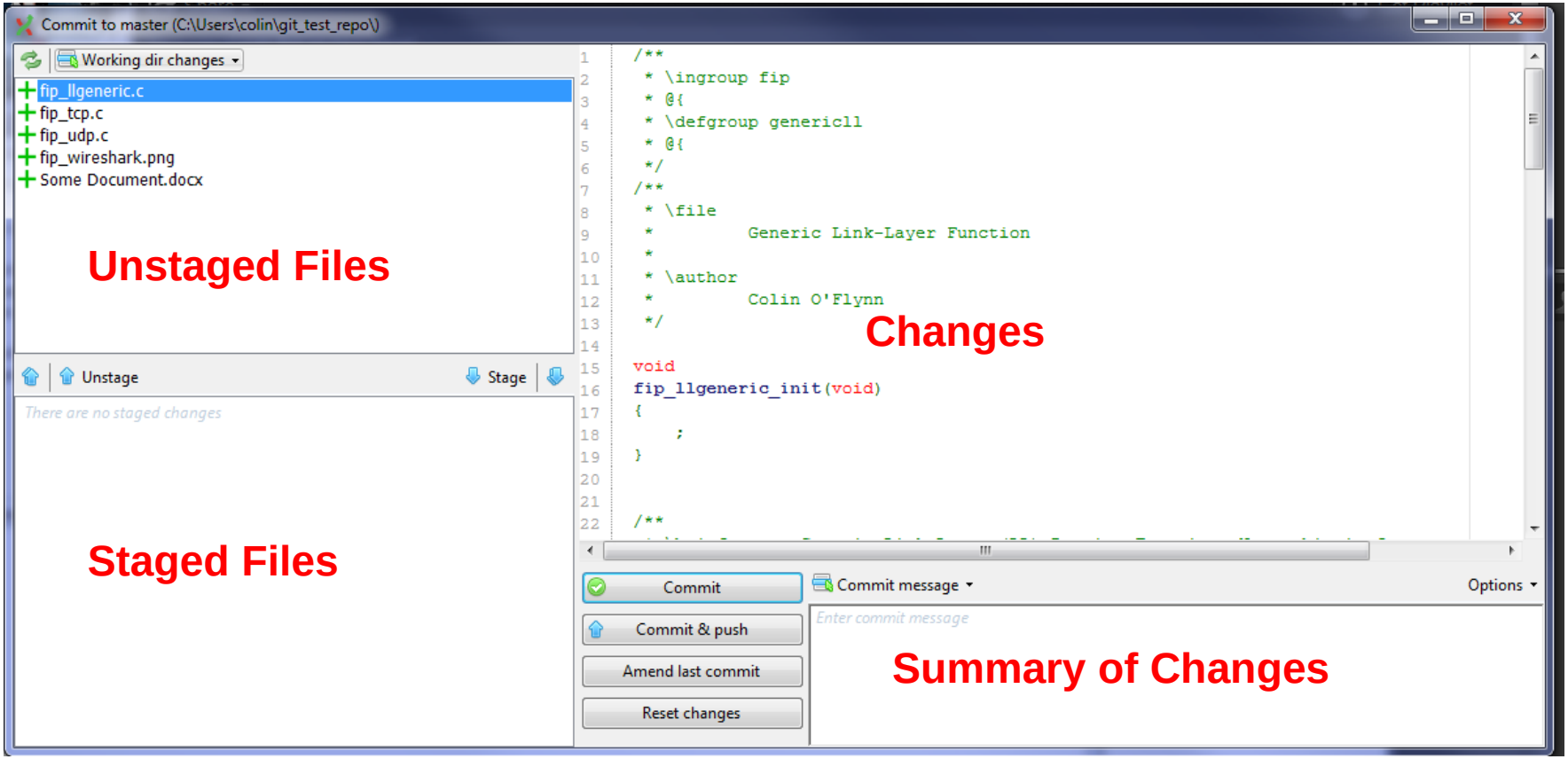
Add some Files



Commiting Time



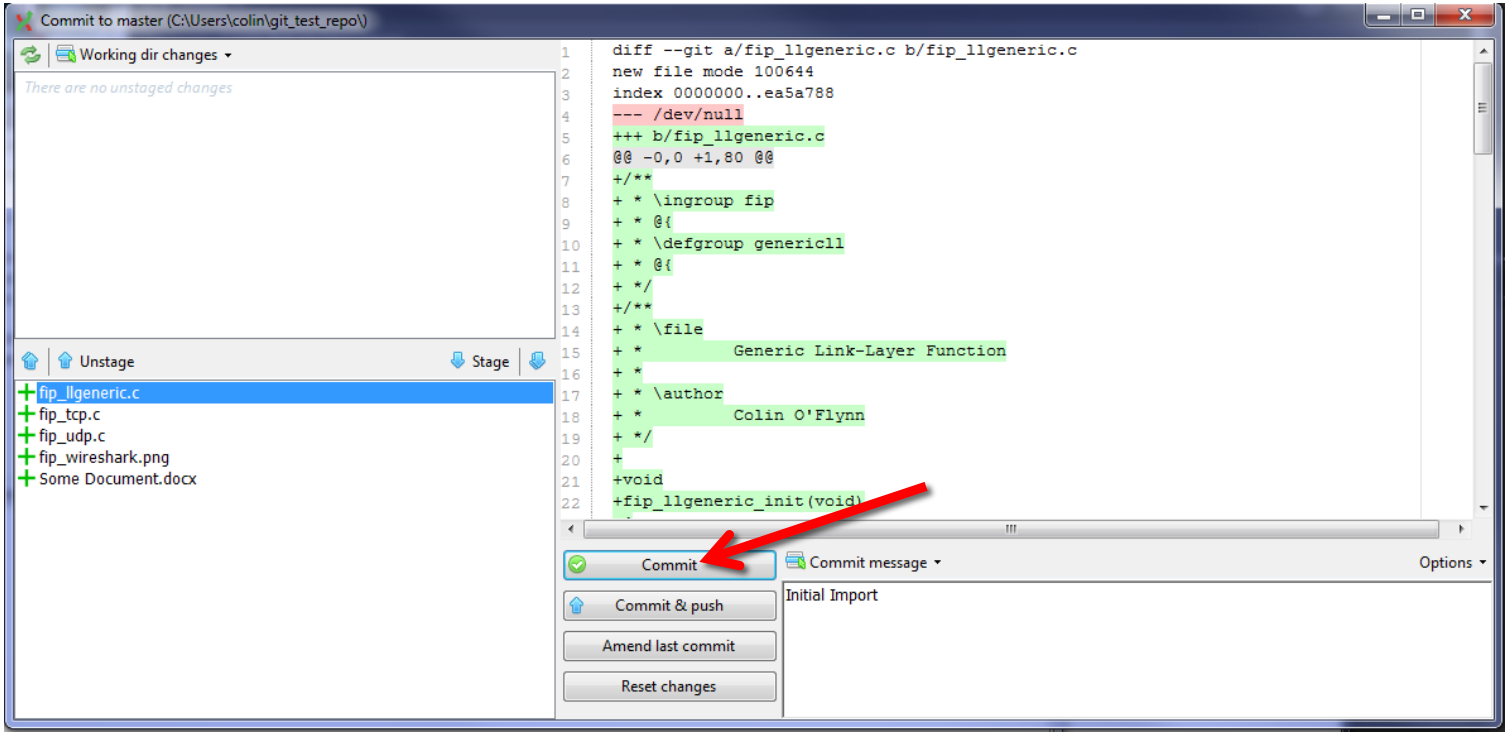
Commiting Window



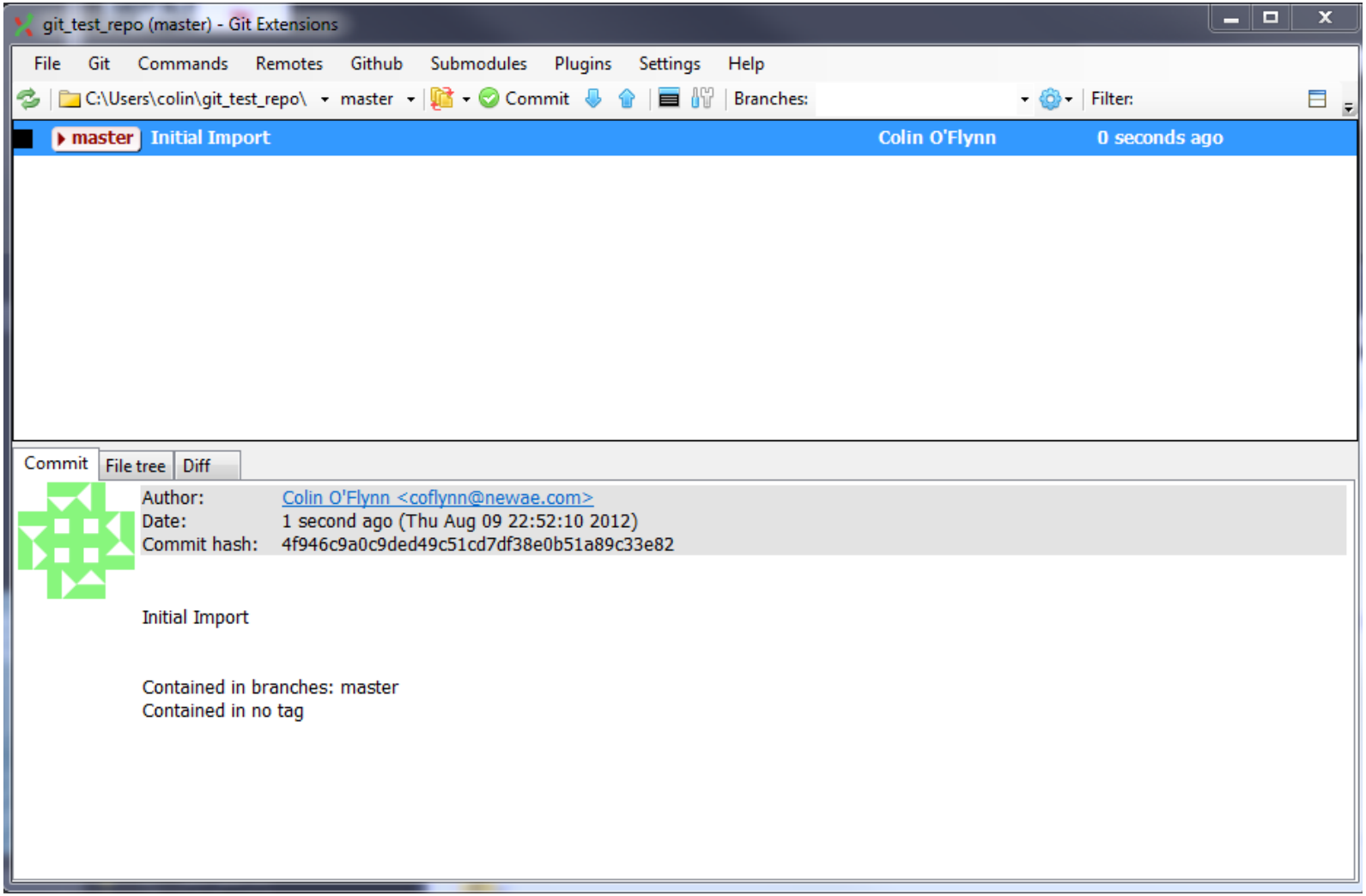
Staged

- Staged files will be commited
- If a bunch of files changed, can do commits for *each* group of changes
- Each commit message should reflect those changes
  - E.g.: DON’T do this: “Change some files” as a commit message
- Commit often!!!

Initial Import



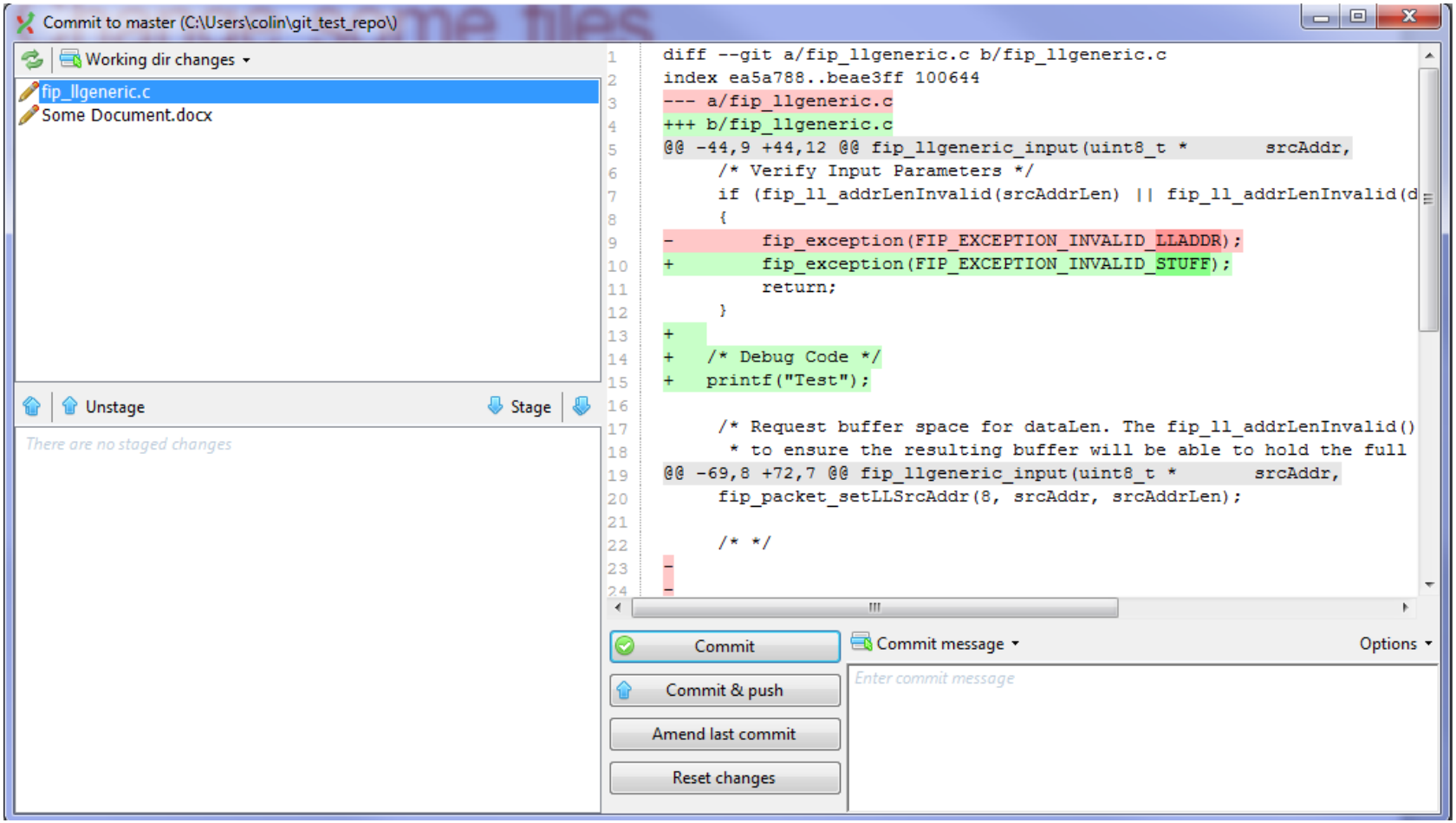
Import Done


git_test_repo (master) - Git Extensions
File Git Commands Remotes Github Submodules Plugins Settings Help
C:\Users\colin\git_test_repo\ master Commit Branches: Filter:
master Initial Import Colin O'Flynn 0 seconds ago
Commit File tree Diff
Author: Colin O'Flynn <coflynn@newae.com>
Date: 1 second ago (Thu Aug 09 22:52:10 2012)
Commit hash: 4f946c9a0c9ded49c51cd7df38e0b51a89c33e82
Initial Import
Contained in branches: master
Contained in no tag

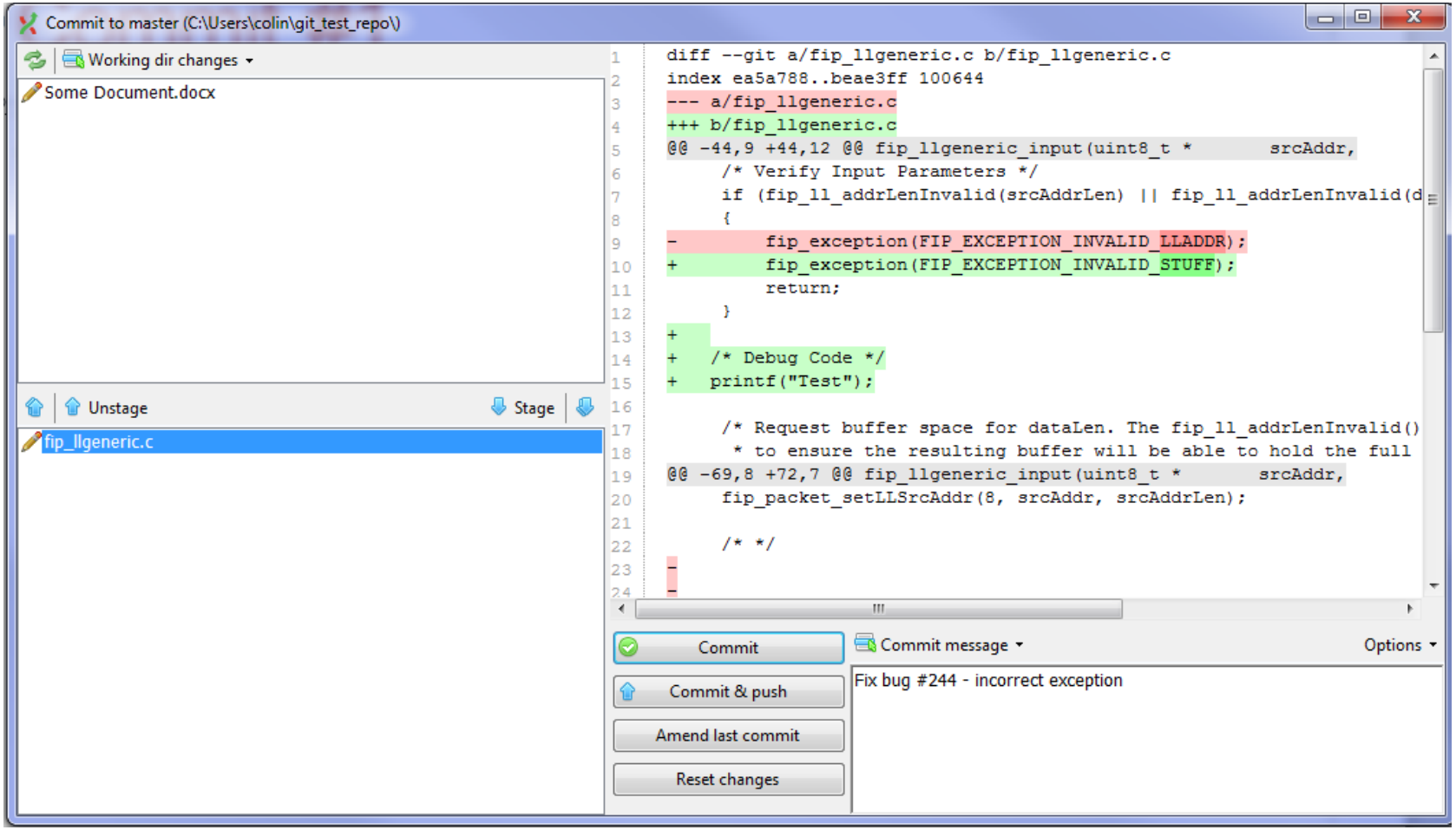
Change some files

- Here I changed the .docx and the .c file
- Assume changes are not related

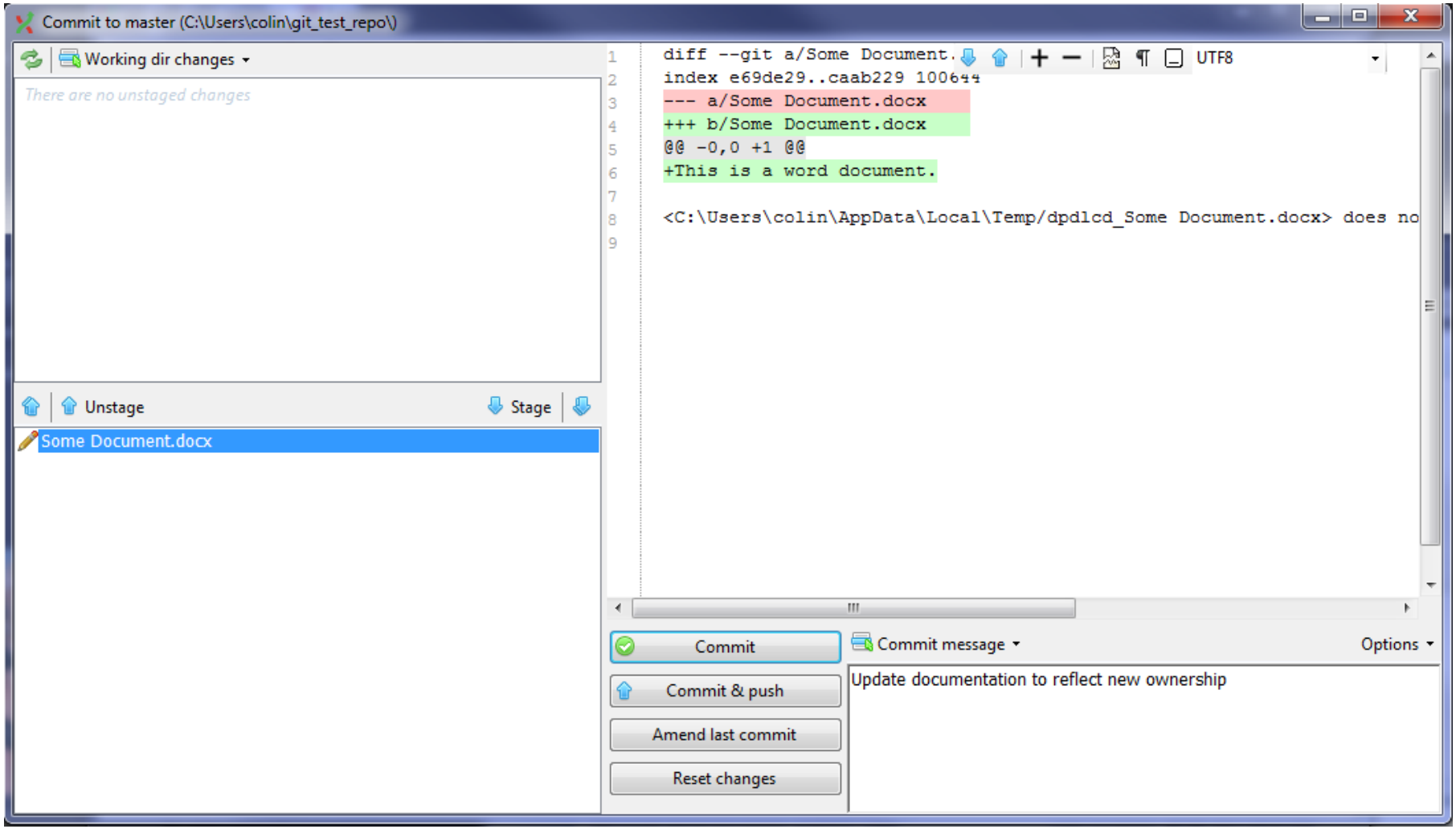
Changed Files



Commit #1


Commit to master (C:\Users\colin\git_test_repo\)
Working dir changes
Some Document.docx
Unstage
Stage
fip_llgeneric.c
diff --git a/fip_llgeneric.c b/fip_llgeneric.c
index ea5a788..beae3ff 100644
--- a/fip_llgeneric.c
+++ b/fip_llgeneric.c
@@ -44,9 +44,12 @@ fip_llgeneric_input(uint8_t * srcAddr,
/* Verify Input Parameters */
if (fip_ll_addrLenInvalid(srcAddrLen) || fip_ll_addrLenInvalid(d
{
- fip_exception(FIP_EXCEPTION_INVALID_LLADDR);
+ fip_exception(FIP_EXCEPTION_INVALID_STUFF);
return;
}
+
+ /* Debug Code */
+ printf("Test");
/* Request buffer space for dataLen. The fip_ll_addrLenInvalid()
* to ensure the resulting buffer will be able to hold the full
@@ -69,8 +72,7 @@ fip_llgeneric_input(uint8_t * srcAddr,
fip_packet_setLLSrcAddr(8, srcAddr, srcAddrLen);
/* */
-
-
Commit
Commit message
Options
Commit & push
Amend last commit
Reset changes
Fix bug #244 - incorrect exception

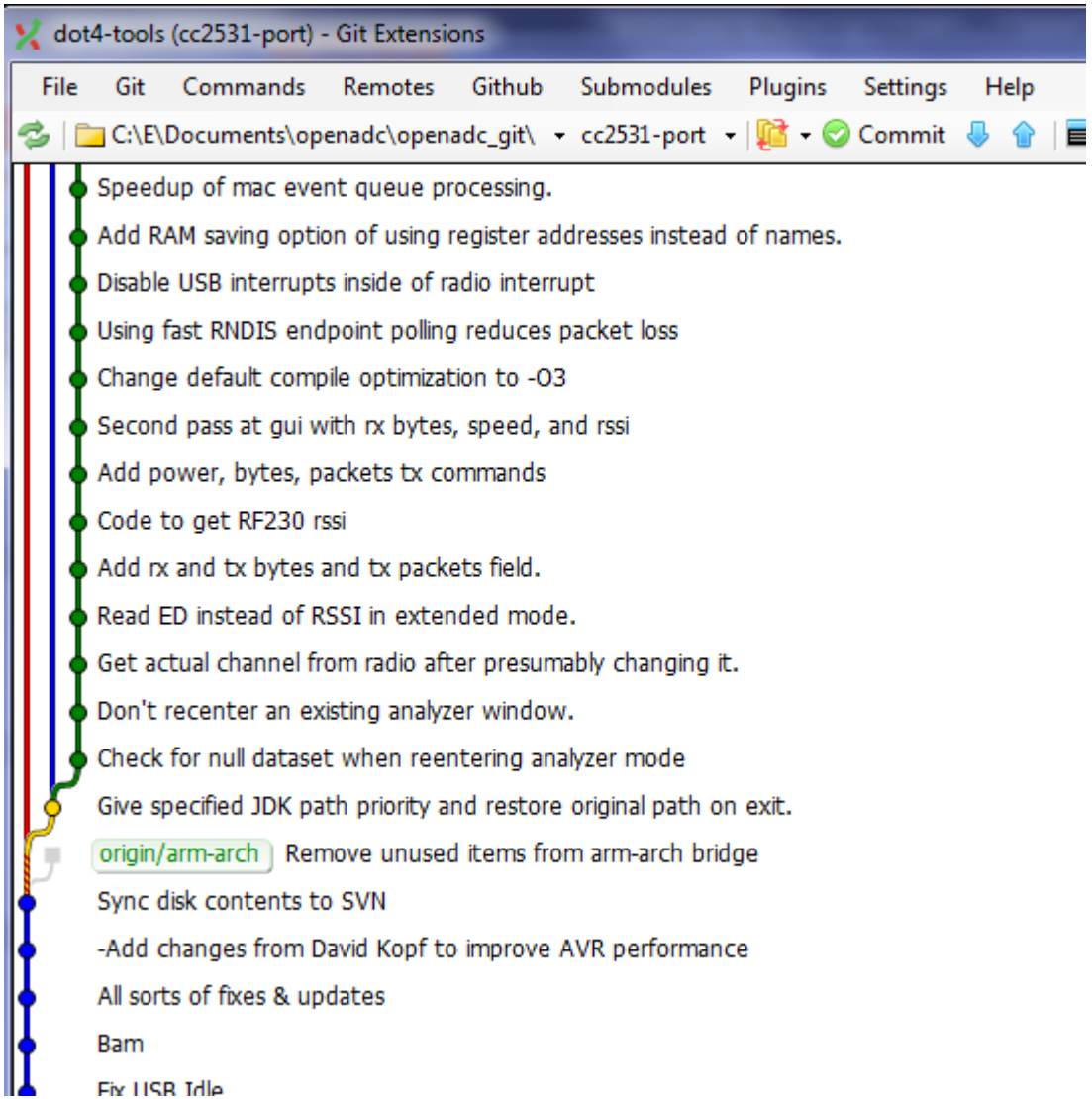
Commit #2


Commit to master (C:\Users\colin\git_test_repo\)
Working dir changes
There are no unstaged changes
Unstage
Stage
Some Document.docx
diff --git a/Some Document.
index e69de29..caab229 100644
--- a/Some Document.docx
+++ b/Some Document.docx
@@ -0,0 +1 @@
+This is a word document.
<C:\Users\colin\AppData\Local\Temp/dpdlcd_Some Document.docx> does no
UTF8
Commit
Commit message
Options
Commit & push
Update documentation to reflect new ownership
Amend last commit
Reset changes

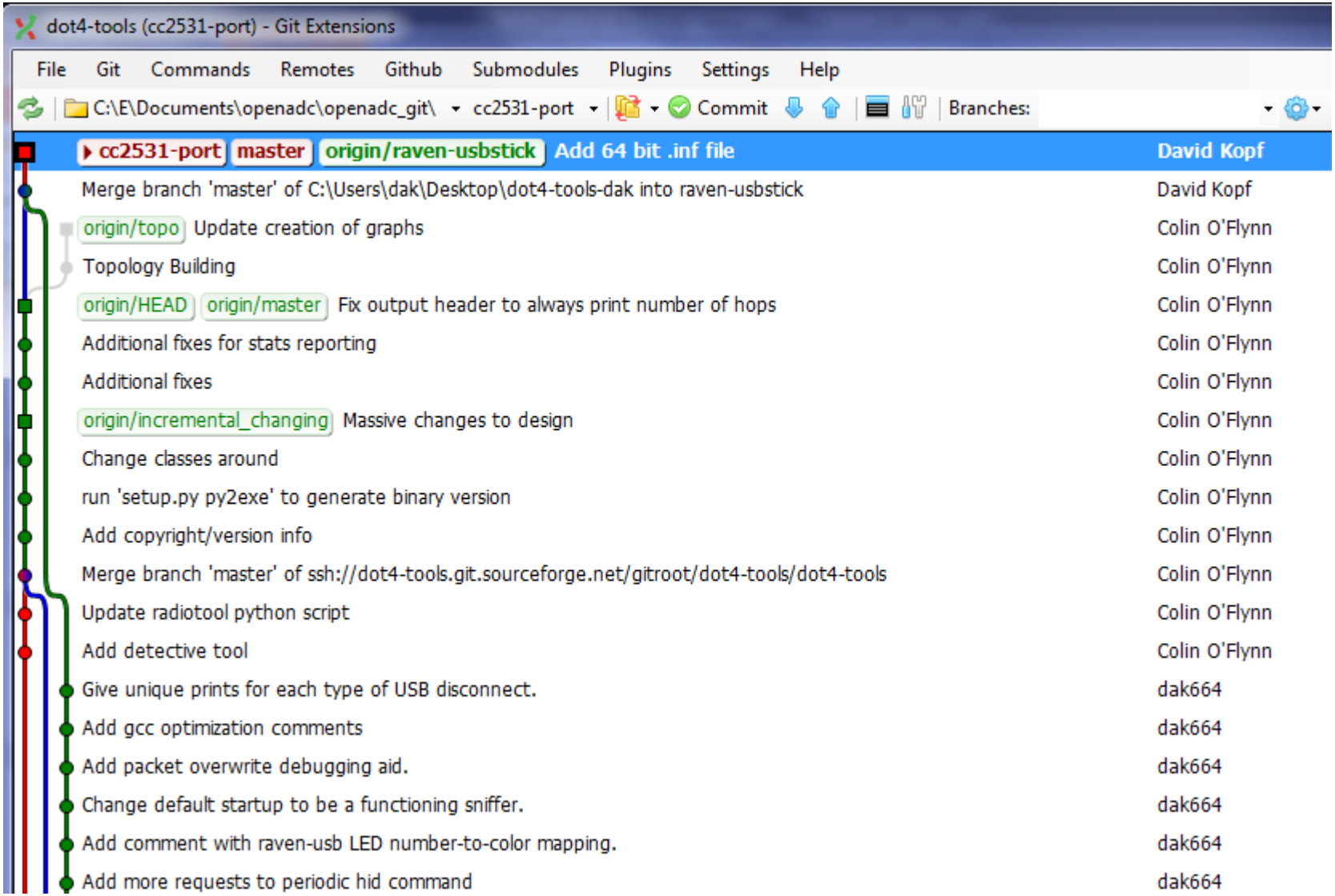
Notes

- Git Extensions tracked changes in .docx even!
- Note how I used two separate commits, as changes were related to different things. One commit might include lots of files changing, but should all be related to one fix

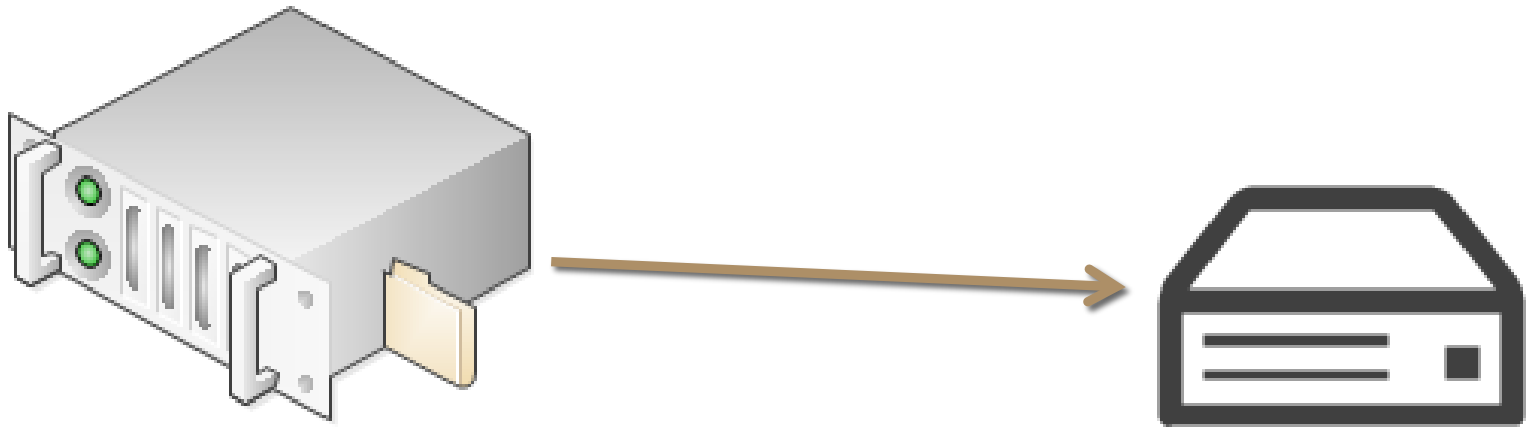
Branches


dot4-tools (cc2531-port) - Git Extensions
File
Git
Commands
Remotes
Github
Submodules
Plugins
Settings
Help
C:\E\Documents\openadc\openadc_git\
cc2531-port
Commit
Speedup of mac event queue processing.
Add RAM saving option of using register addresses instead of names.
Disable USB interrupts inside of radio interrupt
Using fast RNDIS endpoint polling reduces packet loss
Change default compile optimization to -O3
Second pass at gui with rx bytes, speed, and rssi
Add power, bytes, packets tx commands
Code to get RF230 rssi
Add rx and tx bytes and tx packets field.
Read ED instead of RSSI in extended mode.
Get actual channel from radio after presumably changing it.
Don't recenter an existing analyzer window.
Check for null dataset when reentering analyzer mode
Give specified JDK path priority and restore original path on exit.
origin/arm-arch
Remove unused items from arm-arch bridge
Sync disk contents to SVN
-Add changes from David Kopf to improve AVR performance
All sorts of fixes & updates
Bam
Fix USB Idle

Merging

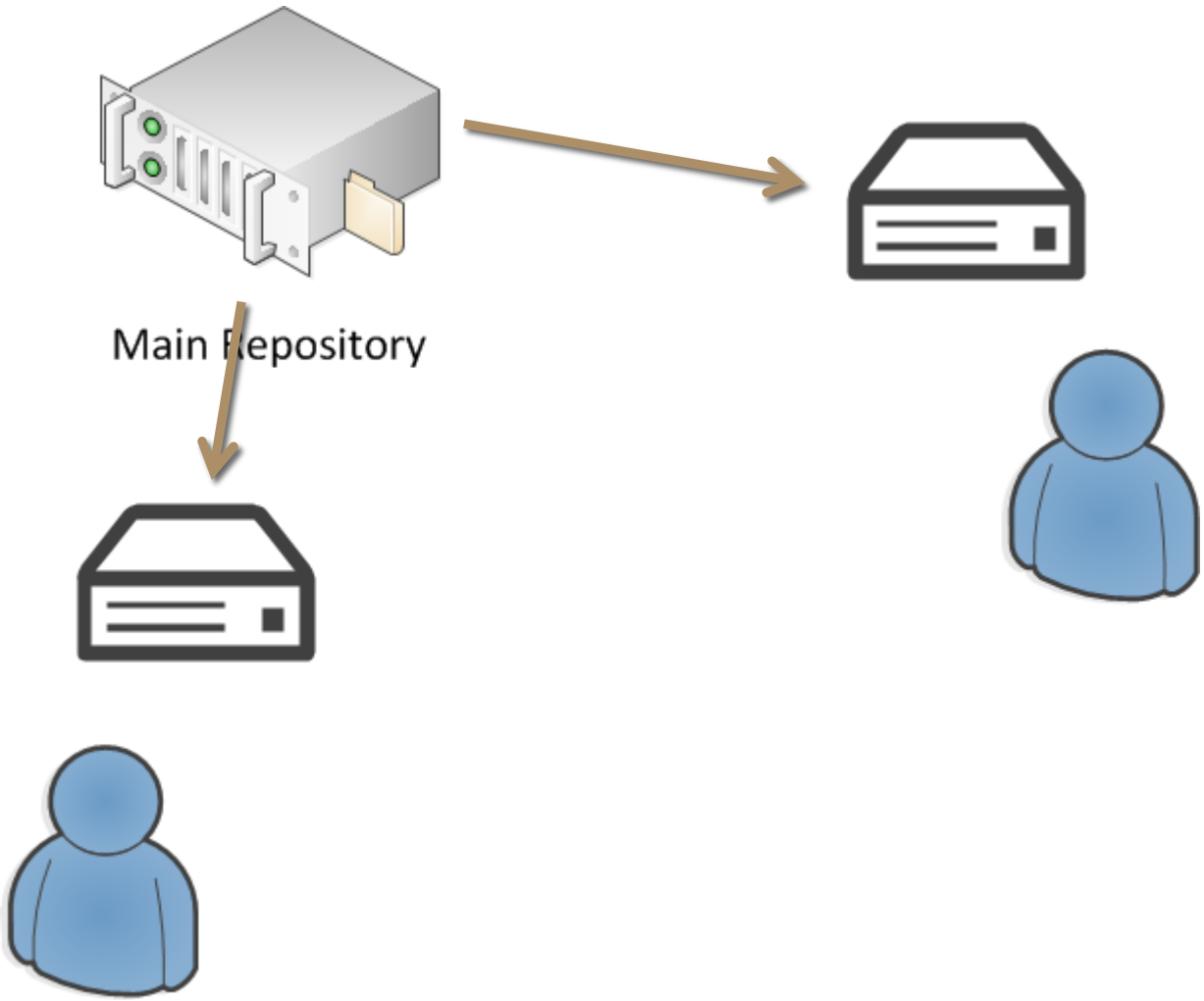

dot4-tools (cc2531-port) - Git Extensions
File Git Commands Remotes Github Submodules Plugins Settings Help
C:\E\Documents\openadc\openadc_git\ cc2531-port Commit Branches:
cc2531-port master origin/raven-usbstick Add 64 bit .inf file David Kopf
Merge branch 'master' of C:\Users\dak\Desktop\dot4-tools-dak into raven-usbstick David Kopf
origin/topo Update creation of graphs Colin O'Flynn
Topology Building Colin O'Flynn
origin/HEAD origin/master Fix output header to always print number of hops Colin O'Flynn
Additional fixes for stats reporting Colin O'Flynn
Additional fixes Colin O'Flynn
origin/incremental_changing Massive changes to design Colin O'Flynn
Change classes around Colin O'Flynn
run 'setup.py py2exe' to generate binary version Colin O'Flynn
Add copyright/version info Colin O'Flynn
Merge branch 'master' of ssh://dot4-tools.git.sourceforge.net/gitroot/dot4-tools/dot4-tools Colin O'Flynn
Update radiotool python script Colin O'Flynn
Add detective tool Colin O'Flynn
Give unique prints for each type of USB disconnect. dak664
Add gcc optimization comments dak664
Add packet overwrite debugging aid. dak664
Change default startup to be a functioning sniffer. dak664
Add comment with raven-usb LED number-to-color mapping. dak664
Add more requests to periodic hid command dak664

Cloning

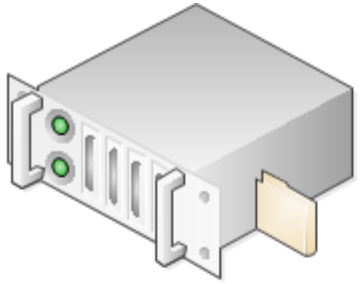


Main Repository

Cloning



Committing

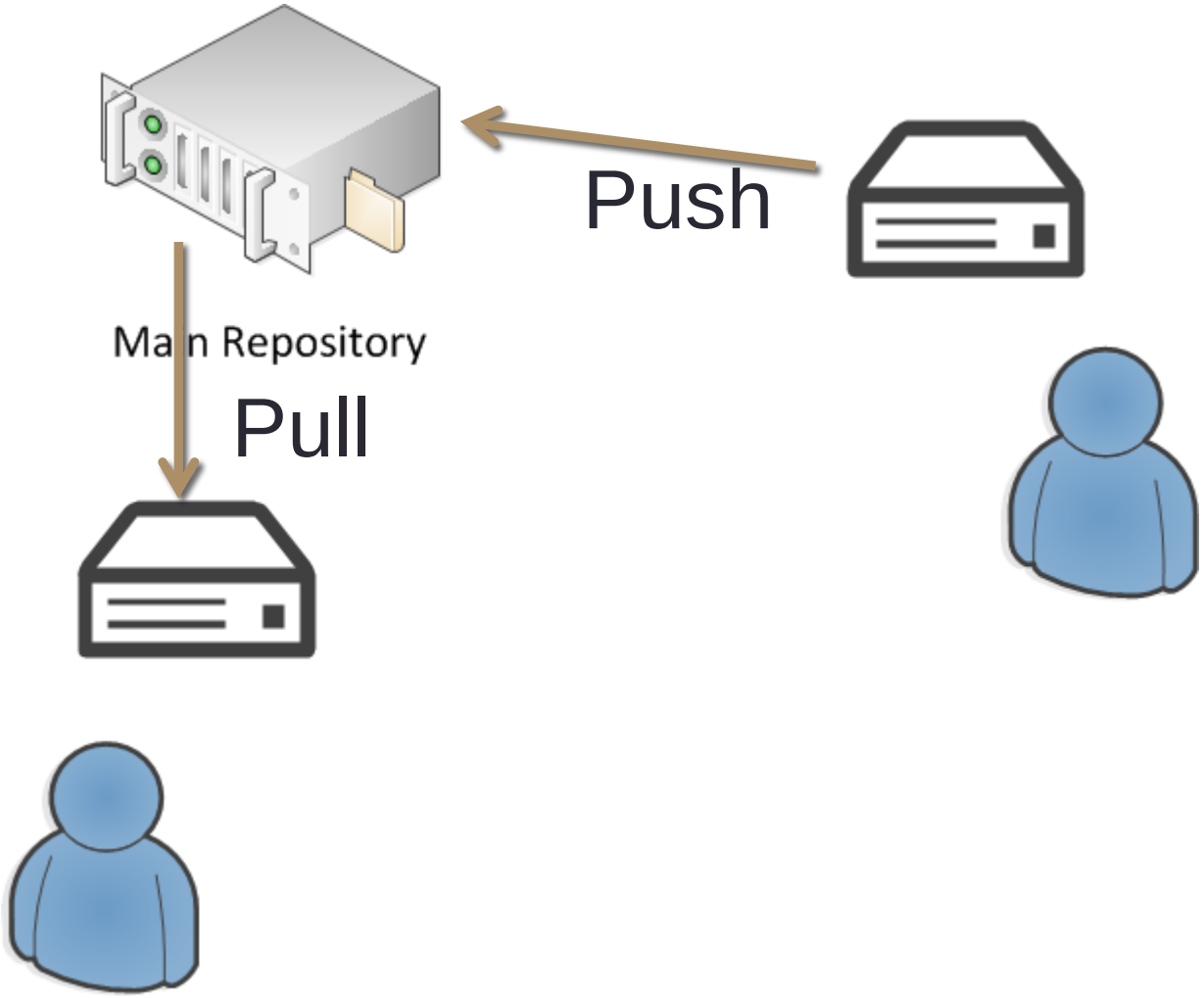


Main Repository





Pushing / Pulling



SSH

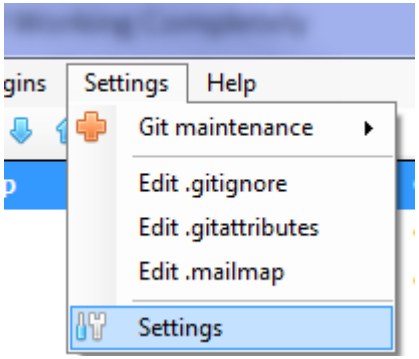
Uses public key cryptography to authenticate who you are.

Two parts:

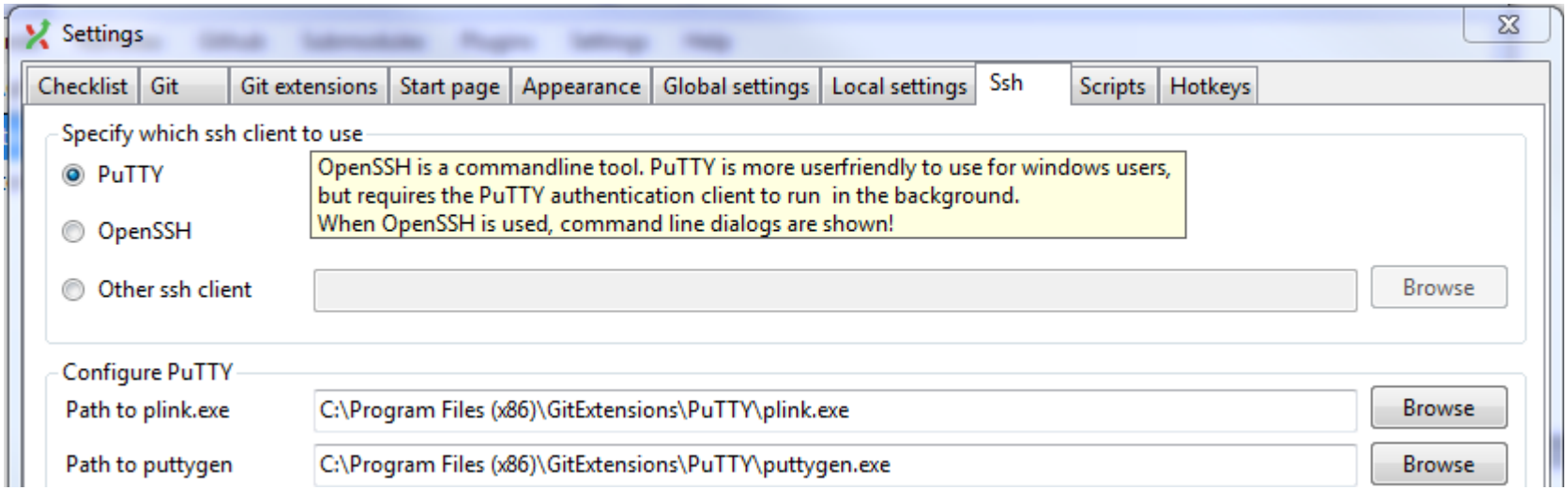
- Public Key – Can share freely
- Private Key – Keep secret!

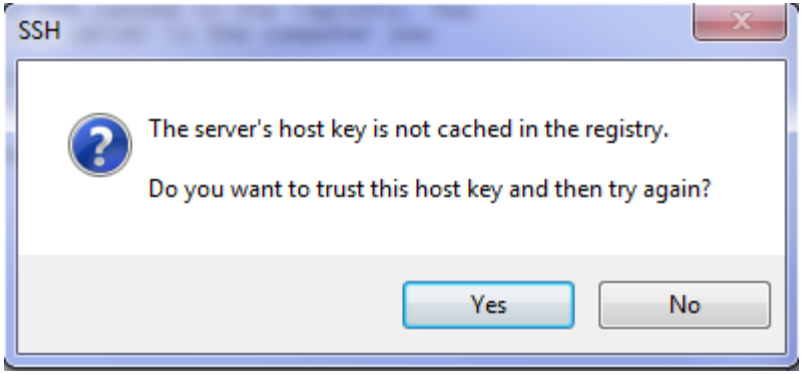
You can authenticate you are who you claim to be

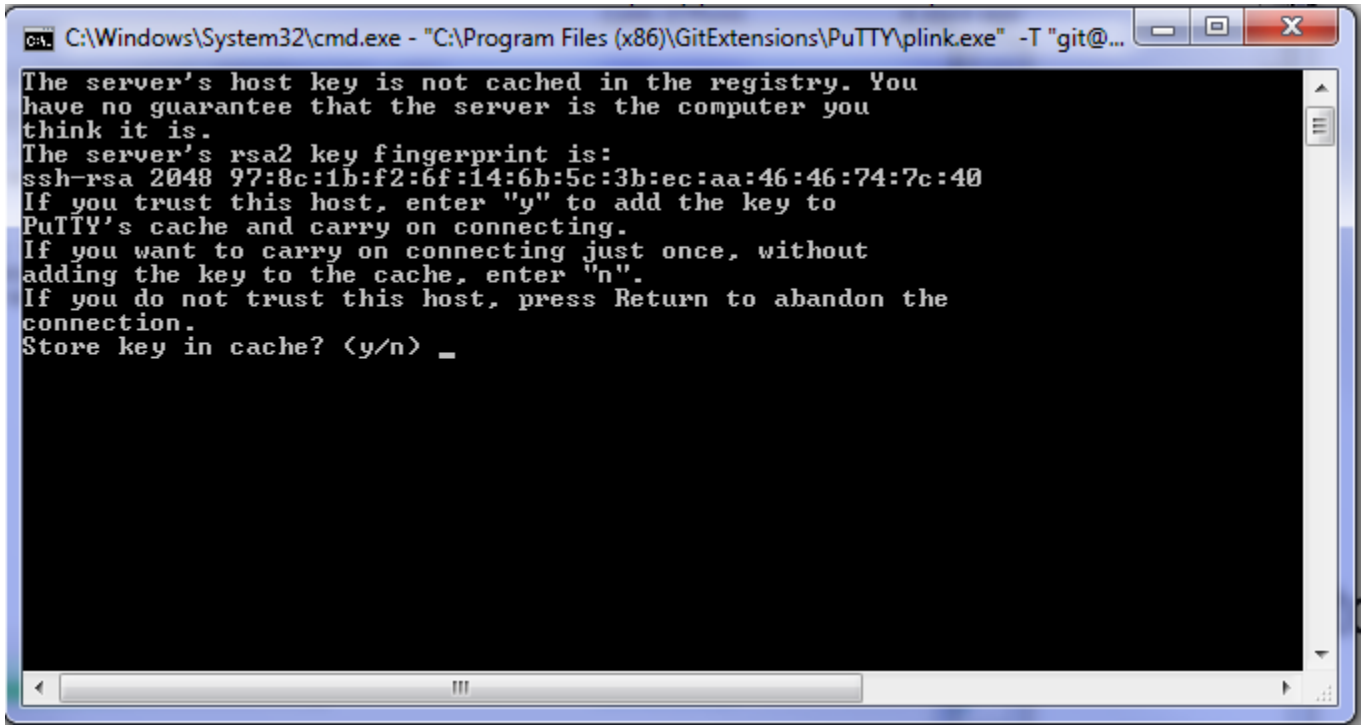
Setting up SSH With Bitbucket or Assembla



Setting up SSH With Bitbucket or Assembla




SSH
The server's host key is not cached in the registry.
Do you want to trust this host key and then try again?
Yes
No


C:\Windows\System32\cmd.exe - "C:\Program Files (x86)\GitExtensions\PuTTY\plink.exe" -T "git@...
The server's host key is not cached in the registry. You
have no guarantee that the server is the computer you
think it is.
The server's rsa2 key fingerprint is:
ssh-rsa 2048 97:8c:1b:f2:6f:14:6b:5c:3b:ec:aa:46:46:74:7c:40
If you trust this host, enter "y" to add the key to
PuTTY's cache and carry on connecting.
If you want to carry on connecting just once, without
adding the key to the cache, enter "n".
If you do not trust this host, press Return to abandon the
connection.
Store key in cache? (y/n)