chem-bla-ics

Offline CDK development using git-svn

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Abstract
While Subversion is a signification improvement over CVS, they both require a central server. That is, they do not allow me to commit changes when I am not connected to that server. This is annoying when being on a long train ride, or somewhere else without internet connectivity. I can pile up all my changes, but that would yield one big ugly patch.

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Therefore, I tried Mercurial where each client is server too. The version I used, however, did not have the move command, so it put me back into the old CVS days where I lost the history of a file when I reorganize my archive.

Git

Then Git, the version control system developed by Linus Torvalds when he found that existing tools did not do what he wanted to do. It seems a rather good product, though with a somewhat larger learning curve, because of the far more flexible architecture (see this tutorial). Well, it works for the Linux kernel, so must be good :)

Now, SourceForge does not have Git support yet, so we use Subversion. Flavio, of Strigi fame, however, introduced me to git-svn. Almost two month ago, already, but finally made some time to try it out. I think I like it.

This is what I did to make a commit to CDKs SVN repository:

```
$ sudo aptitude install git-svn git-core
$ mkdir -p git-svn/cdk-trunk
$ cd git-svn/cdk-trunk
$ git-svn init https://cdk.svn.sourceforge.net/svnroot/cdk/trunk/cdk
$ git-svn fetch -rHEAD
$ nano .classpath
$ git add .classpath
$ git commit
$ git-svn dcommit
```

The first git-svn command initializes a log Git repository based on the SVN repository. The `git-svn fetch` command makes a local copy of the SVN repository content defined in the previous command. Local changes are, by default, not commited; unless one explicitly git adds them to a patch. Once a patch is ready you can do all sorts of interesting things with them, among with commit them to the local Git repository with `git commit`.

Now, these kind of commits are on the local repository, and I do not require internet access for that. When I am connected again, I can synchronize my local changes with the SVN repository with the `git-svn dcommit` command.

A final important command is `git-svn rebase`, which is used to update the local git command for changes others made to the SVN repository.