Subversion

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Subversion is like CVS, only without a decade of cruft. Its main advantage is the fact that it tracks changes to your source code base as a whole together, not to individual files.

Setting up a Subversion respository

To set up a Subversion repository for your team in your server locker:

* `add svn` (Try to get this in your dotfiles)
* `mkdir ~/maslab-repository` (you can name it whatever you want)
* `fs sa ~/maslab-repository` *teammate1* `all` *teammate2* `all` *teammate3* `all` (where *teammate1*, *teammate2*, *teammate3* are the usernames of your teammates)
* `svnadmin create ~/maslab-repository` (make the repository)
* Make, somewhere unrelated in your home directory, a directory called `maslab-project` (or something); inside it place three directories called `trunk`, `branches`, and `tags`. Copy all of your code so far into the trunk folder.
* Change to the directory that contains the maslab-project directory. Type `svn import maslab-project file:///mit/`*yourservername*`/maslab-repository`
* Follow the instructions below to check out your code somewhere.
* The `maslab-project` directory was only to be used for initially importing the code into the repository; feel free to delete it once you're sure you can check out the code from it. (Don't delete maslab-repository!)

If one of your teammates has set up a repository for your team, do this:

* If you are logged into your bot (as opposed to the Server), `kinit` *serverusername*, type in your password, and then `aklog`.
* `svn checkout file:///afs/server/user/`*t*`/`*e*`/`*teammate*`/maslab-repository/trunk maslab-checked-out` where *t* and *e* are the first two letters of your teammate's name. This will plop your project into the folder maslab-checked-out inside

your current folder.

To use Subversion from your bot

- Unfortunately, in order to use a Subversion repository on server you need to use the "FSFS" database, which was not in Subversion until version 1.1.0, which is newer than the version on your bot. You'll need to upgrade the one on your bot if you want to use `svn` to update code to your bot. (You can also just only use `svn` on your other computers and use `rsync` to sync from the other computer to the bot.) Upgrading is pretty simple:
- (as root) `apt-get remove subversion` (since there's probably an older version already there)
- `wget http://subversion.tigris.org/tarballs/subversion-1.1.2.tar.gz`
- `tar xzvf subversion-1.1.2.tar.gz`
- `cd subversion-1.1.2`
- `./configure`
- `make`
- (as root) `make install`

Using Subversion

- To update your (already checked out) archive: type `svn update`. This updates to the latest version in the repository, letting you know if you've made any incompatible changes locally.
- To commit any changes you've made (in all files): `svn commit`.
- To see what files have been changed: `svn status` (M means modified)
- To add a new file to be version controlled: make the file like usual, then do `svn add *file*`
- To copy or rename a file: `svn cp *file1 file2*` or `svn mv *file1 file2*`. (If you don't use `svn` here, it won't know that the file has changed!)
- To get help: `svn help` or `svn *subcommand* help`

Full documentation: The Subversion Book