

Practice Exercise 1

Getting to Know Subversion

Due: 1:15 PM, Wednesday, September 6, 2006

This practice exercise is intended to help you understand Subversion, the tool we use to manage assignment submissions (and widely used in the outside world for managing software codebases).

Completing this exercise counts towards your class-participation grade, not assignment credit. There is no paperwork to turn in, nor any formal submission process. Unlike most pair homeworks, you can use two computers if you wish, and you can do the first exercise on your own, before getting together to work.

Before You Begin

Print and read the *Subversion HowTo* handout (or alternatively, read the same information on-screen from the SubversionHowTo page on the CS 70 Wiki). Doing so will provide you with the conceptual framework you need to understand what you are doing in this exercise, and information on how to perform the tasks you are asked to do.

Exercises

1. The URL for your pair's CS 70 repository is

```
svn://inuyasha.cs.hmc.edu/cs70/fall06/pairs/<group>
```

where *<group>* is the name of your group. If your group was named `octopi`, you could check out a working copy of the repository into a directory called `cs70` in your home directory by running:

```
cd
svn checkout svn://inuyasha.cs.hmc.edu/cs70/fall06/pairs/octopi cs70
```

Have each partner log in to their own account and check out a working copy of your shared repository. You will find the `svn` command asks for a password. Press return, because it will have wrongly guessed what username to use. It will then ask first for a username and then a password—type in the name and password that were mailed to you.

The rest of the exercise takes place in the practice directory of your checked-out working copy, so run `cd cs70/practice`. In that directory you will find one file, `style.txt`.

2. Have one partner make a change to `style.txt`, then get this change into the repository, and make sure the other partner can get the change in their working copy.
3. Now (purposely) both of you should change the same lines of the file, and then both try to commit your changes—whichever commits second should get a conflict. Working together at the machine where the conflict occurred, resolve this conflict and then get both working copies up-to-date.
4. Use `svn log` and `svn diff` to see the differences between the resulting `style.txt` and the original version.
5. Put the resulting `svn diff` output into a new file, `style-diff.txt`, in your pair's directory, and get this new file into the repository and both working copies.

Once you have completed this exercise, you should know everything you need to know to work together on CS 70 assignments.

There is no need to remove the working copy directory that you created in this exercise. We will use the same repository for all assignments throughout the semester, so you can keep using the same working copy.