From: Scott Glancy
To: Mink, Alan (Assoc); Jordan, Stephen P (Fed); Liu, Yi-Kai (Fed)
Subject: Welcome to Subversion
Date: Friday, December 2, 2016 3:30:32 PM

Alan, Stephen, and Yi-Kai,

Welcome to Subversion! The purpose of Subversion is to help manage projects where multiple people are editing the same code or paper. It maintains a history of all changes. You will need to use Subversion to "check out" a copy of the code. As you make changes and additions, you will upload or "commit" them to the repository kept on the Subversion server. Unlike some other code version management software, Subversion does not lock the files that you are editing. It will allow multiple people to edit at the same time, and then you have to figure out how to merge your changes.

To access the server, you will need an account. The password is the same as your NIST General Realm password. Security of the Subversion server is managed by Chris Schanzle, the Applied and Computational Mathematics Division's Linux expert.

For the client I have use the command line client that comes standard with our version of Linux. Some like the Windows client called "TortiseSVN" with a nice graphical user interface and integration with the Windows Explorer. You can find it at http://tortoisesvn.net/ . I don't know about a Mac client.

The repository is located at https://moler.bitl.nist.gov/repos, which is only accessible inside the NIST network. You can view the current version of the repository using a web browser, but to check-out copies, make changes, and everything else you will need to use your computer's Subversion client.

Notice, you must use https, because we are using SSL encryption. Chris created a self-signed certificate for moler, so you will probably have to instruct your browser and subversion client to accept the certificate when you first log-in.

The repository contains the following projects:
repos/advsdp -- Mike Mullan's code for analyzing quantum algorithms and clocks using semi-definite programming
repos/bell -- Yanbao Zhang's software for tests of local realism
repos/ionexp -- summer project by visitor studying gates for ions
repos/jpa -- Data and code for the Josepheson Parametric Amplifier project
repos/papers -- journal articles we are writing or have written
repos/simulator -- a stabilizer based simulator for quantum computation mostly worked on by Manny Knill and Adam Meier.
repos/qcodes -- also seems to be tools for the simulator
repos/tomography -- my quantum state tomography software

I recommend making a new top level directory for the randomness extractor. Please do not put spaces in the names of directories or files.

To learn about using Subversion, read the book at

http://svnbook.red-bean.com/ . It is very thorough and easy to understand. It should be enough for you to skim over chapters 1 and 2. If you find that you and someone else are editing the code simultaneously you will have to read further to learn how to merge your changes. You can also go to http://subversion.tigris.org/, which is the home of the team that makes Subversion. It has a helpful FAQ and archives of the user support discussions.

Scott