Converting a Subversion Repository to Git (Lab)

Make sure you have the appropriate subversion software installed to do the following steps. In addition to the basic subversion package, you need **subversion-perl**. There may be other useful packages which are obtainable from the EPEL repository on RHEL-based systems.

The easiest way to get a copy, or clone, of a Subversion project is to use **git svn**.

To obtain a copy or part of the Subversion repository itself, you can do:

```
$ git svn clone  \

    https://svn.apache.org/repos/asf/subversion/trunk/doc my_svn_repo
```

where we have chosen only the **doc** module of Subversion in order to keep things small.

However, this can take a long time as it gathers the entire history of the project and sometimes hangs. It is easier for learning purposes to just get the most recent version (which for git we would call a shallow clone). There is no easy way to just say give me the last version with Subversion; we need an actual release number which we can get with:

```
$ svn log  https://svn.apache.org/repos/asf/subversion/trunk/doc | head

------------------------------------------------------------------------

r1663949 | brane | 2015-03-04 05:55:13 -0600 (Wed, 04 Mar 2015) | 1 line


* doc/svn-square.jpg: Copy the logo used by Doxygen from the site tree.

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r1663948 | brane | 2015-03-04 05:53:09 -0600 (Wed, 04 Mar 2015) | 1 line
```

We can then pick just the latest release for the shallow clone:

```
$ git svn clone -r1663949  https://svn.apache.org/repos/asf/subversion/trunk/doc
  my_svn_repo
Initialized empty Git repository in /tmp/SVN/my_svn_repo/.git/
        A       doxygen.conf
        A       svn-square.jpg
        A       programmer/gtest-guide.txt
        A       programmer/WritingChangeLogs.txt
        A       README
        A       user/svn-best-practices.html
        A       user/lj_article.txt
        A       user/cvs-crossover-guide.html
r1663949 = f2f1312fe65123c1be0935421d05cc862d0d008e (refs/remotes/git-svn)
Checked out HEAD:
  https://svn.apache.org/repos/asf/subversion/trunk/doc r1663949
```

This creates a git repository under the **my_svn_repo** directory, which you can examine.
Notice all the git information goes in the **.git** subdirectory.

If you want to compare with the original Subversion repository, you can bring that down
with:

```
$ svn checkout https://svn.apache.org/repos/asf/subversion/trunk/doc doc
....
```

where the repository information will go under the **.svn** directories.

Comparing:

```
$ diff -qr my_svn_repo/ doc/
Only in my_svn_repo/: .git
Only in doc/: .svn
```