

Some information about using the version control system Subversion (svn) at hao:

Set the following env vars for the location of the hao repository, and how to access the repository from a remote machine not on the hao network via ssh (iris is an example machine name on the hao network):

On a local hao machine:

```
setenv SVN file:///home/tgcm/svn
```

On a remote (e.g., CISL) machine:

```
setenv SVN svn+ssh://iris.hao.ucar.edu/home/tgcm/svn
```

Now you can use \$SVN in svn commands from local (hao) or remote (e.g., cisl) machines.

If you get tired of entering your hao password when issuing these commands from a remote machine, you can setup unattended ssh for password-less access (an hao sys-admin can help you set this up).

Below are some common svn commands, which are typed on the command line.

Most commands, except for the first few, are executed from an svn working directory. Some commands operate only locally, others need to access the repository.

See also the online book: <http://svnbook.red-bean.com/>

Commands that can be executed from any directory:

See usage description and list of subcommands:

svn help

See usage statement for the checkout command:

svn help checkout

Checkout the timegcm1.42 tag (will make local svn working directory timegcm1.42):

svn checkout \$SVN/timegcm/tags/timegcm1.42

Checkout the tiegcm trunk code (create local working dir tiegcm_trunk):

svn checkout \$SVN/tiegcm/trunk tiegcm_trunk

See list of projects in the hao repository, or list of timegcm tags:

svn list \$SVN

svn list \$SVN/timegcm/tags

Commands from here down should be executed in an svn working directory:

See information about the current svn working directory:

svn info

See the svn commit log for the current working directory, providing

a history of development (most recent commits first).

```
svn log
```

```
svn log | less
```

```
svn log >! svn.log
```

See status of local files in an svn working directory:

(A "M" in first column means the file is locally modified)

```
svn stat
```

See local and repository status:

(A "*" means the file has been modified in the repository)

```
svn stat -u
```

See differences of locally modified files compared to original checkout,
and optionally redirect output to file svn.diffs:

```
svn diff
```

```
svn diff >! svn.diffs
```

See modification diffs of a specific file (or list of files):

```
svn diff file.F
```

```
svn diff file1.F file2.F file3.F
```

Revert a file to the original checked-out version:

(you might want to save the modified file first)

svn revert file.F

Update a working directory to receive changes from the repository:
(e.g., you saw repository-modified files from the command "svn stat -u")
Your local modifications will be preserved, and you will be warned and
given options if there are conflicts. There should be no need to use
this command in a tag working directory, since tagged revisions are
frozen.

svn update
