

Using Cygwin for CVS & SVN Repository Access

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1. Audience

Windows users who could benefit from having a Unix-like shell environment running on their desktop, especially those who wish to use CVS and/or Subversion repositories from the command-line.

2. Purpose

To describe installation and configuration of Cygwin for CVS and/or Subversion repository access

3. Prerequisites

- A modern, well-equipped workstation.
- An up-to-date, patched, appropriately configured, and secure Windows operating system.
- A fast network connection
- An up-to-date version of an SSH client (The [software-central](#) site has SSH2 clients for Mac and Windows users)
- An account on a server that hosts a code repository (e.g., [svn.berkeley.edu](#), or [canvas.berkeley.edu](#)), with appropriate group memberships (e.g., [cvsusers](#), [aswa](#))

4. Installation & Configuration Steps

4.1. Install Cygwin

To install Cygwin, point your browser at the [Cygwin website](#) and follow instructions on the site's home page to install using `setup.exe`. It is strongly advised that you:

- Install to a directory that has no spaces in its name, e.g., `C:\cygwin`.
- Install the (most recently released) base installation before adding additional Cygwin packages (*this is an especially effective strategy because not all Cygwin mirrors host all the available packages, and installations can bomb partway-through if the specified packages aren't available on the selected mirror-site; the base installation is likely to be hosted on all mirrors*)
- Once the base installation is successful, run `setup.exe` again to install the CVS and/or Subversion packages (both in the `Devel` category). There is only one CVS package. The Subversion package you'll need to access a remote Subversion repository is the one simply labeled `subversion`.
- You may also want to run `setup.exe` to add additional packages, such as your favorite Unix text editor, etc.

4.2. Accessing Subversion Repositories from the Cygwin command line

You must define the environment variable `SVN_SSH` in the Cygwin environment in order to access a Subversion repository over the `svn+ssh` protocol. This environment variable must point to an SSH executable on your path. If you are a UC Berkeley developer and have installed the [SSH Secure Shell](#) client maintained at the [Software Central](#) website, the `ssh2.exe` executable is probably on your path already. In that case, you will set `SVN_SSH` as follows in a Cygwin shell:

```
export SVN_SSH=ssh2
```

You should now be able to access projects using the `svn` command. For example, for the user `bill` to check out the trunk of a project called `myproject` from a repository at `/users/svn/berkeley/projects/ist/as/webapps` on the host `svn.berkeley.edu`, the following would effect the checkout (to a directory called `mydir` in the current directory):

```
$ svn co
svn+ssh://bill@svn.berkeley.edu/users/svn/berkeley/projects/ist/as/webapps/myproject/trunk
mydir
```

4.3. Accessing CVS Repositories from the Cygwin command line

You must define two environment variables in the Cygwin environment in order to access a CVS repository:

CVS_RSH

This environment variable must point to an SSH executable on your path. If you are a UC Berkeley developer and have installed the [SSH Secure Shell](#) client maintained at the [Software Central](#) website, the `ssh2.exe` executable is probably on your path already. In that case, you will set `CVS_RSH` as follows in a Cygwin shell:

```
export CVS_RSH=ssh2
```

CVSROOT

This environment variable describes the location of the repository you wish to access. For example, for the user `bill` to check out projects from a repository at `/usr/local/cvsrep/org/ist` on the host `canvas.berkeley.edu`, the following is the way `CVSROOT` would be set:

```
CVSROOT=:ext:bill@canvas.berkeley.edu:/usr/local/cvsrep/org/ist
```

Then, to check out the project `myproject` into the current directory, type at the command line:

```
cv s co myproject
```