

# Helix ALM Subversion Integration

Helix ALM supports integration with Subversion.

**Note:** The following information also applies to TestTrack 2016.1 and earlier. TestTrack was renamed to Helix ALM starting with version 2017.1.

This article includes information on [integration requirements](#), [setting up a working directory](#), [configuring the integration](#), [performing Subversion actions](#), and [troubleshooting](#).

## Requirements

- Make sure you are using a [supported Subversion version](#).
- If you use 32-bit Subversion, the 32-bit Helix ALM Client must be installed. If you use 64-bit Subversion, the 64-bit Helix ALM Client must be installed. See the [installation help](#) for information.
- A [Subversion binary package](#) that installs the following libraries and adds the libraries directory to the system's PATH environment variable must be installed.

Operating system	Required libraries	Environment variable that must include the libraries directory
Windows	libapr-1.dll libsvn_subr-1.dll libsvn_wc-1.dll libsvn_client-1.dll	PATH
Mac	libsvn_client-1.dylib	DYLIB_LIBRARY_PATH
Linux	libsvn_client-1.so or libsvn_client-1.so.0	LD_LIBRARY_PATH

**Note:** Collabnet is the recommended binary package, but other packages that install libraries with the required filenames and in a directory added to the system PATH environment variable may also work. SilkSVN and TortoiseSVN Windows binary packages are not supported.

## Setting up a working directory

Before you can configure the integration in Helix ALM, you must set up a working directory and check out files from Subversion.

Use the following command to create a working directory:

- Windows—`mkdir c:/svnworkdir`
- Unix—`mkdir /home/dev/svnworkdir`

Use the following command to check out all files from the Subversion repository to your working directory:

- Windows—`svn co file:///c:/svnrepo/SrcCode c:/svnworkdir`
- Unix—`svn co file:///home/svnrepo/SrcCode /home/dev/svnworkdir`

# Configuring the integration

## Helix ALM

See the help for information about [configuring the integration](#).

### TestTrack 2016.1 and earlier

1. In TestTrack, choose Tools > Source Control Integration. The Source Control Integration dialog box opens with the Provider category selected.
2. Select Subversion (all versions) and click Make Current.
3. Select the Connection category.
4. Enter the Project working path or click Browse to locate the working directory.
5. Enter the Subversion Repository URL. The URL must match the project working path. Use the appropriate format:
  - Local server—file:///path/to/repo
  - Remote server—svn://hostname/repo
  - Web server (using mod\_dav)—http://webaddress/svn
  - Web server with SSL enabled—https://webaddress/svn
6. Enter your Subversion Username and Password.
7. Click Validate Connection to verify the working directory and repository URL.
8. Select the Project Options category.
9. Enter any Default check in comments. You can [use field codes](#) to automatically add issue-related information to check in comments.
10. Select the Project Paths category.
11. Select the repositories to attach files from and click Add.
12. Select the Workflow Events category.
13. Select Allow entering issue workflow event when checking files to allow users to enter the selected workflow event when checking in files.
14. Select the Event to use.
15. Click OK to save the configuration.

## Performing Subversion actions

You can attach Subversion files to Helix ALM items. You can also update, view, and check out attached source files, view file history, commit files, and detach files from items. See the Helix ALM help for information about [working with source files](#).

## Troubleshooting

## Invalid repository URL error

The repository URL is incorrect. Check the URL format in the integration connection.

Keep the following in mind:

- SSL-enabled repositories that use self-signed certificates are not supported. Library conflicts may also prevent the integration from working when a web repository is specified.
- Helix ALM cannot log in to Subversion when using the svn+ssh protocol. This protocol invokes a local ssh process to connect to the remote Subversion server computer for authentication. A command line interface is required to display the login prompt, but Helix ALM does not use one. For secure access to the Subversion server, use https instead. If you must use ssh, use the svn protocol in the integration connection and a third-party password caching tool to allow Helix ALM to log in to Subversion.

## Error when committing files, viewing local copies, or viewing history

If multiple files are checked out from different Subversion repositories to the same working directory, the working directory may become inconsistent with the path specified in the integration connection. Make sure the path to the file to work with matches the specified working directory path.

1. On the item Source Files tab, select the file and click Update. The Get Files dialog box opens.
2. Note the full file path.
3. Check the working directory path in the integration configuration and make any changes if the paths do not match.
  - Helix ALM—Choose Tools > Source Control Integration Local Options.
  - TestTrack 2016.1 or earlier—Choose Tools > Source Control Integration and select the Connection category.
4. Click OK to save the changes.
5. Retry the Subversion action.

**Note:** If the error continues to occur, use the Subversion command line client to check out the files again to the working directory. See the Subversion help for information.

## Helix ALM crashes after adding integration library to Linux LD\_LIBRARY\_PATH environment variable

The environment variable may include other libraries with dependencies that can prevent Helix ALM from starting. To avoid loading these additional libraries when Helix ALM starts, create a symlink to the libsvn\_client-1.so library in the following directory:

- 64-bit Helix ALM—/usr/lib/seapine/tt64
- 32-bit Helix ALM—/usr/lib/seapine/tt

## Cannot change provider type in TestTrack 2016.1 or earlier

A supported Subversion provider was not found. Make sure the Subversion (all versions)

provider is selected in TestTrack.

Make sure the [required integration libraries](#) are also installed in a directory included in the PATH environment variable. See the operating system help for information about managing environment variables.

## Cannot load Subversion 1.5 Linux interface library in TestTrack 2015.1 or earlier

The following error is returned when configuring the Subversion 1.5 integration in TestTrack on a 32-bit Linux distribution:

```
'Unable to load the Subversion Interface library from its default location. QLibrary::load_sys:  
Cannot load /usr/lib/Seapine/tt/libSeapineSubervsionInterface15.so'
```

This interface library links to two other shared object files: libasasl2.so.2 and libuuid.so.1. Some Linux distributions do not install these libraries by default. If they are missing, the integration does not work.

Download and install the libasasl2.so.2 or libuuid.so.1 package for the Linux distribution based on the error message. If the libasasl2.so.2 file is missing, you may need to install both packages.

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