

# Subversion Quick Reference Card

## For Subversion 1.4.0

**Subversion** is the fastest growing open source version control system (go to <http://subversion.open.collab.net/> for more information). It was designed to replace CVS and thus has most of CVS' features and usage model.

## What is?

- Atomic Commit** – Collection of modifications either goes into the repository completely, or not at all.
- Branch** – A line of development that exists independently of another line yet shares a common history.
- Property** – Metadata mapping names to values that can be associated with an element (directory or file – these properties are version controlled) or a revision (unversioned)
- Repository** – A central store of data stored in the form of a filesystem tree (a typical hierarchy of files and directories).
- Revision** – The state of the repository after a single atomic commit (basically a snapshot in time of the repository) with an associated global revision number.
- Tag** – A snapshot of a project in time that is given a human-friendly name and may consist of only a subset of the repository.
- URL** – Path to the repository or a working copy
- file:// Direct repository access (on local disk)
  - http:// Access via WebDAV protocol to Subversion aware Apache web server.
  - https:// Same as http://, but with SSL encryption
  - svn:// Access via custom protocol to an svnserve server.
  - svn+ssh:// Same as svn://, but through an SSH tunnel.
- Working copy** – A user's own local copy of portions of the repository where they can make changes that can be published to the repository and changes in the repository can be merged into the local copy.

## svn Command Syntax Legend

- URL** – Subversion Repository URL
- WCPATH** – Working copy path
- TARGET** – Working copy path or URL
- ...** – Multiple files, directories, TARGETS
- REV** – Revision number or revision keyword
- OPREV:PEGREV** – Revision range, using an operative revision and peg revision.
- @PEGREV** – Revision range, using peg revisions.

## How do I?

### Basics

- Get help online? `svn help [SUBCOMMAND]`
- Create a working copy? `svn checkout URL`
- Update working copy with the latest repository changes? `svn update [WCPATH...]`
- Add a file(s) and/or directory(ies)? `svn add [WCPATH]`
- Delete a file(s)/directory(ies)? `svn delete WCPATH \ URL`
- Move/rename file(s) and/or directory(ies)? `svn move SRC DST`
- Revert all my local changes? `svn revert WCPATH...`
- Copy a file(s) or directory(ies)? `svn copy SRC DST`
- Commit changes to the repository? `svn commit [WCPATH...]`
- If my commit fails due to a crash, cleanup my working copy to retry? `svn cleanup [WCPATH...]`
- How do I lock a file/directory? `svn lock TARGET...`
- How do I unlock a file/directory? `svn unlock TARGET...`

### Reporting

- Display the commit log messages? `svn log [WCPATH] | URL [WCPATH...]`
- Determine who made what changes to an ASCII file? `svn blame TARGET`
- Get the status of my working copy files and directories? `svn status [WCPATH...]`
- Get a list of directories in the repository? `svn list [TARGET...]`
- Get information on PATHs? `svn info [TARGET...]`

### Branch, Merge, Tag

- Create a tag? `svn copy here /tags/newtag`
- Create a branch? `svn copy TARGET /branches/newbranch`
- Merge file changes from one branch to another? `svn merge frombranchfile[ targetbranchfile]`
- Indicate that merge conflicts have been resolved? `svn resolved WCPATH...`
- Display the differences between two revisions of a file? `svn diff (* see command for exact syntax)`

### Properties

- Create a property on file(s)/directory(ies)/revision(s)? `svn propset PROPNAME (* see command for exact syntax)`
- Edit a property value for one or more items? `svn propedit PROPNAME (*see command for exact syntax)`
- Get the value of a property? `svn propget PROPNAME (*see command for exact syntax)`
- List properties? `svn proplist (*see command for exact syntax)`
- Delete a property from an item? `svn propdel PROPNAME (*see command for exact syntax)`
- Define the MIME type for a file? `svn propset svn:mime-type (*see command for exact syntax)`
- How do I find out which file patterns Subversion will ignore? `svn propget svn:ignore (*see command for exact syntax)`
- Determine if a file is identified as executable? `svn propget svn:executable (*see command for exact syntax)`
- Instruct Subversion on how to populate a working copy directory from another repository location? `svn propset svn:externals (*see command for exact syntax)`

### Miscellaneous

- Update my working copy to a different branch, tag, revision? `svn switch URL [WCPATH]`
- Import directories and files from a file system? `svn import [WCPATH] URL`
- Export a directory without the Subversion admin directories/files? `svn export (*see command for exact syntax)`
- Set a keyword? `svn propset svn:keywords (*see command for exact syntax)`
- Set end of line style? `svn propset svn:eol-style (*see command for exact syntax)`
- Output the file contents from a repository? `svn cat URL`

### File status

- U Path was updated.
- A Path was added.
- D Path was deleted.
- R Path was replaced.
- G File was merged.
- C File has a conflict.
- ? Path is not under version control.
- ! Resource is missing or incomplete (removed by another tool than Subversion).

### Standard Keywords

- \$Date\$ Date of the last modification
- \$Rev\$ Revision Number
- \$Author\$ Last user who changed the item
- \$URL\$ Full URL to the latest repository version of the file
- \$ID\$ Compressed combination of all the keywords above except \$URL\$

### End of Line Styles

- Native Use the standard EOL style of the client OS
- CRLF Typical EOL style for Windows platform
- LF Typical EOL style for Unix platform
- CR Old Macintosh EOL style not likely to be used

## svn Command Syntax

- `add WCPATH`
- Switches: --targets, --non-recursive, --quiet, --config-dir, --force, --no-ignore, --auto-props, --no-auto-props.
- `blame TARGET[@REV] ...`
- Switches: --revision, --verbose, --incremental, --xml, --extensions [/--unified] [/--ignore-space-change] [/--ignore-all-space] [/--ignore-eol-style], --force, --username, --password, --no-auth-cache; --non-interactive, --config-dir
- `cat TARGET[@REV] ...`
- Switches: --revision, --username, --password, --no-auth-cache; --non-interactive, --config-dir
- `checkout URL[@REV]...[WCPATH]`
- Switches: --revision, --quiet, --non-recursive, --username, --password, --no-auth-cache; --non-interactive, --config-dir, --ignore-externals
- `cleanup [WCPATH...]`
- Switches: --diff3-cmd, --config-dir
- `commit [WCPATH...]`
- Switches: --quiet, --non-recursive, --targets, no-unlock, --message, --file, --force-log, --editor-cmd, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir
- `copy SRC DST`
- Switches: --revision, --quiet, --message, --file, --force-log, --editor-cmd, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir
- `delete WCPATH | URL`
- Switches: --force, --quiet, --targets, --message, --file, --force-log, --editor-cmd, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir
- `diff`
- `diff [-r N[:M]] [TARGET[@REV]]...`
  - `diff [-r N[:M]] --old OLD-TGT[@OLDREV] [--new NEW-TGT[@NEWREV]] [WCPATH...]`
  - `diff OLD-URL[@OLDREV] NEW-URL[@NEWREV]`
  - Switches: --revision, --change, --old, --new, --non-recursive, --diff-cmd, --extensions [/--unified | --ignore-space-change | --ignore-all-space | --ignore-eol-style], --no-diff-deleted, --notice-ancestry, --summarize, --force, --username, --password, --no-auth-cache, --non-interactive, --config-dir
- `export [-r rev] URL[@PEGREV] | WCPATH1[@PEGREV] [WCPATH]`
- Switches: --revision, --quiet, --non-recursive, --force, --username, --password, --no-auth-cache, --non-interactive, --config-dir arg, --native-eol arg, --ignore-externals
- `help [SUBCOMMAND...]`
- Switches: --config-dir

import [WCPATH] URL  
 Switches: --quiet, --non-recursive, --auto-props, --no-auto-props, --message, --file, --force-log, --editor-cmd, --encoding, --no-ignore, --username, --password, --no-auth-cache, --non-interactive, --config-dir arg

info [TARGET...]  
 Switches: --revision, --recursive, --targets, --incremental, --xml, --username, --password, --no-auth-cache, --non-interactive, --config-dir

list [TARGET[@REV]...]  
 Switches: --revision, --verbose, --recursive, --incremental, --xml, --username, --password, --no-auth-cache, --non-interactive, --config-dir arg

lock TARGET...  
 Switches: --targets, --message, --file, --force-log, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir, --force

log  
 • log [WCPATH]  
 • log URL [WCPATH...]  
 Switches: --revision, --quiet, --verbose, --targets, --stop-on-copy, --incremental, --xml, --username, --password, --no-auth-cache, --non-interactive, --config-dir, --limit

merge  
 • merge sourceURL1[@N] sourceURL2[@M] [WCPATH]  
 • merge sourceWCPATH1[@N] sourceWCPATH2[@M] [WCPATH]  
 • merge -r N:M SOURCE[@REV] [WCPATH]  
 Switches: --revision, --change, --non-recursive, --quiet, --force, --dry-run, --diff3-cmd arg, --extensions [--unified | --ignore-space-change | --ignore-all-space | --ignore-eol-style], --ignore-ancestry, --username, --password, --no-auth-cache, --non-interactive, --config-dir

mkdir WCPATH | URL ...  
 Switches: --quiet, --message, --file, --force-log, --editor-cmd, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir

move SRC DST  
 Switches: --revision, --quiet, --force, --message, --file, --force-log, --editor-cmd, --encoding, --username, --password, --no-auth-cache, --non-interactive, --config-dir arg

propdel PROPNAME [WCPATH...] | --revprop -r REV [URL]  
 Switches: --quiet, --recursive, --revision, --revprop, --username, --password, --no-auth-cache, --non-interactive, --config-dir

propedit PROPNAME [WCPATH...] | --revprop -r REV [URL]  
 Switches: --revision, --revprop, --username, --password, --no-auth-cache, --non-interactive, --encoding, --editor-cmd, --force, --config-dir

propget PROPNAME [WCPATH...] | --revprop -r REV [URL]  
 Switches: --recursive, --revision, --revprop, --strict, --username, --password, --no-auth-cache, --non-interactive, --config-dir

propelist [TARGET[@REV...]] | --revprop -r REV [URL]  
 Switches: --verbose, --recursive, --revision, --quiet, --revprop, --username, --password, --no-auth-cache, --non-interactive, --config-dir

propset  
 • PROPNAME [PROPVAL | -F VALNAME] WCPATH...  
 • PROPNAME--revprop -r REV [PROPVAL | -F VALNAME] [URL]  
 Switches: --file, --encoding, --quiet, --revision, --targets, --recursive, --revprop, --username, --password, --no-auth-cache, --non-interactive, --force, --config-dir

resolved WCPATH ...  
 Switches: --targets, --recursive, --quiet, --config-dir

revert WCPATH...  
 Switches: --targets, --recursive, --quiet, --config-dir

status [WCPATH...]  
 Switches: --show-updates, --verbose, --non-recursive, --quiet, --no-ignore, --incremental, --xml, --username, --password, --no-auth-cache, --non-interactive, --config-dir, --ignore-externals

switch URL [WCPATH] | --relocate FROM TO [WCPATH...]  
 Switches: --revision, --non-recursive, --quiet, --diff3-cmd, --relocate, --username, --password, --no-auth-cache, --non-interactive, --config-dir

unlock TARGET...  
 Switches: --targets, --username, --password, --no-auth-cache, --non-interactive, --config-dir, --force

update [WCPATH...]  
 Switches: --revision, --non-recursive, --quiet, --diff3-cmd, --username, --password, --no-auth-cache, --non-interactive, --config-dir, --ignore-externals

**svn switches**

--change ARG  
 The change made by revision ARG (like -r ARG-1:ARG). If ARG is negative this is like -r ARG:ARG-1

--config-dir DIR  
 Read configuration from DIR instead of ~/.subversion.

--diff-cmd CMD  
 Use external program CMD for generating diff output instead of internal diff engine.

--diff3-cmd CMD  
 Use external program CMD for merging files.

--dry-run  
 Run the command without changing anything.

--editor-cmd CMD  
 Use external program CMD for editing files.

--encoding ENC  
 Instructs Subversion to use encoding ENC to store log messages.

--extensions ARG (-x)  
 Default: '-u'. When Subversion is invoking an external diff program, ARG is simply passed along to the program. But when Subversion is using its default internal diff implementation, or when Subversion is displaying blame annotations, ARG could be any of the following:  
 --unified (-u)  
 Output 3 lines of unified context.  
 --ignore-space-change (-b)  
 Ignore changes in the amount of white space.  
 --ignore-all-space (-w)  
 Ignore all white space.  
 --ignore-eol-style  
 Ignore changes in EOL style

--file FILE (-F)  
 Use the contents of file FILE as an argument for a given subcommand.

--force  
 Forces a particular subcommand to run.

--force-log  
 Forces a suspicious parameter passed to the --message options to be accepted as valid.

--help (-h or -?)  
 Prints help for a given command or general help text.

--ignore-ancestry  
 Ignore ancestry when calculating differences (rely on path contents alone).

--incremental  
 Prints output in a format suitable for concatenation.

--message (-m) MSG  
 Specify a commit message MSG.

--no-auth-cache  
 Prevents caching of authentication information.

--no-auto-props  
 Disable auto-props, overriding the enable-auto-props directive in the config file.

--no-diff-deleted  
 Prevents Subversion from printing differences for deleted files.

--no-ignore  
 Shows files in the status listing that would normally be omitted since they match a pattern in the svn:ignore property.

--non-interactive  
 Prevents prompting for authentication information.

--non-recursive (-N)  
 Stops a subcommand from recursing into subdirectories.

--notice-ancestry  
 Pay attention to ancestry when calculating differences.

--old ARG  
 Uses ARG as the older target.

--password PASS  
 Password for authentication.

--quiet (-q)  
 Print only essential information while performing an operation.

--recursive (-R)  
 Makes a subcommand recurse into subdirectories.

--relocate FROM TO [PATH...]  
 Used with the svn switch subcommand, changes the location of the repository that your working copy references.

--revision REV (-r)  
 Supply revision (or range of revisions) for the operation.

--revprop  
 Operates on a revision property instead of a Subversionproperty specific to a file or directory (requires --revision switch).

--show-updates (-u)  
 Causes the client to display information about which files in your working copy are out-of-date.

--stop-on-copy  
 Stop harvesting historical information when a copy is encountered.

--strict  
 Causes Subversion to use strict semantics.

--summarize  
 Show a summary of the results

--targets FILE  
 Get the list of files that you wish to operate on from the file FILE.

--username NAME  
 Username for authentication.

--verbose (-v)  
 Verbose mode.

--version  
 Prints the client version info.

--xml  
 Prints output in XML format.