



Borland StarTeam 14.0 Update 1

**Command-line
Tools Help**

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Introduction

The StarTeam Command Line Tools provides access into the StarTeam Server via the command line.

The StarTeam Command Line Tools are installed as part of the StarTeam SDK. The SDK is automatically installed with most StarTeam clients and the StarTeam Server.

To access the StarTeam Command Line Tools, open a command prompt and navigate to `C:\program files\borland\starteam sdk <version>\lib`.

Type `stcmd help` to get started.

Check-out Trace Utility Command-line Operations

Below are descriptions of the command-line options for the **Check-out Trace** utility.

In general, you can run the utility from the command line with default options as follows:

`CheckoutTraceDump.exe -go`. Valid options for **Check-out Trace** are described below.

- go** Specify this flag to run with default settings.
- path:<path>** Folder of the binary check-out trace (`.cotrc`) files. Defaults to the current folder.
- outpath:<path>** Folder for the output (`.csv`) files. Defaults to the same folder as the binary trace (`.cotrc`) files.
- file:<filespec>** Binary check-out trace files to be used as input. Supports standard file system wildcard values (`*`, `?`).
Defaults to `"*.cotrc"` (all check-out trace files in the folder). You cannot use more than one path with the parameter, and you cannot specify this parameter more than once per command.
- ext:<extension>** The file extension used for check-out trace files. The extension is appended to the binary check-out trace (`.cotrc`) filename to create the output dump filename. Defaults to `.csv`.
- start:<start time>** Earliest date-time of interest. Only checkouts that occurred after this time will be output. By default, the utility does not filter by time.
- end:<end time>** Specifies the most recent date-time of interest. Only checkouts that occurred before this time will be output. By default, the utility does not filter by time.
- project:<project name>** Name of the project for which check-out information is to be filtered. Only checkouts from this project will be output. By default, the utility does not filter by project. All projects are included in the output. If both `-project` and `-projectid` are specified, `-projectid` takes precedence.
- projectid:<project ID>** ID of the project for which check-out information is to be filtered. Only checkouts from this project will be output. By default, the utility does not filter by project ID. All projects are included in the output. This option takes precedence over `-project` if both options are specified.
- separator:<separator>** String used to separate values in the output file. By default, the utility uses `" , "`.
- overwrite** Specify this flag to overwrite existing check-out trace files. If not specified, check-out trace binary files will be skipped if a trace dump file with the target name already exists.

Client Command-line Operations

stcmd Executable and CommandProcessor Object

Use the `stcmd` executable from a command line, such as Microsoft Windows **Command Prompt**. Using `stcmd` from a command line requires adding `stcmd` in front of each command on the command line. This will enable the `stcmd` executable to drive the **CommandProcessor** engine.

stcmd Path Specification

`stcmd` path specifications must use Java conventions (not Microsoft Windows). For example, the following will throw an `IndexOutOfBoundsException` exception:

```
stcmd co -rp "c:\temp" -p "Administrator:Administrator@localhost:49201/StarDraw/StarDraw" *
```

The following will work correctly on all platforms that support the java virtual machine (Microsoft Windows, Unix and Mac):

```
stcmd co -rp "c:/temp" -p "Administrator:Administrator@localhost:49201/StarDraw/StarDraw" *
```

Using CommandProcessor Natively

Application developers who need to incorporate command line functionality natively into Ant, Hudson, or other scripts can directly load the SDK `.jar` and instantiate the **CommandProcessor** object without any of the `stcmd` shell overhead.

Each **CommandProcessor** object represents an instance of a different StarTeam Server connection. The actual object signature and usage pattern can be invoked from java script, jython, etc.

SDK Object Example

Below is an example of using the SDK object.

```
CommandProcessor cp = new CommandProcessor();
cp.execute("connect localhost:49201@Administrator:Administrator");
cp.execute("set project = StarDraw view = StarDraw");
cp.execute("select name,status,dotnotation from changerequest into
queryoutput.txt where folder = \"Sales Material\" recurse order by name");
cp.execute("disconnect");
```

The full **CommandProcessor** interface documentation is available as part of the `sdk javadocs`.

Common Options



Important: Some options show up in all or almost all of these commands. If the options have exactly the same meaning in each command, they are explained in this section and not repeated elsewhere. Options that do not appear in all commands or vary in meaning from command to command are explained with the commands.

All command-line syntax is interpreted as UNIX rather than Microsoft Windows syntax. You cannot use spaces in UNIX names unless they are enclosed in double quotation marks.

Microsoft Windows operating systems require quotation marks when a space is part of the option. For example, when a revision comment is several words, it must be enclosed in double quotation marks. A

one-word comment does not require quotation marks, although quotation marks can be used. Be aware that commands sent via the command line fail when there are spaces in the names of working folders and files.

All options can be written with either a hyphen (-) or slash mark (/), depending on what your operating system understands. When you see an option listed with quotations marks, using them is recommended, despite the fact that the option may be accepted by your operating system without them. Adopting this policy is both consistent and safe.

Syntax conventions

The syntax conventions for the command line are as follows:

[] Square brackets identify optional syntax.

| A vertical bar separates mutually exclusive choices. Select only one of the choices.

-active The active process item.

-cmp Compresses all the data sent between the workstation and the server and decompresses it when it arrives. Without this option, no compression takes place.

Compression speeds transmission across the network, but it takes time on the front end to compress the data and at the back end to decompress the data.

-cp Name of the code page used for localization and internationalization of the content, file and folder names, keyword expansion, etc. Supported code page names are US-ASCII (the default), UTF-8, UTF-16, windows-1252, ISO-8859-1, ISO-8859-9, ISO-8859-15, windows-31j, EUC-JP, Shift_JIS, ISO-2022-JP, x-mswin-936, GB18030, x-EUC-CN, GBK.

-csf When the command maps the folder specified in the `-p` option to the underlying StarTeam folder, using `-csf` causes the command to differentiate StarTeam folders based on the case-sensitive spelling of their names. This option does not apply to the case-sensitivity of filenames in the folders. For example, with `-csf`, StarTeam folders named "doc" and "Doc" are recognized as different folders. Without this option, either folder could be recognized as the "doc" folder.

The default is that StarTeam folders are not differentiated based on the case of letters in their names.

With or without `-csf`, if folder names are ambiguous, an error occurs. For example, when you use `-csf`, the names of two folders are ambiguous if both a Doc and doc folder exist. When you do not use `-csf`, folder names are ambiguous if they are spelled identically.

-encrypt Encrypts all data sent between the workstation and the server and decrypts it when it arrives. Without this option, no encryption takes place. Encryption protects files, data and other project information from being read by unauthorized parties over unsecured networks.

The full syntax is:

```
-encrypt encryptionType
```

The types of encryption are:

RC4	RSA RC4 stream cipher (fast).
RC2_ECB	RSA RC2 block cipher (Electronic Codebook).
RC2_CBC	RSA RC2 block cipher (Cipher Block Chaining).
RC2_CFB (Microsoft Windows platforms only)	RSA RC2 block cipher (Cipher Feedback).

These encryption types are ordered from fastest to slowest. Each of the slower encryption types is safer than the one preceding it.



Note: For platforms other than Microsoft Windows, the public and private keys used in the encryption process are not created automatically. They are stored in a file in the user's home directory. This options file is named `.starteam`. It contains a variable or shell variable called `keyfile`. The `keyfile` variable specifies the location of the file that contains the public and private keys. If you do not specify the `keyfile` variable, an error occurs. When you specify the `keyfile` variable, but the file does not exist, the StarTeam Cross-Platform Client generates a random pair of keys, creates the file, and stores the keys in it. Be sure to secure this file. For example, in UNIX, only its owner should be able to read it.

-eol Automatically convert end-of-line markers. Use `[cr|lf|crlf|off]`.

When on, text files are transferred from the StarTeam Server's repository to the workstation's working folder with the end-of-line convention for the platform executing the command as determined by the Java VM.

When off, the default, no end-of-line conversion is performed. Using off is the same as not using `-eol` at all.

For Microsoft Windows clients, the end-of-line marker is a carriage return/line feed (`crlf`) combination. For UNIX platforms, it is a line feed (`lf`). For MAC systems, a carriage return (`cr`).

You would set this option to on or `lf`, for example, when you compare a file from the repository and a working file on a UNIX system (if the repository stores text files as `crlf`).

-epwdfilename
| **-pwdfilename**

Stores and retrieves a user's password as an encrypted value in a local file. This feature supports automated build scripts, which must run unattended. The script would call `stcmd` with a specific user name and the filename containing the encrypted password for that user name. The password is then internally decrypted and passed to the server without being transmitted across the network as clear text. This is not a one-way encryption algorithm, but rather a private internal two-way hash. The stored password can be broken by a sufficiently determined hacker. As a result, the file in which the password is stored should itself be secure on the users network or file system.

The `-pwdfilename` is supported for backward compatibility. Un-encrypted passwords stored using older versions of `stcmd` are read. However, passwords cannot be stored to files using `-pwdfilename` anymore.

The `-epwdfilename` keyword specifies the path to the file that contains the encrypted password. Like `-pwdfilename`, `-epwdfilename` replaces the password being used as part of the `-p` option, preventing others from seeing the user's password on the command line. The full syntax is:

```
-epwdfilename "filePath"
```



Note: When `-epwdfilename` is used, a password should not be specified as part of the `-p` parameter.

In this case, the syntax of `-p` reduces to `-p "username@hostname:port/... -epwdfilename "fullyQualifiedPathToPasswordFile" "`.

The following is the syntax of the commands that can be used to store an encrypted password.

Use the following syntax to be prompted for the password that will be encrypted and stored in a file.

```
store-password -epwdfilename "filePath"
```

Use the following syntax to include the encrypted password in the command as clear text.



Note: This action does not access the network with the clear value.

```
store-password -epwdfilename "filePath" -password "password"
```

After an encrypted password is stored, other `stcmd` commands can specify `-epwdfilename "filePath"` as parameters. For example:

```
stcmd delete-local -p "JMarsh@Orion:1024/StarDraw/StarDraw/SourceCode" -epwdfilename "C:\estuff\myfile.txt" -filter "N" "*"
```

-f NCI Specifies the check-in of any file whose status is Modified. NCI stands for “needs check-in.” No other types of files are selected for check-in.

`-f NCI` is ignored if `-filter` is used.

files... Specifies the files to be used in the command by name or by file name-pattern specification, such as `*.c`. All options are interpreted using the semantic conventions of UNIX instead of Windows because UNIX conventions are more specific. This means that `*`, rather than `*.*` means “all files.” The pattern `*.*` means “all files with file name extensions.” For example, `star*.*` finds `starteam.doc` and `starteam.cpp`, but not `starteam`. To find all of these, you could use `star*`.

Without this option, the default is `*`. When used, this option must always be the last option. Any options after it are ignored.

If you use `*`, rather than `*` to indicate all files, a UNIX shell expands it into a series of items and passes this series as a group of options to the `stcmd` command. This can cause problems, for example, when you are checking out missing files, so it is best to use `*` to avoid unwanted complications.

If you use a set of file patterns, each pattern should be enclosed in its own set of quotation marks. For example, you can use `*.bat *.c`, but you cannot use `*.bat *.c`.



Note: Always enclose this option in quotation marks. Failure to do so can result in unpredictable consequences on all supported platforms.

Several special characters can be used in the file specification:

- *** Matches any string including the empty string. For example, `*` matches any file name, with or without an extension. `xyz*` will match `xyz` and `xyz.cpp` and `xyzutyfj`.
- ?** Matches any single character. For example, `a?c` will match `abc` but NOT `ac`
- [...]** Matches any one of the characters enclosed by the left and right brackets.
- A pair of characters separated by a hyphen (`-`) specifies a range of characters to be matched.

If the first character following the right bracket (`]`) is an exclamation point (`!`) or a caret (`^`), the rest of the characters are not matched. Any character not enclosed in the brackets is matched. For example, `x[a-d]y` matches `xby` but not `xey`. `x[!a-d]y` matches `xey` but not `xby`.

A hyphen (`-`) or right bracket (`]`) may be matched by including it as the first or last character in the bracketed set.

To use an asterisk (`*`), question mark (`?`), or left bracket (`[`) in a pattern, you must precede it with the escape character (which is the backslash `\`).

- filter** Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are *Not In View*. Statuses are *C* = Current, *M* = Modified, *O* = Out of Date, *N* = Not in View, *I* = Missing, *G* = Merge, and *U* = Unknown. For example, using *CM* applies a command only to files with a status of *Current* or *Modified*.
- filter* takes precedence over *-f NCI*. If you use *G*, *O*, or *U*, you must also specify *-I* or *-o*. Otherwise the *G*, *O*, or *U* is ignored.
- filter* also takes precedence over *-f NCO*. If you use *G*, *M*, *O*, or *U*, you must also specify *-o* to force the checkout operation. Otherwise, the *G*, *M*, *O*, or *U* is ignored.
- fp** Overrides the specified StarTeam folder's working folder or working directory. This is equivalent to setting an alternate working path for the folder.
- While this option allows you to use a different working folder than the one specified by the StarTeam view, its critical importance is to provide cross-platform compatibility. For example, UNIX and Microsoft Windows systems specify drive and directory path names in incompatible ways.
- While the path `D:\MYPRODUCT\DEVELOPMENT\SOURCE` is understood on a Microsoft Windows platform, it is not understood on a UNIX platform. Use this option to define the working path if your platform does not understand the path specified in the StarTeam project.
- A backslash (`\`) is interpreted as an escape character when it precedes quotation marks. As a result, an error occurs in the following example:
- ```
stcmd ci -p "xxx" -fp "C:\ " "*"
```
- which is interpreted as:
- ```
stcmd ci -p "xxx" -fp "C:" "*"
```
- To avoid a situation like this, escape the final character in `"C:\"` as follows:
- ```
stcmd ci -p "xxx" -fp "C:\\ " "*"
```
- Or avoid it as follows when the `-rp` path doesn't end with the root folder as in `C:\orion\`:
- ```
stcmd ci -p "xxx" -fp "C:\orion" "*"
```
- The full syntax is:
- ```
-rp "folderName"
```
- Folder is the Microsoft Windows term and appears in the StarTeam user interface. Directory is the correct term for the UNIX platform.
- help** Invokes help. *-help* works with each command, although not shown in the syntax.
- i** Prompts user to confirm check-in or check-out (depending on command used) when file status is *Merge*, *Out of Date*, or *Unknown*. The user can ignore the file.
- is** Applies the command to all child folders. Without this option, the command applies only to the specified folder. When this option is used with *add-folder*, you can add an entire branch of folders to the StarTeam folder hierarchy.
- l** Locks the item(s). This is the default when *-l*, *-nel* or *-u* are not used.
- mark** Indicates that, if all the files are successfully added, the process item's status will be changed to *fixed* (for a change request), *finished* (for a task), or *complete* (for a requirement). The files are pinned to the revision with the new status. The item is not marked as *fixed*, *finished*, or *complete* unless all the files are successfully added.
- nel** Non-exclusively locks a file.

- nomove** Do not move labels if already attached.
- o** Forces a check-in/check-out depending on which command is used. `-o` is supported with `-filter` and `-f NCD`, but not with `-f NCO`.
- ofp** Provides a file name with a fully qualified path into which to write the command output. By default, a `"|"` character separates each column in the output. A new line separates each row. The first row is the command name. The second row has the property names. All subsequent rows contain the data. If the file already exists, the output is appended to the end of the file.  
  
It is possible to override the `"|"` character separator by specifying `separator = fieldSeparator` as a parameter to the connect command.  
  
For example, `separator = ;` specifies two adjacent semicolons (`;`) as the column separator.
- p** Indicates the view or folder to be used. It also provides the user name and password needed to access the server. `-p` is retained for backward compatibility. Commands using `-p` continue to work, but are stateless. Each command opens a connection, executes the command syntax, and closes the connection. (New command line scripts may take advantage of the command line's stateful nature. See `connect` and `set` for examples. Old scripts may be migrated to the new command line syntax.) Stateless commands cause more client server traffic than stateful commands.

The full syntax is:

```
-p "userName:password@hostName:endpoint/projectName/[viewName/]
[folderHierarchy/]"
```

For example:

```
-p "bsmith:rocketfive@orion:49201/StarDraw/StarDraw/SourceCode/"
```

- If the user name is omitted, the current user name is used.
- If the password is omitted, the user is prompted to enter the password. When the user types a password, the characters are not displayed on the screen.
- If the host name is omitted, the default is localhost.
- Entering an endpoint (port number) is required. The default is 1024.
- The project name is always required.
- A view hierarchy should be used to identify the view. Use the colon (`:`) as a delimiter between view names. The view hierarchy should always include the root view. For example, `"StarDraw:Release 4:Service Packs"` indicates that the view to be used is the Service Packs view, which is a child of the Release 4 view and a grandchild of the StarDraw root view. If the view name is omitted, the root view is used. If the view is the only view in that project with that name, you can use only the view name. Doing this is not recommended, however, because another view with that name could be created at a later date.
- A folder hierarchy should be used to identify the folder. Use the forward slash (`/`) as a delimiter between folder names. The folder hierarchy never includes the root folder. Omit the folder hierarchy if the file is in the view's root folder. For example, if the root folder of the view is `StarDraw`, and the hierarchy to your files is `StarDraw/SourceCode/Client`, use only `"SourceCode/Client"`.

If any of the variables used with this option contain characters that are used as delimiters, use the percent sign (`%`) followed by the hex code for each of those characters. For example, if `"@"` appears as a character in a password, you must replace it with `"%40"`. Replace the following:

|                |           |
|----------------|-----------|
| <b>For ":"</b> | use "%3a" |
| <b>For "/"</b> | use "%2f" |
| <b>For "@"</b> | use "%40" |
| <b>For "%"</b> | use "%25" |

In UNIX and other operating systems, some special characters must be preceded by a backslash "\" or another escape character. In the `-p` option, you can replace such characters with hex codes. For example, "%3c" could be used in UNIX instead of "<". Replace the following:

|                    |           |
|--------------------|-----------|
| <b>For a space</b> | use "%20" |
| <b>For "&lt;"</b>  | use "%3c" |
| <b>For "&gt;"</b>  | use "%3e" |

- pattern** Qualifies the `datetime`. It can be specified wherever a date-time is specified, such as `-cfgd`, `-vd`, etc. The pattern must match any valid pattern supported by the java JDK in `java.text.SimpleDateFormat.applyLocalizedPattern(String)`. The pattern may be localized.
- pf** Specifies the filter name whose associated filter properties produce the columns in the output matrix. Each command returns a result matrix. `-pf` determines the matrix columns. See `-ofp` for more information. If not specified, the primary descriptor property of the Type is returned as the command output. `-pf` does not apply to the select query command.
- q** Enables quiet mode. The `-q` option is retained for backward compatibility with the old command line. If `-q` is specified, then `-pf` cannot be specified. The command will return no results.
- d | -r** Description or reason for check-in. If `-d` or `-r` is used, `-rf` cannot be used. The reason should be enclosed in double quotation marks and should not exceed 254 characters in length.
- rf** Specifies the file name that contains the check-in reason. This is useful if the same reason should be applied to all check-ins across multiple command line runs.
- ro** Makes the working file read-only after this operation. Without this option, the file remains as it was prior to the operation. Usually, you use `-ro` to prevent yourself from editing a file that is not locked by you. `-ro` must be used with `-l` or `-u` or `-nel`. If you use `-ro`, you cannot use `-rw`.
- rp** Overrides the working folder or working directory for the StarTeam view's root folder. While this option allows you to use a different working folder than the one specified by the StarTeam view, its critical importance is to provide cross-platform compatibility. For example, UNIX and Microsoft Windows systems specify drive and directory path names in incompatible ways.

While the path `D:\MYPRODUCT\DEVELOPMENT\SOURCE` is understood on a Microsoft Windows platform, it is not understood on a UNIX platform. Use this option to define the working path if your platform does not understand the path specified in the StarTeam project.

The UNIX shell interprets a backslash (\) as an escape character when it precedes certain characters, such as quotation marks. As a result, an error occurs in the following example:

```
stcmd ci -p "xxx" -rp "C:\ " "*"

```

which is interpreted as:

```
stcmd ci -p "xxx" -rp "C:" *
```

To avoid a situation like this, escape the final character in "C:\\" as follows:

```
stcmd ci -p "xxx" -rp "C:\\\\" "*"
```

Or avoid it as follows when the `-rp` path doesn't end with the root folder as in "C:\orion\":

```
stcmd ci -p "xxx" -rp "C:\orion" "*"
```

The full syntax is:

```
-rp "folderName"
```

Folder is the Microsoft Windows term and appears in the StarTeam user interface. Directory is the correct term for the UNIX platform.

- rw** Makes the working file read-write after this operation. Without this option, the file remains as it was prior to the operation. `-rw` must be used with `-l` or `-u` or `-nel`. If you use `-rw`, you cannot use `-ro`.
- u** Unlocks an item.

## Special Characters

\* Matches any string including an empty string. For example, "x\*z" will match "xyz" and "xz".  
? Matches any single character. For example, "a?c" will match "abc" but not "ac".

[...] Matches any one of the characters enclosed by the left and right brackets.

A pair of characters separated by a hyphen (-) specifies a range of characters to be matched. If the first character following a left bracket ( [ ) is an exclamation point (!) or a caret (^), the rest of the characters are not matched. Any character not enclosed in the brackets is matched. A hyphen (-) or right bracket (]) may be matched by including it as the first or last character in a bracketed set. For example, "x[a - d]y" matches "xby" (-) or right bracket (]) may be matched by including it as the first or last character in a bracketed set. For example, "x[a - d]y" matches but not "xey" while "x[!a - d]y" matches "xey" but not "xby". If you want to use an \* or ? or [ in a pattern, you must precede it with the escape character (that is, a backslash \).

If you use \* rather than "\*" to indicate all files, a UNIX shell expands it into a series of items and passes this series as a group of options to the `stcmd` command. This can cause problems (for example, when you are checking out missing files) so it is best to use "\*" and avoid unwanted complications. If you use a set of file patterns, each pattern should be enclosed in its own set of quotation marks. For example, you can use "\*.bat" "\*.c", but you cannot use "\*.bat \*.c".

These special characters also apply to the `files...` option available in some commands.

## Add Files: add

Use `add` to add files to a project from the command line.

You can simultaneously link the added files to a process item. All the files successfully added using this command will be linked and pinned to the tip revision of the process item. Use the `-active` option to specify the currently active process item (previously set using a StarTeam client on your workstation).

If no item is active or you prefer to use another item, use the option that indicates the type of the process item (`-cr`, `-req`, or `-task`), followed by the complete path from the root folder of the StarTeam project view to the item, using the forward slash (/) as a delimiter between folder names. For out-of-view process

items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example, `-cr MyProject/RootView:ChildView/SourceCode/37` specifies change request 37 in the `SourceCode` folder of the `ChildView` view in the `MyProject` project. During execution, the process first assumes that the process item is in the current view, and it checks the current view to determine whether the full path corresponds to a folder path within that view. If the process item is not found in the current view, it is treated as an out-of-process item, and the search for the process item begins from the project and view.

Use the `-mark` option to simultaneously mark the process item as fixed, finished, or complete, depending on its type. A StarTeam Server transaction processes the files selected to add. They succeed or fail together. Additionally, StarTeam creates a check in change package in the target view.

## Syntax

The syntax for this command is as follows:

```
add [[-p "projectSpecifier"] [-{e}pwdfile "filePath"] [-cmp] [-csf] [-encrypt encryptionType]][-is] [-nivf] [-rp "folderPath" | -fp "folderPath"] [-l | -u | -nel] [-ro | -rw]] [-d | -r "description" | -rf "fileName"] [-vl "labelName"] [[-active | [-cr | -req | -task] processItemPath] [-cp "name"] [-mark]] [-q-pf "filterName"] [-ofp "resultsOutputFilePath"] [files...]
```

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

|                         |                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cr, -req, -task</b> | Complete path from the project view's root folder to the change request, requirement, or task number to be used as a process item. Use the forward slash (/) as a delimiter between folder names. |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example:

`-cr MyProject/RootView:ChildView/ SourceCode/37` specifies change request 37 in the `SourceCode` folder of the `ChildView` view in the `MyProject` project.



**Note:** For in-view process items, as long as the change request, requirement, or task numbers are the unique primary descriptors of their types (true by default), it is sufficient simply to specify the number, with no path. The project and view names are assumed from `-p`.

If a process item is specified, then only files attached to the process item are checked out. `-cr`, `-req` or `-task` are mutually exclusive. If any one of them is specified, `-filter/-f` are ignored.

|            |                                                                                                                                                                                                                                                                                                                                               |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cp</b> | Name of the code page used for localization and internationalization of the content, file and folder names, keyword expansion, etc. Supported code page names are US-ASCII (the default), UTF-8, UTF-16, windows-1252, ISO-8859-1, ISO-8859-9, ISO-8859-15, windows-31j, EUC-JP, Shift_JIS, ISO-2022-JP, x-mswin-936, GB18030, x-EUC-CN, GBK. |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|           |                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------|
| <b>-l</b> | Locks the item(s). This is the default when <code>-l</code> , <code>-nel</code> or <code>-u</code> are not used. |
|-----------|------------------------------------------------------------------------------------------------------------------|

|             |                               |
|-------------|-------------------------------|
| <b>-nel</b> | Non-exclusively locks a file. |
|-------------|-------------------------------|

|              |                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------|
| <b>-nivf</b> | If <code>-nivf</code> is included, then files in <code>Not in View</code> folders are also included in the action. |
|--------------|--------------------------------------------------------------------------------------------------------------------|

|            |                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-ro</b> | Makes the working file read-only after this operation. Without this option, the file remains as it was prior to the operation. Usually, you use <code>-ro</code> to prevent yourself from editing a file that is not locked by you. <code>-ro</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-ro</code> , you cannot use <code>-rw</code> . |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Parameter  | Description                                                                                                                                                                                                                                              |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-rw</b> | Makes the working file read-write after this operation. Without this option, the file remains as it was prior to the operation. <b>-rw</b> must be used with <b>-l</b> or <b>-u</b> or <b>-nel</b> . If you use <b>-rw</b> , you cannot use <b>-ro</b> . |
| <b>-u</b>  | Leaves the newly added files unlocked.                                                                                                                                                                                                                   |
| <b>-vl</b> | Specifies a label to be applied to the new files. The label is enclosed in double quotation marks. This option can appear in the command more than once. The label can be either a view or revision label, but it must already exist in the application. |

### Example

The following example uses `add` to add all `.doc` files with the status `Not In View` to `User Manual`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project). It locks the files and gives them the description "First draft of chapter".

Use the `set` command to set the context of the project/view/parent folder.

```
add -rp "1024/StarDraw/StarDraw/User Manual" -l -d "First draft of chapter"
"* .doc"
```

## Add Folders: add-folder

Use `add-folder` to add StarTeam folders to a view from the command line. You can add the folder to the root folder or any other folder in that view. The working folder for your new StarTeam folder is created by default within StarTeam, not on your workstation. The working folder has the same name as the StarTeam folder. It is a child folder of the working folder for the StarTeam folder's parent.

For example, suppose you create a StarTeam folder named `Wizard`. `Wizard` is a child of a StarTeam folder whose working folder is `C:\StarDraw`. Therefore, `Wizard`'s working folder becomes `C:\StarDraw\Wizard`.

Using the `-is` option allows you to add a branch of folders to the project view's folder hierarchy. When you use `-is`, use either `-rp` or `-fp` to specify the folder on your workstation whose child folders will become the new StarTeam folder's child folders. Using `-fp` is recommended, as it specifies the path directly to the parent of those child folders. In contrast, `-rp`, which specifies the path to the working folder used for the view's root folder, appends StarTeam folder names in the hierarchy from the root folder to the new folder to the path you specify. Only when you use the `-is` option do `-rp` and `-fp` have any effect on this command.

### Syntax

The syntax for this command is:

```
add-folder [[-p "projectSpecifier"] [-{e}pwdfile "filePath"] [-cmp] [-csf]
[-encrypt encryptionType]][-is] [-rp "folderPath" | -fp "folderPath"] -name
"folderName" [-d | -r "description" | -rf "fileName"] [-ex "excludeType"]
[-q|-pf "filterName"] [-ofp "resultsOutputFilePath"]
[-exlist "fileMask" | -exfile "fileName"]
```

### Parameter Description

|            |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-ex</b> | Indicates the exclude lists to be used by this new folder. Exclude lists exclude certain files or types of files from visibility. If a working file in this folder's working folder would have the status <code>Not In View</code> but it matches a file specification in one of the exclude lists, the application does not display it at all. It is as though the file did not exist. |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Parameter Description

For example, suppose you are creating files in an application that makes automatic backup copies of each file (with the extension `.bak`) every time you save a file. Your working folder might contain several `.bak` files, but you have no reason to add them to the project view. From the application, it is annoying to see these `.bak` files as possible candidates, so you exclude them. Excluding files is done on a per-folder basis. However, exclude lists can be inherited from parent folders.

The full syntax is: `-ex excludeType`

The types include:

- inherit** This folder will inherit any exclude lists used by its parent folder and use the exclude list specified with either `-exfile` or `-exlist` (if one is created). This is the default.
- local** This folder will use only the exclude list specified with either `-exfile` or `-exlist`.
- none** This folder will use no exclude lists, regardless of what you specify with either `-exfile` or `-exlist`.

**-exfile** Specifies the path to the file that contains the local exclude list for this folder. See `-exlist` for a description of the exclude list's contents.

**-exlist** Specifies the local exclude list for this folder. Use a maximum of 254 characters. Enter one or more file specifications (using the standard `*` and `?` wild cards), separated by commas, spaces, or semicolons. To include a comma, space, or semicolon as part of the specification, enclose the specification in double quotation marks: `*.exe,*.dll p*z.doc;*.t?t`  
`"test *.*"`

If you are using double-quotation marks in your exclude list or have a lengthy exclude list, we recommend that you use the `-exfile` option. With `-exlist`, each quotation mark in the exclude list needs to be preceded by the escape character for your system or shell. For example, the caret (`^`) works on NT systems. With `-exfile`, you do not need to use escape characters.

**-name** Specifies the name. Maximum of 254 characters. In a file, if the exclude list contains double quotation marks, the escape character is unnecessary.

## Example

The following example uses `add-folder` to create a folder named `wizard` as a child of the `StarDraw` folder, the root folder of the `StarDraw` project view. In addition, it sets a local exclude list for `Wizard`. By default, `Wizard` inherits its parent folder's exclude lists and use the local one as well.

Use the `set` command to set the context of the project/view/parent folder.

```
add-folder -name "Wizard" -d "StarDraw setup wizard" -exlist "*.bak"
```

The next example creates the same folder as in the previous example. However, it includes child folders. In this case, the folder with the path `C:\Wizard` has child folders (`Source`, `Spec`, and `Doc`), all of which are added as `StarTeam` folders in addition to `Wizard`. All of the new folders (`Wizard`, `Source`, `Spec`, and `Doc`) will have the default working folders assigned to them automatically by the `StarTeam` Server, regardless of the setting for `-fp`. `Wizard` will be the parent of `Source`, `Spec`, and `Doc`. `StarDraw` is the parent of `Wizard`.

```
add-folder -name "Wizard" -d "StarDraw setup wizard" -is -fp "C:\Wizard"
exlist "*.bak"
```

## Add Project: add-project

Use `add-project` to add a project to a StarTeam Server configuration from the command line. When a project is created, its root view and the root folder for the root view are also created. In this command, the `-rp` option specifies the working folder for that root folder.

Using `-is` allows you to use the working folder's child folders as the root folder's child folders in the StarTeam folder hierarchy.

### Syntax

The syntax for this command is:

```
add-project [-{e}pwdfile "filePath"] [-cmp] [-encrypt encryptionType]
[-is] [-q] -s "serverName" -name "projectName" -rp "folderPath"
[-d "description"] [-kw "fileMask" |-kwfile "fileName"] [-ex "excludeType"]
[-exlist "fileMask" |-exile "fileName"]
```

### Parameter Description

- d** Specifies a description. Use a maximum of 254 characters.
- ex** Indicates the exclude lists to be used by this new folder. Exclude lists exclude certain files or types of files from visibility. If a working file in this folder's working folder would have the status Not In View but it matches a file specification in one of the exclude lists, the application does not display it at all. It is as though the file did not exist.

For example, suppose you are creating files in an application that makes automatic backup copies of each file (with the extension `.bak`) every time you save a file. Your working folder might contain several `.bak` files, but you have no reason to add them to the project view. From the application, it is annoying to see these `.bak` files as possible candidates, so you exclude them. Excluding files is done on a per-folder basis. However, exclude lists can be inherited from parent folders.

The full syntax is: `-ex excludeType`

The types include:

- inherit** This folder will inherit any exclude lists used by its parent folder and use the exclude list specified with either `-exfile` or `-exlist` (if one is created). This is the default.
- local** This folder will use only the exclude list specified with either `-exfile` or `-exlist`.
- none** This folder will use no exclude lists, regardless of what you specify with either `-exfile` or `-exlist`.

- exfile** Specifies the path to the file that contains the local exclude list for this folder. See `-exlist` for a description of the exclude list's contents.

- exlist** Specifies the local exclude list for this folder. Use a maximum of 254 characters. Enter one or more file specifications (using the standard `*` and `?` wild cards), separated by commas, spaces, or semicolons. To include a comma, space, or semicolon as part of the specification, enclose the specification in double quotation marks: `*.exe,*.dll p*z.doc;*.t?t`  
`"test *.*"`

If you are using double-quotation marks in your exclude list or have a lengthy exclude list, we recommend that you use the `-exfile` option. With `-exlist`, each quotation mark in the

## Parameter Description

exclude list needs to be preceded by the escape character for your system or shell. For example, the caret (^) works on NT systems. With `-exfile`, you do not need to use escape characters.

**-kw** Specifies the file extensions with which you want to use keywords. Use a maximum of 254 characters. Enter one or more file specifications (using the standard \* and ? wild cards), separated by commas, spaces, or semicolons.

To include a comma, space, or semicolon as part of the specification, enclose the specification in double quotation marks. For example: `*.cpp,*.h p*z.doc;*t?t`  
`"test *.*"`

If you are using double-quotation marks in your keyword list or have a lengthy list, we recommend that you use the `-kwfile` option. With `-kwlist`, each quotation mark in the keyword list needs to be preceded by the escape character for your system or shell. For example, the caret (^) works on NT systems. With `-kwfile`, you do not need to use escape characters.

**-kwfile** Specifies the path to the file containing the file extensions with which you want to use keywords. If you use `-kwfile`, you cannot use `-kw`.

**-name** Specifies the name. Maximum of 254 characters. In a file, if the exclude list contains double quotation marks, the escape character is unnecessary.

**-s** Identifies the StarTeam Server. The full syntax is: `-s`  
`"userName:password@host:portNumber"`

For example: `-s "JMarsh:password@orion:49201"`

If the user name is omitted, the current user name is used. The user name in the example is "JMarsh".

If the password is omitted, the user is prompted to enter the password. The password in the example is "password". If the host name is omitted, the default is `localhost`. The host name in the example is "orion".

The port number is required. The default port number, 49201, is used in the example.

## Example

The following example uses `add-project` to create a project named `Integrations` on the computer named `Orion`. (Orion is running an instance of the StarTeam Server with a server configuration that uses port 1024.) This command creates the project, specifies that the data sent between workstations and the server should be compressed and encrypted, and gives the project a description.

```
stcmd add-project -s "JMarsh:password@Orion:1024" -cmp -encrypt "RC4"
-name "Integrations" -rp "C:\integrations" -d "integrations between our
products and our partner's products"
```

## Add Views: add-view

Use `add-view` to add a view to a StarTeam Server configuration from the command line. When the view is created, its parent view is the view specified with the `-p` option and its root folder is the folder specified with the `-p` option or it is the directory used in a previous session when not specifying a directory using the `-p` option. In this command, the `-rp` option specifies the working folder for the root folder. Use the following options to create the following types of views:

- Use `-dr` to create a read/write reference view.
- Use `-dr -ro` to create a read-only reference view.
- Use `-dr -ba` to create a branching view in which the behavior of existing items is set to branch on change.
- Use `-dr -bn` to create a branching view in which the behavior of existing items is not set to branch on change.
- If you do not use `-dr`, a blank view is created.

## Syntax

The syntax for this command is:

```
add-view [[-p "projectSpecifier"] [-{e}pwdfile "filePath"] [-cmp]
[-encrypt encryptionType]][-rp "folderPath"] [-d "description"] [-dr
[-ro | -ba | -bn [-cagl "labelName" | -cagp "stateName" | -cagd "asOfDate"
[-pattern "date-pattern"]]]]]
```

### Parameter Description

- |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-ba</b>   | When used with <code>-dr</code> , specifies a branching view in which the behavior of existing items is set to branch on change. The value of the view property <b>Set Items Shared Into View To Branch On Change</b> is initially set. This option must be used with <code>-dr</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>-bn</b>   | When used with <code>-dr</code> , specifies a branching view in which the behavior of existing items is not set to branch on change. The value of the view property <b>Set Items Shared Into View To Branch On Change</b> is initially cleared. This option must be used with <code>-dr</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>-cagd</b> | Configures the view as of the specified date/time. Examples include:<br>"12/29/13 10:52 AM"<br>"December 29, 2013 10:52:00 AM PST"<br>"Monday, December 29, 2013 10:52:00 AM PST"<br>This option must be used with one of the following combinations: <code>-dr -ro</code> , <code>-dr -ba</code> , or <code>-dr -bn</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>-cagl</b> | Configures the view using the specified label. Without <code>-cagl</code> , <code>-cagp</code> , or <code>-cagd</code> , the view's current configuration is used.<br>This option must be used with one of the following combinations: <code>-dr -ro</code> , <code>-dr -ba</code> , or <code>-dr -bn</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>-cagp</b> | Configures the view using the specified promotion state.<br>This option must be used with one of the following combinations: <code>-dr -ro</code> , <code>-dr -ba</code> , or <code>-dr -bn</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>-d</b>    | Specifies a description. Use a maximum of 254 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>-dr</b>   | Specifies a derived view. All views, except blank views are derived. See also <code>-ba</code> , <code>-bn</code> , and <code>-ro</code> .<br><br>When used without <code>-ba</code> , <code>-bn</code> , or <code>-ro</code> , a read/write reference view is created. The configuration of a read/write reference view is the same configuration as its parent view. Therefore, using <code>-dr</code> without <code>-ba</code> , <code>-bn</code> , or <code>-ro</code> , but with <code>-cagl</code> , <code>-fagp</code> , or <code>-cagd</code> results in an error message.<br><br>When this option is not used, a blank view is created. For blank views, the value of the view property named Set Items Shared Into View To Branch On Change is initially cleared. |
| <b>-name</b> | Specifies a name for the view. Use a maximum of 254 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Parameter Description

**-ro** When used with `-dr`, specifies a read-only reference view.

## Examples

The following example uses `add-view` to create a branching view named Maintenance 5.1 on the computer named Orion. (Orion is running an instance of the StarTeam Server with a server configuration that uses port 1024.)

This command creates the view as a child of the existing `StarDraw` view and uses the `StarDraw` folder as its root folder. The new view is based on the label used for the last build of the 5.1 product before it shipped (Build 403). It has a working folder that is different from the parent's working folder. All existing items in the view will have their behavior set to branch on change.

Use `-p` with `add-view` or the stateful `set` command to set the context of the project/view/parent folder.

```
add-view -rp "C:\StarDraw\Maintenance 5.1" -d "Maintenance view for 5.1 product release" -dr -ba -cfigl "Build 403"
```

The following example uses `add-view` to create a read/write reference view named Rooted At Source Code on the computer named Orion. This command creates the view as a child of the existing `StarDraw` view and uses the `SourceCode` folder as its root folder. It has the same working folder as its parent.

Because a read/write reference view must have the same configuration as its parent, none of the `-cfigl`, `-cfgp`, and `-cfigd` options can be used.

```
add-view -cmp -encrypt "RC4" -name "Rooted At SourceCode" -d "StarDraw main view but with SourceCode folder as the root of the hierarchy" -dr
```

# Apply Labels: `apply-label`

Use `apply-label` to label specified file revisions with view or revision labels. The labels must already exist in StarTeam. You can create the labels in StarTeam with the `label` command.

## Syntax

The syntax for this command is:

```
apply-label [-p "projectSpecifier" [-{e}pwdfile "filePath"] [-cmp] [-csf] [-encrypt encryptionType]] [-is] [-rp "folderPath" | -fp "folderPath"] [-ifp "file path"|-filter "fileStatus"] [-vl "labelName" | -vd "asOfDate" [-pattern "date-pattern"] | -vn revisionNumber | -vp promotionStateName] -lbl "labelName" [-q|-pf "filterName"] [-pattern "date-pattern"] [-u] [-l] [-ofp "resultsOutputpath"] [files...] [-ps promotionState]
```

## Parameter Description

**-filter** Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are Not In View. Statuses are C = Current, M = Modified, O = Out of Date, N = Not in View, I = Missing, G = Merge, and U = Unknown. For example, using CM applies a command only to files with a status of Current or Modified.

`-filter` takes precedence over `-f NCI`. If you use G, O, or U, you must also specify `-I` or `-o`. Otherwise the G, O, or U is ignored.

`-filter` also takes precedence over `-f NCO`. If you use G, M, O, or U, you must also specify `-o` to force the checkout operation. Otherwise, the G, M, O, or U is ignored.

## Parameter Description

|             |                                                                                                                                                                                                                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-ifp</b> | Specifies a fully qualified path to a file which contains a list of item IDs. The items associated with item IDs are associated to the label. If <code>-ifp</code> is specified, <code>-filter "fileStatus"</code> cannot be specified.                                                                   |
| <b>-l</b>   | Locks the item(s). This is the default when <code>-l</code> , <code>-nel</code> or <code>-u</code> are not used.                                                                                                                                                                                          |
| <b>-lbl</b> | Specifies the label name on which to perform the action. This option can be used more than once. The application action is for all of the labels on the specified file or revisions.                                                                                                                      |
| <b>-u</b>   | Unlocks an item.                                                                                                                                                                                                                                                                                          |
| <b>-vd</b>  | Specifies the as-of date/time used to identify the revisions to be checked out. The last revision before the specified date/time is the one checked out for each file. See the date/time examples for <code>-cfgd</code> .                                                                                |
| <b>-vl</b>  | Specifies a label (created using <code>stcmd label</code> ) to be applied to the checked-in files. The label is enclosed in double quotation marks. This option can appear in the command more than once. The label can be either a view or revision label, but it must already exist in the application. |
| <b>-vn</b>  | Specifies the revision number used to identify the revisions that get the new label.                                                                                                                                                                                                                      |
| <b>-vp</b>  | Specifies the promotion state.                                                                                                                                                                                                                                                                            |
| <b>-ps</b>  | When <code>-ps</code> is specified, the label is assigned to the promotion state specified by <code>-ps</code> . If the label name does not exist, then a new label is created following existing rules. If the label name already exists, then it is simply assigned to the promotion state.             |

## Examples

The following example uses `apply-label` to apply the label `Beta` to files in `User Manual`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project). `StarTeam` applies the label to the revisions of those files that were current at noon on July 7, 2003.

Use `-p` with `apply-label` or the stateful `set` command to set the context of the project/view/parent folder.

```
apply-label -rp "1024/StarDraw/StarDraw/User Manual" -vd "07/07/03 12:00 PM" -
lbl "Beta" -u -l "*"
```

## Check In Files: ci

Use `ci` to check files into a `StarTeam` repository (or vault) from a working folder using the command line.

You can simultaneously link the new file revisions to a process item. All the files successfully added using this command will be linked and pinned to the tip revision of the process item. Use the `-active` option to specify the currently active process item (previously set using a `StarTeam` client on your workstation).

If no item is active or you prefer to use another item, use the option that indicates the type of the process item (`-cr`, `-req`, or `-task`), followed by the complete path from the root folder of the `StarTeam` project view to the item, using the forward slash (`/`) as a delimiter between folder names. For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (`:`). For example, `-cr MyProject/RootView:ChildView/SourceCode/37` specifies change request 37 in the `SourceCode` folder of the `ChildView` view in the `MyProject` project. During execution, the process first assumes that the process item is in the current view, and it checks the current view to determine whether the full path corresponds to a folder path within that view. If the process item is not found in the current view, it is treated as an out-of-view process item, and the search for the process item begins from the project and view.

Use the `-mark` option to simultaneously mark the process item as fixed, finished, or complete, depending on its type.

## Syntax

The syntax for this command is as follows:

```
ci [[-p "projectSpecifier"] [-pwdfile "filePath"] [-cmp] [-csf] [-encrypt encryptionType]][-rp "folderPath" | -fp "folderPath"] [-filter "fileStatus"] [-l | -u | -nel] [-is] [-ro | -rw]] [-vl "labelName"] [-nomove] [-f NCI] [-o] [-d|-r "comment" | -rf " fileName "][[-active | [-cr | -req | -task] processItemPath] [-mark]] [-q|-pf "filterName"] [-ofp "resultsOutputFilePath"] [-cp "names"] [files...]
```

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

|                         |                                                                                                                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cr, -req, -task</b> | Complete path from the project view's root folder to the change request, requirement, or task number to be used as a process item. Use the forward slash (/) as a delimiter between folder names. |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example:

`-cr MyProject/RootView:ChildView/ SourceCode/37` specifies change request 37 in the `SourceCode` folder of the `ChildView` view in the `MyProject` project.



**Note:** For in-view process items, as long as the change request, requirement, or task numbers are the unique primary descriptors of their types (true by default), it is sufficient simply to specify the number, with no path. The project and view names are assumed from `-p`.

If a process item is specified, then only files attached to the process item are checked out. `-cr`, `-req` or `-task` are mutually exclusive. If any one of them is specified, `-filter/-f` are ignored.

|            |                                                                                                                                                                                                                                                                                                                                               |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cp</b> | Name of the code page used for localization and internationalization of the content, file and folder names, keyword expansion, etc. Supported code page names are US-ASCII (the default), UTF-8, UTF-16, windows-1252, ISO-8859-1, ISO-8859-9, ISO-8859-15, windows-31j, EUC-JP, Shift_JIS, ISO-2022-JP, x-mswin-936, GB18030, x-EUC-CN, GBK. |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-filter</b> | Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are <code>Not In View</code> . Statuses are <code>C</code> = Current, <code>M</code> = Modified, <code>O</code> = Out of Date, <code>N</code> = Not in View, <code>I</code> = Missing, <code>G</code> = Merge, and <code>U</code> = Unknown. For example, using <code>CM</code> applies a command only to files with a status of <code>Current</code> or <code>Modified</code> . |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

`-filter` takes precedence over `-f NCI`. If you use `G`, `O`, or `U`, you must also specify `-I` or `-o`. Otherwise the `G`, `O`, or `U` is ignored.

`-filter` also takes precedence over `-f NCO`. If you use `G`, `M`, `O`, or `U`, you must also specify `-o` to force the checkout operation. Otherwise, the `G`, `M`, `O`, or `U` is ignored.

|           |                                                                                                                                                                                                                                                                                          |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-i</b> | Allows an interactive check-in for files whose status would normally not allow them to be checked in. You are asked about each file whose status is Merge, Out of Date or Unknown. You can force the file to be checked in with your response. Alternately, you can choose to ignore it. |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

If you use the `-i` option, you cannot use the `-o` option.

|           |                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------|
| <b>-l</b> | Locks the item(s). This is the default when <code>-l</code> , <code>-nel</code> or <code>-u</code> are not used. |
|-----------|------------------------------------------------------------------------------------------------------------------|

| Parameter            | Description                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-nel</code>    | Non-exclusively locks a file.                                                                                                                                                                                                                                                                                                                                                                    |
| <code>-nomove</code> | Do not move labels if already attached.                                                                                                                                                                                                                                                                                                                                                          |
| <code>-o</code>      | Forces a check-in/check-out depending on which command is used. <code>-o</code> is supported with <code>-filter</code> and <code>-f NCD</code> , but not with <code>-f NCO</code> .                                                                                                                                                                                                              |
| <code>-ro</code>     | Makes the working file read-only after this operation. Without this option, the file remains as it was prior to the operation. Usually, you use <code>-ro</code> to prevent yourself from editing a file that is not locked by you. <code>-ro</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-ro</code> , you cannot use <code>-rw</code> . |
| <code>-rw</code>     | Makes the working file read-write after this operation. Without this option, the file remains as it was prior to the operation. <code>-rw</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-rw</code> , you cannot use <code>-ro</code> .                                                                                                     |
| <code>-u</code>      | Unlocks an item.                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>-vl</code>     | Specifies a label (created using <code>stcmd label</code> ) to be applied to the checked-in files. The label is enclosed in double quotation marks. This option can appear in the command more than once. The label can be either a view or revision label, but it must already exist in the application.                                                                                        |

### Example

The following example uses `ci` to check in `.bmp` files to Online Help, a child of the root folder StarDraw (in the StarDraw view of the StarDraw project). The command unlocks the files, makes the working copy read only, and gives the files a revision comment (usually a reason for checking in the files).

Use the `-p` with `ci` or the stateful `set` command to set the context of the project/view/parent folder.

```
stcmd ci -rp "1024/StarDraw/StarDraw/SourceCode/Online Help" -u -ro -r
"revised for beta" "*.bmp"
```

## Check Out Files: `co`

Use `co` to check out files from a StarTeam repository (or vault) to your working folder using the command line. Unless you use `-o`, this command pauses at each file with a `Modified`, `Merge` or `Unknown` status to let you know that the file will not be checked out.

 **Note:** The functionality of the bulk checkout utility (BCO) has been fully added to `co`. BCO is no longer distributed with this version of StarTeam.

### Syntax

The syntax for this command is:

```
co [-p ["projectSpecifier"]] [-pwdfile | -epwdfile "filename"] [-cmp]
[-encrypt RC4, RC2_ECB, RC2_CBC, RC2_CFB] [-cacheAgentThreads number]
[-useMPXCacheAgent | -useCA host:port | autolocate]]]
[-cfl "label" | -cflg "promotion state" | -cflgd "date"] [-is]
[-pattern "datepattern"] [-rp "directory" | -fp "directory"] [-frp]
[-filter "filter"] [-o] [-l | -u | -nel] [-break] [-ro | -rw]]
[-vl "name" | -vd "date" | -vn number | -vp "name"]
[-cp "name"] [-exclude <pattern> | #<pattern file>] [-cwf] [-f NCO | NCD]
[-ts] [-eol [on | off | cr | lf | crlf]] [-fs] [-q|-vb|-pf "filterName"]
[-ofp "resultsOutputFilePath"] [files...]
```

| Parameter               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-break</b>           | Breaks the current lock by another user if you have the access rights to break locks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>-cr, -req, -task</b> | <p>Complete path from the project view's root folder to the change request, requirement, or task number to be used as a process item. Use the forward slash (/) as a delimiter between folder names.</p> <p>For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example:</p> <p><code>-cr MyProject/RootView:ChildView/ SourceCode/37</code> specifies change request 37 in the <code>SourceCode</code> folder of the <code>ChildView</code> view in the <code>MyProject</code> project.</p> <p> <b>Note:</b> For in-view process items, as long as the change request, requirement, or task numbers are the unique primary descriptors of their types (true by default), it is sufficient simply to specify the number, with no path. The project and view names are assumed from <code>-p</code>.</p> <p>If a process item is specified, then only files attached to the process item are checked out. <code>-cr</code>, <code>-req</code> or <code>-task</code> are mutually exclusive. If any one of them is specified, <code>-filter/-f</code> are ignored.</p> |
| <b>-cp</b>              | Name of the code page used for localization and internationalization of the content, file and folder names, keyword expansion, etc. Supported code page names are US-ASCII (the default), UTF-8, UTF-16, windows-1252, ISO-8859-1, ISO-8859-9, ISO-8859-15, windows-31j, EUC-JP, Shift_JIS, ISO-2022-JP, x-mswin-936, GB18030, x-EUC-CN, GBK.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>-cfgd</b>            | <p>Configures the view as of the specified date/time. Examples include:</p> <p><code>"12/29/13 10:52 AM"</code></p> <p><code>"December 29, 2013 10:52:00 AM PST"</code></p> <p><code>"Monday, December 29, 2013 10:52:00 AM PST"</code></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>-cfgl</b>            | Configures the view using the specified label. Without <code>-cfgl</code> , <code>-cfgp</code> , or <code>-cfgd</code> , the view's current configuration is used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>-cfgp</b>            | Configures the view using the specified promotion state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>-cwf</b>             | <p>Create working folders from StarTeam folders, even if they do not contain any files. This is supported for compatibility with bulk check out.</p> <p> <b>Note:</b> <code>-cwf</code> will only create the working folder for the specified folder. Use <code>-is</code> with <code>-cwf</code> to create working folders for all child folders.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>-eol</b>             | <p>Automatically convert end-of-line markers. Use <code>[cr lf crlf off]</code>.</p> <p>When on, text files are transferred from the StarTeam Server's repository to the workstation's working folder with the end-of-line convention for the platform executing the command as determined by the Java VM.</p> <p>When off, the default, no end-of-line conversion is performed. Using off is the same as not using <code>-eol</code> at all.</p> <p>For Microsoft Windows clients, the end-of-line marker is a carriage return/line feed (<code>crlf</code>) combination. For UNIX platforms, it is a line feed (<code>lf</code>). For MAC systems, a carriage return (<code>cr</code>).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Parameter                                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                            | <p>You would set this option to <code>on</code> or <code>lf</code>, for example, when you compare a file from the repository and a working file on a UNIX system (if the repository stores text files as <code>crlf</code>).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>-exclude</b><br><b>&lt;pattern&gt;  </b><br><b>#&lt;patternFile&gt;</b> | <p>Exclude files or folders whose names match a pattern (or set of patterns). This is supported for compatibility with bulk check out. You can either specify the pattern inline <code>-exclude &lt;pattern&gt;</code> or you can specify a set of patterns in a file <code>-exclude#patternFile</code>.</p> <p>A pattern can be an exact file or folder name or it may contain wildcard characters (e.g., <code>'*.class'</code>).</p> <p>To specify a folder name, precede the pattern name with a forward-slash (e.g., <code>' / bin'</code>). A single pattern can be provided with <code>-exclude</code>. Alternatively, one or more patterns can be specified on separate lines of the given <code>&lt;pattern file&gt;</code> (prefixed with <code>#</code>).</p> <p>Pattern file names may be fully qualified with their path on the file system, e.g. <code>#"c:\temp\patternfile.txt"</code> or relative to the current folder e.g. <code>#"patternfile.txt"</code>.</p> <p>In either case, pattern file names must be enclosed in double quotation marks. <code>"..."</code></p> <p>If the pattern matches an exact file name, then all instance of that file name, no matter where they are in the folder tree, will be excluded.</p> <p>If the pattern matches a folder path, then all files in that folder path will be excluded.</p> <p>Finally, a pattern may also be a fully or partially qualified path to a file in StarTeam without wildcards, e.g. <code>/StarDraw/External Resources/StarDraw.ico</code></p> <p>In this case, only the file that exactly matches the parent folder path will be excluded.</p> |
| <b>-f NCD</b>                                                              | <p>Specifies the check-out of any file whose status is <code>Missing</code> or <code>Out of Date</code> and the deletion of all not-in-view files in the workspace. NCD stands for "needs check-out and delete".</p> <p><code>-f NCD</code> is ignored if <code>-filter</code> is used.</p> <p> <b>Note:</b> <code>-f NCD</code> and <code>-f NCO</code> are mutually exclusive.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>-f NCO</b>                                                              | <p>Specifies the check-out of any file whose status is <code>Missing</code> or <code>Out of Date</code>. NCO stands for "needs check-out." No other files are selected for check-out.</p> <p><code>-f NCO</code> is ignored if <code>-filter</code> is used.</p> <p> <b>Note:</b> <code>-f NCO</code> and <code>-f NCD</code> are mutually exclusive.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>-filter</b>                                                             | <p>Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are <code>Not In View</code>. Statuses are <code>C</code> = <code>Current</code>, <code>M</code> = <code>Modified</code>, <code>O</code> = <code>Out of Date</code>, <code>N</code> = <code>Not in View</code>, <code>I</code> = <code>Missing</code>, <code>G</code> = <code>Merge</code>, and <code>U</code> = <code>Unknown</code>. For example, using <code>CM</code> applies a command only to files with a status of <code>Current</code> or <code>Modified</code>.</p> <p><code>-filter</code> takes precedence over <code>-f NCI</code>. If you use <code>G</code>, <code>O</code>, or <code>U</code>, you must also specify <code>-I</code> or <code>-o</code>. Otherwise the <code>G</code>, <code>O</code>, or <code>U</code> is ignored.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| <b>Parameter</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  | <code>-filter</code> also takes precedence over <code>-f NCO</code> . If you use <code>G</code> , <code>M</code> , <code>O</code> , or <code>U</code> , you must also specify <code>-o</code> to force the checkout operation. Otherwise, the <code>G</code> , <code>M</code> , <code>O</code> , or <code>U</code> is ignored.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>-frp</b>      | <p>Forces the specified relative path. When used, the <code>-frp</code> parameter ensures that the entire folder tree is successfully checked out relative to the root folder, either with the default or via the <code>-rp</code> root path override.</p> <p>For example, if the default root folder path is <code>c:\stardraw</code>, then the command <code>co -p "Administrator:Administrator@localhost:49201"/StarDraw -is -frp</code> checks out the entire folder tree recursively to <code>c:\stardraw</code>.</p> <p>If the path is overridden using the <code>-rp</code> command, such as <code>co -p "Administrator:Administrator@localhost:49201"/StarDraw -is -rp "c:\temp" -frp</code>, the entire stardraw folder tree gets checked out to <code>c:\temp</code>.</p> <p><code>-frp</code> does nothing if the entire folder tree is already relative to the root folder.</p> <p>However, consider the StarDraw example. If the sub-folder <code>Source Code</code> default path is set to a mapped drive on a machine, for example, <code>e:\\StarDraw</code> or a UNC path (<code>\\MicroFocus Build Server\</code>) and you run the command line on a different machine from where the mapped drive or the UNC path is unreachable, the <code>co</code> command without <code>-frp</code> will throw an exception.</p> <p>With <code>-frp</code>, the command will succeed, the <code>Source Code</code> folder and all descendant sub-folders are created relative to its parent, and the files in the folder hierarchy are checked out.</p> |
| <b>-fs</b>       | <p>Prevents file statuses from being remembered after the check-out occurs. Subsequent status values for these files will be incorrect and indeterminate. Use this option where a file's status is irrelevant. For example, if you routinely delete the working folders before checking out files for a build, there are no files and their statuses do not matter.</p> <p>Additionally, with per folder status repository in use on the local machine, if files are checked out to empty working folders, empty <code>.sbas</code> folders will not be left on disk.</p> <p>Be aware that the file statuses may never be known, even if you use the <code>update-status</code> command later. You can do a force check out without the <code>-fs</code> option to obtain current files with correct statuses.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>-i</b>        | Prompts user to confirm check-in or check-out (depending on command used) when file status is <code>Merge</code> , <code>Out of Date</code> , or <code>Unknown</code> . The user can ignore the file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>-l</b>        | Locks the item(s). This is the default when <code>-l</code> , <code>-nel</code> or <code>-u</code> are not used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>-nel</b>      | Non-exclusively locks the file after it has been checked out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>-o</b>        | Forces a check-in/check-out depending on which command is used. <code>-o</code> is supported with <code>-filter</code> and <code>-f NCD</code> , but not with <code>-f NCO</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>-pattern</b>  | Qualifies the <code>datetime</code> . It can be specified wherever a date-time is specified, such as <code>-cfgd</code> , <code>-vd</code> , etc. The pattern must match any valid pattern supported by the <code>java.text.SimpleDateFormat.applyLocalizedPattern(String)</code> . The pattern may be localized.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>-ro</b>       | Makes the working file read-only after this operation. Without this option, the file remains as it was prior to the operation. Usually, you use <code>-ro</code> to prevent yourself from editing a file that is not locked by you. <code>-ro</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-ro</code> , you cannot use <code>-rw</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter  | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-rw</b> | Makes the working file read-write after this operation. Without this option, the file remains as it was prior to the operation. <b>-rw</b> must be used with <b>-l</b> or <b>-u</b> or <b>-nel</b> . If you use <b>-rw</b> , you cannot use <b>-ro</b> .                                                                                                                                                                           |
| <b>-ts</b> | Sets each working file's time stamp to the check-out time. Without this option, the file is given the same time stamp as the checked-in revision of the file.                                                                                                                                                                                                                                                                      |
| <b>-u</b>  | Unlocks an item.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>-vb</b> | Verbose mode kept for backward compatibility with bulk check out. If <b>-vb</b> is specified, the list of all files considered for checkout is returned with the per file number of bytes checked out, the time taken for the checkout, and whether a specified cache agent could be leveraged to check the content out. In addition, if the file was not current prior to the checkout, the file status on disk is also recorded. |
| <b>-vd</b> | Specifies the as-of date/time used to identify the revisions to be checked out. The last revision before the specified date/time is the one checked out for each file. See the date/time examples for <b>-cfgd</b> .                                                                                                                                                                                                               |
| <b>-vl</b> | Specifies the revision or view label used to identify the revisions to be checked out. Without the <b>-vn</b> or <b>-vd</b> or <b>-vl</b> option, the tip revision of each file is checked out.                                                                                                                                                                                                                                    |
| <b>-vn</b> | Specifies the revision number                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>-vp</b> | Specifies the promotion state.                                                                                                                                                                                                                                                                                                                                                                                                     |

## Examples

The following example uses `co` to lock and check out `.doc` files from `User Manual`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project).

```
stcmd co -p "JMarsh:password@Orion:1024/StarDraw/StarDraw/User Manual" -l
"*.doc"
```

The next example uses `co` to merge a readme file.

```
stcmd co -p "NTesla:@10.50.5.179:49201/WebDev/WebDev" -encrypt RC4 -fp "/
export/home0/johnson/working" -merge "README"
```

Either use the `-p` with `co` (as above) or the stateful `connect` and `set` commands (below) to set the context of the `project/view/parent` folder.

```
stcmd connect JMarsh:password@Orion:1024
stcmd set project = StarDraw view = StarDraw folderHierarchy = " StarDraw/
User Manual"
stcmd co -l "*.doc"
stcmd disconnect
```

`stcmd` supports both stateless (using `-p`) and stateful (`connect...set...commands...disconnect`) models.

The stateless approach causes each command to connect, set the project, execute the command, and then disconnect.

The stateful approach requires the script author to manage the connect, set and disconnect. However, this has the advantage of supporting multiple commands for execution within the context of a given 'connect', 'set' and 'disconnect' session.

The next example uses `stcmd co` to checkout all files, recurse through the entire folder tree (`-is`) and return (for the set of checked out files) the set of all property values described by the property filter `-pf`.

```
co -p " JMarsh:password@Orion:1024 /StarDraw" -is -pf "\"<All Files By Status>
\""
```

This example checks out files from a historical point in time, rolled back to a view configuration based on the label `label abc`.

```
co -p " JMarsh:password@Orion:1024 /StarDraw" -cagl "label abc" -is -pf
\
<All Files By Status>
```

## Compare File Revisions: diff

Use `diff` to display differences between two revisions of a file. The command can be applied to more than one file. If you do not specify any revisions using `-vn`, `-vd`, `-vl`, or `-vp`, the working copy of each specified file is compared to the tip revision in the repository (or vault) for this file. If you specify a single revision, the working copy of each specified file is compared to that revision. If you specify two revisions, those two revisions of each specified file are compared.

When comparing text files, the differences can be displayed. When comparing binary files, output results indicate whether the revisions of the file are the same or different.

### Syntax

The syntax for this command is:

```
diff [-p "projectSpecifier" [-pwdfile "filePath"] [-cmp] [-csf]
[-encrypt encryptionType]] [-pwdfile "filePath"] [-cmp] [-csf]
[-cagl "labelName" | -cagp "stateName" | -cagd "asOfDate"]
[-is] [-rp "folderPath" | -fp "folderPath"] [-filter "fileStatus"]
[-eol [on | off | cr | lf | crlf]] [-w | -Bpvcs | -b] [-I] [-m "maskSet"]
[-t number] [-c number] [-n] [-nd] [-vl "labelName" | -vd "asOfDate" |
-vn revisionNumber] [-pattern "date-pattern"] | -vp
promotionStateName[files...]
```

### Parameter Description

- b** When comparing two lines of text files, ignores trailing whitespace and treats all other strings of whitespace as equal in length. For example, the following lines are equivalent:  

```
" hi mom "
" hi mom"
```
- Bpvcs** When comparing two lines of text files, ignores leading and trailing whitespace. For example, the following lines are equivalent because there is only one space between "hi" and "mom":  

```
" hi mom "
" hi mom"
```

but the next line is not equivalent:  

```
"hi mom"
```
- c** Specifies the number of unchanged lines to display before and after a difference is found in text files. Without this option, all lines of the files are displayed. For example, `-c 2` places two unchanged lines before and after each line or set of lines that has changed.
- cagd** Configures the view as of the specified date/time. Examples include:  

```
"12/29/13 10:52 AM"
"December 29, 2013 10:52:00 AM PST"
"Monday, December 29, 2013 10:52:00 AM PST"
```
- cagl** Configures the view using the specified label. Without `-cagl`, `-cagp`, or `-cagd`, the view's current configuration is used.

## Parameter Description

- cfgp** Configures the view using the specified promotion state.
- eol** This command is irrelevant at this point in time because `diff` currently ignores end-of-line markers. If two lines are the same except for this, they are reported to be identical.
- filter** Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are `Not In View`. Statuses are `C` = Current, `M` = Modified, `O` = Out of Date, `N` = Not in View, `I` = Missing, `G` = Merge, and `U` = Unknown. For example, using `CM` applies a command only to files with a status of `Current` or `Modified`.
- `-filter` takes precedence over `-f NCI`. If you use `G`, `O`, or `U`, you must also specify `-I` or `-o`. Otherwise the `G`, `O`, or `U` is ignored.
- `-filter` also takes precedence over `-f NCO`. If you use `G`, `M`, `O`, or `U`, you must also specify `-o` to force the checkout operation. Otherwise, the `G`, `M`, `O`, or `U` is ignored.
- l** Ignores the case of letters when comparing two text files. For example, "A" is equivalent to "a".
- m** When comparing two text files, ignores the characters in certain columns as specified by one or more masks. Each mask has the following syntax:
- ```
"columnNumber-columnNumber[(numeric)]"
```
- For example, "1-6" ignores the characters in the first six columns of each line, and "1-6 (numeric)" ignores the first six columns of each line if the character in column 1 is a digit in both files.
- You can use a series of masks, but they must be separated by commas. The syntax is:
- ```
"mask[,mask]..."
```
- n** Suppresses the display of line numbers in the two text files.
- nd** Suppresses the display of differences in two text files. Comparisons of binary files do not display differences.
- pattern** Qualifies the `datetime`. It can be specified wherever a date-time is specified, such as `-cfgd`, `-vd`, etc. The pattern must match any valid pattern supported by the `java JDK` in `java.text.SimpleDateFormat.applyLocalizedPattern(String)`. The pattern may be localized.
- t** Specifies the number of spaces to use for each tab stop when displaying the file differences for text files. The default is four. Use `-t 0` to suppress tab conversion.
- vd** Specifies the as-of date/time used to identify the revisions to be compared. The last revision before the specified date/time is the one used. See the date/time examples for `-cfgd` above.
- vl** Specifies the revision or view label used to identify the revisions to be compared. You can specify any combination of zero, one, or two of the `-vn`, `-vd`, or `-vl` options.
- Use zero options to compare the working file to the tip revision, one to compare the working file to the specified revision, and two to compare two revisions.
- vn** Specifies the revision number to be compared.
- vp** Specifies the promotion state to use.

## Parameter Description

**-w** Ignores all whitespace (tabs and spaces) when comparing two lines in text files. For example, the following lines would be equivalent:

```
"a = (b + 2);"
"a=(b+2);"
```

The `-w`, `-BpvcS`, and `-b` options are mutually exclusive.

## Example

The following example uses `diff` to compare the `Beta1` and `Beta2` revisions of each of the `.cpp` files in the folder `SourceCode`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project). It ignores all white space.

Use the `-p` with `diff` or the stateful `set` command to set the context of the project/view/parent folder.

```
diff "SourceCode" -w -v1 "Beta1" -v1 "Beta2" "*.cpp"
```

Note that `diff` compares versions of files at differing specified revisions of the view, which allows you flexibility in determining how to specify the revisions of interest. A few examples are listed below.

Compare `.cpp` files in the view between labels `Beta1` and `Beta2`

```
diff "SourceCode" -w -v1 "Beta1" -v1 "Beta2" "*.cpp"
```

Compare `.java` files in the view between dates March 01 1997 to Jan 01 2008

```
diff "SourceCode" -w -pattern MM/DD/yyyy -vd 03/01/1997 -vd 01/01/2008
"*.java"
```

Compare `.java` files in the view between date March 01 1997 and the label `Beta2`

```
diff "SourceCode" -w -pattern MM/DD/yyyy -vd 03/01/1997 -v1 "Beta2" "*.java"
```

Compare `.cs` files in the view between date December 31 2011 and the tip

```
diff "SourceCode" -w -pattern MM/DD/yyyy -vd 12/31/2011 "*.cs"
```

Also, the best use of `-vd` is in conjunction with the `-pattern` option. The `-pattern` specifications is part of the `java SimpleDateFormat` and permits the engine to precisely determine what one has in mind when specifying a date without attempting to guess at intent.

## Connect: connect

Use `connect` to connect to the StarTeam Server. The connection persists until you use the `disconnect` command. Because the connection persists, you can specify all subsequent commands without using the `-p` option to connect with each command. However, to switch between projects, views, and working folders, use `set project...[viewHierarchy ] [folderHierarchy ]` while in the same session.

Before attempting to connect to the same session, you must disconnect. Use the `disconnect` command to disconnect from the session.

### Syntax

The syntax for this command is as follows:

```
connect [username[:password]@]address:port [passwordFromFile passwordFile]
[storePasswordToFile passwordFile] [caseSensitiveFolders | -csf]
[encryption = RC4|RC2_ECB|RC2_CBC|RC2_FCB][compression | -cmp]
[mpx=on|off (default ON) [profile=eventHandlerProfileName]
[cacheAgent@address:port (default autoLocate) | =off]
[[cacheAgentThreads=noOfThreads][-mode [lock | exlock | unlock]]
[separator=fieldSeparator] [headers = on|off]
```

## Parameter Description

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cmp</b>    | Compresses all the data sent between the workstation and the server and decompresses it when it arrives. Without this option, compression does not take happen.<br><br>Compression is most useful and appropriate when the client and server communicate over a slow connection. To determine whether to use compression, a small test case may be helpful. You must consider whether the time spent compressing and uncompressing data is better than the longer transfer time of uncompressed data sent over the slow connection. |
| <b>-mode</b>   | Indicates whether the server is to be locked, exclusively locked, or unlocked.<br><br><b>-mode lock</b> Only server administration commands are accepted until the server is unlocked. For example, you might use this command while running a backup program.<br><br><b>-mode exlock</b> Only you can access the server until it is unlocked. For example, you might do this when creating a custom field.<br><br><b>-mode unlock</b> Use to make the server available to users again.                                             |
| <b>lock</b>    | Nonexclusively locks the StarTeam Server. Only administrative commands can be performed.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>unlock</b>  | Unlocks the StarTeam Server so that anyone with the appropriate access rights can access it.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>exlock</b>  | Exclusively locks the server so that no one else can access it.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>headers</b> | By default, <code>headers = on</code> . If <code>headers = off</code> , output files are written without headers.                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Example

The following example uses `connect` to connect to the server using port 1024 on Orion and non-exclusively locks the server.

```
connect "JMarsh:password@Orion:1024" -mode lock
```

## Create Labels: label

Use `label` to create a view or revision label. A view label can be designated as a build label. By default, view labels are automatically applied to every folder, file, change request, requirement, topic, and task in the view. By default, revision labels are not applied to any items.

You can use `apply-label` to apply labels created with `label` to specified files. You can also use the `label` option (`-vl`) in `ci` to attach your new label to files as you check them in.

## Syntax

The syntax for this command is:

```
label -nl "labelName" [-vl "labelName" | -vd "asOfDate" | -vp stateName]
[-d "description"] [-b | -r] [-f] [-pattern "date-pattern"]
[-ps promotionStateName]
```

## Parameter Description

|           |                                                                                                                                                                                                                                                                                                             |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-b</b> | Specifies that the new label is a build label. Without either <code>-b</code> or <code>-r</code> , the label is a view label. View labels (and a build label is a special type of view label) are immediately and automatically applied to every folder, file, change request, task, and topic in the view. |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Parameter Description

- d** Specifies the description of the label.
- f** Creates the new label as a frozen label.
- nl** Specifies the new label's name.
- pattern** Qualifies the `datetime`. It can be specified wherever a date-time is specified, such as `-cfgd`, `-vd`, etc. The pattern must match any valid pattern supported by the java JDK in `java.text.SimpleDateFormat.applyLocalizedPattern(String)`. The pattern may be localized.
- pf** Specifies the filter name whose associated filter properties produce the columns in the output matrix. Each command returns a result matrix. `-pf` determines the matrix columns. See `-ofp` for more information. If not specified, the primary descriptor property of the Type is returned as the command output. `-pf` does not apply to the `select` query command.
- r** Specifies that the new label is a revision label. You can use the new label to label files that you check in. This command does not attach the new label to any items unless you create the label by copying an existing revision label that is attached to one or more items. See the `-vl` option.
- vd** Specifies the as-of date/time used to identify the revisions to be checked out. The last revision before the specified date/time is the one checked out for each file. See the date/time examples for `-cfgd`.
- vl** Specifies a label (created using `stcmd label`) to be applied to the checked-in files. The label is enclosed in double quotation marks. This option can appear in the command more than once. The label can be either a view or revision label, but it must already exist in the application.
- vp** Specifies the promotion state.
- ps** When `-ps` is specified, the label is assigned to the promotion state specified by `-ps`. If the label name does not exist, then a new label is created following existing rules. If the label name already exists, then it is simply assigned to the promotion state.
- ps** When `-ps` is specified, the label is assigned to the promotion state specified by `-ps`. If the label name does not exist, then a new label is created following existing rules. If the label name already exists, then it is simply assigned to the promotion state.

## Example

The following example uses `label` to create a new build label named Beta for the StarDraw view of the StarDraw project.

Use the `-p` with `label` or the stateful `set` command to set the context of the project/view/parent folder.

```
label -nl "Beta" -b
```

## Delete: delete

Use `delete` to delete all objects that satisfy the `where` clause. The syntax of the `where` clause is identical to `select`, `update` or `delete`, and is fully described in the `select` command section. A check-in change package is created that records the set of items that were deleted. The items are deleted in a server transaction. As a result, either all items are deleted (and the transaction succeeds) or not a single item is deleted and the transaction fails. If the transaction fails, it is rolled back. Values that contain spaces should be enclosed in double quotes. This command has been modeled on the standard SQL `Delete` syntax.

## Syntax

The syntax for this command is:

```
delete type {local} {output* | {propertyName,...} |
filter='myFilter' into "outputFilePath" {separator 'fieldSeparator'}}
where {{ attached-label = 'labelName' } | { query = 'myquery' } |
propertyName relation value and/or propertyName relation value and/or...}
{for} {folder = 'myfolder' {recurse} or folder = 'myfolderhierarchy'
{recurse}
or folder = . {recurse}} or ...}
type { File | Folder | ChangeRequest | Requirement | Task | Topic |
CustomComponentTypeName }
[-p "userName:password@hostName:endpoint/projectName/[viewName/]
[folderHierarchy/]"]
```

| Parameter                | Description                                                                                                                                                                                                                                                                                 |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>myFilter</b>          | Specifies a filter by name, whose properties are written to the output file.                                                                                                                                                                                                                |
| <b>myFolder</b>          | Specifies the StarTeam folder name in the current view.<br><br>If there are multiple folders with the same name, the command performs the action on all folders with that name.                                                                                                             |
| <b>myFolderHierarchy</b> | Specifies the folder hierarchy in the "/" format.<br><br>Start from the root folder and end in a branch folder. For example: /StarDraw/SourceCode/On-line Help/.                                                                                                                            |
| <b>output</b>            | Turns on logging of the command to a log file specified by INTO.<br><br>The INSERT, DELETE, and UPDATE commands log the selected properties of the inserted items to a log file. The property values are separated by the specified fieldSeparator, or " " if a separator is not specified. |
| <b>recurse</b>           | Designates all descendants from the folder specified.                                                                                                                                                                                                                                       |
| <b>.</b>                 | Implies the current working folder, requiring the tool to find StarTeam folders with paths mapping to the current working folder.<br><br>The CommandProcessor must be running inside the StarTeam folder hierarchy.                                                                         |
| <b>myQuery</b>           | Specifies the saved StarTeam query name for the type.<br><br>It acts as the equivalent of a compound where clause of a SQL statement, such as combinations of relations and operators.<br><br>If no query name is specified, the command performs the action on all objects of the type.    |
| <b>type</b>              | Specifies the StarTeam item type by name. Types are mutually exclusive.                                                                                                                                                                                                                     |
| <b>-p</b>                | Indicates the view or folder to be used and also provides the user name and password needed to access the StarTeam Server.                                                                                                                                                                  |



**Important:** When used with select, update, insert, or delete, the command execution context is stateless. The position of `-p` in the statement is important. It must BE located at the very end as the very last parameter to the command. Placement anywhere else in the query will produce indeterminate results, possibly leading up to an `SDKRuntimeException`.

## Example

The following example deletes all change requests with an open status from the `StarDraw` project `StarDraw` view.

```
connect Administrator:Administrator@localhost:49201
set project = 'StarDraw' view = 'StarDraw'
delete changerequest where query = "Status = Open" disconnect
```

## Delete Local Files: delete-local

Use `delete-local` to delete files from a working folder and the working folder itself, if empty of files, resulting from executing this command. You can delete files that are under version control, as well as files that are not in `StarTeam`. This action does not remove any files from version control. It merely reduces the amount of data stored on your workstation in a working folder. If you are deleting files based on their `StarTeam` status, it is a good idea to use `update-status` first.

### Syntax

The syntax for this command is:

```
delete-local [-p "projectSpecifier" [-pwdfile "filePath"] [-cmp] [-csf]
[-encrypt encryptionType]] [-is] [-nivf] [-rp "folderPath" |
-fp "folderPath"] [-filter "fileStatus"] [-cagl "labelName" |
-cfgp "stateName" | -cfgd "asOfDate"] [-q|-pf "filterName"]
[-ofp "resultsOutputFilePath"] [files...]
```

### Parameter Description

- cfgd** Configures the view as of the specified date/time. Examples include:
  - "12/29/13 10:52 AM"
  - "December 29, 2013 10:52:00 AM PST"
  - "Monday, December 29, 2013 10:52:00 AM PST"
- cagl** Configures the view using the specified label. Without `-cagl`, `-cfgp`, or `-cfgd`, the view's current configuration is used.
- cfgp** Configures the view using the specified promotion state.
- filter** Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are `Not In View`. Statuses are `C` = Current, `M` = Modified, `O` = Out of Date, `N` = Not in View, `I` = Missing, `G` = Merge, and `U` = Unknown. For example, using `CM` applies a command only to files with a status of `Current` or `Modified`.
  - `-filter` takes precedence over `-f NCI`. If you use `G`, `O`, or `U`, you must also specify `-I` or `-o`. Otherwise the `G`, `O`, or `U` is ignored.
  - `-filter` also takes precedence over `-f NCO`. If you use `G`, `M`, `O`, or `U`, you must also specify `-o` to force the checkout operation. Otherwise, the `G`, `M`, `O`, or `U` is ignored.
- nivf** If `-nivf` is included, then files in `Not in View` folders are also included in the action.

### Example

The following example uses `delete-local` to delete some files from the working folder for the `StarTeam` folder named `SourceCode`. `SourceCode` is a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project). This example deletes all files that are not under version control. Those files have the file status `Not In View`.

Use the `-p` with `delete-local` or the stateful `set` command to set the context of the project/view/parent folder.

```
delete-local -filter "N" "*"
```

## Describe Schema: describe

Use the `describe` command to provide a description of the schema of the specified type.

### Syntax

The syntax for this command is:

```
describe {type} {-s "server specifier" }
```

### Parameter Description

**type** The type of asset to describe, either `File` | `Folder` | `ChangeRequest` | `Requirement` | `Task` | `Topic` | `Sprint` | `Story` | `CustomComponentTypeName`. If using `describe` without a specified type, the command lists all available types on the server.



**Note:** The `type` is positional. If specified, it must always come before the `-s` parameter.

**-s** Describes the server connectivity and authentication credentials required to connect.



**Note:** The `-s` connectivity string `userName:password@host:port` must be enclosed in double quotes.

### Example

The following example obtains a description of the Change Request schema for the specified address.

`describe` may be used in the context of a `connect/disconnect`, or the connection details may be specified in-line using `-s`.

```
connect localhost:49201 describe ChangeRequest disconnect
```

## Detach Label: detach-label

Use the `detach-label` command to remove labels from the specified IDs.

### Syntax

The syntax for this command is:

```
stcmd detach-label [-p "projectSpecifier" [-pwdfile "filePath"] [-cmp] [-csf] [-encrypt encryptionType]] -lbl "labelName" [-all | -type typeName | -ifp "inputFilePath"] [-q | -pf "filter name"] [-ofp "output file path"]
```

### Parameter Description

**-ifp** Specifies a fully qualified path to a file which contains a list of item IDs. The items associated with item IDs are associated to the label. If `-ifp` is specified, `-filter "fileStatus"` cannot be specified.

**-lbl** Specifies the label name on which to perform the action. This option can be used more than once. The application action is for all of the labels on the specified file or revisions.

**-all** Specifies that the label will be detached from all items it is attached to.

## Parameter Description

**-type** Specifies that the label will be detached from all items of the specific type that it is attached to.



**Important:** `-all`, `-type`, `-ifp` are mutually exclusive. You must specify just one of them. An exception will be thrown if there are none or more than one specified.

## Example

The item IDs are expected to be attached to the label. The `detach-labels` command removes them from the label.

For example, the file could be the output of a `select` command, such as:

```
select viewmemberid from file 'c:/temp/fileids.txt' where attached-label = 'x'
detach-label -p... -ifp "c:/temp/fields.txt" lbl 'x'
```

# Disconnect: disconnect

Use `disconnect` to disconnect from the StarTeam Server. If you have previously connected to the server, the connection persists until you use the `disconnect` command.

## Syntax

The syntax for this command is as follows:

```
disconnect
```

## Example

The following example uses `disconnect` to disconnect from the server.

```
stcmd disconnect
```

# Insert: insert

Use the `insert` command to execute a single item insert of the specified values.

The `insert` statement executes a single item insert if the values are specified in-line or a transacted set of inserts if the values are specified through an input file.

The value clause specification should match that of the property list specification, whether in line or provided through the input file. The types and the number of values should match their corresponding property specifications.

The items are created in the folder described in the `folder hierarchy` argument of the `set` statement. If no folder hierarchy is provided, the items are created in the root folder of the selected view. The items are created and saved to the StarTeam Server in a server transaction. All the items are successfully created or none are created. If the insert succeeds, a check-in change package is created, which records the newly created items and their property values. Values that contain spaces should be enclosed in double quotes. This command has been modeled on the standard SQL Insert syntax.

## Syntax

The syntax for this command is:

```
insert into type (propertyName, propertyName,...)
values [(value, value,...) |
from 'filePath' { separator 'fieldSeparator' } {-pattern "pattern"}]
```

```
{output* | {propertyName,...} | filter='myFilter' into "outputFilePath"
[-p "userName:password@hostName:endpoint/projectName/[viewName/]
[folderHierarchy/]"]
```

## Parameter Description

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>output</b>       | Turns on logging of the command to a log file specified by INTO.<br><br>The INSERT, DELETE, and UPDATE commands log the selected properties of the inserted items to a log file. The property values are separated by the specified fieldSeparator, or " " if a separator is not specified.                                                                                                                                                                                                                                                                                                 |
| <b>myFilter</b>     | Specifies a filter by name, whose properties are written to the output file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>propertyName</b> | Specifies the subset of properties for the type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>type</b>         | Specifies the StarTeam item type by name. Types are mutually exclusive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>filePath</b>     | The path to a file containing multiple items whose values will be inserted.<br><br>Each row is separated by a new line. Each column is separated by the specified fieldSeparator or " " if a separator is not specified.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>-p</b>           | Indicates the view or folder to be used and also provides the user name and password needed to access the StarTeam Server.<br><br> <b>Important:</b> When used with select, update, insert, or delete, the command execution context is stateless. The position of -p in the statement is important. It must BE located at the very end as the very last parameter to the command. Placement anywhere else in the query will produce indeterminate results, possibly leading up to an SDKRuntimeException. |

## Property Values

The following are the property values for the command:

### Property Type Value

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Text</b>     | Literal string.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Integer</b>  | A string in the form of an integer like "1234".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Double</b>   | A string in the form of a double like "1234.5678".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Long</b>     | A string in the form of a long like "1234567890".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Boolean</b>  | The string "true" or "false" - case insensitive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Date</b>     | String format yyyy-mm-dd, 4 digit year, 1 <= mm <= 12, 1 <= dd <= 31.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>DateTime</b> | If -pattern "pattern" is specified, then it is parsed using java.text.SimpleDateFormat, localized pattern set to "pattern". See <a href="http://docs.oracle.com/javase/7/docs/api/java/text/SimpleDateFormat.html">http://docs.oracle.com/javase/7/docs/api/java/text/SimpleDateFormat.html</a> .<br>If -pattern is not specified, attempt to match patterns using java.text.DateFormat {SHORT, MEDIUM, LONG, FULL} in that order. See <a href="http://docs.oracle.com/javase/7/docs/api/java/text/DateFormat.html">http://docs.oracle.com/javase/7/docs/api/java/text/DateFormat.html</a> .<br>If all else fails, try ISO8601 parsing e.g.: yyyy-mm-ddThh:mm:ssZ (ignore fractional content after seconds). |
| <b>TimeSpan</b> | String format [ws][-][d.  d]hh:mm:ss[.ff][ws], items in brackets optional. See com.starteam.util.TimeSpan. ws whitespace, d days, ff fractional second, hh hours, mm minutes 0 <= mm <= 59, ss seconds 0 <= ss <= 59.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Property Type Value

|                   |                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Enumerated</b> | String. Enumerated value specified may be internal name, display name, or string representation of integer enumeration code. |
| <b>Object</b>     | <b>User string</b> Value specified may be user name or string representation of integer user id.                             |
|                   | <b>Group string</b> Value specified may be group name or string representation of integer group id.                          |
|                   | <b>Label string</b> Value specified may be label name or string representation of integer label id.                          |

## List Labels: list-labels

Use the `list-labels` command to list the active labels for the selected project or view.

The command can be used in stateful (`connect ...`, `set ...`, `list-labels`, `disconnect`) or stateless (`list-labels -p ...`) modes.

### Syntax

The syntax for this command is:

```
list-labels
```

### Parameter Description

|           |                                                                                          |
|-----------|------------------------------------------------------------------------------------------|
| <b>-p</b> | Describes the project in addition to server connectivity and authentication credentials. |
|-----------|------------------------------------------------------------------------------------------|

### Example

```
list-labels -p Administrator:Administrator@localhost:49201/StarDraw/Release
1.0 Maintenance
```

## List Projects: list-projects

Use the `list-projects` command to list all of the projects in the StarTeam Server.

### Syntax

The syntax for this command is:

```
list-projects -s ...
```

### Parameter Description

|           |                                                                                      |
|-----------|--------------------------------------------------------------------------------------|
| <b>-s</b> | Contains the server connectivity and authentication credentials required to connect. |
|-----------|--------------------------------------------------------------------------------------|

### Example

```
list-projects -s "Administrator:Administrator@localhost:49201"
```



**Note:** The server credentials and authentication information must be enclosed in double quotes

## List Views: list-views

Use the `list-views` command to list the set of all accessible views on a given project.

### Syntax

The syntax for this command is:

```
list-views -p "Project specifier"
```

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

|           |                                                                                          |
|-----------|------------------------------------------------------------------------------------------|
| <b>-p</b> | Describes the project in addition to server connectivity and authentication credentials. |
|-----------|------------------------------------------------------------------------------------------|

### Example

```
list-views -p Administrator:Administrator@localhost:49201/StarDraw
```

This would return:

```
StarDraw
Beta Release
Release 1.0 Maintenance
Web1
Web2
4 rows returned.
Command completed successfully in 1422 ms.
```

The stateful equivalent would be:

```
stcmd connect Administrator:Administrator@localhost:49201
stcmd set project = StarDraw
stcmd list-views
...
stcmd disconnect
```

## Lock Unlock Files: lck

Use `lck` to lock or unlock files from the command line.

### Syntax

The syntax for this command is:

```
lck [-is] [-rp "folderPath" | -fp "folderPath"] [-filter "fileStatus"]
[-break] [-l | -u | -nel] [-ro | -rw]] [-pf "filterName"]
[-ofp "resultsOutputFilePath"] [files...]
```

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

|               |                                                                                       |
|---------------|---------------------------------------------------------------------------------------|
| <b>-break</b> | Breaks the current lock by another user if you have the access rights to break locks. |
|---------------|---------------------------------------------------------------------------------------|

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-filter</b> | Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are <code>Not In View</code> . Statuses are <code>C</code> = Current, <code>M</code> = Modified, <code>O</code> = Out of Date, <code>N</code> = Not in View, <code>I</code> = Missing, <code>G</code> = Merge, and <code>U</code> = Unknown. For example, using <code>CM</code> applies a command only to files with a status of <code>Current</code> or <code>Modified</code> . |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Parameter Description

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  | <p><code>-filter</code> takes precedence over <code>-f NCI</code>. If you use <code>G</code>, <code>O</code>, or <code>U</code>, you must also specify <code>-I</code> or <code>-o</code>. Otherwise the <code>G</code>, <code>O</code>, or <code>U</code> is ignored.</p> <p><code>-filter</code> also takes precedence over <code>-f NCO</code>. If you use <code>G</code>, <code>M</code>, <code>O</code>, or <code>U</code>, you must also specify <code>-o</code> to force the checkout operation. Otherwise, the <code>G</code>, <code>M</code>, <code>O</code>, or <code>U</code> is ignored.</p> |
| <code>-l</code>  | Locks the item(s). This is the default when <code>-l</code> , <code>-nel</code> or <code>-u</code> are not used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <code>-pf</code> | Specifies the filter name whose associated filter properties produce the columns in the output matrix. Each command returns a result matrix. <code>-pf</code> determines the matrix columns. See <code>-ofp</code> for more information. If not specified, the primary descriptor property of the Type is returned as the command output. <code>-pf</code> does not apply to the select query command.                                                                                                                                                                                                   |
| <code>-ro</code> | Makes the working file read-only after this operation. Without this option, the file remains as it was prior to the operation. Usually, you use <code>-ro</code> to prevent yourself from editing a file that is not locked by you. <code>-ro</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-ro</code> , you cannot use <code>-rw</code> .                                                                                                                                                                                                         |
| <code>-rw</code> | Makes the working file read-write after this operation. Without this option, the file remains as it was prior to the operation. <code>-rw</code> must be used with <code>-l</code> or <code>-u</code> or <code>-nel</code> . If you use <code>-rw</code> , you cannot use <code>-ro</code> .                                                                                                                                                                                                                                                                                                             |
| <code>-u</code>  | Unlocks an item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Example

The following example uses `stcmd lck` to unlock all files in `SourceCode`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project), as well as all files in child folders of `SourceCode`.

Use the `-p` with `lck` or the stateful `set` command to set the context of the project/view/parent folder.

```
lck -is -u "*"
```

## Network Monitor: monitor

Use `monitor` to start the **Network Monitor** (Netmon). The monitor records server commands issued by the command processor to the StarTeam Server. You can specify monitoring the server, the cache agent, or both. This is useful to track access to a machine or StarTeam Server, as well as troubleshooting.

### Syntax

The syntax for this command is as follows:

```
monitor stop | start [server | ca | both] -ofp "full path to a writable
output log file"
```

### Example

The following example uses `monitor` to monitor the server network connection and output the report to a `Temp` folder on the `C:` drive. If the file already exists, it is appended to the end of the report.

```
monitor start server -ofp "C:\Temp\netmon.txt"
```

The following example stops the Netmon:

```
monitor stop
```

## Remove Label: remove-label

Use `remove-label` to delete a view or revision label.

### Syntax

The syntax for this command is:

```
remove-label -lbl "labelName"
```

### Example

The following example removes the label `Beta` from the `StarDraw` view.

Use the `-p` with `remove-label` or the stateful `set` command to set the context of the project/view/parent folder.

```
remove-label -lbl "Beta"
```

## Remove Files: remove

Use `remove` to remove files from version control. The specified files and their revision histories no longer appear in StarTeam unless you roll back the project view to a time before they were removed.

### Syntax

The syntax for this command is:

```
remove [-p "projectSpecifier" [-pwdfile "filePath"] [-cmp] [-csf]
[-encrypt encryptionType]] [-is] [-rp "folderPath" | -fp "folderPath"]
[[-active | [-cr | -req | -task] processItemPath] [-filter "fileStatus"]
[-df] [-q|-pf "filterName"] [-ofp "resultsOutputFilePath"] [files...]
```

| Parameter               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-active</b>          | The active process item. Attaches a process item to the change package created for the removed files.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>-cr, -req, -task</b> | <p>Complete path from the project view's root folder to the change request, requirement, or task number to be used as a process item. Use the forward slash (/) as a delimiter between folder names.</p> <p>For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example:</p> <pre>-cr MyProject/RootView:ChildView/ SourceCode/37</pre> specifies change request 37 in the <code>SourceCode</code> folder of the <code>ChildView</code> view in the <code>MyProject</code> project. <p> <b>Note:</b> For in-view process items, as long as the change request, requirement, or task numbers are the unique primary descriptors of their types (true by default), it is sufficient simply to specify the number, with no path. The project and view names are assumed from <code>-p</code>.</p> <p>If a process item is specified, then only files attached to the process item are checked out. <code>-cr</code>, <code>-req</code> or <code>-task</code> are mutually exclusive. If any one of them is specified, <code>-filter/-f</code> are ignored.</p> |
| <b>-df</b>              | Deletes the user's working file. Without this option the working file remains in the working folder on your workstation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-filter</code> | <p>Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are <code>Not In View</code>. Statuses are <code>C</code> = Current, <code>M</code> = Modified, <code>O</code> = Out of Date, <code>N</code> = Not in View, <code>I</code> = Missing, <code>G</code> = Merge, and <code>U</code> = Unknown. For example, using <code>CM</code> applies a command only to files with a status of <code>Current</code> or <code>Modified</code>.</p> <p><code>-filter</code> takes precedence over <code>-f NCI</code>. If you use <code>G</code>, <code>O</code>, or <code>U</code>, you must also specify <code>-I</code> or <code>-o</code>. Otherwise the <code>G</code>, <code>O</code>, or <code>U</code> is ignored.</p> <p><code>-filter</code> also takes precedence over <code>-f NCO</code>. If you use <code>G</code>, <code>M</code>, <code>O</code>, or <code>U</code>, you must also specify <code>-o</code> to force the checkout operation. Otherwise, the <code>G</code>, <code>M</code>, <code>O</code>, or <code>U</code> is ignored.</p> |

### Example

The following example uses `remove` to remove all `.hm` files from `SourceCode`, a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project), as well as all files in child folders of `SourceCode`. It also deletes the working files.

Use the `-p` with `remove` or the stateful `set` command to set the context of the project/view/parent folder.

```
remove -rp "StarDraw/StarDraw/SourceCode" -is -df "*.hm"
```

## Remove Project: `remove-project`

Use the `remove-project` command to delete a project from the StarTeam Server.

### Syntax

The syntax for this command is:

```
remove-project -p "project specifier"
```

| Parameter       | Description                                                                              |
|-----------------|------------------------------------------------------------------------------------------|
| <code>-p</code> | Describes the project in addition to server connectivity and authentication credentials. |

### Example

The following example removes the project `StarDraw` from the server.

```
remove-project -p "Administrator:Administrator@localhost:49201/StarDraw"
```

## Remove View: `remove-view`

Use the `remove-view` command to delete a view from the StarTeam Server.

The root (default) view of a project can not be deleted. You would need to delete the project itself.

A view with child views cannot be deleted, until all child views have been individually deleted.

### Syntax

The syntax for this command is:

```
remove-view -p "project specifier"
```

## Example

The following example removes the view `Release 1.0 Maintenance` from the `StarDraw` project on the `StarTeam Server`.

```
remove-view -p "Administrator:Administrator@localhost:49201/StarDraw/Release 1.0 Maintenance"
```

## Select: select

Use the `select` command to invoke `StarTeam` queries. The combination of options determines the type of query, which could be a file, folder, change request or etc., and the saved filters for the type. Values that contain spaces should be enclosed in double quotes. This command has been modeled on the standard SQL `SELECT` syntax. Cross type joins are not supported.

If folder identification clauses are not specified, the tool assumes the `folderHierarchy` is set through the `setProject` command or the root folder of the view, with `recurse ON` (that is, all descendants or `depth == -1`).

The `where` clause is constrained to a query and a possible set of folders. Folders may be combined with an `OR`, but cannot be joined with an `AND`. Folders act as a further constraint to a query. Folders potentially reduce the subset of results obtained from the query to the items that reside within the specified folders.

When a folder hierarchy is specified in the `where` clause of a `select`, `update` or `delete` statement, the path must start with the root folder and traverse the folder tree all the way down to the leaf folder of interest. It must be explicitly terminated by a `\`. However, the root folder path must not start with a `\`. `/` and `\` are interchangeable. For example:

```
select folder, name from file where for folder = "StarDraw\Source Code \External Resources\"
```

Simple dynamic queries support either chained `OR` clauses or chained `AND` clauses. However, they do not support a mix of `OR` and `AND` conditions.

Complex queries are supported but only as saved queries, for example: `where query = 'mySavedQueryname'`.

## Syntax

The syntax for this command is:

```
select * | access-rights | changes | {propertyName, propertyName,...} |
filter = 'filterName'
from type 'typeName' {history} {deleted}
{at [label = "label" | promotionstate = "promotion state" | datetime = "date"
{-pattern "pattern"}]}
into fileName { separator 'fieldSeparator' } { headers 'on' | 'off'
where {{ attached-label = 'labelName' } | { query = 'myquery' }
| propertyName relation value and/or propertyName relation value and/or...}
{for} {folder = 'myfolder' {recurse} or folder = 'myfolderhierarchy'
{recurse} or folder = . {recurse}} or ...}
order by {propertyName, propertyName,...} | orderFilter = 'myOrderFilter'
[-p "userName:password@hostName:endpoint/projectName/[viewName/]
[folderHierarchy/]"]
```

The keyword `changes` is supported strictly in the context of *change packages*.

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

|                      |                                                                                                                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>access-rights</b> | Overrides properties. If specified, it generates an access rights report. The columns are the set of available permissions. The rows are the Securable's (or Container's) for which access rights exist. |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| <b>Parameter</b>      | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>*</b>              | Specifies all properties for the type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>at</b>             | Describes a rolled back view configuration. It may be one of <code>label</code> , <code>promotion state</code> or <code>datetime</code> . If specified, the query is run at the rolled back configuration. <code>datetime</code> may be further qualified by a <code>pattern</code> . The pattern must match any valid pattern supported by the java JDK in <code>java.text.SimpleDateFormat.applyLocalizedPattern(String)</code> .                                                                                                                                                                                                      |
| <b>attached-label</b> | Specifies a label to which the items of the specified type have been attached. The items to be selected are the ones attached to the label.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>deleted</b>        | Specifies the result set. If specified, only deleted items are returned.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Filter</b>         | Specifies the saved StarTeam filter name for that type.<br>It expands into a subset of properties for the type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>headers</b>        | By default, <code>headers = on</code> . If <code>headers = off</code> , output files are written without headers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>history</b>        | Specifies a qualifier on the result set.<br>For example, if the result set contains ten items of a given type, <code>history</code> returns all revisions of each item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>OrderFilter</b>    | Specifies the saved StarTeam filter name for the type.<br>It expands into a subset of properties for the type, which is used for sorting.<br><code>myFilter</code> and <code>myOrderFilter</code> can be different. The properties specified in <code>MyOrderFilter</code> should not be set for grouping. If a set of property names is specified instead of the order filter, the sort criteria default to ascending order, <code>sort by text</code> is set for text properties, and <code>sort by date</code> is set for <code>Date/DateTime</code> Properties. If you need more specific sorting, specify an existing saved filter. |
| <b>Folder</b>         | Specifies the StarTeam folder name in the current view.<br>If there are multiple folders with the same name, the command returns all folders with that name.<br>Or specify the folder hierarchy in the "/" format.<br>Start from the root folder and end in a branch folder. For example: <code>/StarDraw/SourceCode/On-line Help/</code> .                                                                                                                                                                                                                                                                                              |
| <b>recurse</b>        | Designates all descendants from the folder specified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>.</b>              | Implies the current working folder, requiring the tool to find StarTeam folders with paths mapping to the current working folder.<br>The <code>CommandProcessor</code> must be running inside the StarTeam folder hierarchy.                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>myQuery</b>        | Specifies the saved StarTeam query name for the type.<br>It acts as the equivalent of a compound where clause of a SQL statement, such as combinations of relations and operators.<br>If no query name is specified, the command performs the action on all objects of the type.                                                                                                                                                                                                                                                                                                                                                         |
| <b>order by</b>       | Specifies a default sort order for the output result set.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>propertyName</b>   | Specifies the subset of properties for the type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>type</b>           | Specifies the StarTeam item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

Types are mutually exclusive.

**-p** Indicates the view or folder to be used and also provides the user name and password needed to access the StarTeam Server.



**Important:** When used with select, update, insert, or delete, the command execution context is stateless. The position of `-p` in the statement is important. It must BE located at the very end as the very last parameter to the command. Placement anywhere else in the query will produce indeterminate results, possibly leading up to an `SDKRuntimeException`.

```
select * from File where query = "Status = Current" order by
orderfilter =
"All Files By Status" -p "Administrator:Administrator@localhost:
49201/StarDraw/Release 1.0 Maintenance"
```

## Examples

The example below selects all properties of all change requests and writes them into a file called `QueryOutput.txt`.

```
select * from changerequest into "c:/temp/QueryOutput.txt"
```

The example below selects the three properties, **Name**, **Status**, and **File Time Stamp at check in**, for all files, which satisfies the query `Files to Checkin`.

```
select Name, Status, Modified from file where query = "Files to Check In"
```

The example below selects all tasks from the `Sales Materials` folder or the `Marketing Materials` folder and its descendants. It returns a result set containing only the task properties described by the **By Status** and **Responsibility** filter.

```
select * from task where filter = "By Status & Responsibility"
```

```
select filter = "By Status and Responsibility" from task where folder =
"Sales Materials"
or folder = "Marketing Materials" recurse
```

## Set Personal Options: set-personal-options

Use `set-personal-options` to set and list parameter values. Command options are saved in the `StarTeam Cross-Platform Client Options` file. Any option used by subsequent commands are read from the file `Options` specified in the command override options within `StarTeam Cross-Platform Client Options`.

Conversely, if the option is not specified on the command, but found in `StarTeam Cross-Platform Client Options`, then that option value is used.

Options are specified using the form `key = value`. If only the key is specified, then the option is assumed to have the default value `true`.

### Syntax

The syntax for this command is:

```
set-personal-options parameter = value
```

## Parameter Description

- OptionName** A parameter such as `-pf`. When saved to the personal options file, the `-` is stripped off from the `-pf`.
- OptionValue** A default value assigned to the option.

## Set Project and View: set

After connecting to the server using the `connect` command, use the `set` command to designate the project and view.

### Syntax

The syntax for this command is:

```
set project=projectName [view=viewName | viewHierarchy=viewName:viewName:...]
[folderHierarchy=folderName/folderName/...] [-cagl "label" | -cagp
"promotion state" | -cagd "date"] [-pattern "date-pattern"]
```

### Parameter Description

- cagd** Configures the view as of the specified date/time. Examples include:  
"12/29/13 10:52 AM"  
"December 29, 2013 10:52:00 AM PST"  
"Monday, December 29, 2013 10:52:00 AM PST"
- cagl** Configures the view using the specified label. Without `-cagl`, `-cagp`, or `-cagd`, the view's current configuration is used.
- cagp** Configures the view using the specified promotion state.
- pattern** Qualifies the `datetime`. It can be specified wherever a date-time is specified, such as `-cagd`, `-vd`, etc. The pattern must match any valid pattern supported by the java JDK in `java.text.SimpleDateFormat.applyLocalizedPattern(String)`. The pattern may be localized.

### Example

The following example connects to the server using the `connect` command and designates the project of `StarDraw` and the view of `StarDraw` using the `set` command. After connecting and designating project and view, execute all command for that project and view without reconnecting each time. When command are complete, use the `disconnect` command to disconnect from the project, view, and server. Alternatively, use the `set` command to switch to a different project/view without disconnecting. You can then execute all command in the new project/view context.

```
connect "JMarsh:password@Orion:1024"
set project = 'StarDraw' view = 'StarDraw'
```

## Shutdown: shutdown

Use `shutdown` to disconnect the process. Where `disconnect` closes the session, it does not terminate the process. The commands `shutdown`, `shutdown all`, `status` and `status all` are a class of commands whose context is `stcmd` itself. `stcmd` is a client-server process. The client is a command line character UI. The server is a launched Java process that actually communicates with the StarTeam Server. The `shutdown` command kills the `stcmd` server process. It has no bearing on the StarTeam Server.

### Syntax

The syntax for this command is:

```
shutdown
```

### Example

The following example disconnects the process. Use this after using the `disconnect` command.

```
stcmd shutdown
```

The prompt returns:

```
stcmd server process on port: 27655 ClientKey: Global shut down.
```

## Shutdown All: shutdownall

Use the `shutdownall` command to disconnect the command line process. For example, if a command fails, the command processor connection remains open. Use `shutdownall` to disconnect the process. The `shutdownall` command kills all `stcmd` server processes running on the local machine.

### Syntax

The syntax for this command is:

```
shutdownall
```

## Status: status

Use `status` to verify the connection to the server. The `status` command provides context information about a running `stcmd` server process, including the StarTeam Server and port it is connected to (for stateful command processing).

### Syntax

The syntax for this command is as follows:

```
status key=<value>
```

Use the `key=<value>` to name the connection.

### Example

The following example verifies the connection to the server.

```
stcmd status key=OTHER
```

If a connection is open, the prompt returns the following example:

```
stcmd server on port: 27655 ClientKey: 5376
Server: localhost:49201
User: StarTeam Server Administrator
```

If the connection is not open, the prompt returns:

```
Not connected
```

## Status All: statusall

Use the `statusall` command to show the status of more than one connection. `statusall` provides context information about all running `stcmd` server processes on the local machine.

## Syntax

The syntax for this command is:

```
statusall
```

## Example

The following determines the status of two connections to the server. The first connection is to a specific test, view, and folder. The second is a direct connection to the server.

```
stcmd statusall
```

The prompt returns:

```
stcmd server on port: 27655
Server: localhost:49201
User: StarTeam Server Administrator
Project: Test
View: Test
Folder: Test\

stcmd server on port: 27656
Server: localhost:49201
User: StarTeam Server Administrator
```

# Store Password: store-password

Use the `store-password` command to store the password as an encrypted file.

## Syntax

The syntax for this command is:

```
store-password -password "password" -epwdfile "passwordFilePath"
```

# Synchronize: sync

Use the `sync` command to synchronize changes on your local hard disk (working folders or workspace) to your view and vice versa. For instance, if you deleted a file or a folder on disk, `sync` deletes that file or folder from the view. If you have a new file or not-in-view folder (with files) on your local hard disk, `sync` adds them to the view. `sync` does not synchronize views with each other.

`sync` supports the same syntax as the `ci` command (check in) for process items and reasons for checking in files. If the project requires a reason for adding/checking in files, specify one with `-d` or `-r`. If the project requires a process item, specify one with `-cr`, `-req` or `-task`. You cannot use `-p` with `sync`. It is one of the new class of stateful commands.

## Syntax

The syntax for this command is:

```
sync workspace|view|both [-o] [-nivf][-q]
[-l | -u | -nel] [-vl "labelName"]
[-nomove] [-d|-r "comment" | -rf
"fileName"] [[-active | [-cr | -req | -task]
processItemPath] [-mark]]
```

| Parameter               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-cr, -req, -task</b> | <p>Complete path from the project view's root folder to the change request, requirement, or task number to be used as a process item. Use the forward slash (/) as a delimiter between folder names.</p> <p>For out-of-view process items, specify the project name and view name in front of the complete folder path. Separate the view path with a colon (:). For example:</p> <p><code>-cr MyProject/RootView:ChildView/ SourceCode/37</code> specifies change request 37 in the <code>SourceCode</code> folder of the <code>ChildView</code> view in the <code>MyProject</code> project.</p> <p> <b>Note:</b> For in-view process items, as long as the change request, requirement, or task numbers are the unique primary descriptors of their types (true by default), it is sufficient simply to specify the number, with no path. The project and view names are assumed from <code>-p</code>.</p> <p>If a process item is specified, then only files attached to the process item are checked out. <code>-cr, -req</code> or <code>-task</code> are mutually exclusive. If any one of them is specified, <code>-filter/-f</code> are ignored.</p> |
| <b>-l</b>               | Locks the item(s). This is the default when <code>-l, -nel</code> or <code>-u</code> are not used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>-nel</b>             | Non-exclusively locks a file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>-nivf</b>            | Turns on not-in-view folders and is only considered if the view is updated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>-nomove</b>          | Stops the application of the label specified by the <code>-vl</code> option if the file, which is being checked in, already has a revision with that label. Otherwise, the label will be moved from the currently labeled revision to the newly checked in revision.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>-o</b>               | Forces a check-in/check-out depending on which command is used. <code>-o</code> is supported with <code>-filter</code> and <code>-f NCD</code> , but not with <code>-f NCO</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>-d   -r</b>          | Provides a revision comment, usually the reason for checking in the files. If you use the <code>-r</code> option, you cannot use the <code>-rf</code> option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>-rf</b>              | Provides the path to the file that contains the revision comment.<br><br>If you use the <code>-rf</code> option, you cannot use the <code>-r</code> option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>-u</b>               | Unlocks an item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>-vl</b>              | Specifies a label (created using <code>stcmd label</code> ) to be applied to the checked-in files. The label is enclosed in double quotation marks. This option can appear in the command more than once. The label can be either a view or revision label, but it must already exist in the application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### Example

The following example is a simple `sync` example:

```
connect "User:PW@server:port"
set project=projectname view=viewname
sync {view | workspace | both} -nivf
```

When you specify `view`, `sync` applies to the view all the changes you have made to your workspace (that is, working folders on disk). When you specify `workspace`, `sync` applies to your workspace all the changes made to your view. When you specify `both`, it does both of the above.

# Update: update

Use `update` to update all items that satisfy the `where` clause. The syntax of the `where` clause is identical for `select`, `update` and `delete`, and is fully described in the `select` command section. Values that contain spaces should be enclosed in double quotes. This command has been modeled on the standard SQL `Update` syntax.

## Syntax

The syntax for this command is:

```
update type
[{set
 propertyName = value,
 propertyName = value,
 where { { attached-label = 'labelName' } | { query = 'myquery' }
 | propertyName relation value and/or propertyName relation value and/or... }
 { {for} {folder = 'myfolder' {recurse} or folder = 'myfolderhierarchy'
 {recurse} or folder = . {recurse} or ...} } |
 { (propertyName1, propertyName2, . . . propertyNameen) } from fileName
 { join propertyName } }
 { output* | {propertyName, ...} | filter='myFilter' into "outputFilePath"
 { separator 'fieldSeparator' } {-pattern "pattern"} }
 [-p "userName:password@hostName:endpoint/projectName/[viewName/]
 [folderHierarchy/]"]
```

Relation in {=, <, <=, >, >=, <>, !=}.

As an alternative to the `set ... where ...` syntax, you can use the `(propertyName 1..n ) from filename { join propertyName }` syntax. This is useful for updating types with values from a comma separated file on disk (see the Examples below).

| Parameter                | Description                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>myFilter</b>          | Specifies a filter by name, whose properties are written to the output file.                                                                                                                                                                                                                                                                                     |
| <b>myFolder</b>          | Specifies the StarTeam folder name in the current view.<br><br>If there are multiple folders with the same name, the command performs the action on all folders with that name.                                                                                                                                                                                  |
| <b>myFolderHierarchy</b> | Specifies the folder hierarchy in the "/" format.<br><br>Start from the root folder and end in a branch folder. For example: /StarDraw/SourceCode/On-line Help/.                                                                                                                                                                                                 |
| <b>output</b>            | Turns on logging of the command to a log file specified by <code>INTO</code> .<br><br>The <code>INSERT</code> , <code>DELETE</code> , and <code>UPDATE</code> commands log the selected properties of the inserted items to a log file. The property values are separated by the specified <code>fieldSeparator</code> , or " " if a separator is not specified. |
| <b>recurse</b>           | Designates all descendants from the folder specified.                                                                                                                                                                                                                                                                                                            |
| <b>.</b>                 | Implies the current working folder, requiring the tool to find StarTeam folders with paths mapping to the current working folder.<br><br>The <code>CommandProcessor</code> must be running inside the StarTeam folder hierarchy.                                                                                                                                 |
| <b>myQuery</b>           | Specifies the saved StarTeam query name for the type.                                                                                                                                                                                                                                                                                                            |

| Parameter           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <p>It acts as the equivalent of a compound where clause of a SQL statement, such as combinations of relations and operators.</p> <p>If no query name is specified, the command performs the action on all objects of the type.</p>                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>propertyName</b> | Specifies the subset of properties for the type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>type</b>         | Specifies the StarTeam item type by name. Types are mutually exclusive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>-p</b>           | <p>Indicates the view or folder to be used and also provides the user name and password needed to access the StarTeam Server.</p> <p> <b>Important:</b> When used with select, update, insert, or delete, the command execution context is stateless. The position of <code>-p</code> in the statement is important. It must BE located at the very end as the very last parameter to the command. Placement anywhere else in the query will produce indeterminate results, possibly leading up to an <code>SDKRuntimeException</code>.</p> |

### Property Values

The following are the property values for the command:

#### Property Type Value

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Text</b>       | Literal string.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Integer</b>    | A string in the form of an integer like "1234".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Double</b>     | A string in the form of a double like "1234.5678".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Long</b>       | A string in the form of a long like "1234567890".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Boolean</b>    | The string "true" or "false" - case insensitive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Date</b>       | String format <code>yyyy-mm-dd</code> , 4 digit year, $1 \leq mm \leq 12$ , $1 \leq dd \leq 31$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>DateTime</b>   | <p>If <code>-pattern "pattern"</code> is specified, then it is parsed using <code>java.text.SimpleDateFormat</code>, localized pattern set to "pattern". See <a href="http://docs.oracle.com/javase/7/docs/api/java/text/SimpleDateFormat.html">http://docs.oracle.com/javase/7/docs/api/java/text/SimpleDateFormat.html</a>.</p> <p>If <code>-pattern</code> is not specified, attempt to match patterns using <code>java.text.DateFormat</code> {SHORT, MEDIUM, LONG, FULL} in that order. See <a href="http://docs.oracle.com/javase/7/docs/api/java/text/DateFormat.html">http://docs.oracle.com/javase/7/docs/api/java/text/DateFormat.html</a>.</p> <p>If all else fails, try ISO8601 parsing e.g.: <code>yyyy-mm-ddThh:mm:ssZ</code> (ignore fractional content after seconds).</p> |
| <b>TimeSpan</b>   | String format <code>[ws][-][d.  d]hh:mm:ss[.ff][ws]</code> , items in brackets optional. See <code>com.starteam.util.TimeSpan</code> . <code>ws</code> whitespace, <code>d</code> days, <code>ff</code> fractional second, <code>hh</code> hours, <code>mm</code> minutes $0 \leq mm \leq 59$ , <code>ss</code> seconds $0 \leq ss \leq 59$ .                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Enumerated</b> | String. Enumerated value specified may be internal name, display name, or string representation of integer enumeration code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Object</b>     | <p><b>User string</b> Value specified may be user name or string representation of integer user id.</p> <p><b>Group string</b> Value specified may be group name or string representation of integer group id.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Property Type Value

**Label string** Value specified may be label name or string representation of integer label id.

### Examples

The following example sets the synopsis to the value "foo" for all Change Requests with an Open status.

```
connect localhost:49201 // OR
connect localhost:49201 // attempts an autologon via the toolbar & cached
credentials
set project = `StarDraw` view = `StarDraw`
update changerequest set synopsis = "foo" where query = "Status = Open"
disconnect
```

The following example will update the set of all change requests in the file `crsForUpdate.txt`, properties as specified in the comma separated list, values in the file spread across several lines, 1 per change request, order of the values matching the order of the properties in the command syntax.

```
update ChangeRequest (ChangeNumber, Synopsis, usr_SomeText, Component) from c:
\\somepath\\crsForUpdate.txt separator ,
-p "Administrator:Administrator@localhost:49201/TestUpdate"
```

If the property names are not specified in the command syntax, they must be specified as the first line of the file. The default separator for the command line is the `|` symbol. Command authors can override the separator by providing a different separator in the syntax, e.g. `separator ,` meaning, the file uses comma as the property value separator.

One and only one column in the file must be the column used to match each row to an item in StarTeam. This match will be made on the primary descriptor (e.g. CR Number) or the `viewmemberID` (the default), provided they are also specified in the file.

If neither property is found, then the command author must specify the `join propertyName` in the syntax. In this case, the join property column is expected to be in the file.

## Update File Status: update-status

When you update the status of a file, StarTeam compares the working file with the revision you checked out and the tip revision. For example, your **File** list may say that the file is `Current`, but someone else has just checked in a copy of it, so the status of your file is actually `Out Of Date`.

Updating file statuses is not the same as updating files. If a file is not in your working folder, updating the status lets you know that the file's status is `Missing`, but will not check out the file for you. Normally, you update file status to determine whether a file should be checked in, checked out, added, or ignored.

For example, you may want to:

- Check in a file if its status is `Out Of Date`, `Missing`, or `Merge`.
- Check out a file if its status is `Modified` or `Merge`.
- Add a file to the application if its status is `Not In View`. However, the `update-status` command never lists files that have the status `Not In View` because they are not stored in the repository.

Use `stcmd update-status` to display the filename, its status before the command, and its status after the command. A sample line of output might be: `x.cpp: status is Current (was Unknown)`.

### Syntax

The syntax for this command is:

```
update-status [-p "projectSpecifier" [-pwdfile "filePath"] [-cmp] [-csf]
[-encrypt encryptionType]][-is] [-rp "folderPath" | -fp "folderPath"]
```

```
[-filter "fileStatus"] [-cagl "labelName" | -cagp "stateName" | -cagd
"asOfDate"]
[-pattern "pattern"] [-q|-pf "filterName"] [-ofp "resultsOutputFilePath"]
[files...]
```

#### Parameter Description

- cagd** Configures the view as of the specified date/time. Examples include:  
"12/29/13 10:52 AM"  
"December 29, 2013 10:52:00 AM PST"  
"Monday, December 29, 2013 10:52:00 AM PST"
- cagl** Configures the view using the specified label. Without `-cagp`, `-cagd`, or `-cagd`, the view's current configuration is used.
- cagp** Configures the view using the specified promotion state.
- filter** Specifies a string of one or more characters, each of which represents a file status. Never include spaces or other white space in this string. Only files that currently have the specified statuses will be locked or unlocked. You cannot lock or unlock files that are `Not In View`. Statuses are `C` = Current, `M` = Modified, `O` = Out of Date, `N` = Not in View, `I` = Missing, `G` = Merge, and `U` = Unknown. For example, using `CM` applies a command only to files with a status of `Current` or `Modified`.  
  
`-filter` takes precedence over `-f NCI`. If you use `G`, `O`, or `U`, you must also specify `-I` or `-o`. Otherwise the `G`, `O`, or `U` is ignored.  
  
`-filter` also takes precedence over `-f NCO`. If you use `G`, `M`, `O`, or `U`, you must also specify `-o` to force the checkout operation. Otherwise, the `G`, `M`, `O`, or `U` is ignored.

#### Example

The following example uses `update-status` to verify that each file in the working folder for the `StarTeam` folder named `SourceCode` has an accurate status. `SourceCode` is a child of the root folder `StarDraw` (in the `StarDraw` view of the `StarDraw` project).

Use the `-p` with `update-status` or the stateful `set` command to set the context of the project/view/parent folder.

```
update-status -rp "/StarDraw/StarDraw/SourceCode" "*" "
```

## Version: version

Use `version` to reveal the SDK version number that you have installed.

#### Syntax

The syntax for this command is:

```
stcmd version
```

#### Examples

The following command returns an SDK version number such as 14.0.1, for example.

```
stcmd version
```

# starteamserver Command Parameters

The following topics contain the parameters for the `starteamserver` command with examples of their uses.

## -access

Registers the StarTeam Server as a licensed version. Use this option with the `-serial` option. The first time you start the StarTeam Server, you must register the application as either a licensed version or an evaluation copy. If you need a serial number/access key combination or an evaluation key to extend your evaluation period, contact <http://www.borland.com/products/starteam/try/StarTeamwin.aspx>.

Use with: `-serial`.

See also: `-serial`, `-license`, and `-eval`.

### Syntax

```
-access Key
```

### Example

```
starteamserver -serial 1234 -access 5678
```

## -all

Used in conjunction with the `-start` (or `-restart`) or `-stop` options. The `-start -all` options start all server configurations that have a status of Ready in the `starteam-server-configs.xml` file. The `-stop` and `-all` options stop all server configurations that have a status of Running.

Use with: `-start`, `-stop`, and `-restart`.

### Syntax

```
-all
```

### Example

```
starteamserver -stop -all
```

## -autorecover

The `-autorecover` option instructs the StarTeam Server to attempt to make limited repairs where necessary during the verification process.

Use with: `-start`.

See also: `-stoponerrors`.

### Syntax

```
-autorecover
```

### Example

```
starteamserver -start MyServer -autorecover
```

## -dbport

This is an optional parameter. If this value is not supplied, the default port is assumed. For Microsoft SQL Server the default port is 1433. For Oracle, the default port is 1521. Use this parameter only if the database is not running on the default ports.

## -dbserver

Specifies the database connection information. Enter the existing Database Server Name.

In releases 5.1 and 5.2, Oracle databases were accessed using the Oracle net service name that is stored in `$ORACLE_HOME/network/admin/tnsnames.ora`. This is no longer the case.

The value you specify for "DatabaseServerName" is stored in the `starteam-serverconfigs.xml` file. You can review or modify the database connection information by using:

- The `-view` and `-edit` options from the command line.
- Database tab of the **StarTeam Server Configuration** dialog box in **StarTeam Administration**.
- Database tab of the **<Server configuration> Properties** dialog box in **Server Administration**.

Modifications take effect the next time you start the server configuration.

Use with: `-new`, `-edit`, `-start`, and `-restart`.

See also: `-t`, `-p`, and `-u`.

### Syntax

```
-dbserver "DatabaseServerName"
```

### Example

```
starteamserver -edit MyServer -dbserver
```

## -dbservicename

Use for Oracle to identify the Oracle service on the host machine. Use either `-dbservicename` or use `-dbsid`.

## -dbsid

User for Oracle to identify the Oracle service on the host machine. Use either `-dbservicename` or use `-dbsid`.

## -edit

Use with: `-name`, `-dsn`, `-u`, and `-p`.

Edits the session options for the specified server configuration. You can edit the following options: `-name`, `-dsn`, `-u`, `-p`. If the server configuration is running, you must shut it down before you can make any edits.

### Syntax

```
-edit ConfigurationName
```

### Example

```
starteamserver -edit MyServer -name Portable -dbserver RemoteServer -u
StarTeamAdmin -p password
```

## -eval

Extends the evaluation period for an evaluation copy of the StarTeam Server. The first time you start the StarTeam Server, you must register the application as either a licensed version or an evaluation copy. If you need a serial number/access key combination or an evaluation key to extend your evaluation period, contact <http://www.borland.com/products/starteam/try/StarTeamwin.aspx>.

See also: [-serial](#), [-access](#), and [-license](#).

### Syntax

```
-eval Number
```

### Example

```
starteamserver -eval 01234567890
```

## -help

Displays a message describing all of the command options.

### Syntax

```
-help
```

### Example

```
starteamserver -help
```

## -licenses

Displays license and registration information. If you are running an evaluation copy of the application, the system displays a message informing you of this. Otherwise, the system displays your serial number.

See also: [-serial](#), [-access](#), and [-eval](#).

### Syntax

```
-licenses
```

### Example

```
starteamserver -licenses
```

## -list

Lists the StarTeam Server configurations defined in the `starteam-server-configs.xml` file and the status of each one. A StarTeam Server configuration can have one of the following statuses at any given point in time: Ready, Starting, Running, Disabled, and Stopping.

### Syntax

```
-list
```

### Example

```
starteamserver -list
```

The StarTeam Server displays a message similar to the following:

```
Configuration Status MyServer Ready StarDrawRepository Running Portable Ready
```

## -name

Renames a StarTeam Server configuration. This option is used in conjunction with the `-edit` option. The new StarTeam Server configuration name will take effect the next time you start the StarTeam Server configuration.

Use with: [-edit](#), [-start](#), and [-restart](#).

### Syntax

```
-name ConfigurationName
```

### Example

```
starteamserver -edit MyServer -name NewTeamServer
```

## -new

Creates a hive named `DefaultHive` for the new server configuration with the specified name and settings. This configuration uses a Native-IL vault. This option produces the same result as selecting **New** on the **Server Administration Tool** menu, and using the wizard to create a new configuration.

A number of options can only be specified with `-new`. These are: `-c`, `-r`, and `-t`.

### Syntax

```
-new ConfigurationName
```

### Example

```
starteamserver -new NewServer1 -r "c:\new server\" -t 1 -database
RemoteServer -dbtype 1 -dbusername amin -dbuserpassword admin
-u Admin -p password
```

## -p

Specifies the password used to access the database. The value you specify for `DBUserPassword` is stored in the `starteam-server-configs.xml` file. Ensure that the password you specify is the correct

one for the database user name. You can review or modify the password and user name using the `-view` and `-edit` options from the command line. Any modifications you make will take effect the next time you start the server configuration.

Use with: `-new`, `-edit`, `-start`, and `-restart`.

See also: `-t`, and `-u`.

### Syntax

```
-p DBUserPassword
```

### Example

```
starteamserver -edit MyServer -u JodyK -p password
```

## -r

Specifies the repository path for a new StarTeam Server configuration. If the repository path you specify does not exist, the system will create the appropriate folders the first time you start this StarTeam Server configuration.

The value you specify for `RepositoryPath` is stored in the `starteam-serverconfigs.xml` file. You can review the repository path using the `-view` option from the command line or in the application on the **General** tab of the **StarTeam Server Configuration** tool in the **Server Administration Tool**.



**Caution:** Do not use the StarTeam Server home folder/directory as a StarTeam Server configuration repository path because the StarTeam Server configuration will not start.

Use with: `-new`.

### Syntax

```
-r RepositoryPath
```

### Example

```
starteamserver -new NewServer1 -r "c:\new server\" -t 1 -dbserver NewServer -u Admin -p password
```

## -remove

Deletes the specified StarTeam Server configuration from the `starteam-server-configs.xml` file.

### Syntax

```
-remove ConfigurationName
```

### Example

```
starteamserver -remove MyServer
```

## -restart

Stops and restarts the specified StarTeam Server configuration. Use this option after you make changes to a StarTeam Server configuration and want those changes to take effect. If the StarTeam Server configuration fails to restart, check the StarTeam Server log file for more information.

You can restart a StarTeam Server configuration and modify a number of its options at the same time.

The following options can be used with the `-restart` option: `-all`, `-attach`, `-dbservername`, `-name`, `-p`, `-tcpip`, and `-u`. You cannot use both the `-all` and the specific configuration name at the same time.

### Syntax

```
-restart ConfigurationName
```

### Example

```
starteamserver -restart MyServer -tcpip StarTeamTCPIP -u SuperUser -p SuperUserPassword
```

## -serial

Registers the StarTeam Server as a licensed version. Use this option with the `-access` option. The first time you start the StarTeam Server, you must register the application as either a licensed version or an evaluation copy. If you need a serial number/access key combination or an evaluation key to extend your evaluation period, contact <http://www.borland.com/products/starteam/try/StarTeamwin.aspx>. The serial and access numbers in the example below would be replaced with actual serial and access numbers.

See also: `-access`, `-license`, and `-eval`.

### Syntax

```
-serial Number
```

### Example

```
starteamserver -serial 1234567890 -access 9999999
```

## -start

Starts the specified StarTeam Server configuration. `starteamserver` updates the StarTeam Server configuration entry in the `starteam-server-configs.xml` file to `Status=Running` and `PID=nnn` where `nnn` would be replaced with the actual PID number.

You can start a StarTeam Server configuration and modify a number of its options at the same time.

The following options can be used with the `-start` parameter: `-attach`, `-dbservername`, `-name`, `-p`, `-tcpip`, and `-u`.

See also: `-all` and `-stop`.

### Syntax

```
-start ConfigurationName
```

### Example

```
starteamserver -start MyServer -tcpip StarTeamTCPIP -u SuperUser -p SuperUserPassword
```

## -stop

Shuts down the specified StarTeam Server configuration. After the StarTeam Server configuration stops running, `starteamserver` updates the entry in the `starteam-server-configs.xml` file to `Status=Ready` and `PID=0`.



**Note:** For enterprise advantage users: If you are running the StarTeam Server as a service and StarTeam Notification Agent as a dependent service, you cannot shut down the StarTeam Server unless the StarTeam Notification Agent service is shut down first.

See also: [-all](#) and [-start](#).

### Syntax

```
-stop ConfigurationName
```

### Example

```
starteamserver -stop MyServer
```

## -t

Specifies the database type. This option can be used only when you are creating a new StarTeam Server configuration. Use one of the following numbered values to indicate the type of database:

- 2 = Microsoft SQL Server or SSE
- 3 = Oracle

The value you specify for DBType is stored in the `starteam-server-configs.xml` file. You can review the database type using:

- The `-view` option from the command line.
- In **StarTeam Administration Tool** on the **Database** tab of the **StarTeam Server Configuration** tab.
- In **Server Administration** on the **Database** tab of the `<server configuration=" ">` **Properties** dialog box

See also: [-dbservername](#), [-p](#), [-u](#).

Use with: [-new](#).

### Syntax

```
-t DBType
```

### Example

```
starteamserver -new NewServer1 -r "c:\new server\" -t 2 -dbserver NewServer -u Admin -p password
```

## -tcpip

Sets the endpoint for the TCP/IP (Sockets) protocol. Also enables or disables the protocol. Use `up` to enable and `down` to disable. You can both set the endpoint and enable or disable it using `up` or `down` followed by a colon and the endpoint.

The value you specify for the endpoint is stored in the database used by this StarTeam Server configuration.

You can modify this information using the [-start](#) (or [-restart](#)) and `-tcpip` options from the command line or in the application on the **Protocol** tab of the **StarTeam Server Configuration** tab.

Use with: [-start](#), [-restart](#).

### Syntax

```
-tcpip Endpoint | up[:Endpoint] | down[:Endpoint]
```

### Example

```
starteamserver -start MyServer -tcpip 49201 starteamserver -start MyServer -tcpip up
```

## -u

Specifies the user name that the StarTeam Server configuration uses to access the database. The value you specify for `DBUserName` is stored in the `starteam-server-configs.xml` file. You can review or modify the database user name using the `-view` or `-edit` options from the command line. Be sure to also specify the password for this user account. Any modifications you make will take effect the next time you start the StarTeam Server configuration. Ensure that the user name and password you specify using the `starteamserver` command is a valid account in the database. The StarTeam Server configuration will fail to start if the user account is missing in the database.

Use with: `-new`, `-edit`, `-start`, `-p`, and `-restart`.

See also: `-t`, and `-dbservername`.

### Syntax

```
-u DBUserName
```

### Example

```
starteamserver -edit MyServer -u SuperUser -p SuperUserPassword
```

## -version

Displays the version and build number for the StarTeam Server.

### Syntax

```
-version
```

### Example

```
starteamserver -version
```

The StarTeam Server displays a message similar to the following:

```
StarTeam Server Version: x.x Build number: x.x.xxx
```

## -view

Lists the session properties of the specified StarTeam Server configuration.

### Syntax

```
-view ConfigurationName
```

### Example

```
starteamserver -view StarDraw
```

# Vault Verify Command-line Options

Below are descriptions of the command-line options for the Vault Verify utility.

In general, you can run Vault Verify from the command line as follows: `VaultVerify [options] "configuration"` .

Based on the default or given `-check` options, integrity checks are performed on the vault archive files for the specified StarTeam "server configuration". If you specify the `-repair` option, Vault Verify attempts to correct problems found. Vault Verify opens the database for the server configuration but does not modify it. Valid options for Vault Verify are described in the following table.

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-check {missing   corrupt   stray   all}</b> | Determines which integrity checks to perform: <ul style="list-style-type: none"><li><b>missing</b> Checks for missing files by comparing the database against archive files actually present.</li><li><b>corrupt</b> Checks the integrity of existing archive files (MD5, name, folder, and .gz file format).</li><li><b>stray</b> Checks for extraneous files based on the database. This option cannot be used if the server configuration is in use.</li><li><b>all</b> Performs all integrity checks.</li></ul> Multiple <code>-check</code> options can be specified. Also, see the <code>-repair</code> option. |
| <b>-cf &lt;folder path&gt;</b>                  | Path name of the <i>corrupt file folder</i> , where problem files found by the <code>corrupt</code> check are moved when <code>-repair</code> is specified. The default corrupt file folder is <code>C:\Temp\VVCorruptFiles</code> .                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>-dbhost &lt;host&gt;</b>                     | Specifies the host name of the database for the specified <server configuration>. On Microsoft Windows, it is only meaningful when <code>-dbinstance</code> is also provided. On Microsoft Windows and Linux, use this option only when the database server executes on a different host than this one.                                                                                                                                                                                                                                                                                                               |
| <b>-dbname &lt;name&gt;</b>                     | Specifies the database name for the specified <configuration>. On Microsoft Windows, this parameter is only meaningful when <code>-dbinstance</code> is also specified, and it is only needed when the database name is different than the database server name. On Linux, use this option only if <code>-dbinstance</code> is not used and the Oracle service name is different than the server name or SID.                                                                                                                                                                                                         |
| <b>-dbinstance &lt;name&gt;</b>                 | This option is only meaningful on Windows. When used, it causes <code>VaultVerify</code> to open the database directly instead of via the database server name specified in the configuration file. For Microsoft SQL Server, the <name> must be the instance name (for example, 'SSE2005_ST').                                                                                                                                                                                                                                                                                                                       |



**Note:** The default Instance name for Microsoft SQL Server is 'MSSQLSERVER' and for Microsoft SQL Server Express, it is 'SQLEXPRESS'. For Oracle, should be the service name, (for example, 'ORCL').

`-dbinstance` must be used with `-dbhost` when the database server executes on a different host. For SQL Server, `-dbname` should also be used if the database name is different than the Database Server Name. For Oracle, `-dbname` is ignored if `-dbinstance` is specified.

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>-dbpassword<br/>&lt;password&gt;</b>     | Specifies the database logon password. If not specified, a blank password is used. (The password stored in the configuration is encrypted and cannot be used by VaultVerify.) On server configurations running against Oracle, this option must be specified since the Oracle password is never empty.                                                                                                                                                                                                                                                                            |
| <b>-dbport &lt;port&gt;</b>                 | Specifies the TCP/IP port to use to connect to the database server. This parameter is only used on non-Microsoft Windows platforms when a different port is used than the vendor's default database port (for example, 1521 for Oracle).                                                                                                                                                                                                                                                                                                                                          |
| <b>-dbuser &lt;user&gt;</b>                 | Specifies the logon ID used to connect to the database. If specified, this parameter overrides the user specified in the StarTeam <configuration>. The only valid user to use with this option is the user that owns the StarTeam tables.                                                                                                                                                                                                                                                                                                                                         |
| <b>-help (or -h or -?)</b>                  | Displays this usage information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>-path &lt;folder path&gt;</b>            | Specifies the folder path of the <code>starteam-server-configs.xml</code> file. This file must exist and contain the specified <server configuration>. By default, this file is opened in the parent folder of the current working directory if it is not found in the current working directory.                                                                                                                                                                                                                                                                                 |
| <b>-nosharereport</b>                       | Suppresses the reporting of share information. Normally, all share paths of each corrupt file is reported. This option suppresses the share path information, which can speed up application execution and substantially reduce the report size.                                                                                                                                                                                                                                                                                                                                  |
| <b>-repair</b>                              | Specifies that an attempt should be made to correct archive file problems. 'Corrupt' archives are moved to the 'corrupt file folder' (see the <code>-cf</code> option). If they correspond to valid file revisions, they are then treated as missing. Missing archive recovery is attempted from other vault files and, if the <code>-useca</code> option is specified, from a Cache Agent. Stray archives are moved to the 'stray file folder' (see the <code>-sf</code> option).<br><br><b>Note:</b> <code>-repair</code> is ignored if the StarTeam <configuration> is in use. |
| <b>-sf &lt;folder path&gt;</b>              | Path name of the 'stray file folder', where extraneous files found by the 'stray' check are moved when <code>-repair</code> is specified. The default 'stray file folder' is <code>C:\Temp\VVStrayFiles</code> .                                                                                                                                                                                                                                                                                                                                                                  |
| <b>-t</b>                                   | Displays elapsed time information when the verification finishes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>-useca<br/>&lt;host&gt;:&lt;port&gt;</b> | If <code>-repair</code> is specified, this option enables attempts to recover missing files from the specified StarTeamMPX Cache Agent. The <host> and <port> must designate a remote Cache Agent because it maintains an independent cache.                                                                                                                                                                                                                                                                                                                                      |
| <b>-verbose</b>                             | Displays additional status information as the verification proceeds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>"configuration"</b>                      | Specifies the configuration name. The configuration name passed to VaultVerify is case-sensitive, and if it includes spaces, you must pass the configuration name to Vault Verify in quotation marks.                                                                                                                                                                                                                                                                                                                                                                             |

# VCM Command-line Utility

## Overview of the VCM Command-line Utility (VCMUtility)

The `VCMUtility` is a command-line utility that compares a StarTeam source view to a target view, and optionally merges the differences into the target view.

You can start a View Compare/Merge session from the command line and finish it in the StarTeam Cross-Platform Client in the View Compare/Merge UI. For example, you can use the `VCMUtility` to create a VCM session, perhaps using its `DefaultAction` option, but do not let it commit. It will automatically save the VCM session with any alternate name you choose if needed. You can then open that VCM session in the StarTeam Cross-Platform Client, review and make adjustments, then commit the changes to the repository.

### Syntax Conventions

The syntax for the command-line uses the following conventions.

**Curly braces { }** Encloses required syntax elements.

**Square brackets [ ]** Encloses optional elements

**Angle brackets < >** Encloses a word or phrase that must be replaced with an appropriate value, or set of values. For example, `<file name>` would be replaced by an actual filename or path, and `<userid>` would be replaced by an actual user ID. However, many of the words or phrases in angle brackets can be expanded into more complicated syntax. For example, `<change requests>` can be replaced by `CR`, `CRs`, `ChangeRequest`, `ChangeRequests`, `ChangeRequest *4277`, and so on. When you are not sure what can be used, see the `VCMUtility` “Cheat Sheet” topic in the `Reference/CompareMerge` section of the documentation. The “Cheat Sheet” provides the full syntax for phrases like `<change requests>`.

**Vertical bar |** Separates alternate elements.

**Prefixed with an asterisk \*** Indicates the following element can be repeated.



**Note:** All options are case-insensitive (for example, `Server` is the same as `server`).

### VCMUtility Command

```
VCMUtility [<options file>] [options] [options] [epwdfile file]
[DifferenceReport file][UpdateReport file]
```

You can provide options in the specified `<options file>` (as the first parameter), command-line arguments, or both. Command-line arguments override any options found in the `<options file>`. In the `<options file>`, the option name should begin as the first character on a new line and exclude the leading `-`.

## VCMUtility Options File

You can specify VCMUtility options in an options file whose name is passed as the first parameter of the VCMUtility command.

Example:

```
VCMUtility c:\VCMconfig.txt
```

Each option in the file must begin on a new line. Option names must begin in column 1 and be followed by at least one white space character. An option's value can flow onto multiple lines by starting each continuation line with a blank or tab character. Blank lines are ignored. You provide comments by prefixing them with a double forward-slash (//).

Example:

```
// This is a comment
server jsmith:mypw@somehost:49201
type Rebase
include "/Cygnus/StarTeam/<StarTeam Core>/Server/Common/*.h" +ALL
 *.cpp *.rc Makefile // long value continued on a second line

// The line above was blank
save
my-rebase-session // value provided on a separate line
```

## Command-line Parameters

VCMUtility options can be passed as command-line parameters by placing a dash in front of the option name. For example, the `server` option can be provided as a command-line parameter `-server`. If an option has secondary "value" tokens, they must immediately follow the option name (without a dash).

## Mixing Input Sources

VCMUtility options can be provided in an options file, with command-line parameters, or with a mixture of both. For example, commonly-used or "static" option values can be placed in the configuration file while "dynamic" values can be provided in command-line parameters.

A command-line parameter may specify the same option as defined in the configuration file. When a command-line argument specifies the same option as in the options file, the command-line option value overrides the configuration file option value. For example, if the configuration file specifies `Source View1` but the command-line specifies `-Source View2`, then `View2` is used as the source view.

## Option Values with Unicode Characters

The encoding of option values passed as command-line arguments is controlled by the launching environment (for instance, command shell). Consequently, on systems where option values must be passed to the VCMUtility that require characters not expressible by the launching environment, those options must be passed by way of the options file.

When the options file does not begin with a byte-order mark (BOM), it is opened with the system default character set (for example, ANSI [Windows-1252] on Windows, UTF-8 on Linux). If the options file begins with a BOM, it is interpreted with the corresponding encoding. UTF-8 and UTF-16 encodings allow the full set of Unicode characters to be provided in the options file.

For Reference, the BOM sequences are:

|                 |                           |
|-----------------|---------------------------|
| <b>0xEFBBBF</b> | UTF-8                     |
| <b>0xFEFF</b>   | UTF-16 BE (big-endian)    |
| <b>0xFFFE</b>   | UTF-16 LE (little-endian) |

## Boolean Options

The default for all Boolean options (whose value can be `True` or `False`) is `False`. However, specifying a Boolean option without an option value is the equivalent to specifying the value `True`. Thus, a Boolean option can be enabled by simply including it. Example:

```
// Set these options to True
AutoLogon
BreakLocks
```

## Abbreviations

In addition to their "long form" (shown in this document), most command and option names have one or more "short forms" or abbreviations. These alternate spellings help shorten `VCMUtility` command tails with lots of options. The full lists of abbreviations can be achieved by using the command `-Help abbreviations`. Example abbreviations are:

- `Help`: `H` or `?`.
- `ActiveProcessItem`: `ActivePI` or `API`.
- `SourceLabel`: `SrcLabel` or `SL`.

In most cases, a syntactic item spelled with mixed-case in this document can be abbreviated to its "capitals only" short form. For example, `ManualMergeFiles` can be `MMF`, or `AutoMergeProperties` can be `AMP`, and so on.

## Exit Codes

The VCM utility will return the following exit codes to indicate the results of its execution:

- 0 No errors occurred.
- 1 A fatal error occurred.
- 2 Partial success. This result is returned when the compare phase was performed, but the commit could not be performed due to unresolvable conflicts.

## VCMUtility Log Files

During its execution, the `VCMUtility` writes informational, warning, and error messages to the console window (standard out). For most operations, the `VCMUtility` also creates a log file that summarizes its operation. As with console window output, the log file is more detailed when the `Verbose` option is enabled. The log file is created for new VCM sessions and for the `Import`, `Open`, `Replay`, and `Resume` commands. However, the log file is not started unless command-line parameters and the options file, if used, have been parsed without errors. A log file is not created for the `Help` or `Delete` commands.

The `VCMUtility` log file is created in the user's home directory (what Java identifies as `user.home`) with the following file name:

```
VCMUtility-YYYY-MM-DD_hh-mm-ss.log
```

`YYYY-MM-DD` and `hh-mm-ss` are the current date and time in the local time zone. The full path name of the log file is written to the console window when the log file is started.

## VCMUtility Support for Change Packages

The `VCMUtility` supports change packages for any StarTeam configuration that has been upgraded to the 2009 release. Because change packages are persistent objects stored on the StarTeam Server, they offer many advantages and over VCM session (`.vcms`) and VCM export (`.vcmx`) files. Therefore, for StarTeam configurations that have been upgraded, change packages are preferred over session and export files for saving and resuming sessions. Correspondingly, the `Save` option without a parameter and the `Open` command are preferred over the `Save` option with a parameter, the `Resume` command, the `Export` command, and the `Import` command. However, for backward compatibility, the 2009

VCMUtility still supports commands that use VCM session files. See the `Open` command and the `Save` option for more information.

## VCMUtility Commands

This section defines VCMUtility functionality in terms of its utility execution commands. Each VCMUtility execution performs one command.

### VCMUtility Command

```
VCMUtility [<options file>] [options] [epwdfile file] [DifferenceReport file]
[UpdateReport file]
```

You can provide options in the specified `<options file>` (as the first parameter), command-line arguments, or both. Command-line arguments override any options found in the `<options file>`. In the `<options file>`, start option names in column 1 and exclude the leading "-"



**Note:** `epwdfile` and `pwdfile` are mutually exclusive. `DifferenceReport` and `ReportDiffs` are mutually exclusive. `UpdateReport` and `ReportUpdates` are mutually exclusive.

### VCMUtility Command Types

This section contains the VCMUtility command types. The default command type is a new VCM session.

#### New Session Command

By default, each VCMUtility execution begins a new VCM session unless the `Help`, **Open**, `Replay`, `Resume`, `Delete`, or `Import` command is explicitly given.

#### Help Command

?

```
Help [<option>]
```

Displays the VCMUtility Help. If you provide an `<option>`, help specific to that topic is displayed. For example, `Help MMF` would provide help on the `ManualMergeFiles` option.

#### Delete Command

```
Delete <VCM session file>
```

Specifies that the session stored in the specific `<VCM session file>` is to be deleted. All intermediate files (for example, merged result files) and the session file itself are deleted. However, if the session was previously saved as an uncommitted change package in the target view, the change package object is not deleted.

#### Import Command

```
Import <VCM exchange file>
```

The `Import` command is identical to the `Resume` command except that the `<VCM exchange file>` passed to it must be a VCM exchange file (`.vcmx`) previously created by an `Export` command. The imported VCM session is resumed where it left off:

- The compare phase is performed if it has not yet successfully completed.
- Manual merging is performed if `ManualMergeFiles` is specified and existing file merge conflicts exist.

- The target view "merge preview" is checked out if `CheckoutPreview` is specified and `commit` has not yet been performed.
- The differences report is generated if `ReportDiffs` is specified and `commit` has not yet been performed.
- The commit phase is performed if `CommitMerge` is `True` and `commit` has not yet been performed.
- The update report is generated if `ReportUpdates` is specified and `commit` has been performed.

`Export` and `Import` can be used together to "transport" a VCM session from one workstation to another. For example, one user could create a new VCM session, resolve all conflicts, then `Export` the session. The resulting archive file could then be transferred to a test machine, where the `Import` command can be used with the `CheckoutPreview` option (with `CommitMerge` set to `False`) to check out, build, and test the target merge "preview". If tests succeed, the test machine could then execute a `Resume` command and set `CommitMerge` to `True`.



**Note:** Sessions resumed by way of the `Resume` or `Import` command are automatically saved if they are not committed. If the `Save` option is specified, the session is saved in the specified `<VCM session file>`. Otherwise, the VCM session file specified by a `Resume` command is used; an automatically-generated VCM session filename is used for an `Import` command.

## Open Command

`Open <Change Package name>`

Resumes a VCM session previously saved as a change package with the given name. This option is only available on servers that support change packages. The specified name must be the default or user-specified name of a saved, uncommitted change package belonging to the specified `Project` and `TargetView`, which are required. Also, the session must not be locked by another user, which typically indicates that it has already been opened by that user.

For additional information, see the `Name`, `Save`, `Import`, and `Resume` commands.

## Replay Command

`Replay <Change Package name>`

Creates a new VCM session by "replaying" a previously-committed change package to a new target view. This command is only available when the server supports change packages. The named Change Package must belong to the project specified by the `Project` option and the view identified by the `SourceView` option. (Since committed change packages "belong" to the target view they update, the target view of the change package to be replayed is always the source view for the new session.)

When the `Replay` command is used, the `TargetView` should be specified, allowing the `MergeType` of the new session to be chosen automatically based on the relationship between the two views:

- If the target view is a child of the source view, a `Rebase` session is performed.
- If the target view is the parent of the source view, a `Promote` session is performed.
- Otherwise, a `Replicate` session is performed.

Alternatively, you can specify a `MergeType` of `Promote`, in which case the target view is not needed.

A replay VCM session attempts to make the same changes in the new target view that were made in the specified change package. This means that the source scope of the new VCM session is automatically chosen. Consequently, the `Include` and `Exclude` options are not allowed. In a replay session, some changes made in the original change package might not be possible in the new target view (such as when a new version is already present). Some changes may need to be applied in a different way (for example, `Move-and-Merge` instead of `Merge`), and new conflicts could appear (such as `Merge` instead of `Repin`). The replay session can be committed only if no unresolved conflicts occur.

## Resume Command

```
Resume <VCM session file>
```

Specifies that the session saved in the given <VCM session file> is to be resumed instead of creating a new session. This is typically used to perform the commit phase of a previous session for which only the compare phase was performed. A session that has already been committed can also be resumed, but only to generate a difference report. For more information, see the `Export` option and the `Import` command.

# VCMUtility Connection Options

This section defines `VCMUtility` functionality in terms of its connection options.

## AutoLogon

```
AL
```

```
AutoLogon [True] | [False]
```

If a <user> is not specified in the `Server` option, `AutoLogon` requests an attempt be made to log on using the userid/password for the specified StarTeam Server, as stored by the StarTeam **Toolbar Utility**.

## Encryption

```
Encrypt
```

```
En
```

```
Encryption {NONE | RC4 | RC2_ECB | RC2_CBC | RC2_CFB}
```

Specifies the encryption level of the server connection. The default is `NONE`. However, due to SDK behavior, if necessary, the `VCMUtility` will automatically upgrade the encryption level to the minimum value required by the StarTeam server.

## EPwdFile

```
EPF
```

```
EPwdFile <file name>
```

Specifies a file that contains the encrypted logon password. `-EPwdFile` overrides the <password> if provided in the `Server` parameter.

## PwdFile

```
PF
```

```
PwdFile <file name>
```

Specifies a file that contains the logon password. `-PwdFile` overrides the <password> if provided in the `Server` parameter.

## Server

```
S
```

```
Server [<user>[:<password>]@]<host>[:<port>]
```

Specifies the StarTeam server to which the VCM Utility will connect.

- If <user> and `AutoLogon` are not specified, the logon <user> defaults to "Administrator."
- If <password> and `PwdFile` are not specified, the `VCMUtility` prompts for the password.

- If a <user> or <password> contains the characters ":" or "@", or a blank, it must be enclosed in single or double quotes.
- If a <user> or <password> is quoted, it can contain an embedded quote of the same type by escaping (preceding) it with a backslash (\).
- If a quoted <user> or <password> contains an embedded backslash, it must be escaped with another backslash. For example, a double backslash within a quoted token is interpreted as a single backslash.
- The server <host> can be a host name or IP address. The <host> is required if the `Server` option is specified.
- If the `Server` option is not specified, the <host> defaults to **localhost**. If not specified, the <port> defaults to 49201.

## UseCA

UCA

```
UseCA {<host>:<port> | AutoLocate}
```

Specifies that file check-outs should attempt to use an MPX Cache Agent. The Cache Agent can be explicitly provided with a host name or address (<host> and port number (<port>), or the network-nearest Cache Agent can be automatically located (`AutoLocate`).

## UseServerProfile

USP

```
UseServerProfile [True | False]
```

If true, specifies that the <host> name specified in the `Server` option should be interpreted as a server profile name. Server profiles are stored in the user's `starteam-servers.xml` file. A server profile specifies a StarTeam server host name, port number, encryption level, and compression setting. Consequently, when `UseServerProfile` is specified, the `Server` option must be specified but should not contain a port number, and the `Encryption` option should not be specified.

# VCMUtility Session Options

Session Options are grouped into two sections: "New Session Options" and "Resumed Session Options".

## New Session Options

This section contains the `VCMUtility` session options.

| Session Options            | Description                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AutoMergeFiles</b>      | AMF<br><br><code>AutoMergeFiles [True   False]</code><br><br>If <code>True</code> , requests automatic merging of files found in the compare phase in a merge state. When an auto-merge is successful, the result file is retained as part of the VCM session. Otherwise, the result file is discarded and the affected files remain in an unresolved merge state. <code>AutoMergeFiles</code> is ignored for Compare sessions. |
| <b>AutoMergeProperties</b> | AMP<br><br><code>AutoMergeProperties [True   False]</code>                                                                                                                                                                                                                                                                                                                                                                      |

## Session Options

## Description

If `True`, requests automatic merging of properties for items found in the compare phase in a merge state. If property auto-merging is successful, the merged item is retained as part of the VCM session. Otherwise, the merged item is discarded and the items are flagged as being in an unresolved property merge state. `AutoMergeProperties` is ignored for Compare sessions.

## BreakLocks

BL

```
BreakLocks [True | False]
```

If `True`, requests that an attempt is made to break any lock found on items used in the compare phase. Breaking a source or target item lock is only required when the lock is owned by another user. Lock breaking requires a special permission and may not be successful. `BreakLocks` is ignored for Compare sessions.

## CaseSensitiveFileNames

CSF

```
CaseSensitiveFileNames [True | False]
```

If `True`, considers file names different only by case as unequal for purposes of evaluating the `PreventDuplicateFileNames` option and for matching files between source and target views.

## CheckoutPreview

Checkout

CP

```
CheckoutPreview <files> [<check-out options>]
```

This option specifies that files within a "merge preview" are to be checked out to the client workspace. A "merge preview" is a simulation of the target view updated with all changes in the VCM session. The `<files>` syntax allows file names and/or patterns to be checked out from specified folders in the merge preview. The optional `<check-out options>` control options such as where files are to be checked-out and what status of files should be checked-out.

When `CheckoutPreview` is specified, files are checked out after the compare phase, after auto- and manual-merging has occurred, but before a commit occurs. The check-out occurs only if the VCM session has no file content merge conflicts. If merge conflicts exist, an error is displayed, and no merge is performed, regardless of the `CommitMerge` option. If no merge conflicts exist and `CommitMerge` is `True`, the VCM session is committed after the check out is performed.

Example:

```
CheckoutPreview /src/com/acme/*.java +cwf +eol LF
+filter CGMIOU +o +ro
+rp C:\BuildDir
```

## CommitMerge

Commit

CM

```
CommitMerge [True | False]
```

## Session Options

### Description

Specifies whether or not the results of VCM session should be committed. `False` specifies that a commit will not be performed. This option can be used to produce a compare/report-only session. `True` specifies that the commit should occur only if there are no unresolved conflicts. `CommitMerge` is ignored for Compare sessions.

## CustomDifferenceTypes (CDT)

If specifying this parameter, provide a custom VCM merge type name (created on the **Customize VCM** tab in the Server Administration Tool) in which individual difference types can be overridden at will.

For instance, Modified In Source, Modified In Target has a default action of Merge. This can be overridden to OVERWRITE. Similarly, Target View has Multiple Floating Shares has a default action of Needs Review. This can be overridden to IGNORE.

Using Custom Difference Types provides an alternative mechanism to specifying either Match States or Session Option Properties, such as Lock Source for Difference and Ignore Merge Points, for example. Specifically, the values of the difference type actions and session properties from Custom Difference Types override anything equivalent specified through the `vcutility` command line.

Besides supporting tracking all configuration options through the Server Administration Tool, using this parameter also has the added advantage of simplifying and minimizing the `vcutility` parameter set.

Below is an example of content in the `vcutilityoptions.txt` file that specifies the following: run a promote from StarDraw Release 1.0 Maintenance to StarDraw in project StarDraw using a custom merge type called `vcutilityConfig`. The custom merge type `vcutilityConfig` was first created and saved using the Server Administration Tool.

```
Server Administrator:Administrator@localhost:49201
Project StarDraw
MergeType Promote
TargetView StarDraw
SourceView StarDraw/Release 1.0 Maintenance
CustomDifferenceTypes vcutilityConfig
CommitMerge False
```

## DefaultAction

DA

```
DefaultAction [MergeType <merge type>] [ItemType <item
type>] <match state> <action>
```

Specifies a default `<action>` for items that are compared and meet the conditions specified in the given `<match state>`. The VCM utility uses a rules-based "decision table" to determine what action, if any, should be taken when it finds item differences between the source and target views. The `DefaultAction` option allows the default rules to be overridden. This option can be specified multiple times to change the default action for multiple differences. However, the order of definition is important: if two overrides are both applicable to an item difference found in the compare phase, the last override specified takes precedence over the prior one.

## Session Options

### Description

- If MergeType is specified, the DefaultAction only applies to VCM sessions of the specified <merge type>: Rebase, Promote, or Replicate.
- If MergeType is not specified, the DefaultAction applies to the current VCM session.

Specifying a DefaultAction with a different <merge type> than that of the current session allows rules used by different VCM sessions to be specified in a single options file.

If ItemType is specified, the DefaultAction applies only to items of the specified <item type>: CRs, Files, Folders, Requirements, Tasks, or Topics. By default, a DefaultAction applies to items of all types.

The <match state> determines the conditions that must be met by the source and/or target items during comparison. A <match state> consists of one or more source/target <item condition> definitions, each of which has a <condition name> (for example, source.moved), and a <condition value> (True, False, or Unspecified). The <condition value> is optional and defaults to True. A <match state> is the union of all the conditions defined for it.

The <action> determines how to handle source/target item pairs whose differences match the <match state>. The <action> merely defines the default action for matching items; the actual action can be changed after compare in the StarTeam Cross-Platform Client.

Some example DefaultAction definitions are shown below:

```
//When a source item has moved, but the target item
has not,
//ignore the move.
DefaultAction source.moved target.moved false Ignore

//In a Rebase, if a file is binary and has been
modified in both the
//source and target, overwrite the target with the
source version.
DefaultAction MergeType Rebase
 items.binaryfile
 source.modified
 target.modified
 Overwrite

//In a Promote, if a CR has moved in both the source
and target views
//(to different folders), move the target item to the
matching folder as
//the source item, but only if the CRs are on the
same branch.
DefaultAction MergeType Promote ItemType CR
 source.moved
 target.moved
 items.branched false
 Move
```

DefaultAction is ignored for Compare sessions.

## DefaultComment

DC

## Session Options

### Description

```
DefaultComment <comment>
```

Specifies the default revision comment to be used for new item revisions created in the target view. The <comment> is a free-form text string. Within the comment value, all white space sequences, including line breaks (CRs and LFs), blanks, and tabs, are converted into a single blank for each occurrence. By default, an auto-generated comment is used as the default revision comment for new item revisions. To disable the use of a default revision comment, specify the `DefaultComment` option with an empty value.

`DefaultComment` is ignored for Compare sessions.

## DifferenceReport

```
DR <pathToReportfile>
```

Specifies a path and file name to which the difference report will be written

## Exclude

Exclude the specified folders from the source scope. Only folders explicitly specified in `Exclude <files>` or `Exclude <folders>` are excluded. Consequently, an `Exclude <folders>` option can be used to "prune" unwanted folders from the source scope.

For Example:

```
// suppose we decide to explicitly include CRs and
files in all folders below /a/b/
Include /a/b/ +all CRs Files

//But we want to exclude CRs in folder /a/b/c/
Exclude /a/b/c/ CRs OR
Exclude /a/b/c/ +all CRs

//But if this CR is in folder /a/b/c/, it is still
included
Include CR 12345
```

Regardless of declaration order, `Exclude` options are processed after `Include` options.



**Note:** `+all` specifies the inclusion or exclusion of all descendant folder trees. The folder path specified is always relative to the root folder, but DOES NOT contain the root folder name. For instance, if the root folder is `StarDraw` and the folder tree is `Source Code/External Resources`, then the `Include` or `Exclude` syntax must be specified as

```
/Source Code/External Resources/
```

It cannot be specified as

```
/StarDraw/Source Code/External Resources/
```

Attempting to do so will result in a syntax error being reported by `vcutility`.

## Include and Exclude Semantics

If no `Include` options are specified, the default VCM session scope is implicitly "all files in the source view". This is equivalent to explicitly specifying `include /* +all`. If at least one `Include` option is specified, the scope is explicitly limited to those items selected by

## Session Options

### Description

Include statements. In both implicit and explicit scopes, all selected source items are pruned by any Exclude options.

All Include and Exclude options must identify objects (labels, files, CRs, and so on) in the source view. Also, selection type names can be singular or plural (RevLabel, CR, and so on), even if multiple values are provided.



**Note:** Exclude options are always processed after Include options, regardless of declaration order. Therefore, Exclude /src/foo/bar/ followed by Include /src/foo/+all causes folder /src/foo/bar/ to be excluded.

## Export

Exp

```
Export <VCM exchange file>
```

The Export option specifies that all the VCM session information, including merged result files, are to be combined and stored in the given <VCM exchange file>. The exchange file name is always suffixed with a .vcmx extension. A VCM exchange file allows the entire VCM session to be transported to another machine, allowing that machine to perform an Import command, which resumes the session. (See the Import command for more information.)

If the <VCM exchange file> does not contain path information, it is saved in the user's home directory (what Java identifies as user.home).



**Note:** The Export option always causes the VCM exchange file to be created, even when the session itself is not saved. See the Save option for more information.

## FixFloatingChildShares

FFCS

```
FixFloatingChildShares [True | False]
```

Specifies whether, in Rebase and Replicate merge operations, each target view item found that is a floating share of a source view item should be “fixed” by pinning it. When a target view item is a floating child share of a source item (which implies that the target item has not branched), differences will not be detected between the source and target item during VCM sessions because changes to the source item immediately float to the child item. VCM best practices suggest that child shares should always be pinned, allowing changes to propagate from the source to target view in a controlled manner. This option allows floating child items found by VCM to be “fixed” by pinning them to the parent item revision. Specifying this option has a performance cost due to the extra commands required to check each target item examined during the compare phase.

## IgnoreMergePoints

IMP

```
IgnoreMergePoints [True] | [False]
```

Specifies whether merge points should be ignored during the comparison phase. If True, items with merge conflicts use their branch point as the common ancestor instead of the source revision of the last merge point.

## Include

Inc

## Session Options

### Description

```
Include {<change requests> | <files> | <folders> |
<process items> | <requirements> | <revision labels |
<tasks> | <topics> }
```

Includes the specified items in the source scope. The `Include` option can be provided multiple times, causing all selected items to be included. Only one item selection type (revision labels, change requests, and so on) can be specified with each `Include` option. The selection type keyword, which is optional for files and folders, can be singular or plural, for example, `ProcessItem` or `ProcessItems`.

#### Examples:

```
Include CRs ALL
Include /src/com/*.java +all *.jar +2 *.jspx
Buildnumber.h
Include Folders /docs/api/ +all
Include ProcessItem CR 451
Include Reqs 4515 4516
Include RevLabel "Beta Fix 12.413"
Include Topic 14512
Include Task 413
```

## LockMergeConflicts

LMC

```
LockMergeConflicts {None | Source | Target | Both}
```

Specifies that items with unresolved conflicts are to be locked exclusively in either the Source, Target, or Both views. Locks are acquired in the compare phase. `None` is the default, which specifies that no locks are to be created for items with unresolved locks. Note that locks are only applied to source and/or target items for which differences are found. Locks are not applied to items that are compared for which no differences are found. Also, note that this option is not affected by the Project option **Require exclusive comment when files are checked in** nor the client workstation option **Exclusively lock files on check-out**. Those options are properly handled by the VCM engine. `LockMergeConflicts` is ignored for Compare sessions.

## ManualMergeFiles

MMF

```
ManualMergeFiles [True | False]
```

If `True`, this causes the file merge tool configured for the workstation to be launched for each source/target file pair found in a content merge state.

The `ManualMergeFiles` option can be used in conjunction with `AutoMergeFiles`:

- If a merge conflict is detected and `AutoMergeFiles` is requested, an auto-merge attempt is made first.
- If the conflict is resolved, the merged result file is saved, and a manual merge is not needed.
- If the auto-merge is not successful, or if `AutoMergeFiles` has not been requested, then if `ManualMergeFiles` is `True`, a manual file merge is performed.

## Session Options

## Description



**Note:** `ManualMergeFiles` is ignored (and a warning is displayed) if the workstation has no manual merge tool configured. Also, if the manual merge tool cannot be launched, or returns an error condition, the affected file remains in an unresolved conflict state. `ManualMergeFiles` is ignored for Compare sessions.

## Match

```
Match [Folder] *{<folder path> to <folder path>}
```

Specifies that for comparison purposes, the folder specified in the first `<folder path>`, which must reside in the source view, should match the second `<folder path>`, which must reside in the target view. The `Match` option is sometimes needed to prevent “ambiguous match” conditions, which can occur when one of the views is a non-derived view. Typically, the `Match` option is only needed to match the source and target view root folders. However, other folders can be matched to resolve other ambiguous match conditions reported by the compare phase.

Both the source and target `<folder path>` must begin and end with a forward slash (“/”).

By convention, the root folder is represented by a single “/”. This means that the root folder name should not be provided in folder paths. For example, if the root folder is named “StarDraw”, the folder path for the immediate child folder “Source Code” is simply `"/Source Code/"`.

Examples:

```
// Force the source and target root view folders to match.
Match / to /
```

```
//Force the source view folder "/Source Code" to match the target view
//folder "/Modules/Materials/src".
Match "/Source Code/" to "/Modules/Materials/src/"
```

## MergeType

Type

MT

```
MergeType {Compare | Rebase | Promote | Replicate}
```

Specifies whether to perform a Compare session or a Rebase, Promote, or Replicate merge session. If only a `SourceView` is specified, `MergeType` defaults to Promote. If only a `TargetView` is specified, `MergeType` defaults to Rebase. If both `SourceView` and `TargetView` are specified, `MergeType` must be specified. For a Compare session, the source and target views can be the same.

## Name

Na

```
Name <Change Package name>
```

Specifies the name of the change package associated with the VCM session. For servers that support change packages, a name is automatically chosen when a change package is created by saving or committing the session. This option allows a specific name to be used instead of the default name. However, the name must be unique from all

## Session Options

## Description

other change package names already saved or committed for the target view, otherwise the save or commit action will fail.

When the `Name` option is used in conjunction with the `Open` command, the opened change package is renamed to the given value.

Also see the `Save` and `CommitMerge` options.

## PostCommitLabel

```
PostCL
```

```
PostCommitLabel <label>
```

If the VCM session is committed, the given *view* `<label>` is created in the target view after all updates are performed. The label reflects the revisions of all target view items used during the compare phase, *modified* by the changes made by the commit phase. This means the label contains new items, new item revisions, and item moves, but items deleted by the commit will be detached from the label. The post-commit label is essentially identical to the "pre-merge view". `PostCommitLabel` is ignored for Compare sessions.

By default, a post-commit view label is created with a default name. To disable the post-commit view label, specify `PostCommitLabel` with a blank value (that is, " ").

## PostCommitRevLabel

```
PostRL
```

```
PostCommitRevLabel <label>
```

If the VCM session is committed, the given *revision* `<label>` is created in the target view, and all items modified by the VCM session, except for deleted items, are attached to it. Consequently, the label contains items that were added, moved, re-pinned, or updated in any other way (except for deletion) by the VCM session. `PostCommitRevLabel` is ignored for Compare sessions.

By default, a post-commit revision label is not created.

## PreCommitLabel

```
PreCL
```

```
PreCommitLabel <label>
```

The given *view* `<label>` is created in the target view, reflecting the snapshot used in the compare phase. The label reflects the revisions of all target items used during the compare phase. `PreCommitLabel` is ignored for Compare sessions.

By default, a pre-commit view label is not created.

## PreCommitRevLabel

```
PreRL
```

```
PreCommitRevLabel <label>
```

If the VCM session is committed, the given *revision* `<label>` is created in the target view, and all non-ignored target view items are attached to it in their "before" state. That is, target view items to be modified by the session are attached to the revision label before they are modified. This means that items to be added (for example, shared) to the target view will **not** be attached, but items to be deleted **will** be attached.

`PreCommitRevLabel` is ignored for Compare sessions.

| <b>Session Options</b>           | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | By default, a pre-commit revision label is not created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>PreventDuplicateFileNames</b> | PDF<br><br>PreventDuplicateFileNames [True   False]<br><br>If True, it specifies that sharing a new file to the target view is not allowed if it results in two identically-named files to exist in the same folder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Project</b>                   | Pro<br><br>Project <project><br><br>Specifies the project to be used in the VCM session. This option is required. The source and target views must belong to the same <project>. Project names are case-insensitive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ReportDiffs</b>               | RD<br><br>ReportDiffs [True   False]<br><br>If True, causes a report to be generated listing item differences found in the compare phase. The difference report is generated in the user's home directory (what Java identifies as <code>user.home</code> ) with the following title:<br><code>VCMDiffReport-YYYY-MM-DD_hh-mm-ss.html</code><br><br>where YYYY-MM-DD and hh-mm-ss are the current date and time in the local time zone.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ReportUpdates</b>             | RU<br><br>ReportUpdates [True   False]<br><br>If True, causes a report to be generated listing all changes made to the target view in the commit phase. The update report is generated in the user's home directory (what Java identifies as <code>user.home</code> ) with the following title:<br><code>VCMUpdateReport-YYYY-MM-DD_hh-mm-ss.html</code><br><br>where YYYY-MM-DD and hh-mm-ss are the current date and time in the local time zone.<br><br>ReportUpdates is ignored for Compare sessions.                                                                                                                                                                                                                                                                                                                                                   |
| <b>Save</b>                      | Save [<VCM session file>]<br><br>Specifies that the VCM session is to be saved. By default, uncommitted VCM sessions are automatically saved to a VCM session ( <code>.vcms</code> ) file with a default name using the format:<br><code>&lt;user home&gt;/VCMSession-YYYY-MM-DD_hh-mm-ss.vcms</code><br><br>where YYYY-MM-DD_hh-mm-ss is the date and time when the session is saved. The folder <user home> is the user's home directory.<br><br>If the Save option is specified with a <VCM session file> name, an uncommitted session is saved with the given file name instead of the default name. If needed, <code>.vcms</code> is appended to the name. If the given file name does not contain path information, the session file is stored in the <code>user.home</code> folder. A <code>.vcms</code> file contains VCM session metadata, but not |

## Session Options

### Description

the contents of merged files. Merged file contents are stored in a user-relative temporary folder, referenced by elements in the session file. Consequently, a `.vcms` file can only be used to resume the VCM session on the same workstation. (See the `Resume` command.)

When the `Save` option is specified without a file name, an attempt is made to save an uncommitted VCM session as an active change package in the target view. The change package is saved with the default or user-specified name (see the `Name` option). A VCM session saved as a change package can later be resumed on any workstation using the `Open` option. However, if the server does not support change packages or a server-side save is unsuccessful, the session is instead saved to a `.vcms` file with a default file name as described above.

When a commit is successfully performed, the `Save` option is ignored. If the server supports change packages, the committed session creates a Committed change package using the default or user-specified name (see the `Name` option). If a `.vcms` file was previously created, it is deleted along with all merged result files created by the VCM session.

Also see the `Export` option.

## SourceLabel

```
SrcLabel
```

```
SL
```

```
SourceLabel <label>
```

Requests the source view to be used as of a given view label. Label names are case-insensitive. Only one of `SourceLabel`, `SourceState`, and `SourceTime` can be specified. If none of these options is specified, the option `SourceTime Now` is implicitly used.

## SourceState

```
SrcState
```

```
SS
```

```
SourceState <state>
```

Requests the source view to be used as of a given view promotion state. Promotion state names are case-insensitive. Only one of `SourceLabel`, `SourceState`, and `SourceTime` can be specified. If none of these options is specified, the option `SourceTime Now` is implicitly used.

## SourceTime

```
SrcTime
```

```
ST
```

```
SourceTime {<timestamp> | Now}
```

Requests the source view to be used as of a given timestamp. The keyword `Now` causes a snapshot of the current time to be used as configuration timestamp. Only one of `SourceLabel`, `SourceState`, and `SourceTime` can be specified. If none of these options is specified, the option `SourceTime Now` is implicitly used.

## SourceView

```
Source
```

```
SV
```

```
SourceView <view>
```

## Session Options

## Description

Specifies the source view to be used in the VCM session. If more than one view within the project has the same `<view>` name, a slash-separated "view path" can be provided (for example, `MainView/ChildView/GrandchildView`). If a view name contains embedded slashes, it must be enclosed in quotes.

`SourceView` is optional for Rebase merges; if specified, it must be the parent of the target view.



**Note:** View names are case-insensitive.

## TargetLabel

`TgtLabel`

TL

`TargetLabel <label>`

Requests the target view to be used as of a given view label.

`TargetLabel` can only be used for Compare sessions. Label names are case-insensitive. Only one of `TargetLabel`, `TargetState`, and `TargetTime` can be specified. If none of these options is specified, the option `TargetTime Now` is implicitly used.

## TargetState

`TgtState`

TS

`TargetState <state>`

Requests the target view to be used as of a given view promotion state. `TargetState` can only be used for Compare sessions. Promotion state names are case-insensitive. Only one of `TargetLabel`, `TargetState`, and `TargetTime` can be specified. If none of these options is specified, the option `TargetTime Now` is implicitly used.

## TargetTime

`TgtTime`

TT

`TargetTime {<timestamp> | Now}`

Requests the target view to be used as of a given timestamp.

`TargetTime` can only be used for Compare sessions. The keyword `Now` causes a snapshot of the current time to be used as configuration timestamp. Only one of `TargetLabel`, `TargetState`, and `TargetTime` can be specified. If none of these options is specified, the option `TargetTime Now` is implicitly used.

## TargetView

`Target`

TV

`TargetView <view>`

Specifies the target view to be used in the VCM session. If more than one view within the project has the same `<view>` name, a slash-separated "view path" can be provided (for example, `MainView/ChildView/GrandchildView`). If the view name contains embedded slashes, it must be enclosed in quotes.

## Session Options

### Description

`TargetView` is optional for Promote merges; if specified, it must be the parent of the source view. For Compare sessions, the target view can be the same as the source view.



**Note:** View names are case-insensitive.

## UpdateReport

UR <pathToReportfile>

Specifies a path and file name to which the update report will be written

## Resumed Session Options

So that the same options file can be specified for a `Resume` command, all options allowed for new sessions can also be specified for resumed sessions. However, most options, if re-specified, are ignored because they cannot be modified once the session has been started. The only exceptions are the options specifically outlined below:

### Connection options

Since connection information (server address and port, userid, and password) are not persisted in the VCM session file, connection information must be re-specified for resumed sessions. However, a resumed session will fail if it is not reconnected to the same StarTeam server or if a different user is used that has permission conflicts with the views or items used in the VCM session.

### CommitMerge

This option will commonly be specified to `True` in a resumed session. This allows the original VCM utility execution to be used as a compare-only run and a second VCM utility execution to be used as a commit run.

### ReportDiffs

This option can be specified in a resumed session. If true, a difference report is created before the commit phase, if any.

### ReportUpdates

This option can be specified in a resume session. If true and the commit phase is successfully performed, all changes made to the target view are reported.

### CheckoutPreview

Normally, if `CheckoutPreview` was specified in the original VCM session, the “merge preview” check-out operation is performed in the resumed session with the same options as before. However, if `CheckoutPreview` is specified in the resumed session, it overrides the original option and causes files to be checked-out in the resumed session according to the new settings.

### Description

If specified, this option overrides the default or previously-provided Change Package description text. The new description text is used for the new Change Package revision created when the VCM session is saved or committed.

### ManualMergeFiles

Normally, if `ManualMergeFiles` was specified in the original VCM session, and the session is saved with unresolved file merge conflicts, the manual file merge phase will be performed again when the session is resumed. However, if `ManualMergeFiles` was not specified in the original VCM session, it can be specified as `True` in the resumed session to invoke the manual merge phase. Alternatively, it can be specified as `False` in a resumed session to prevent the manual merge phase.

### PostCommitLabel, PostCommitRevLabel,

If any of these label options are specified in a resumed option, they override the previous value for the corresponding label. When a label option is set to a

**PreCommitLabel, and  
PreCommitRevLabel**

blank (" "), the corresponding label option is disabled and will not be created in the commit phase.

## VCMUtility Miscellaneous Options

This section defines `VCMUtility` miscellaneous options that are not saved in view compare/merge sessions.

### NetMon

NM

NetMon [True | False]

Enables the SDK net monitor feature. Each command issued by the `VCMUtility` to the StarTeam Server is logged to the console window (but not the `VCMUtility` log file).

### Time

T

Time [True | False]

Causes timing information to be displayed for each phase of the VCM session performed. Timing information is written to both the console window and the `VCMUtility` log file.

### Verbose

vb

V

Verbose [True | False]

Causes additional diagnostic and progress information to be displayed to the console (standard output) and to the `VCMUtility` log file during execution.

## VCMUtility Examples

This topic presents examples of using the `VCMUtility` for various types of merges.

### Hello World Rebase

Below are the options for the "Hello World" equivalent of a `VCMUtility` Rebase run:

```
Type Rebase
Project Hello
Target World
```

### Automatic Rebase

The options file below performs the same Rebase as in the previous example, but it commits if possible and provides detailed reporting on the results:

```
Type Rebase
Project Hello
Target World
CommitMerge True
LockMergeConflicts Both
```

```
// All of these options are set to True:
AutoMergeFiles
BreakLocks
ReportDiffs
ReportUpdates
```

All files are auto-merged both in content and properties. Files that are in conflict but cannot be resolved are locked in both the source and target views. Existing lock conflicts are broken if possible. If no unresolved conflicts are encountered, the session is committed. Details of both the compare phase (differences) and commit phase (updates) are reported. If the commit is successful, all VCM session temporary files are deleted.

### Promote by View Label: Compare Only

The options below perform a compare-only promote of files and CRs as of a view label, saving the session in a specific session filename:

```
// Connection settings
Server MyUserid@ProdServer:4000
PwdFile MyPassword.txt

// Merge type and view configuration
Type Promote
Project StarDraw
Source "Beta Release"
SrcLabel Build-4.0_142

// Select all files and CRs as source items
include /* +all
include / +all CRs

// Compare-only, report, and save with a specific session filename
CommitMerge False
save Build-4.0_142-Promote
ReportDiffs

//Miscellaneous options
AutoMergeFiles True
AutoMergeProperties False // leave these as conflicts and merge manually
LockMergeConflicts Target
```

### Promote by View Label: Merge

The VCM utility command-line below resumes the session saved in the previous example and commits it, assuming no new conflicts have occurred.

```
VCMUtility -resume Build-4.0_142-Promote -CommitMerge -ReportUpdates
```

## Cheat Sheet

VCMUtility command-line syntax: `VCMUtility [<options file>] [*<option>]`

Within the <options file>, each <option> must begin in column 1 but can continue on subsequent lines if those lines begin with a space or tab character. When typing options in the command line, each <option> must be preceded with a "-".

### Options

The information below lists all the VCMUtility command-line options and their syntax.

```
<option>
 <command> | <connection option> | <session option> | <miscellaneous option>
```

**<command>** {{Help | H | ?} [<help topic>]} |  
 {Delete <VCM session file>} |  
 {Import <VCM archive file>} |  
 {Open <Change Package name>} |  
 {Replay <Change Package name>} |  
 {Resume <VCM session file>}

**<connection option>** {{AutoLogon | AL} [True | False]} |  
 {{Encryption | Encrypt | En} {None | RC4 | RC2\_ECB | RC2\_CBC | RC2\_CFB}} |  
 {{PwdFile | PF} <file name>} |  
 {{Server | S} [<user>[:<password>]@<host>[:<port>]} |  
 {{UseCA | UCA} {<host>:<port> | AutoLocate}} |  
 {{UseServerProfile | USP} [True | False]}

**<session option>** {{AutoMergeFiles | AMF} [True | False]} |  
 {{AutoMergeProperties | AMP} [True | False]} |  
 {{BreakLocks | BL} [True | False]} |  
 {{CaseSensitiveFileNames | CSF} [True | False]} |  
 {{CheckoutPreview | check-out | CP} <files> [<check-out options>]} |  
 {{CommitMerge | Commit | CM} [True | False]} |  
 {{DefaultAction | DA} [MergeType <merge type>] [ItemType <item type>] <match state> <action>} |  
 {{DefaultComment | DC} <comment>} |  
 {{Description | } <description>} |  
 {{Exclude | Exc} <folders>} |  
 {{Export | Exp} <VCM archive file>} |  
 {{FixFloatingChildShares | True | False]} |  
 {{IgnoreMergePoints | IMP} [True | False]} |  
 {{Include | Inc} {<change requests> | <files> | <folders> | <process items> | <requirements> | <revision labels> | <tasks> | <topics>}} |  
 |  
 {{LockMergeConflicts | LMC} {None | Source | Target | Both}} |  
 |  
 {{ManualMergeFiles | MMF} [True | False]} |  
 {{Match [Folder] \*{<folder path> to <folder path>}} |  
 {{MergeType | Type | MT} {Compare | Rebase | Promote | Replicate}} |  
 {{Name | Na} <Change Package name>} |  
 {{PostCommitLabel | PostCL} <label>} |  
 {{PostCommitRevLabel | PostRL} <label>} |  
 {{PreCommitLabel | PreCL} <label>} |  
 {{PreCommitRevLabel | PreRL} <label>} |  
 {{PreventDuplicateFileNames | PDF} [True | False]} |  
 {{Project | Pro} <project>} |  
 {{ReportDiffs | RD} [True | False]} |  
 {{ReportUpdates | RU} [True | False]} |  
 {{Save [<VCM session file>]} |  
 {{SourceLabel | SrcLabel | SL} <label>} |  
 {{SourceState | SrcState | SS} <state>} |  
 {{SourceTime | SrcTime | ST} {<timestamp> | Now}} |  
 {{SourceView | Source | SV} <view>} |  
 {{TargetLabel | TgtLabel | TL} <label>} |  
 {{TargetState | TgtState | TS} <state>} |  
 {{TargetView | Target | TV} <view> |

**<miscellaneous option>** {{NetMon | NM} [True | False]} |  
 {{Time | T} [True | False]} |  
 {{Verbose | Vb | V} [True | False]} |

## Other Syntax Elements

The table below lists other syntax elements in alphabetical order:

<b>&lt;action&gt;</b>	Delete   DeleteAndReverseShare   Fail   Ignore   Merge   Move   MoveAndMerge   MoveAndRepin   NeedsReview   Overwrite   Repin   RepinAndMove   ReverseShare   Share
<b>&lt;change requests&gt;</b>	{CR   CRs   ChangeRequests} {ALL   *<CR #>}
<b>&lt;Change Package name&gt;</b>	{A name consisting of one or more characters}
<b>&lt;check-out options&gt;</b>	[+cwf] [+eol {on   off   cr   lf}] [+filter {CGIMOU}] [+o] [+ro] [+rp <work folder path>]
<b>&lt;condition name&gt;</b>	items.binaryfile   items.branched   items.samecontent   source.childshare   source.deleted   source.floating   source.modified   source.moved   source.present   source.rootbranch   target.childshare   target.deleted   target.floating   target.modified   target.moved   target.present   target.parentdeleted   target.rootbranch
<b>&lt;condition value&gt;</b>	True   False   Unspecified
<b>&lt;files&gt;</b>	[File   Files] {ALL   *{<file name pattern>} [+<depth>]}
<b>&lt;folder path&gt;</b>	{A slash followed by an optional series of folder names each ending with a slash}
<b>&lt;folders&gt;</b>	[Folder   Folders] {ALL   *{<folder path>} [+<depth>] *{<item type>}}
<b>&lt;item condition&gt;</b>	<condition name> [<condition value>]
<b>&lt;item type&gt;</b>	{ChangeRequest   CR   ChangeRequests   CRs}   {File   Files}   {Folder   Folders}   {Requirement   Req   Requirements   Reqs}   {Task   Tasks}   {Topic   Topics}
<b>&lt;match state&gt;</b>	*<item condition>
<b>&lt;process items&gt;</b>	ProcessItems *{[View <view>] CR <CR #>   [View <view>] Req <Req #>   [View <view>] Task <Task #>}
<b>&lt;requirements&gt;</b>	{Requirement   Req   Requirements   Reqs} {ALL   *<Req #>}
<b>&lt;revision labels&gt;</b>	RevLabels *<label>
<b>&lt;task&gt;</b>	{Task   Tasks} {ALL   *<Task #>}

<b>&lt;timestamp&gt;</b>	Example formats: "3/11/06 1:32 PM" "Mar 11, 2006 1:32:38 PM" "March 11, 2006 1:32:38 PM PST" "Saturday, March 11, 2006 1:32:38 PM PST"
<b>&lt;topics&gt;</b>	{Topic   Topics} {ALL   *<Topic #>}
<b>&lt;VCM exchange file&gt;</b>	A .vcms file name
<b>&lt;VCM session file&gt;</b>	A .vcms file name

## Syntax for VCMUtility Compound Options

### <action>

Specifies the action to perform for a given source/target item difference. An <action> is one of the following mnemonics:

Mnemonic	Description
<b>Delete</b>	Delete the target item.
<b>DeleteAndReverseShare</b>	Equivalent to a <code>Delete</code> followed by a <code>ReverseShare</code> .
<b>Fail</b>	Synonym for <code>NeedsReview</code> (see below).
<b>Ignore</b>	Take no action.
<b>MarkResolved</b>	Create a merge point only that marks the source and target items as resolved.
<b>Merge</b>	Merge the source and target items.
<b>Move</b>	Move the target item to the equivalent folder as the source item.
<b>MoveAndMerge</b>	Equivalent to a <code>Move</code> followed by a <code>Merge</code> .
<b>MoveAndOverwrite</b>	Equivalent to a <code>Move</code> followed by an <code>Overwrite</code> .
<b>MoveAndRepin</b>	Equivalent to a <code>Move</code> followed by a <code>Repin</code> .
<b>NeedsReview</b>	Force a review before a commit. That is, do not allow commit while this action is selected. Item differences with this action are conflicts, therefore, their action must be changed to something else.
<b>Overwrite</b>	Overwrite the target with the contents of the source.
<b>Repin</b>	Change the revision to which the target is pinned to match the source item.
<b>ReverseShare</b>	Move the source item to the target view and share it back to the source view.
<b>Share</b>	Share the source item to the target view.



**Note:** Not every <action> is valid for every item difference. For example, `Delete` is not valid when the target item is already deleted.

### <check-out options>

The following section describes the syntax used for the compound VCMUtility option <check-out options>.

```
[+cwf] [+eol {on | off | cr | lf | crlf}] [+filter {CGIMOU}] [+o] [+ro] [+rp
<work folder path>]
```

Specifies non-default check-out options. The available check-out options are similar to those provided by the StarTeam command-line (stcmd), except that option names must be prefixed with a '+' sign. The available options are detailed below.

- +cwf** Requests the creation of working folders for all specified folders, even if they do not have files to be checked-out by this run. Only visible folders are created.
- +eol <eol option>** Requests conversion of all end-of-line delimiters for text files to the specified format. An <eol option> of `on` uses the client-configured EOL format. `off` prevents any EOL conversion. `cr`, `lf`, and `crlf` cause each EOL to be converted to a carriage-return, line-feed, or carriage-return/line-feed pair, respectively. Note that text files with a "fixed" EOL format are always converted to the specified format.
- +filter** `+filter {CGIMOU}`  
Specifies the status of files to consider for check-out: **C**urrent, **merGe**, **m**issing, **M**odified, **O**ut-of-date, or **U**nknown. Multiple status flags can be combined. If `+filter` is not specified, the default filter is `IO` (**Missing** and **Out-of-date**). If **Merge**, **Merge**, or **Unknown** files are included without the `+o` option, a warning is generated for each such file, and the file is not checked out.
- +o** Specifies that, in addition to **Missing** and **Out-of-date** files, files whose status is **Modified**, **Merge**, or **Unknown** are included. Furthermore, all files are overwritten without warning. If `+filter` is also specified, only the specified files are checked out.
- +ro** Sets each file to read-only after check out. By default, checked-out files are read-write.
- +rp** Specifies the root working folder of the "merge preview". Files are checked-out to child working folders relative to <work folder path>.

## <change requests>

```
<change requests> {CR | CRs | ChangeRequests} {ALL | *<CR #>}
```

Specifies all change requests in the view, or individual change requests by change request number. `CRs` and `ChangeRequests` are synonyms. The singular form of each is also accepted.

## <files>

```
[File | Files] {ALL | *{<file name pattern> [+depth]}}
```

Specifies all files in the view or a set of specific files, given as a list of file names and/or patterns, each with an optional folder <depth>. The keyword `File` (or `Files`) is optional unless the keyword `ALL` is used. A <file name pattern> can be a specific file name (for example, `foo.java`), a file name pattern (for example, `*.java`), or a file name or pattern with a folder path (for example, `(/src/com/acme/foo.java) or /src/com/acme/*.java`).

### Usage

Folder paths must use forward slashes; a single slash (/) is a synonym for the root folder. (Consistent with other StarTeam utilities, the root folder name, which typically matches the view name, should not be provided in path names.)

- If a filename or pattern is provided without a folder path, the implied folder is the same as the previous <file name pattern> parameter.
- If the first <file name pattern> parameter does not contain a folder path, the root folder is implied.

- If provided, the folder `<depth>` specifies the number of child folder levels below the specified folder to include; it can be a number or the keyword `All`.
- If a file or pattern name contains spaces, it must be enclosed in quotes.

## Examples

Below are examples of `<files>` usage:

```
// all files in the view
include Files ALL

//foo.java and bar.java in folder /src/com/acme
include /src/com/acme/foo.java bar.java

// all .java files in folder /src/com/acme and below
include /src/com/acme/*.java +all

// all .txt files in the root folder, all .zip file in first-level
// child folders, and a specific readme.txt file
include *.txt *.zip +1 /docs/acme/readme.txt
```

## <folders>

```
[Folder | Folders] {ALL | *{<folder path> [+<depth>] *{<item type>}}
```

Specifies all folders in the view or specific folder paths, optionally indicating a folder depth and specific item types. The keyword `Folder` or `(Folders)` is optional unless the keyword `ALL` is used.

### Usage

A valid `<folder path>` must begin and end with a forward slash (`/src/com/`). If provided, the `<depth>` specifies the number of child folder levels below the specified folder to include; it can be a number, or the keyword `All`.

- If a folder path contains spaces, it must be enclosed in quotes.
- If no `<item type>` parameters are provided, only files are included in the specified folder(s). Otherwise, all items of the specified item types are included.

Recognized item types are `CRs`, `Files`, `Folders`, `Tasks`, `Topics`, and `Requirements` (singular or plural).

## Examples

Below are examples of `<folder>` usage:

```
// all folders in the view
include folders ALL

// all files in the folder /src/com/acme/ alone
include /src/com/acme/

// all files and tasks in /src/ and below
include /src/ +all files tasks

// all CRs in the folder "/triage/" and all files in "/PR docs/"
// child folders two levels below it
include /triage/ CRs "/PR docs/" +2
```

By convention, the root folder is represented by a single `"/`. This means that the root folder name should not be provided in folder paths. For example, if the root folder is named `"StarDraw"`, the folder path for the immediate child folder `"Source Code"` is simply `/Source Code/`.

## <item type>

<item type>

Specifies an item type. Allowed values are `ChangeRequest` (or `CR`), `File`, `Folder`, `Requirement` (or `Req`), `Task`, and `Topic`. Item type names are case-insensitive and can be plural.

## <match state>

\*<item condition>

Defines a set of conditions that apply to source/target item differences. A <match state> is the union of each <item condition> defined for it. Each <item condition> has the form:

<condition name> [<condition value>]

### <condition name>

The valid <condition names> and their meaning are:

<condition name>	Meaning
<b>items.binaryfile</b>	Indicates whether either of the items in question is a binary file.
<b>items.branched</b>	Indicates whether the source and target items are in different branches of the object version tree.
<b>items.samecontent</b>	Indicates whether the source and target items have the same user-modifiable properties and, for files, data content.
<b>source.childshare</b>	Indicates whether the source item is a child share of the target item.
<b>source.deleted</b>	Indicates whether the item in question is deleted in the source view.
<b>source.floating</b>	Indicates whether the source item has a floating configuration.
<b>source.modified</b>	Indicates whether the item in question is modified in the source view.
<b>source.moved</b>	Indicates whether the item in question is moved in the source view.
<b>source.present</b>	Indicates whether the item in question is present in the source view.
<b>source.rootbranch</b>	Indicates whether the source item is the root branch of its share tree.
<b>target.childshare</b>	Indicates whether the target item is a child share of the source item.
<b>target.deleted</b>	Indicates whether the item in question is deleted in the target view.
<b>target.floating</b>	Indicates whether the target item has a floating configuration.
<b>target.modified</b>	Indicates whether the item in question is modified in the target view.
<b>target.moved</b>	Indicates whether the item in question is moved in the target view.
<b>target.parentdeleted</b>	Indicates whether the target item's folder has been deleted.
<b>target.present</b>	Indicates whether the item in question is present in the target view.
<b>target.rootbranch</b>	Indicates whether the target item is the root branch of its share tree.

### <condition value>

The valid <condition value>s are:

<condition value>	Meaning
True	The condition is true for the applicable item(s).
False	The condition is false for the applicable item(s).
Unspecified	The condition is unknown or not relevant for the applicable item(s).

The <condition value> is optional and defaults to True. For any given <match state>, all unspecified conditions are initially Unspecified.

An <item condition> can be defined as True or False to cause the corresponding condition to "participate" in matching the condition to actual item differences.

A condition can be defined as Unspecified, for example, to experimentally remove the condition from the matching criteria without deleting the condition from an options file.



**Note:** Some conditions are mutually exclusive: if defined together, they will never match any actual item differences. For example, a source item cannot be both present (`source.present=true`) and deleted (`source.deleted=true`).

## <process item>

```
ProcessItems *{[View <view>] CR <CR #> | [View <view>] Req <Req #> | [View
<view>] Task <Task #>}
```

Specifies a set of process items (change requests, tasks, and/or requirements) to be included. Specifying a process item causes items linked to it in the source view to be included as well. The keyword `ProcessItems` can be singular. The full names `ChangeRequest` and `Requirement` can be used in place of `CR` and `Req` respectively.

By default, a process item specified must reside in the source view. However, the optional prefix `View <view>` can be used to select a process item in a view other than the source view. When a non-source view process item is included, the process item is **not** included in the source scope, but those items linked to it in the source view are included. The specific revision of each source view item linked to the process item is included.

### Examples

```
// Include CR #451 in the source view and its linked items
include ProcessItem CR 451

//Include the items in the source view that are linked to Task #909
//include Requirement #518, both from view "Triage"
//include ProcessItem View Triage Task 909
View Triage Requirement 518
```



**Note:** If the view name contains spaces, it must be quoted ("`Release 4.3`"). If more than one view in the project has the same view name, the view name can be a slash-separated view path ("`Apps/Releases/Release 4.3`").

## <requirements>

```
{Reqs | Requirements} {ALL | *{<Req #>}}
```

Specifies individual requirements by requirement number. `Reqs` and `Requirements` are synonyms; the singular form of each is also accepted.

## <revision labels>

RevLabels \*<label>

Specifies all the items attached to each specified revision label (<label>). The keyword `RevLabels` can be singular. Revision labels are case-insensitive.

## <tasks>

Tasks {ALL | \*{<Task #>}}

Includes the specified individual tasks by task number. The keyword `Tasks` can be singular.

## <timestamp>

A <timestamp> must have one of the Java-recognized formats for date and time strings.

- Date formats are interpreted with the local date formatting conventions (for example, 3/11/06 is interpreted as March 11, 2006 in the United States.)
- Seconds are optional (for example, 1:32 and 1:32:00 are identical).
- The AM/PM indicator is required.
- The time zone indicator is optional; if omitted, the local time zone is assumed.
- The day of week, if provided, is ignored.

### Examples:

```
"3/11/13 1:32 PM"
"Mar 11, 2013 1:32:38 PM"
"March 11, 2013 1:32:38 PM PST"
"Saturday, March 13, 2013 1:32:38 PM PST"
```

## <topics>

Topics {ALL | \*{<Topic #>}}

Includes the specified individual topics by topic number. The keyword `Topics` can be singular.

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