

HCL VersionVault
Version 3.0.0.1

Migration Guide



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Introduction

Use this document to help you migrate to HCL VersionVault from IBM Rational ClearCase. It explains some of the differences that you might encounter between the two products. Some items provide solutions or workarounds for you to consider.

VersionVault 3.0.0.1 can be installed on Windows, Linux, and Solaris platforms on x86_64 hardware. See the System Requirements document for a list of the operating systems supported by VersionVault.

Note: There is a separate document to help you migrate to HCL Compass from IBM Rational ClearQuest.

Compatibility/Interoperation

HCL VersionVault supports compatibility with the multi-host deployment of the IBM Rational ClearCase and HCL VersionVault products. There is interoperation between hosts running:

- IBM Rational ClearCase 9.1.0.x and HCL VersionVault 3.0.0.1
- IBM Rational ClearCase 9.0.2.x and HCL VersionVault 3.0.0.1
- IBM Rational ClearCase 9.0.1.x and HCL VersionVault 3.0.0.1
- IBM Rational ClearCase 8.0.1.x and HCL VersionVault 3.0.0.1

An example of interoperation possibilities: Interoperations between HCL VersionVault VOB servers and IBM Rational ClearCase clients.

Mutually exclusive installation

A host can have only one family of products installed at a time, such as:

- HCL VersionVault/HCL Compass
- IBM Rational ClearCase/IBM Rational ClearQuest

Therefore, for example, HCL VersionVault/IBM Rational ClearQuest is not allowed on the same host.

Additionally, the VersionVault WAN server cannot share a load balancer across brands.

Compatibility of VersionVault and Compass on the same machine

HCL VersionVault 3.0.0.1 is compatible with IBM Compass 2.1.0 when installing both products on the same system. To determine compatibility of VersionVault 3.0.0.1 with future version of Compass, refer to the release notes for that version of Compass. The release notes will document whether this version of VersionVault is still compatible with that version of Compass.

Compatibility of VersionVault with ClearQuest on different machines

HCL VersionVault 3.0.0.1 is compatible with IBM ClearQuest 9.0.1.13, 9.0.2.5, and 9.1.0.2 when ClearQuest is installed on a different machine apart from the machine running VersionVault. You can either run the OSLC or CMI-based integrations in this configuration. Refer to the release notes for future releases of ClearQuest to see if they are still compatible with VersionVault 3.0.0.1. Follow all guidelines for the correct configuration of the IBM ClearQuest Web Server.

Migration

The migration between brands requires on each host that you:

1. Uninstall ClearCase and ClearQuest and save the configuration data (Rational.preserve directory).
2. Install VersionVault and Compass, and then restore/convert the configuration data. See [About the Rational.preserve folder](#).

Note that VOB, view databases, and ClearQuest databases are compatible on-disk, so that no reformat is needed when migrating. For example, HCL VersionVault 3.0.0.1 is fully compatible with IBM Rational ClearCase 9.1.0.

For MultiSite, each replica host can be migrated from IBM Rational ClearCase MultiSite to HCL VersionVault MultiSite on its own schedule.

- The MultiSite replication between HCL VersionVault and IBM Rational ClearCase is supported in both directions.
- There might be required a certain patch level of ClearCase for some rare operations, such as `chflevel -replica -master`. For more information, see [Using cleartool chflevel](#).

Licensing

HCL VersionVault has two licensing models:

- HCL Licensing
- Atria Licensing for VersionVault

In addition, it has an optional installation component that applies to both licensing models: Asynchronous License Acquisition (also referred to as Asynchronous Licensing). For information about each of them, see the help and the release notes for VersionVault.

About licensing during the transition:

- Most operations involving a ClearCase host require a ClearCase (floating) license for the user.
- Most operations involving a VersionVault host require a VersionVault (floating) license for the user.
- During the transition while your environment has a mixture of products, an operation might require both licenses. (A single machine would only have one license server, appropriate to the product installed on that machine. But since an operation might use a client and a server, each of those might consume a license. For example, running cleartool on a VersionVault client when working with a ClearCase view server: the client uses a VersionVault license, the view server uses a ClearCase license.)
- Licensed product bundles for HCL VersionVault and HCL Compass are different from IBM Rational ClearCase and IBM Rational ClearQuest licenses, and therefore you will need new license strings.

About sharing a license server:

- Atria Licensing for VersionVault supports:
 - HCL VersionVault Basic
 - HCL VersionVault Enterprise (includes VersionVault MultiSite)
- HCL Licensing for VersionVault supports serving multiple licensed product bundles from a single local or cloud license server:
 - HCL VersionVault Basic
 - HCL VersionVault Enterprise (includes VersionVault MultiSite)
 - HCL Compass Basic
 - HCL Compass Enterprise (includes Compass MultiSite)
 - Other HCL product licenses managed with HCL Licensing

What has and has not changed

The product name change was made with the aim toward compatibility so that customers with IBM Rational ClearCase who are migrating to HCL VersionVault are likely to be able to use existing scripts and environment variable settings. While there are new pathnames, compatibility links on Linux and Solaris have been added to ensure components can still be found through existing pathnames.

Note these name differences in HCL VersionVault (as compared to IBM Rational ClearCase):

- HCL VersionVault Explorer (IBM Rational ClearTeam Explorer)
- HCL VersionVault Windows Explorer (IBM Rational ClearCase Explorer)

In addition, the following items have not changed:

- Certain APIs where the names must remain for compatibility with IBM offerings
- Command-line tool names
- Environment variables, unless otherwise noted

General migration steps

Review the following information before you migrate to HCL VersionVault from IBM Rational ClearCase. Where possible, ways to account for changes because of the new product, or workarounds to situations are provided for your consideration.

- Before you uninstall IBM Rational ClearCase
- Uninstall IBM Rational ClearCase
- Before you install HCL VersionVault
- Install HCL VersionVault
- Configure and test HCL VersionVault before rolling out
- Post-installation information
- Documentation
- Support

Before you uninstall IBM Rational ClearCase

Before you go through the process to migrate to HCL VersionVault, you must uninstall all these products if you have them installed:

- IBM Rational ClearCase
- IBM Rational ClearCase MultiSite
- IBM Rational ClearCase Remote Client
- IBM ClearTeam Explorer Extension
- IBM Rational ClearQuest

Before uninstalling these products, consider the following situations.

Backup your files

Before you uninstall IBM Rational ClearCase (and any other related products), back up your files. Make sure that you back up any customization that you want to save before you begin the migration process.

Note: The locations provided here are the installation defaults, which might vary during the product installation.

For example:

- On Windows and non-Windows systems, back up your scheduler tasks at:
 - C:\Program Files (x86)\IBM\RationalSDLC\clearcase\config\scheduler\tasks
 - C:\Program Files (x86)\IBM\RationalSDLC\clearcase\var\scheduler\tasks
- On Unix, back up your scheduler tasks at:
 - /opt/ibm/RationalSDLC/clearcase/config/scheduler/tasks
 - /var/adm/rational/clearcase/scheduler/tasks
- Use `cleartool schedule -get` to create a backup file of the scheduled jobs and for redirecting the output to a text file. For example:

```
cleartool schedule -get > ctschedule.txt
cleartool schedule -acl -get > ctsched-acl.txt
```
- On Linux and Solaris, back up the `shipping.conf` file (or you could back up the `/var/adm/rational/clearcase/config` directory).

Use whatever method that you normally use to back up your files. Store your backups in a place outside the path of your ClearCase installation.

For non-Windows platforms only and if applicable: If you plan to migrate your CCRC WAN servers to HCL VersionVault (they become VersionVault WAN servers), back up the ccweb directory before uninstalling ClearCase.

1. Stop the ClearCase services.
`/opt/rational/clearcase/etc/clearcase stop`
2. Back up the `/var/adm/rational/clearcase/ccweb` directory.
After the install of VersionVault, this ccweb directory should be moved to `/var/adm/hcl/versionvault/ccweb`.

Note: If you already have a ccweb directory on VersionVault, then put the contents of the saved ccweb directory inside the existing ccweb directory. For example, execute something like this:

```
mv /my/saved/ccweb/* /var/adm/hcl/versionvault/ccweb/
```

What to do if the machine is a ClearCase registry server

If the machine is a registry server, before you do the uninstallation, back up the rgy directory:

- On Linux and Solaris, back up: `/var/adm/rational/clearcase/rgy`
- On Windows, back up: `C:\Program Files\IBM\RationalSDLC\clearcase\var\rgy`

The rgy directory should be preserved in the Rational.preserve folder. However, since it contains critical information about view and VOB locations, it is a good practice to have a second copy. Store the backed-up rgy directory in a place outside the path of your ClearCase installation.

Note: Before you do the backup, stop the ClearCase services:

- On Linux/Solaris: `/opt/ibm/RationalSDLC/clearcase/etc/clearcase stop`
- On the Windows Control Panel, select **ClearCase > Services Startup > Stop ClearCase**

Supported symbolic links on Linux/Solaris

To support the migration process, there are symbolic links (symlinks) on Linux/Solaris for the previous IBM paths so customer scripts can continue to work without modification.

IBM compatibility symlink	Symlinked to HCL path
/opt/rational/common	/opt/hcl/ccm/common
/opt/rational/clearcase	/opt/hcl/ccm/versionvault
/opt/rational/clearquest	/opt/hcl/ccm/compass
/usr/atria	/opt/hcl/ccm/versionvault
/var/adm/atria	/var/adm/hcl/versionvault
/var/adm/rational/clearcase	/var/adm/hcl/versionvault

Environment Variables

The following table shows equivalent environment variables for HCL VersionVault.

Environment variable	HCL VersionVault equivalent
ATRIAHOME	CLEARCASEHOME
ATRIA_FORCE_GUI	CCASE_FORCE_GUI

Note: While ATRIAHOME and CLEARCASEHOME both work for IBM releases, only CLEARCASEHOME works for HCL releases. Similarly, ATRIA_FORCE_GUI and CCASE_FORCE_GUI both work for IBM releases, but only CCASE_FORCE_GUI works for HCL releases. Therefore, customers should change to use CLEARCASEHOME and CCASE_FORCE_GUI while still running IBM releases, before migrating to HCL releases.

Since VersionVault only uses CLEARCASEHOME and CCASE_FORCE_GUI, you need to update your scripts before you install VersionVault.

About MultiSite

If you use MultiSite and you are migrating from IBM Rational ClearCase 9.0.1.10 or earlier, or from IBM Rational ClearCase 9.0.2.2 or earlier, you must process all packets in your shipping bays before migrating to HCL VersionVault, see [Recreate your MultiSite shipping server settings](#).

Preserving your MVFS tunable parameters, Windows

To retain your multiversion file system (MVFS) parameters for ClearCase on Windows and then be able to import them to VersionVault, you must edit the Windows Registry as follows. Note that this is necessary only if you have configured these parameter values. If you accepted the default values without any changes, you do not have to do this task.

Important: You should back up your entire Windows Registry before you do this. Consult with Microsoft Windows documentation on how to edit the Windows Registry.

Before uninstalling your current version of ClearCase

1. Exit any open instance of ClearCase; for example, ClearTeam Explorer, cleartool.
2. Use the Windows Registry Editor to export your `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\mvfs\Parameters` key to a .reg file.

Be sure to save this file in a location on your system that will not be removed or overwritten during the uninstallation of ClearCase and installation of VersionVault.

Later, you must restart VersionVault. For more information, see page [15](#).

Preserving your MVFS tunable parameters, Linux/Solaris

To retain your multiversion file system (MVFS) parameters for ClearCase on Linux/Solaris and then be able to use them in VersionVault, you must use the `tar` command to create an archive of the files as follows. Note that this is necessary only if you have configured these parameter values. If you accepted the default values without any changes, you do not have to do this task.

Before uninstalling your current version of ClearCase

Note for Solaris only: Any tunable parameters configured by creating a file in the `/etc/system.d` directory will continue to be honored by VersionVault. No action is required to preserve these files, they are not affected by the uninstallation of ClearCase.

1. Navigate to the directory `/var/adm/rational/clearcase`
2. If the subdirectory `mvfsconfig` contains any files, which indicates that parameters have been modified, save a copy of the subdirectory.

Be sure to save it in a location on your system that will not be removed or overwritten during the uninstallation of ClearCase and installation of VersionVault.

```
tar cvf /var/tmp/mvfsconfig_save.tar mvfsconfig
```

Later, you must restart VersionVault. For more information, see page [15](#).

Base ClearCase/ClearQuest perl integration not supported

VersionVault will not support the Base ClearCase/ClearQuest perl integration, and the `cmi_migrate.pl` script will no longer contain references to the Base ClearCase/ClearQuest perl integration.

You should move from the perl integration to CMI before installing HCL VersionVault.

Uninstall IBM Rational ClearCase

Before you can migrate to HCL VersionVault, you must uninstall all these products if they are installed on your system:

- IBM Rational ClearCase
- IBM Rational ClearCase MultiSite
- IBM Rational ClearCase Remote Client
- IBM ClearTeam Explorer Extension
- IBM Rational ClearQuest
(ClearCase and ClearQuest share components.)

Use IBM Installation Manager to uninstall these products. How to uninstall ClearCase is covered in its help. Also, review [About the Rational.preserve folder](#) before you uninstall ClearCase, and [What to do if the machine is a ClearCase registry server](#).

About the Rational.preserve folder

During the uninstallation, ClearCase will preserve some files (for example, install setup data, location to install, license servers, registry servers, WAS/IHS setup information) in a folder called Rational.preserve. These files are typically used on a subsequent installation to configure your environment to its previously installed parameters.

- On Linux/Solaris, Rational.preserve is saved in /tmp
- On Windows, Rational.preserve is saved in C:\ProgramData\IBM

Look at `Rational.preserve\clearcase\config` to see if you have customized any of the files in the config directory to determine if there are any customizations that were not automatically copied to the VersionVault installation.

Some information to be aware of:

- If you do not select the **Use preserved settings** option during the installation, the Rational.preserve directory will be renamed during the installation. The new name will have the date and time appended to the name, such as Rational.preserve_20220114_0850793.
- You can leave the Rational.preserve directory as is. You might find it useful as a reference for your settings in VersionVault.
- For an example of how you might use the information in the Rational.preserve folder, see [CMI integration data](#).

Before you install HCL VersionVault

Before you install HCL VersionVault, consider these matters.

Rational.preserve folder

See [About the Rational.preserve folder](#).

Java JRE

For the HCL VersionVault installation, you must have a 64-bit Java Runtime Environment (JRE) compatible with Java 8 installed before you install VersionVault. During the installation of VersionVault, you must set the path to the java executable in your JRE installation if you plan to use any of the Java-based components for the product. See the list of Java-based components on the installation panel. VersionVault does not ship with its own JRE, but instead uses a JRE that is already installed on your system. If you do not have a JRE already, you can obtain one from Adoptium at <https://adoptium.net>.

During your installation of VersionVault, messages about the JRE requirement will display when applicable.

Tip: For the initial installation of a JRE, install it in a folder of your choice with a folder name that does not identify the version number for the Java. As an example, use a folder name like "jre" instead of "jre_v8.0." Later, when you want to install a new updated Java (as an example, jre_v8.5), install the updated Java into the same file system location as the initial Java. Then no reconfiguration of VersionVault will be needed because of a new JRE.

Important: For HCL VersionVault on Windows, you must unpack the JRE locally. Running the JRE from a network location is not supported. During the installation process for HCL VersionVault, you must enter the path to your JRE.

Install HCL VersionVault

VersionVault 3.0.0.1 can be installed on Windows, Linux, and Solaris platforms on x86_64 hardware. See the System Requirements document for a list of the operating systems supported by VersionVault.

Use a version of IBM Installation Manager 1.8.6 through 1.8.9.6, or IBM Installation Manager 1.9.1 or later fix pack to install HCL VersionVault. How to install HCL VersionVault is covered in the help. To access the help for HCL VersionVault, see [Documentation](#). As well, check the release notes for HCL VersionVault for any late-breaking information about installing the product.

Note: During the installation of VersionVault, if you want to restore the settings from your previous ClearCase installation, such as your Registry settings, select the **Use preserved settings** option in Installation Manager.

Configure and test HCL VersionVault before rolling out

After you install HCL VersionVault, you must configure and consider the following matters to enable full functionality of the product for use by your organization. Do this before you roll out HCL VersionVault for your users.

Restore the rgy directory (if the machine was a registry server)

If you installed VersionVault on the same machine that used to be the Registry server and you selected the **Use preserved settings** option, then the Registry files should have been automatically restored. If they were not restored to the rgy directory, use the following steps:

Note: These instructions assume that you backed up the rgy directory before you uninstalled ClearCase. See [What to do if the machine is a ClearCase registry server](#).

1. After the VersionVault installation, you should stop the VersionVault services prior to restoring the rgy directory:
 - On Linux/Solaris: `/opt/hcl/ccm/versionvault/etc/versionvault stop`
 - On the Windows Control Panel, select **VersionVault > Services Startup > Stop VersionVault**, or in an elevated command prompt, run the `net stop albd` command.
2. Restore the rgy directory:
 - On Linux/Solaris:
 - a. Rename the rgy directory (for example, "rgy_original")
 - b. Make a new, empty "rgy" directory
 - c. Copy the content from the previously backed-up rgy directory, either from Rational.preserve or from your previously backed-up copy of the rgy directory to the new `/var/adm/hcl/versionvault/rgy` directory
 - On Windows, in `C:\Program Files\HCL\CCM\versionvault\var`:
 - a. Rename the rgy folder (for example, "rgy_original")
 - b. Make a new empty "rgy" folder
 - c. Copy the content from the previously backed-up rgy folder (`C:\Program Files\IBM\RationalSDLC\clearcase\var\rgy` from before ClearCase was uninstalled) to the new `C:\Program Files\HCL\CCM\versionvault\var\rgy` folder
3. After restoring the rgy directory, start the VersionVault services:
 - On Linux/Solaris: `/opt/hcl/ccm/versionvault/etc/versionvault start`
 - On the Windows Control Panel, select **VersionVault > Services Startup > Start VersionVault**, or in an elevated command prompt, run the `net start ccredmgr` command.

Note: If you select the **Ignore preserved settings** option, this action results in the renaming of the Rational.preserve folder by appending a time stamp to its name.

Restoring your MVFS tunable parameters

If you have preserved MVFS tunable parameters on page [11](#), then you need to restart VersionVault.

Restarting VersionVault on Linux/Solaris

1. Stop VersionVault if it is running.

```
/opt/hcl/ccm/versionvault/etc/versionvault stop
```
2. Navigate to the directory `/var/adm/hcl/versionvault` and extract the saved files into the `mvfsconfig` subdirectory.

```
tar xvf /var/tmp/mvfsconfig_save.tar
```
3. Start VersionVault.

```
/opt/hcl/ccm/versionvault/etc/versionvault
```

The saved parameter values will now be used by VersionVault services.

Restarting VersionVault on Windows

1. Use the Windows Registry Editor to import the saved `.reg` file.
2. Reboot the system.
The saved MVFS parameter settings are now imported to the registry.

Recreate your MultiSite shipping server settings

If you are migrating from IBM Rational ClearCase 9.0.1.10 or earlier, or from IBM Rational ClearCase 9.0.2.2 or earlier, you must process all packets in your shipping bays before migrating to HCL VersionVault. During this processing, other replica sites must pause sending new packets to the host being migrated. The uninstallation handles custom storage classes differently on Windows and Linux/Solaris, see the following discussion of each platform. Note the following:

- You must select the **Use preserved settings** option when installing VersionVault.
- In addition, after you install VersionVault, you must recreate your customized MultiSite shipping server settings (for instance, the path to the receipt-handler, if you are using one).

On **Windows**, the default shipping bays and custom shipping bays under `\ibm\RationalSDLC\clearcase` (or `clearquest`) are copied to the `Rational.preserve` folder during uninstallation. The installation will modify the value of the `HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Atria\ClearCase\CurrentVersion\MultiSite\StorageClass\-default` Windows registry keys `ReturnBay` and `StorageBay` with the correct paths to those bays in the VersionVault installation directory. However, it will not update the Windows registry keys for custom storage classes. It will recreate any custom shipping bays you might have had under `ibm\RationalSDLC\clearcase` or `ibm\RationalSDLC\clearquest` and will move the contents from `Rational.preserve` to the new default and custom bays. If you are migrating from IBM Rational ClearCase 9.0.1.10 or earlier, or from IBM Rational ClearCase 9.0.2.2 or earlier, you must discard these old packets and `shipping_orders` and regenerate them. Use the MultiSite control panel applet to update the shipping bay paths for custom storage classes.

On **Linux/Solaris**, only the default bay is copied to the `Rational.preserve` folder during uninstallation. Any non-empty directory trees for custom storage classes under `/ibm/RationalSDLC/clearcase` (or `clearquest`) will remain in the partial directory tree of the previous installation, as will the `shipping.conf` file. If the custom shipping bays are empty, the uninstallation process will remove them. On the installation of VersionVault, the preserved contents of the default shipping bays are copied to the new bays. If you are migrating from IBM Rational ClearCase 9.0.1.10 or earlier, or from IBM Rational ClearCase 9.0.2.2 or earlier, you must discard these old packets and `shipping_orders` and regenerate them. You will need to recreate the shipping bay directory structure and update the `shipping.conf` file for custom storage classes.

About references

Note that technotes and other documents might mention file path names and environment variables that are not correct for HCL VersionVault. The following tables show equivalent file path names and environment variables for VersionVault.

The following table shows equivalent file path names for HCL VersionVault.

File path name	HCL VersionVault equivalent
C:\Program Files\IBM\RationalSDLC\ClearCase	C:\Program Files\HCL\CCM\VersionVault
C:\Program Files\IBM\IMShared	C:\Program Files\HCL\IMShared, or C:\Program Files\IBM\IMShared
/opt/IBM/RationalSDLC	/opt/hcl/ccm
/opt/IBM/IMShared	/opt/hcl/IMShared, or /opt/ibm/IMShared
/opt/rational/clearcase	/opt/hcl/ccm/versionvault
/var/adm/rational/clearcase	/var/adm/hcl/versionvault
/var/adm/atria	/var/adm/hcl/versionvault

Note: For the path to IMShared, whether it is to "HCL" or "IBM" depends on if you have ever used IBM Installation Manager before you install VersionVault. If you are using Installation Manager for the first time when you install VersionVault, then the path is to "HCL." If you have used Installation Manager before, then the path is to "IBM."

Service names have changed, Windows

The full service names have changed on Windows, while the simple (short) names have not, as shown in the following table.

IBM net stop/start name	IBM Services UI name	HCL net stop/start name	HCL Services UI name
Albd	Atria Location Broker	Albd	HCL VersionVault Location Broker
cccredmgr	IBM Rational ClearCase Credential Manager for x86-64 (or for x86)	cccredmgr	HCL VersionVault Credential Manager for x86_64
LockMgr	IBM Rational Lock Manager	LockMgr	HCL VersionVault Lock Manager

Perl 5.26

Perl has been updated in HCL VersionVault to version 5.26. IBM Rational ClearCase versions earlier to 9.1.0 used Perl version 5.16. Perl scripts from ClearCase might need to be modified to be workable in VersionVault because Perl scripts from ClearCase might rely on Perl 5.16 syntax that is no longer supported in Perl 5.26.

To assist customers that use Perl 5.16 with ClearCase and are migrating to VersionVault 2.0.0 or later, there is a script available to help you find these incompatible syntaxes. Contact HCL Software Customer Support for the `perl26_compat_check.pl` script and for their assistance with how to run it to adjust your Perl scripts to be able to use them with VersionVault.

Note the following changes in Perl 5.26:

- Perl variables no longer can contain non-graphical ASCII control characters. For example, a Perl script might contain the literal character `\x0F` to denote the `$OSNAME`. That would now yield a syntactical error of the form:

```
"Unrecognized character \x0F; marked by <-- HERE after if $<--  
HERE near column 32 at ..."
```

To fix the issue, you need to use the text `"^O"` to replace the Control-O non-graphical ASCII control character.

For the list of special Perl variables and full description, see <https://perldoc.perl.org/perl5240delta.html#ASCII-characters-in-variable-names-must-now-be-all-visible> and <https://perldoc.perl.org/perlvar.html>.

- Perl `@INC` no longer contains `'.'` Perl's `@INC` is the array of directories that Perl uses to locate and load modules. A Perl script that needs to load a module from the current directory must now be modified to account for this. For more details, see [https://metacpan.org/pod/perl5260delta#Removal-of-the-current-directory-\(%22.%22\)-from-@INC](https://metacpan.org/pod/perl5260delta#Removal-of-the-current-directory-(%22.%22)-from-@INC).
- `"\C` is no longer supported in regex; marked by `<-- HERE in m/%s/"` Using `\C` in a Perl regular expression yields this error. For more details, see <https://perldoc.perl.org/perldiag.html>.

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- "Unescaped left brace in regex is illegal here in regex; marked by <-- HERE in ..."
This is an example of stricter checking of good syntax by Perl. The following example shows how the example can be fixed:

```
} elsif(m!\s*//{{NO_DEPENDENCIES}}!) {
```

by escaping each left and right brace:

```
} elsif(m!\s*//\{\{NO_DEPENDENCIES\}\}\E!) {
```

or by using the `\Q\E` escape sequence:

```
} elsif(m!\s*//\Q{{NO_DEPENDENCIES}}\E!) {
```

For more details, see <https://metacpan.org/pod/perl5260delta#Incompatible-Changes>.

- Carp.pm is no longer part of the CGI module and "fatalToBrowser" is no longer defined. Scripts using or requiring Carp.pm must no longer include it from CGI. For example:

```
use CGI::Carp qw(fatalToBrowser);  
or  
use CGI::Carp;
```

changes to:

```
use Carp;
```

For more details, see <https://metacpan.org/pod/CGI#CGI.pm-HAS-BEEN-REMOVED-FROM-THE-PERL-CORE>.

- The Inline::Java ratlperl module on Windows no longer supports the JNI (Java Native Interface) extension. Only client/server mode is supported.

CMI integration data

What if my VOB is configured with CMI integration data to an IBM Rational ClearQuest environment?

- **Question:** Must those change?
Answer: No.
- **Q:** Does the data include URL fragments, or is that inside the CMI code?
A: The data does include URL fragments. The VOB configuration for CMI and possibly also the stream/branch type configuration contains URLs to ClearQuest. If customers have their ClearQuest URLs changing, they need to update their VOB and possibly stream/branch type configurations for CMI.
- **Q:** Can I use both IBM and HCL clients to the same VOB and have them communicate with the same database in IBM Rational ClearQuest? With HCL Compass?
A: This should work just fine in all these cases. IBM Rational ClearCase and HCL VersionVault clients together (if that is supported for them normally) should work. ClearCase and VersionVault clients talking to ClearQuest or with Compass should also both work normally for CMI.
- In changing from IBM Rational ClearCase to HCL VersionVault, you might need to import the HCL Compass Web Server certificate. Use one of the following methods:
 - Follow the instructions to import the certificate (see technote [541765](#)), or
 - Copy the certificate from the Rational.preserve directory. Example for Linux:

```
sudo cp /tmp/Rational.preserve/clearcase/cert/cacert.pem  
/var/adm/hcl/versionvault/config
```

VersionVault-Cadence Virtuoso integration

The following updates are needed for the VersionVault-Cadence Virtuoso integration.

DMTYPE vvault

If you previously had an integration with Cadence Virtuoso, to enable it for VersionVault, edit cdsinfo.tag inside the library (/vobs/cds_vob/basic/cdsinfo.tag) to enable DMTYPE vvault. (For the ClearCase-Cadence Virtuoso integration, it was DMTYPE ccase.) If cdsinfo.tag does not exist, create it.

For instructions on how to integrate VersionVault with Cadence Virtuoso, see the help.

Interoperation environment with ClearCase server and VersionVault client

This change is only necessary if you have an interoperation environment with a ClearCase server and a VersionVault client. If the VOB(s) used by the VersionVault-Cadence Virtuoso integration have stored symbolic links (symlinks) to .cdsinit and cdsLibMgr.il, then you must do the following for those VOB(s):

- Create symlinks to .cdsinit and cdsLibMgr.il that are in VersionVault, **or**
- Replace .cdsinit and cdsLibMgr.il with the ones from the VersionVault installation directory. These are the locations for the files in VersionVault:
 - `versionvault-home-dir/vvault_cds/examples/cci.cdsinit`
 - `versionvault-home-dir/vvault_cds/cdsLibMgr.il`

Note: For cci.cdsinit, if you plan to copy and paste it to replace the file in the VOB(s), you must rename the file to .cdsinit.

Using the HCL VersionVault Explorer update site to install into Eclipse

Eclipse users will not be able to directly upgrade an IBM ClearTeam Explorer (CTE) install in Eclipse because the bundle IDs have changed. Therefore, the OSGI machinery in Eclipse will not recognize the renamed CTE for Eclipse IDE as a later version of what is already installed.

To account for this change: Each user must uninstall the CTE Eclipse plugins and reinstall the HCL branded/ID'd versions, or use a clean Eclipse. Otherwise, the function and form of the HCL VersionVault Explorer should be identical to the IBM ClearTeam Explorer in terms of general usage.

HCL VersionVault Explorer package name changes

When HCL VersionVault Explorer encounters problems internally (for example, a caught or uncaught exception), it will log the issue to a log file. Occasionally, it might show in a dialog box. These occurrences will show a stack trace of the code that will show package names in the stack trace, if the stack trace is logged at all.

HCL VersionVault Explorer situations

The following situations are possible in HCL VersionVault Explorer.

Project Set Import/Export

Project set files created with the IBM ClearTeam Explorer for Eclipse IDE can be used to import project sets into the HCL VersionVault Explorer for Eclipse IDE. However, it is not possible for project set files created with the HCL VersionVault Explorer for Eclipse IDE to be used with the IBM CTE project set importer.

Extension ID name changes

The extension ID namespace has changed. Generally, they are not meant to be implemented by users of the VersionVault Explorer for Eclipse IDE. In the event a customer has implemented their own plugins based on these extensions, then the classes implementing them will require modification, if not complete re-implementation.

cleartool and ccbe

For the HCL VersionVault Explorer Extension and the HCL VersionVault Explorer for Eclipse IDE, the path to cleartool and ccbe in some cases might need to be known. The bin directory must be in the path to use these binaries.

- For Linux/Solaris, by default, the fully qualified path would be:
`/opt/hcl/ccm/versionvault/bin`
(For ClearCase, it was `/opt/ibm/RationalSDLC/clearcase/bin`)
- On windows, by default, the fully qualified path would be:
`C:\Program Files\HCL\CCM\versionvault\bin`
(For ClearCase, it was `C:\Program Files\IBM\RationalSDLC\clearcase\bin`)

Note: ccbe is the backend executable that makes dynamic view access from HCL VersionVault Explorer possible. It is a spawned sub-process of VersionVault Explorer and is a runnable application.

Using cleartool chflevel

A user running `cleartool chflevel -replica -master` from an IBM Rational ClearCase client to an HCL VersionVault server will find that the command fails because the returned product version (3.0.0.1) allows a feature level no higher than 1.

To account for this situation:

- Run the command from a VersionVault client, or
- Transfer mastership of the replica to itself and allow the remote site to run its own `chflevel` command.

Post-installation information

MultiSite and CMI should function without any configuration or environment changes when running a mixed environment with some replica servers running IBM Rational ClearCase and other replica servers running HCL VersionVault. If you use MultiSite, see [Recreate your MultiSite shipping server settings](#).

Documentation

The online help for VersionVault 3.0.0.1 is published on <https://help.hcltechsw.com/versionvault/3.0.0/index.html>.

The help is also available from within the installed product.

Support

For technical support, contact HCL Software Customer Support at <https://support.hcltechsw.com/csm> and in addition to providing details for your issue, also provide the following information:

- Your name, company name, telephone number, and email address
- Your operating system, version number, and any service packs or patches that you have applied
- Product name and release number
- Your Support Ticket Number (if you are following up on a previously reported problem)

For blogs, forums, and more for VersionVault, go to the HCL Software website at <https://www.hcltechsw.com/wps/portal>.