IBM Rational Change Interface for Subversion

Help   Version 1.1.0

Before using this information, be sure to read the general information under "Notices", on page 5.

This edition applies to **VERSION 1.1,** *IBM RATIONAL CHANGE FOR SUBVERSION INTERFACE* **(product number 5724V87)** and to all subsequent releases and modifications until otherwise indicated in new editions.

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Introduction

About the integration

The IBM Rational Change for Subversion Interface version 1.1.0 gives the ability to Subversion users to use IBM Rational Change Management tool. Subversion users can benefit from extended Application Lifecycle Management support, e.g. RDD – Requirements Driven Development using IBM Rational DOORS® for requirements management, Focal Point™ for product planning and management, and other IBM Rational lifecycle solutions.

Benefits

- Augments Subversion with the Enterprise Change Management Tool IBM Rational Change
- Seamlessly integrates IBM Rational Change within Eclipse IDE
- Displays Subversion artifacts (revisions and changed files) within IBM Rational Change
- Seamlessly integrates Change Management, IDE and Version Management
- Based on Open Source technology, the integration can be used, amended and extended by everybody

Assumptions

Before using this document, you should have a basic understanding of how to use Subversion, WebSVN, Mylyn and IBM Rational Change. If you are unfamiliar with Subversion, IBM recommends that you to read the **Subversion Version Control System** book located at   http://svnbook.red-bean.com.

If you are unfamiliar with WebSVN, a web repository viewer specifically designed for Subversion, IBM recommends that you to read the information located at http://websvn.tigris.org/

If you are unfamiliar with Mylyn, IBM recommends that you to read the Mylyn documentation located on http://eclipse.org/mylyn/start/

For more information about Eclipse, go to: http://www.eclipse.org/

You should also have a conceptual and practical understanding of IBM Rational Change.
- If you need more information about IBM Rational Change, refer to the following documentation, which is available on the IBM support Web site at http://www.ibm.com/software/support/.

IBM recommends that you read this entire document before using the integration. Knowing all of the features before you integrate your data helps ensure a seamless, efficient integration.

Features

IBM Rational Change for Subversion Interface links the subversion commit information for a change request; if the Subversion commit message contains a change request number. The vcindexer (IBM Rational Change for Subversion Interface component) allows for the display of changes committed in Subversion repository for that change request in IBM Rational Change Management Repository. The change set from the commit information is displayed as Subversion links in the change request. Clicking the link will take the user to the page that shows the contents of the file as it was at that revision in subversion repository.

Audience

The IBM Rational Change for Subversion Interface is for developers who are using Subversion as the Version Control system, Eclipse IDE as their developer environment with Mylyn connector, and IBM Rational Change as the Change Management System.

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Product requirements

The following products are required to run the IBM Rational Change for Subversion Interface

- IBM Rational Change 5.1 or 5.2
- Eclipse 3.4.xx, Eclipse 3.5 , or Rational Application Developer 7.5
- Mylyn 3.1.1 or higher
- Tomcat 6.0.xx or higher
- Subversion 1.6.3
- WebSVN 2.2.xx

Note: some of these products may have other open source dependencies. Please follow the corresponding product documentation for the installation procedures. Example: WebSVN is installed on the Apache web server.

Prerequisites for this Integration to work Correctly

For this integration to work correctly it is assumed the following open source application are installed and working correctly.

- Subversion repository is running and the user of this integration has Subversion repository access.
- WebSVN is working as your Subversion client and you are able to browse Subversion repository by using WebSVN. Read **http://svnbook.red-bean.com** if you need more help on setting up a subversion repository. (Chapter 6 in this book has some important configuration information on how setup an Apache web server so that Subversion repositories available to clients.) The install.txt file included with the WebSVN package contains information on Configuration options.
- Multiviews must be enabled on Apache
- Tomcat 6.0.xx or higher is running on a machine where you want to install vcindexer component of this integration.
- IBM Rational Change 5.1 or higher is running on a separate machine.

Installation instructions

The IBM Rational Change for Subversion Interface has three components. They are:

- IBM Rational Change for Eclipse Interface plug-in (Using Mylyn Connector)
- Custom IBM Rational Change Life Cycle Process

- Subversion commit indexing Service

1. Installing IBM Rational Change for Eclipse Interface

The setup, installation, configuration, and getting started information for the IBM Rational Change for Eclipse Interface is available in **IBM Rational Change for Eclipse Interface Help Version 1.1.0**. Please use this help to install and configure your the IBM Rational Change for Eclipse Interface before proceeding to install the rest of the components of **IBM Rational Change for Subversion Interface**.

2. IBM Rational Change Life Cycle Process

- Use the CRProcess, and process template package that you just unzipped from vcindexer.zip file to create CR package.
- Refer to IBM Rational Change documentation on how to create and install your CR package on your IBM Rational Change Server.

Configuring vcindexer attributes in Change Process

- Login to IBM Rational Change as Administrator
- Click on Listbox Manager
- Configure the **following attributes with values as explained. Figure 1 shows the attribute and values in Change**

svn_indexer_host = <yourTomcatServer_machine> example:usir-naco
svn_indexer_port = <yourTomcatPort> example: 8080
svn_indexer_prefix= **CR**
 Note: If your Change database is non DCM, the svn_indexer_prefix value should be CR; and if your database is DCM database, (All Change Central Server databases are DCM databases) the svn_indexer_prefix value is your DCM id. Example: N#
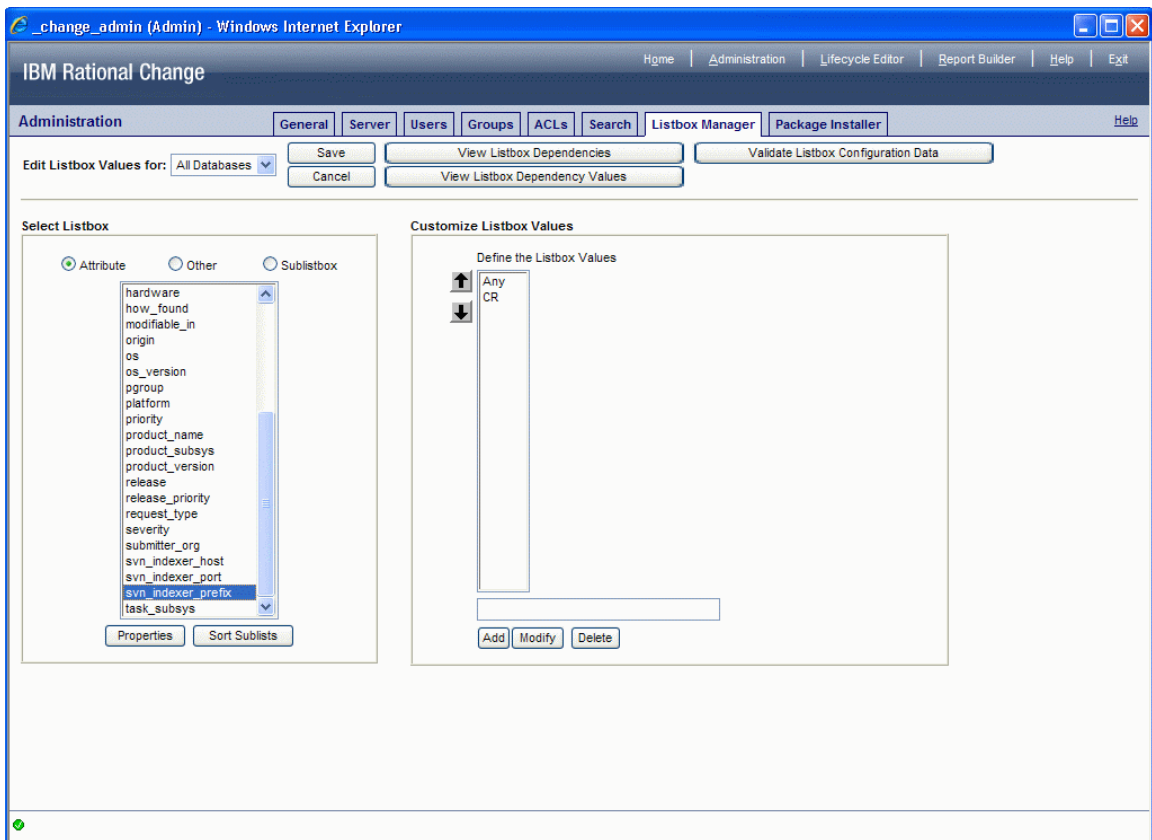
Figure 1. Listbox Manager Attribute values

3. Installing Subversion commit indexing Service

- **Installing vcindexer web archive**

  1. Copy the vcindexer.war file to your Tomcat webapps directory. Example
     <your_tomcat_home>\webapps
  2. Create a configuration xml file

Example:C:\temp\vcindex.xml

<svnindex>

<svnrepository key= "subversion" user="testerbob" password="deathtrap"

 url="file:///C:/SVN_REPO/IntDemo**" issuetoken="CR"**

 path="/Projects/trunk/eclipse_int_guide"/>

<websvn url="http://localhost/websvn/"

 repositoryName="IntDemo"/>

<database driver="org.apache.derby.jdbc.EmbeddedDriver"

 url="jdbc:derby:/tmp/issueDB" user="user1" password="user1"/>

</svnindex>

Note: In vcindex.xml file, svnrepository is your subversion repository; URL is the physical location of your repository; **issuetoken** is "**CR**" is Change Request Prefix if your Rational Change database (**non DCM**). The **issuetoken** value for the DCM enabled database is the **DCM ID** of the data base **(example:N#).** The issuetoken is also configured as ListBox Manager attribute value in Change as shown in Figure 1

- Point your configuration file using one of the following methods.

1. Create an environment variable called VC_INDEXER_CONFIG
   <full path of vcindex.xml>
   example: VC_INDEXER_CONFIG C:\temp\vcindex.xml

How to run Indexing Service

- Start Tomcat from windows services control panel **OR** from command-line.
  Example: C:\<tomcat install dir>bin\starup.bat
  The vcindexer service should start without any errors.

Developer Usage Scenario
- In Eclipse, Setup the task repository using the Mylyn Task Repository view
- Configure IBM Rational Change Attributes
- Create Queries

   Note: The IBM Rational Change Interface for Eclipse document explains how to setup the task repository and configure the Change Queries.

- Activate a CR that you want to work on in your eclipse IDE
- You can add comments, and even attach patches or other files to this CR via Mylyn's task user interface.
- Work on your Eclipse project that is controlled by Subversion repository
- Use Team-> Synchronize… context menu option
  This view will show your local changes as well as the changes made by others in this project. This view has a switch button to show only the changes made by you for the current active task.
- Commit your change set

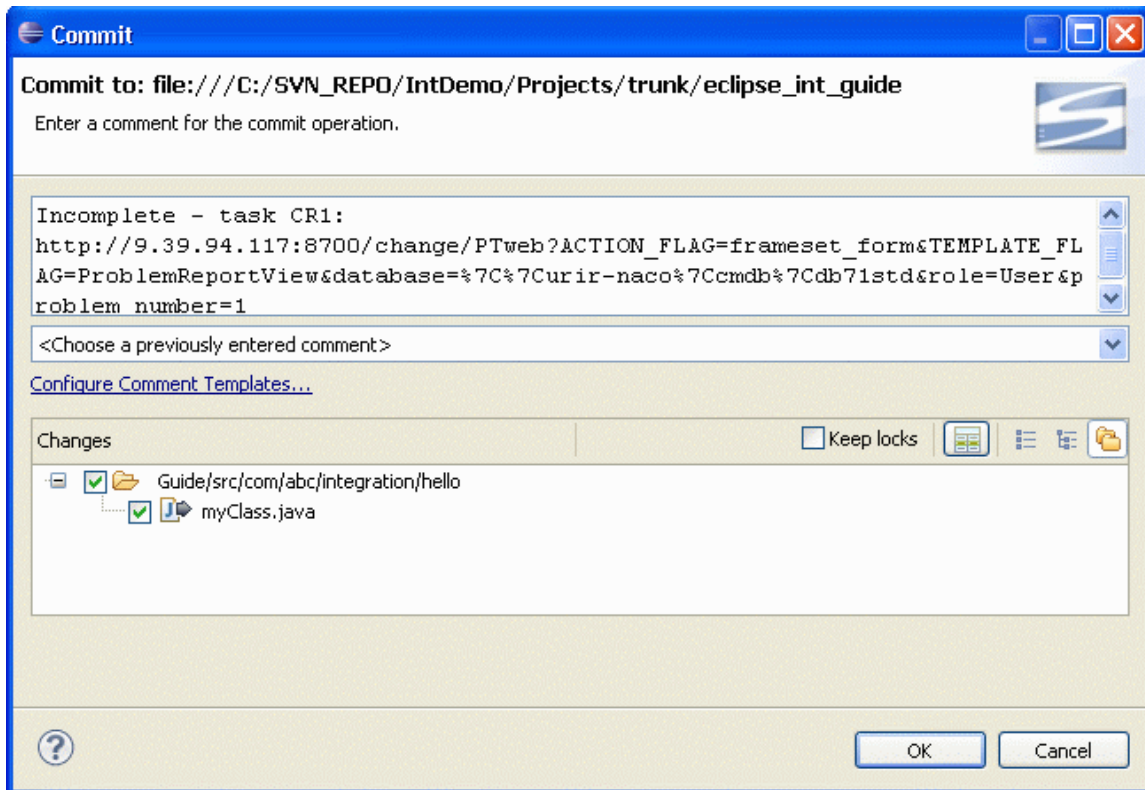The integration generates the comment for the Subversion commit as shown in the following image.

Figure 2. Comment for Subversion commit.

- The vcindexer service that is running on Tomcat picks up the new revision that committed in subversion repository. It picks up the CR number from comment.
- These Changes can be viewed in Show dialog of change request as shown in Figure 3.
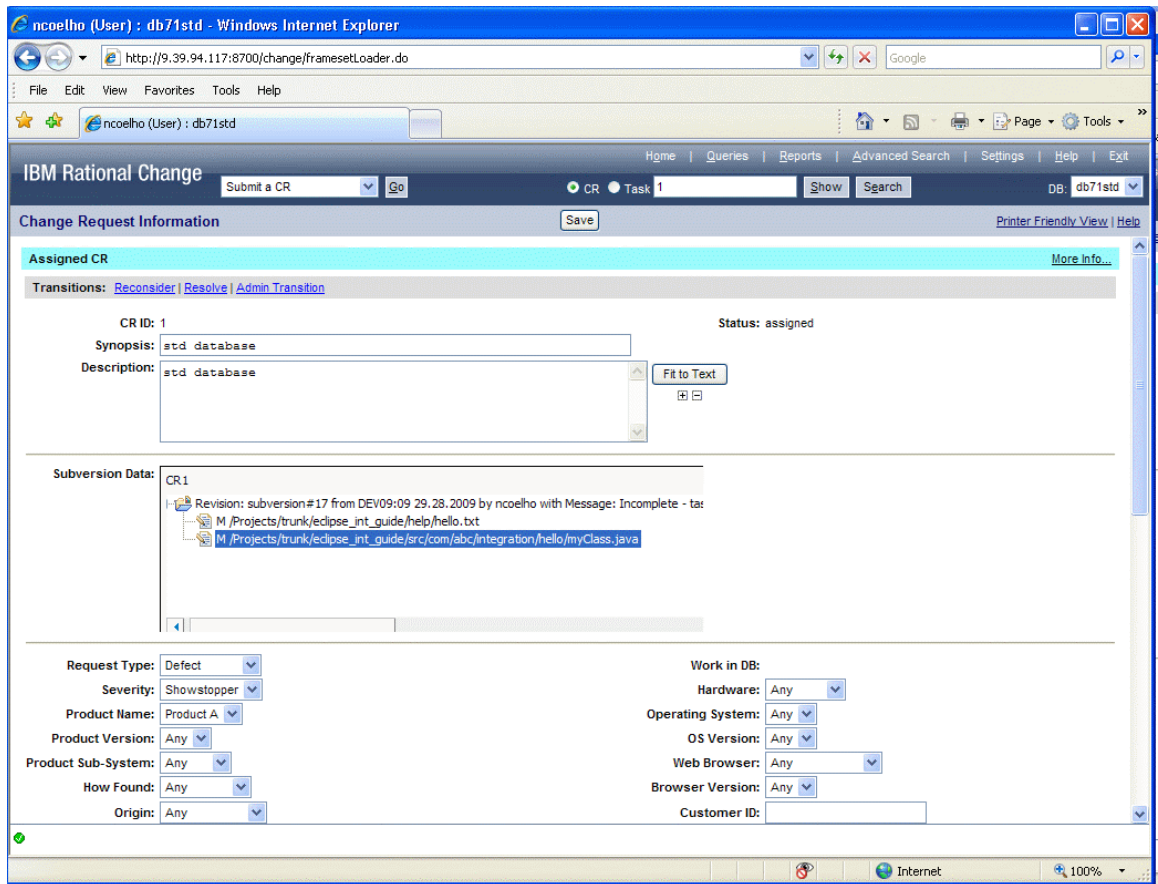
Figure 3. Changes associated to CR1

Contacting IBM Rational Software Support

If the self-help resources have not provided a resolution to your problem, you can contact IBM® Rational® Software Support for assistance in resolving product issues.

Note: If you are a heritage Telelogic customer, a single reference site for all support resources is located at http://www.ibm.com/software/rational/support/telelogic/

Prerequisites

To submit your problem to IBM Rational Software Support, you must have an active Passport Advantage® software maintenance agreement. Passport Advantage is the IBM comprehensive software licensing and software maintenance (product upgrades and technical support) offering. You can enroll online in Passport Advantage from http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html

- To learn more about Passport Advantage, visit the Passport Advantage FAQs at
  http://www.ibm.com/software/lotus/passportadvantage/brochures_faqs_quickguides.html.
- For further assistance, contact your IBM representative.

To submit your problem online (from the IBM Web site) to IBM Rational Software Support, you must additionally:
- Be a registered user on the IBM Rational Software Support Web site. For details about registering, go to
  http://www.ibm.com/software/support/.
- Be listed as an authorized caller in the service request tool.

Submitting problems

To submit your problem to IBM Rational Software Support:

1. Determine the business impact of your problem. When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting.

   Use the following table to determine the severity level.

Severity	Description
1	The problem has a *critical* business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.
2	This problem has a *significant* business impact: The program is usable, but it is severely limited.
3	The problem has *some* business impact: The program is usable, but less significant features (not critical to operations) are unavailable.
4	The problem has *minimal* business impact: The problem causes little impact on operations or a reasonable circumvention to the problem was implemented.

2. Describe your problem and gather background information. When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Rational Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:
   - What software versions were you running when the problem occurred?
     To determine the exact product name and version, use the option applicable to you:
       o Start the IBM Installation Manager and select **File** > **View Installed Packages**. Expand a package group and select a package to see the package name and version number.
       o Start your product, and click **Help** > **About** to see the offering name and version number.
   - What is your operating system and version number (including any service packs or patches)?
   - Do you have logs, traces, and messages that are related to the problem symptoms?
   - Can you recreate the problem? If so, what steps do you perform to recreate the problem?
   - Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, or other system components?
   - Are you currently using a workaround for the problem? If so, be prepared to describe the workaround when you report the problem.
3. Submit your problem to IBM Rational Software Support. You can submit your problem to IBM Rational Software Support in the following ways:
   - **Online**: Go to the IBM Rational Software Support Web site at
     https://www.ibm.com/software/rational/support/ and in the Rational support task navigator, click **Open Service Request**. Select the electronic problem reporting tool, and open a Problem Management Record (PMR), describing the problem accurately in your own words.

     For more information about opening a service request, go to
     http://www.ibm.com/software/support/help.html

You can also open an online service request using the IBM Support Assistant. For more information, go to http://www.ibm.com/software/support/isa/faq.html.

- **By phone:** For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at http://www.ibm.com/planetwide/ and click the name of your country or geographic region.

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