IBM Rational Synergy for Microsoft Visual Studio 2010 Interface

7.2.1

Before using this information, be sure to read the general information under [Notices](#).

This edition applies to **IBM Rational Synergy for Microsoft Visual Studio 2010 Interface 7.2.1** and to all subsequent releases and modifications until otherwise indicated in new editions.

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About the Integration

The IBM Rational® Synergy™ for Microsoft® Visual Studio Interface™ gives you change management (CM) support through insulated and build management work areas, provides task-based CM support, and supports source code control operations on project files directly from Microsoft Visual Studio 2010. This integration lets you control and set up your Visual Studio 2010 projects in Rational Synergy. This integration is provided in the form of an install program which can be downloaded from the IBM Rational website.

Assumptions

Before using this document, you should have a basic understanding of how to use the Microsoft Visual Studio 2010 IDE and Rational Synergy. If you are unfamiliar with Visual Studio 2010, complete the tutorial and read the online help for Visual Studio 2010.

For information about Microsoft Visual Studio 2010, see the MSDN Library for Visual Studio 2008.

You should also have a conceptual and practical understanding of Rational Synergy. You should understand task-based CM and be able to perform developer or build manager operations.

- For information about Rational Synergy, see the Rational Synergy information center at: http://pic.dhe.ibm.com/infocenter/rsdp/v1r0m0/index.jsp.

- For terms, concepts, and methodology, see http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.prodoverview.doc/topics/s_r_int_synergy_terminology.html.

- For information about build management-level operations, see the Build Manager's section in the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.manage.doc/topics/s_c_bmg_auto_builds_4ratlsyn.html).

- For a description of Rational Synergy dialog boxes, commands, and default settings, see the Rational Synergy information center.

Read this entire document before using the integration. Knowing all of the features before you integrate your data will help ensure a seamless, efficient integration.

Features

This integration lets you use the source code control and task-based CM operations from the Visual Studio 2010 development IDE. You can configure the integration to use multiple Rational Synergy databases.

How the integration works

This integration has been completely rewritten for Microsoft Visual Studio 2010. Therefore, it has significant changes from the previous Microsoft Visual Studio 2003 integration (version 2.3).

The integration can connect to multiple Rational Synergy databases using Rational Synergy Connections. A Rational Synergy Connection uniquely represents a Rational Synergy database. When you start a Rational Synergy Connection, a corresponding Rational Synergy

session is started. A Rational Synergy Connection is required by the integration to be able to connect to the Rational Synergy database.

You must customize your Microsoft Visual Studio 2010 IDE to see the Rational Synergy Task menu and Rational Synergy Task toolbar. You also need to open the Rational Synergy output Console Window to view the messages returned by the integration.

Audience

The audience for this document is developers. The information in the Rational Synergy for Microsoft Visual Studio Interface Help assumes that you have a basic understanding of how to use Microsoft Visual Studio 2010 and the Rational Synergy client. Information about Rational Synergy in this document is limited to what is essential for you to know to use the integration.

What's new

Rational Synergy for Microsoft Visual Studio Interface offers the following new features:

This integration is based on Visual Studio Industry Partners program. It is written as a Visual Studio Package.

This version of the integration only works with Rational Synergy 7.2.1. Rational Synergy Classic client or older versions of Rational Synergy are not supported by this integration.

Rational Synergy 7.2.1 has a limitation with multiple simultaneous connections. See Issues with this Release for more details.

This version of the integration will only work with Microsoft Visual Studio 2010. However, it can co-exist with the Visual Studio 2003 Integration, Release 2.4, IBM Rational Synergy for Microsoft Visual Studio 2005 Interface 7.2, and IBM Rational Synergy for Microsoft Visual Studio 2008 Interface 7.2.

Requirements

The following products are required to run Rational Synergy for Microsoft Visual Studio Interface:

- Microsoft® Windows 7, 2003 or 2008.
- Microsoft Visual Studio 2010 on supported platforms.
- Rational Synergy 7.2.1 on supported platforms
- Rational® Change™ 5.3.1 (Optional)
- Rational® Team Concert 4.0.3 (Optional)

Installation

Before you install the integration, Rational Synergy Release 7.2.1 and Microsoft Visual Studio 2010 must be installed. The information below provides some instructions on how to install Rational Synergy.

Installing Rational Synergy

See the installation instructions for Rational Synergy in the Rational Synergy Installation Guide for Windows

(http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.install.win.doc/topics/sg_c_igw_install_on_win.html).

After you have properly installed Rational Synergy and Microsoft Visual Studio 2010, you are ready to install IBM Rational Synergy for Microsoft Visual Studio Interface. To learn how to install the integration, see Install the Integration.

Installing the integration

Before you install IBM Rational Synergy for Microsoft Visual Studio Interface, ensure that you have done the following:

- Install Rational Synergy Release 7.2.1 and Microsoft Visual Studio 2010.

- Uninstall any previous versions of Rational Synergy for Microsoft Visual Studio Interface.

- Uninstall any previous versions of IBM Rational Synergy for Microsoft Visual Studio Interface Help. To do this, go to **Control Panel** > **Add or remove Programs** and remove the IBM Rational Synergy for Microsoft Visual Studio Interface Help program.

- Stop all Rational Synergy sessions.

- Read the Team Development and Source Control Operation documentation provided by Microsoft.

- Set your Rational Synergy database or databases to `case=PRESERVE`.

Carefully follow the steps below to install IBM Rational Synergy for Microsoft Visual Studio Interface:

1. Copy Rational Synergy for Microsoft Visual Studio 2010 Interface 7.2.1 from the Rational Synergy 7.2.1 integration CCM_HOME\integrations\vs2010 location.

2. Navigate to setup.exe and run the setup.

   The setup wizard will guide you through the installation steps.

3. After installing the integration, start Microsoft Visual Studio 2010.

Before using the integration

After you have successfully installed the integration, you must perform additional set-up and installation activities before you can begin using the integration. You need to customize Microsoft Visual Studio 2010 to view the Rational Synergy toolbar and menu as well as other views offered by the integration.

You must read the latest Readme to view the most current information.

- Setting up the database

- Setting up the work area

- Installing Visual Studio file types and ignore rules

- Selecting the source control plug-in

- Activating the IBM Rational Synergy Taskbar

- Activating the IBM Rational Synergy Output Console window

- Activating the IBM Rational Synergy Task view

- [Activating the IBM Rational Synergy Change Request view](#)

Setting up the database

Before you can properly begin using the integration, it is important that you set up your Rational Synergy database. There are two important set-up activities to perform on your Rational Synergy database.

1. Ensure that your Rational Synergy database is set to `Preserve` case:

    a. Open up a command prompt on the Rational Synergy server machine and ensure that `ccmdb` is in your path.

    b. Type the following command:

    `ccmdb info <dbpath> /k case /v PRESERVE`.

    c. Exit the command prompt.

    d. Restart the machine.

2. Ensure that your Rational Synergy database is set to support multiple project instances. This is required to support the creation of Solution projects having the same name as the Solution.

    a. Start a Rational Synergy session.

    b. Select **Tools** > **Start Synergy CLI**.

    c. Ensure that `ccm` is in your path.

    d. Type the following commands:

    `ccm set role ccm_admin`

    `ccm query -t model -n base`

    `ccm attr -m multiple_local_proj_instances -v TRUE @1`

    e. Exit the Rational Synergy CLI.

Setting up the work area

Before you begin using the integration to perform source code control operations, you must set Rational Synergy to use a work area template that does not contain project or database specific information. Follow the steps provided below to properly set your work area template.

1. Start a Rational Synergy session.

2. Click **Tools** and select **Options**.

3. Click the **Actions** tab and select **Copy Project** from the list provided.

4. Ensure that the *+ Database name and the Add project-specific directory* options are not selected.

5. Click **Apply** to save your changes, then click **OK** to exit the Options dialog box.

Note: You need this work area template only for project migration. It is not required to have this work area template for the Copy Project operation.

Installing Visual Studio file types and ignore rules

Microsoft Visual Studio file types and ignore rules must be installed into each Rational Synergy database before you can use the integration. To install these types, your group membership must include `ccm_admin` privileges.

1. Start a Rational Synergy session.

2. Select **Tools** > **Start Synergy CLI**.

3. From the command prompt, load the Visual Studio file types program by running `<Rational Synergy Install Directory>\etc\mstypes_vs2010.bat`.

   This program installs different file types for Microsoft Visual Studio 2010.

4. After the installation is complete, exit and restart your Rational Synergy session.

Selecting the source control plug-in

Before you can use any of the task-based and source code control operations that Rational Synergy for Microsoft Visual Studio Interface offers, you must first select Rational Synergy as your source control plug-in selection.

1. Open the Microsoft Visual Studio 2010 IDE.

2. In the Microsoft Visual Studio 2010 main menu, click **Tools**, then select **Options**.

3. Select **Source Control**, then select the **Plug-in Selection** option.

   The Options dialog box opens so that you can choose your current source control plug-in. You must select IBM Rational Synergy.

4. Select **IBM Rational Synergy** and click **OK**.

Once you have selected IBM Rational Synergy as your current source control plug-in, the Rational Synergy Settings dialog box may open if you have no Rational Synergy connections available. You must create a Rational Synergy connection in order to perform the source control operations offered by the integration. For more information about creating a connection, see Connection management.

Activating the IBM Rational Synergy Taskbar

To use the IBM Rational Synergy Taskbar that is made available to you in the integration, you must first activate it.

1. In the Microsoft Visual Studio 2010 IDE, click **Tools**, then select **Customize**.

2. Select the **IBM Rational Synergy Taskbar** option, then click **Close**.

There is alterative way to activate the IBM Rational Synergy Taskbar. In the Microsoft Visual Studio IDE, right click on any available space around the toolbars. You will see several menu options.

Select IBM Rational Synergy Taskbar. The IBM Rational Synergy Taskbar is available as an additional toolbar in the Microsoft Visual Studio IDE.

Activating the IBM Rational Synergy output console window

To view any messages that result from performing any of the version control operations, you must activate the IBM Rational Synergy Output console window.

1. In the Microsoft Visual Studio 2010 IDE, click **View**, then select **Output**.

2. The Output console window opens at the bottom of the Microsoft Visual Studio 2010 IDE. You can view the messages that result from any source control operations that you perform.

Activating the IBM Rational Synergy Task View

The Rational Synergy Task View is activated automatically and added to the Microsoft Visual Studio 2010 IDE once you select Rational Synergy as your source control plug-in. For more information about selecting Rational Synergy as your source control plug-in, see Selecting the source control plug-in.
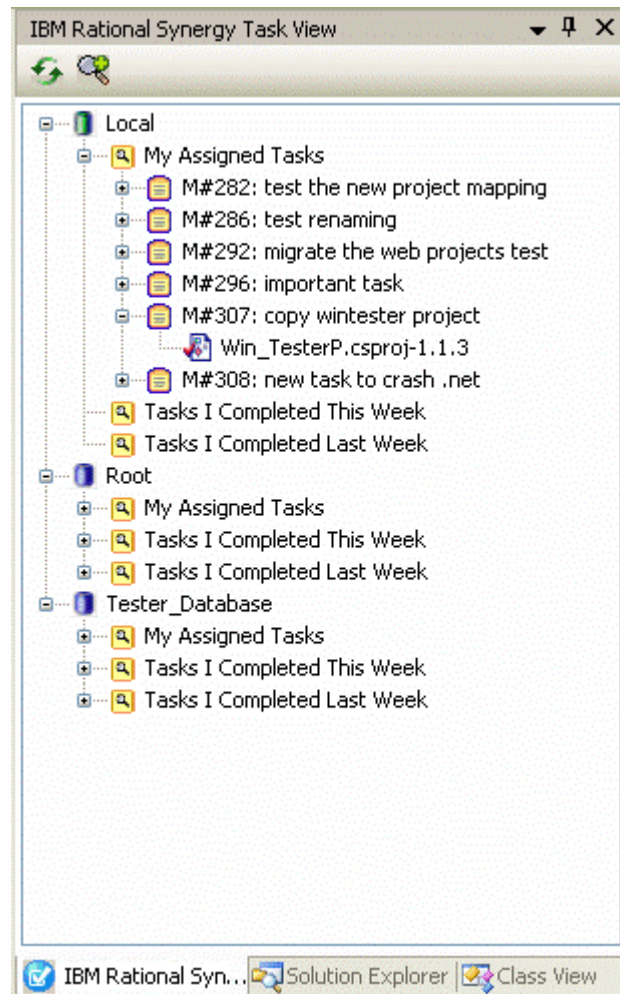
To close the IBM Rational Synergy Task view while you are using the integration, close the view just as you would if you were closing any of Microsoft Visual Studio's views/windows.

To reactivate the IBM Rational Synergy Task View, in the Microsoft Visual Studio 2010 main menu, click **View** > **IBM Rational Synergy**, then select **IBM Rational Synergy Task View**. The IBM Rational Synergy Task View is added to the Microsoft Visual Studio IDE.

Note: The IBM Rational Synergy Task View is automatically removed from the Microsoft Visual Studio 2010 IDE once you disable Rational Synergy as your source control plug-in selection.

Activating the IBM Rational Synergy Change Request view

The Rational Synergy Change Request View is activated automatically and added to the Microsoft Visual Studio IDE when you select Rational Synergy as your source control plug-in. For more information about selecting Rational Synergy as your source control plug-in, see Selecting the source control plug-in.
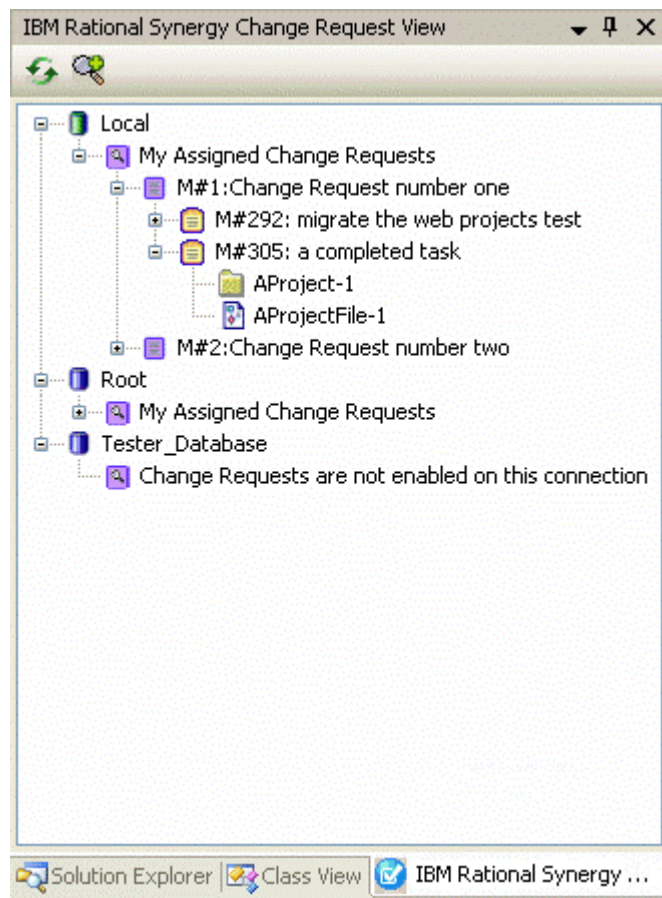
To close the IBM Rational Synergy Change Request View while you are using the integration, close the view just as you would if you were closing any of Microsoft Visual Studio's views/windows.

To reactivate the IBM Rational Synergy Change Request View, in the Microsoft Visual Studio 2010 main menu, click **View** > **IBM Rational Synergy**, then select **IBM Rational Synergy Change Request View**. The IBM Rational Synergy Change Request View is added to the Microsoft Visual Studio IDE.

Note: The IBM Rational Synergy Change Request View is automatically removed from the Microsoft Visual Studio 2010 IDE once you disable Rational Synergy as your source control plug- in selection.

Project setup and migration

Project setup and data migration is the process of starting a project in Microsoft Visual Studio 2010 and controlling the same project under Rational Synergy configuration management. The following sections describe this process.

- [Project mapping](#)
- [How to migrate](#)
- [Building your application in Visual Studio](#)
- [Migrating to Rational Synergy](#)
- [Migrating from within Microsoft Visual Studio](#)

Project mapping

A Visual Studio Solution consists of many projects. These projects may be located anywhere in the file system. Project mapping is the process of defining how a Visual Studio project corresponds to a project in Rational Synergy. This integration maps a Visual Studio Solution and its projects to Rational Synergy projects according to the following rules.

1. A Solution is mapped to a project in Rational Synergy with an absolute work area. In Rational Synergy, the Solution is the top-level project.

2. A project that is located inside the Solution directory in the file system may be migrated as a project or a directory in Rational Synergy.

   - If a project is migrated as a project, it must have a relative work area and is defined as a subproject of the Solution project (top-level project) in Rational Synergy.

   - If a project is migrated as a directory, it must have a relative work area and is defined as a directory of the Solution project (top-level project) in Rational Synergy.

3. A project that is located outside the Solution directory in the file system may only be migrated as a project. These types of projects must have an absolute work area and will be defined as a subproject of the Solution project (top-level project) in Rational Synergy.

Other recommendations:

If the option Show Miscellaneous Files in Solution Explorer is enabled in **Tools** > **Options** > **Environment** > **Documents**, the files that are placed in the Miscellaneous Files folder are not be migrated to Rational Synergy when the Solution or Project is migrated. Also, cannot migrate the Miscellaneous Files folder and all its files to Rational Synergy separately. To learn more about the Miscellaneous Files folder, see the Microsoft Help.

If the files that are contained in the Miscellaneous Files folder are important and you would like to control the files under Rational Synergy, you may do one of the following:

- Create a Solution folder and place the files in the Solution folder. Files contained in a Solution folder are migrated to Rational Synergy when the Solution is migrated.

- Create a Project folder and place the files in the Project folder. Files contained in a Project folder are migrated to Rational Synergy when the Solution or Project is migrated.

Note: You may also migrate files in a Solution or Project folder by performing the Add Uncontrolled Files operation. For more information about the Add Uncontrolled Files operation, see Adding new files and folders to databases.

How to migrate

For your Solutions/Projects to work effectively in a team environment, it is important that they are structured properly. When you structure your Solutions and Projects, make sure that your Solutions and Projects have a relative work area. You can accomplish this in two ways.

- When creating your Solutions and Projects, ensure that all of the Projects contained in your Solutions have a relative work area instead of an absolute work area

- Modify your Solution files so that the Project paths are relative rather than absolute.

Building your application in Visual Studio

Before you can migrate Solutions and Projects to Rational Synergy, you must first prepare and build your Solutions and Projects in Visual Studio. Ensure that you have done the following before you migrate your projects to Rational Synergy.

1. Prepare the Solutions and Projects that you want to migrate to Rational Synergy by creating/opening the Solutions and Projects in Visual Studio.

2. Ensure that the application builds properly in Visual Studio and that all the files/folders that you want to control under Rational Synergy are in your work area.

Your project is now ready for migration.

Migrating to Rational Synergy

Caution: Before you migrate your Solutions/Projects to Rational Synergy, make sure that you have installed the Microsoft Visual Studio file types into your Rational Synergy database.

To read more about how you can install the Microsoft Visual Studio file types into your Rational Synergy database, see the Installing Visual Studio file types and ignore rules.

There are two ways to migrate projects to Rational Synergy, one from Rational Synergy directly, and the other from the Microsoft Visual Studio IDE by using the integration. This section explains the Migrating from within Microsoft Visual Studio process.

Also, once you have properly migrated your Solutions and Projects to Rational Synergy, you must rebuild and baseline your projects (see Rebuilding and baselining your project).

Migrating from within Microsoft Visual Studio

Read this section to understand the process of migrating Solutions and Projects from within the Microsoft Visual Studio IDE by using the integration.

Before you migrate your Solutions/Projects to Rational Synergy, make sure that all of the project path/files are not locked. The integration needs to move and rename the project files during the process of migration and if any of the project path/files are locked, the integration cannot migrate the Solutions/Projects properly.

If your Solution contains a project which has the same name as the Solution, make sure that your Rational Synergy database is set to support multiple project instances. If you decide not to set your Rational Synergy database to support multiple project instances, you must do one of the following in order for the project migration to work properly.

1. Rename the Solution by renaming the following:

    - `.sln` file

    - The directory containing the .sln file

2. Rename the Project by renaming the following:

    - project file

    - the directory containing the project file

Caution: When you rename the directory containing the project file, you must also update the Solution file so that it points to the renamed project.

For the integration to perform the migration, you must have a defined connection to an Rational Synergy database to which you want to migrate the project. For information about creating a connection, see [Connection management](#).

Carefully follow the steps below to migrate your Solutions and Projects to Rational Synergy.

1. Ensure that you have a Rational Synergy connection.

2. Right click the Solution in the Solution Explorer.

3. Select the IBM Rational Synergy option, then select **Create Project in IBM Rational Synergy**. Or from the Microsoft Visual Studio 2010 main menu, click **File** > **IBM Rational Synergy**, then select **Create Project in IBM Rational Synergy**.

    Specify whether you want the projects created as a project or as a directory. Remember that projects located outside the Solution directory in the file system may only be migrated as a project, and projects located inside the Solution directory in the file system may be migrated as a project or a directory.

    Remember that ASP.Net Web Application projects whose location in the file system is inside the directory of another Project or Solution directory may only be migrated to Rational Synergy as a directory when using the integration.

    By using the Create Project in IBM Rational Synergy dialog box, you can choose not to migrate some of the projects in your Solution.

   **Caution:** If you choose not to migrate the Solution, you cannot migrate any of the projects that are located inside the Solution directory in the file system. The only way to migrate projects located inside the Solution directory is by also choosing to migrate the Solution.

4. Select the appropriate Connection Name, Release, Purpose, Platform, Default Task, and write an appropriate Description.

5. Click **Create** to view the progress dialog box.

   If the database currently selected for project migration is not set to PRESERVE case, the integration warns users before migrating the Solutions/Projects.

6. When project creation is finished, Microsoft Visual Studio will display a warning dialog box stating that the Solution has been modified outside the environment. Before you respond to the Conflicting File Modification Detected dialog box, make sure that the progress dialog box has disappeared.
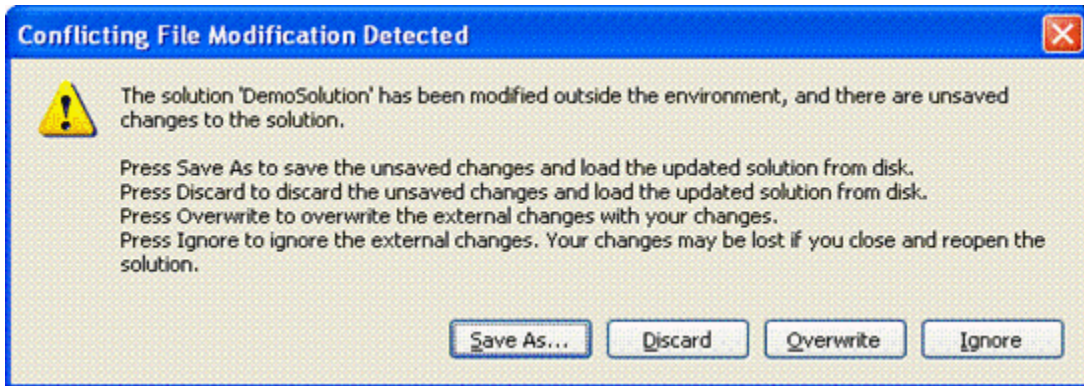
7. Click **Overwrite**. Microsoft Visual Studio prompts you to save the Solutions by displaying a dialog box. You must click **Yes** to save the current state of your Solutions and Projects.
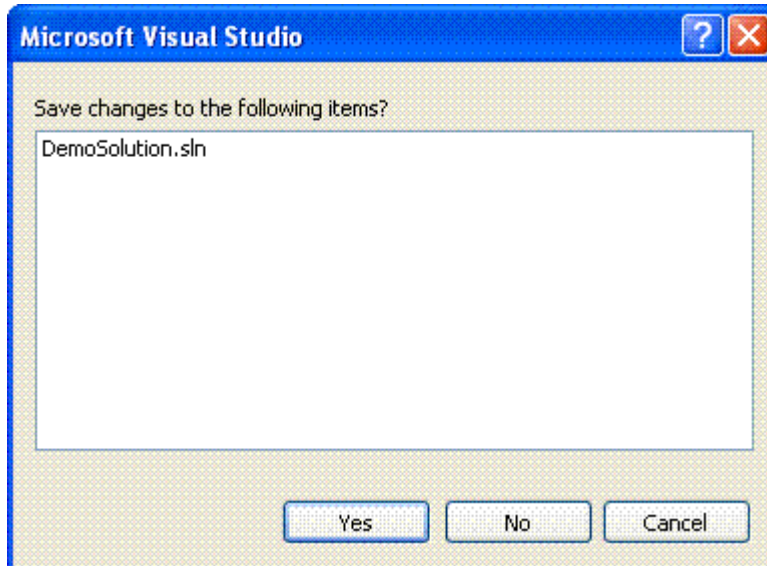
8. The Solutions and Projects files are now properly decorated in the Solution Explorer.

   Note: Web projects are not display glyphs even if they are controlled.
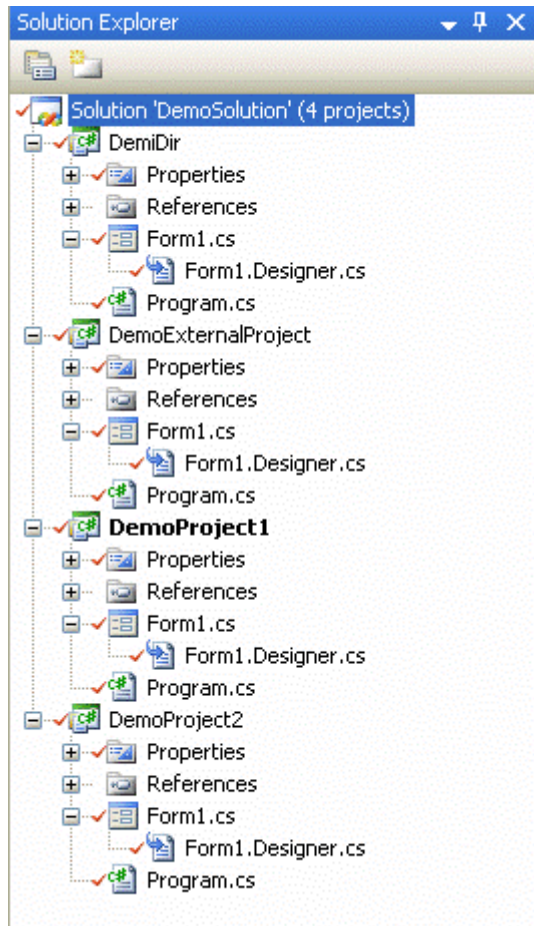
9. From the Microsoft Visual Studio 2008 main menu, click **File** > **Save All**. Your Solutions and Projects are now controlled under Rational Synergy.

Rebuilding and baselining your project

Your Solutions and Projects are now in Rational Synergy. Perform the following steps to baseline the Projects. You must rename the directory containing the Solution in the file system to ensure that all of the necessary files have been migrated when the Solution is re-built after you perform the Open Project operation.

1. Open the Microsoft Visual Studio IDE.

2. Open the projects that you just migrated to Rational Synergy by using the integration. Click the Open Project button located in the IBM Rational Synergy Taskbar or by selecting the Open Project option from the IBM Rational Synergy menu:

IBM Rational Synergy Taskbar Open Project Option
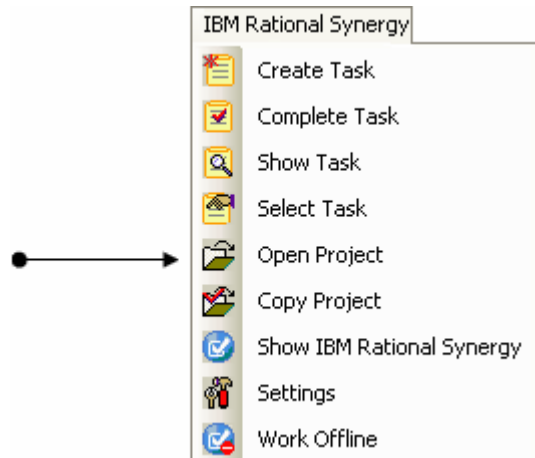
3. The Open IBM Rational Synergy Project dialog box opens and displays all of the working projects, including prep projects. The Open IBM Rational Synergy Project dialog box also displays the available project versions for each project.

4. Select the appropriate project and version that you want to open.

5. Click Open. When you open a project:

   • The project and version that you selected will be opened as a Visual Studio Solution/Project in the Microsoft Visual Studio 2010 IDE.

   • The Solution and Project files will be displayed in the Solution Explorer with appropriate decorators that indicate their current source control status.

6. Rebuild the Solutions and/or Projects that you just opened.

7. To baseline the Projects, you may be required to use the Rational Synergy Client. You must have the `build_mgr` or `ccm_admin` role.

   If you do not have either role, make sure all the tasks are checked in and that no files in your Rational Synergy project are checked out. Now you can ask your build manager or administrator to baseline your project. Baseline projects are in a non-modifiable state, such as released, integrate, and so on.

   For more information about baselining projects, see the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.manage.doc/topics/s_t_bmg_baselining_projs.html).

Setting up a development project

Once you have baselined your projects, delete your work area. Your work area is no longer valid. You should copy the project and open that project in Microsoft Visual Studio to continue with the development process. When you copy the project, you get a new working copy of the project. It is important that you have a working copy of the project in order to make any changes.

To get a working copy of a project, you must [copy a project](#).

After you have successfully copied the project, [open the project from the file system](#).

Copying a project

Before you can continue with the development process, you must first get a new working copy of the project. You can do this by using the Copy Project operation provided to you by the integration. The following information will explain the process of copying a project.

- The Copy Project operation requires that the `.sln` file and all project files be non-modifiable (integrate state). After executing the Copy Project operation, you may be prompted by the integration to check out the `.sln` file and all project files, always select **Yes**.

- Before performing the Copy Project operation, make sure that the new work area location is empty.

- When copying projects, ensure that your work area template includes project specific information that includes the project version and project instance.
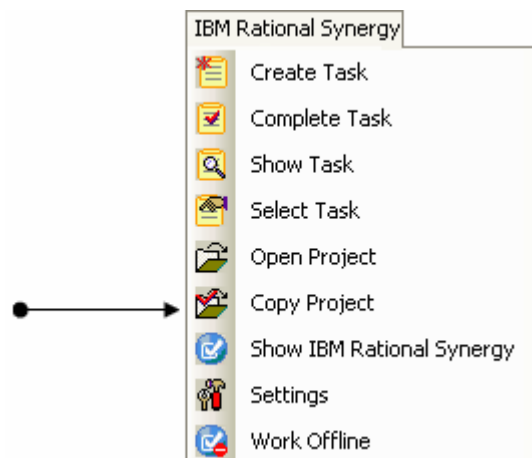
To copy a project:

1. Open the Microsoft Visual Studio IDE.

2. Copy the project that you have controlled under Rational Synergy.

   You may do this by clicking Copy Project located on the [IBM Rational Synergy Taskbar](#) or by selecting Copy Project from the IBM Rational Synergy menu:

IBM Rational Synergy Taskbar Copy Project Option

3. The Copy IBM Rational Synergy Project dialog box opens. The value in the New Version box is the next version recommended by the integration. The Copy IBM Rational Synergy Project dialog box displays all of the available projects and project versions.

4. Select the project and project version that you want to copy. Also, make sure that the appropriate Connection Name, Current Task, Scope, New Version, Release, Purpose, and Work Area for the project that you are copying are set properly. If you need further help understanding and setting the available options, go to the Rational Synergy information center to read more about copying projects.

5. Click **Copy** to copy the project.

If you want to copy the subprojects, select the checkbox next to the Also Copy Subprojects option.

Opening a project from the file system

If you have a working project and you know its location in the file system, you can also open the project by using the Microsoft Visual Studio IDE's Open Project/Solution menu.

1. Open the Microsoft Visual Studio 2010 IDE.

2. On Visual Studio's main menu, click **File** > **Open**, then select **Project/Solution**.

3. Locate the Project/Solution that you want to open and then open it. Microsoft Visual Studio opens the Project/Solution that you selected. The Project/Solution is added to the Solution Explorer.

4. To connect the Project/Solution to Rational Synergy, select the Solution or Project in the Solution Explorer, then select the Connect option from the IBM Rational Synergy menu. The integration displays the Select Connection dialog box. Use this dialog box to select a connection.

   If you connect the Solution, the Solution and all the Projects contained in the Solution is connected to Rational Synergy. If you connect only the Project, just the Project that you selected is connected to Rational Synergy.

5. Select the appropriate connection by highlighting it, then clicking Select.

   The Project/Solution that you opened is now connected to Rational Synergy.

6. Once you are connected, from the Microsoft Visual Studio IDE's main menu, click **File** > **Save All** to save all of the files.

   The next time you open this project or solution, the project or solution opens as connected.

Getting familiar with the integration

This section outlines some of the new options and features that are provided in the integration. Read the following sections to understand how to use the integration to its full potential.

- IBM Rational Synergy Taskbar

- [IBM Rational Synergy Output Console window](#)
- [IBM Rational Synergy views](#)
- [Toolbar operations](#)
- [Pop-up menu operations](#)
- [Symbols](#)
- [Tooltips](#)
- [Settings](#)

IBM Rational Synergy Taskbar

The IBM Rational Synergy Taskbar and menu offer a quick way to perform task, project, and settings operations.
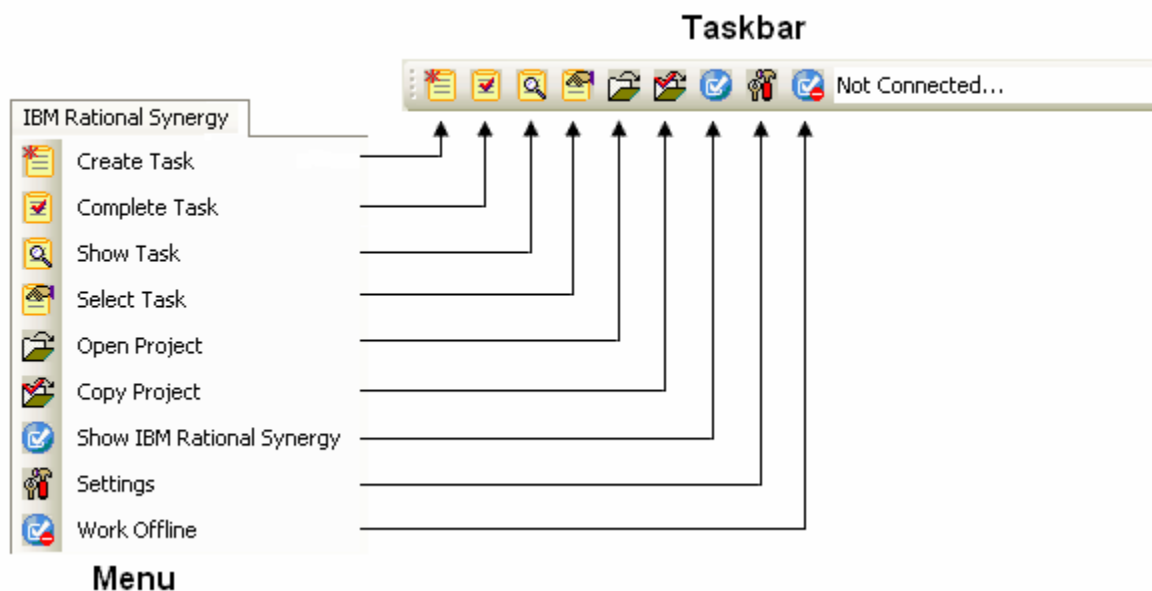
These operations are further described in the following sections.

Creating a task

Use the Create Task menu option or click to open the Create Task dialog box. Fill in all of the available options (Task Synopsis, Resolver, Release, Priority, Platform, Subsystem, Estimated Effort, Estimated Date, and Description), then click **Create** to create a new task. The newly created task will become your current task.

Completing a task

Use the Complete Task menu option or click to open the Complete Task dialog box. When the Complete Task dialog box opens, the current task is automatically selected.

1. Select the task that you want to complete.

2. Select or fill in the following options (Connection Name, Actual Effort, and Description), then click **Complete** to complete the selected task.

You must refresh the status of your Solution in to see the updated version control status symbols. For more information, see [Refreshing the Version Control Status](#).

Showing task properties

Use the Show Task menu option or click to open the Task Properties dialog box. You can view and/or make any changes to the task properties. When you are done, click **OK** to save the changes to the task properties.

Selecting a task

Use the Select Task menu option or click to open the IBM Rational Synergy Select Task dialog box.

The IBM Rational Synergy Select Task dialog box displays the current task in the color purple. Select the task that you want to set as your new current task by highlighting the task row, then click **Select** to set the task that you selected as the current task.

If the task that you want to set as the current task is not available, click **Create Task** to create a task. The new task is set as the new current task.

Opening a project

Use the Open Project menu option or click to open the Open IBM Rational Synergy Project dialog box.

The Open IBM Rational Synergy Project dialog box shows all of the projects that match the Project Scope that you selected. Select the project and project version that you want to open, the click **Open**. The selected project version are added to your workspace.

Showing the Rational Synergy interface

Use the Show IBM Rational Synergy menu option or click to launch Rational Synergy.
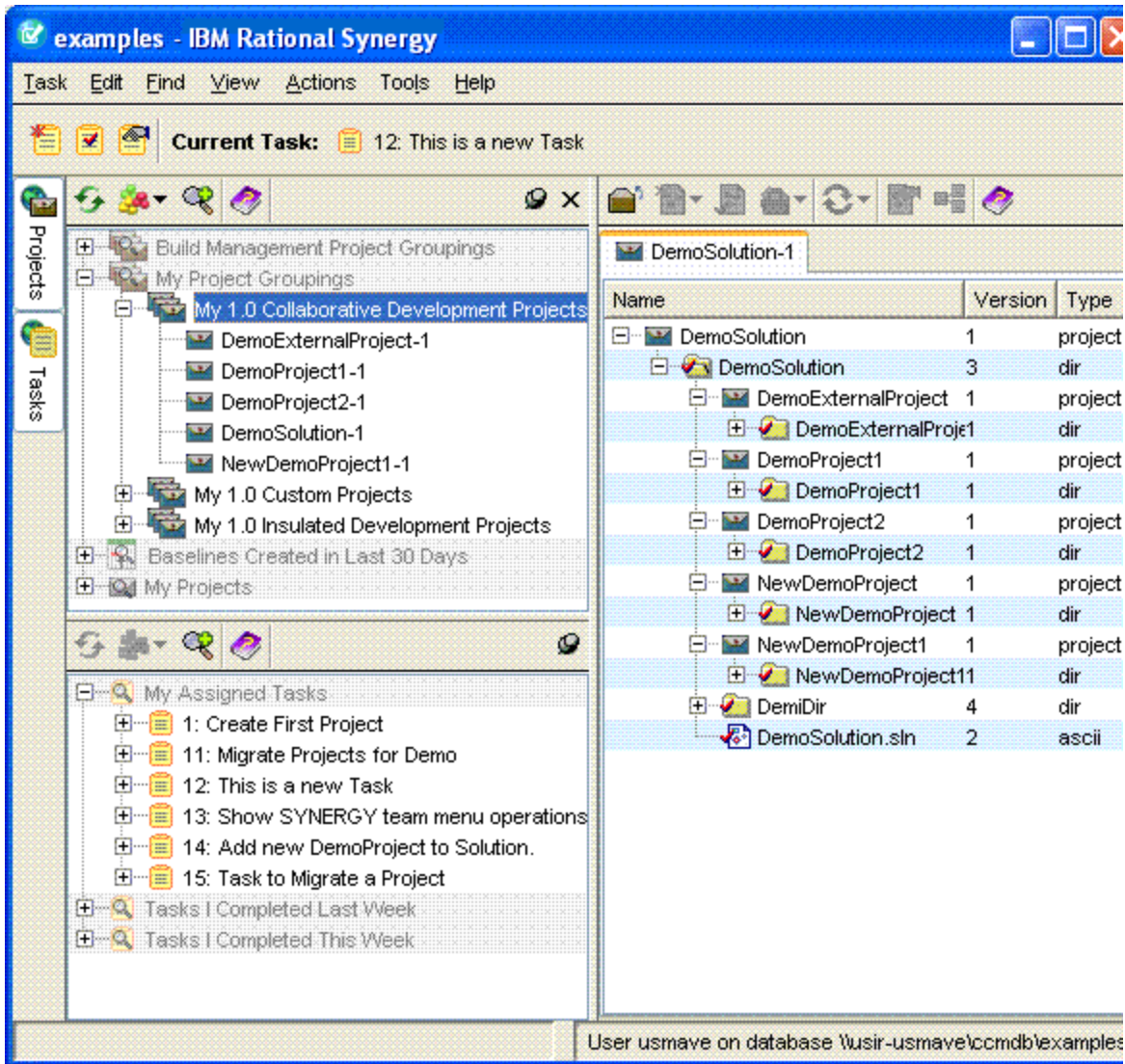
Task box

The Task box is available with the IBM Rational Synergy Taskbar. This box is used to select/view the task for the current default Rational Synergy connection.

The Task box always displays the current task for the default connection. If there is no task set as current, the box displays **NONE**. If there is no default Rational Synergy connection or the current default connection is not connected, the box displays **Not Connected**.

To connect to Rational Synergy using the Task box:

1. Ensure that you have a default Rational Synergy connection set (see [Connection management](#)).

2. On the Task box, select **Connect to IBM Rational Synergy**.

   The integration attempts to connect to Rational Synergy and the Connecting to IBM Rational Synergy progress dialog box opens.

Result: A session is started for the default connection. The box is populated with all of the assigned tasks for the corresponding session.

You can also use the Task box to disconnect the default connection from Rational Synergy by selecting **Disconnect From IBM Rational Synergy**. The session corresponding to the default connection is disconnected and the Task box displays **Not Connected**.

- If there is no default connection set and you try to perform an action related to the Task box, you are prompted to select a default connection.

- If no connections are available and you try to perform an action related to the Task box, you are prompted to create a default connection.

Working offline

Use the Work Offline menu option or click to use the integration offline. Once you select the Work Offline menu option or icon, the integration automatically switches to Offline Mode. The integration does not provide any of its normal capabilities while operating offline, and any attempt to connect to a Rational Synergy database is not allowed.

When the integration is in Offline Mode, the following conditions apply:

- The integration exits all running Rational Synergy sessions.

- The integration disables the IBM Rational Synergy Taskbar and Menu with the exception of the Work Offline icon and menu option.

- The integration disables the IBM Rational Synergy Team Menu.

- The integration disables the IBM Rational Synergy Task and Change Request Views.

- The integration does not allow users to rename Solutions, Solution files, Projects, and Project files within the Visual Studio IDE.

- The integration does not allow users to move Solutions, Solution files, Projects, and Project files around within the Visual Studio IDE.

- The move and rename operations are prevented while offline in order to prevent irreconcilable conflicts with the Rational Synergy database.

Restrictions

Although the Save as, Rename, and Move operations are restricted while offline, certain restrictions do apply and are listed below:

- **Save as**

  o Solutions - When performing a Save as operation on Solutions, a new instance of the object is not created and none of the objects are changed.

  o Projects - When performing a Save as operation on Projects, a new instance of the object are not created, but if the read-only attribute of the Solution (.sln) file is enabled, the integration automatically disables it.

o Solution files - When performing a Save as operation on Solution files, the integration creates a new instance of the object having the new name in the file system, but the original object remains in the Solution Explorer and in the file system. If the read-only attribute of the Solution (`.sln`) file is enabled, the integration automatically disables it.

  Caution: If you perform the Save as operation on Solution files while offline and the read- only attribute of the Solution (`.sln`) file is currently disabled, the Solution project is not stored as a modified project even-though a new object was added in the file system.

o Project files - When performing a Save as operation on Project files, the integration creates a new instance of the object having the new name in the file system and replaces the original object in the Solution Explorer. The original object remains in the file system. If the read-only attribute of the Project (`.proj`) file is enabled, the integration automatically disables it.

- **Rename**

  o Solutions - The integration does not allow renaming of Solutions while offline.

  o Projects - The integration does not allow renaming of Projects while offline. However, if you attempt to rename a Project and the read-only attribute of the Solution (`.sln`) file is enabled, the integration automatically disables it.

  o Solution files - The integration does not allow renaming of Solution files while offline. However, if you attempt to rename Solution files and the read-only attribute of the Solution (`.sln`) file is enabled, the integration automatically disables it.

  o Project files - The integration does not allow renaming of Project files while offline. However, if you attempt to rename Project files and the read-only attribute of the Project (`.proj`) file is enabled, the integration automatically disables it.

- **Move into, Drag and Drop, and Copy and Paste**

  o Solutions - Solutions are restricted from being moved.

  o Projects - Projects are restricted from being moved.

  o Solution files - The integration does not allow you to perform the Move into operation on Solution files while offline. However, if you attempt to perform the Move into operation on Solution files and the read-only attribute of the destination Project (`.proj`) file is enabled, the integration automatically disables it. The integration does allow you to Drag and Drop and Copy and Paste Solution files to Projects.

  o Project files - The integration does not allow you to Drag and Drop or Copy and Paste Project files to a Solution while offline. However, if you attempt to perform these operations and the read-only attribute of the Solution (`.sln`) file is enabled, the integration automatically disables it. The integration does allow you to Drag and Drop and Copy and Paste Project files between Projects.

Switching back to Online Mode

If you are finished working offline, notify the integration to reconnect to Rational Synergy. To do this, select the Work Offline menu option or click [icon]. The integration automatically switches back to Online Mode.

When the integration returns to Online Mode, the following conditions apply:

- The integration starts all the Rational Synergy connections saved.

- The integration enables the IBM Rational Synergy Taskbar and Menu.

- The integration enables the IBM Rational Synergy Team Menu.

- The integration enables the IBM Rational Synergy Task and Change Request Views.

- The integration now allows move and rename operations to be performed on Solutions, Solution files, Projects, and Project files from within the Visual Studio IDE.

- The integration notifies the user of any Solutions and Projects that were modified while the integration was offline. This is accomplished in the following ways:

  o When returning online, the integration displays a list of Solutions and Projects that were modified while working offline by using the IBM Rational Synergy Synchronize Projects dialog box.

  The IBM Rational Synergy Synchronize Projects dialog box allows you to synchronize projects one at a time from the list. Once a project has been synced, it is automatically removed from the list. If you choose not to synchronize the projects upon returning online, select **Cancel**. Remember that choosing not to sync projects may result in work area conflicts.

  Note: Once you choose a project from the list and select **Sync**, make sure you finish synchronizing that project first before selecting another project from the list. This means that keeping all the work area changes that you want from the IBM Rational Synergy Work Area Conflicts dialog box and then exiting.

  o Once you are back online, you can use the IBM Rational Synergy Team Menu options. If you attempt to perform a Team operation on a Solution or Project on the list that has not been synchronized, the integration warns you that the project is out of sync by displaying a dialog box.

  The Out of Synced Project Warning dialog box asks if you want like to sync the project now.

  o If you choose to sync the project now, the Team operation you are trying to perform will not continue for the selected Solution or Project. Instead the IBM Rational Synergy Work Area Conflicts dialog box opens. After you have finished synchronizing the project, you must re-select the Team operation to continue.

  o If you choose to sync the project later, the Team operation you are trying to perform continues as normal.

IBM Rational Synergy Output Console window

The integration uses Microsoft Visual Studio 2010 IDE output window to show results of various source control operations. Use this view to check for any error or warning messages when performing version control operations.

IBM Rational Synergy views

IBM Rational Synergy for Microsoft Visual Studio Interface provides the following views:

- IBM Rational Synergy Task View
- IBM Rational Synergy Change Request View

If you rename or delete a saved task or change request query by using Rational Synergy and that query is currently being displayed in the view, you can update the information being shown on the IBM Rational Synergy views:

1. Perform the Refresh operation on the view.

2. Re-expand the connection element that contained that saved task or change request query.

If you rename a saved task or change request query by using Rational Synergy and that query is currently being displayed in the view, after you perform the above steps, you must add the renamed query to the view again by performing the Add Saved Query operation. For more information about the Add Saved Query operation, see:

- Add Saved Task query
- Add Saved Change Request query

IBM Rational Synergy Task view

The integration provides a view designed to work with Rational Synergy tasks. When you open the IBM Rational Synergy Task View without creating any connections, the view is empty.

The IBM Rational Synergy Task view displays an element for each connection defined in the integration:

- Each connection element is decorated with the connection name.
- The default connection is represented by a green connection icon.
- All other connections are represented by a blue connection icon.
- If there is no default connection defined, all connection elements are represented by a blue connection icon.

Each connection element can be expanded to display the task queries saved for that connection:

- Each task query is decorated with the query name.
- All task queries are represented by a task query icon.
- Initially, the integration displays three standard saved task queries for each connection: "My Assigned Tasks", "Tasks I Completed This Week", and "Tasks I Completed Last Week".

Each task query displayed in the view can be expanded to display all the tasks that match the given query:

- Each task is decorated with the task number and the task synopsis.

- All tasks are represented by a task icon.

Each task displayed in the view can be expanded to show all the objects associated to that task:

- Each object is decorated with the file or folder name and its version.

- All objects are represented by either a file or folder icon. If the object is a file, it is represented by a file icon, and if the object is a folder, it is represented by a folder icon.

- The objects' icons reflect their status. Objects that are currently in working (checked out) state is represented by a file or folder icon that is checked and objects that are currently in static (checked in) state are represented by a file or folder icon that is unchecked.

You can drag and drop objects between assigned tasks:

- The integration does not allow you to drag and drop objects between completed tasks.

- The integration does not allow you to drag and drop objects between different connections.

Note: The drag and drop feature in the IBM Rational Synergy Task View is only available for objects.
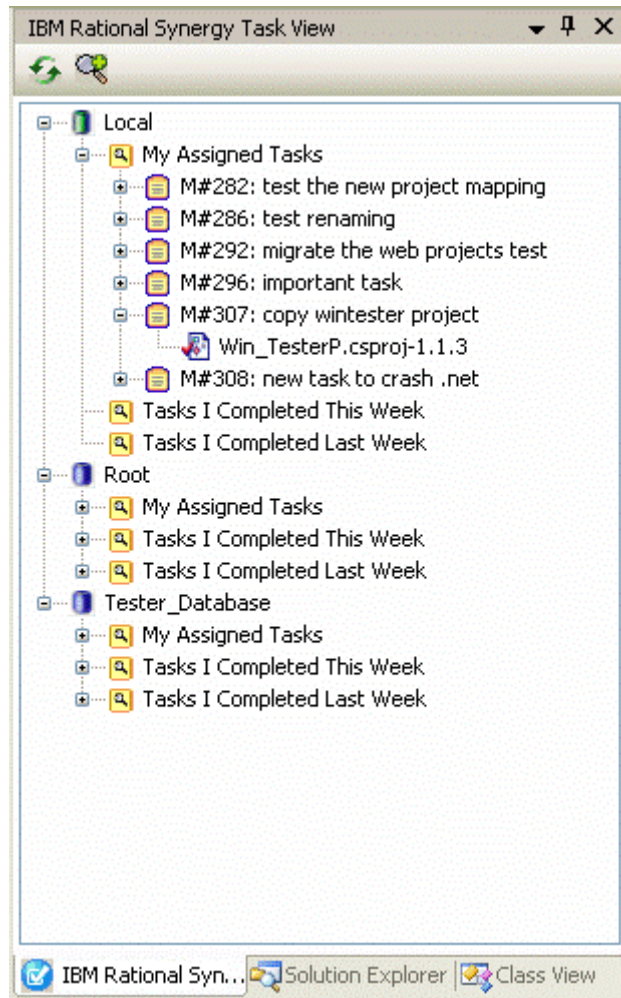
The following toolbar operations are available from the IBM Rational Synergy Task View.

- Refresh View
- Add Saved Task Query

IBM Rational Synergy Change Request view

The integration provides a view designed to work with IBM Rational Synergy change requests. If you open the IBM Rational Synergy Change Request View without creating any connections, the view is empty.

The IBM Rational Synergy Change Request View displays an element for each connection defined in the integration.

- Each connection element is decorated with the connection name.
- The default connection is represented by a green connection icon.
- All other connections are represented by a blue connection icon.
- If there is no default connection defined, all connection elements are represented by a blue connection icon.

Each connection element can be expanded to display the change request queries saved for that connection.

- Each change request query is decorated with the query name.

- All change request queries are represented by a change request query icon.

- Initially, the integration displays one standard change request query for each connection: "My Assigned Change Requests".

- If the IBM Rational Synergy to IBM Rational Change integration is not enabled for a connection, the integration displays a message stating: "Change Requests are not enabled on this connection" for that connection. This is the only element displayed below that connection node and the pop-up menu operations are disabled for the connection.

Each change request query displayed in the view can be expanded to display all the change requests that match the given query.

- Each change request is decorated with the change request number and the change request synopsis.

- All change requests are represented by a change request icon.

Each change request displayed in the view can be expanded to display all the tasks associated with that change request.

- Each task is decorated with the task number and the task synopsis.

- All tasks are represented by a task icon.

Each task displayed in the view can be expanded to show all the objects associated to that task.

- Each object is decorated with the file/folder name and its version.

- All objects are represented by either a file or folder icon. If the object is a file, it is represented by a file icon, and if the object is a folder, it is represented by a folder icon.

- The icons of the objects reflect their status. Objects that are currently in working (checked out) state are represented by a file/folder icon that is checked and objects that are currently in static (checked in) state is represented by a file/folder icon that is unchecked.

You can drag and drop tasks between assigned change requests.

- The integration does not allow you to drag and drop tasks between change requests that are not assigned.

- The integration does not allow you to drag and drop tasks between different connections.

You can drag and drop objects between assigned tasks.

- The integration does not allow you to drag and drop objects between completed tasks.

- The integration does not allow you to drag and drop objects between different connections.

Note: The drag and drop feature in the IBM Rational Synergy Change Request View is only available for tasks and objects.
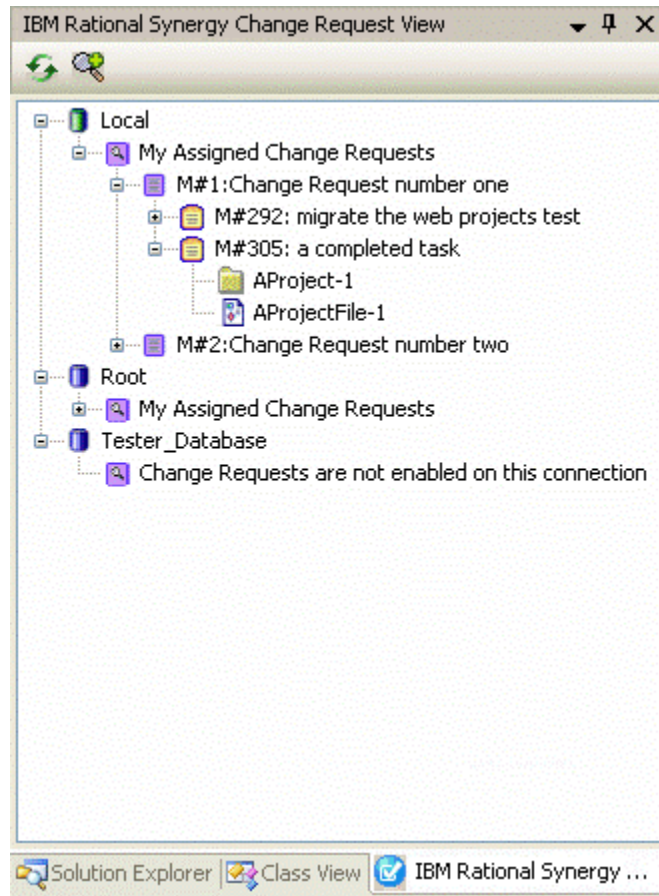
Toolbar operations

The IBM Rational Synergy Views offer a quick way to refresh and add queries to the view through the use of the following toolbar operations:
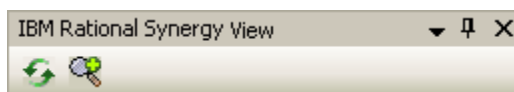
- Refresh View
- Add Saved Task Query (only available in the IBM Rational Synergy Task View)
- Add Saved Change Request Query (only available in the IBM Rational Synergy Change Request View)

Refresh view

Click the ⟳ Refresh icon from the IBM Rational Synergy View's toolbar (task or change request) to update the contents of the view. When you click ⟳, the contents of the view are updated.

Add Saved Task query

You may display additional saved task queries to the IBM Rational Synergy Task View.

To add a task query to the IBM Rational Synergy Task View:

1. Click the ![icon] Add Saved Query icon from the IBM Rational Synergy Task View's toolbar.

2. The Select Query dialog box opens.

    - The Select Query dialog box initially displays the saved task queries for the default connection.

    - The task queries that you created is displayed in bold font. Other task queries will be displayed in regular font.

    - If there is no default connection set, the Select Query dialog box displays **NONE** in the Connection Name box.

3. Select the Connection Name and task query that you want to add to the view.

4. Click **OK** to add the selected task query to the IBM Rational Synergy Task View.

Add Saved Change Request query

You may display additional saved change request queries to the IBM Rational Synergy Change Request View.

To add a change request query to the IBM Rational Synergy Change Request View:

1. Click the ![icon] Add Saved Query icon from the IBM Rational Synergy Change Request View's toolbar.

2. The Select Query dialog box opens.

    - The Select Query dialog box initially displays the saved change request queries for the default connection.

    - The change request queries that you created are displayed in bold font. Other change request queries are displayed in regular font.

    - If there is no default connection set, the Select Query dialog box displays **NONE** in the Connection Name box.

    - If the connection selected does not have the Rational Synergy to Rational Change integration enabled, the Select Query dialog box displays **NONE** in the change request query list box.

3. Select the Connection Name and change request query that you want to add to the view.

4. Click **OK** to add the selected change request query to the IBM Rational Synergy Change Request View.

Pop-up menu operations

With the exception of connection elements, the IBM Rational Synergy Views provide the following menu operations:

- Cutting a query
- Refreshing a query

Cutting a query

To cut a query from the view:

1. On the IBM Rational Synergy View, select the query (task or change request) that you want to remove from the view.

2. Right-click the selected query and select **Cut** from the menu options. The query selected is removed from the IBM Rational Synergy View.

Note: When you perform the Cut operation on a query (task or change request), the query is not deleted. It is only removed from the IBM Rational Synergy View.

Refreshing a query

To refresh the contents of a query:

1. On the IBM Rational Synergy View, select the query (task or change request) that you want to refresh.

2. Right-click the selected query and select **Refresh** from the menu. The contents of the query is updated.

Viewing change request properties

To view the properties of a change request:

1. On the IBM Rational Synergy View, select the change request that you want to view.

2. Right-click the selected change request and select **Properties** from the menu. The Rational Change show form for the selected change request opens.

To view the properties for a change request that is associated to a task:

1. On the IBM Rational Synergy View, select the task whose change request properties you want to view.

2. Right-click the selected task and select **Change Request Properties** from the menu options. The Rational Change show form for the change request that is associated to the selected task opens.

Viewing task properties

To view the properties of a task:

1. On the IBM Rational Synergy View, select the task that you want to view.

2. Right-click the selected task and select **Properties** from the menu. The Task Properties dialog box for the selected task opens.

Completing a task

To complete a task from the IBM Rational Synergy View or views:

1. On the IBM Rational Synergy View, select the task that you want to complete.

2. Right-click the selected task and select **Complete** from the menu. The Complete Task dialog box opens.

- The task that you selected is shown in the Complete Task dialog box.

- If the task that you selected is already completed, the default task is selected in the Complete Task dialog box.

- If no default task is set, the first task listed in the Assigned Tasks box is selected. Otherwise, no task is selected.

Viewing object properties

To view the properties of an object:

1. On the IBM Rational Synergy View, select the object that you want to view.

2. Right-click the selected object and select **Properties** from the menu. The IBM Rational Synergy Properties dialog box for the selected object opens.

Symbols

When Solutions and Projects in Microsoft Visual Studio are connected to Rational Synergy, the Solution and Project files are decorated to give a visual indication that the project is under Rational Synergy. The following information describes what each symbol indicates.

- Checked Out - The object is currently checked out and modifiable.

- Checked Out by Another User - The Solutions and Projects controlling the object are checked out using a Shared Purpose and the object is currently checked out by another user.

- Checked In - The object is currently checked in and not modifiable.

Tooltips

The integration displays additional information about a project/file/folder through the use of tooltips.

To open the tooltips, in the Microsoft Visual Studio Solution Explorer, place the mouse tip over the project/file/folder icon.

You should see source control information about the project/file/folder, such as its name, version, owner, status, and release.

For example: `name-version:owner:status:release`

Note: Although folders and directories support version control operations, symbols and tooltips are not visible for folders or directories.

Settings

You can manage the Rational Synergy integration settings by using the Settings menu option or by clicking . This feature specifies how the integration functions and connects

to Rational Synergy. Read the following information to understand more about how to manage the Rational Synergy integration settings.

1. Use the Settings menu option or click ![icon] to open the IBM Rational Synergy Settings dialog box.

   The IBM Rational Synergy Settings dialog box contains the following settings:

   Connection management
   General settings

2. View or modify the options in the IBM Rational Synergy Settings dialog box.

3. When you are finished, click **OK** to save the changes that you have made and exit the IBM Rational Synergy Settings dialog box.

Connection management

This feature specifies how the integration connects to Rational Synergy. The following Connection Management operations are available in the IBM Rational Synergy Settings dialog box through a menu option called Connection Management.
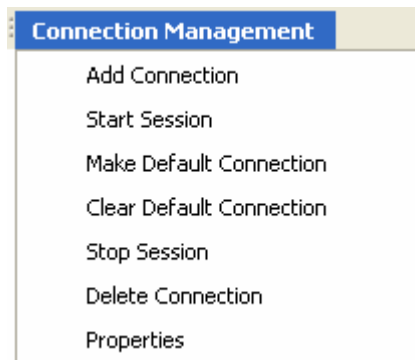
Connection Management menu

Connection Management offers the following capabilities:

- Add Connection - This operation opens a New IBM Rational Synergy Connection dialog box. If the connection being added is the first connection or if there is currently no default connection set, the connection is set as the default connection. Otherwise, it is set as a regular connection.

  Fill in the connection information (Connection Name, User Name, Password, Database Path, Engine Host, Client Home, and Client Database). Ensure that all the fields are filled in, then click **Connect** to save the connection and start a Rational Synergy session.

- Start Session - You can explicitly start a Rational Synergy session for a certain connection by selecting the connection in the IBM Rational Synergy Settings dialog box and clicking Start. If you perform a source control or task operation and a session is not already started, the integration automatically starts the default connection.

  Clicking **Start** twice does not start another session. If a session is explicitly (by

clicking Start) or implicitly (performing a team operation) started from the integration, it reuses a session this is already started by the integration.

- Delete Connection - This operation deletes the selected connection. If the selected connection has a session running, the session is terminated before deleting the connection. To delete a connection that is being used by a Solution in Visual Studio, you must disconnect the Solution first.

- Stop Session - This operation stops the Rational Synergy session for the selected connection.

- Make Default - The connection that you select becomes the default connection. The default connection is the connection that is automatically used in all Task dialog boxes and project wizards.

- Clear Default - This operation clears the default connection. This means that no default connection is set. If there is no default connection, **NONE** displays in the Connection Name field wherever applicable. The Show Task and Show IBM Rational Synergy taskbar and menu options and the Task box option are not available when no default connection is set.

- Properties - You can view the connection properties by double-clicking a connection or selecting the Properties option from the Connection Management menu. When the connection is currently in **Connected** status, you may not modify the connection properties. You may only modify the connection properties when the connection is in **Disconnected** status.

General settings

This feature of the integration specifies how the integration will function with Rational Synergy. You may configure your IBM Rational Synergy integration settings by setting the following options according to your preference.

The following information describes the functionalities of each General Settings option. Set the following preferences by checking the check box next to the option.

- Check Out file(s) automatically when edited.

  When the **Check Out file(s) automatically when edited** option is selected, the following occurs:

  o The integration automatically checks out files when you modify them.

  o The integration updates the symbols to represent the updated source control status of the files.

  When the **Check Out file(s) automatically when edited** option is cleared, the following occurs:

  When you try to modify any file, the integration displays the following dialog box.
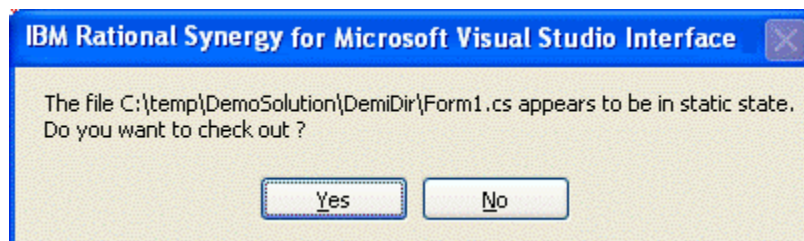
You must click **Yes** to check out the file. If you select **No**, you can continue to modify the file. However, when you try to save the file at a later time, the integration prompts you again to check out the file in order to keep your changes.

Once the file is properly checked out, the integration updates the symbol to represent the updated source control status of the file.

- Prompt to add new project files to IBM Rational Synergy - This option is used when new files are added to the connected Project/Solution.

  When the Prompt to add new project files to IBM Rational Synergy option is selected, the following will occur:

  o When you add new project files to a Project/Solution, the integration prompts you to add the files to Rational Synergy by displaying the IBM Rational Synergy Add Files dialog box

  o Click **Add** to add the files to Rational Synergy. You should see the Add Uncontrolled Files progress dialog box opens.

  o The files are controlled under Rational Synergy.

  When the Prompt to add new project files to IBM Rational Synergy option is cleared, the following occurs:

  o When you add new project files to a Project/Solution, those files will not be controlled in Rational Synergy. You must add the uncontrolled files to Rational Synergy to perform source control operations on them.

  o For more information about adding uncontrolled files and folders to IBM Rational Synergy, see Adding new files and folders to databases.

- Notify for parallel versions on check out.

- Notify for parallel versions on check in.

- Prompt for the DB case mode information - This option is selected by default.

  When the Prompt for the DB case mode information option is selected, the following occurs:

  o When you perform any of the operations listed below, the integration prompts you to select the proper database case mode that was used when the Solutions or Projects were migrated to Rational Synergy. The integration displays the Select Database Mode dialog box, so that you can select the proper database case mode to use.

  Use the Connect option from the IBM Rational Synergy team menu to connect to solutions and projects to Rational Synergy.

  Use the Open Project option from the IBM Rational Synergy taskbar to open projects or solutions.

  Use the Copy Project option from the IBM Rational Synergy taskbar to copying Solutions/Projects.

  When the Prompt for the DB case mode information option is cleared, the following occurs:

- o The integration does not display the Select Database Mode dialog box when you perform any of the same three operations listed above: Connect, Open Project, and Copy Project. By default, the integration uses the database case mode **PRESERVE** to perform all operations, including the Connect, Open Project, and Copy Project operations.

- o If you set all of your database(s) to **PRESERVE** case after installing the integration and you never set it back to **LOWER** or **UPPER** case, you must turn off the Prompt for the DB case mode information option.

Rational Synergy 'smart-card' login feature

The Rational Synergy "smart-card" login feature that is included in Rational Synergy is also available in Rational Synergy for Microsoft Visual Studio Interface. The "smart-card" feature allows users of the integration to create a connection without the need to enter a username and password.

For more information about enabling and disabling the Rational Synergy "smart-card" login feature, see the "Non-web-mode trusted users configuration" topic in the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/index.jsp?topic=%2Fcom.ibm.rational.synergy.admin.doc%2Ftopics%2Fs_c_ag_n_webmode_trustusrs_cnfig.html).

If the Rational Synergy "smart-card" feature in Rational Synergy is enabled and you try to create a new Rational Synergy Connection, the User Name and Password text field are disabled in the New IBM Rational Synergy Connection dialog box. The User Name text field is automatically filled in with the user's operating system username. You still need to fill in the remaining information: Connection Name , Database Path, Engine Host, Client Home, and Client Database.

If the "smart-card" feature in Rational Synergy is disabled and you try to create a new Synergy Connection, the User Name, Password, and all of the remaining Connection information text fields are enabled in the New IBM Rational Synergy Connection dialog box. You must fill in all of the text fields to create a new Connection and start a Rational Synergy session.

Daily development

Daily development refers to the activities performed by the team members during everyday development. Once a development or a build management project is set up, daily development primarily involves the activities of modifying files. Rational Synergy is a task-based configuration management. To keep track of daily development activities effectively, associate them with a Rational Synergy task. This section also describes many other operations that can be performed by using the integration.

Most of these operations are available from the IBM Rational Synergy team menu.

Connect	**Connects to Synergy**
Create Project in IBM Rational Synergy	**Migrates Solutions/Projects to Synergy**
Add Uncontrolled Files	**Adds uncontrolled files/folders to Synergy**
Remove From IBM Rational Synergy	**Removes controlled files/folders from Synergy**
Sync	**Synchronizes work area and database**
Check Out	**Checks out selected files/folders**
Undo Checkout	**Undoes the check out of selected files/folders**
Check In	**Checks in selected files/folders**
Check Out Recursive	**Checks out selected folder and its contents**
Undo Checkout Recursive	**Undoes the check out of a selected folder and its contents**
Check In Recursive	**Checks in selected folder and its contents**
Compare With Predecessor	**Compares the selected files/folders with its predecessor**
History	**Shows History of selected files/folders using Synergy**
Properties	**Shows Properties of selected files/folders using Synergy**
Use Version	**Changes the version currently being used by selected file/folde**
Update Members	**Updates project members or gets the recommended version o**
Refresh Status	**Refreshes the version control status of selected projects/files/**
Disconnect	**Disconnects from Synergy**

The IBM Rational Synergy team menu can be started by using Microsoft Visual Studio's main menu. Click **File**, then select **IBM Rational Synergy**. You can also start the IBM Rational Synergy team menu by right clicking a Solution, Project, folder, or file in Visual Studio's Solution Explorer.

Using task-based CM

Whenever you check out a file, the check-out operation is tracked with your current task. Select a current task before you check out or modify any file. When you are done, check in your current task instead of checking in the individual files. To complete a task or to create a task, use the IBM Rational Synergy taskbar and/or menu.

You can set a current task for each Rational Synergy Connection. To do this, you can use the IBM Rational Synergy taskbar or menu by choosing the Selecting tasks option.

Use the Task box from the IBM Rational Synergy taskbar to find out what current task is set for the default connection. Or you can use the Select Task option from the IBM Rational Synergy taskbar or menu to view the current task for each connection. Choose the Connection Name and its corresponding current task is displayed in the Current Task box. If there is no current task set for the connection, you see **NONE** in the Current Task box.

At times, this integration prompts you to select a current task if you perform an operation that requires a task.
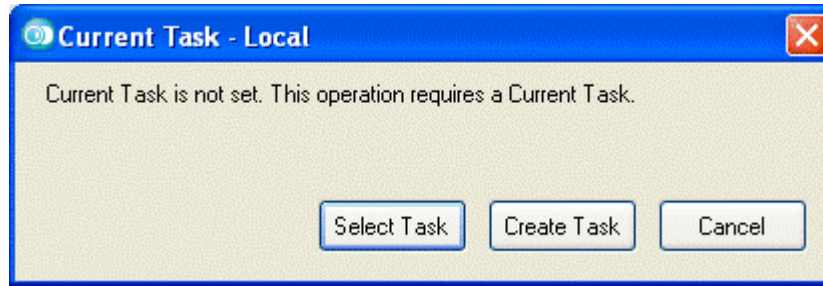
You can either select an existing task as your current task or create a task.

Connecting a solution or project

To connect a Solution/Project to Rational Synergy, perform the following steps. After performing this operation, the Solution/Project opened in Microsoft Visual Studio is connected to Rational Synergy.

1. Open the Solution/Project by clicking Microsoft Visual Studio's **File** > **Open** > **Project/Solution**.

2. Select the Solution/Project that you want to connect.

3. On the IBM Rational Synergy team menu, select the **Connect** option. The Select Connection dialog box opens. You must select the connection that you want to use to connect the Solution/Project.

4. Select a connection from the list and click Select to connect the Solution/Project.

The selected Solution/Project will now be connected to Rational Synergy. The integration will add the appropriate symbols to the Solution/Project and its files and directories. If at a later time, you decide to disconnect the Solution/Project, execute the Disconnect operation. See Disconnecting a solution or project.

Migrating projects

When you create a new project in Microsoft Visual Studio and you add that project to a Solution that is already controlled under Rational Synergy, you must migrate your newly created project to Rational Synergy to perform source control operations on the project and its files.

To migrate a project to Rational Synergy:

1. On the Solution Explorer, select your newly added/created project.

2. On the IBM Rational Synergy team menu, select **Create Project in IBM Rational Synergy**.

    The Create Project in IBM Rational Synergy dialog box opens. The Create Project in IBM Rational Synergy dialog box does not allow you to create the Solution in Rational Synergy. You must migrate the Solution to Rational Synergy again because the Solution is already controlled as a project in Rational Synergy.

    There are important cases that you need to be aware of when migrating projects to Rational Synergy.

    When migrating a project that is located inside the Solution directory in the file

system, the project must be migrated to the same Rational Synergy database as the Solution. This means that you cannot change the Connection Name when creating the project in Rational Synergy.

When migrating a project that is located outside the Solution directory in the file system, you can migrate the project to any Rational Synergy database. You can change the Connection Name selected in order for the project to be migrated to the correct Rational Synergy database.

3. Click **Create** to migrate the project to Rational Synergy.

The Create Projects progress dialog Box opens. Once the project is migrated to Rational Synergy, Microsoft Visual Studio displays a File Modification Detected dialog box.
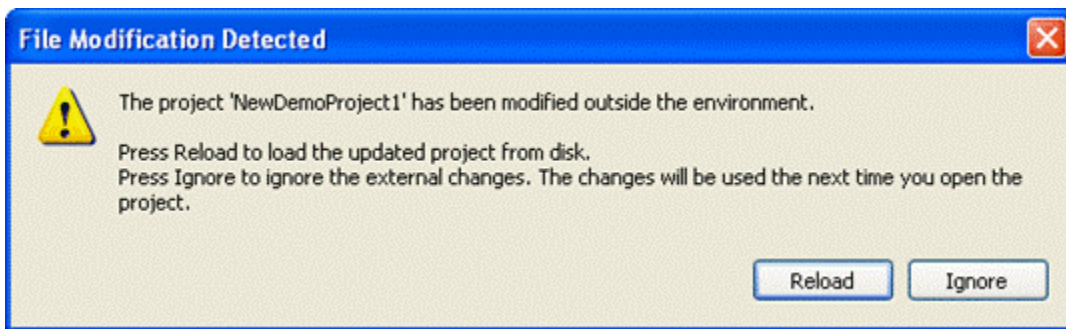
4. Click **Reload** on the File Modification Detected dialog box to see the project and its files properly decorated with symbols in the Solution Explorer.

5. Click **File** > **Save All** in the Microsoft Visual Studio 2010 main menu.

6. When you exit the Microsoft Visual Studio 2010 IDE, Visual Studio prompts you to save the Solution by displaying a dialog box. Click **Yes** to save the current state of your Solutions and projects. Your project is now controlled under Rational Synergy.

Adding new files and folders to databases

If you add new files or folders to your workspace, add them to Rational Synergy as soon as possible.

If the IBM Rational Synergy Settings option, Prompt to add new project files to IBM Rational Synergy is selected, the integration automatically prompts you to add new files to Rational Synergy. The Prompt to add new project files to IBM Rational Synergy option only applies to uncontrolled files. To add uncontrolled folders to Rational Synergy, you must use the Add Uncontrolled Files IBM Rational Synergy team menu option.

If you want to add files/folders to your Solutions/Projects, you should also add them to Rational Synergy as soon as possible. You must have a current task set in order to perform the Add Uncontrolled Files operation.

The integration finds the ignored files/folders and those files/folders are not added to Rational Synergy.

The Add Uncontrolled Files operation leaves the added files in the checked-out state.

To add uncontrolled files/folders to Rational Synergy:

1. Select the uncontrolled files/folders that you want to add to Rational Synergy.

2. On the IBM Rational Synergy team menu, click **Add Uncontrolled Files**.

   The IBM Rational Synergy Add Files dialog box opens.

3. Click **Add** to add the selected files/folders to Rational Synergy.

   A progress dialog box that depicts the status of the Add Uncontrolled Files operation opens. The files or folders that you selected are now controlled by Rational Synergy.

Removing files from databases

If you no longer want to control certain files in Rational Synergy, you may remove them.

The Remove From IBM Rational Synergy operation removes the files from your Solutions/Projects and from Rational Synergy. To keep these files on your local drive, save a copy before performing this operation.

Microsoft Visual Studio offers two additional operations called Exclude From Project and Delete. Exclude From Project removes the Solution and Project files from your Solutions/Projects. Delete removes the Solution and Project files from your Solutions/Projects and from the file system.

When you perform the Exclude From Project or Delete operations on Solution and Project files that are controlled by Rational Synergy, the integration displays the Delete files prompt dialog box. If you respond **Yes** to the dialog box, the Solution and Project files are removed from your Solutions/Projects and from Rational Synergy. If you respond **No** to the dialog box, the Solution and Project files are only removed from your Solutions/Projects and not from Rational Synergy.
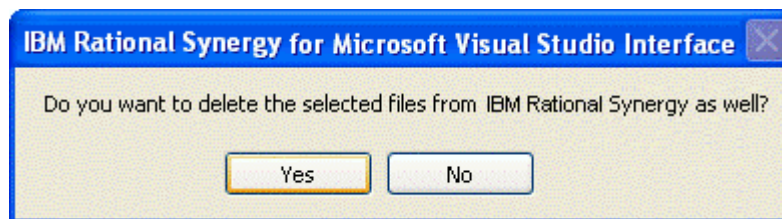
When you perform the Exclude From Project or Delete operations on Solution and Project folders/directories that are controlled by Rational Synergy, the integration displays the Delete files prompt dialog box twice. You must then respond twice to the dialog box. This limitation is one of the known issues of IBM Rational Synergy for Microsoft Visual Studio Interface.

To remove controlled files from Rational Synergy:

1. Select the files that you want to remove from Rational Synergy.

2. On the IBM Rational Synergy team menu, click **Remove From IBM Rational Synergy**.

   The IBM Rational Synergy Remove Files dialog box opens.

3. Click **Remove** to remove the selected files from Rational Synergy.

   A progress dialog box that displays the status of the Remove From IBM Rational Synergy operation opens. The files that you selected are now removed from Rational Synergy.

Synchronizing a work area

Occasionally, your work area may not be in sync with Rational Synergy. This might happen if you modify files outside of Microsoft Visual Studio without performing a check-out operation.

To synchronize your work area:

1. Select the Solution or Project that you need to sync.

2. On the IBM Rational Synergy team menu, click **Sync**.

   If there are work area conflicts, the IBM Rational Synergy Work Area Conflicts dialog box opens.

   A list of work area conflicts display in the dialog box.

   Keep the work area changes that you want by selecting the files and clicking the Keep Work Area Changes icon at the top of the dialog box or by right clicking on the files and selecting the Keep Work Area Changes option.

   Discard the work area changes that you do not want by following the same procedure but choose the Discard Work Area Changes icon or Discard Work Area Changes option instead.

By performing the above operation, the working files/folders may automatically be checked out. For the objects to reflect their updated version control status symbols, you must refresh the status of the objects by performing the Refresh Status operation available from the IBM Rational Synergy team menu. For more information, see Refreshing the version control status.

If you need further help understanding the Sync operation or the IBM Rational Synergy Work Area Conflicts dialog box, see the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.prodoverview.doc/topics/s_c_int_synchronize_operation.html).

Checking out files

You must check out files before you can start modifying them.

The Check Out and Check Out Recursive operations are only valid for controlled Solutions/Projects/files/folders.

Only the selected files are checked out. To check out all of a Solution/Project/folder's contents at the same time, use the Check Out Recursive operation.

If you perform the Check Out operation on a file that is located inside a folder, the file and its folder are automatically checked out.

This operation requires a task. If you choose not to specify a current task, the integration prompts you to select a task.

The following behavior is preference based and can be set by choosing the Settings option in the IBM Rational Synergy taskbar or menu. If after executing the Check Out or Check Out Recursive operation, the selected files results in parallel versions, you receive a warning. For more information, see General settings.

To check out files:

1. On the Solution Explorer, select the files that you want to check out.

   To perform the Check Out Recursive operation, select only the top most level Solution/Project/file/folder.

2. On the IBM Rational Synergy team menu, click **Check Out** or **Check Out Recursive** to check out the selected Solution/Project/folder contents.

   If you selected the Check Out Recursive option, the IBM Rational Synergy CheckOut Operation dialog box opens.

3. Select/Change your current task and write an appropriate check out comment, then click **CheckOut** to check out the files.

   The symbol representing Checked Out is displayed next to the file names.

Undoing a check out

When you undo a file check out, the current version of the file or folder is replaced with the previous version. If the file or folder has only one version, you are notified.

If you perform the Undo Checkout operation on a file that is located inside a folder, the integration automatically undoes the check out of the file and its folder.

The integration does not allow the Undo Checkout operation to be performed on files and directories that have been checked out as a result of a Rename operation.

Perform the Undo Checkout operation on these types of files by using one of the following methods:

- Rename the files and/or directories back to their previous names by using Microsoft Visual Studio IDE's Rename option.

- Save and then close the Solution containing the files and/or directories, perform the Undo Checkout operation on the Project file and the files and/or directories by using the Rational Synergy Delete option, then re-open the solution in the Microsoft Visual Studio IDE.

To undo the check out of files:

1. On the Solution Explorer, select the files that you do not want checked out.

   If you want to perform the Undo Checkout Recursive operation, select only the top most level Solution/Project/file/folder.

2. On the IBM Rational Synergy team menu, click **Undo Checkout** or **Undo Checkout Recursive** to undo check out of the selected Solution/Project/folder contents.

   If you selected the Undo Checkout Recursive option, the IBM Rational Synergy Undo CheckOut Operation dialog box opens.

3. Click Undo to undo check out of the files.

   The symbol representing the current source control status of the files is displayed next to the file names.

Checking in files

The following behavior is preference based and can be set by choosing the Settings option in the IBM Rational Synergy taskbar or menu. When performing the Check In operation on files that have parallel versions, you receive a notification. See General settings.

You must complete your task rather than checking in individual files. The Check In and Check In Recursive operations should only be used when it is absolutely necessary to check in files/folders before the task is complete.

To check in files:

1. On the Solution Explorer, select the files that you want to check in.

   If you want to perform the Check In Recursive operation, select only the top most level Solution/Project/file/folder.

2. On the IBM Rational Synergy team menu, click **Check In** or **Check In Recursive** to check in the selected Solution/Project/folder contents.

   If you selected the Check In Recursive option, the IBM Rational Synergy CheckIn Operation dialog box opens.

3. Click **CheckIn** to check in the files.

   The symbol representing Checked In is displayed next to the file names.

Comparing a file or folder with its predecessor

The Compare with Predecessor operation is only available for files and folders.

If a file or folder has more than one predecessor, the IBM Rational Synergy Compare dialog box opens for each predecessor.

If you need further help understanding the Compare with Predecessor operation, the IBM Rational Synergy Compare dialog box, or the IBM Rational Synergy Directory Compare dialog box, see the Rational Synergy information center.

To compare a version of a file or folder with its predecessor:

1. On the Solution Explorer, select the files/folders on which you want to perform the Compare with Predecessor operation.

2. On the IBM Rational Synergy team menu, click **Compare with Predecessor**.

Viewing the history of objects

To view the history of objects:

1. On the Solution Explorer, select the object of which you want to view the history.

2. On the IBM Rational Synergy team menu, click **History**.

   The IBM Rational Synergy History dialog box opens for the selected object.

Viewing or modifying properties of objects

(File-Folder Properties.html)

To view or modify the properties of an object:

1. On the Solution Explorer, select the object on which you want to view the properties.

2. On the IBM Rational Synergy team menu, click **Properties**.

   The IBM Rational Synergy Properties dialog box opens.

3. View and/or modify the available properties.

   For more information about the IBM Rational Synergy Properties dialog box, see the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.manage.doc/topics/sg_t_h_view_props.html).

If you modify the Version, it is important that you refresh the status of the object (Solution, Project, folder, or file) to see the updated version control status symbols. For more information, see Refreshing the version control status.

Using a version of a file or folder

There are times when you might want to change the version being used for a file or folder.

To use a different version of a file or folder:

1. Select the file or folder on which you want to perform the Use Version operation.

   You may only select one file/folder at a time.

2. On the IBM Rational Synergy team menu, select **Use Version**.

   The Use Version dialog box opens for the selected file or folder. The version that is currently being used by the file/folder will have a checkbox that is selected.

3. Select the version that you want to use.

   Click **Recommend** to see the recommended/latest version of the file/folder. When you click **Recommend**, the recommended version is highlighted.

4. Click **Use** to change the version of the file/folder to the one that you selected.

   The integration will then update the corresponding symbols to reflect the file or folder's new source control status.

You can also use the IBM Rational Synergy team menu's History option to change the version being used for a file or folder.

Updating members

To get the latest version of project files:

1. Select the objects on which you want to perform the Update Members operation.

2. On the IBM Rational Synergy team menu, select **Update Members**.

The Update Members Progress dialog box opens and the selected objects are updated. The result of the Update Members operation is displayed in the IBM Rational Synergy Output Console Window.

If you perform the Update Members operation on a project, the project are updated. You can select multiple projects for this operation. For more information about the Update Members operation, see the Rational Synergy information center (http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.rational.synergy.manage.doc/topics/sc_r_h_update_command.html).

Refreshing the version control status

If a source control operation is performed on the project files outside of the Microsoft Visual Studio 2010 IDE, the integration does not display the correct symbol in the Solution Explorer (see Symbols and Tooltips).

For the integration to display the proper symbol representing the most up-to-date status of the project files, you can use the Refresh Status operation.

To refresh the version control status of objects:

1. Select the objects (Solutions/Projects, directories, or files) on which you want to refresh the source control status.

2. On the IBM Rational Synergy team menu, select **Refresh Status**.

   The selected objects display in the current source control status.

Disconnecting a solution or project

If you want your Solutions and/or Projects to behave as if there was no source control installed, you may disconnect your Solutions and/or Projects. After performing the Disconnect operation, the Solution/Project opened in Microsoft Visual Studio is disconnected from Rational Synergy.

To disconnect a solution or project from Rational Synergy:

1. Select the Solution/Project that you want to disconnect.

2. On the IBM Rational Synergy team menu, select **Disconnect**.

   The selected Solution/Project is disconnected from Rational Synergy. The integration removes the corresponding symbols for the Solution/Project and its files and directories.

Note: You can connect the solution or project again by executing the Connect operation. See Connecting a solution or project.

Debugging support

The integration provides support for debugging. Debug support tracks your activities while using the integration. You may use the information provided by the Debug support to view or correct any errors or warnings that may occur while using the integration.

A registry entry called the DebugLevel is created once Rational Synergy for Microsoft Visual Studio Interface is installed. You may view or change the value of the DebugLevel according to your preference by using the Registry Editor.

The registry key DebugLevel is located here:

```
My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Telelogic\CM
SYNERGY\Integrations\ccmdc
```

Changing the Debug Level value

To change the value of the debug level:

1. Open the Registry Editor dialog box.

2. Change to the following location:

    ```
    My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Telelogic\CM
    SYNERGY\Integrations\ccmdc
    ```

3. Modify the registry key DebugLevel to your desired value (0, 1, or 2).

    Use the following to help you determine which DebugLevel you would like to use.

    0 - No debugging support. The log file remains empty. You may choose this DebugLevel to make the integration work faster.

    1 - The log file records all the errors, warnings, and exceptions. The DebugLevel is initially be set to this value after installing the integration.

    2 - The log file records the function name, file name, input parameters, output, time stamp, errors, warnings, and exceptions.

Viewing the error log

The integration automatically generates error log files. You may view the messages written to the error log files by viewing the files (`ccmdc.log`) generated in the following directories.

```
C:\Documents and Settings\<username>\Application
Data\Telelogic\vs500\ccmdc.log
```

```
C:\Documents and Settings\<username>\Application
Data\Telelogic\ccmdc72\ccmdc.log
```

or

```
<Application Data path>\Telelogic\vs500\ccmdc.log
```

```
<Application Data path>\Telelogic\ccmdc72\ccmdc.log
```

There are other error files that are generated by the integration. These error files contain the last known error produced by the integration. You may view the messages contained in these error files by viewing the files (`ccmdc.err`) in the following directories.

```
C:\Documents and Settings\<username>\Application
Data\Telelogic\vs500\ccmdc.err
```

```
C:\Documents and Settings\<username>\Application
Data\Telelogic\ccmdc72\ccmdc.err
```

or

```
<Application Data path>\Telelogic\vs500\ccmdc.err
```

```
<Application Data path>\Telelogic\ccmdc72\ccmdc.err
```

Issues with this release

The following is a list of known issues that exist in IBM Rational Synergy for Microsoft Visual Studio 2010 Interface 7.2.1.

- Whenever Rational Synergy is updated to use a particular change request tool, the Visual Studio IDE must be restarted to show the appropriate change requests in the Change Request View.

- If you create a Solution project that has the same name as the Solution, your Rational Synergy database must be set to support multiple project instances. To do this, start an Rational Synergy session, start Synergy CLI, and type the following commands in the command prompt:

  ```
  1.)  ccm set role ccm_admin
  2.)  ccm query -t model -n base
  3.)  ccm attr -m multiple_local_proj_instances -v TRUE @1
  ```

- Microsoft Visual Studio 2010 IDE may prompt you to: Save As, Discard, Ignore, or Overwrite, after a Solution/Project has been migrated. Respond to the prompt by selecting **Overwrite**.

- Microsoft Visual Studio 2010 IDE may prompt you to Reload projects when project files are checked out. Respond to the prompt by selecting **Reload**.

- The integration displays the Delete files prompt dialog box twice when performing the Exclude From Project or Delete operations on folders/directories that are controlled by Rational Synergy. The integration will prompt you once for the folder/directory and once for the files located inside the folder/directory.

- If you have more than one instance of Microsoft Visual Studio 2010 running, all of the instances will share the same Rational Synergy sessions and session data. The possible problems that may occur are:

  1.) Changing the current task for an Rational Synergy session in one instance of Visual Studio will overwrite the current task for that same Rational Synergy session in another instance of Visual Studio.

  2.) If you migrate projects in one instance of Visual Studio, your migrated projects may be lost if other projects are migrated to Rational Synergy using another instance of Visual Studio. The projects that are overwritten will belong to the instance of Visual Studio that exits the IDE first.

  3.) If you modify the integration settings in one instance of Visual Studio, your changes will be overwritten if the integration settings are modified in another instance of Visual Studio. The integration settings that are overwritten will belong to the instance of Visual Studio that exits the IDE first.

- You cannot migrate Solutions and Projects with the same name if the Visual Studio Solutions and Projects are created in the same location as your work area template.

- When performing a Copy Project operation, your work area template must include project specific information that includes the project version and project instance.

- The integration will not allow the Undo Checkout operation to be performed on files that have been checked out as a result of a Rename operation. A warning message box opens whenever an Undo Checkout operation is attempted on such files.

- When performing any of the Rational Synergy team or taskbar operations by using a connection without a saved password, a Login dialog box opens. You can choose to Cancel the dialog box so that the Login dialog box does not display. However, the integration may not be able to perform any operation properly. You may invoke the Login dialog box again by selecting the Start Session menu option in the IBM Rational Synergy Settings dialog box or restarting the Microsoft Visual Studio 2010 IDE.

- If you want to modify the work area location of your Solution, you must perform the following steps:

  1.) Exit the Microsoft Visual Studio IDE.

  2.) Modify the work area location of your Solution by using Rational Synergy.

  3.) Open the Solution from the new work area location and then proceed adding/migrating new Projects to your Solution.

- ASP.Net Web Application projects whose location in the file system is inside the directory of another Project or Solution directory can only be migrated to Rational Synergy as a directory when using the integration.

- Version control operations are supported by folders/directories. However, folders/directories will not display symbols and tooltips.

- In order to use the integration properly, the <IBM Rational Synergy for Microsoft Visual Studio 2010 Interface 7.2.1 Install Directory> directory must be included in your PATH.

- Rational Synergy 7.2.1 does not allow for multiple simultaneous connections to different databases or servers through the API. The Integration will allow you to create multiple connections but will only allow you to have one connection started at a time. The Integration will automatically connect and disconnect as needed. If you have more than one Synergy 7.2.1 connection defined in Microsoft Visual Studio you should start Synergy sessions before you start Microsoft Visual Studio for highest performance. Starting the sessions before starting Microsoft Visual Studio will allow the Synergy sessions to remain running when the Integration disconnects, which will mean that they do not need to be restarted the next time Microsoft Visual Studio uses the connection.

Contacting IBM Rational Software Support

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

For more details about enrolling in Passport Advantage and submitting problems, see the "Contacting IBM Software Support" topic in the Rational Synergy information center at http://pic.dhe.ibm.com/infocenter/synhelp/v7m2r0/topic/com.ibm.help.common.rational.doc/topics/t_contactingibmsoftwaresupport.html

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