

# iWay

Source Management (Version  
Control) Installation and  
Configuration Guide

Version 8.0 and Higher

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# Preface

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This documentation describes how to install and configure source management (version control) for iWay Integration Tools (iIT). It is intended for developers, application and enterprise architects, business analysts, and system administrators who want to integrate new XML-based applications seamlessly with existing enterprise transactions, procedures, and application packages.

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## How This Manual Is Organized

This manual includes the following chapters:

Chapter/Appendix	Contents
1 Installing and Configuring a Source Management (Version Control) Repository for iWay Integration Tools	Describes how to install and configure a source management (version control) repository for iWay Integration Tools (iIT).

## Documentation Conventions

The following table describes the documentation conventions that are used in this manual.

Convention	Description
THIS TYPEFACE or this typeface	Denotes syntax that you must enter exactly as shown.
<i>this typeface</i>	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
<u>underscore</u>	Indicates a default setting.
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).

Convention	Description
.	Indicates that there are (or could be) intervening or additional commands.

## Related Publications

Visit our Technical Documentation Library at <http://documentation.informationbuilders.com>. You can also contact the Publications Order Department at (800) 969-4636.

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Join the Focal Point community. Focal Point is our online developer center and more than a message board. It is an interactive network of more than 3,000 developers from almost every profession and industry, collaborating on solutions and sharing tips and techniques. Access Focal Point at <http://forums.informationbuilders.com/eve/forums>.

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Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities and documentation. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

## Help Us to Serve You Better

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

<b>Platform</b>	
<b>Operating System</b>	
<b>OS Version</b>	
<b>JVM Vendor</b>	
<b>JVM Version</b>	

The following table lists the deployment information our consultants require.

<b>Adapter Deployment</b>	For example, JCA, Business Services Provider, iWay Service Manager
<b>Container</b>	For example, WebSphere
<b>Version</b>	
<b>Enterprise Information System (EIS) - if any</b>	
<b>EIS Release Level</b>	
<b>EIS Service Pack</b>	
<b>EIS Platform</b>	

The following table lists iWay-related information needed by our consultants.

<b>iWay Adapter</b>	
<b>iWay Release Level</b>	
<b>iWay Patch</b>	

The following table lists additional questions to help us serve you better.

Request/Question	Error/Problem Details or Information
Did the problem arise through a service or event?	
Provide usage scenarios or summarize the application that produces the problem.	
When did the problem start?	
Can you reproduce this problem consistently?	
Describe the problem.	
Describe the steps to reproduce the problem.	
Specify the error message(s).	
Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem <i>not</i> occur?	

The following is a list of error/problem files that might be applicable.

- Input documents (XML instance, XML schema, non-XML documents)
- Transformation files
- Error screen shots
- Error output files
- Trace files
- Service Manager package to reproduce problem

- Custom functions and agents in use
- Diagnostic Zip
- Transaction log

For information on tracing, see the *iWay Service Manager User's Guide*.

## User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website, <http://documentation.informationbuilders.com/connections.asp>.

Thank you, in advance, for your comments.

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# Installing and Configuring a Source Management (Version Control) Repository for iWay Integration Tools

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This section describes how to install and configure a source management (version control) repository for iWay Integration Tools (iIT). For demonstration purposes, Apache Subversion (SVN) is used.

However, you can also configure other source management (version control) repositories that are supported by iIT (for example, Team Foundation Server, ClearCase, and others).

## In this chapter:

- [Source Management Overview](#)
  - [Installing Apache Subversion](#)
  - [Understanding the Physical Structure of Components in an Integration Project](#)
  - [Configuring and Working With Apache Subversion](#)
  - [Common Commands Used With Apache Subversion](#)
  - [Handling Conflict States](#)
  - [SVN Best Practices](#)
- 

## Source Management Overview

Source management (version control) support in iWay Integration Tools (iIT) is provided by the Eclipse Team API. The Team API allows vendors to implement support for their repositories and workflows using the Eclipse extension mechanism. Through this mechanism, vendors can create sets of plugins to support their product. Implementing source management is vital for any enterprise-level development project, as it strengthens code management, enables teamwork and collaboration on multiple levels, and provides the ability to revert changes.

This document describes how to use Apache Subversion (SVN) as a sample repository with iIT. Since the source management support is implemented through the generic Eclipse Team API interface, the interactions and functionality with other source management (version control) repositories is similar to how these are documented for SVN.

### About Apache Subversion

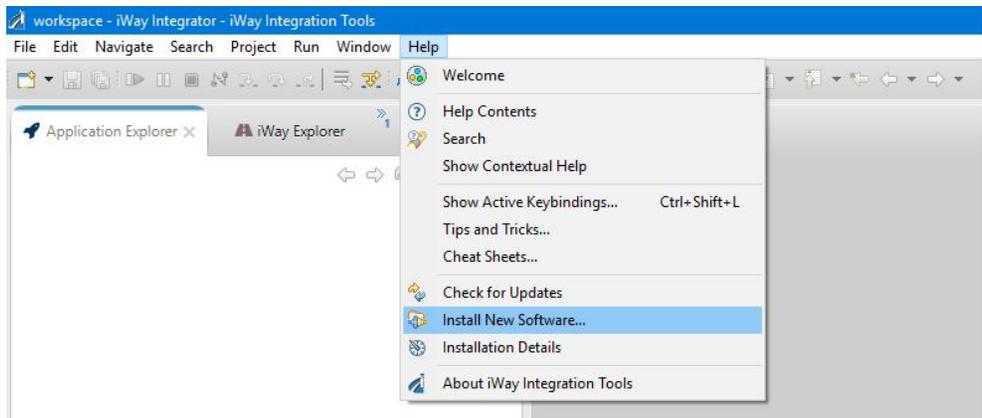
Apache Subversion (SVN) is an open source version control system that is designed to help you keep track of a collection of files and folders. Any time you change, add, or delete a file or folder that you manage with SVN, you commit these changes to your SVN repository, which creates a new revision in your repository reflecting these changes. You can always go back, view, and retrieve the contents of previous revisions. You can easily integrate iWay Integration Tools (iIT) with SVN to have the control of your files and make any collaborative development environment secure.

### Installing Apache Subversion

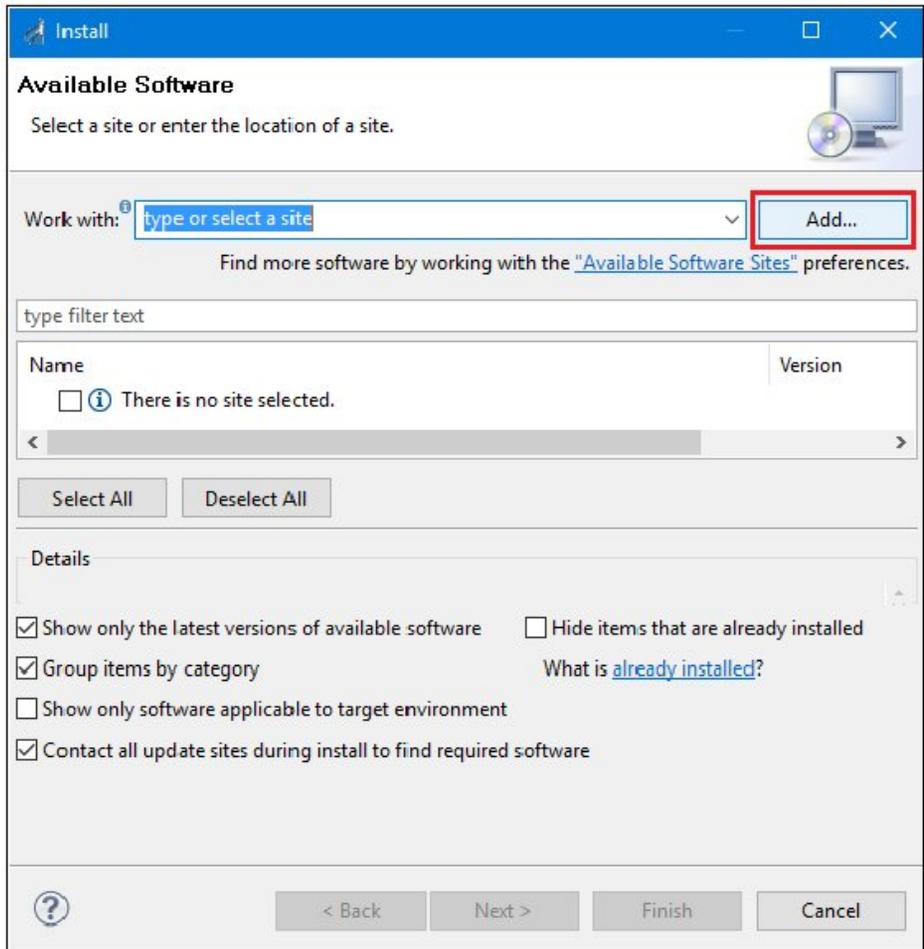
This section describes how to install Apache Subversion (SVN) for iWay Integration Tools (iIT).

#### **Procedure:** How to Install Apache Subversion

1. Open iIT, click *Help* in the menu bar, and then select *Install New Software* from the context menu, as shown in the following image.

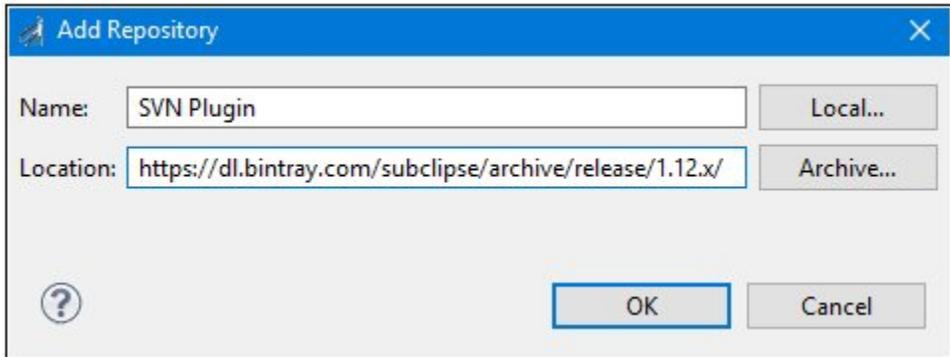


The Install dialog opens showing the Available Software pane, as shown in the following image.



2. Click *Add*.

The Add Repository dialog opens, as shown in the following image.



3. In the Name field, specify a name (for example, SVN Plugin) to identify the plugin.
4. In the Location field, specify the URL from where SVN can be installed. For example:  
<https://dl.bintray.com/subclipse/archive/release/1.12.x/>

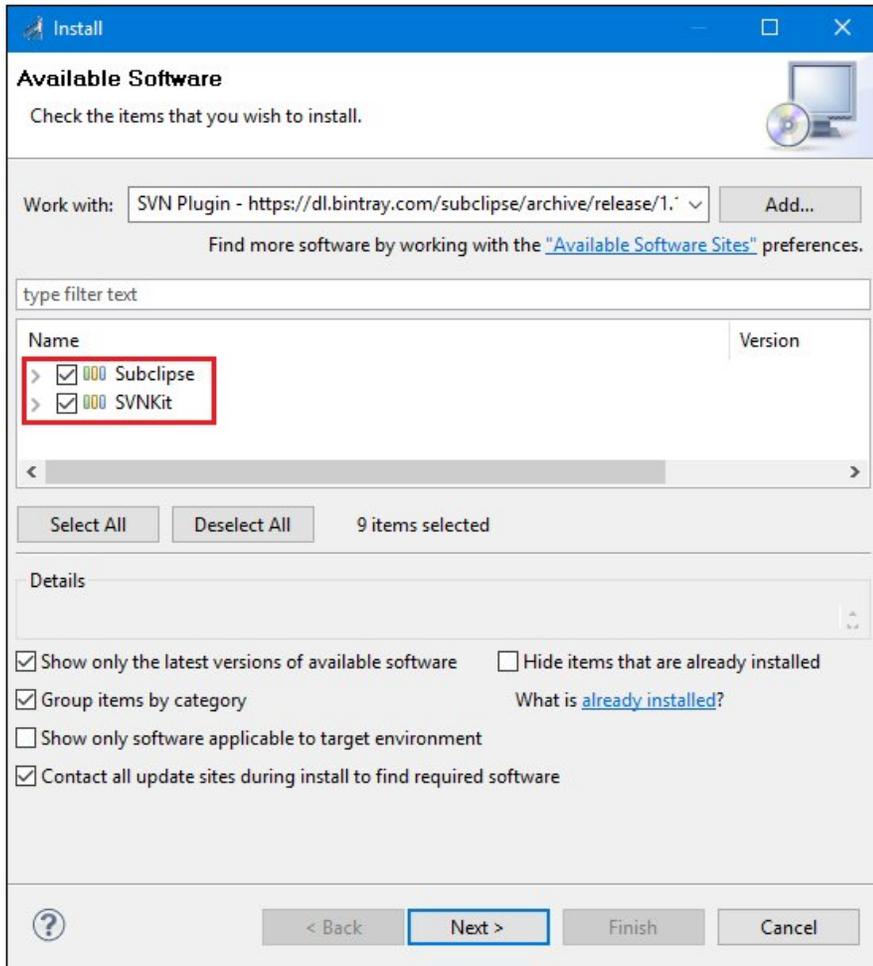
**Note:** The location URL referenced in step 4 is just one of many supported source management plugins that can be used with iIT. For example, the SVN plugin can also be obtained from the Tigris organization at:

[http://subclipse.tigris.org/update\\_1.8.x/](http://subclipse.tigris.org/update_1.8.x/)

It is recommended for users to contact their source management provider to obtain the correct version of the Eclipse plugin to be used. Keep in mind that iWay Integration Tools (iIT) version 7.x is based on the Eclipse 3.7 (Indigo) release, while iIT version 8.x is based on the Eclipse 4.7 (Neon) release. As a result, the version and location of the plugin might be different.

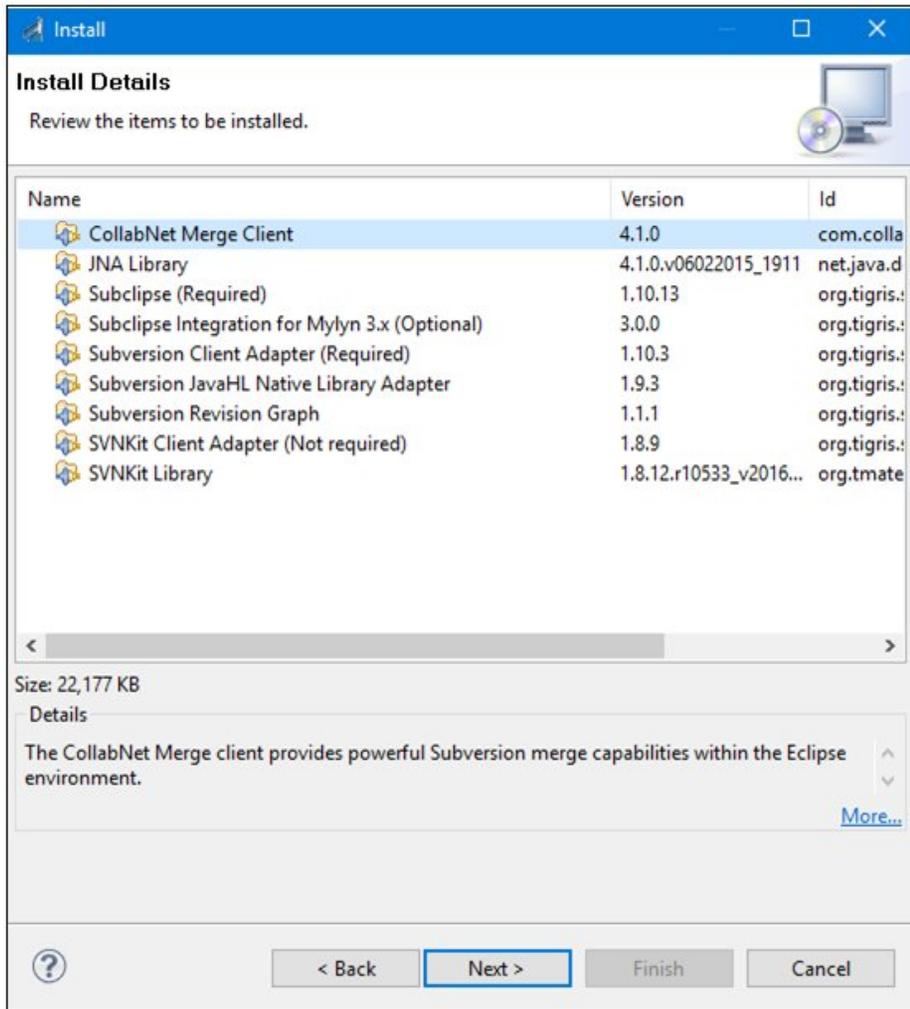
5. Click OK.

You are returned to the Install dialog (Available Software) pane, as shown in the following image.



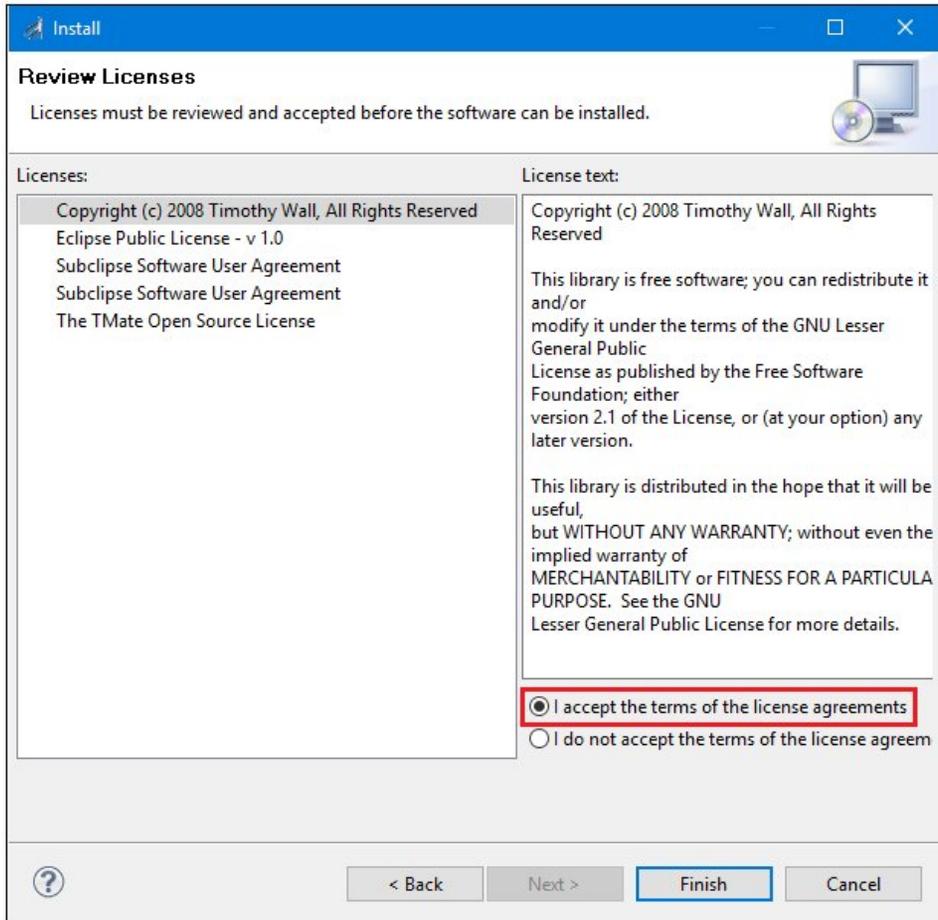
6. Ensure that *Subclipse* and *SVNKit* are selected and then click *Next*.

The Install Details pane opens, which provides details (components) of the installation, as shown in the following image.



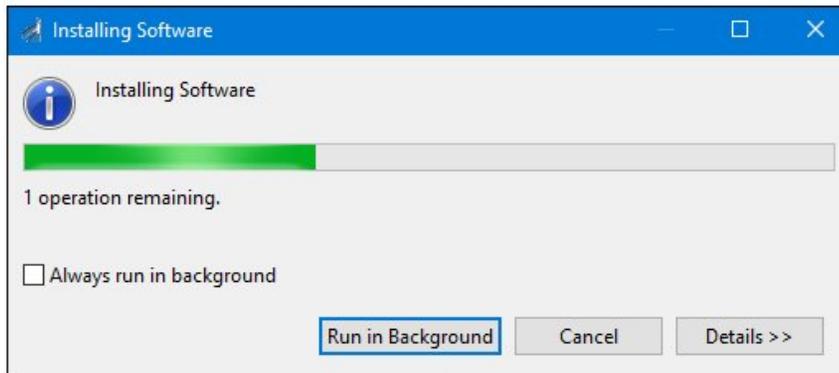
7. Click Next.

The Review Licenses pane opens, as shown in the following image.

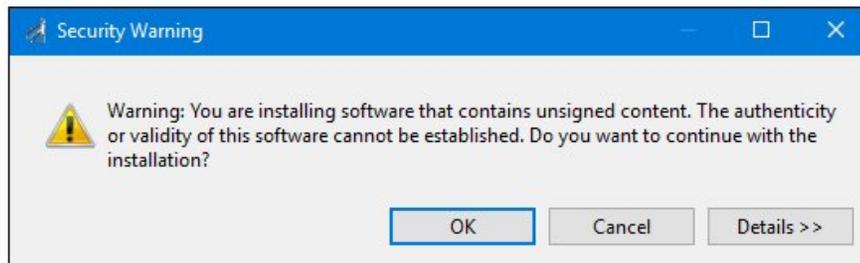


8. Select *I accept the terms of the license agreement* and then click *Finish*.

The Installing Software dialog opens and displays the progress of the SVN installation, as shown in the following image.

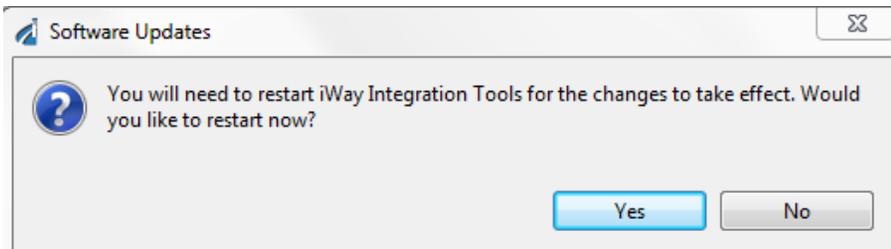


You may see a warning message (dialog) displayed during the SVN installation process, as shown in the following image.



9. If you see this warning message displayed, then click *OK* to continue.

After the SVN installation has completed, you are prompted to restart iIT, as shown in the following image.



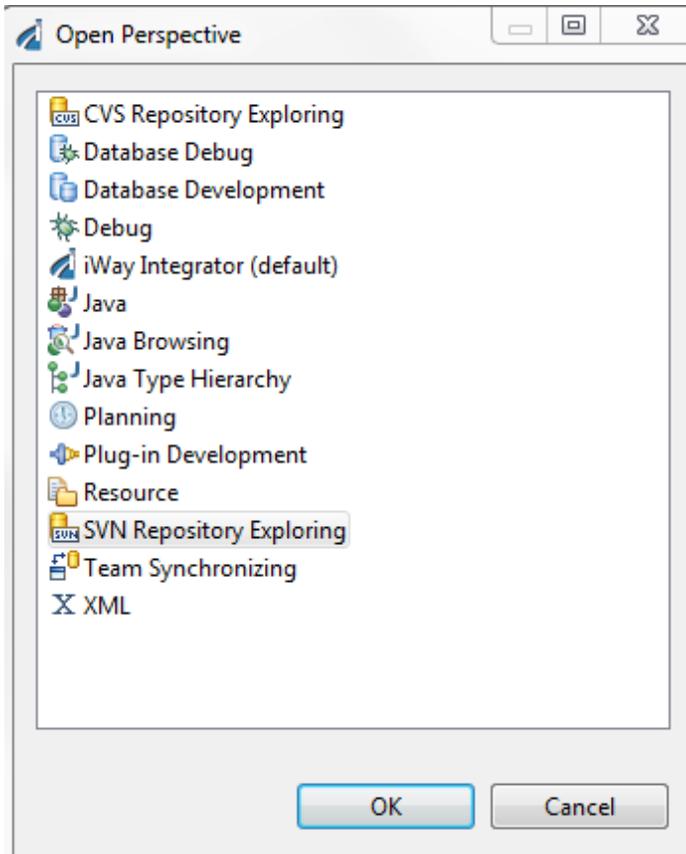
10. Click *Yes*.

After iIT has restarted, you can check to confirm that the SVN plugin has been installed successfully.

11. Click the *Perspective* icon, which is located on the upper-right of the iIT workbench, as shown in the following image.



The Open Perspective dialog opens, as shown in the following image.



12. Select *SVN Repository Exploring* and then click *OK*.

The perspective in iIT changes, which now shows the SVN Repositories tab and SVN Annotate tab, as shown in the following image.

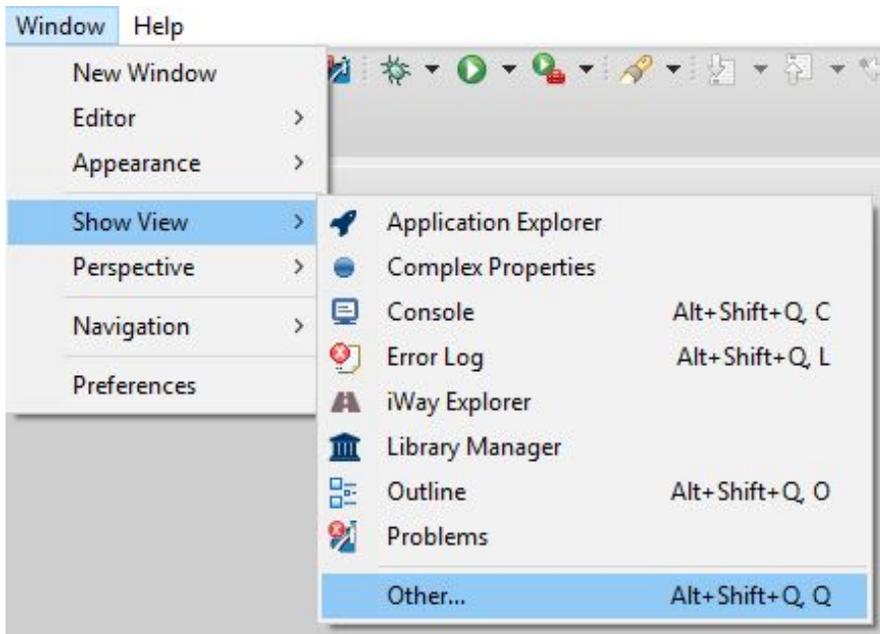


You have now successfully installed Apache Subversion (SVN) for iWay Integration Tools (iIT).

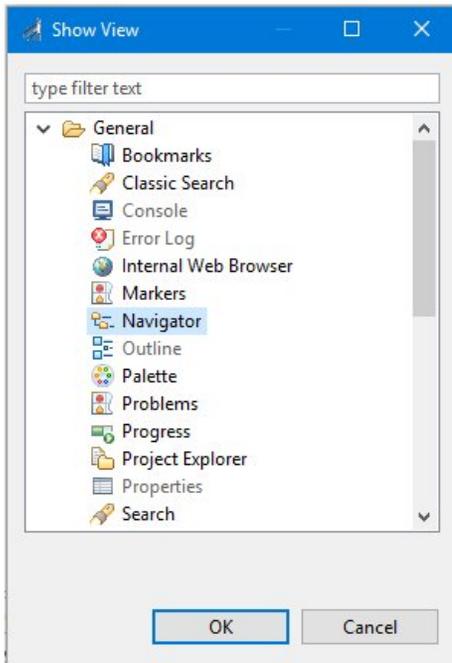
## Understanding the Physical Structure of Components in an Integration Project

To successfully work with a source management (version control) repository in iWay Integration Tools (iIT), it is important to understand how iWay components are structured in an Integration Project. The standard view provided by the Application Explorer tab hides most of the metadata and derived files from view. This is similar to how the Package Explorer for Java projects does not show a Java package as a folder hierarchy.

If required, you can easily view the physical structure of iWay components using the Navigator tab. In iIT, click *Window* from the menu bar, select *Show View* from the context menu, and then click *Other*, as shown in the following image.

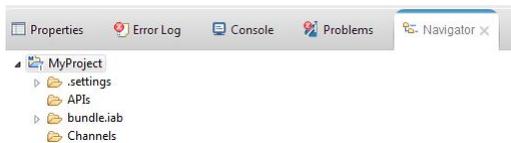


The Show View dialog opens, as shown in the following image.

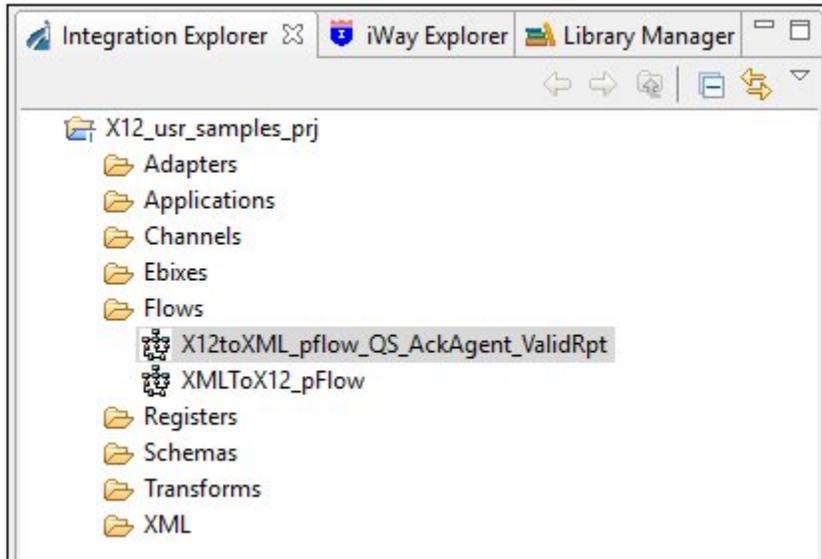


Expand the *General* folder, select *Navigator*, and then click *OK*.

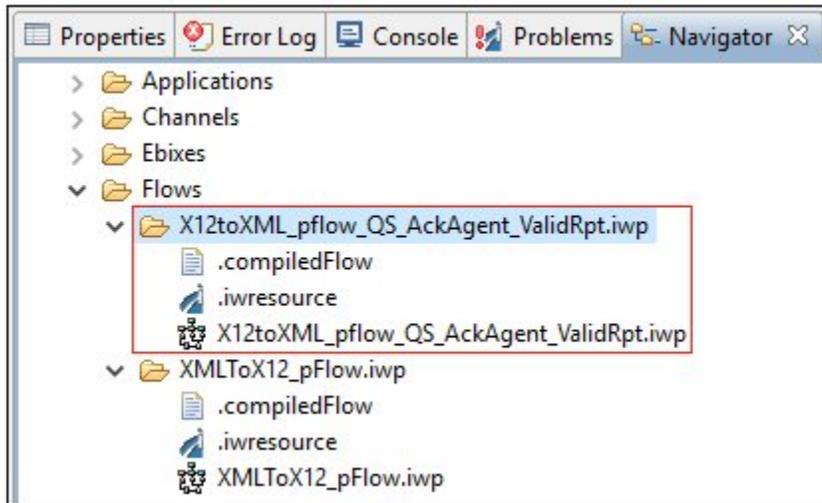
The Navigator tab is now displayed, as shown in the following image.



The following image shows a process flow selected in the Application Explorer tab view.



The following image shows the same process flow selected in the Navigator tab view.

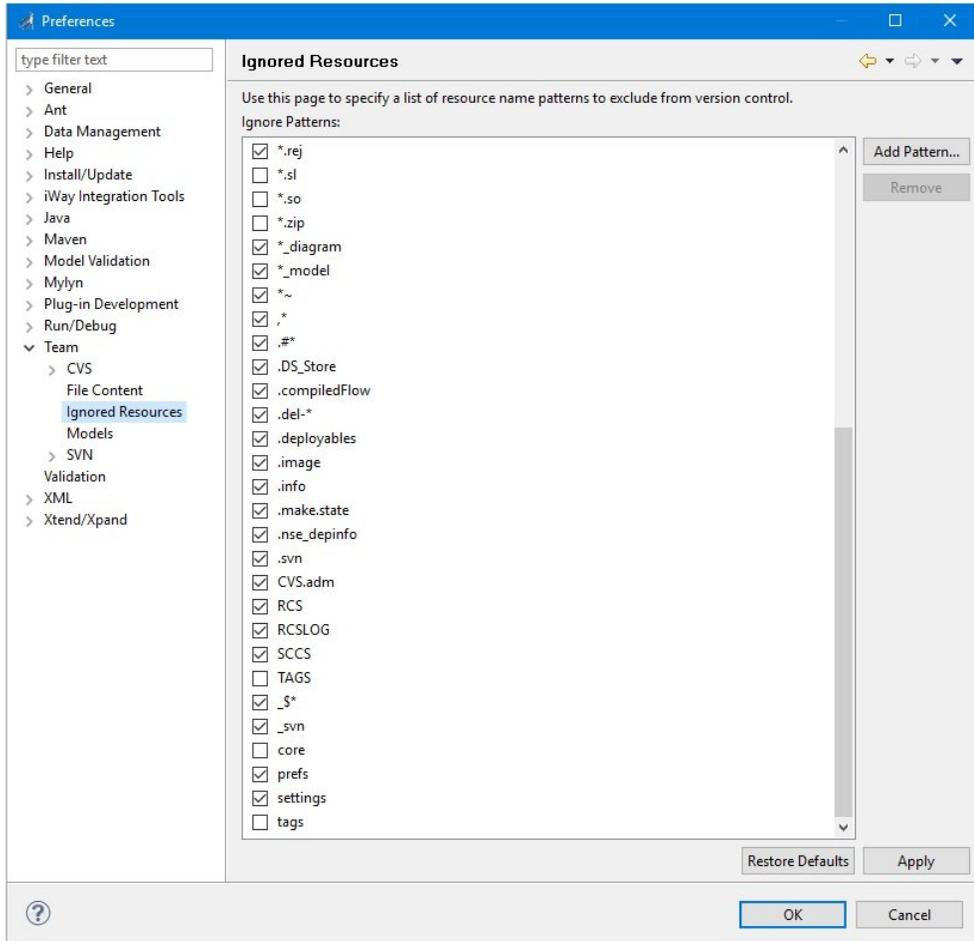


**Note:** These are examples. The actual physical structures might be different between major iWay releases.

# 1. Installing and Configuring a Source Management (Version Control) Repository for iWay Integration Tools

The process flow is contained in a folder of additional metadata and derived files. It is important to share all but the derived files in the source management (version control) repository. The derived files in this case are `.compiledFlow` and `.image`.

The Ignored Resources list is configured automatically to match the iWay application. You can modify the list by accessing *Window, Preferences, Team*, and then *Ignored Resources* as shown in the following image.



**Note:** The image shows selected files that are ignored by default.

## Configuring and Working With Apache Subversion

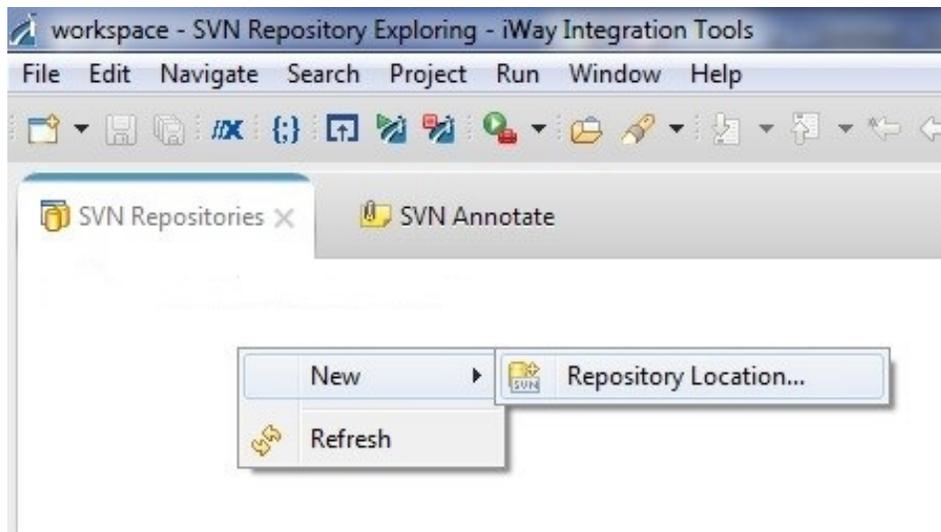
This section describes how to configure and work with Apache Subversion (SVN) using iWay Integration Tools (iIT).

### Adding Repositories

You can add new SVN repository locations to manage your projects as required.

To add a new SVN repository location:

1. Right-click anywhere in the SVN Repositories tab, select *New* from the context menu, and then click *Repository Location*, as shown in the following image.

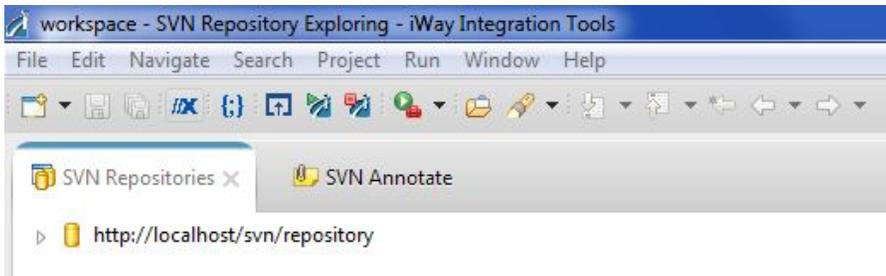


The Add SVN Repository dialog opens, as shown in the following image.



2. Type the URL for your SVN repository in the Url field.
3. Click *Finish*.

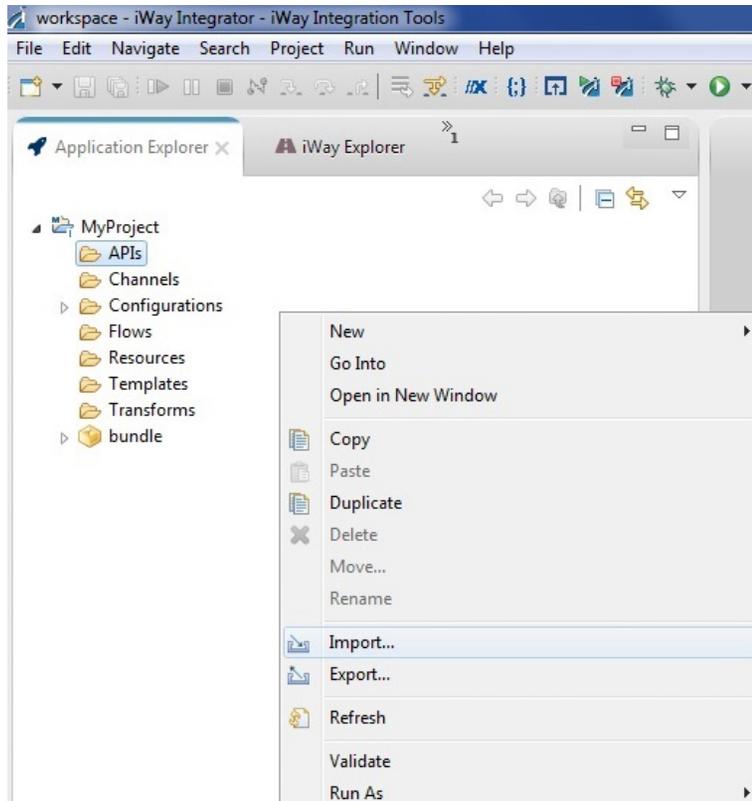
The SVN repository location appears as a node in the SVN Repositories tab, as shown in the following image.



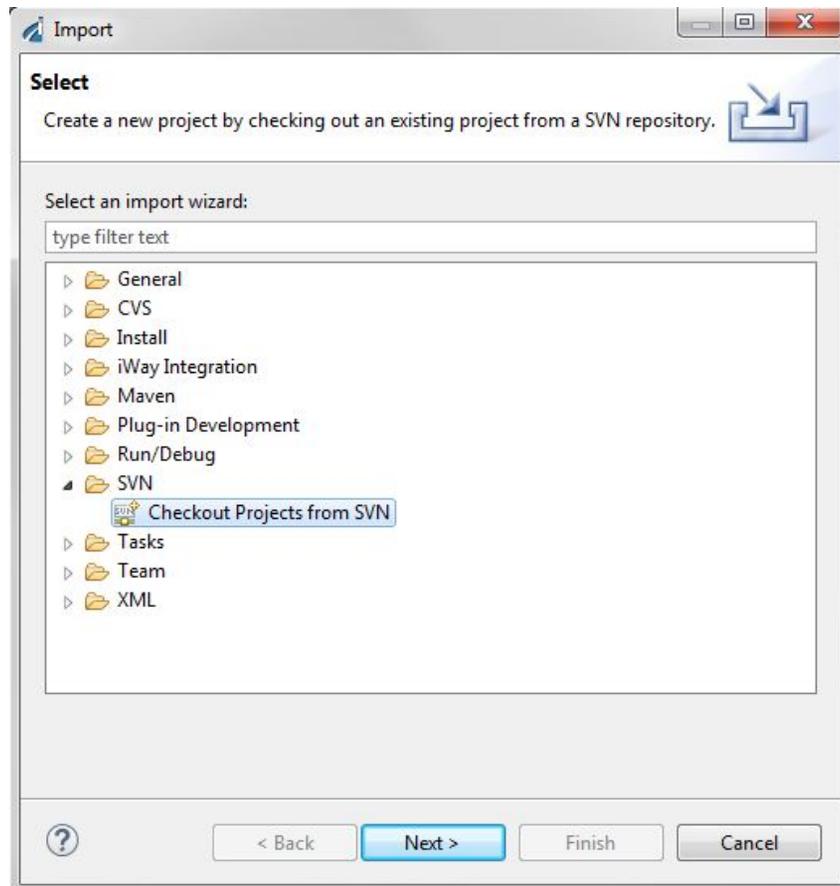
## Checkout Projects From SVN

If you have a project synchronized in the SVN repository and want to add it to iWay Integration Tools (iIT), perform the following steps:

1. Ensure that you have switched to the *Integration* perspective in iIT.
2. Right-click in the Application Explorer tab and select *Import* from the context menu, as shown in the following image.

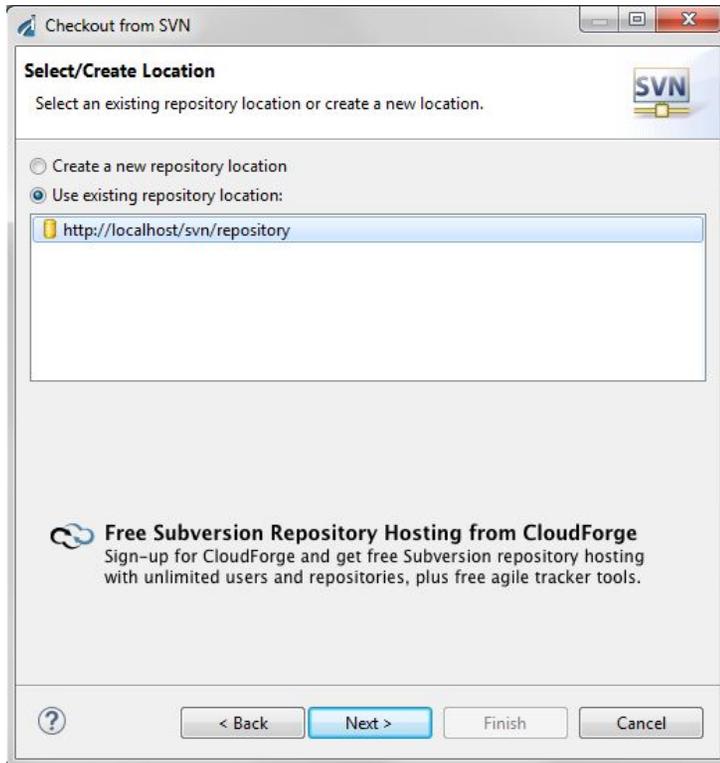


The Import dialog opens showing the Select pane, as shown in the following image.



3. Expand SVN, select *Checkout Projects from SVN*, and then click *Next*.

The Checkout from SVN dialog opens showing the Select/Create Location pane, as shown in the following image.

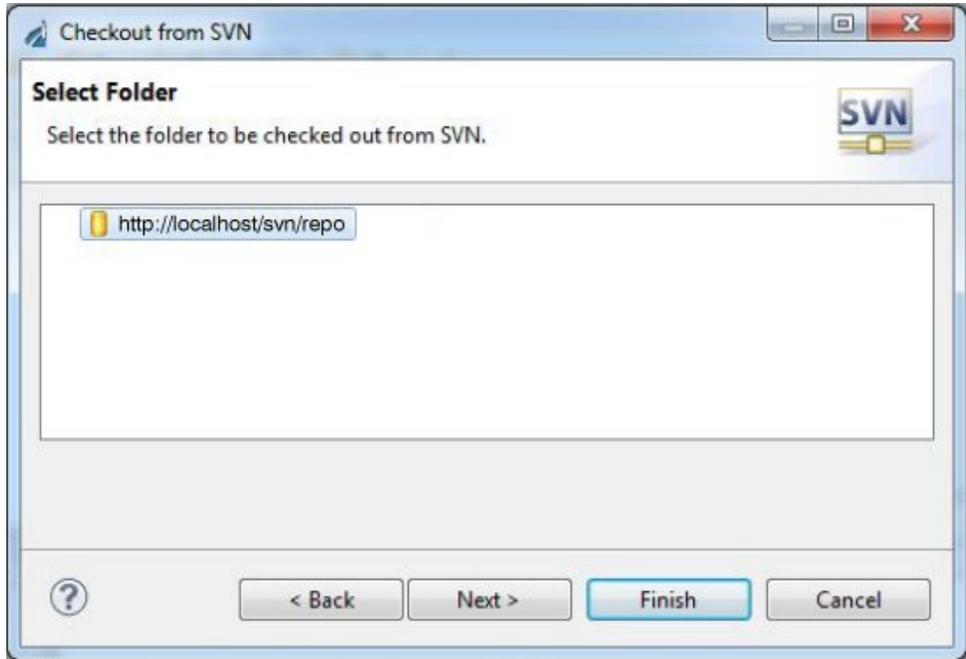


4. Click *Use existing repository location* and select the URL for SVN repository that you previously added.

**Note:** If you have not previously added a SVN repository location or want to add a new SVN repository location, then you can do so from this dialog by using the *Create a new repository location* option.

5. Click *Next*.

The Select Folder pane opens, as shown in the following image.

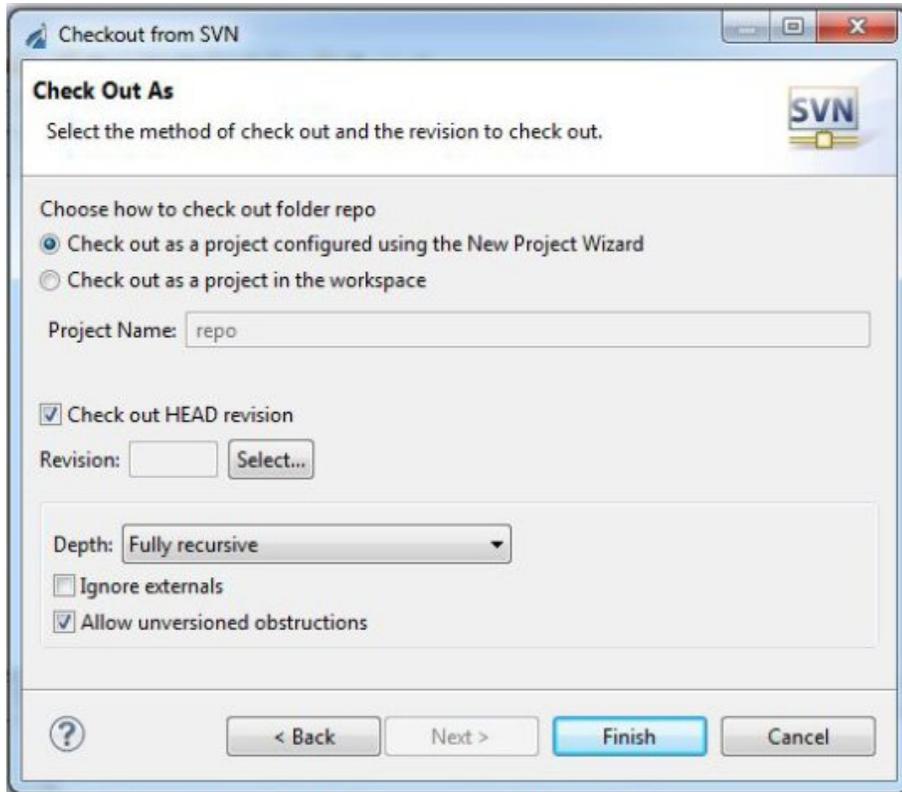


6. Select the folder(s) to be checked out from the SVN repository.

Here you can select a specific folder or select the root SVN repository location to check out all of the folders in the SVN repository.

7. Click Next.

The Check Out As pane opens, as shown in the following image.



8. Select your check out options.

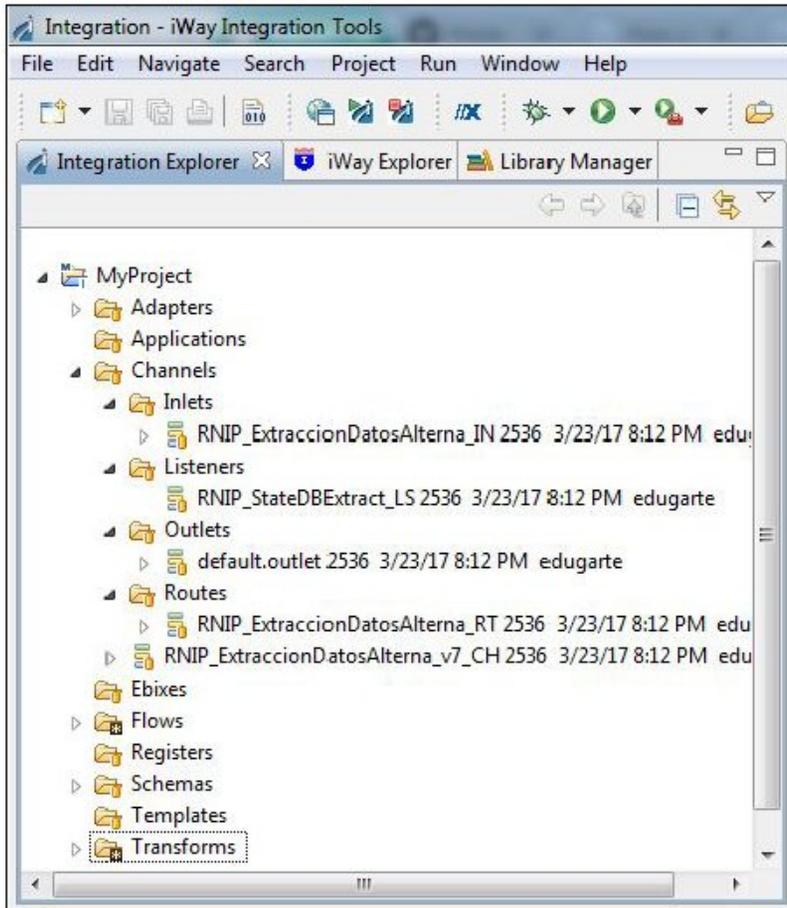
Determine if you want to check out the selected folder as:

- A new project configured using the New Project Wizard.
- An existing project in the workspace.

**Note:** If you want to check out the selected folder with a specific version of the project, then deselect the *Check out HEAD revision* option and specify a revision number.

9. Click *Finish*.

Your checked out project displays in iIT, as shown in the following image.



## Understanding the Features of an SVN Project

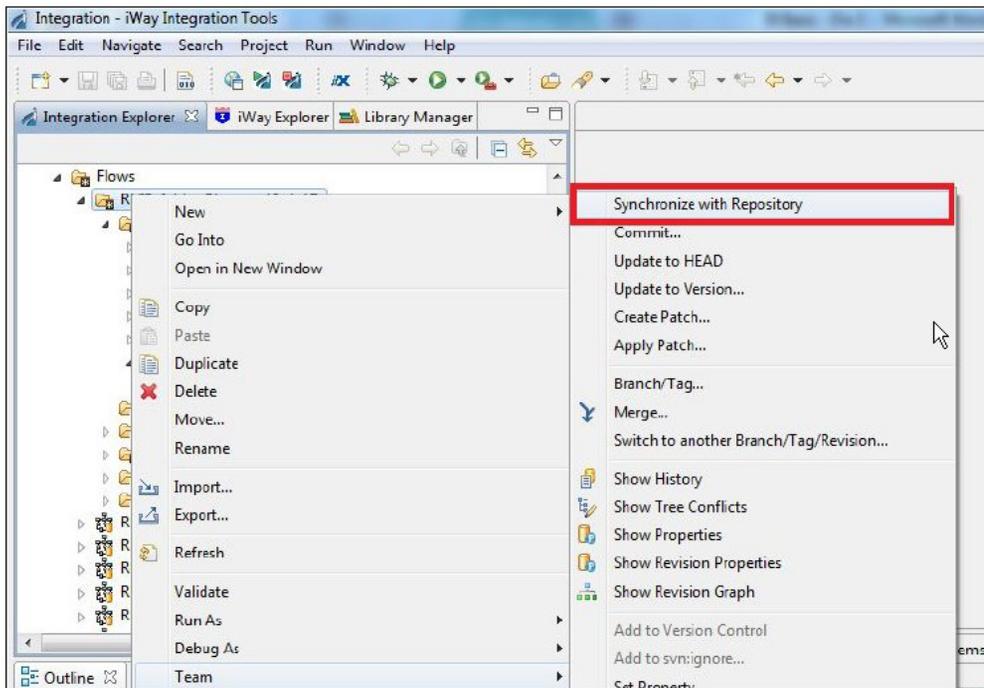
- Users:** You can identify which user has made a change on a file and on what date/time.
- State:** Files may have some states that indicate:
  - New File:** If you add any new files, then they are identified with a question mark (?) icon.
  - Synchronized File:** All synchronized files are identified with an orange icon.
  - Not Synchronized File:** If files are not synchronized with the SVN repository, then they are identified with an asterisk (\*) icon.

- ❑ **Ignored Files:** If files are ignored by the SVN repository, then they do not have any icon.

## Synchronizing With the Repository

The *Synchronize with Repository* option compares all files against the SVN repository, which enables you to check changes between local and remote files.

Right-click, select *Team* from the context menu, and then *Synchronize with Repository*, as shown in the following image.



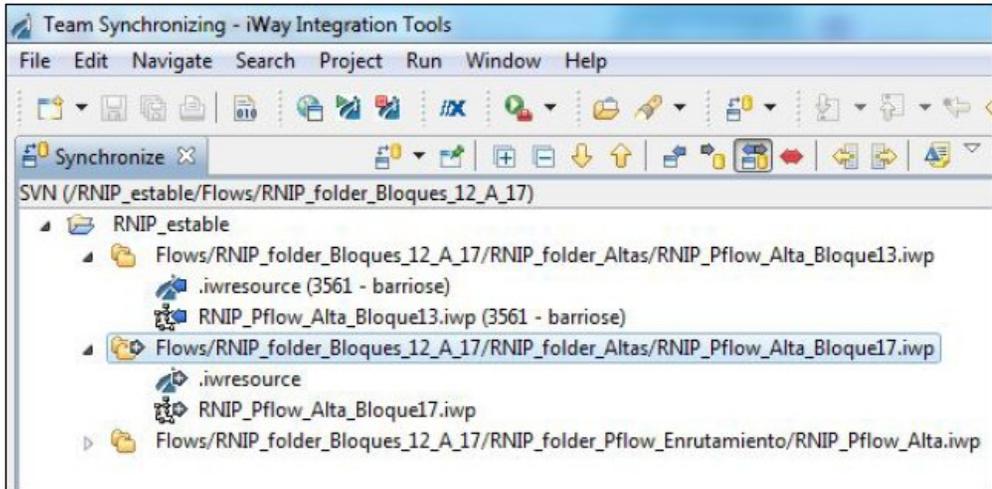
The perspective will change (a Synchronize tab is shown). You will see the modified files locally and the incoming and outgoing changes. In addition, any conflicts will be shown.

- ❑ A File icon with a *blue arrow pointing left* indicates that changes are incoming to the project.
- ❑ A File icon with a *black arrow pointing right*, indicates a change is outgoing to the SVN repository.
- ❑ A File icon with a *black arrow pointing right* and a *plus sign character (+)*, indicates a new file is outgoing to the SVN repository.
- ❑ A File icon with a *double red arrow* indicates a conflict between the local and remote repository.

# 1. Installing and Configuring a Source Management (Version Control) Repository for iWay Integration Tools

- ❑ A File icon with a *red arrow pointing left or right* indicates that a file has been deleted on the local or remote repository.

For example:

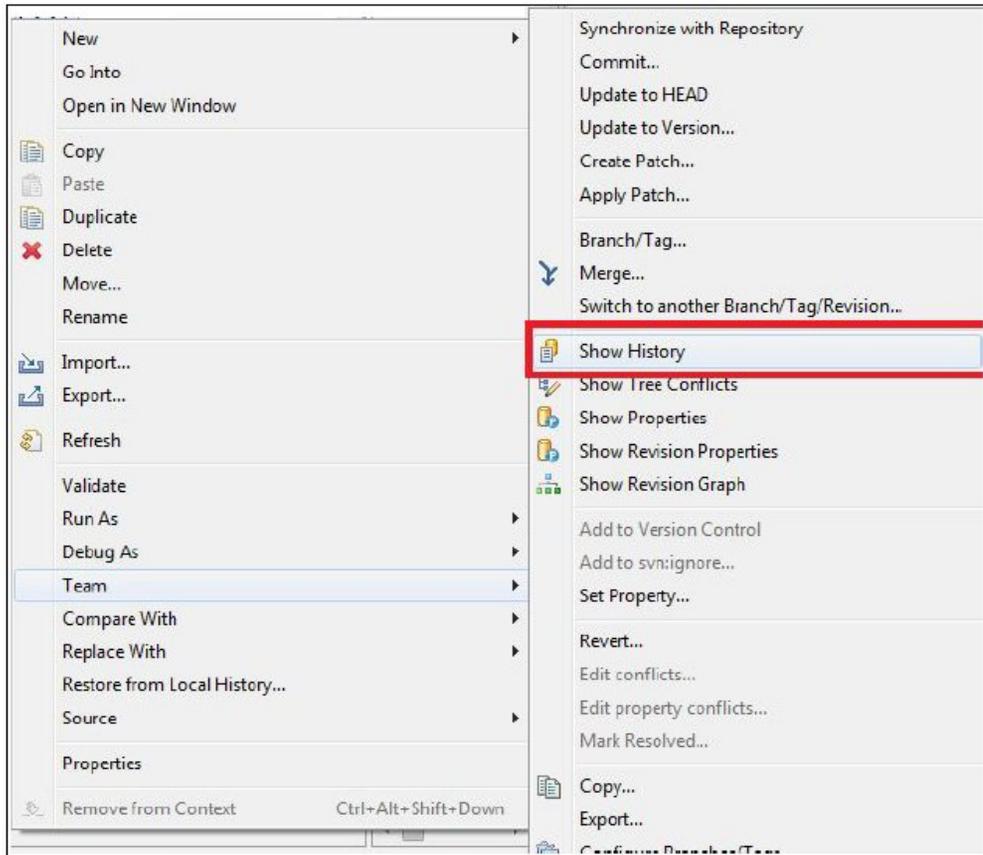


A summary of changes can be found on the lower-right corner, as shown in the following image.



## Show the History

To view a history of changes (e.g. for a file) with revision numbers and comments, right-click the file, select *Team* from the context menu, and then *Show History*, as shown in the following image.

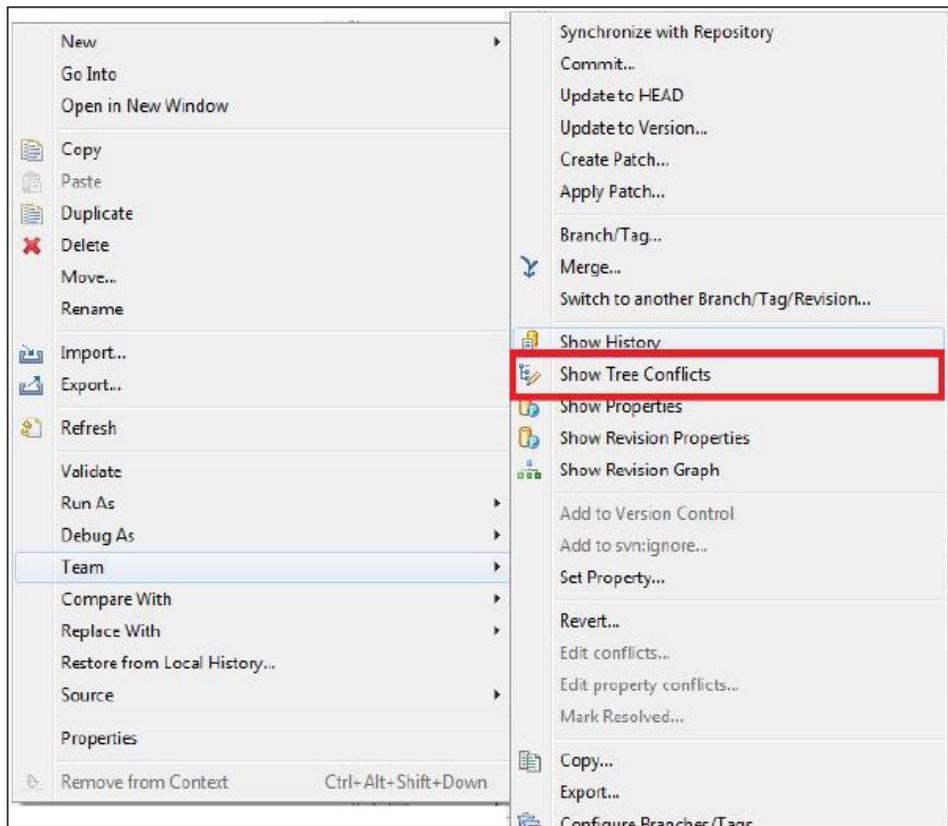


The History tab opens and provides a table with the following columns:

- Revision
- Date
- Author
- Comment

## Show Tree Conflicts

If you have a file that is in conflict, you can review the details by right-clicking the file, selecting *Team* from the context menu, and then *Show Tree Conflicts*, as shown in the following image.



## Common Commands Used With Apache Subversion

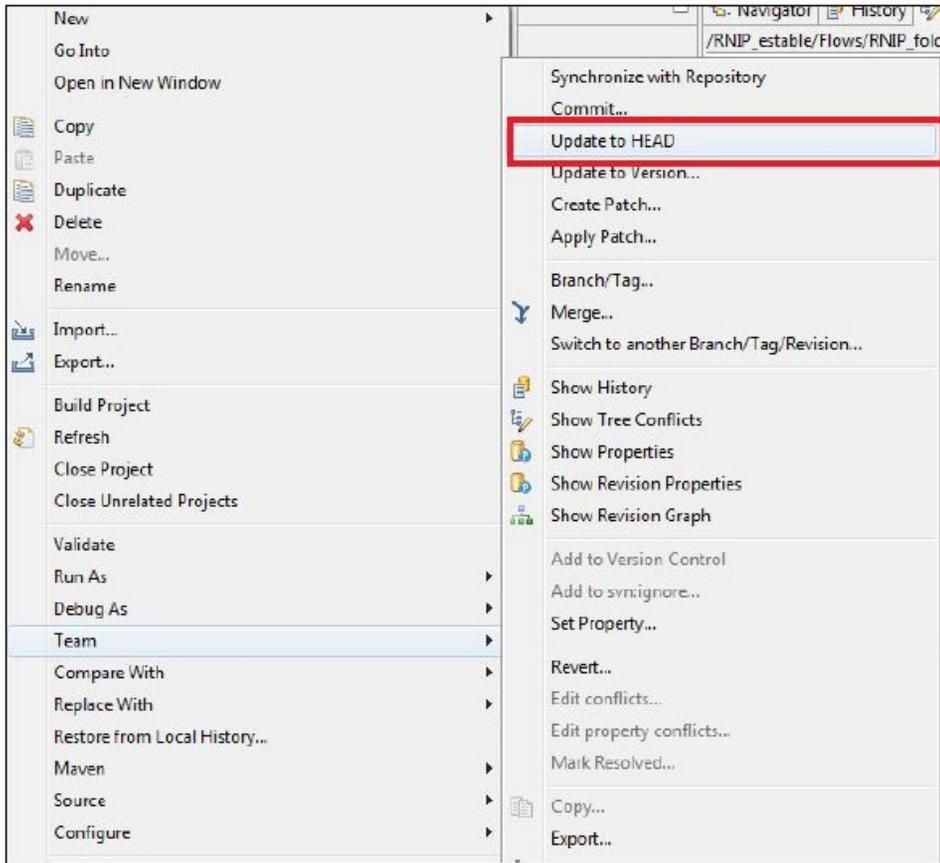
This section describes the commands that are used most often with Apache Subversion (SVN).

### Update

You can update your local project to the latest version or to a selected version in the SVN repository. A version is a state in the repository that has a sequence number, which increases every time a change is made in the SVN repository with a commit operation.

To update to HEAD, which updates the SVN repository to the latest version available:

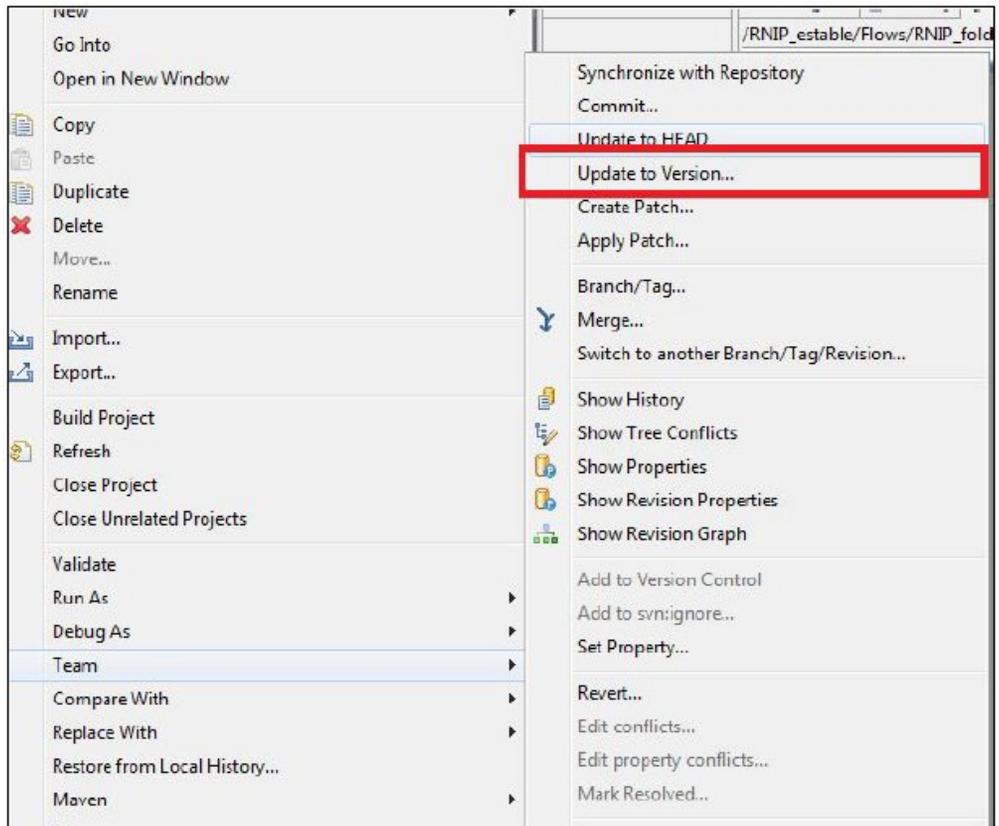
Right-click your project, select *Team* from the context menu, and then *Update to HEAD*, as shown in the following image.



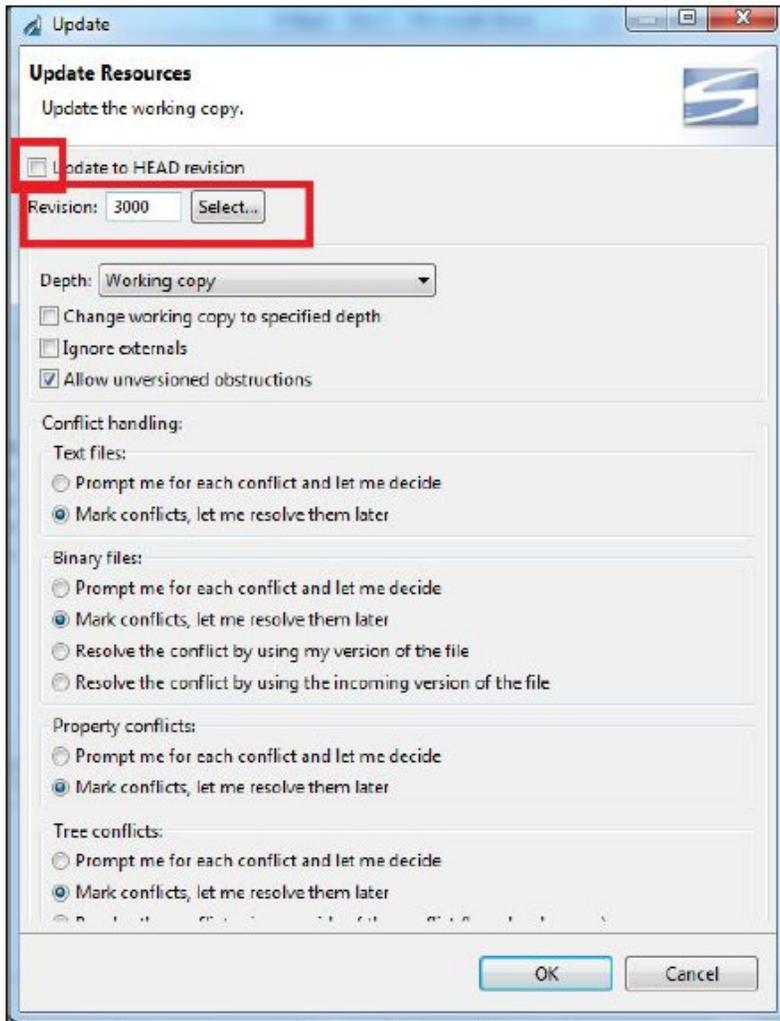
The SVN repository is updated to the latest available version.

To update to Version, which updates the SVN repository to a specific version:

1. Right-click your project, select *Team* from the context menu, and then *Update to Version*, as shown in the following image.



The Update dialog opens showing the Update Resources pane, as shown in the following image.



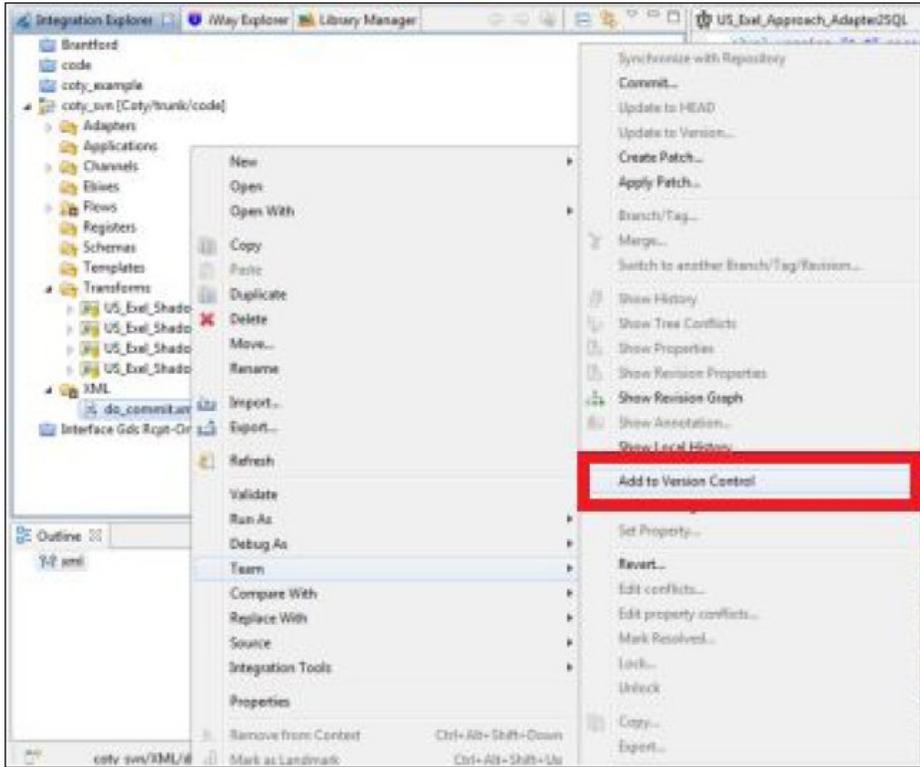
2. Select the *Update to HEAD revision* checkbox.
3. Specify a revision number in the Revision field (manually or by using the *Select* button).
4. Click *OK*.

The SVN repository is updated to the specified version (revision).

## Adding Files to the Repository

To commit a change made to a file and create a version in the SVN repository:

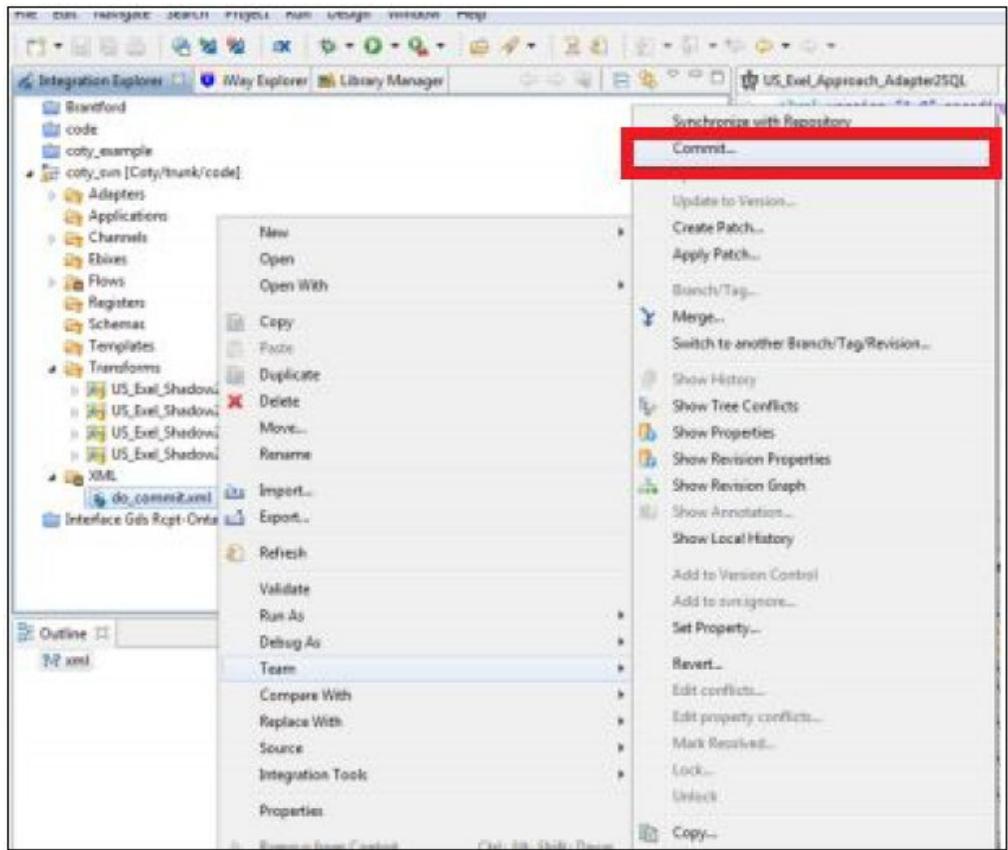
1. Right-click a file that you want to add, select *Team* from the context menu, and then *Add to Version Control*, as shown in the following image.



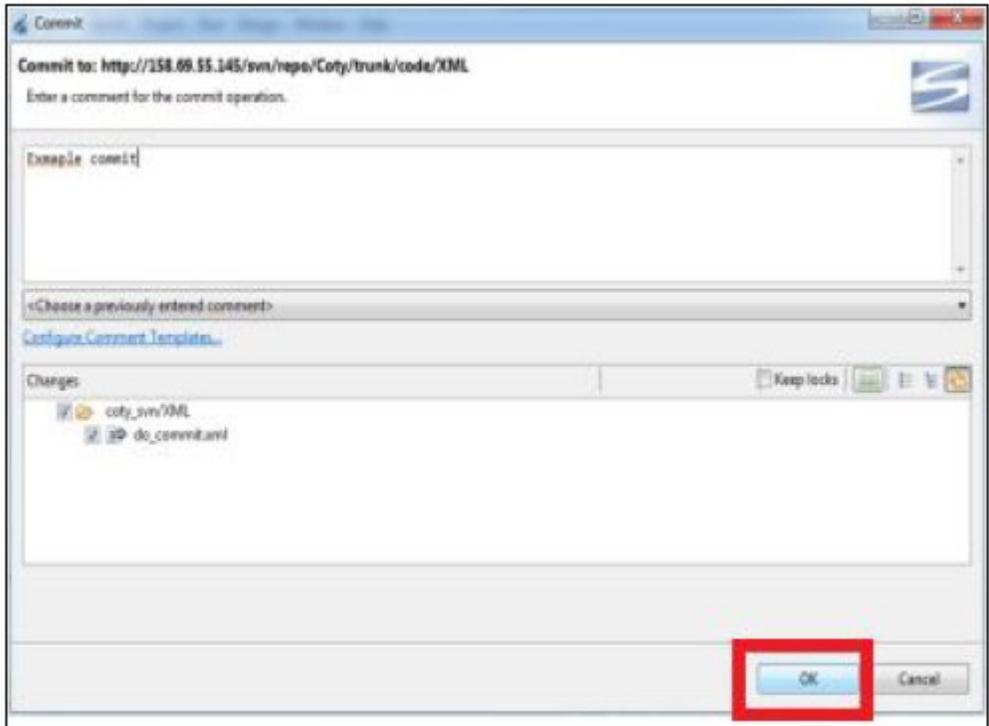
A blue icon is appended next to the file name, as shown in the following image.



2. Right-click the file, select *Team* from the context menu, and then *Commit*, as shown in the following image.

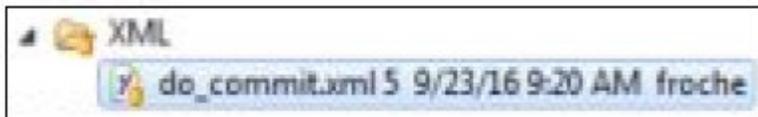


The Commit dialog opens, as shown in the following image.



- 3. Enter a descriptive comment and then click OK.

An orange icon is appended next to the file name, as shown in the following image.

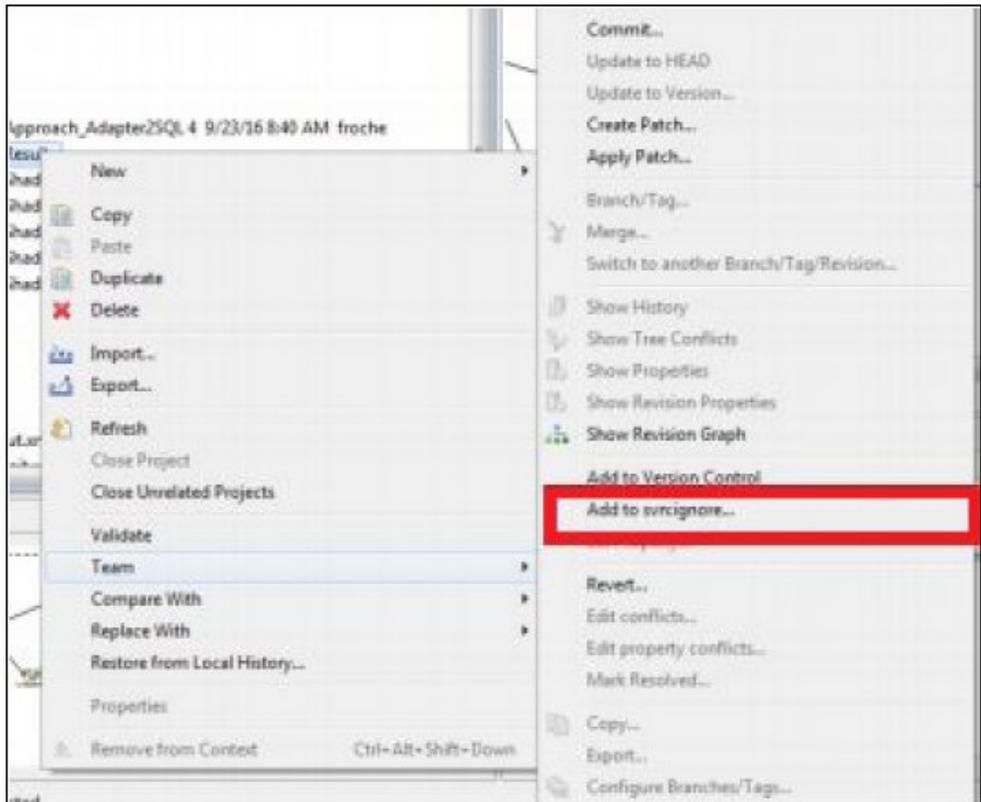


### Adding Files to SVN-Ignore

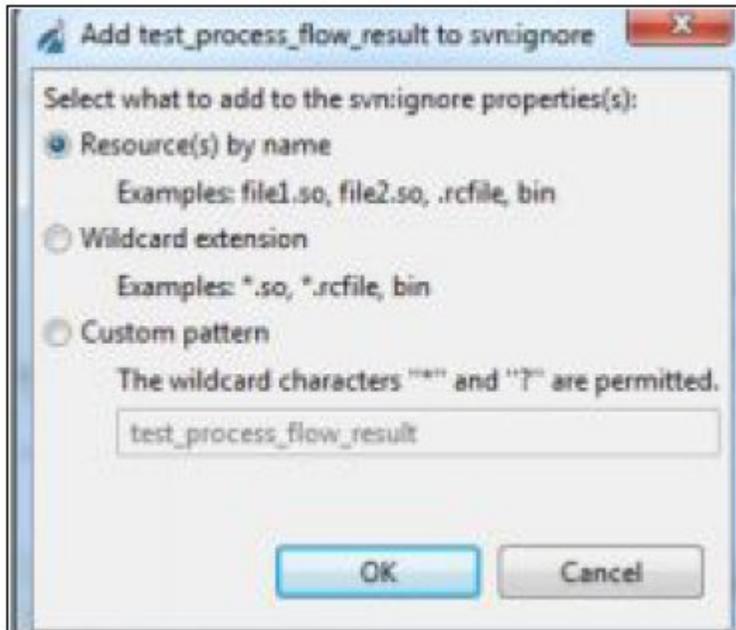
You may want to add only some files to the SVN repository and not others. For example, the files you want to add are required for testing purposes.

To flag files (or folders containing files) so they can be ignored by SVN during a commit operation:

1. Right-click a file or folder that you want to be ignored by SVN, select *Team* from the context menu, and then *Add to svnignore*, as shown in the following image.



The Add to svnignore dialog opens, as shown in the following image.



2. Select the *Resource(s) by name* option and then click *OK*.

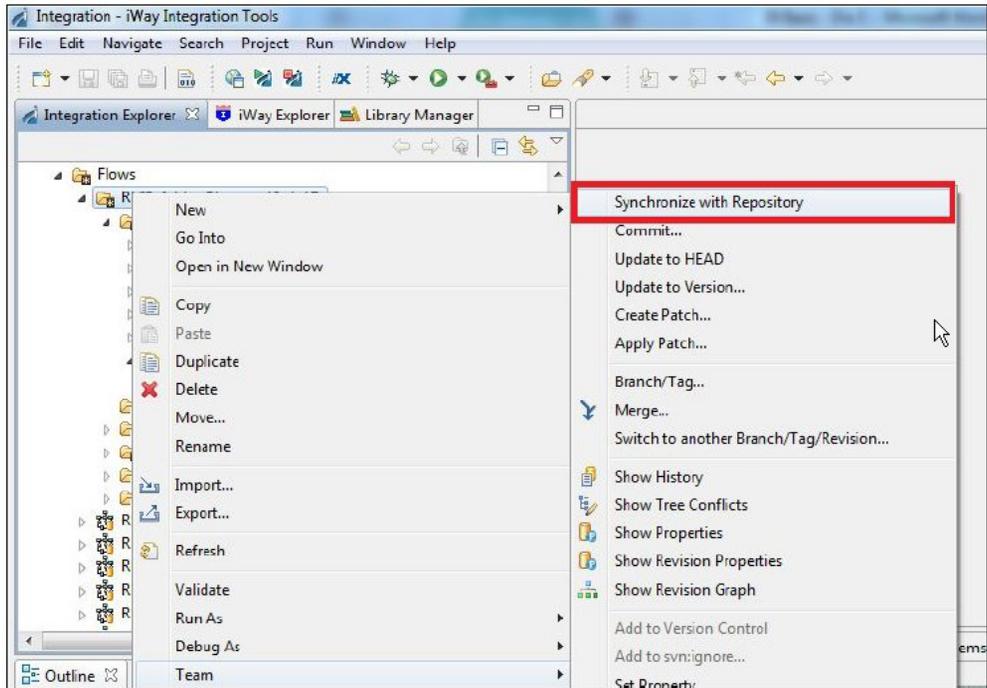
The file or folder you selected will be ignored by SVN.

### Reverting Changes

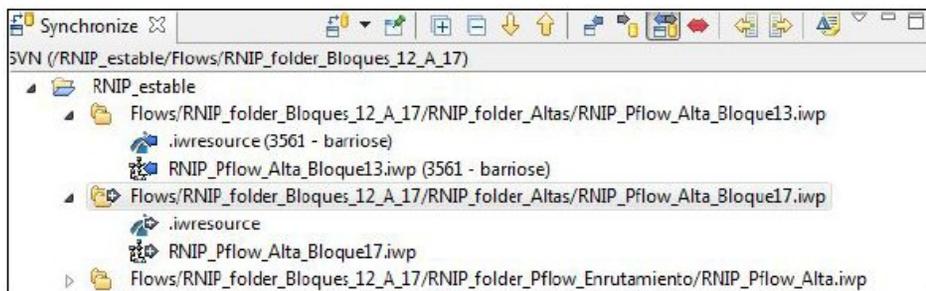
You may modify files locally and then need to revert these changes to match the current state in the repository.

To revert a change:

1. Change the perspective by right-clicking, selecting *Team* from the context menu, and then *Synchronize with Repository*, as shown in the following image.

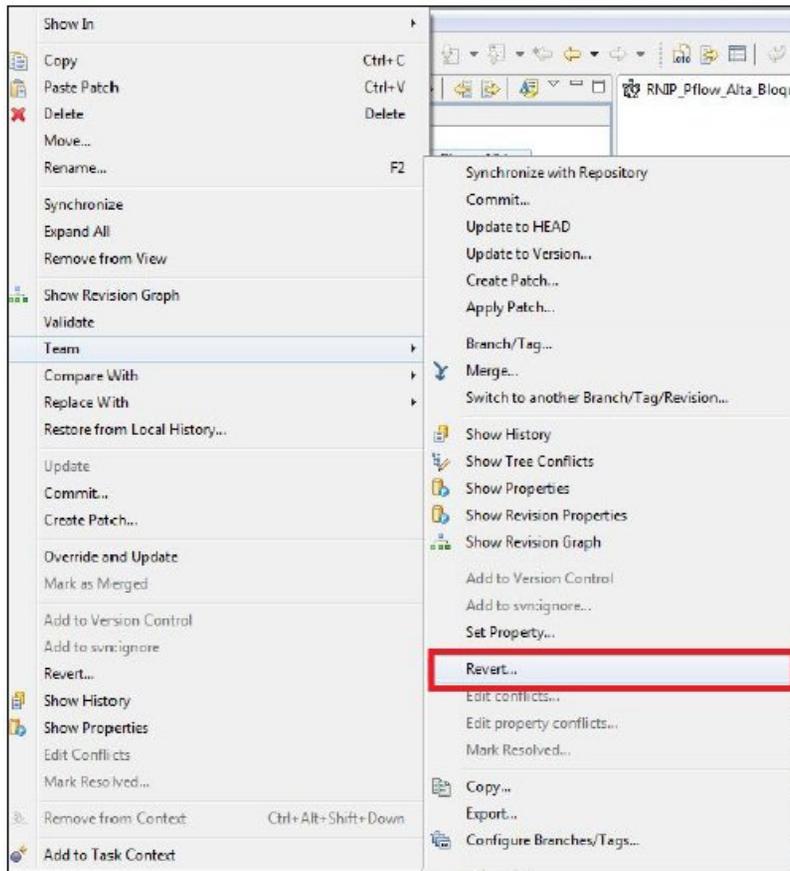


The perspective will change (a Synchronize tab is shown), as shown in the following image.

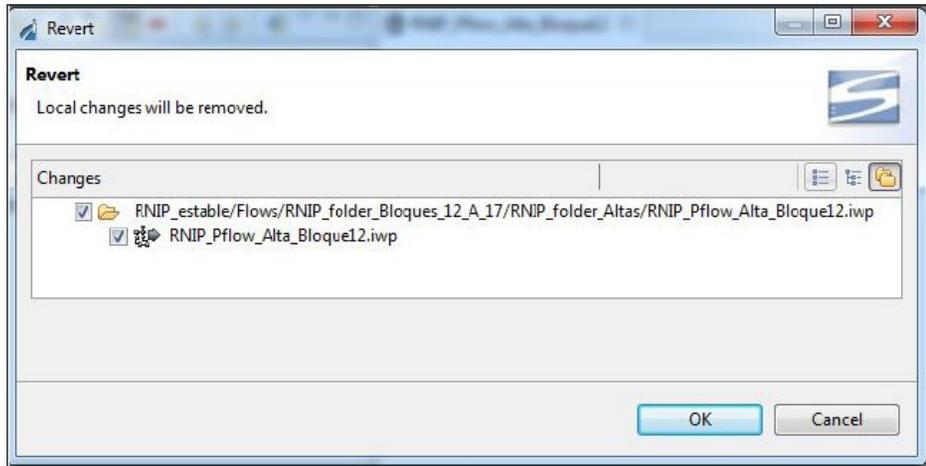


## 1. Installing and Configuring a Source Management (Version Control) Repository for iWay Integration Tools

2. Right-click the change you want to revert, select *Team* from the context menu, and then click *Revert*, as shown in the following image



The Revert dialog opens and lists the change(s) that will be reverted, as shown in the following image.



3. Click *OK* to confirm.

The confirmed change(s) are removed from the Synchronize perspective.

## Handling Conflict States

Sometimes a file can be in a state of conflict and cannot be committed to the SVN repository. These conflicts can be categorized as follows:

- File Conflicts
- Tree Conflicts

### File Conflicts

Two or more users modify the same line in a file and attempt to commit. SVN cannot detect the differences between them. Instead, work on a file that has not been updated.

When file conflicts exist, a file is created with the following characteristics:

```
<<<<<< Filename
Your changes
=====
Code merged from repository
>>>>>> Revision
```

Mark it in iIT and then proceed to resolve the conflict. Perform the following steps:

1. Right-click the file in question, select *Compare With* from the context menu, and then click *Base Revision*.

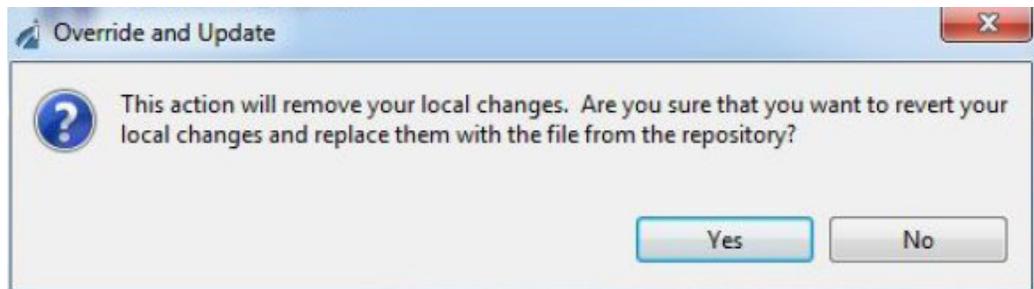
The Structure Compare dialog opens.

2. Compare the contents of the file between the Workspace pane on the left and the BASE pane on the right. Make any appropriate changes within these two panes to ensure conflicts are solved.

You can also copy changes between the Workspace pane on the left and the BASE pane on the right, and navigate within all conflicts one by one.

3. After you have resolved all conflicts, save the file and update by right-clicking and selecting *Update* from the context menu.
4. To override the file, right-click the file and select *Override and Update* from the context menu.

The Override and Update prompt displays, as shown in the following image.



5. Click Yes.

The local file will be overwritten with the version in the repository.

6. To push a local file, mark it as merged (*Mark as Merged*), make a commit, then update to head and commit the local file.

### Tree Conflicts

Tree conflicts are caused when a user deletes, modifies, moves, or renames a file or folder that has already been deleted, modified, moved, or deleted by another user.

To resolve this conflict, decide which side takes priority over the files. Apply modifications from the repository or apply modifications on the local workspace.

To apply changes from the local workspace, identify the file, mark it as merged (*Mark as Merged*), and make a commit. To apply changes from iIT, right-click the file and select *Override and Update* from the context menu.

### SVN Best Practices

Here are several best practices that are recommended when using SVN:

#### **Synchronizing Projects**

Always make a sync with the repository to ensure your local changes are compared with current repository files.

#### **Team Update to Head**

Before making a new commit, you must have the latest version of the SVN repository, so make an update to Head.

#### **Use Caution When Committing Changes**

In the Team Synchronizing perspective, review all of the files you want to commit and check their states. Sometimes if you modify any component of a process flow, an XML file may change, and SVN will prompt you to commit that change. In this case, revert the change before a commit.

#### **Do Not Close iIT When Committing Changes**

Sometimes committing a change may take additional time to complete, so please be patient. Closing iIT during a commit may corrupt some files.

#### **Resolve Conflicts First**

Resolve any existing conflicts prior to committing changes.

#### **Add Descriptions**

Ensure that you add a description to every commit, since providing this information will help to rollback any changes safely in the future.



## Feedback

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# iWay

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## Source Management (Version Control) Installation and Configuration Guide

Version 8.0 and Higher

DN3502275.0618

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