RENESAS

Renesas Synergy™ Platform

Subversion Integration in IAR Embedded Workbench® for Renesas Synergy™

R30AN0331EU0101
Rev.1.01
Apr 23, 2018

Introduction

This Application Note describes the steps necessary to integrate Subversion (SVN), an open source multi-platform version control system into the IAR Embedded Workbench® for Renesas Synergy™ (IAR EW for Synergy) to allow for the version control of projects from inside the IAR EW for Synergy.

Resources Required

To build and run the application you need:

- Operating System: Windows 10 Pro or later
- IAR Embedded Workbench® for Renesas Synergy™ (IAR EW for Synergy) v7.71.13.13746 or later
- Renesas Synergy Standalone Configurator (SSC) v5.4.0.023
- TortoiseSVN Subversion Client Program v1.9.7 Build 27907 - 64 Bit (Client) was selected for this application note. Any SVN Client program is suitable.
- VisualSVN Server for Windows v3.7.1 was selected for this application note. Any SVN Server program is suitable.
- SVN repository: A free SVN web host (https://riouxsvn.com) was also used in this Application Note as an example of a remote server and repository. If access to a server is not available, you can install the SVN Server on a local machine and create a repository there.

Contents

1. Install a Subversion (SVN) Server

This step is necessary when a local repository is used along with a SVN Server Program. In this application note, the VisualSVN was used to create the local repository; the basic steps should be applicable to any server, or if using a remote server and repository:

1. Download VisualSVN or the chosen SVN Server.
2. Complete the installation.
   For VisualSVN select to add the **Administration Tools**. Also, check the box, "Add Subversion command line tools to the path," in case command line access is desired (recommended).
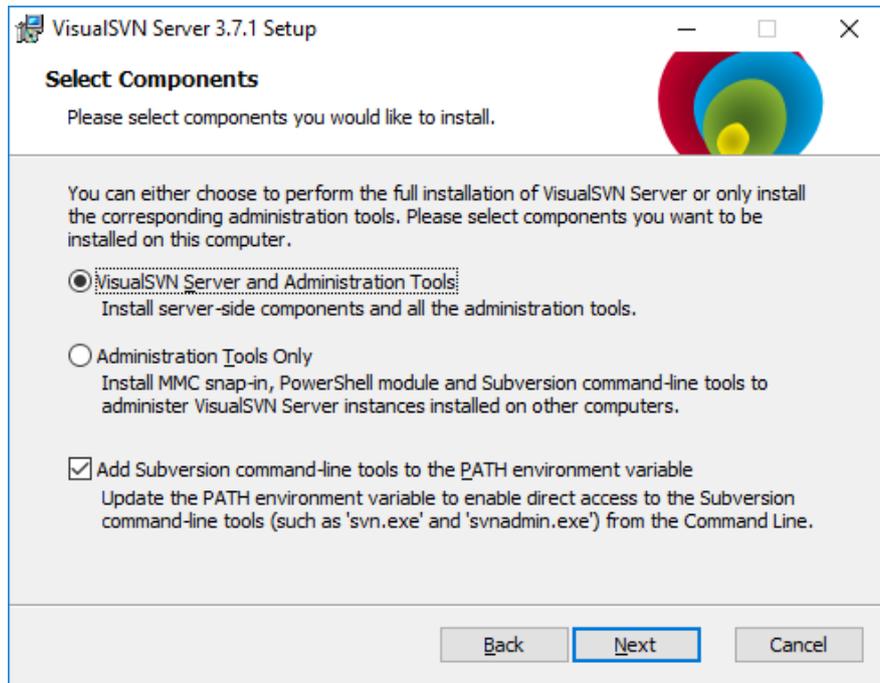
2. Install a Subversion (SVN) Client

The Subversion Client installation is straightforward, just accept the defaults with the command line Client tools option added. See IAR's Technical Note 12129 available at:

https://www.iar.com/support/tech-notes/ide/troubleshooting-integration-with-subversion-version-control-system/
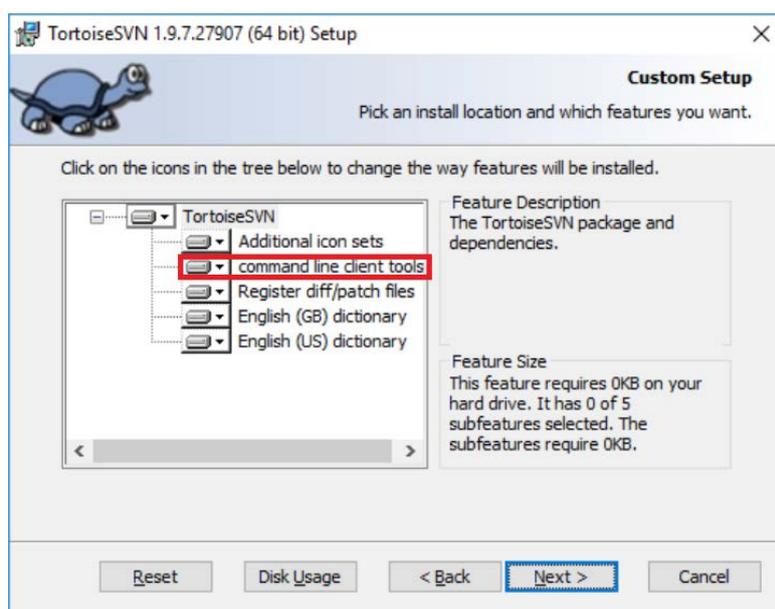
Note, that after installation your Windows Explorer has extra buttons when right clicking on the project folder:
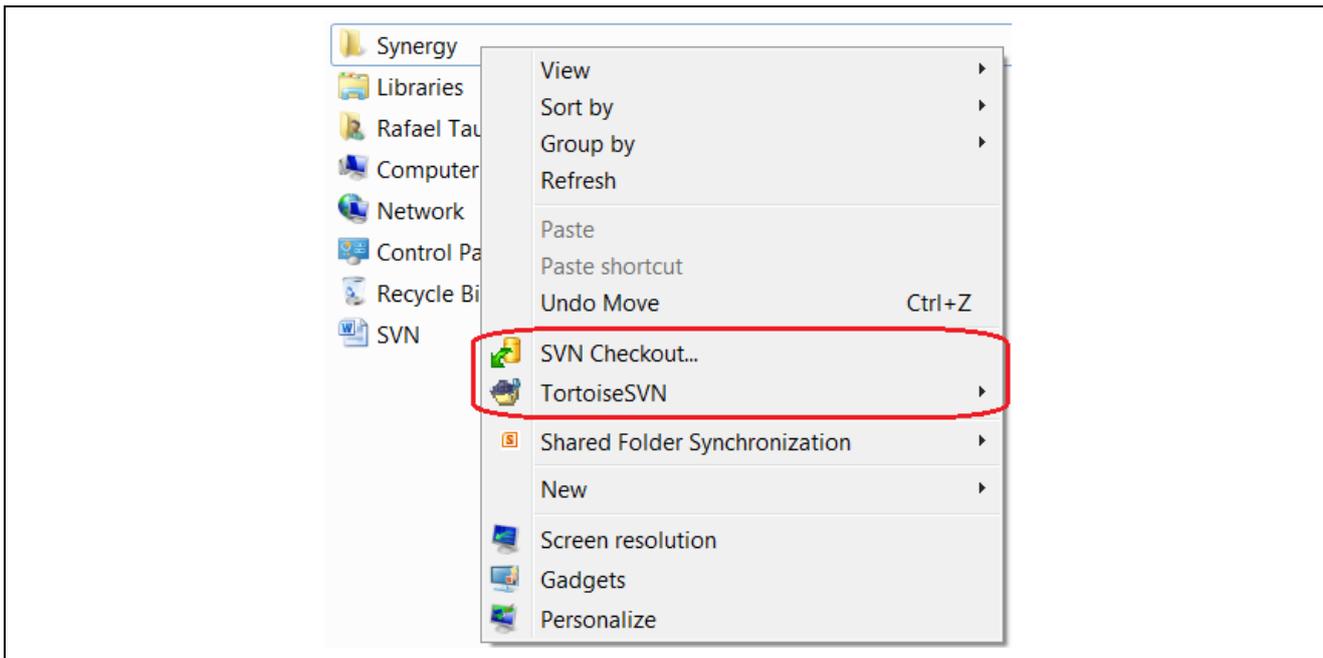
3. Create a Repository

There are various ways to manage projects using Subversion. One common scenario is when an IAR EW for Synergy project already exists that needs to be controlled by Subversion in a local repository.

The assumption is that the project resides in `C:\ExampleProjectRepo_SVN` and it is an example of the **Blinky** project created with the Synergy Standalone Configurator (SSC).

Step 0: (optional): Right-click on any folder, and launch **TortoiseSVN --> Settings** to review/change global settings. Add to **global ignore pattern** all file extensions not to be versioned (For instance: *.pbi*).
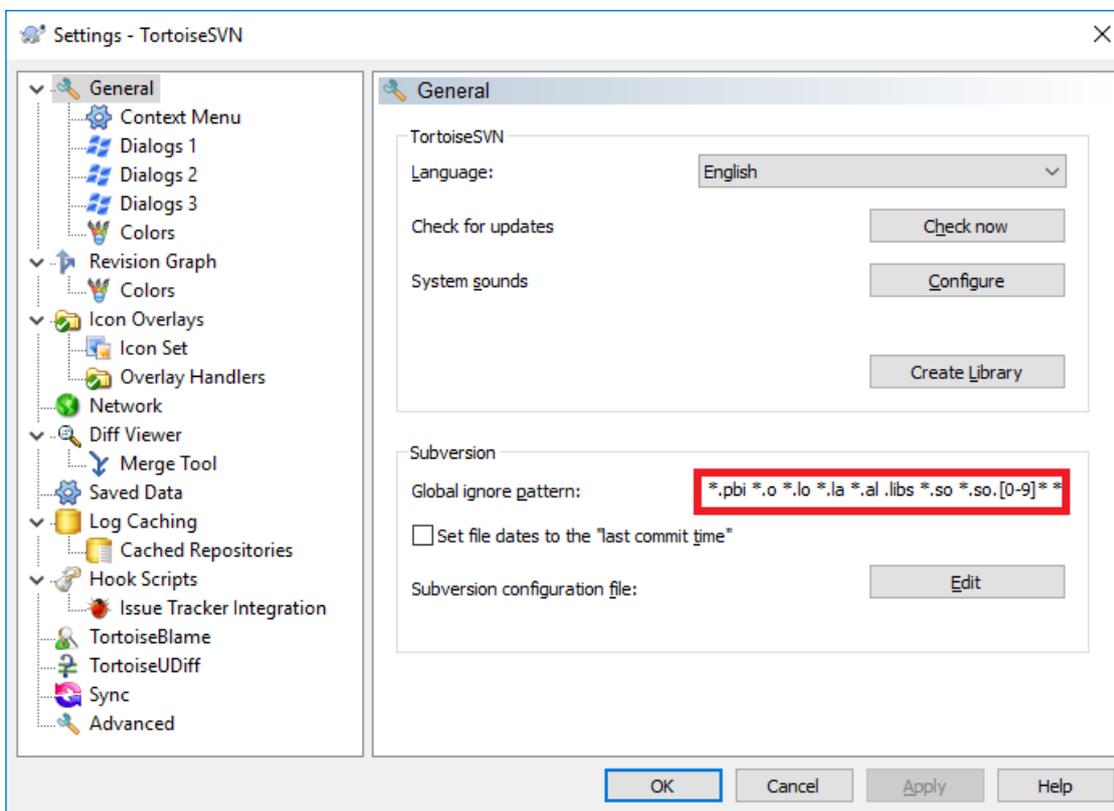
Step 1: Repository creation

On a local hard drive create the directory for repositories of all projects; `C:\SVN_Repositories\`. Create inside it a sub-directory `\Blink`. Right-click on **Blink** and choose **TortoiseSVN --> Create repository here**.

Select **Create folder structure** and press **OK**:
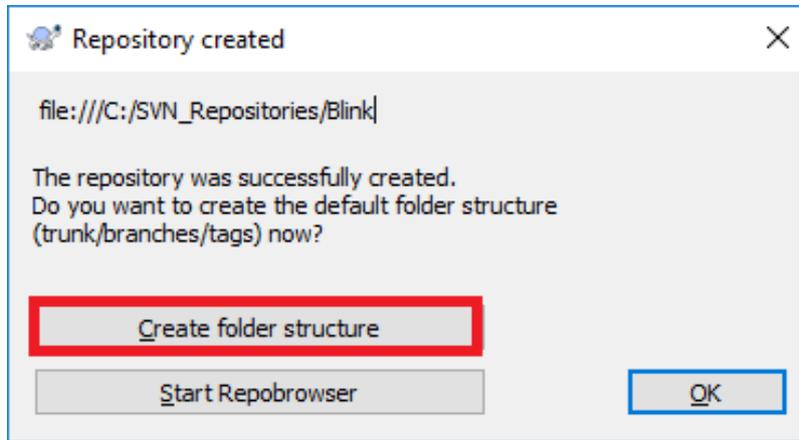
This converts `C:\SVN_Repositories\Blink` into a repository with the following contents:
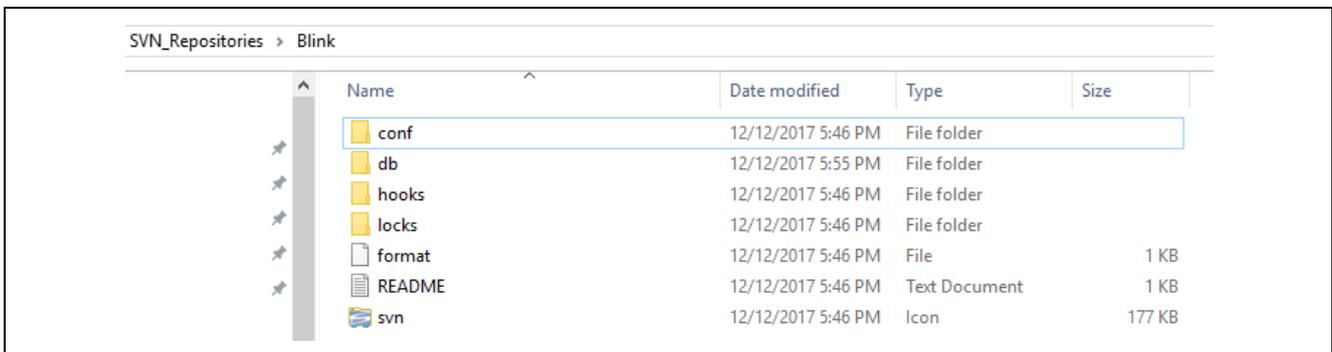
And from **TortoiseSVN --> Repo-Browser**, it can be seen:
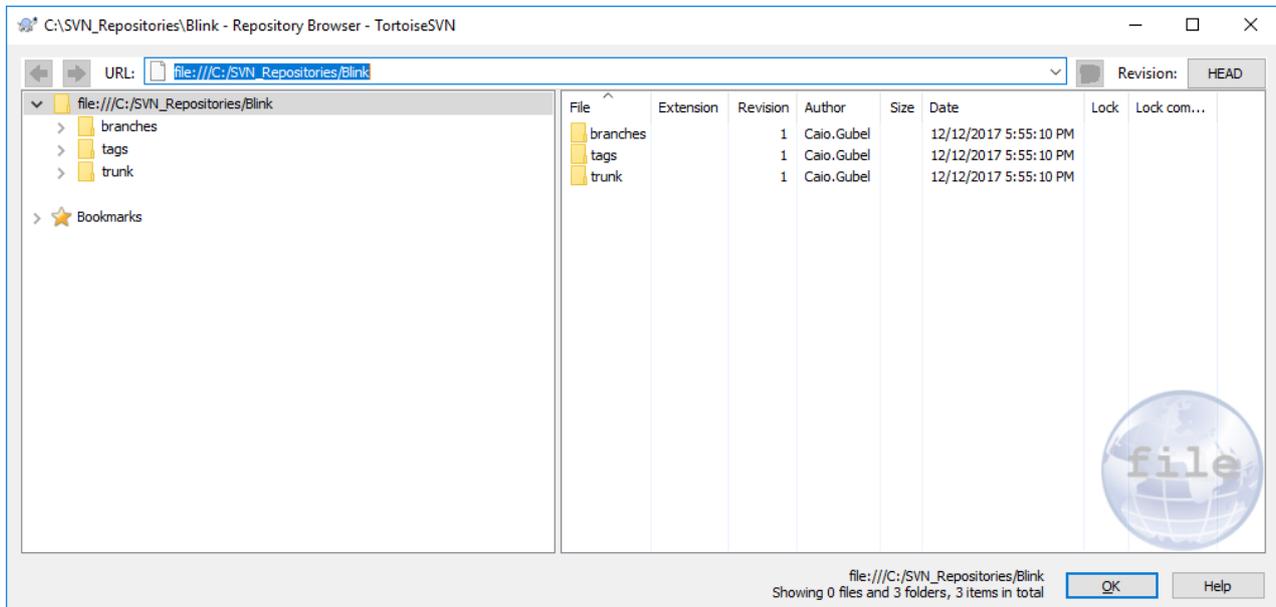
Step 2: Initial import. Going to the initial project `C:\IAR_Projects\`, right click on `Blink_Test`, and select **TortoiseSVN/Import…**
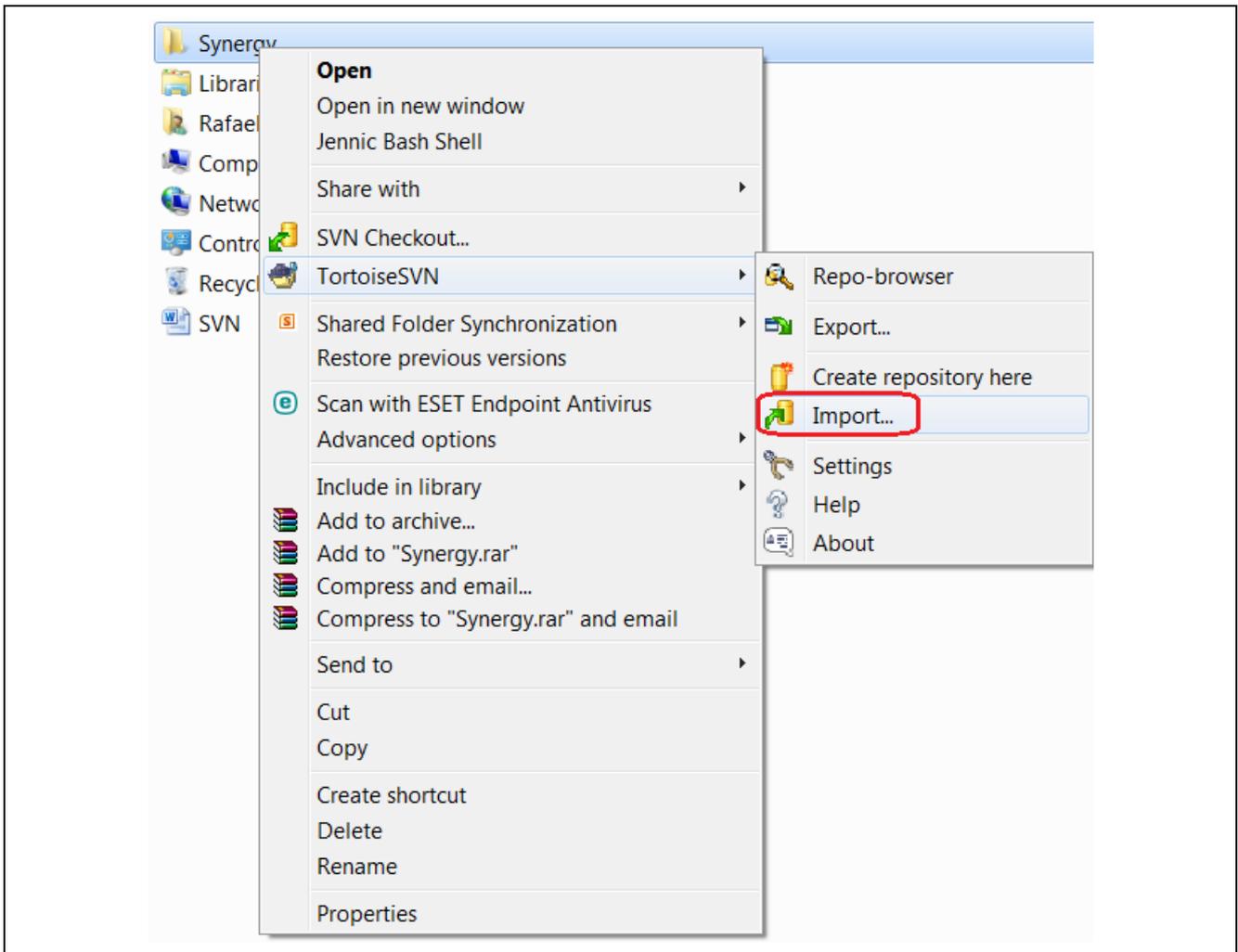
Select the repository, create a description, and press OK:
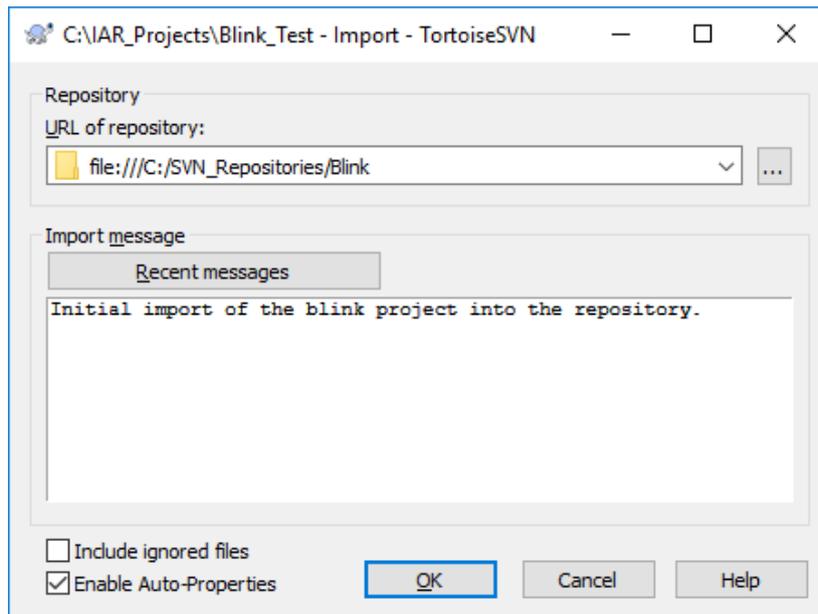
Files are imported, and this window should open and display **Import finished without errors**.
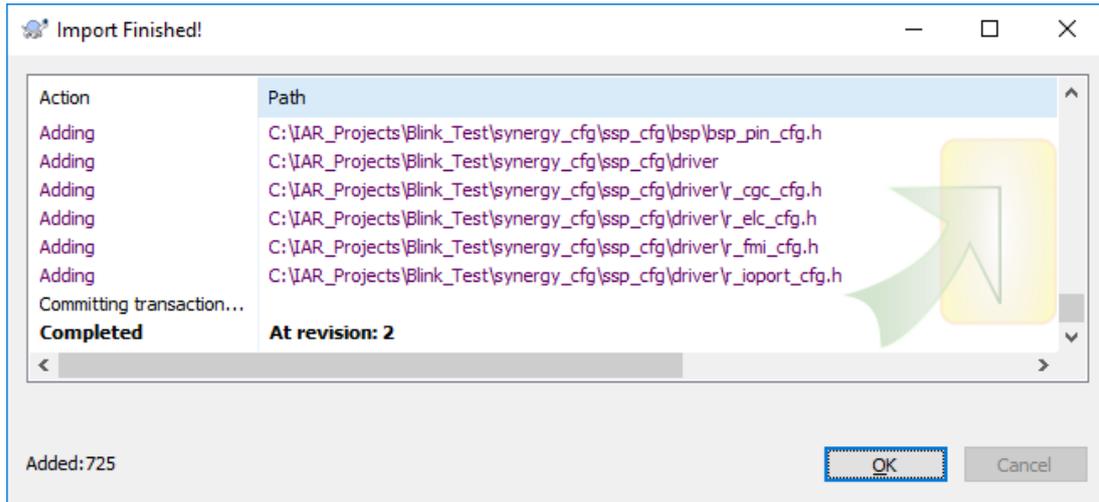
From the **TortoiseSVN/Repo-Browser**, it can be verified that the project was in fact imported:
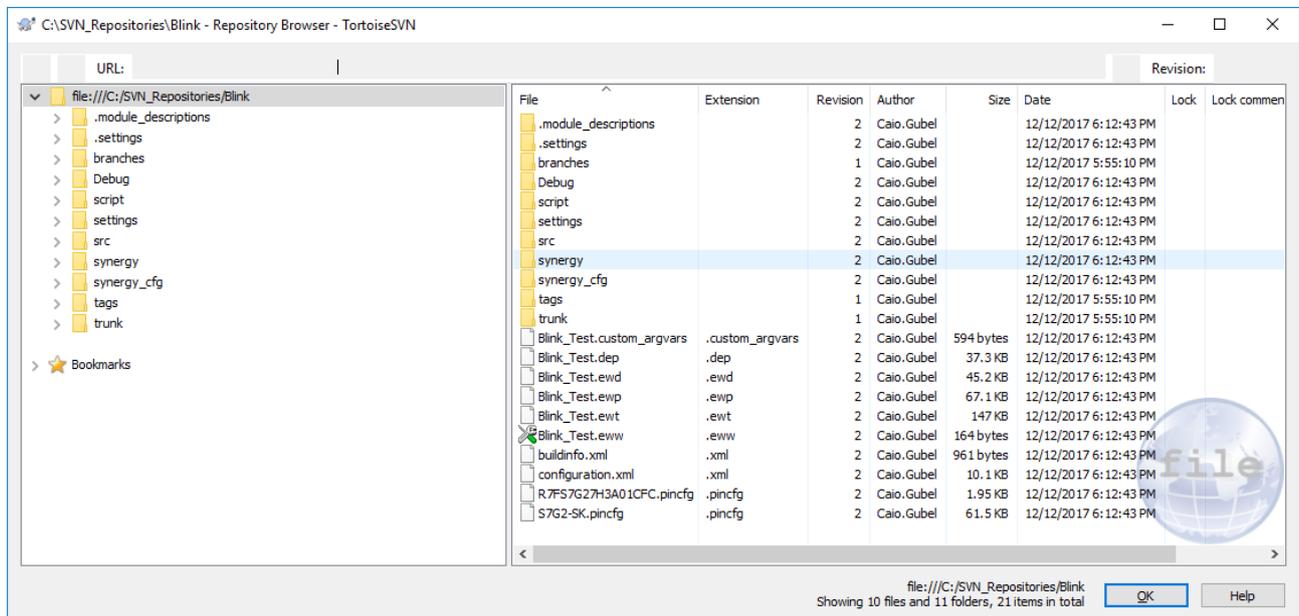
Step 3: Creating a working directory. On a local hard drive create the directory for all projects; `C:\IAR\SVN\`. Create inside it a sub-directory `\Blink`. Right-click on **Blink** and choose **SVN Checkout…Files are checked out**, and this window should be seen:
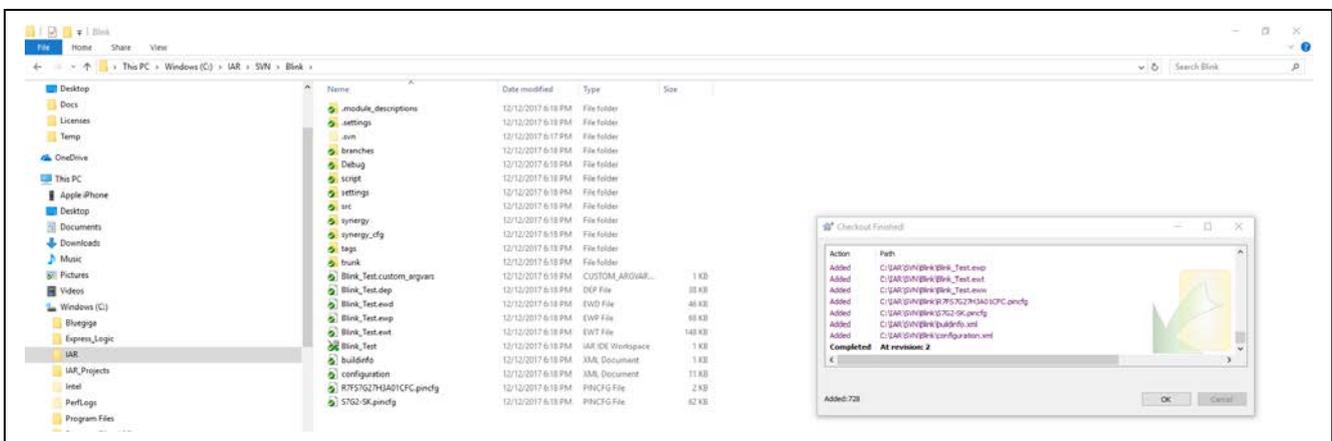
Note: SVN creates icons associated with the files in the project folder:

Step 4: Connect IAR Embedded Workbench to Subversion. Open the IAR workspace from the newly created project directory `C:\IAR\SVN\Blink`, and from contextual menu, **right-click**, and select **Version Control System -> Connect Project to Subversion…**
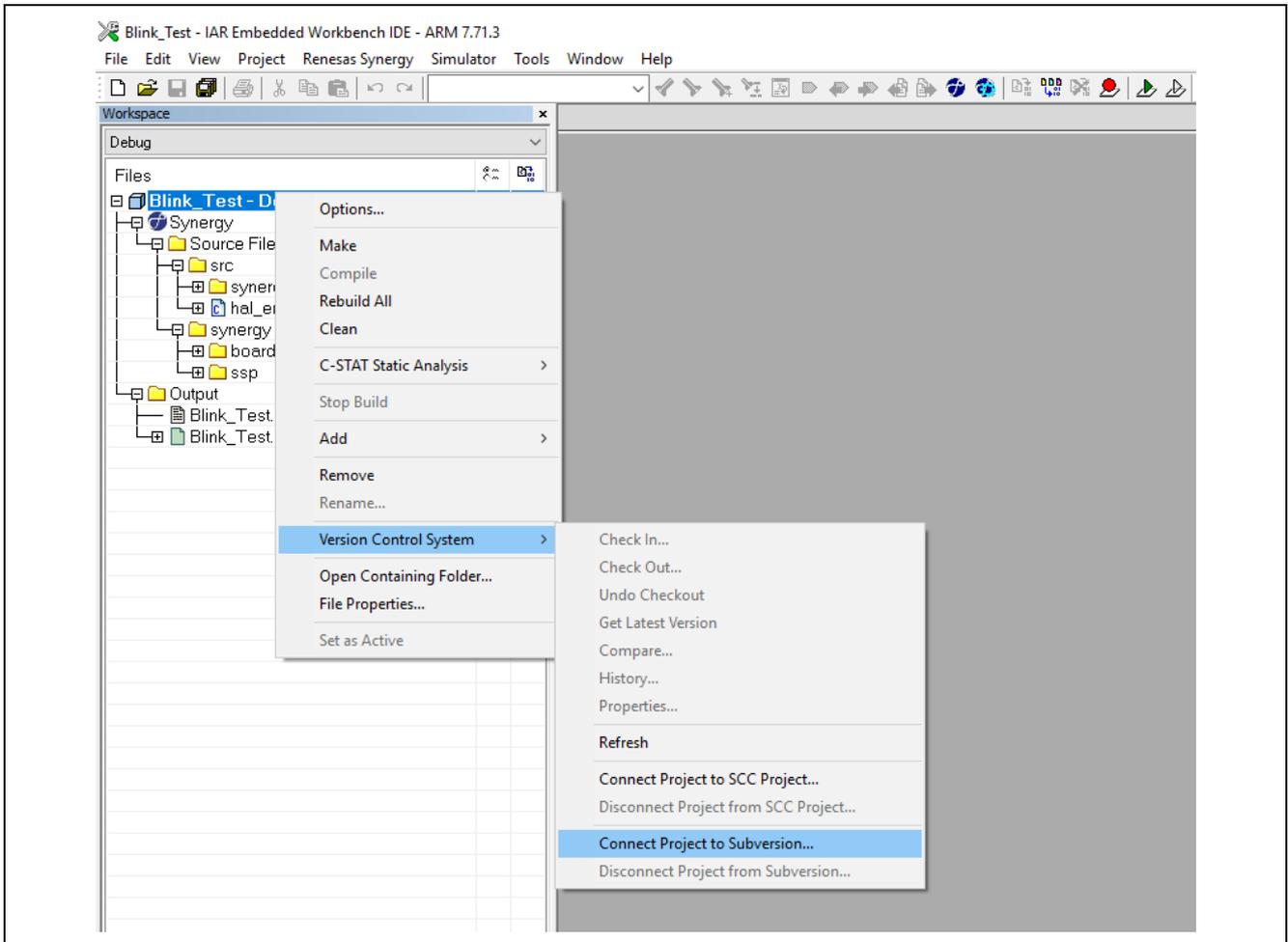
Note: After connecting the workspace an extra column containing source code control status information is added:
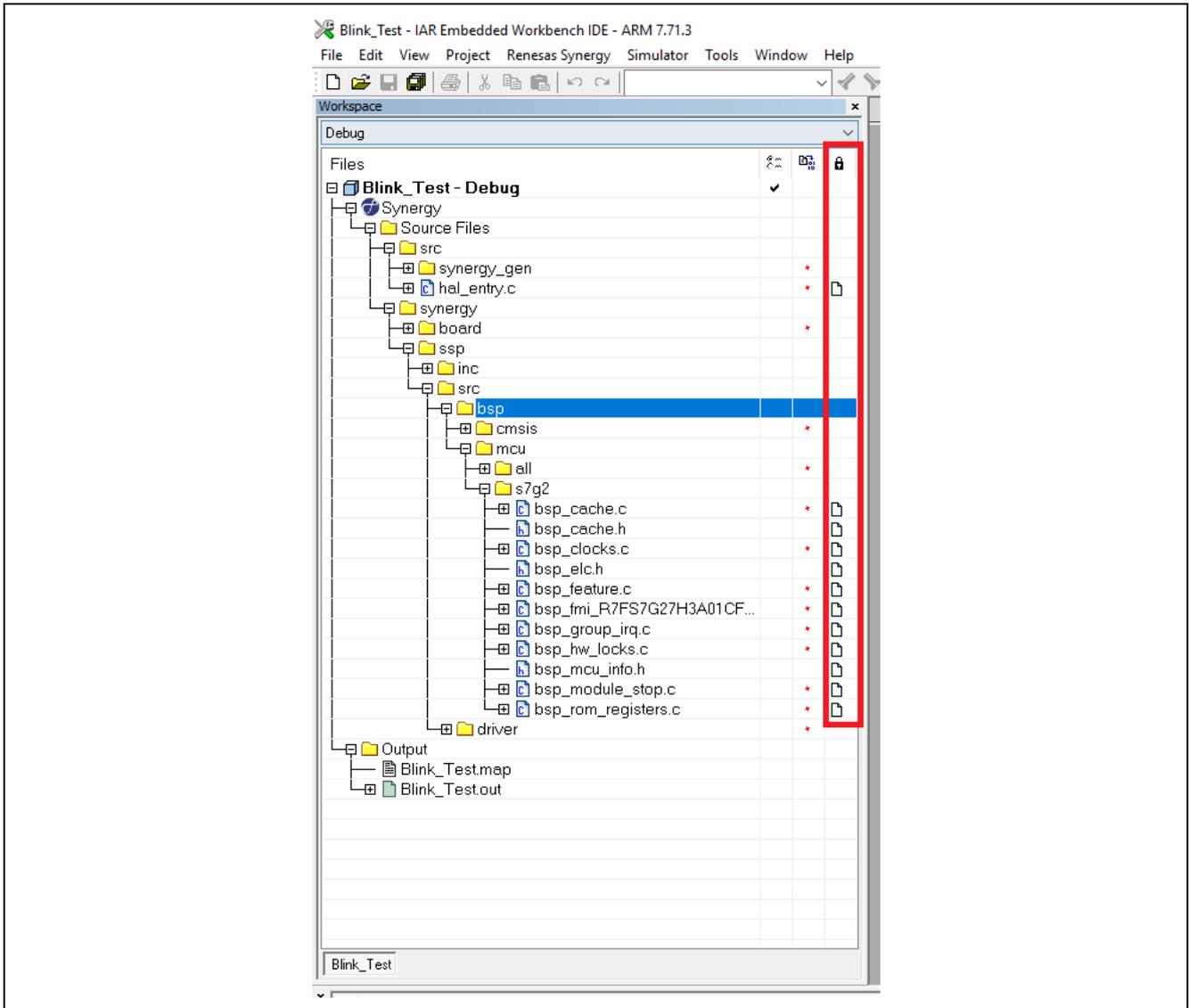
If, for instance, one file is modified, the IAR indicates this. See the example showing a change in hal_entry.c below.
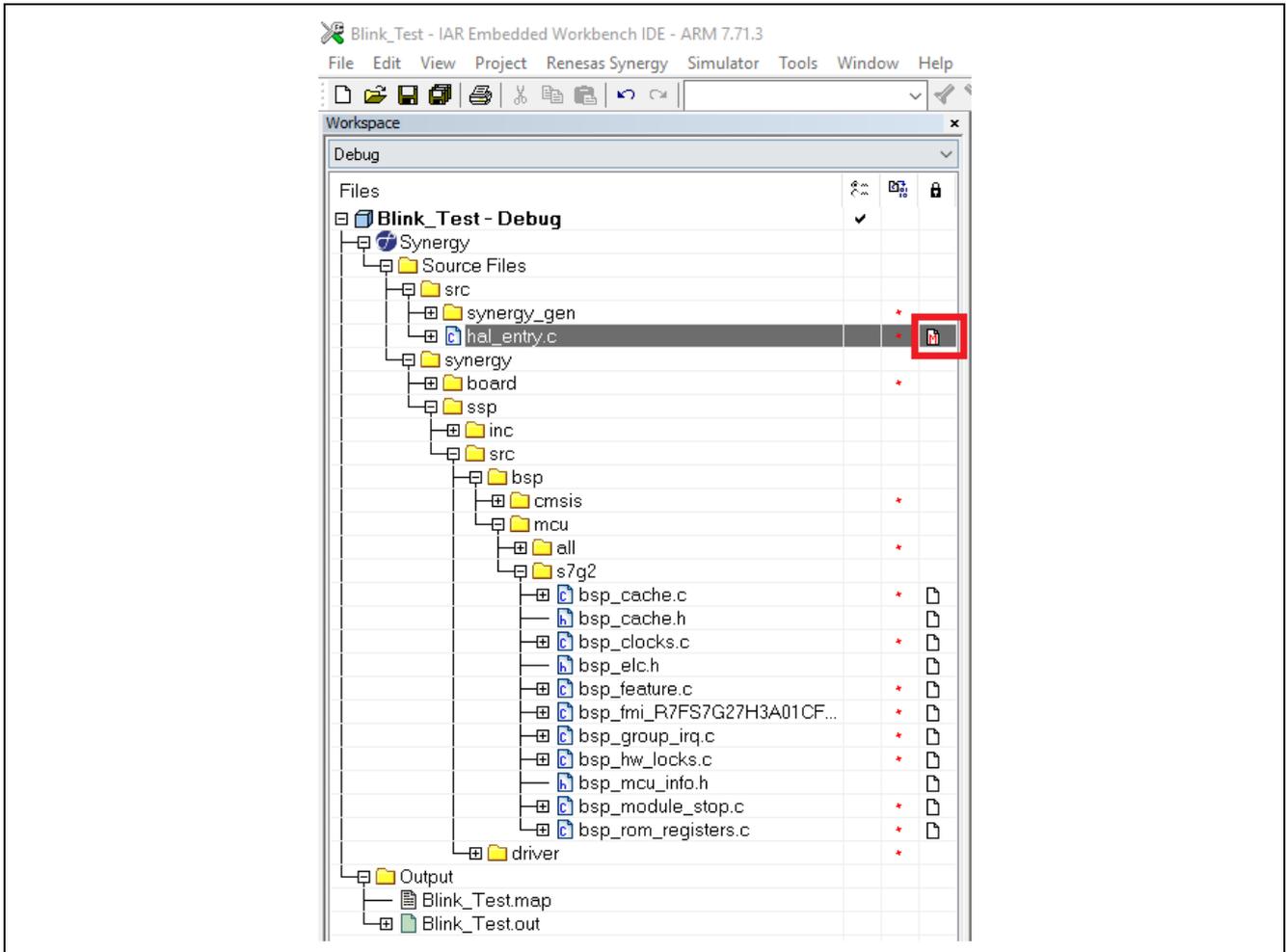
Right-click the `hal_entry.c` file from the workspace window. Next, select **Version Control System** and check all available options.
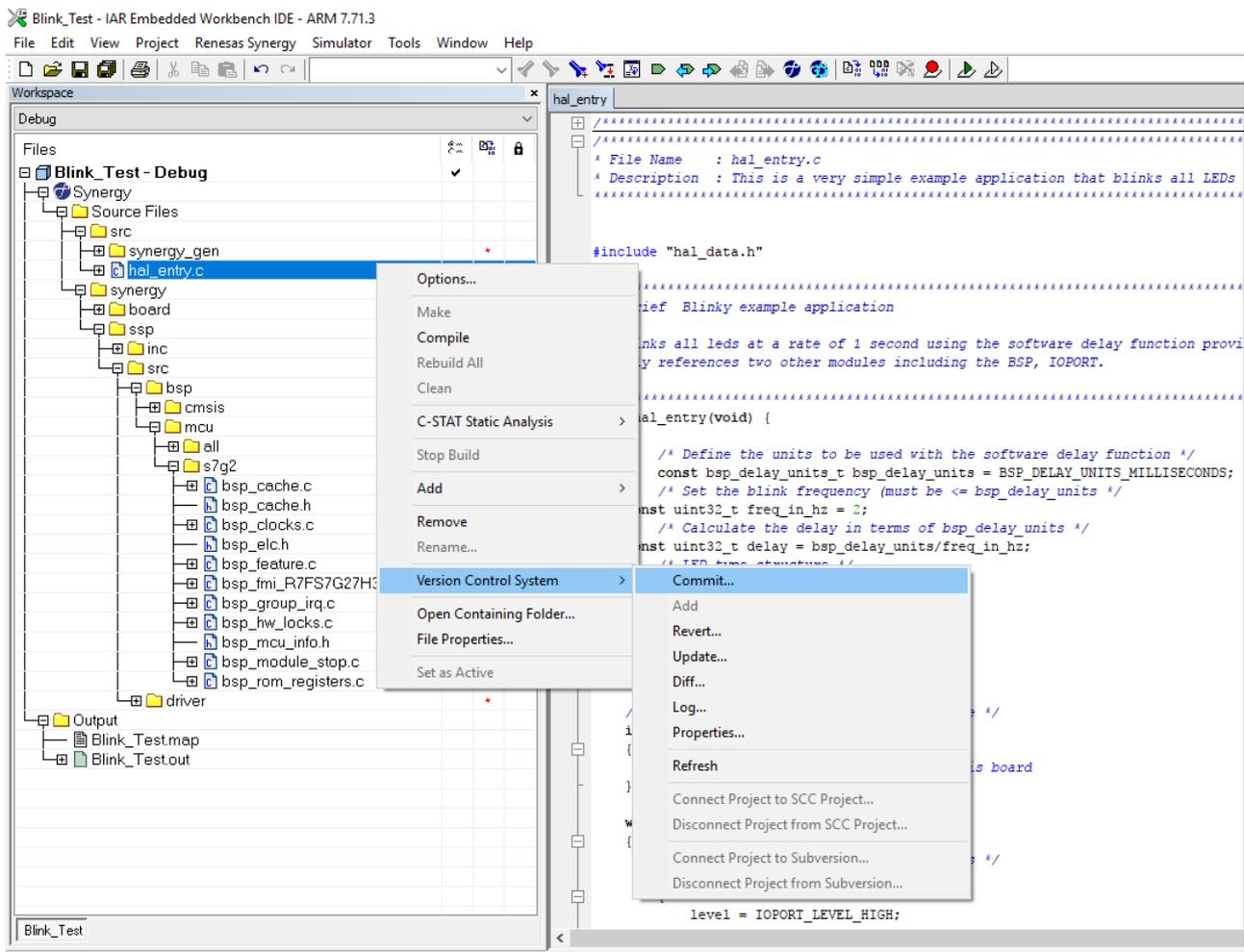
If, for instance, the commit option is selected, the TortoiseSVN's commit popup window opens and a message can be added before pressing **OK** (recommended).
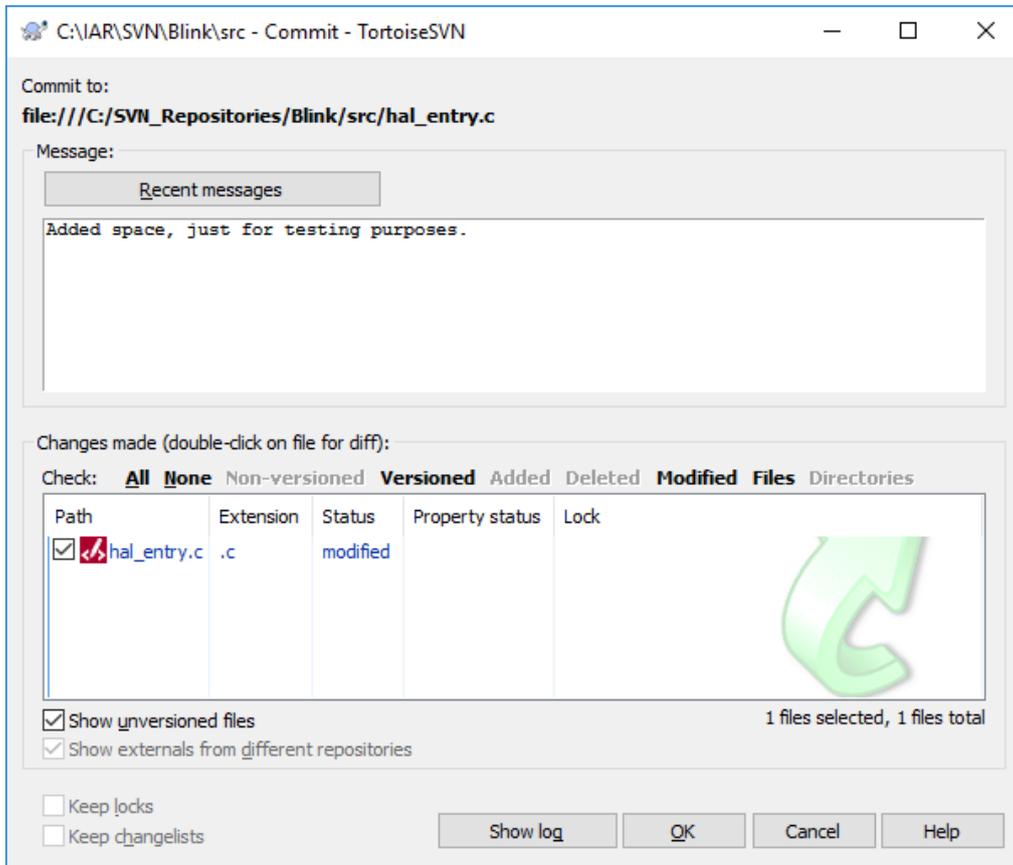
From **TortoiseSVN --> Repo-Browser**, to select the file, right-click and select **Log**. The information in the following window is available.
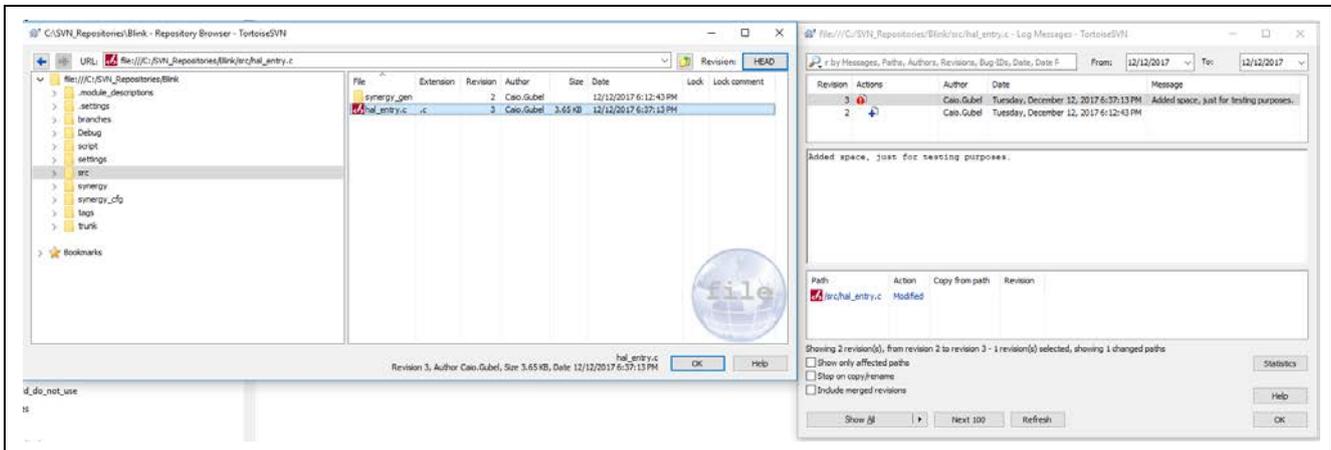
4. Using a Remote Server and Repository

To show the use of a remote server and repository, a remote repository in the free host was created as an example. Also created was an identical **Blink** project under `C:\IAR_Projects\Blink_Test_Remote_Repo`. To access the remote host where the repository is located, first obtain the remote repository's URL. For this specific remote host, the URL can be seen in highlighted in the following window:
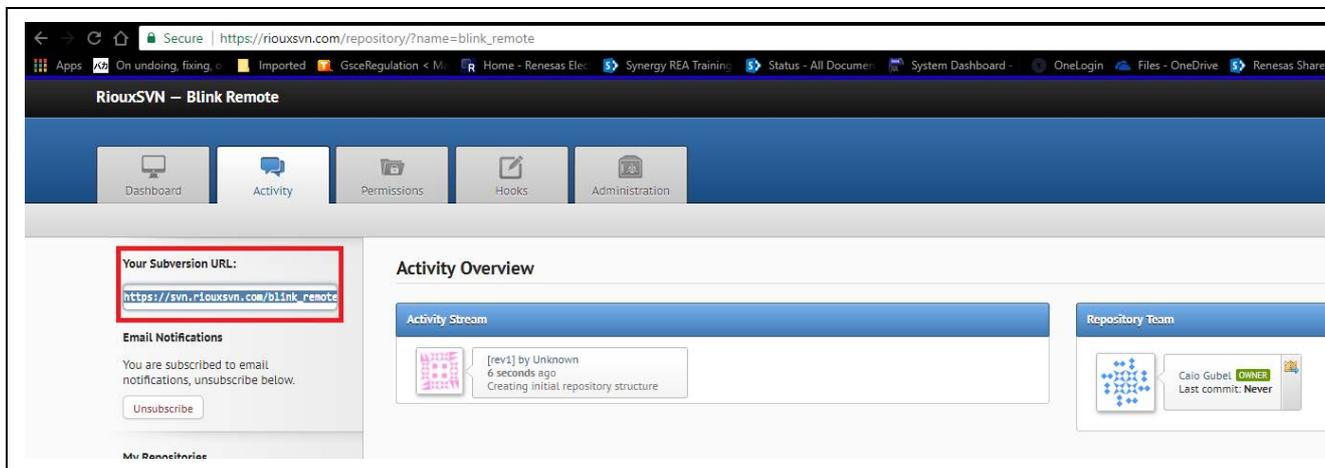
After using the provided URL, the project import is essentially the identical process.
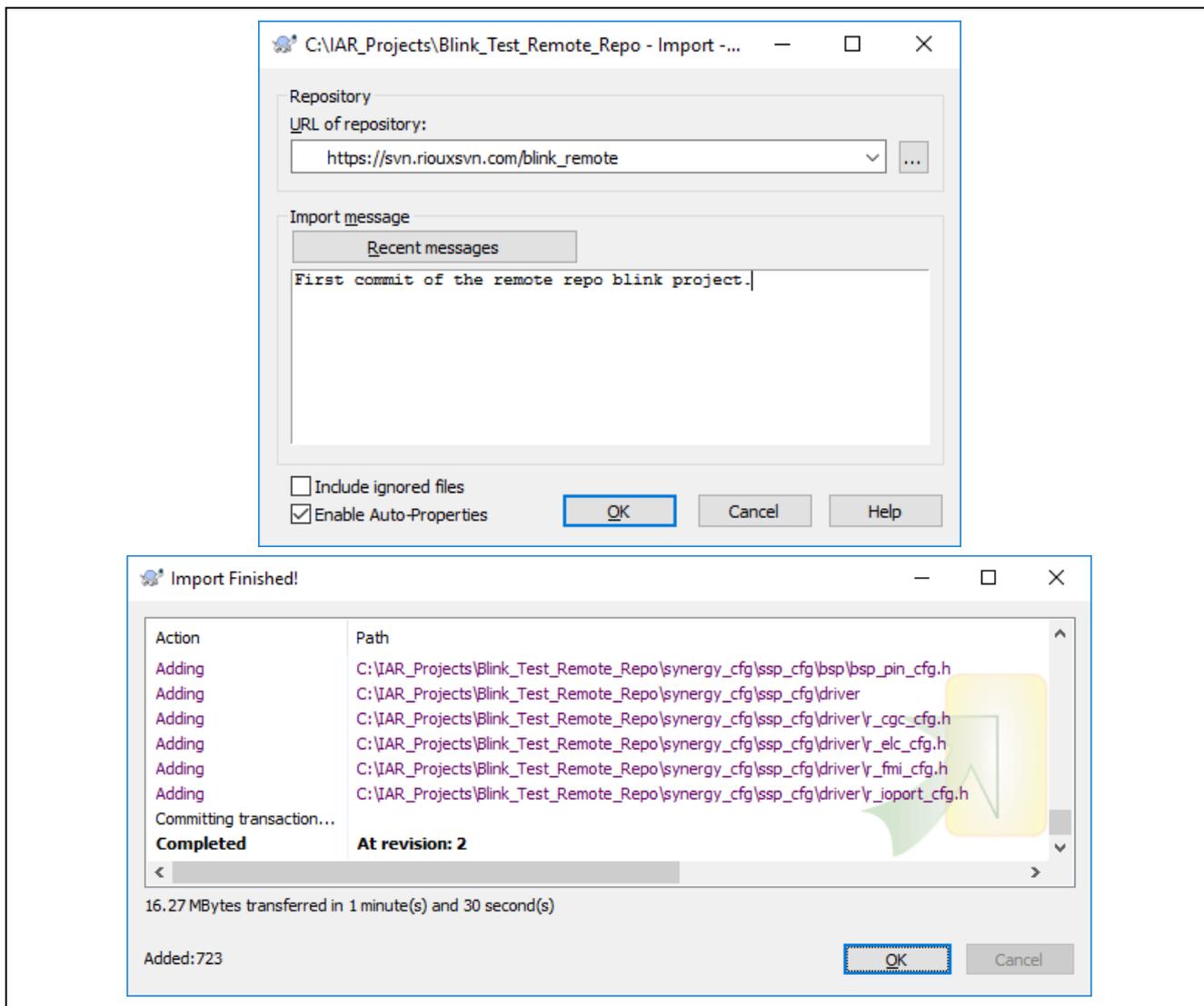
The remote Server now shows the project updated:
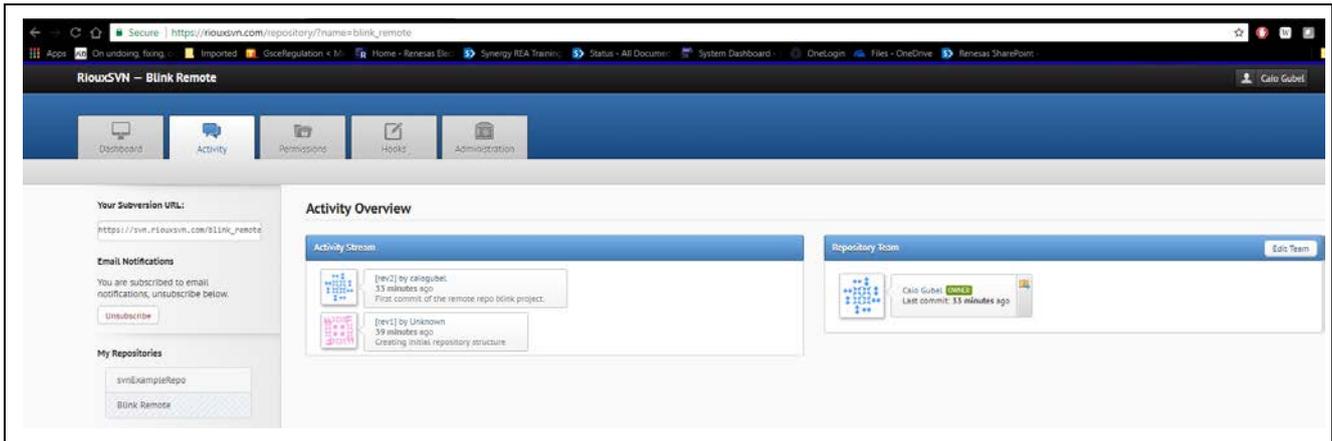
With these steps, the Subversion integration into the IAR EW for Synergy is completed.

5. Resources

Subversion (SVN)

For more information on subversion go to http://subversion.apache.org/.

Packages available for download can be found at http://subversion.apache.org/packages.html, including both Client and Server versions for different platforms.

In this application note, the VisualSVN for Windows Server was used along with TortoiseSVN Client, but you can use any other combination of SVN server-client.

Website and Support

Support:	https://synergygallery.renesas.com/support

Technical Contact Details:

- America:	https://www.renesas.com/en-us/support/contact.html
- Europe:	https://www.renesas.com/en-eu/support/contact.html
- Japan:	https://www.renesas.com/ja-jp/support/contact.html

All trademarks and registered trademarks are the property of their respective owners.

Revision History

Rev.	Date	Description	
		Page	**Summary**
1.00	Jan 4, 2018	—	Initial release
1.01	Apr 23, 2018	—	Minor corrections made to instructions

Notice

RENESAS

Renesas Electronics Corporation

http://www.renesas.com