Integrating PowerBuilder & SVN

I was tasked with testing the source control product **SVN** with **PowerBuilder**. After beating my head against this task, and with the help of Gary Collins and Eduardo G, I was finally able to make this work. Here's how…

Environment
Windows 7, 32 bit o/s
PB v12.1, b 7055
Single user

Required Tools
Slik-Subversion-1.6.16-win32.msi
https://sliksvn.com/pub/

TortoiseSVN-1.6.16.21511-win32-svn-1.6.17.msi
https://sourceforge.net/projects/tortoisesvn/files/1.6.16/Application/TortoiseSVN-1.6.16.21511-win32-svn-1.6.17.msi/download

pbsccsetup_2.01.80.zip
http://www.antepedia.com/detail/p/pbscc-proxy.html

Please note that the **versions** are IMPORTANT! These are the **ONLY** versions of the code that will work correctly with PowerBuilder.

Installation
The required tools **must** be installed in this order:

1. PowerBuilder — Must be installed and working. Close it before you begin.

2. Slik-Subversion-1.6.16-x64.msi — After you have a working version of PB, install this first.

3. TortoiseSVN-1.6.16.21511-x64-svn-1.6.17.msi — Next, run this installer, then reboot your VM or PC.

4. pbsccsetup.exe — Extract this from the ZIP file, and run it. Ignore the "pbscc.ver" file.

5. After the three products have been installed and the PC/VM has been rebooted, open up the "Programs and Features" Control Panel to verify that the three products have been installed correctly.

Oracle Data Provider for .NET Help	Oracle Corporation	10/19/2011	1.16 MB	10.2.050
PBSCC Proxy		9/11/2017		
Pdf995		2/12/2013		
Phish Alert	KnowBe4	11/9/2016	27.9 MB	1.1.5
PL/SQL Developer 11.0.5.1775	Allround Automations	10/3/2016		11.0.5.1775
QVCS 3.10.6	Quma Software, Inc.	11/6/2012		
SAP InfoMaker 12.6	SAP AG	9/15/2015		12.6.0.3506
SAP PowerBuilder 12.6	SAP AG	9/15/2015		12.6.0.3506
Slik Subversion 1.6.16 (x86)	SlikSvn & The SharpSvn Project	9/11/2017	9.51 MB	1.6.16.0
SQL Anywhere 11	iAnywhere Solutions, Inc.	11/6/2012	296 MB	11.1.2044
Sybase PowerBuilder 12.1	Sybase	3/1/2013		12.1.0.7055
Sybase Software Asset Management License Serv...	Sybase, Inc.	11/7/2012		2.2.0.5
System Center Endpoint Protection	Microsoft Corporation	5/22/2016		4.7.214.0
TextPad 4.6	Helios	11/13/2012	3.11 MB	4.6.2
TortoiseSVN 1.6.16.21511 (32 bit)	TortoiseSVN	9/11/2017	18.3 MB	1.6.21511
VMware Tools	VMware, Inc.	9/3/2013	28.1 MB	8.3.17.17464

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6. Once installed, Tortoise **integrates** itself to *Windows Explorer* as shown below.

a) Right-click on any folder to display the two new menu items now included on the right-click popup menu of *Windows Explorer*.

Two new menu items

Right click on any folder
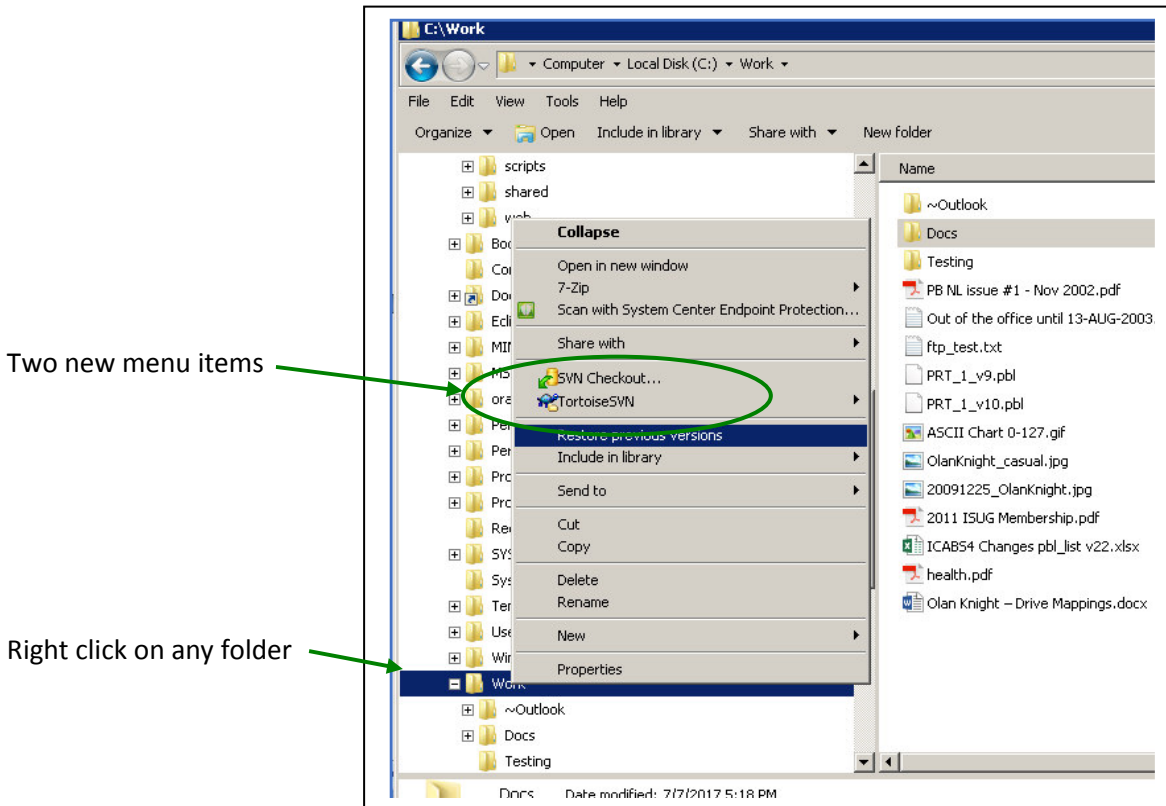
b) Create your source control repositories

INFO: SVN requires **two** repositories. One will be your MAIN repository and the other one will be your WORK repository. Choose a location that makes sense to you and to your folder structure.

NOTE: Both of these repositories MUST reside on your primary drive; in my case the "C" drive. The reason is that the Tortoise application is running a single user Server on the same machine. If this was a multi-user setup, we would have created the repository on a remote machine running a multi-user server like the one from CollabNet.

In my case, my PowerBuilder Local Root Directory is "C:\Apps12". All of my PowerBuilder v12.1 code resides under that top-level, or "root", directory. I added both repositories directly under the root folder:
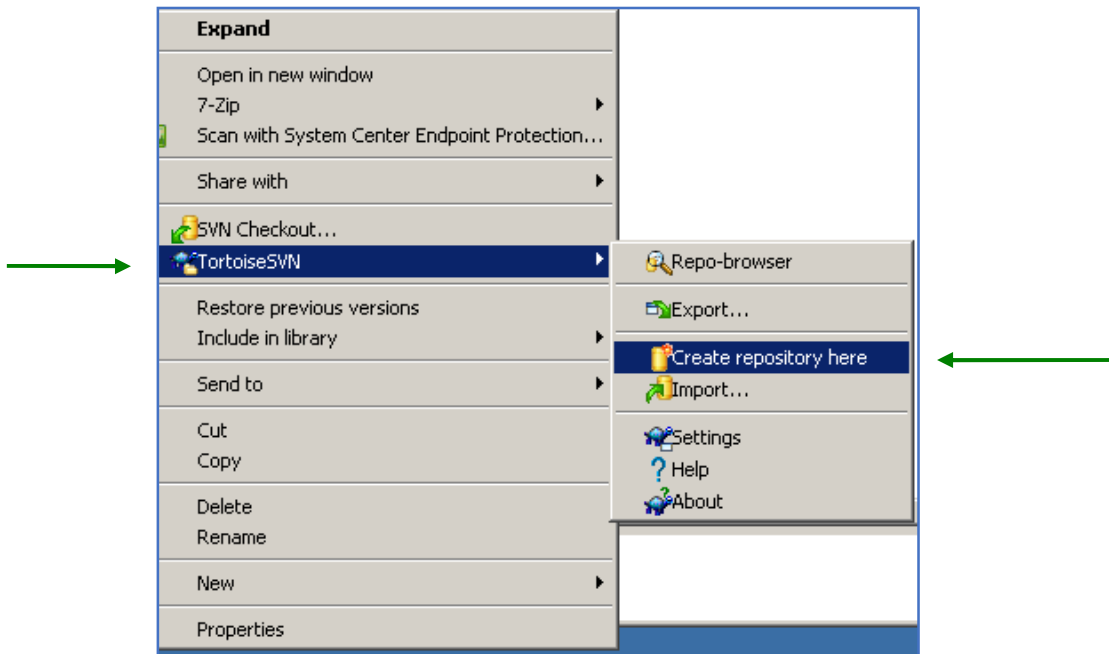
PB Root directory

Final Repository
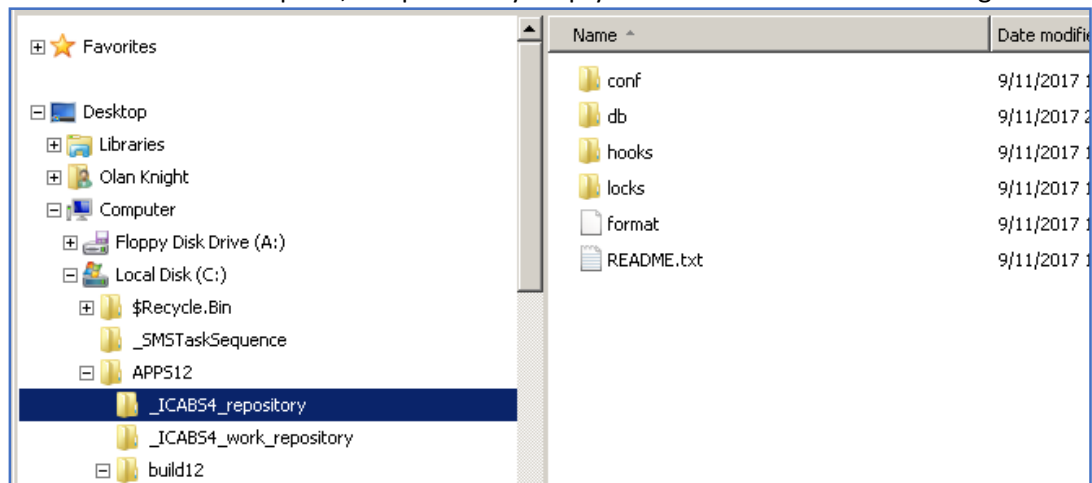Work repository
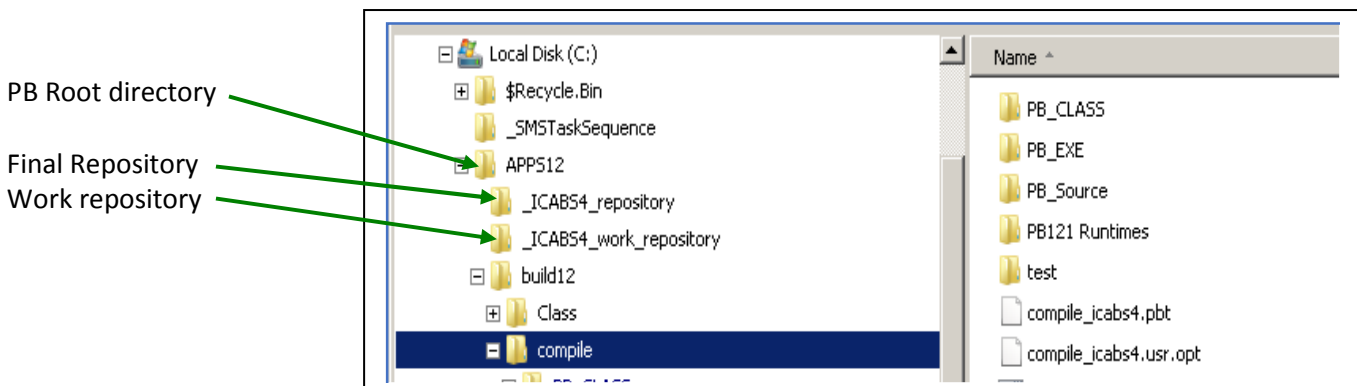
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i.   Create two new folders, one for each repository. Name them appropriately. In my case my application is named ICABS4.
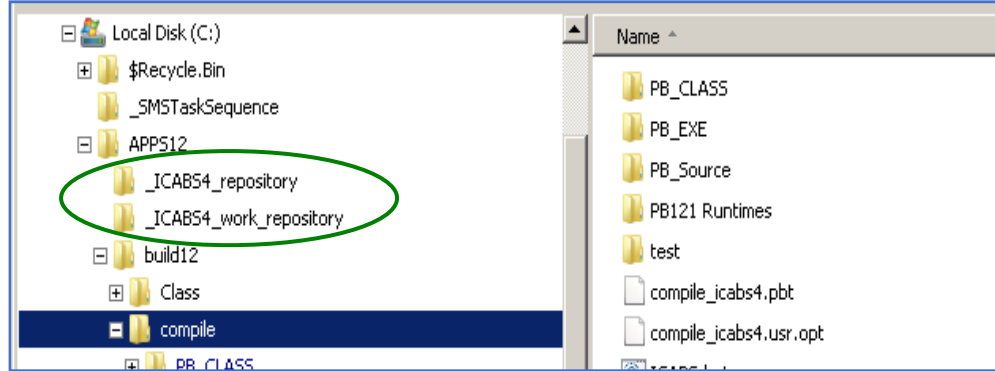
ii.   Right-click on the MAIN repository, not the WORK repository, and select the "TortoiseSVN / Create Repository Here" option.
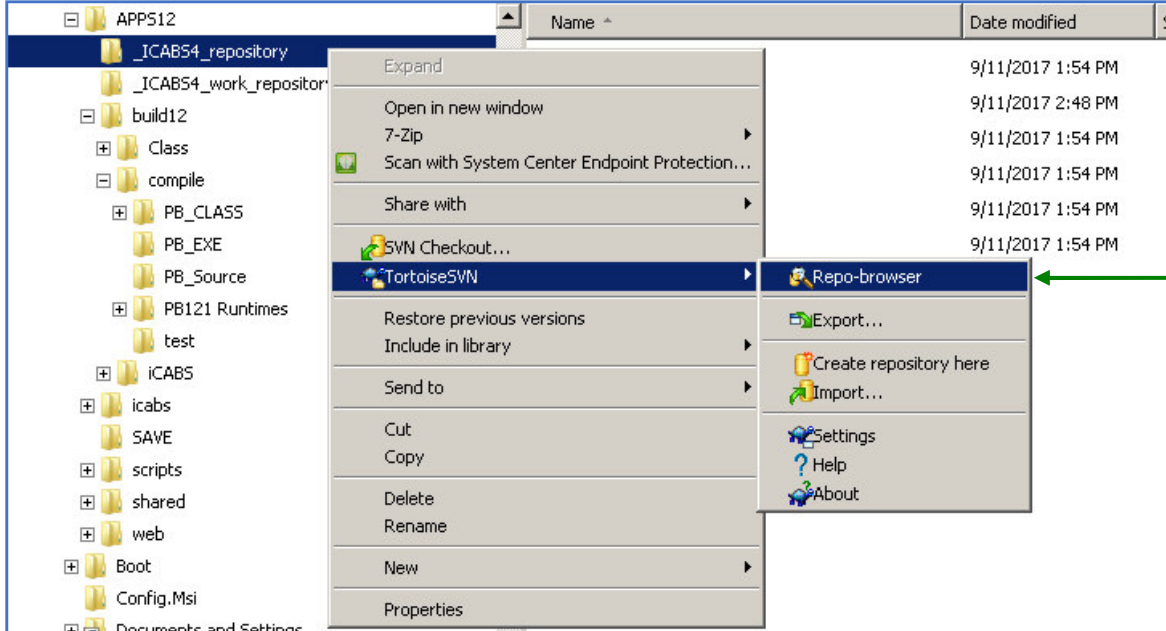

This takes a few seconds. Once complete, the previously empty folder will contain the following:
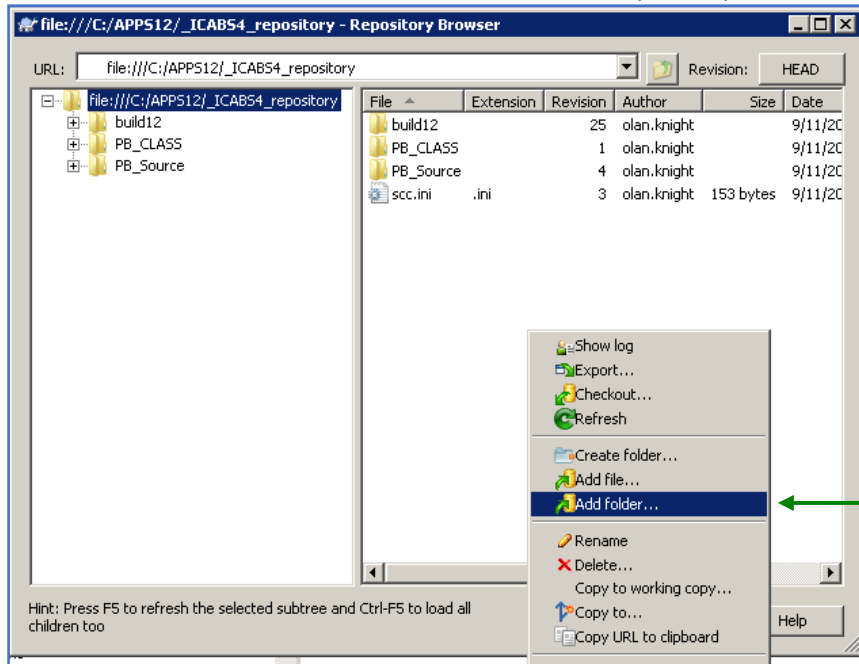
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iii.   While in the MAIN repository, select the "TortoiseSVN / Repo-browser" option:

This opens up the tool you use to look **inside** the repository.

Open up the Repo-browser and select the ADD FOLDER for each "project" to be added to the repository. This will take a few moments. It will add PBLS to the repository, and that's fine – leave them alone.
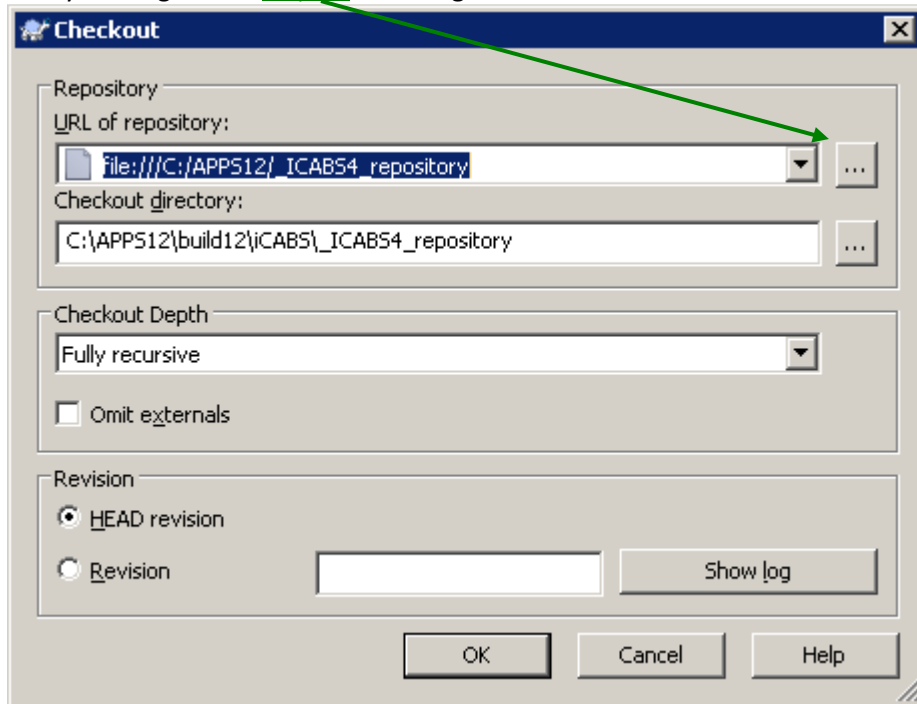

In my case I added two folders: PB_CLASS and PB_SOURCE.

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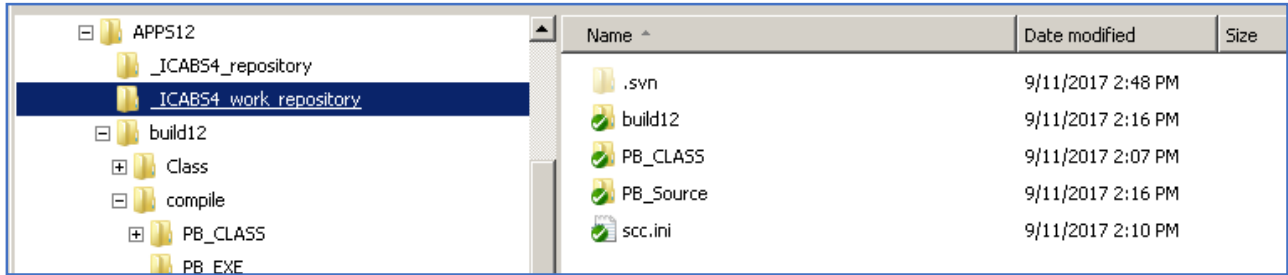iv.   Right-click on the **WORK** repository, and select the "SVN Checkout " option.
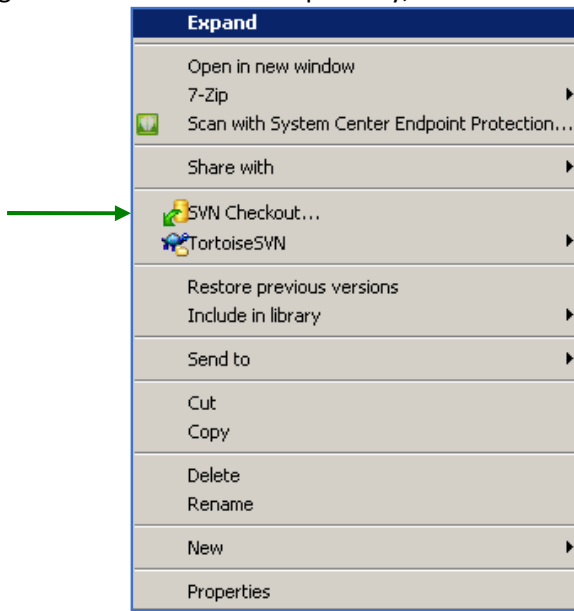
This displays the CHECKOUT properties. Populate them appropriately. Note that you will need to navigate to the appropriate folders by clicking on the ellipses to the right of each field.
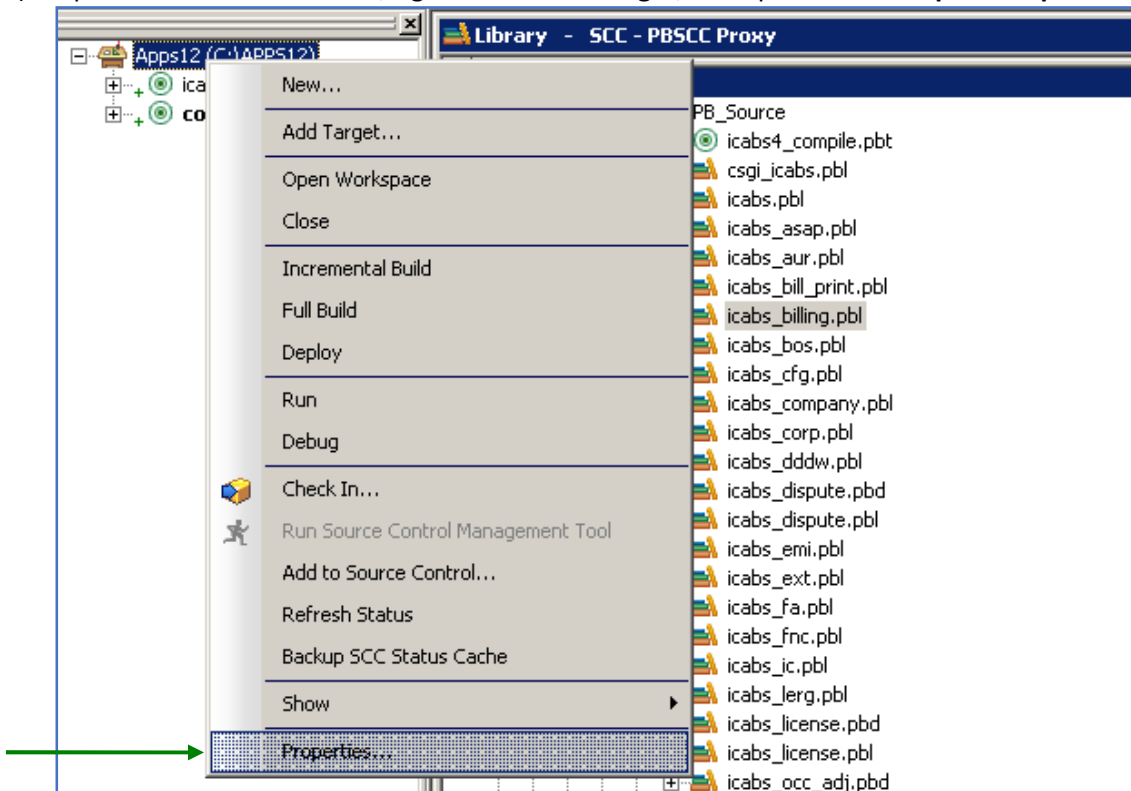
Click OK, then wait for the processing to complete.

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Once finished, the WORK repository will have the defined PROJECT repositories in place.
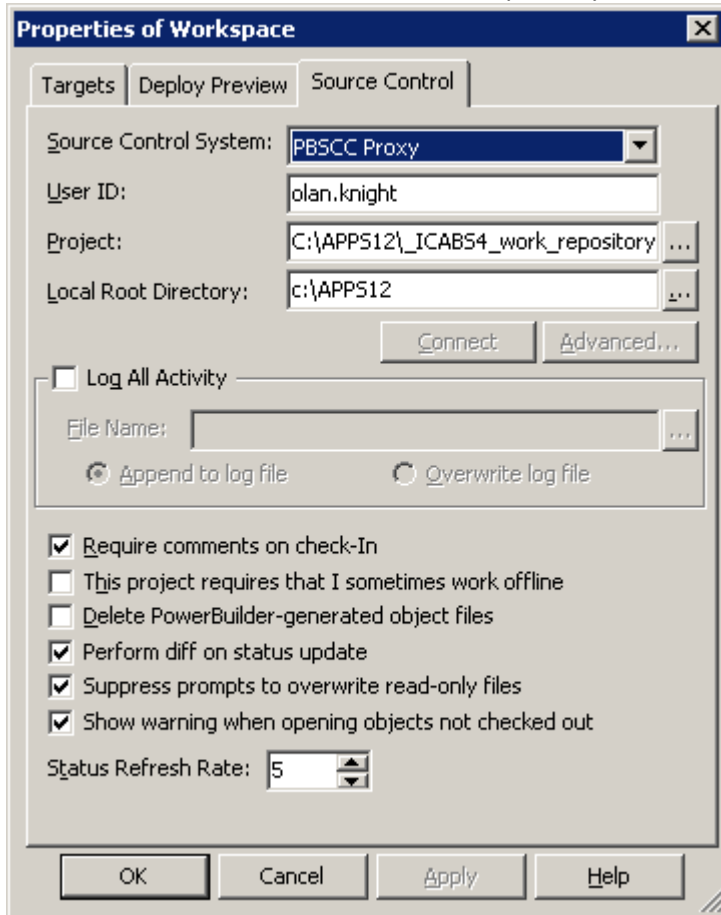

c) Open the PowerBuilder IDE, right click on the **Target**, and open the **Workspace Properties**.
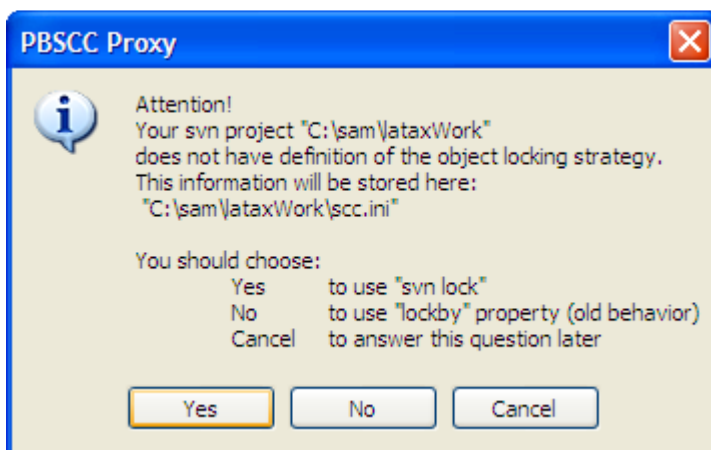
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Populate the properties with the appropriate information.
The PROJECT field must list the WORK repository:

Click APPLY. While processing you will get a prompt similar to this one:

Click YES.

When finished, click OK on the Worplace Properties window.

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d) In PowerBuilder, display the list of objects in one of the PBLs that have been added into one of the PROJECTS of the MAIN repository. You will see the standard PB IDE SCC icons and options from this point on:
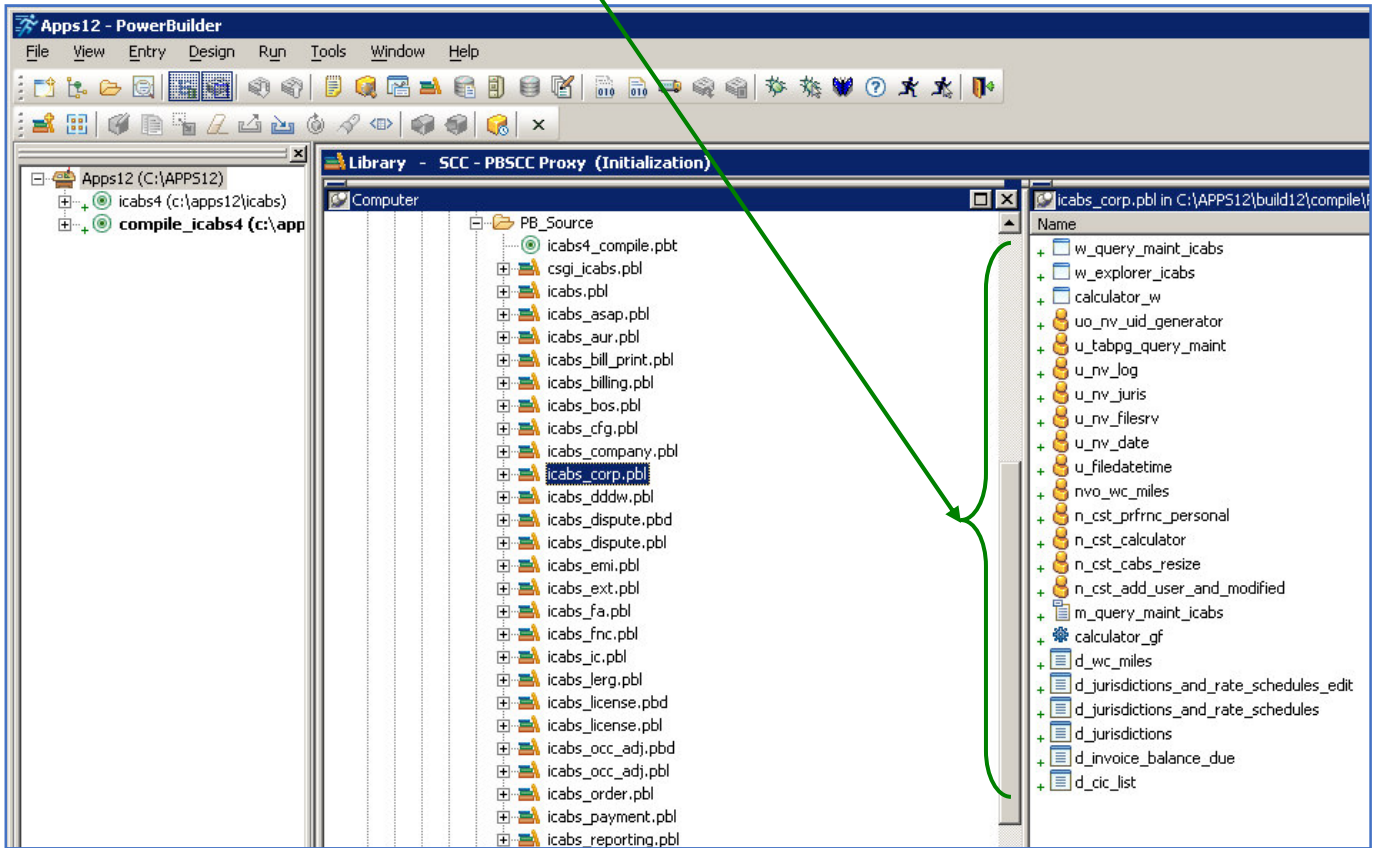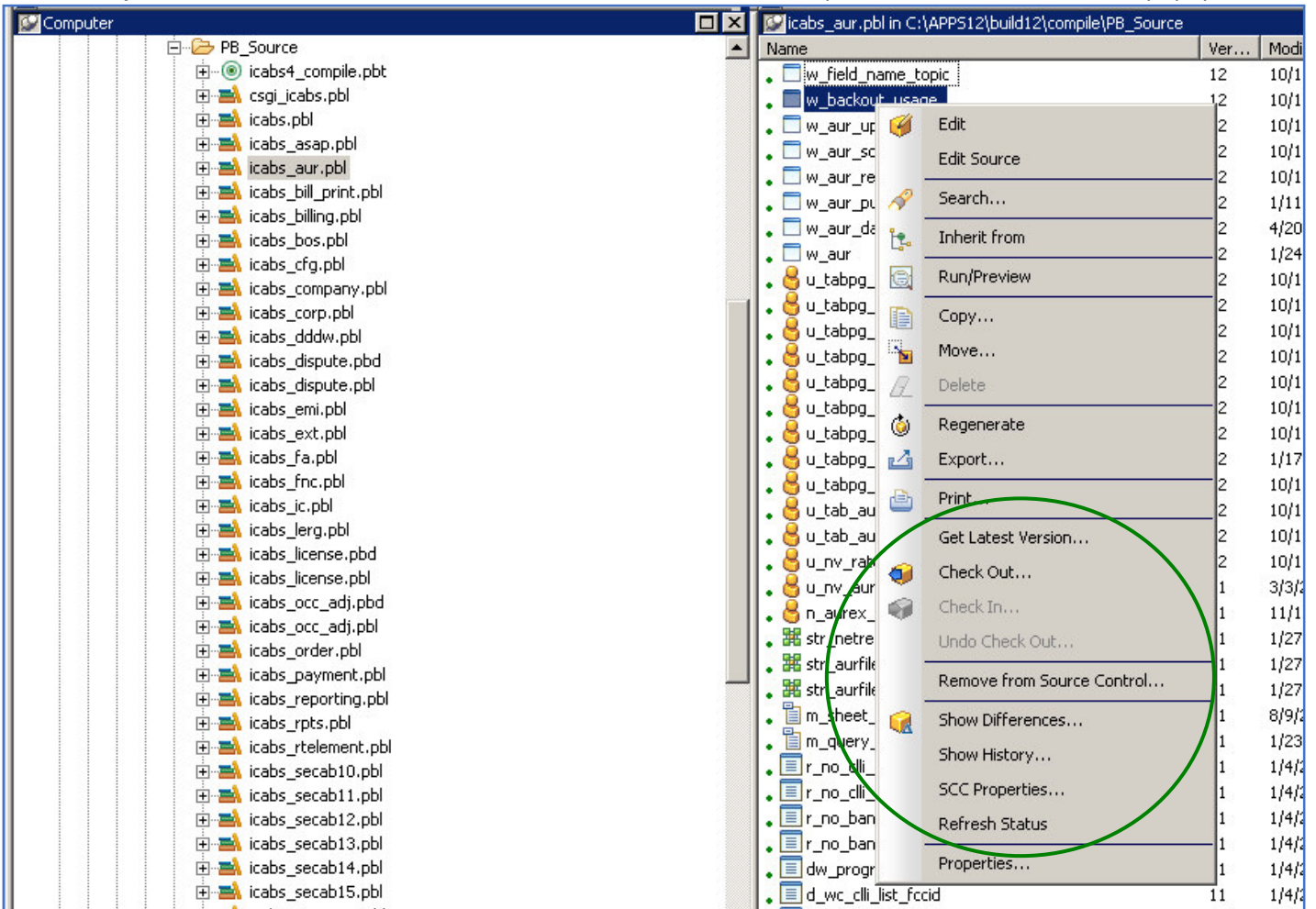

Right-click on any object, or any group of selected objects and the PB IDE SCC options are now available in the Library Painter right-click popup menu.
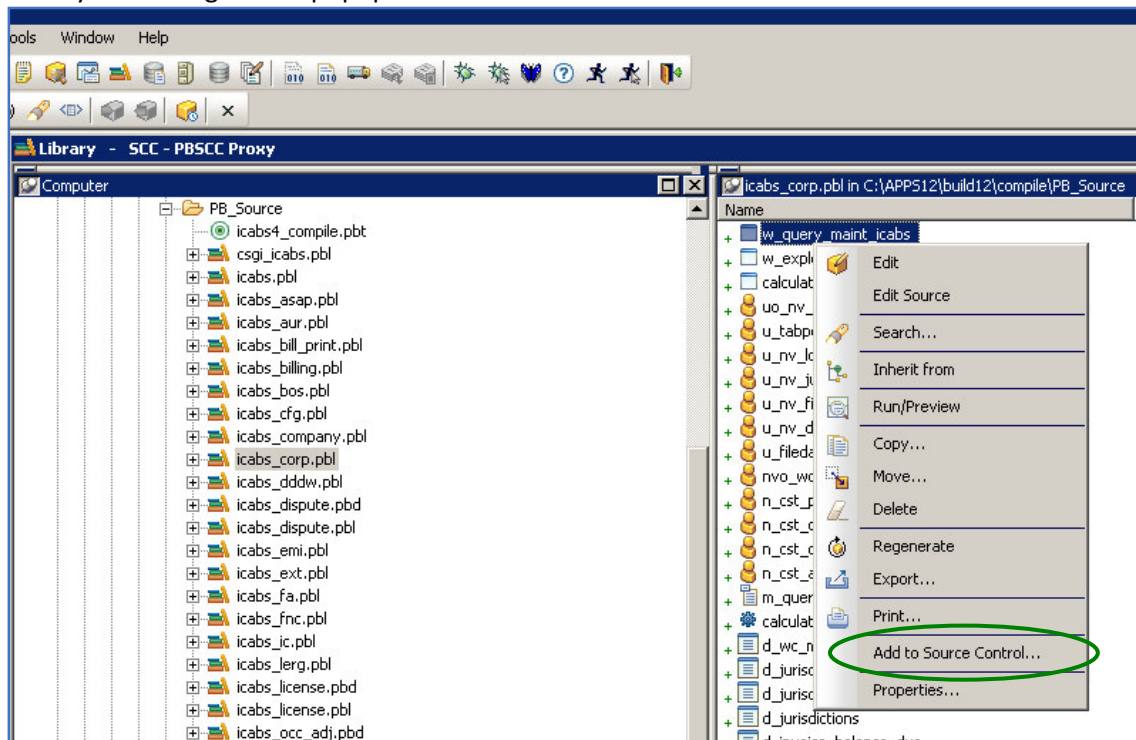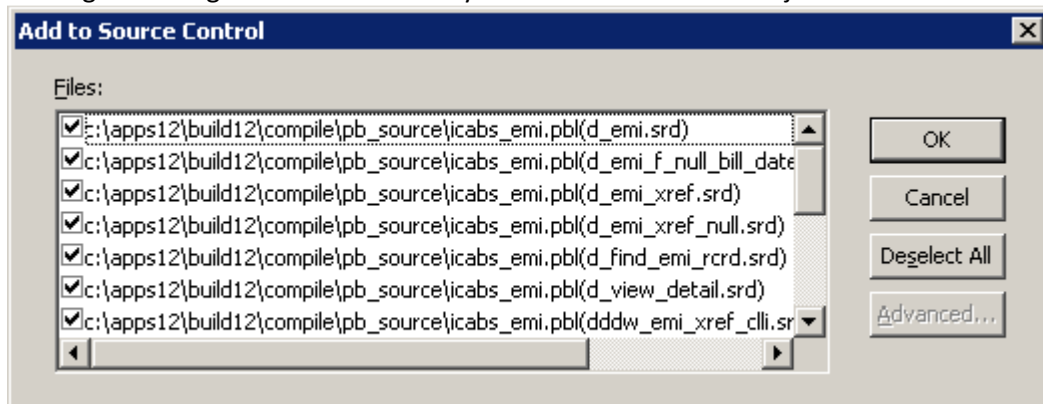
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Once an object has been added to source control, the other standard SCC options are available from the popup menu.

e) Go to the first PBL in the PROJECT, select all of the objects, right-click to get the popup menu, then select the ADD TO SOURCE CONTROL option.

  i.   In the Library Painter, wait for the list of objects to be fully loaded, then do a *SELECT ALL* on those **objects.**
          Hover the mouse over the selected objects and right click, then select ADD TO SOURCE CONTROL.
          You'll get a dialog like this that allows you to determine which objects are to be added.
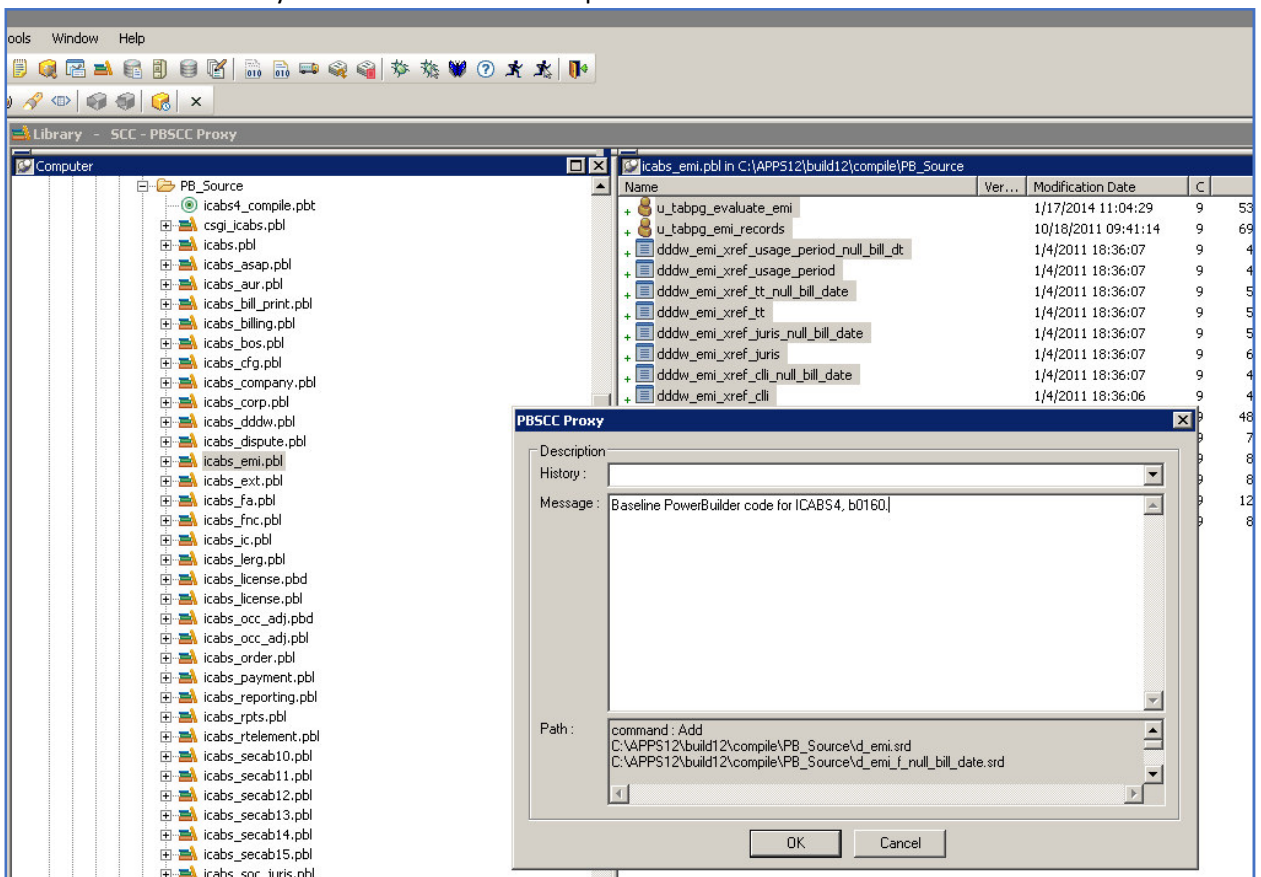

          Click OK.

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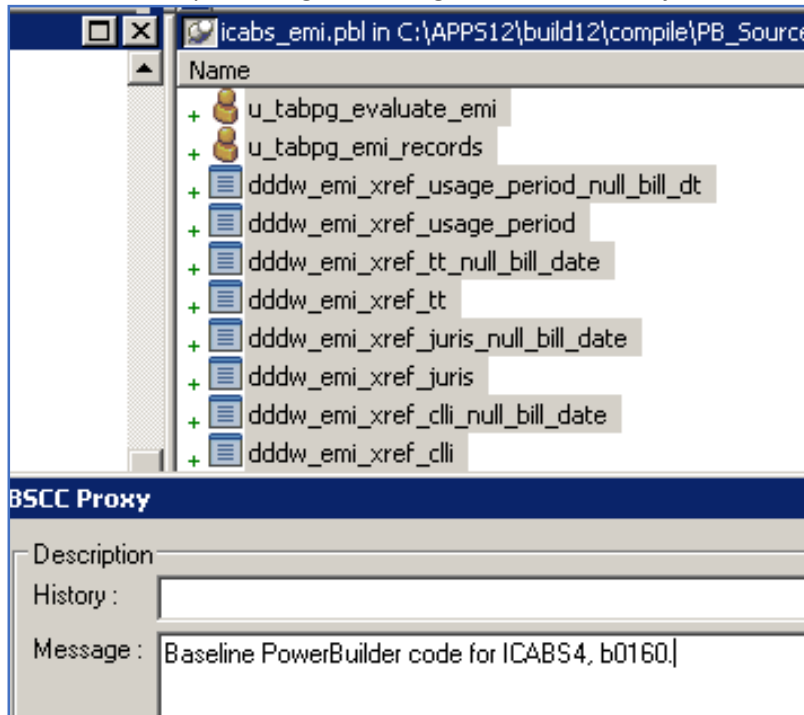Next, you'll get a dialog from the PBSCC Proxy.
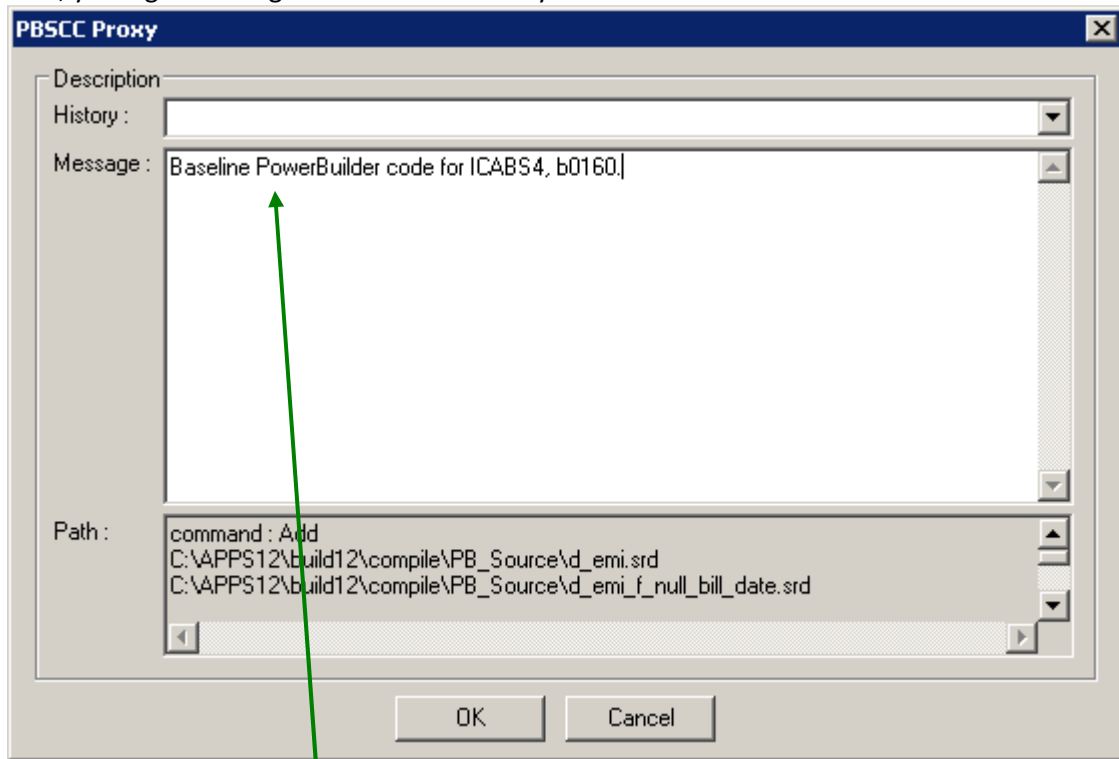
Here I have entered my information into the MESSAGE field.

Here is what the Library Painter looks like at this point.
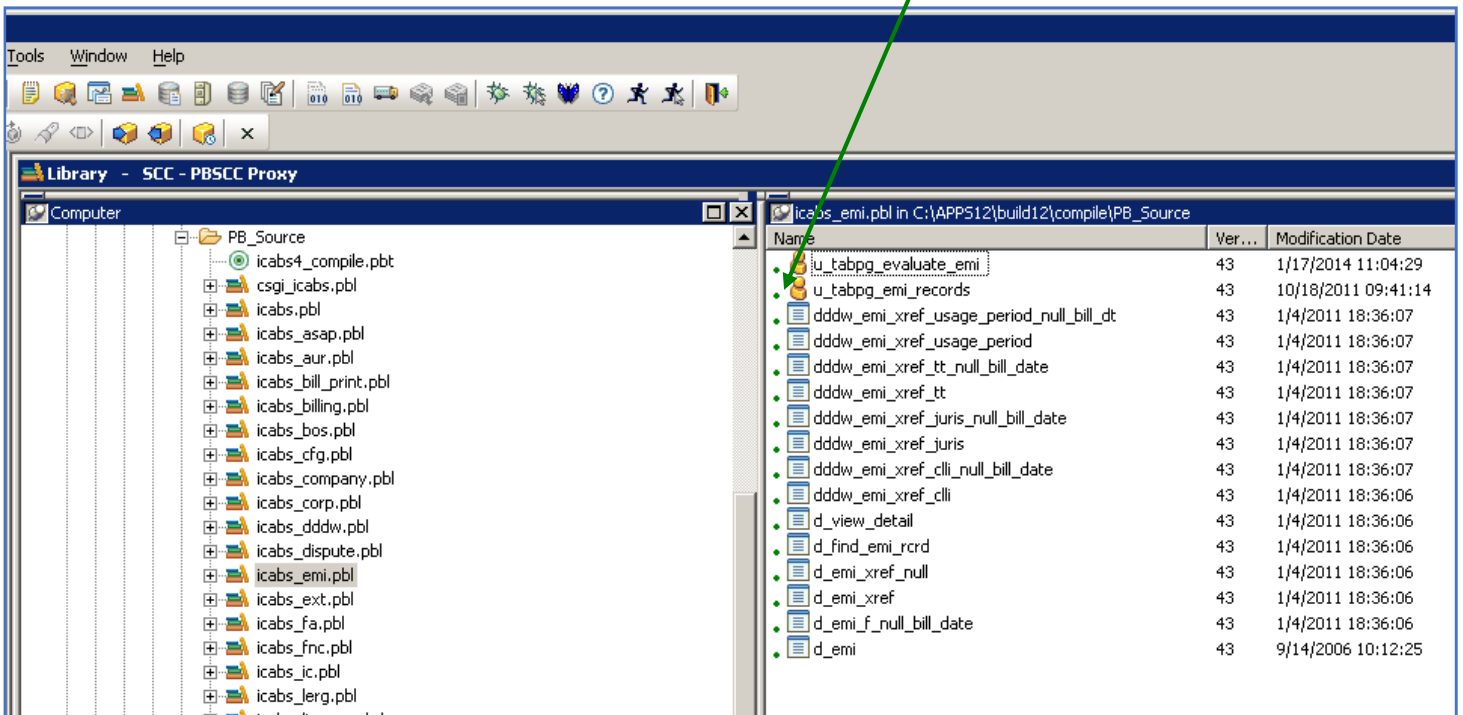
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Here's a close up showing the **"+"** signs next to each object that has not yet been put into source control.

Click OK on the PBSCC PROXY dialog box.

After the processing has finished, the **"+"** is changed to a **solid circle**, indicating that the object is now in source control.

ii.　　　Repeat the steps listed above for every PBL in the PROJECT.

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f) Copy the MAIN REPOSITORY to a different drive.

   This will be your back-up copy of the MAIN source control repository.

   Update the copy at least once a week, and DATE the copied repositories.
   I recommend that you maintain *at least* one month's worth of back-ups at all times.

   A typical SAVE folder might look like this:

   Different drive   Back-up folder   Back-up repositories, each one dated
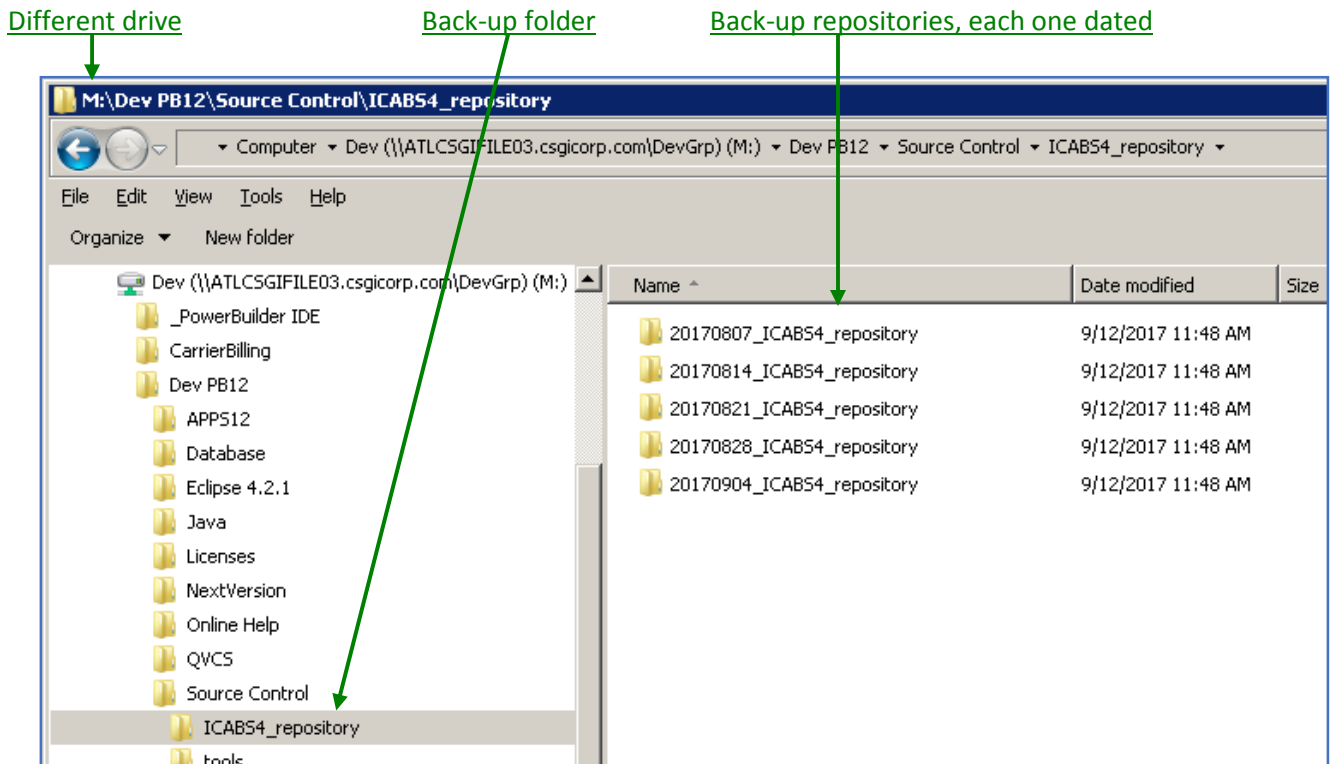
g) **Please remember that this source control configuration is for a SINGLE USER.**

   The way for others to see your code is for them to:
   1. Have Person B set up their environment **exactly** as described in this article.

   2. Copy the back-up repository desired, which will usually be the latest version, and replacing the MAIN repository on their primary drive, which is usually the "C" drive.

   3. Open up their PB IDE, navigate to the desired object(s) , select them, right-click, and select the GET LATEST VERSION option.

      This will work as long as the standard PB object rules are observed.
         Example: an ancestor object has not been [modified but not updated] in person B's library.

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If you want a multi-user setup you will need to put the MAIN repository on a drive accessible to all of the users, and you will need a multi-user SERVER for SVN – like the one from CollabNet. I have not done this.

Please let me know if you have any questions.

Olan Knight