Code Composer Studio Setup

The following document describes the necessary instructions for installing Code Composer Studio v3.3 and JTAG setup for the TUSB926x PDK EVM.

Note: The method for loading and running code is not necessary and can be substituted by programming the SPI flash and allowing the TUSB926x bootloader to execute it.

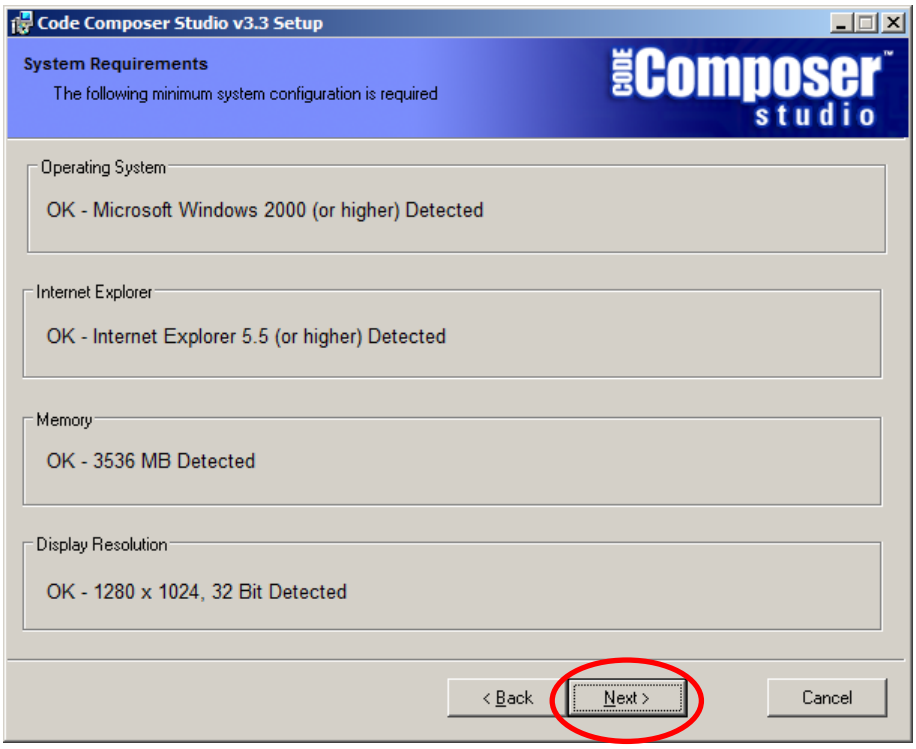
HW Requirements:
- TUSB926x PDK EVM.
- JTAG Device: XDS510USB / XDS510PP / XDS560USB / XDS560PCI
- PC with Windows OS that meets all requirements set forth by Code Composer Studio (CCS). Please see the CCS documentation for details.

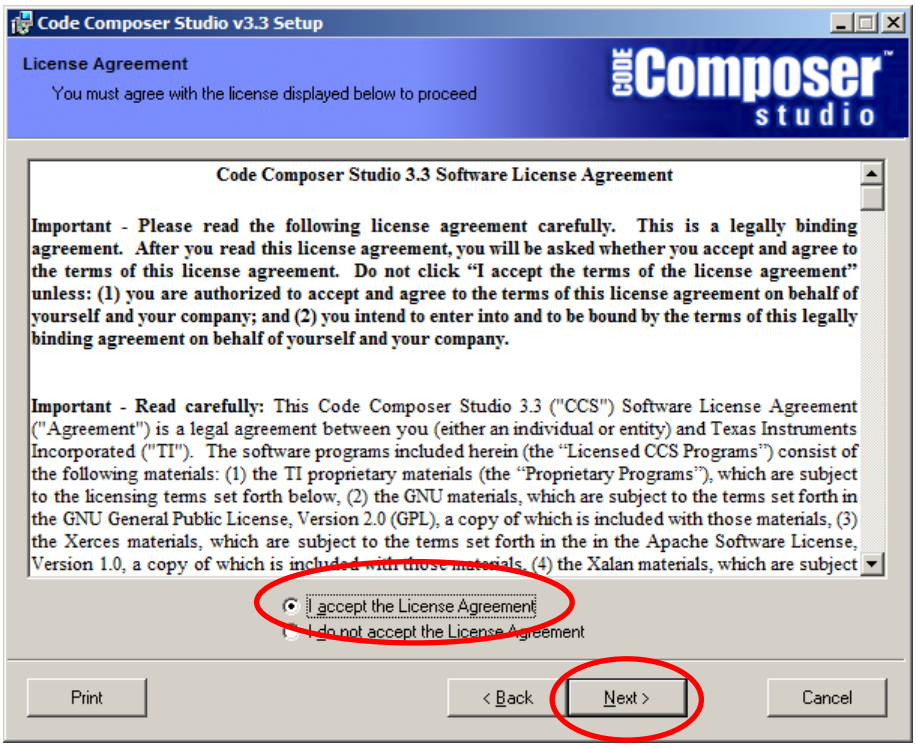
SW Requirements:
The following software needs to be installed in the order that it appears below. Disregard/Skip over any messages dealing with Active State Pearl.

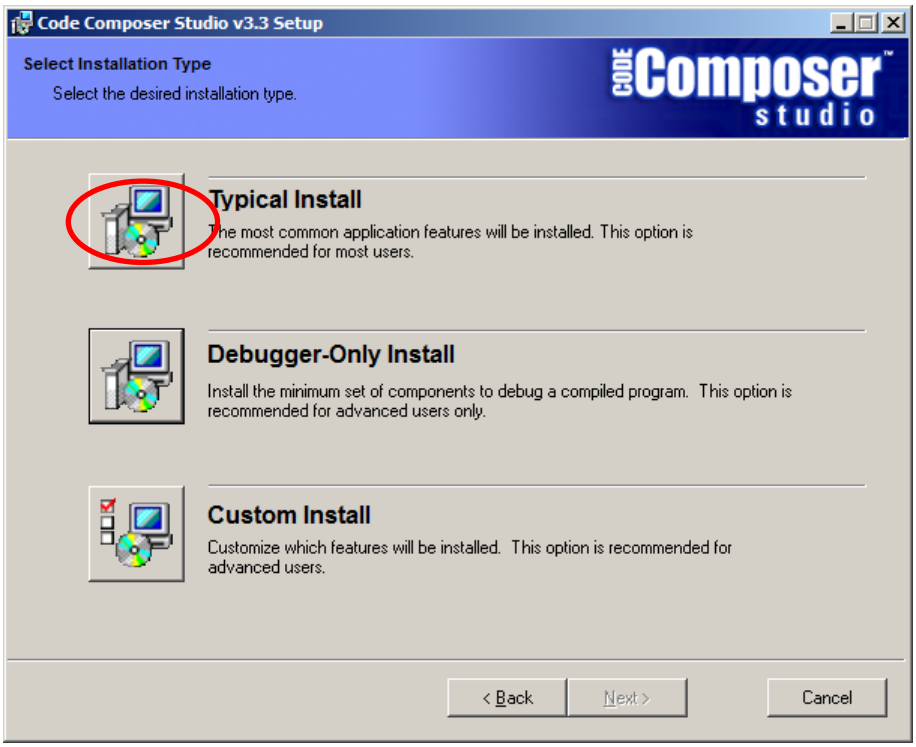
- Code Composer Studio v3.3 or above
Link:

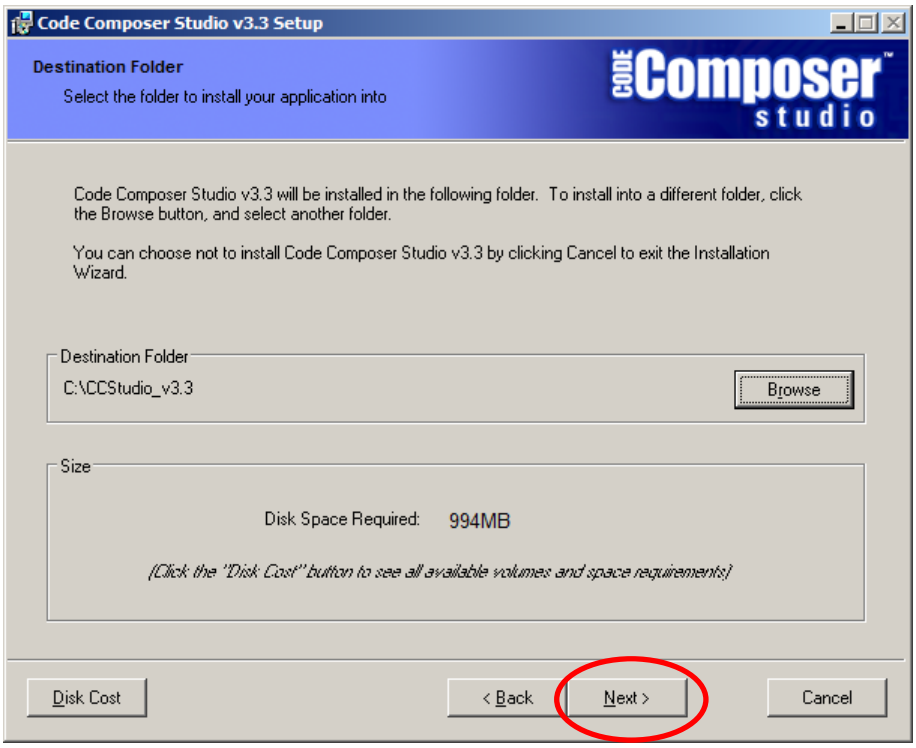
Installation Instructions:

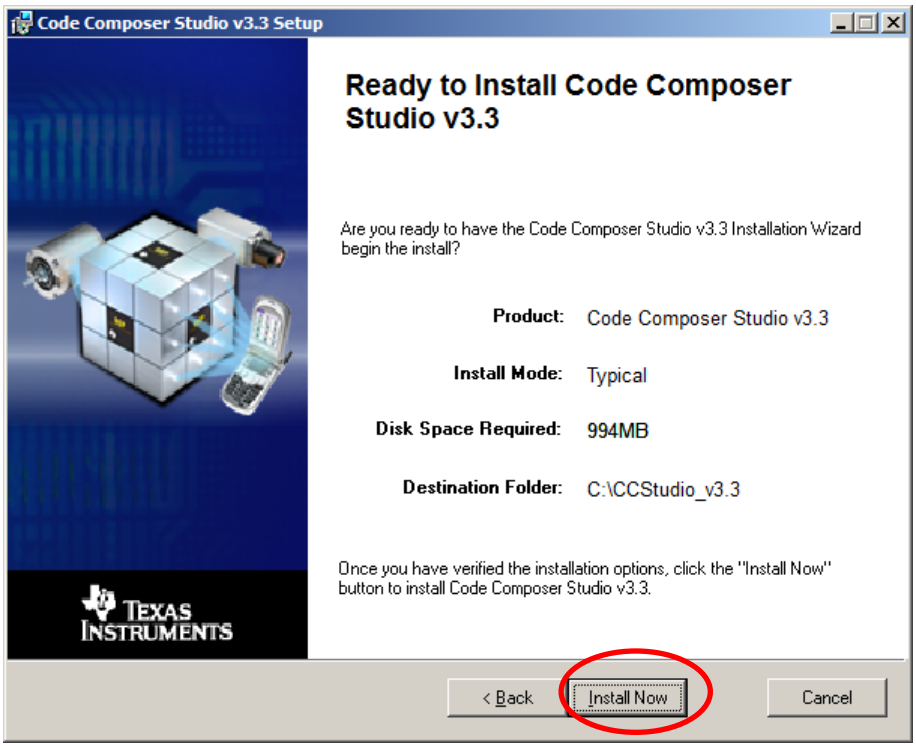


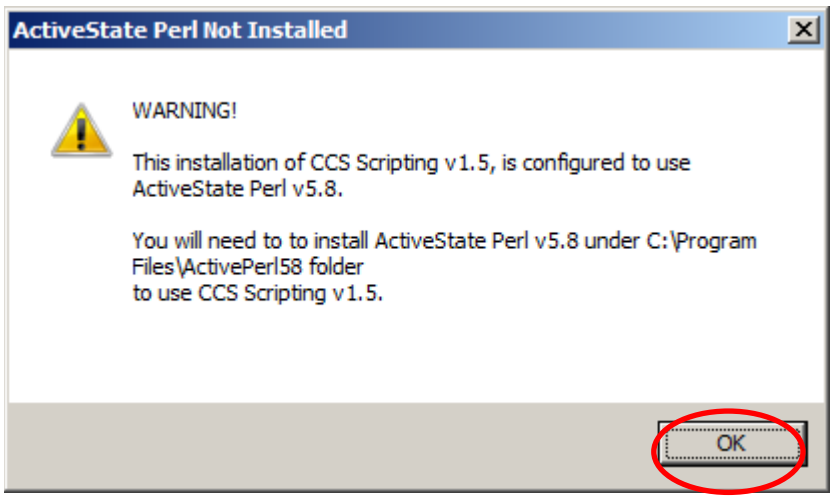

Code Composer Studio v3.3 Setup
System Requirements
The following minimum system configuration is required
Code Composer studio
Operating System
OK - Microsoft Windows 2000 (or higher) Detected
Internet Explorer
OK - Internet Explorer 5.5 (or higher) Detected
Memory
OK - 3536 MB Detected
Display Resolution
OK - 1280 x 1024, 32 Bit Detected
< Back
Next >
Cancel


Code Composer Studio v3.3 Setup
License Agreement
You must agree with the license displayed below to proceed
Code Composer studio
Code Composer Studio 3.3 Software License Agreement
Important - Please read the following license agreement carefully. This is a legally binding agreement. After you read this license agreement, you will be asked whether you accept and agree to the terms of this license agreement. Do not click "I accept the terms of the license agreement" unless: (1) you are authorized to accept and agree to the terms of this license agreement on behalf of yourself and your company; and (2) you intend to enter into and to be bound by the terms of this legally binding agreement on behalf of yourself and your company.
Important - Read carefully: This Code Composer Studio 3.3 ("CCS") Software License Agreement ("Agreement") is a legal agreement between you (either an individual or entity) and Texas Instruments Incorporated ("TI"). The software programs included herein (the "Licensed CCS Programs") consist of the following materials: (1) the TI proprietary materials (the "Proprietary Programs"), which are subject to the licensing terms set forth below, (2) the GNU materials, which are subject to the terms set forth in the GNU General Public License, Version 2.0 (GPL), a copy of which is included with those materials, (3) the Xerces materials, which are subject to the terms set forth in the in the Apache Software License, Version 1.0, a copy of which is included with those materials, (4) the Xalan materials, which are subject
I accept the License Agreement
I do not accept the License Agreement
Print
< Back
Next >
Cancel


Code Composer Studio v3.3 Setup
Select Installation Type
Select the desired installation type.
Code Composer studio
Typical Install
The most common application features will be installed. This option is recommended for most users.
Debugger-Only Install
Install the minimum set of components to debug a compiled program. This option is recommended for advanced users only.
Custom Install
Customize which features will be installed. This option is recommended for advanced users.
< Back
Next >
Cancel


Code Composer Studio v3.3 Setup
Destination Folder
Select the folder to install your application into
Code Composer studio
Code Composer Studio v3.3 will be installed in the following folder. To install into a different folder, click the Browse button, and select another folder.
You can choose not to install Code Composer Studio v3.3 by clicking Cancel to exit the Installation Wizard.
Destination Folder
C:\CCStudio_v3.3
Browse
Size
Disk Space Required: 994MB
(Click the "Disk Cost" button to see all available volumes and space requirements)
Disk Cost
< Back
Next >
Cancel

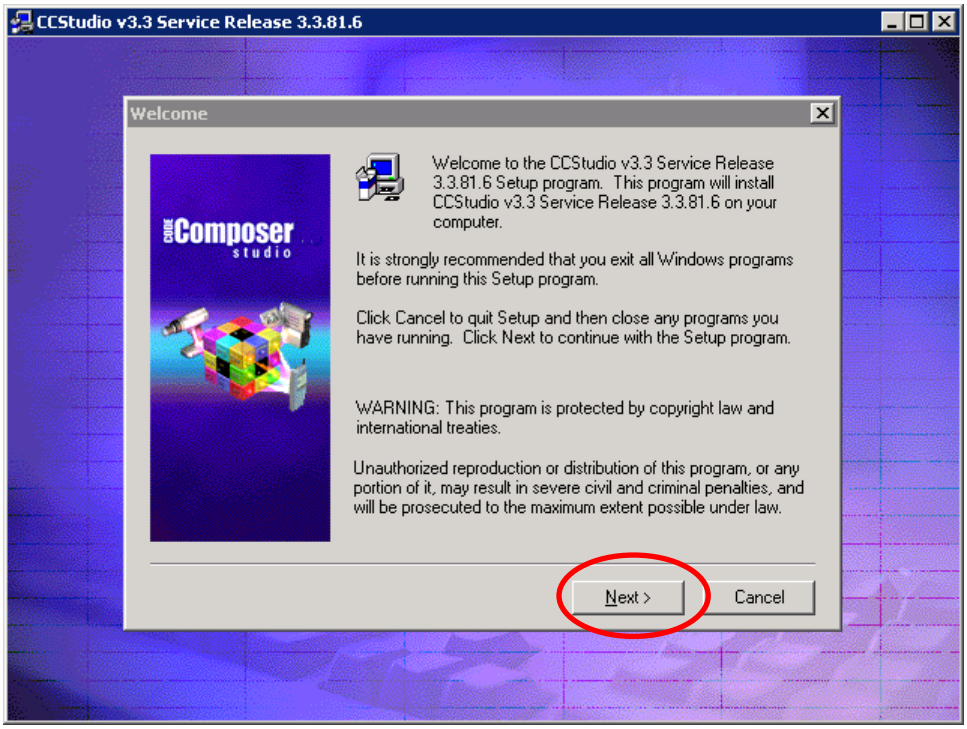

Code Composer Studio v3.3 Setup
Ready to Install Code Composer Studio v3.3
Are you ready to have the Code Composer Studio v3.3 Installation Wizard begin the install?
Product: Code Composer Studio v3.3
Install Mode: Typical
Disk Space Required: 994MB
Destination Folder: C:\CCStudio_v3.3
Once you have verified the installation options, click the "Install Now" button to install Code Composer Studio v3.3.
TEXAS INSTRUMENTS
< Back
Install Now
Cancel

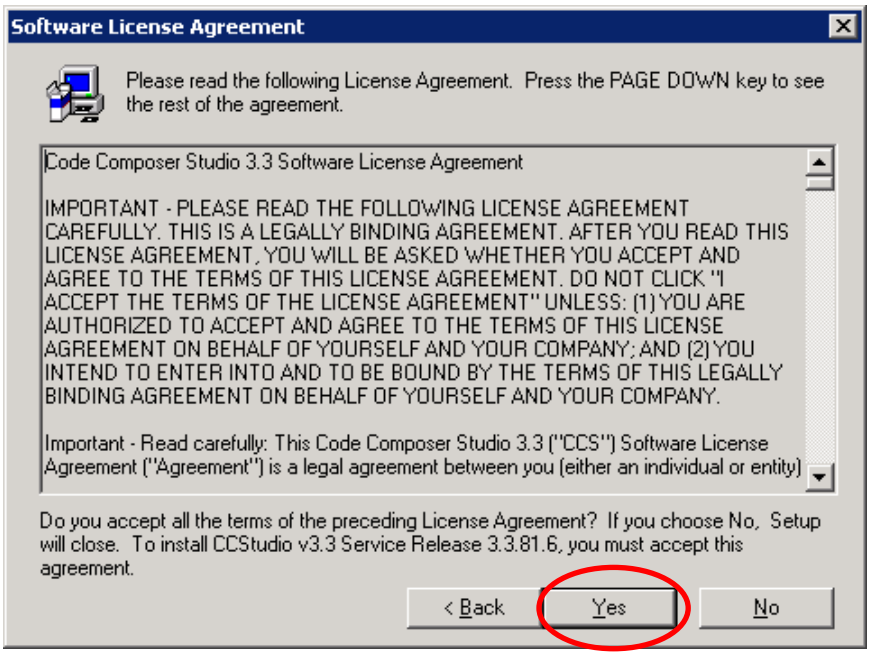

ActiveState Perl Not Installed
WARNING!
This installation of CCS Scripting v1.5, is configured to use ActiveState Perl v5.8.
You will need to to install ActiveState Perl v5.8 under C:\Program Files\ActivePerl58 folder
to use CCS Scripting v1.5.
OK

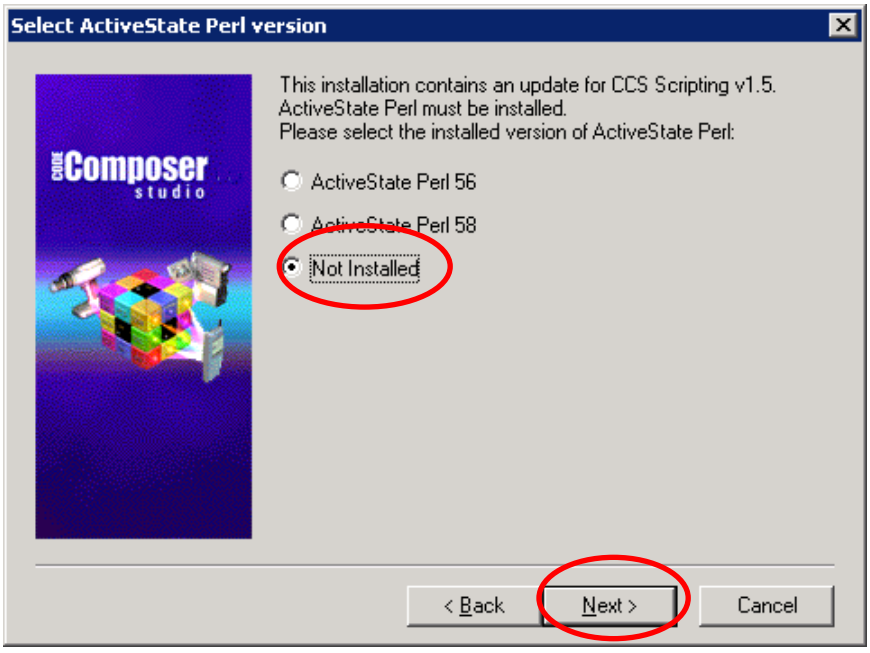


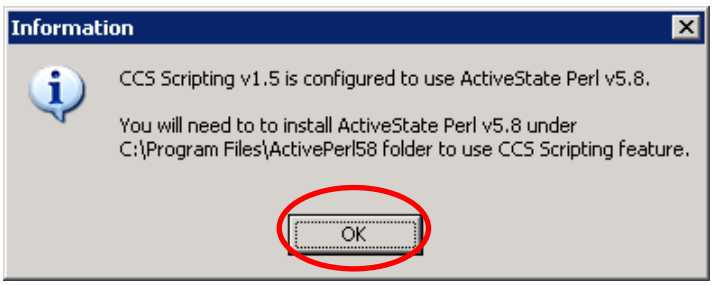
- Service Release 11 for Code Composer Studio.
Link:
Note: You will need to install this Service release only if you are using Code Composer Studio v3.3, otherwise please skip this install.

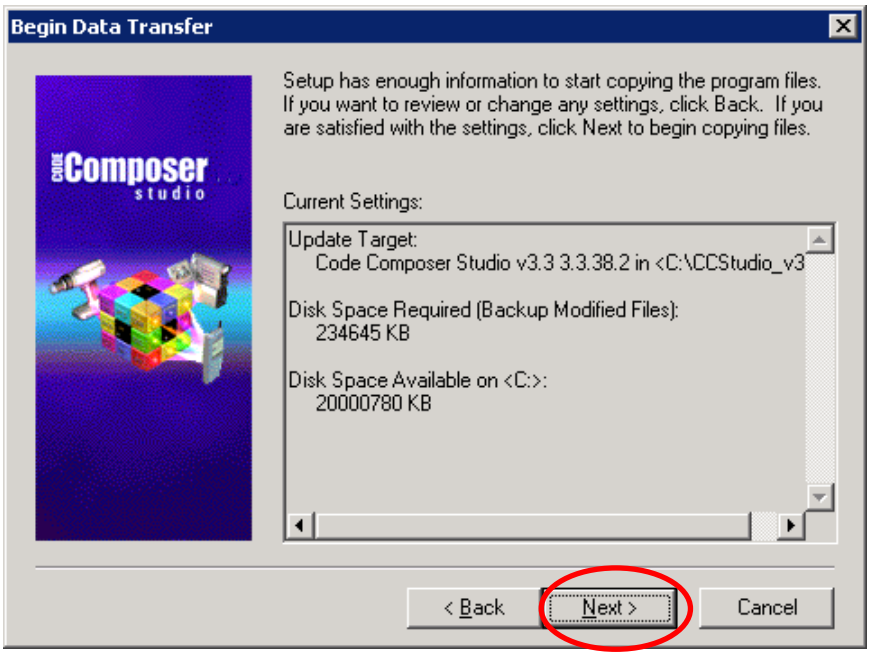
ınstallation Instructions:

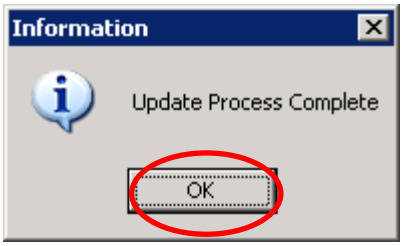



Software License Agreement
Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.
Code Composer Studio 3.3 Software License Agreement
IMPORTANT - PLEASE READ THE FOLLOWING LICENSE AGREEMENT CAREFULLY. THIS IS A LEGALLY BINDING AGREEMENT. AFTER YOU READ THIS LICENSE AGREEMENT, YOU WILL BE ASKED WHETHER YOU ACCEPT AND AGREE TO THE TERMS OF THIS LICENSE AGREEMENT. DO NOT CLICK "I ACCEPT THE TERMS OF THE LICENSE AGREEMENT" UNLESS: (1) YOU ARE AUTHORIZED TO ACCEPT AND AGREE TO THE TERMS OF THIS LICENSE AGREEMENT ON BEHALF OF YOURSELF AND YOUR COMPANY; AND (2) YOU INTEND TO ENTER INTO AND TO BE BOUND BY THE TERMS OF THIS LEGALLY BINDING AGREEMENT ON BEHALF OF YOURSELF AND YOUR COMPANY.
Important - Read carefully: This Code Composer Studio 3.3 ("CCS") Software License Agreement ("Agreement") is a legal agreement between you (either an individual or entity)
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install CCStudio v3.3 Service Release 3.3.81.6, you must accept this agreement.
< Back
Yes
No

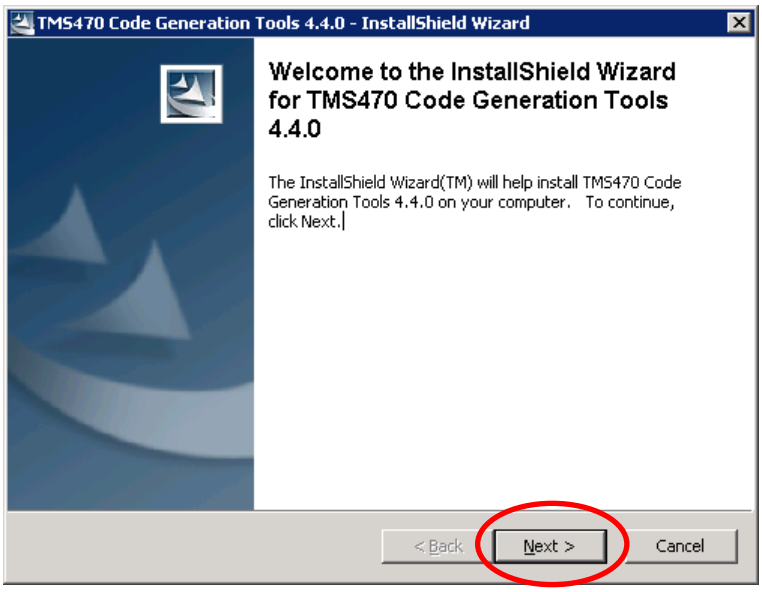

Select ActiveState Perl version
Code Composer studio
This installation contains an update for CCS Scripting v1.5.
ActiveState Perl must be installed.
Please select the installed version of ActiveState Perl:
ActiveState Perl 56
ActiveState Perl 58
Not Installed
< Back
Next >
Cancel

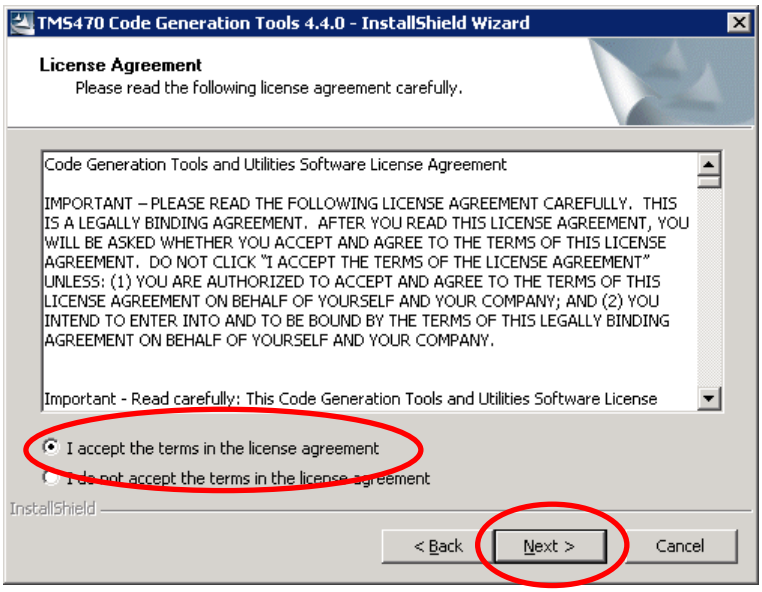

Information
CCS Scripting v1.5 is configured to use ActiveState Perl v5.8.
You will need to to install ActiveState Perl v5.8 under C:\Program Files\ActivePerl58 folder to use CCS Scripting feature.
OK

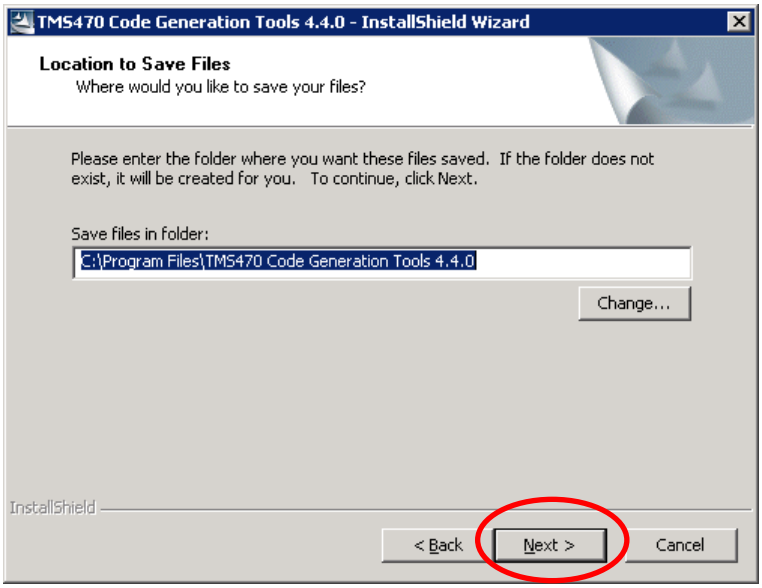




- Arm/TMS470 Code Generation Tools 4.4.0
Link:

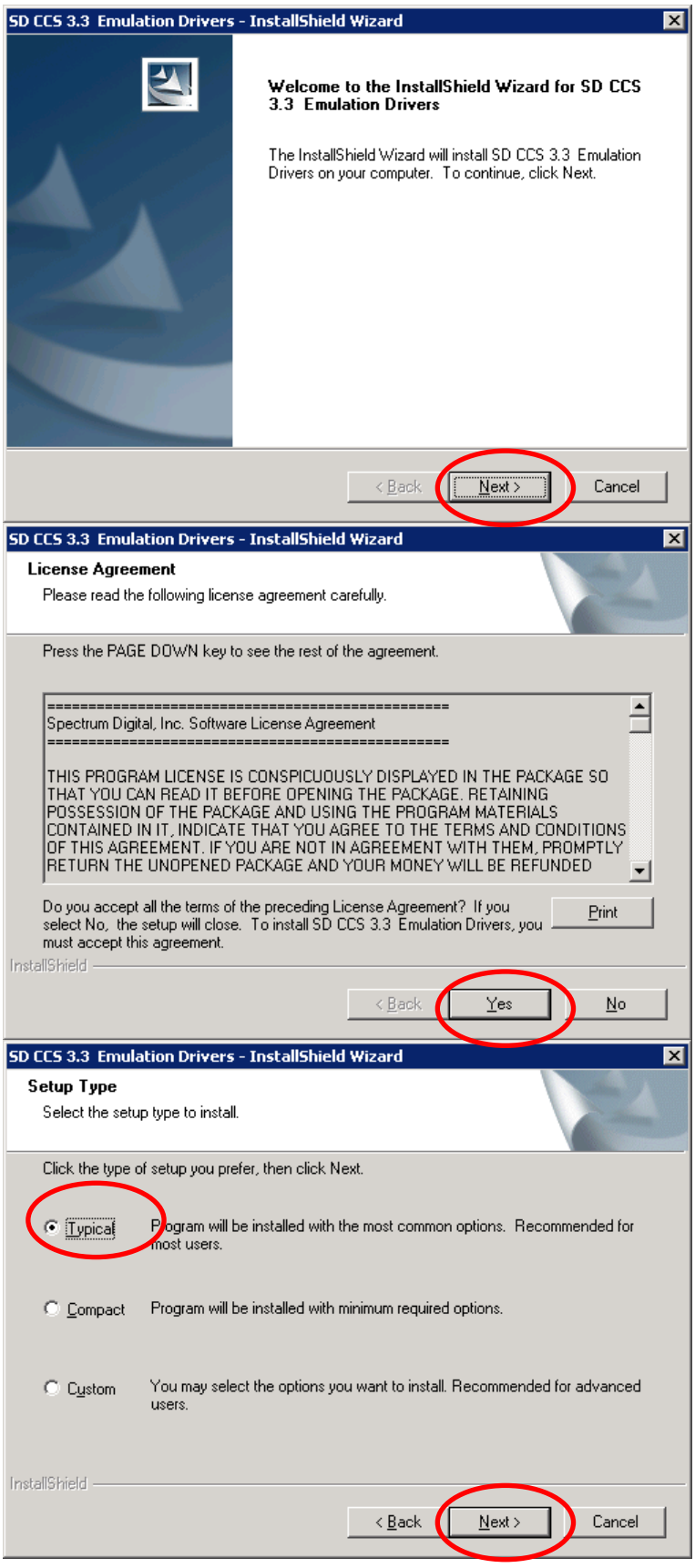


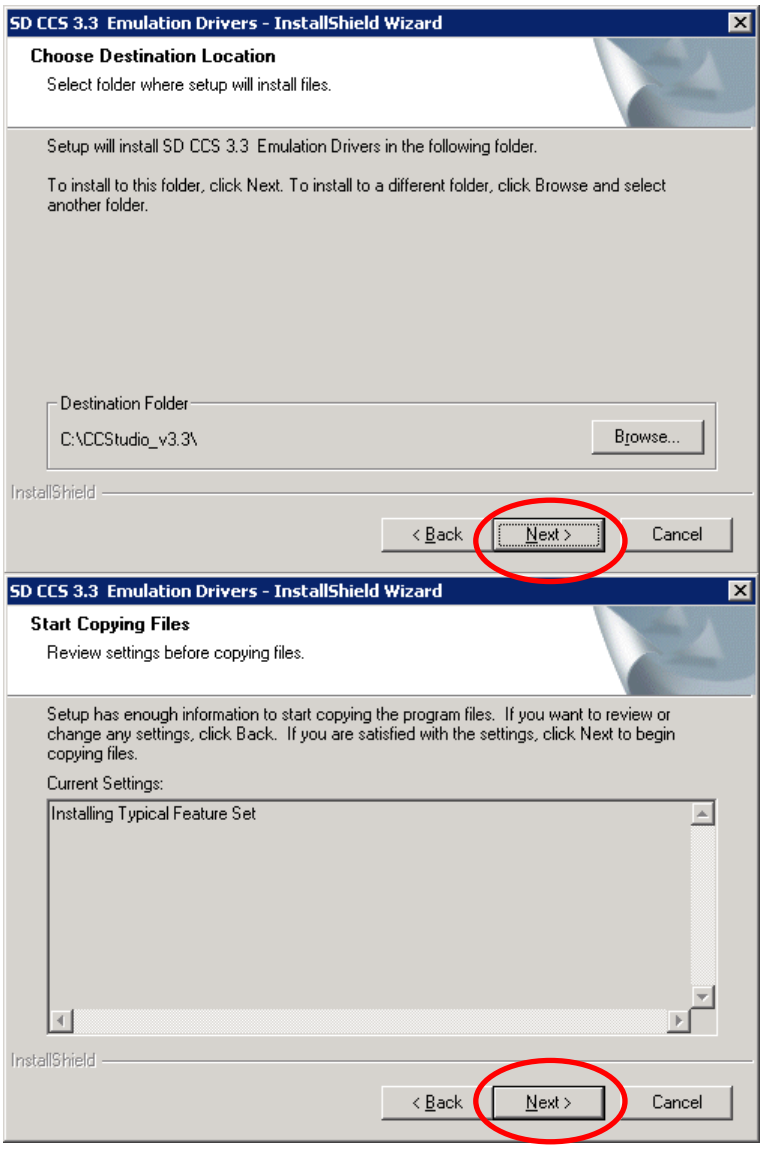




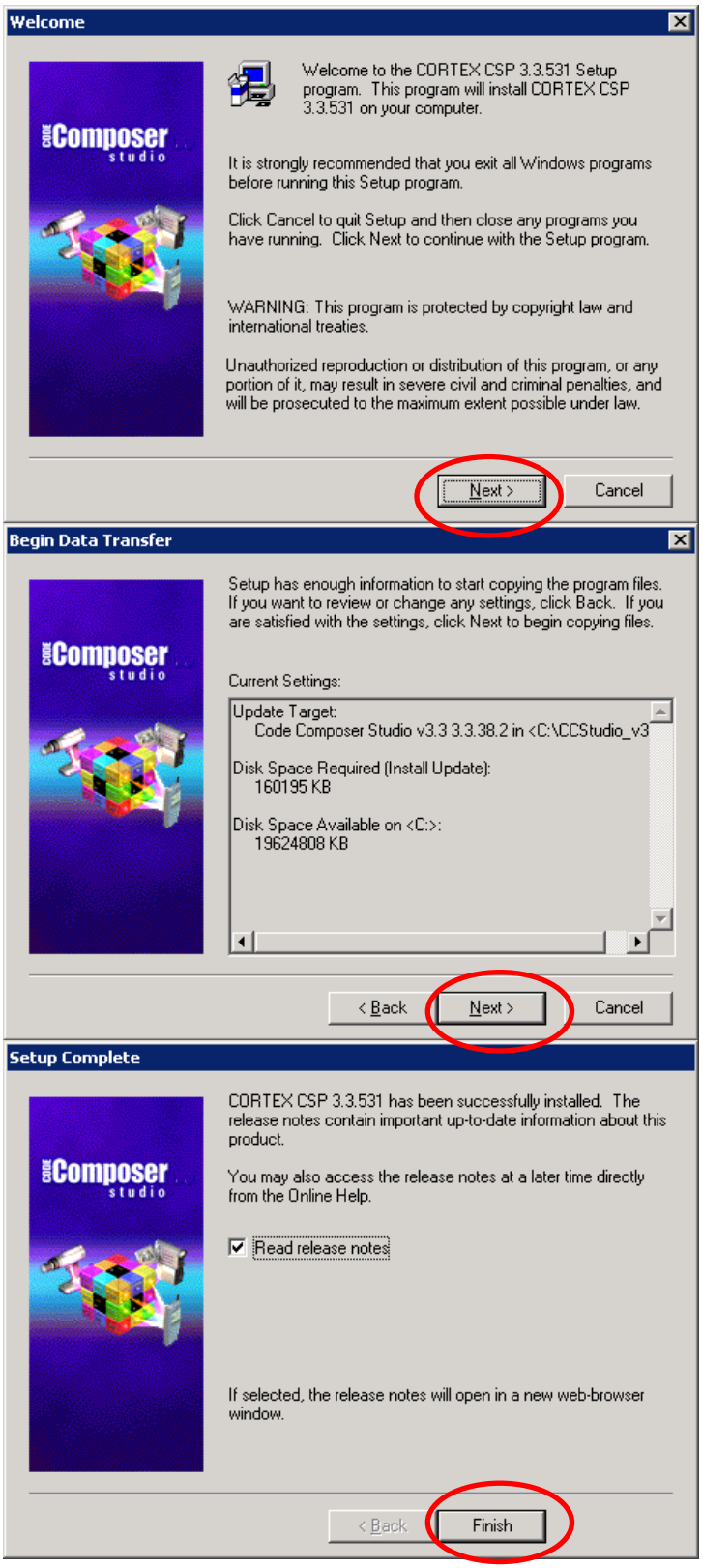
Note: After installing this, copy all the files from '*C:\Program_Files\TMS470 Code Generation Tools 4.4.0*' to '*C:\CCStudio_v3.3\tms470\cgtools'*.

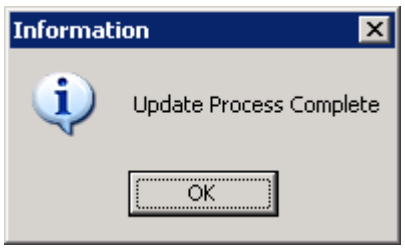
- SD XDS510 USB JTAG (If you are not using the JTAG device XDS510USB please skip this installation)
Link:


SD CCS 3.3 Emulation Drivers - InstallShield Wizard
Welcome to the InstallShield Wizard for SD CCS 3.3 Emulation Drivers
The InstallShield Wizard will install SD CCS 3.3 Emulation Drivers on your computer. To continue, click Next.
< Back
Next >
Cancel
SD CCS 3.3 Emulation Drivers - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
Spectrum Digital, Inc. Software License Agreement
THIS PROGRAM LICENSE IS CONSPICUOUSLY DISPLAYED IN THE PACKAGE SO THAT YOU CAN READ IT BEFORE OPENING THE PACKAGE. RETAINING POSSESSION OF THE PACKAGE AND USING THE PROGRAM MATERIALS CONTAINED IN IT, INDICATE THAT YOU AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU ARE NOT IN AGREEMENT WITH THEM, PROMPTLY RETURN THE UNOPENED PACKAGE AND YOUR MONEY WILL BE REFUNDED
Do you accept all the terms of the preceding License Agreement? If you select No, the setup will close. To install SD CCS 3.3 Emulation Drivers, you must accept this agreement.
Print
InstallShield
< Back
Yes
No
SD CCS 3.3 Emulation Drivers - InstallShield Wizard
Setup Type
Select the setup type to install.
Click the type of setup you prefer, then click Next.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Custom
You may select the options you want to install. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel



- CORTEX CSP v3.3.531 Package
Link:


Welcome
Welcome to the CORTEX CSP 3.3.531 Setup program. This program will install CORTEX CSP 3.3.531 on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel
Begin Data Transfer
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Update Target:
Code Composer Studio v3.3 3.3.38.2 in <C:\CCStudio_v3
Disk Space Required (Install Update):
160195 KB
Disk Space Available on <C:>:
19624808 KB
< Back
Next >
Cancel
Setup Complete
CORTEX CSP 3.3.531 has been successfully installed. The release notes contain important up-to-date information about this product.
You may also access the release notes at a later time directly from the Online Help.
Read release notes
If selected, the release notes will open in a new web-browser window.
< Back
Finish

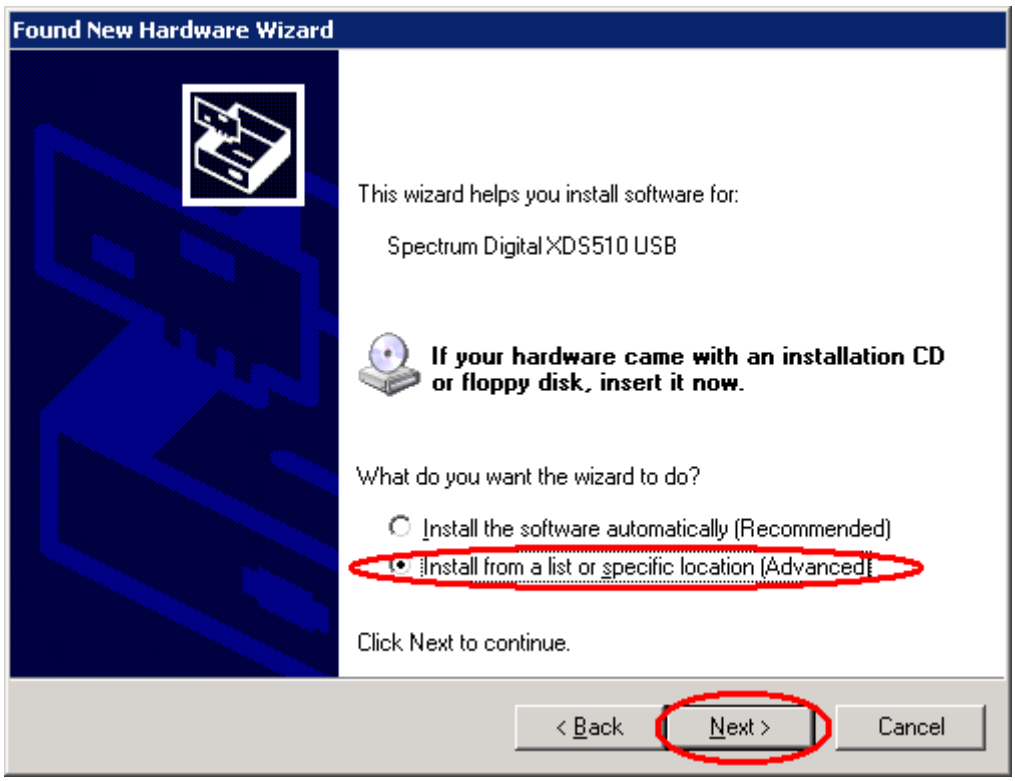


Installing the XDS510USB / XDS560USB Driver.

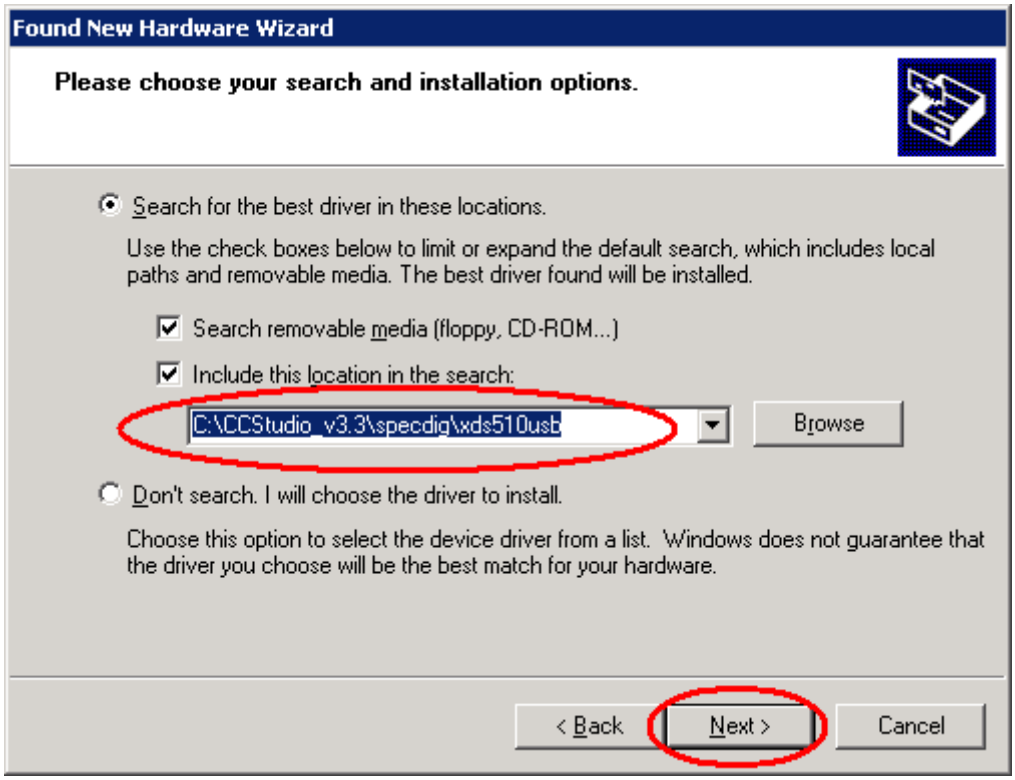
Note: If you have the XDS510PP or the XDS560PCI, or if you are not using a JTAG please skip this topic.

1. Plug the XDS510USB/XDS560USB to the PC and follow the New Hardware Wizard's instructions.





2. Path: C:\CCStudio_v3.3\specdig\xds510usb
Path: find the one for XDS560USB

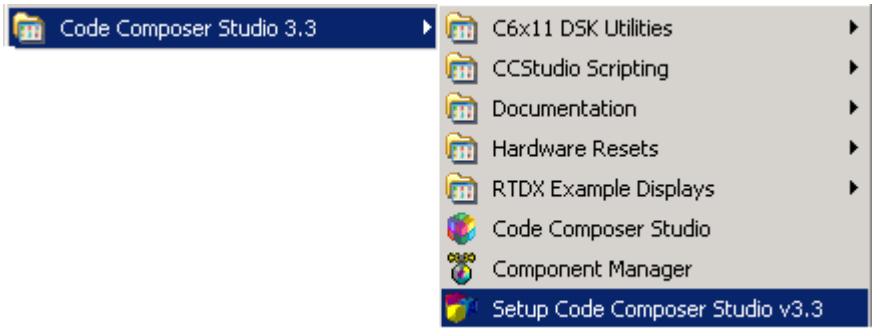




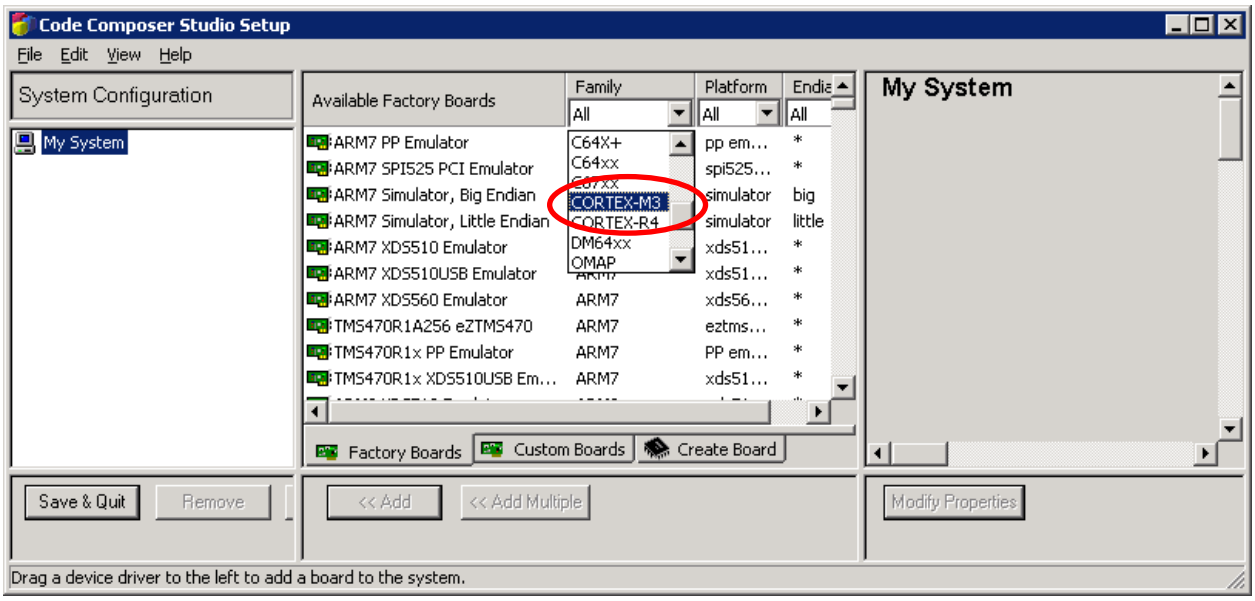
Setup the connection on Code Composer

Instructions for Code Composer Studio v3.3

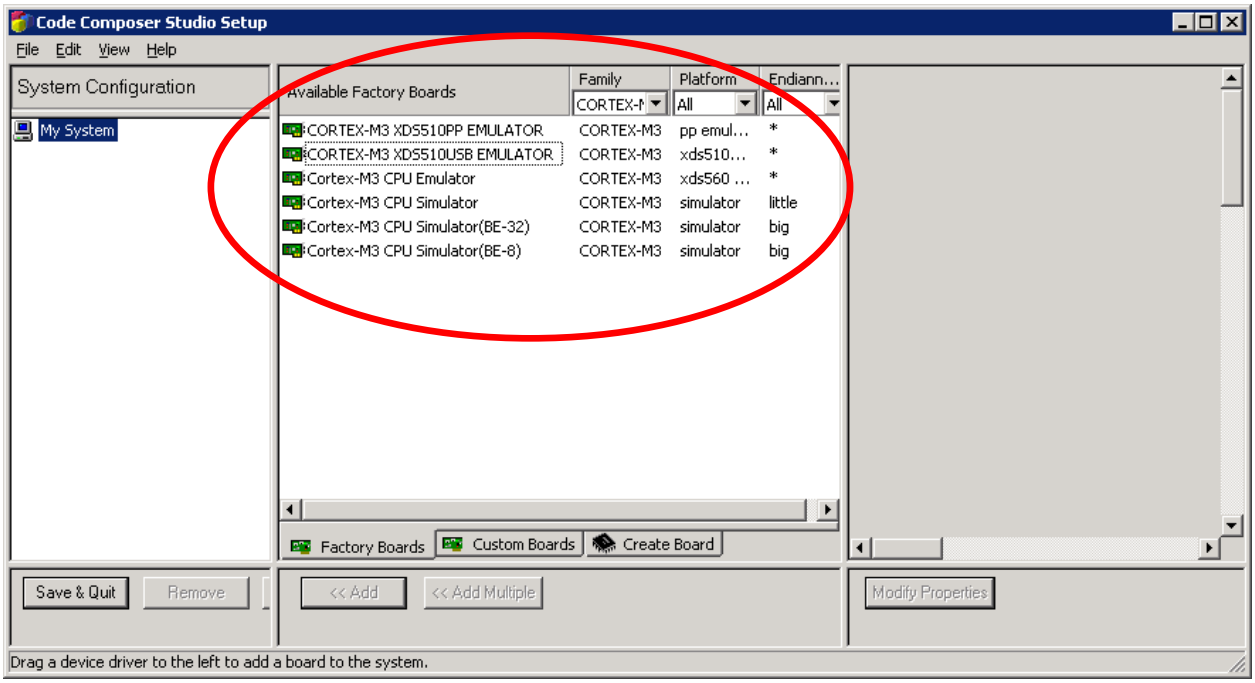
1. Start ‘Setup Code Composer Studio v3.3’.



2. On the ‘Family‘ dropdown list, select ‘CORTEX-M3’.



3. On the center pane, please select the appropriate factory Board depending on the JTAG device that you have.



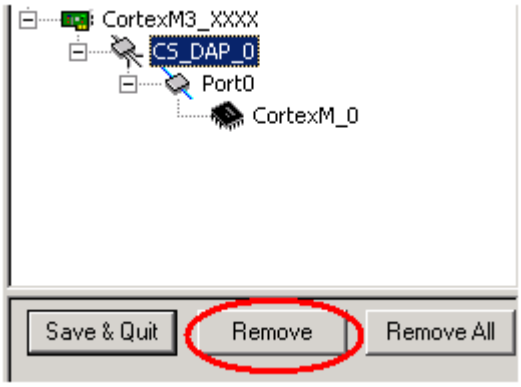
-> For the XDS510USB:
Select ‘CORTEX-M3 XDS510USB EMULATOR’ and click ‘<< Add’

-> For the XDS510PP:
Select ‘CORTEX-M3 XDS510PP EMULATOR’ and click ‘<< Add’

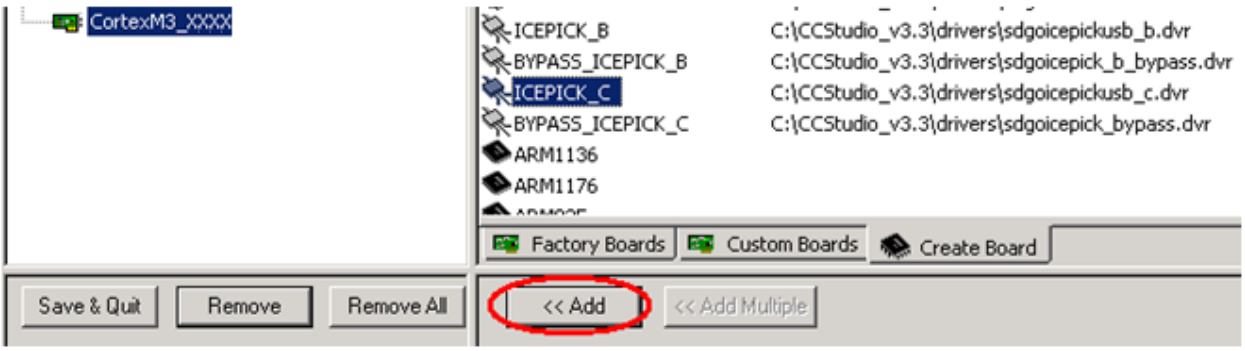
-> For the XDS560USB:
Select ‘CORTEX-M3 CPU Emulator’ and click ‘<< Add’

-> For the XDS560PCI:
Select ‘CORTEX-M3 CPU Emulator’ and click’ and click ‘<< Add’

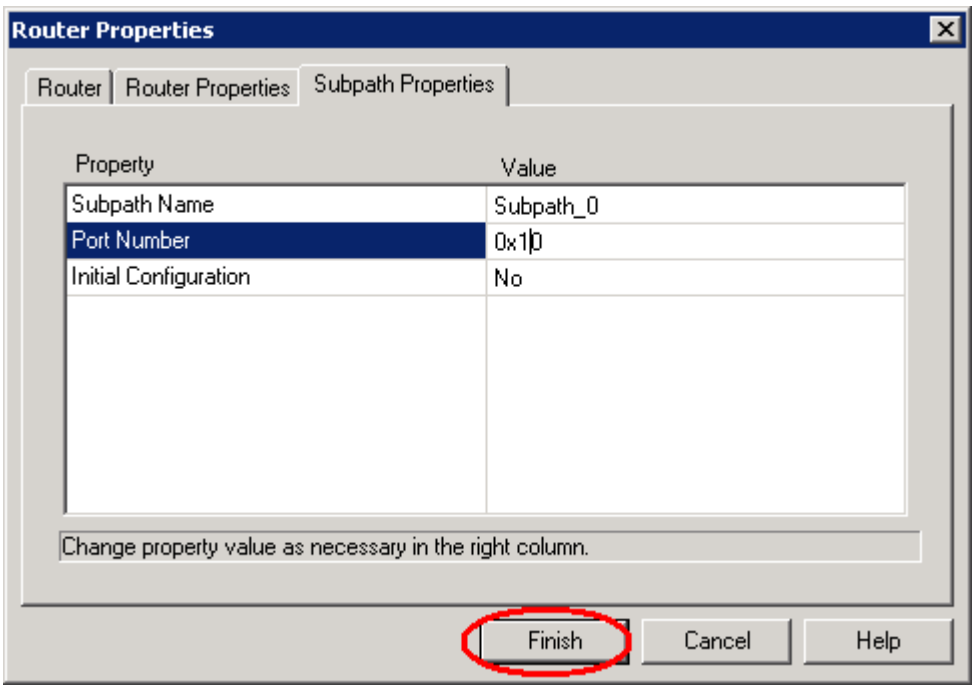
4. Once you have selected the appropriate Factory Board Emulator for your device, on the left pane select ‘CS_DAP_0’ and click ‘Remove’.



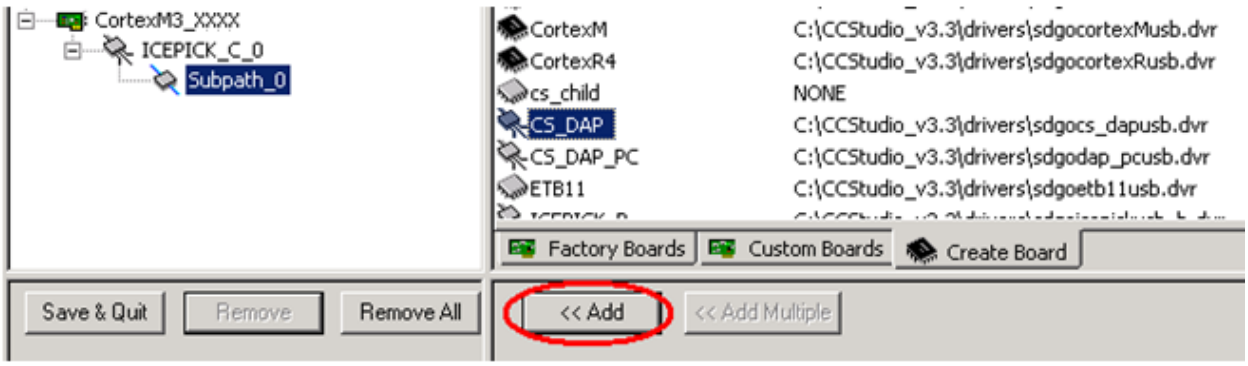
4. On the left pane, select your board, then choose ‘ICEPICK_C’ in the center pane and click ‘<< Add’.



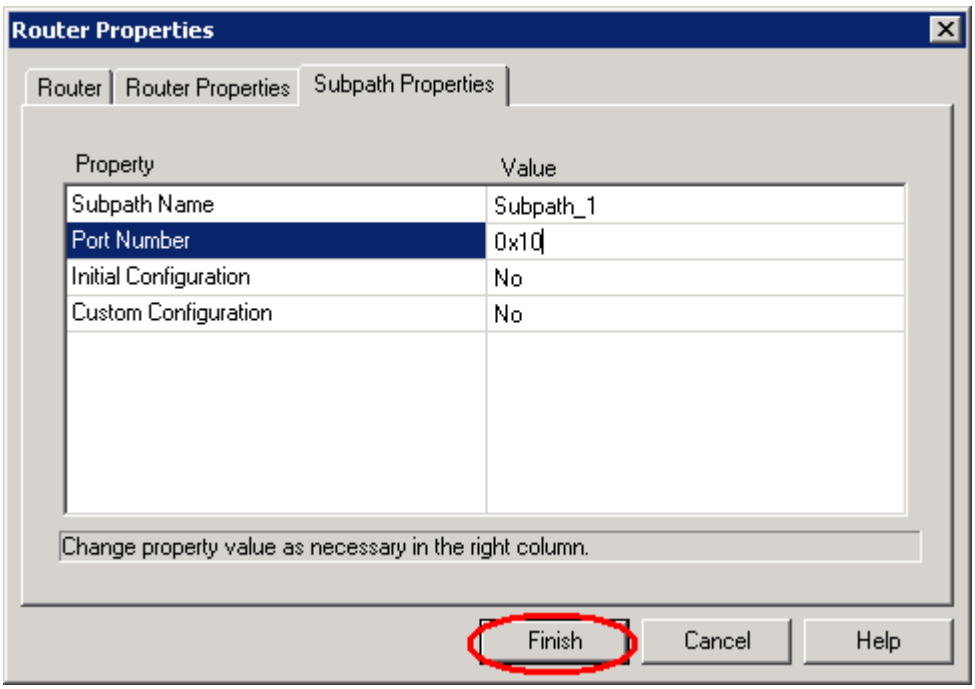
5. Select the ‘Subpath Properties’ tab. Change the ‘Port Number’ variable to ‘0x10’ and click ‘Finish’.



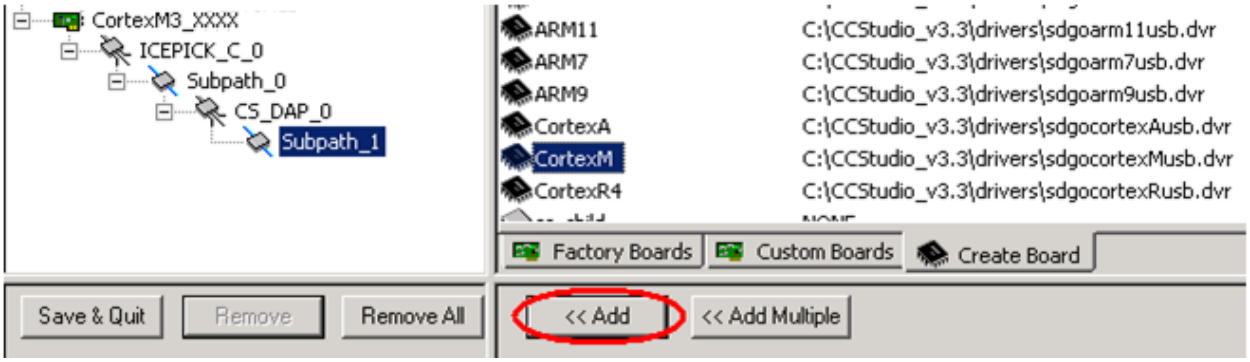
6. Select ‘Subpath_0’ in the left hand pane, then choose ‘CS_DAP’ in the center pane and click ‘<< Add’.



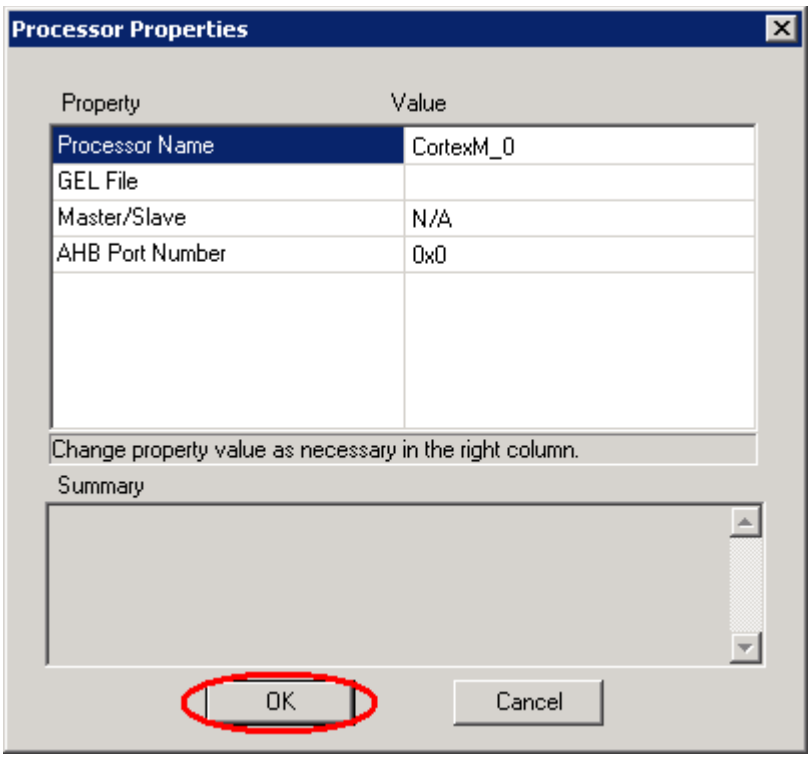
7. Select the ‘Subpath Properties’ tab. Change the ‘Port Number’ variable to ‘0x10’ and click ‘Finish’.



8. Select ‘Subpath_1’ in the left hand pane, then choose ‘CortexM’ in the center pane and click ‘<< Add’.

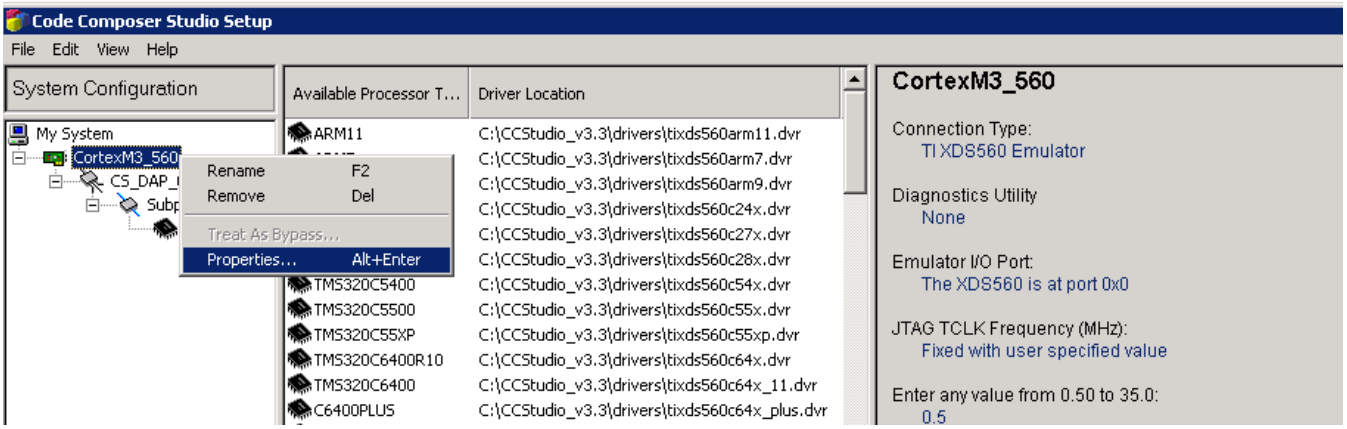


9. Click ‘OK’.

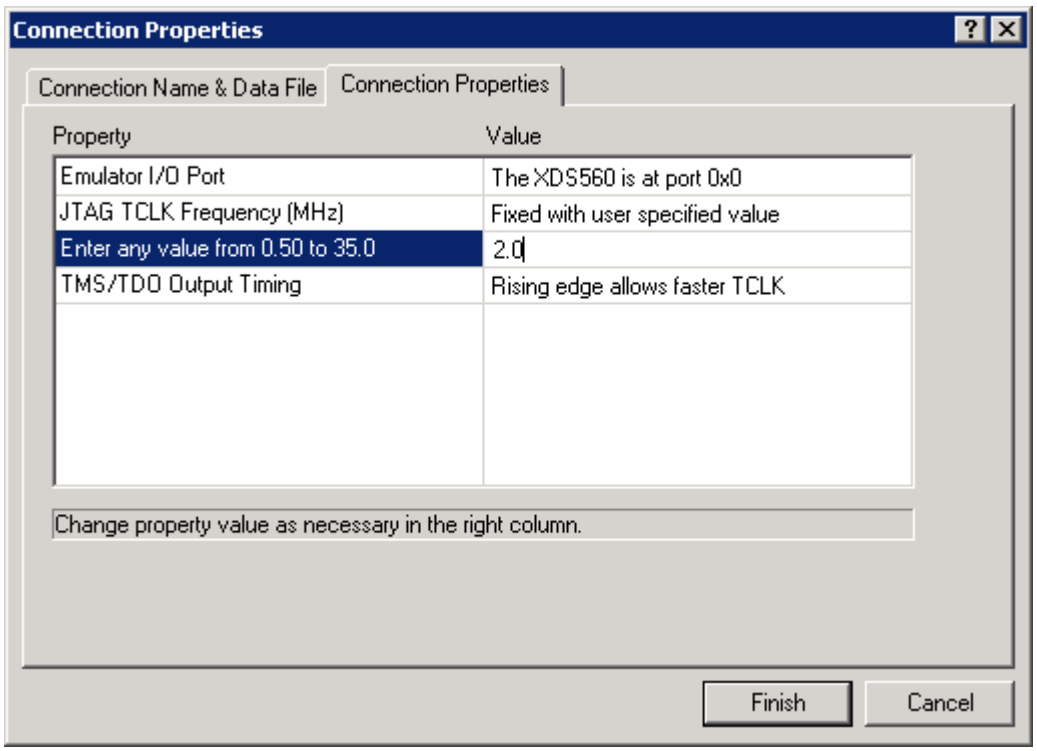


Note: Steps 10 and 11 are only necessary if you are using the XDS560PCI. If you are using a different JTAG, please skip these steps.

10. On the left pane, 'right click' on your board ('CortexM3_560') and click on 'Properties'.



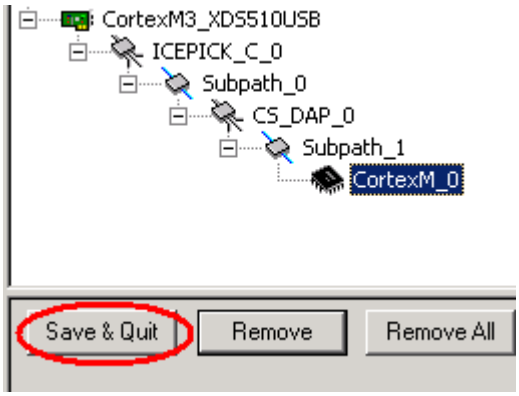
11. On the 'Connection Properties Windows' that appears, select the 'Connection Properties' tab and in the property 'Enter any value from 0.50 to 35.0' change it to '2.0'.



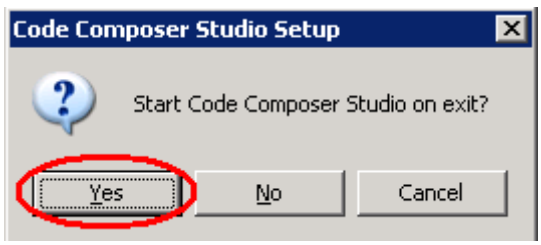
12. Ensure that your JTAG device is connected to the PC.

13. Power on the TUSB926x PDK EVM.

14. Click ‘Save & Quit’.



13. Click ‘Yes’.

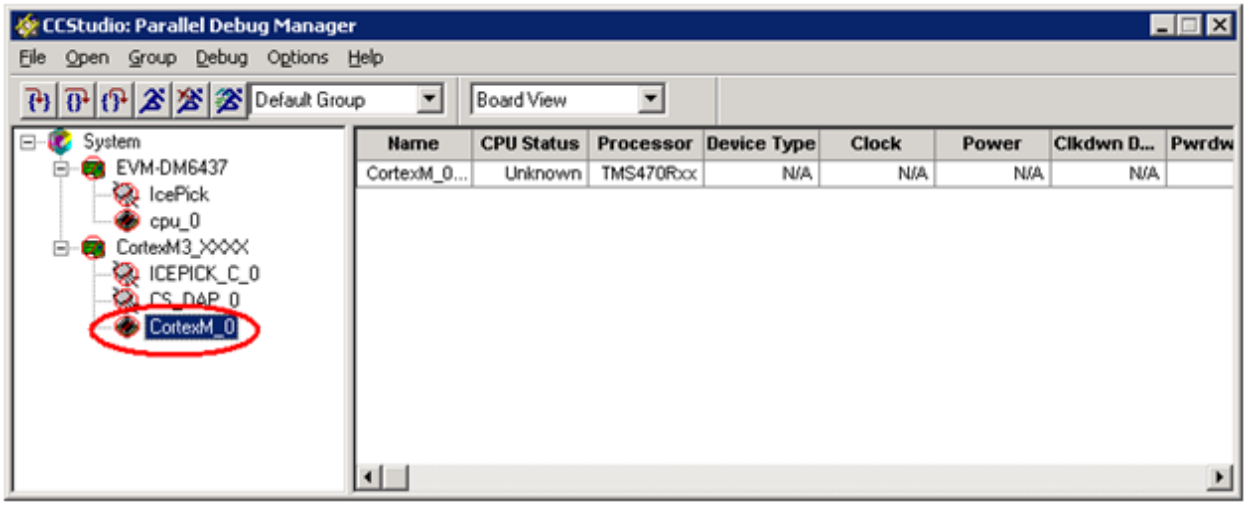


Note: The Setup of the JTAG device connection on Code Composer needs to be done only once. The next time you need to use the TUSB926x Board you can use the ‘Code Composer Studio’ shortcut.

Loading a Program into the Board with ‘Code Composer Studio’

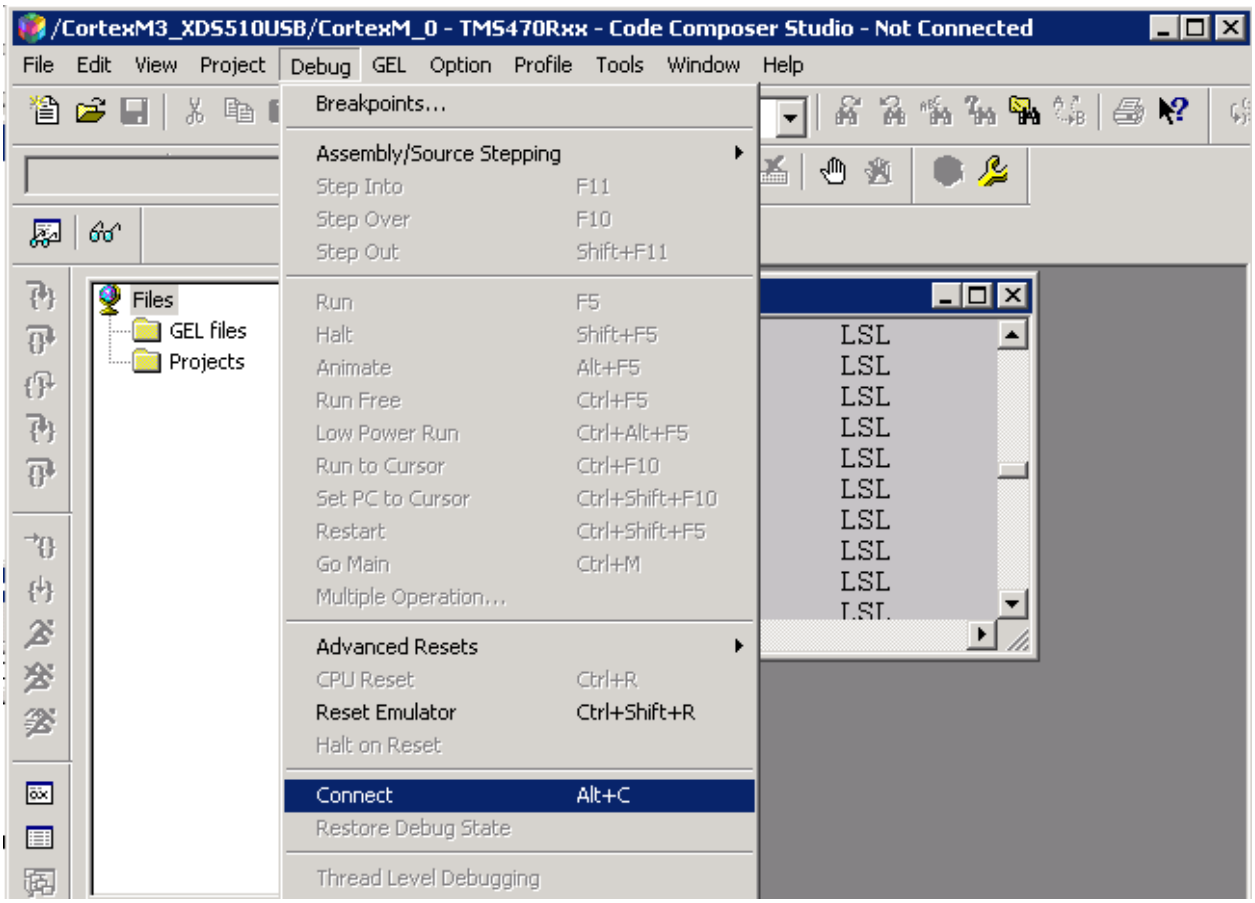
Note: If you have only one board configured to use with ‘Code Composer Studio’ skip step 1.

1. Double click on ‘CortexM_0’.

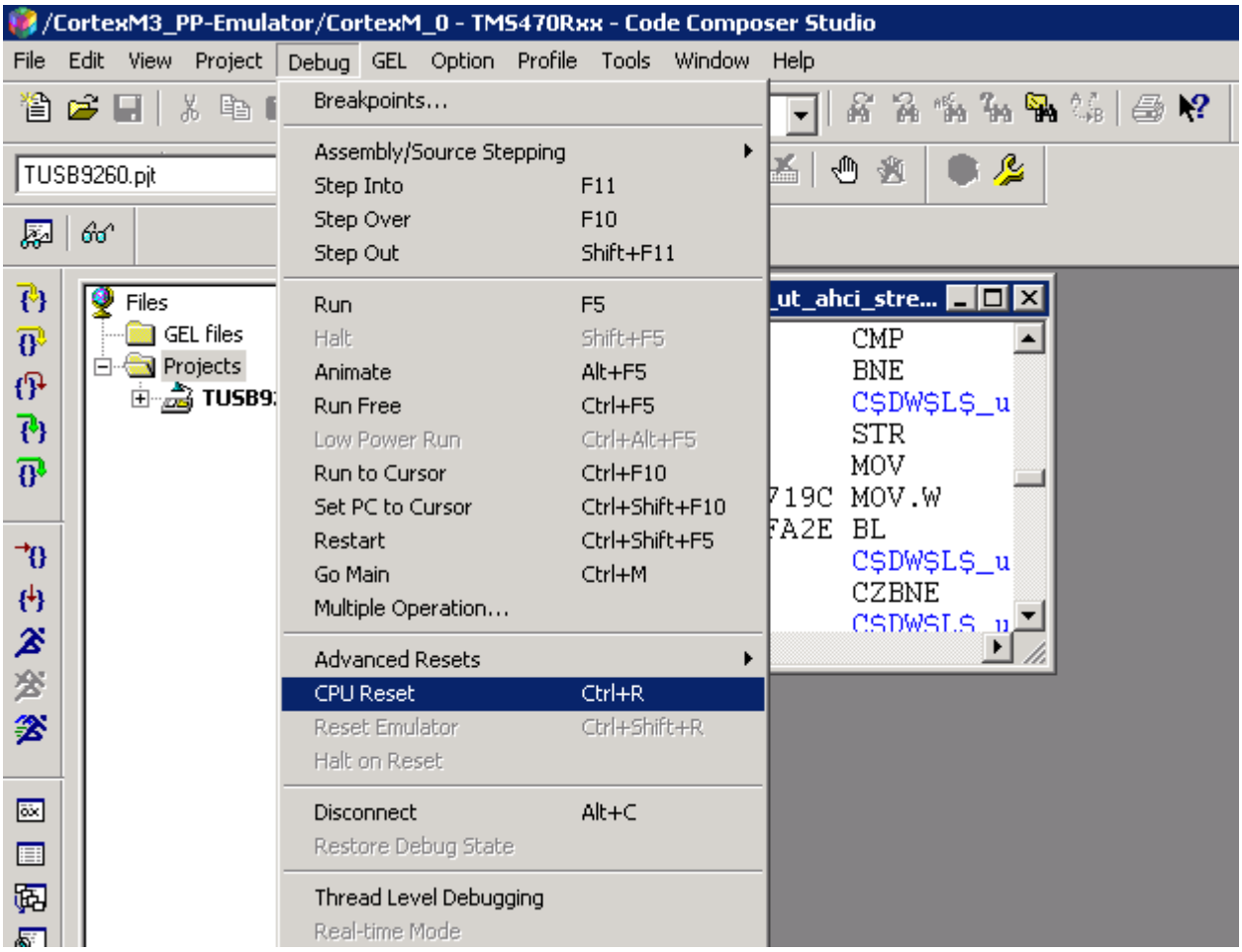


\

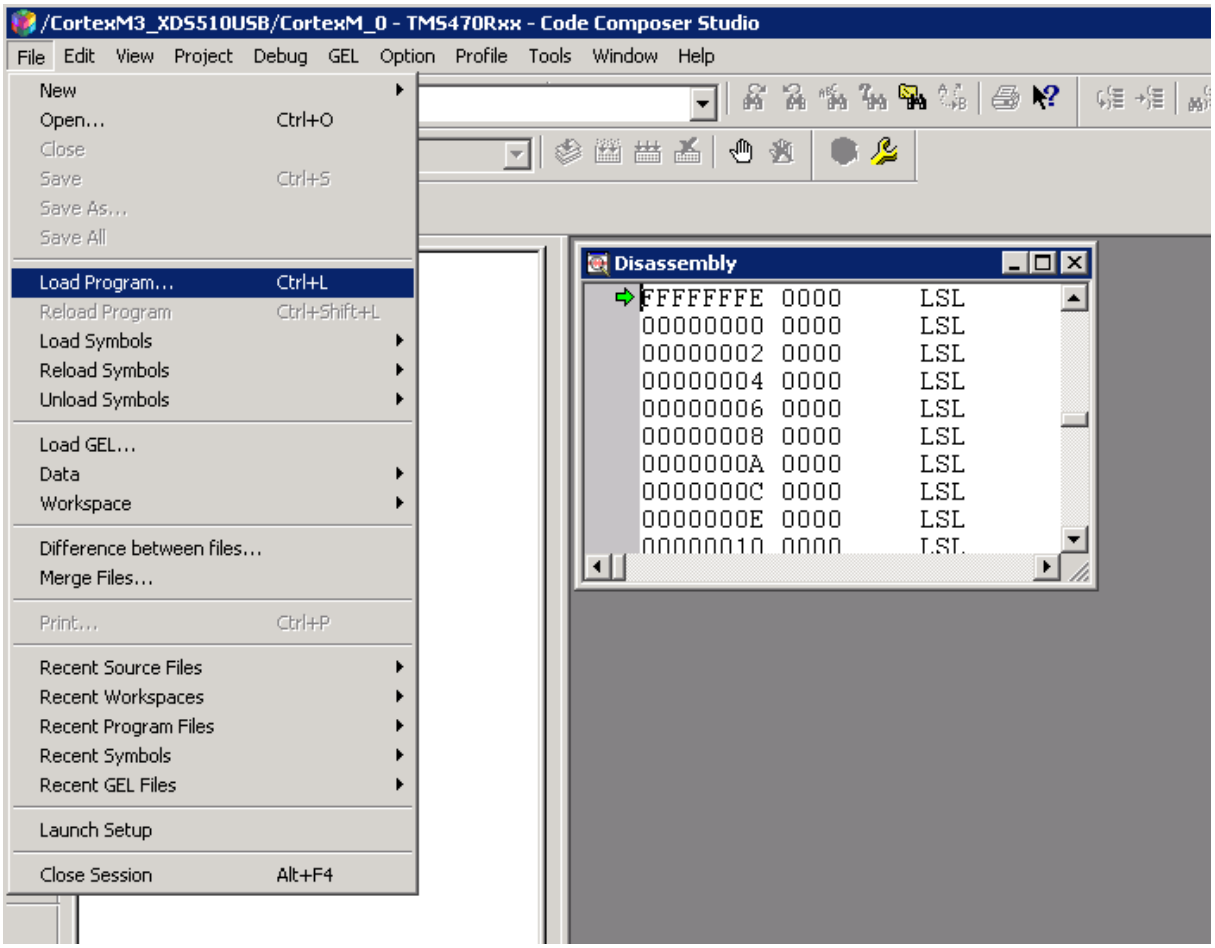
2. In the CCS IDE window press ‘ATL+C’ or ‘Debug->Connect’ to connect to the board.


/CortexM3_XDS510USB/CortexM_0 - TMS470Rxx - Code Composer Studio - Not Connected
File Edit View Project Debug GEL Option Profile Tools Window Help
Breakpoints...
Assembly/Source Stepping
Step Into F11
Step Over F10
Step Out Shift+F11
Run F5
Halt Shift+F5
Animate Alt+F5
Run Free Ctrl+F5
Low Power Run Ctrl+Alt+F5
Run to Cursor Ctrl+F10
Set PC to Cursor Ctrl+Shift+F10
Restart Ctrl+Shift+F5
Go Main Ctrl+M
Multiple Operation...
Advanced Resets
CPU Reset Ctrl+R
Reset Emulator Ctrl+Shift+R
Halt on Reset
Connect Alt+C
Restore Debug State
Thread Level Debugging
Files
GEL files
Projects
LSL
LSL
LSL
LSL
LSL
LSL
LSL
LSL
LSL

3. Perform a Reset to the board by pressing ‘CTRL+R’ or ‘Debug->CPU Reset’.



3. The CCS IDE will indicate that the board is connected and halted. The *.out file provide from the SW Team can now be loaded by ‘CTRL+L’ or ‘File->Load Program’.



Note: CCS Project setup and Code Build is outside the scope of this document.