

# Stellaris® ARM® Cortex™ M4 Training

## Pre-Workshop Action Items

Questions/concerns/need help? Please contact:  
Ashish Ahuja, [a-ahuja@ti.com](mailto:a-ahuja@ti.com), Stellaris Apps.



# Pre-training Actions Items

(You are required to do them before the training/  
workshop)



# Hardware Requirements

You will need the following during the training session:

## 1) A computer/ laptop with:

- Windows XP SP3 operating system (preferred), Windows 7 is also okay
- At least one functional USB port
- Optical drive (to install StellarisWare, CSS etc. using a DVD/CD) or,
- Internet connectivity to download the installers from TI website



## 2) A Digital Multi Meter (required for Low Power Training only)

- We recommended that you to bring your own DMM. You can share with your peers if you/they like.

## 3) An EK-LM4F232 Evaluation kit to perform the training lab/ exercises

- Kit may be provided to you during the training session depending on how the workshop has been planned etc. Please check with your training co-ordinator.



# Important! Getting the right version of CCS

It is **important** to update your CCS tools to the new version that will support the new Stellaris devices. You have several options:

**Option 1:** Update your current CCS installation using the “Software Updates” feature of CCS and then install the supplemental installer (also known as Blizzard support package) for the new Stellaris devices.

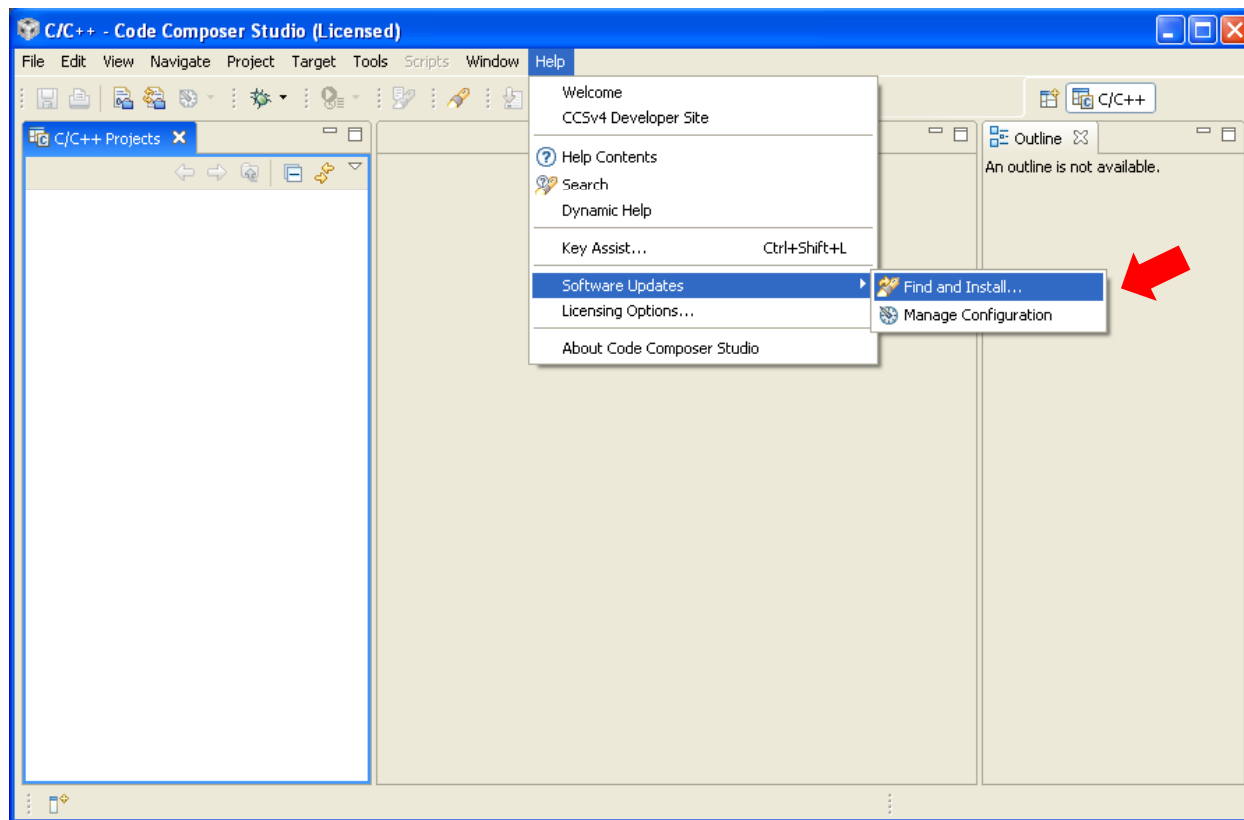
**Option 2:** Completely uninstall your current CSS, then reinstall the latest\* version of CCS and then install the supplemental installer for the new Stellaris devices.

**Option 3:** Completely uninstall CSS, then reinstall the version of CCS that comes on the CD/DVD as a part of EK-LM4F232 kit.

*\*v4.2.4.00033 as of Nov 2011. Newer versions may include Blizzard Support Package as a part of standard installation.*

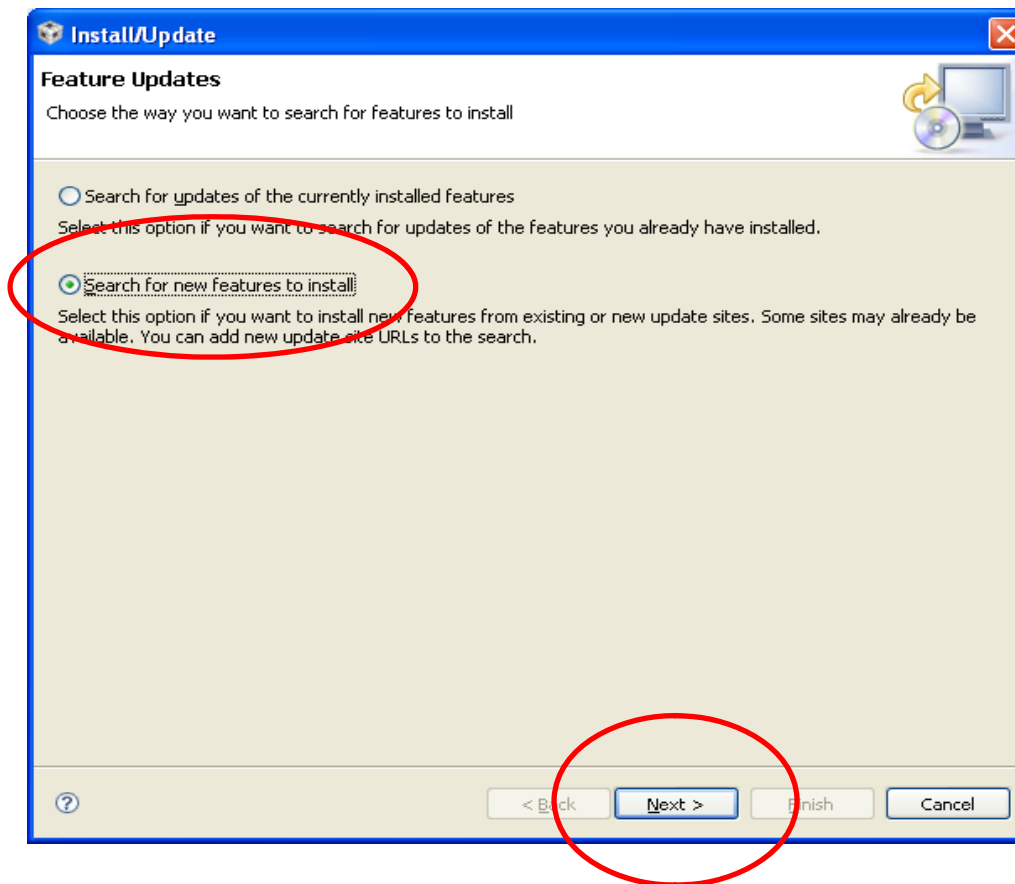
# Option 1: Update Current Install of CCS

The first option is to update your current installation of CCS. Open Code Composer Studio and Click on Help-> Software Updates-> Find and Install.



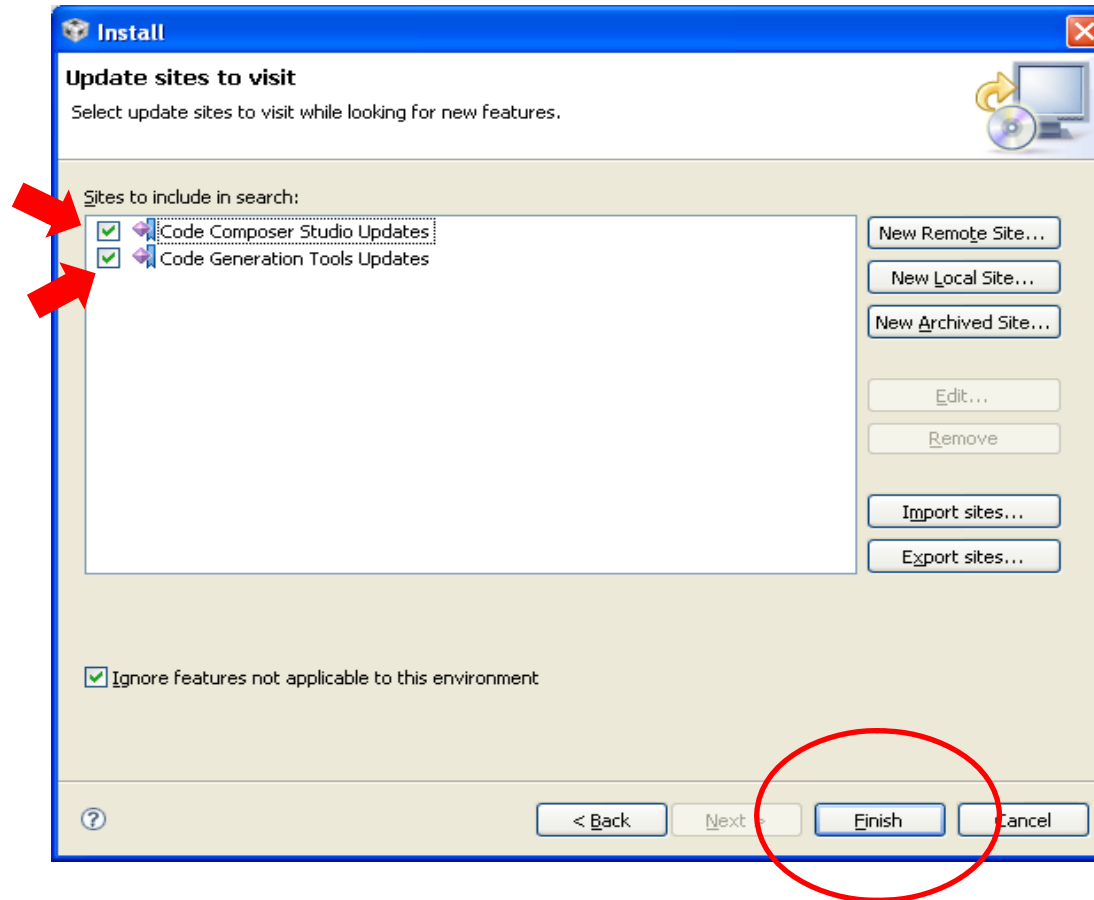
# Option 1: Update Current Install of CCS (cont.)

In the Install/Update dialog, select “**Search for new features to install**” and click **Next**. This is very important since the update to the compiler for the M4F devices is considered a new feature and not an update to the currently installed features.



# Option 1: Update Current Install of CCS (cont.)

In the Install dialog, select both the **Code Composer Studio Updates** and **Code Generation Tools Updates** to be included in the search. Click **Finish**.



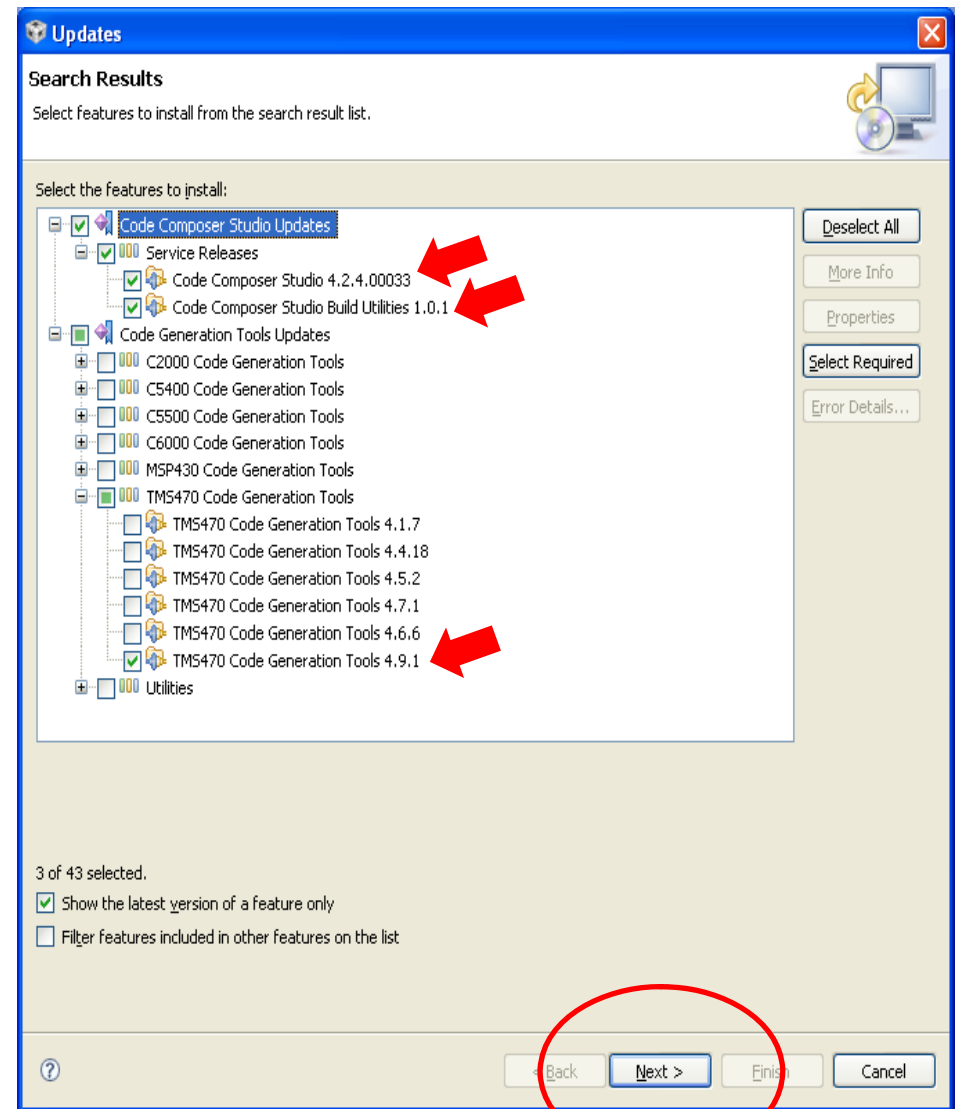
# Option 1: Update Current Install of CCS (cont.)

After the search is complete (this could take a few minutes) you will see a list of new features.

Please select:

- 1) **Code Composer Studio 4.2.4.000033**
- 2) **Code Composer Studio Build Utilities 1.0.1**
- 3) **TMS470 Code Generation Tools 4.9.1**

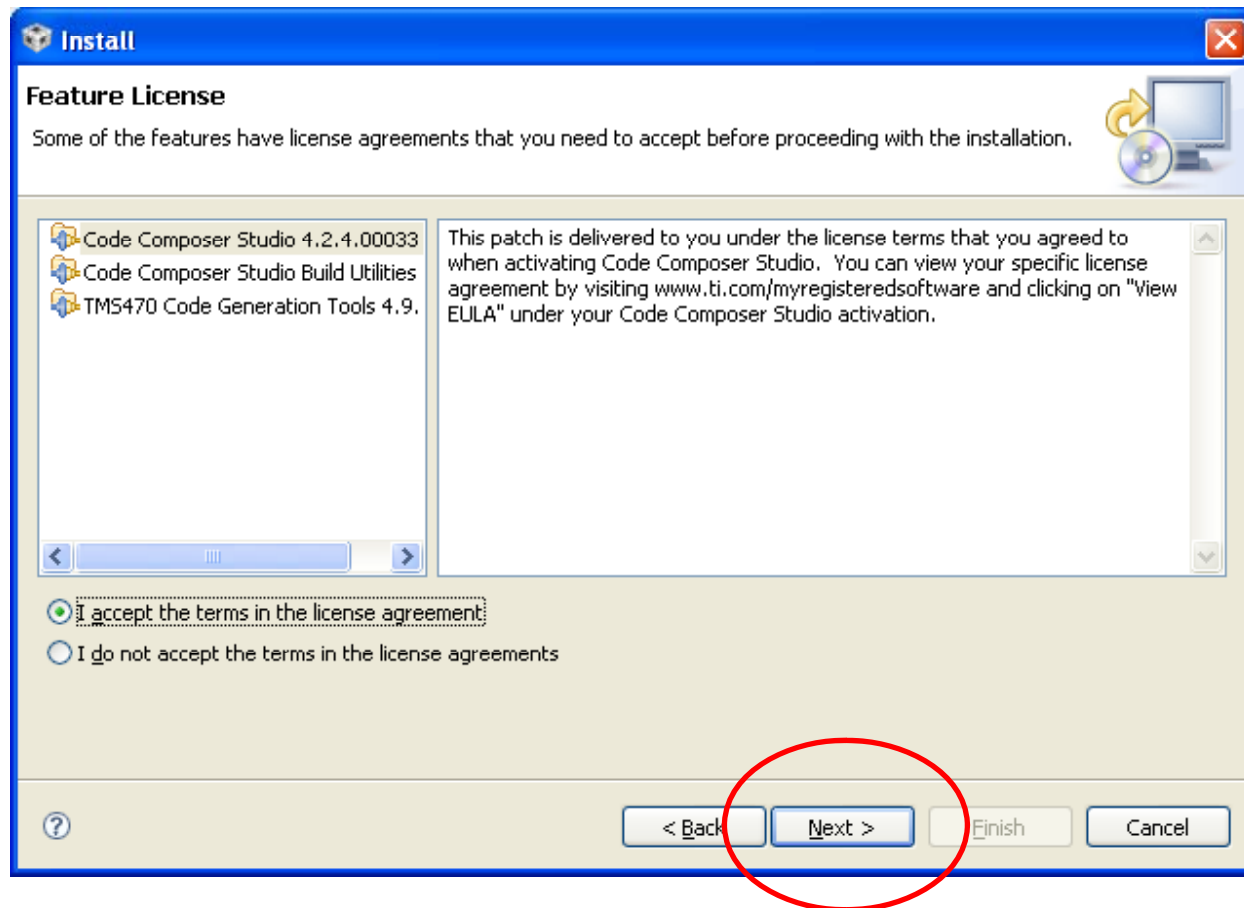
After you have selected the above features to install, click **Next**





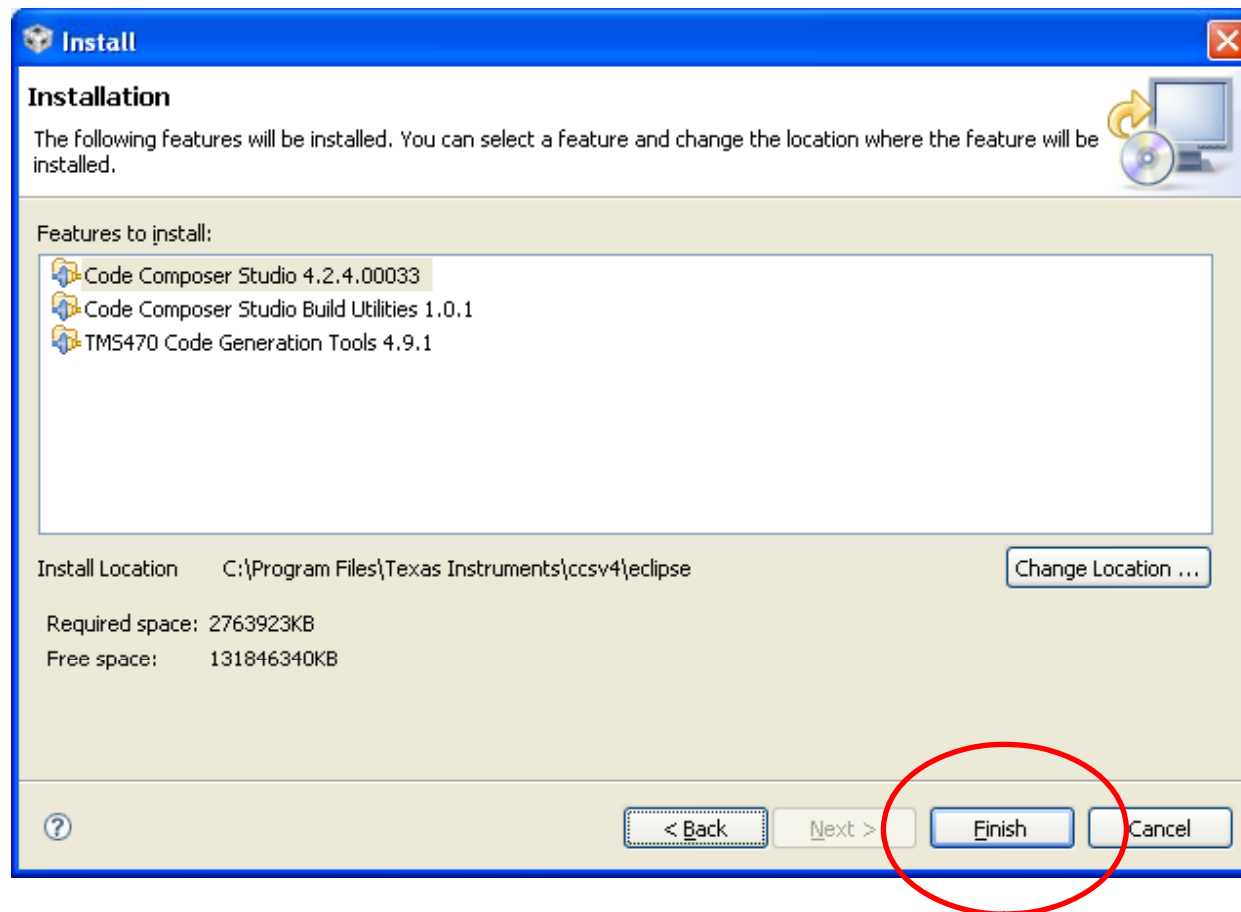
# Option 1: Update Current Install of CCS (cont.)

To continue, you must accept the feature license agreement. Click **Next** after you have made your selection.



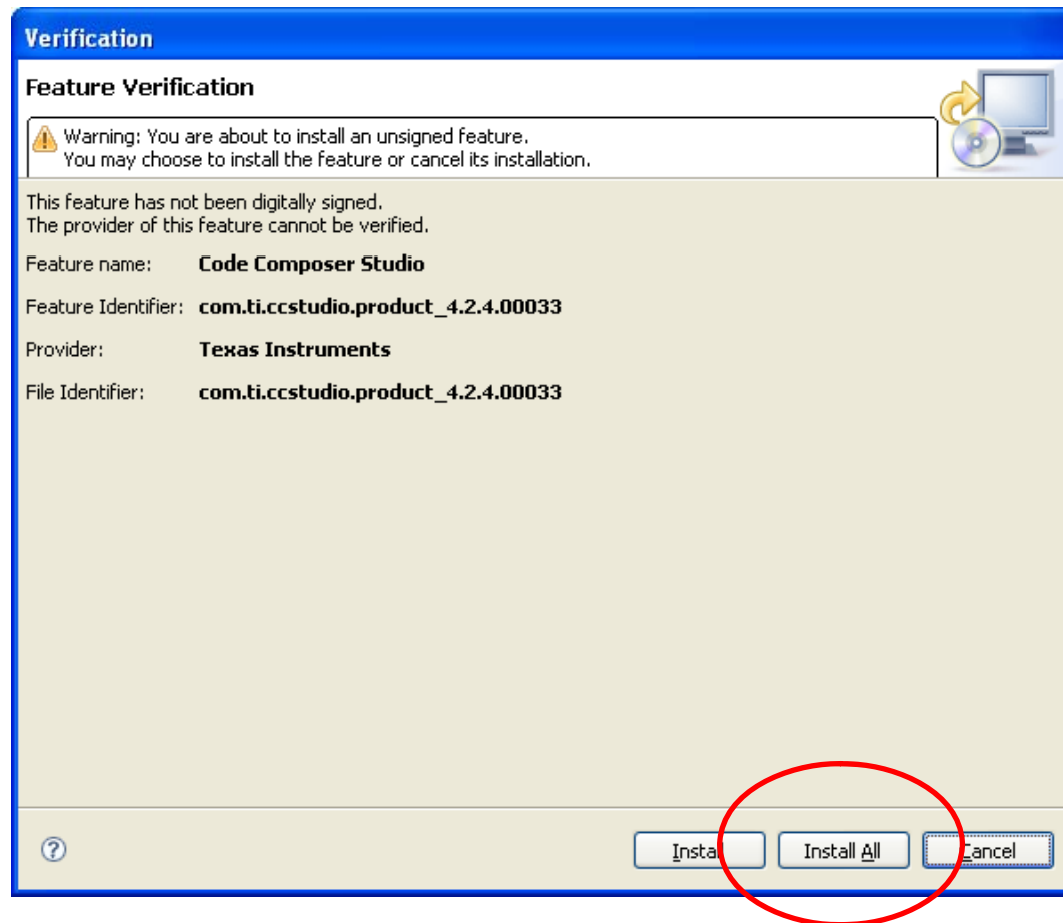
# Option 1: Update Current Install of CCS (cont.)

The final dialog will review your selected installations. Click on **Finish** to start the installation.



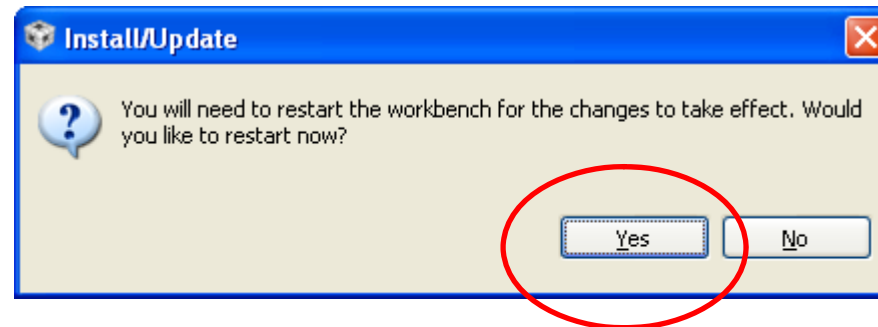
# Option 1: Update Current Install of CCS (cont.)

After the installation procedure starts, you will get a request for Feature Verification. Click on **Install All** to continue.



# Option 1: Update Current Install of CCS (cont.)

After the installation has completed, you will be asked to restart the workbench for the changes to take effect. Click on Yes to continue.



The CCS update of the IDE and Code Generation Tools (CGT) is now complete.

**IMPORTANT!** Please see the step on slide 14 “**Install LM4F Support Package**” to install the new device support for LM4F to complete your CCS tools update for LM4F!

# Option 2: New Install of CCS v4.2.400033

**Note:** You must uninstall the previous version(s) of CCS from your computer before installing CCS v4.2.4.00033. If you do not wish to do this, see option 1 on slide 5.

Please visit

[http://processors.wiki.ti.com/index.php/Download\\_CCS](http://processors.wiki.ti.com/index.php/Download_CCS) page to download CCS v4.2.4.00033 DVD image.

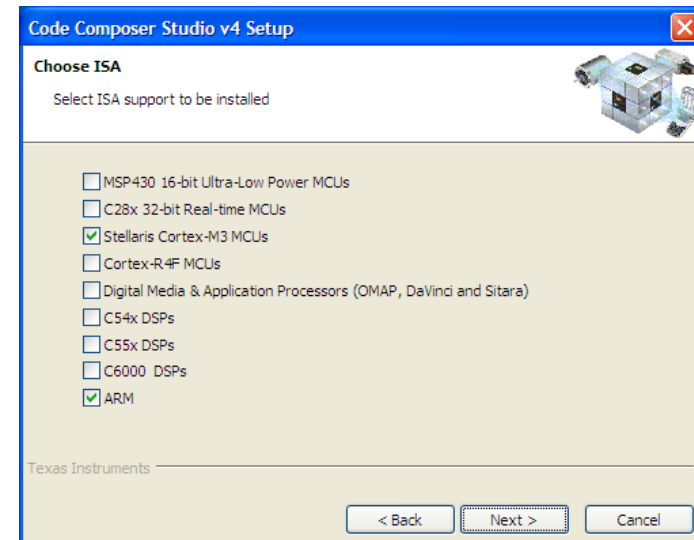
Please use the default installation path.

In the installation wizard, make sure that you select Stellaris Cortex M3 & ARM. You can select more options if you like.

**IMPORTANT!** Please see the step below “Install LM4F Support Package” (on slide 15) to install the new device support for LM4F to complete your CCS tools update for LM4F!



CCSv4 Release Archive			
Release	Build #	Date	Download
CCSv4.2.x			
4.2.4	4.2.4.00033	Jul 18, 2011	DVD image <a href="#">Code Size Limited</a>



# Option 3: New Install of CCS v4.2.400033 from CD/DVD that comes with EK-LM4F232

**Note:** You must uninstall the previous version(s) of CCS from your computer before installing CCS that comes on CD/DVD of EK-LM4F232.

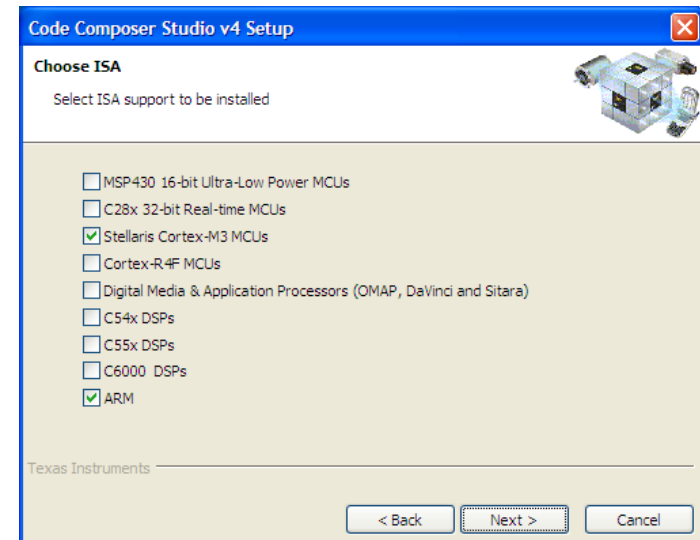
Please use the default installation path.

In the installation wizard, make sure that you select Stellaris Cortex M3 & ARM. You can select more options if you like.

**NOTE:** This version of CCS includes Blizzard Support Package, no separate installation is required.



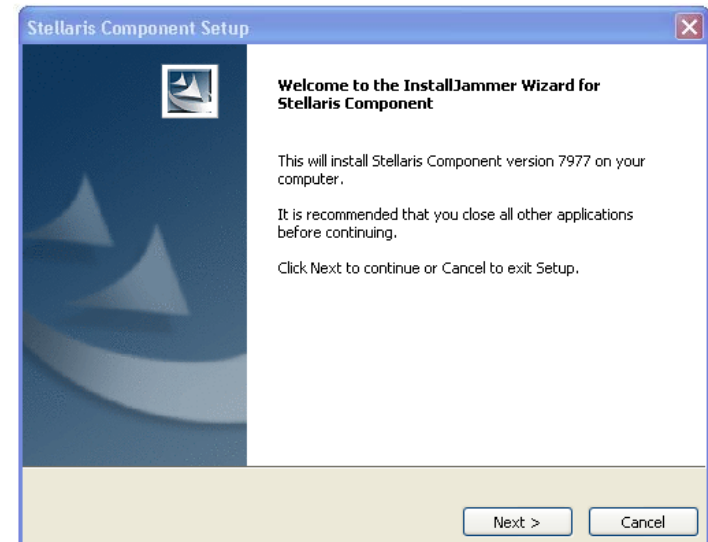
CCSv4 Release Archive			
Release	Build #	Date	Download
CCSv4.2.x			
4.2.4	4.2.4.00033	Jul 18, 2011	DVD image <a href="#">Code Size Limited</a>



# Install LM4F Support Package



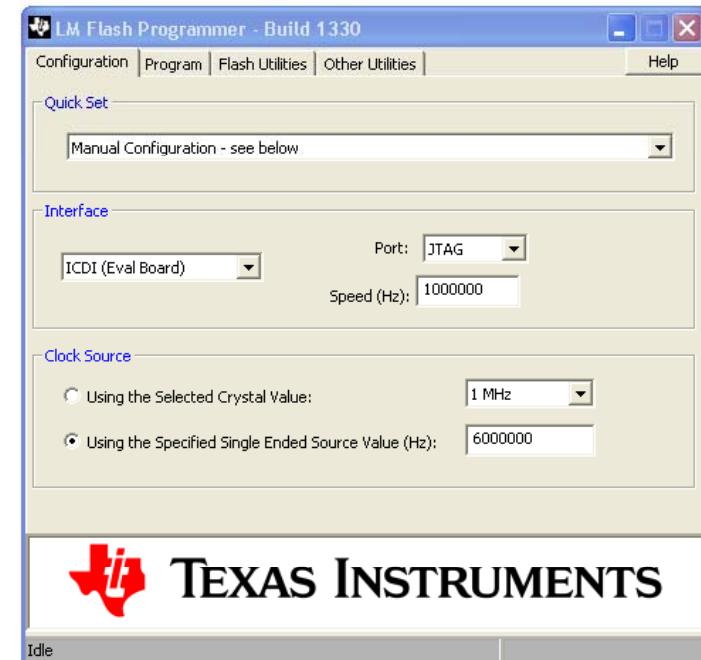
- Only needed if you follow option 1 or 2.
- Please install LM4F Support Package ([ti\\_stellaris\\_setup.exe](#)) on your computer.
- [ti\\_stellaris\\_setup.exe](#) should be located in the same folder where other training material & this presentation is located.
- The support package will update/add files in various CCS folders. It is strongly recommended that you use the default installation path.



# Install LM Flash Programmer



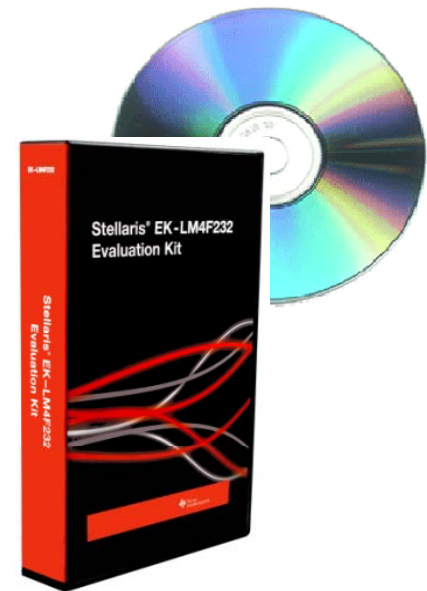
- Please install LM Flash Programmer ([LMFlashProgrammer.msi](#)) on your computer.
- Download LM Flash Programmer from [www.ti.com/lmflashprogrammer](http://www.ti.com/lmflashprogrammer)





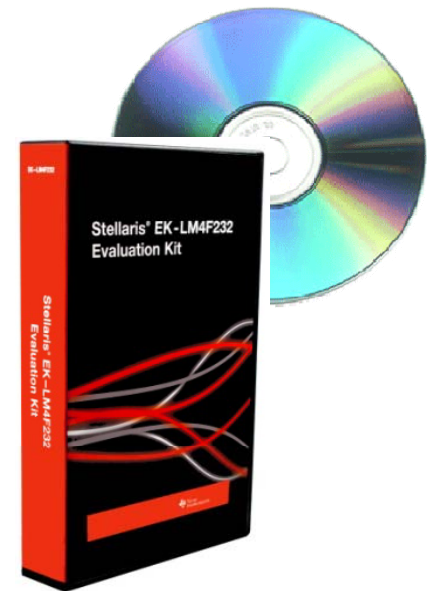
# Install StellarisWare®

- Please download & install StellarisWare ([Stellarisware.exe](#)) on your computer from [www.ti.com/stellarisware](http://www.ti.com/stellarisware).
- StellarisWare contains drivers, DriverLib, examples that we will be using during the workshop.
- The procedure to install these drivers is very straight forward. Just run the setup file and extract the files to the default path “C:/StellarisWare”
- **Tip:** If you already have a previous version of StellarisWare installed on your computer, you can simply rename your old StellarisWare directory to something else (ex. StellarisWare\_old) and proceed with the installation.



# Download ICDI Drivers

- During the workshop, you will need to install the following drivers on your computer.
  - 1) Stellaris Virtual Serial Port
  - 2) Stellaris ICDI JTAG/SWD Interface
  - 3) Stellaris ICDI DFU
- The drivers can be found in [C:\StellarisWare\windows\\_drivers](C:\StellarisWare\windows_drivers) after you have installed StellarisWare.
- **Note:** You will be able to install drivers only when EK-LM4F232 board is connected to your computer.
- **Tip:** Please review [how\\_to\\_install\\_drivers.pdf](#). It provides step by step instructions on how to install drivers. This will help you utilize the workshop time more effectively.
- [how\\_to\\_install\\_drivers.pdf](#) should be located in the same folder where other training material & this presentation is located.



# Copy Lab Projects to StellarisWare

- Please copy the CCS projects for the labs in StellarisWare at the following location:

`C:\StellarisWareLAB\boards\ek-lm4f232\<lab_name>`

Where <lab\_name> is the name of the project folder

For example, `adc_lab` for Analog Peripherals lab, `hib_lab` for Low Power lab, `usb_host_msc` for USB lab etc.

- Section 2 & 3 will use the projects do hands-on exercises.
- These project folders should be located in the same folder where other training material & this presentation is located.

