CODE COMPOSER STUDIO TUTORIAL – WEEK-3

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For CCS Version 5.3.0; Tutorial Version 1.0

Please note, these tutorial notes may change without notice. We suggest you check for any updates on Learn

Create a New Project or Load an Existing Project…

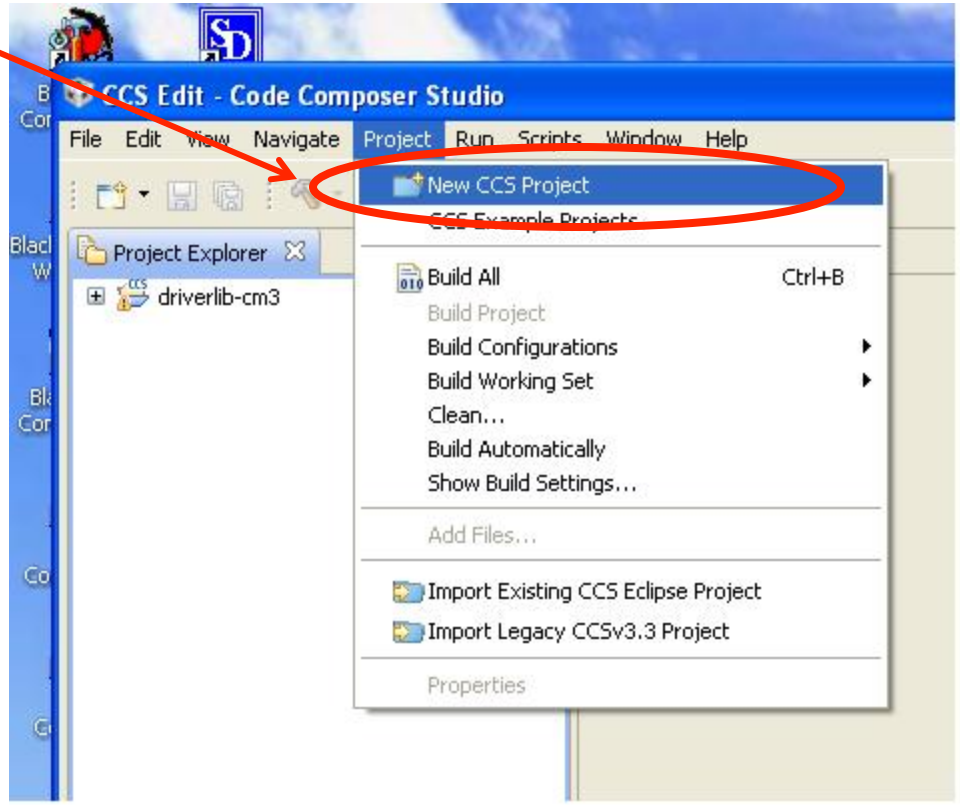
Ok, so now you have StellarisWare and driverlib installed in CCS. You shouldn't need to do this again! From this point, you can either create a new project, or load an existing project… let's do the former…

Let's create a new project and start from scratch…

Create a new project…

Go to Project | New CCS Project from the CCS menu…

This should create a new project under



Complete the New CCS project dialog box…

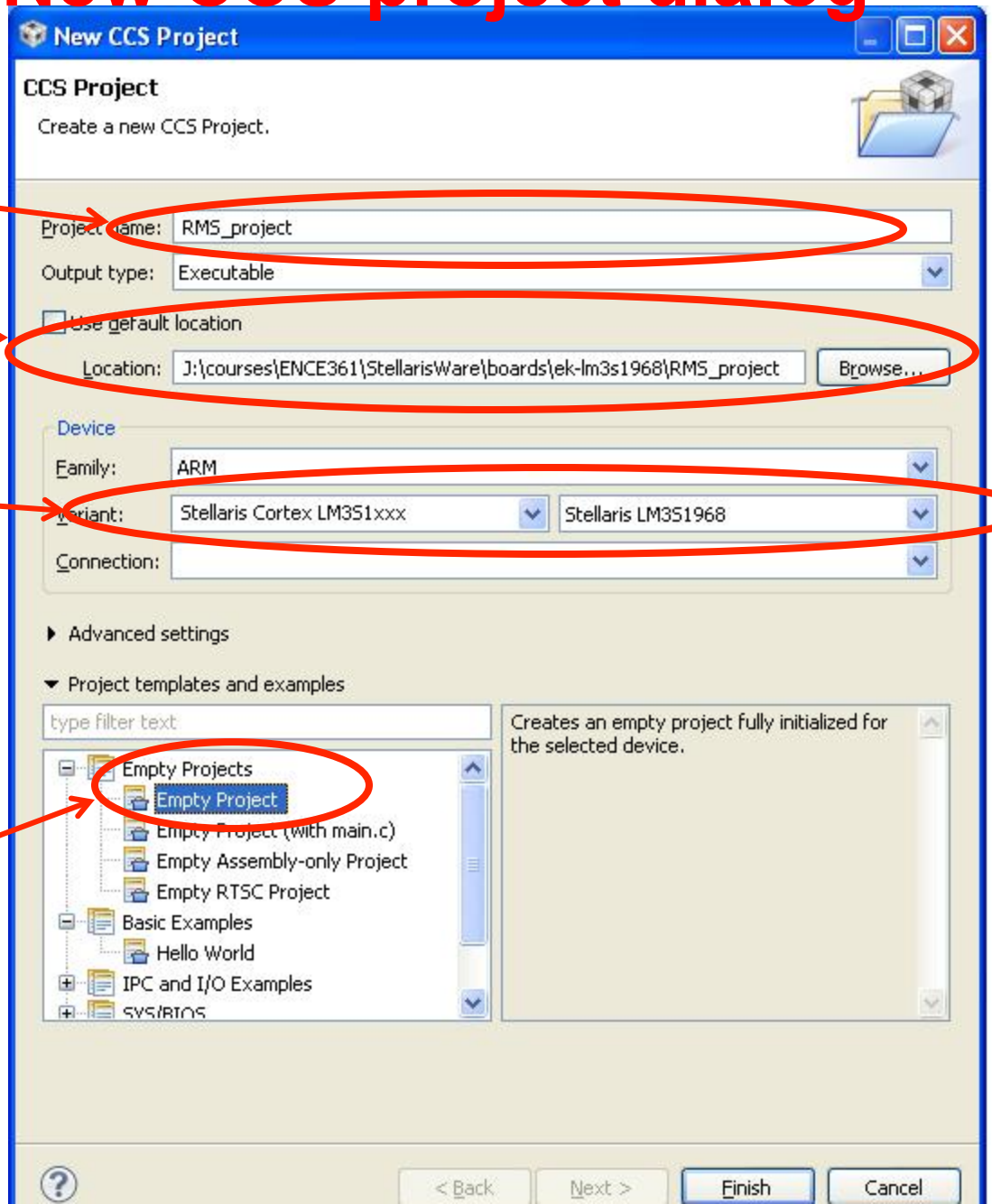
Call this whatever you like

but ensure your location is correct.

Make sure you are using the right Stellaris part.

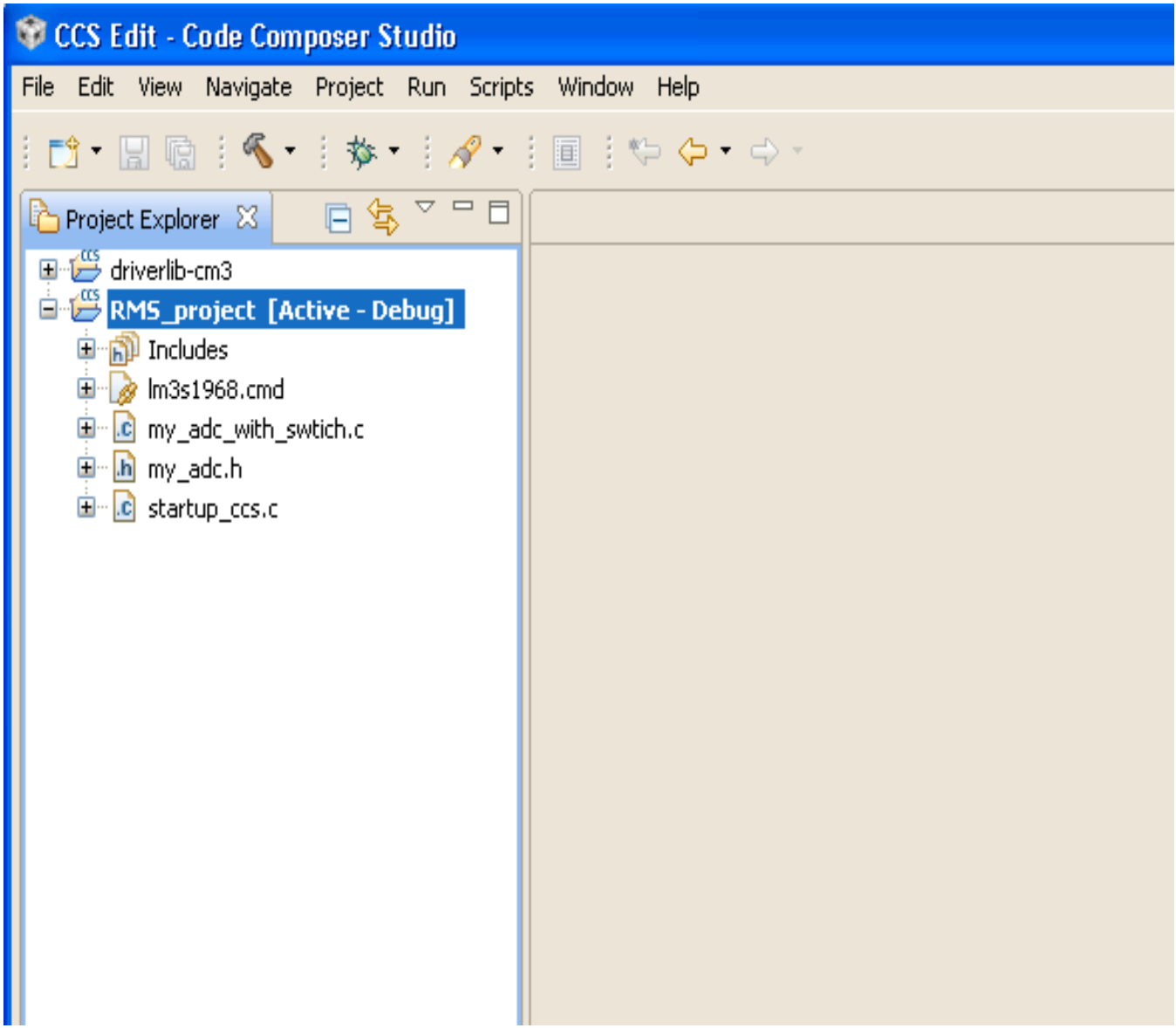
And create an empty project; you will get the code from Learn.

Lastly, press Finish



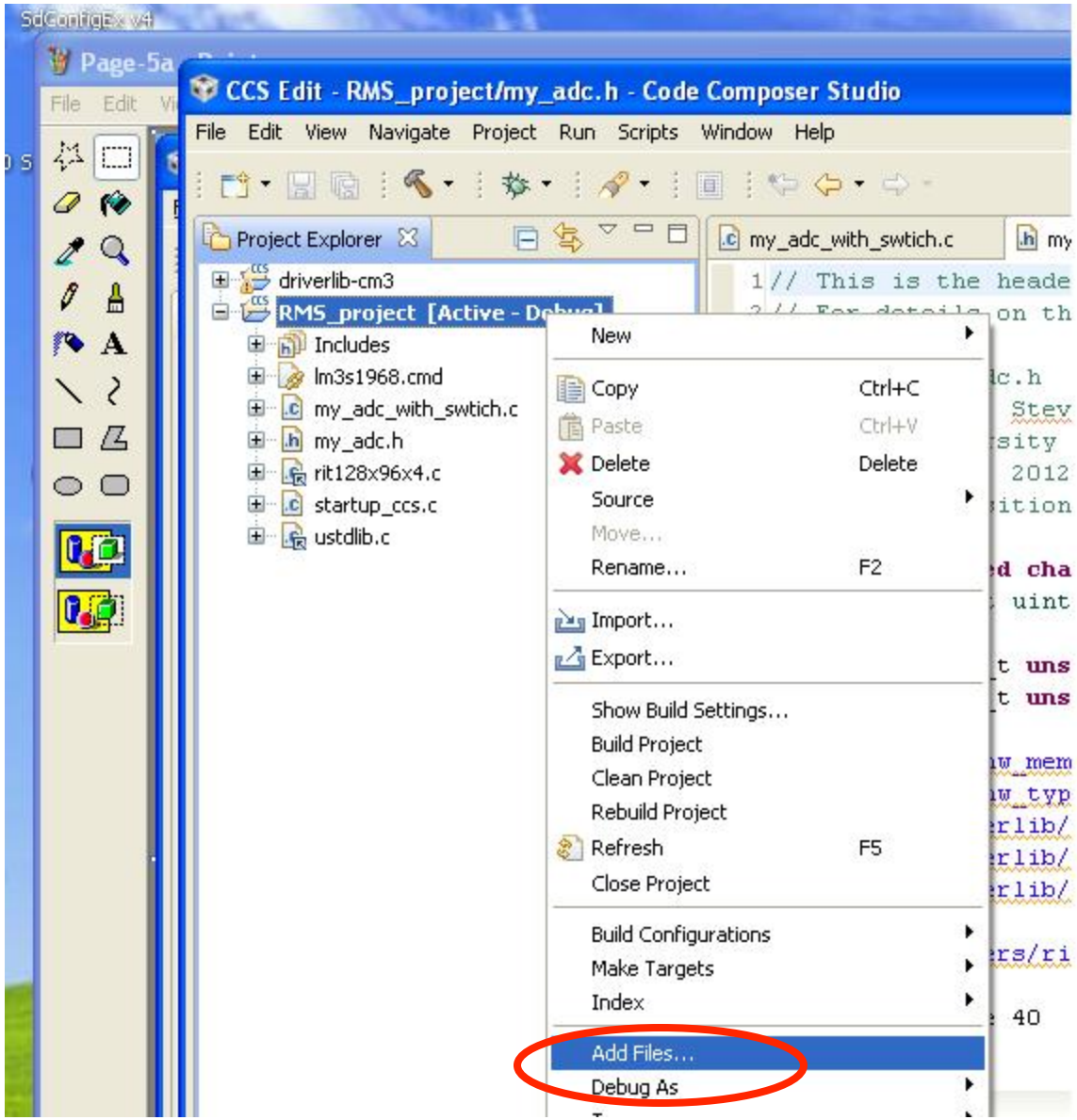
Find source code on Learn and Add…

- Under “Laboratory Resources” on Learn, find source files in the “Week-3” directory.
- Unzip Week-3.zip files into your RMS_project directory.
- Delete the zip file from this directory after extraction.
- Check that files: startup_ccs.c, my_adc.h and my_adc_with_switch.c files appear in your RMS_project directory.



Link files to the display and ustdlib

- Right click on your RMS_project and select “Add files” from the menu.
- Find \boards\ ek-lm3s1968\drivers and then select rit128x96x4.c
- A file operation dialog box will ask if you want to link or copy this file. Select Link.
- Now, repeat this process but link ustdlib.c in \StellarisWare\utils
- Your Project Explorer window should look like this

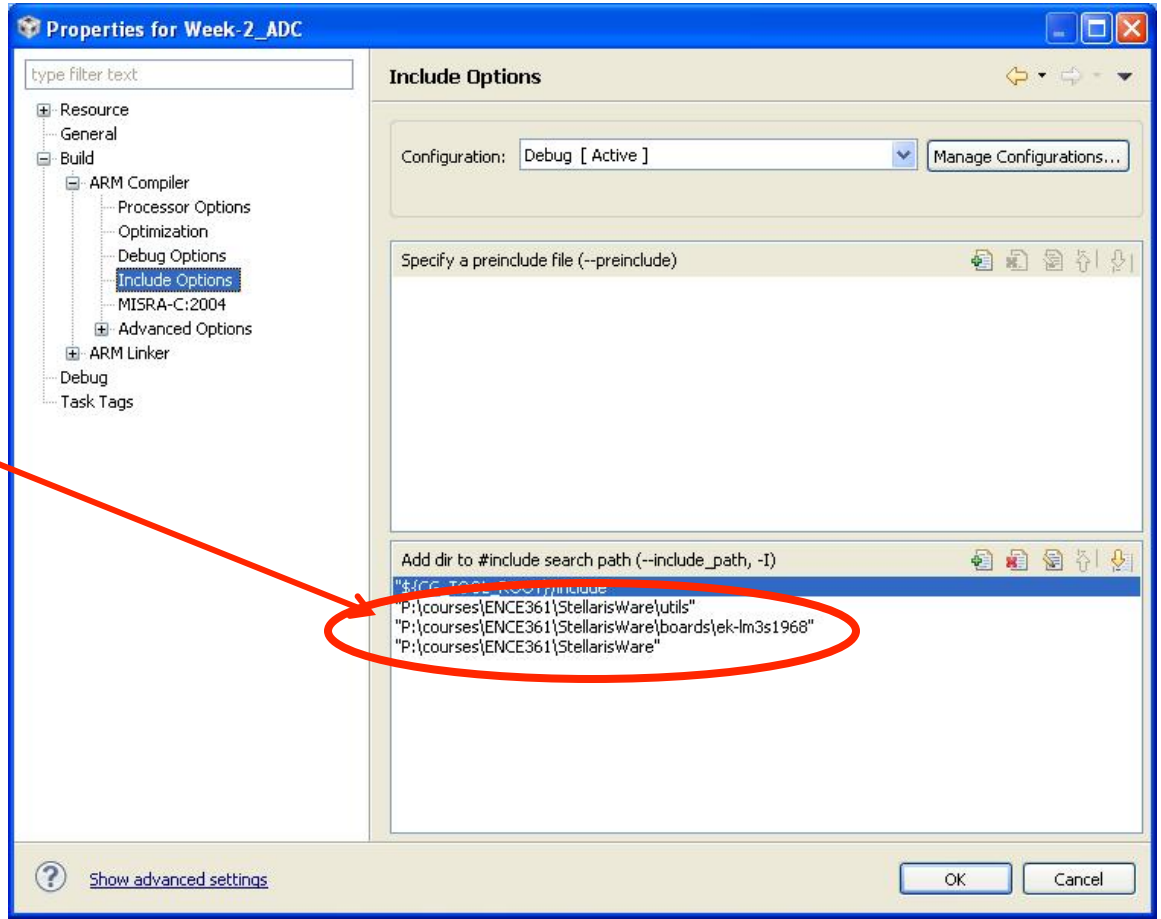


Setting compiler options…

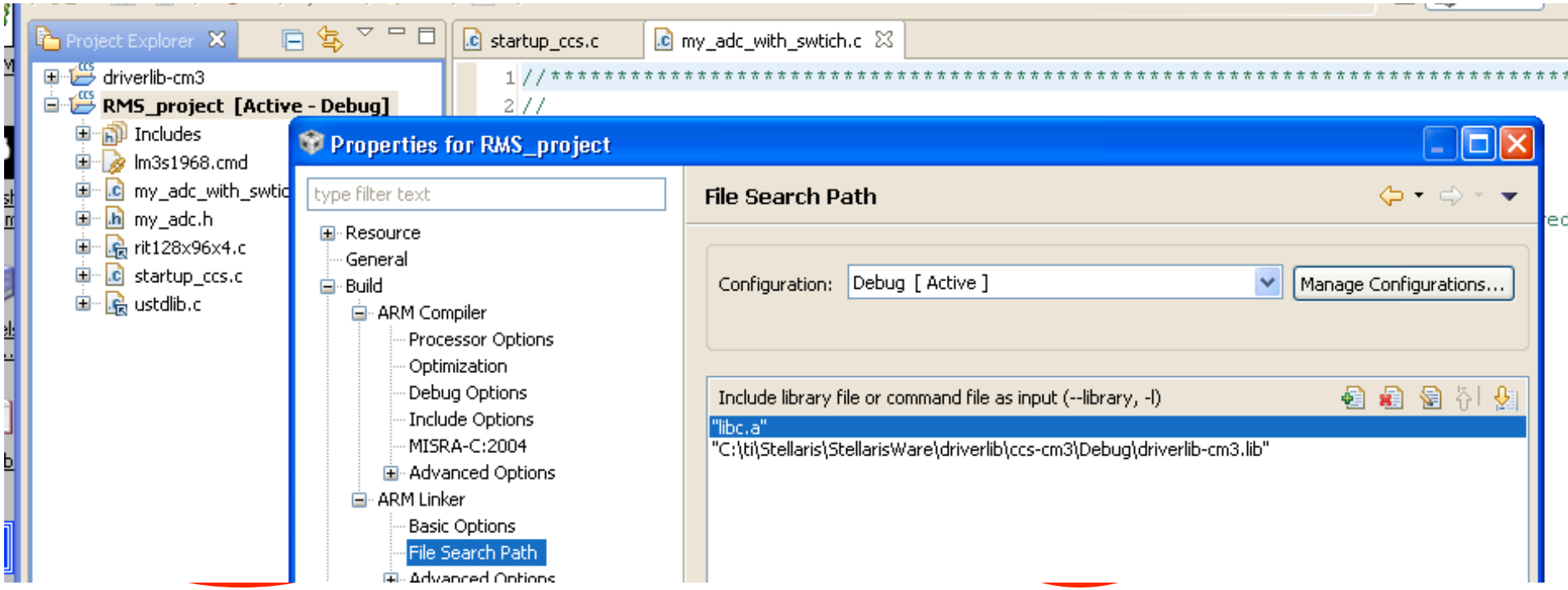
- In your Project Explorer window, right mouse-click on your “RMS_project” project, shown as “[Active – Debug]”, and select `Properties`.
- In the project properties window on the left side of the dialog box, select: “`Build | ARM Compiler | Include Options`”. You should see...

Make sure your 3 paths, especially your drive letter, is correct in the bottom window

While you are in your project properties window…

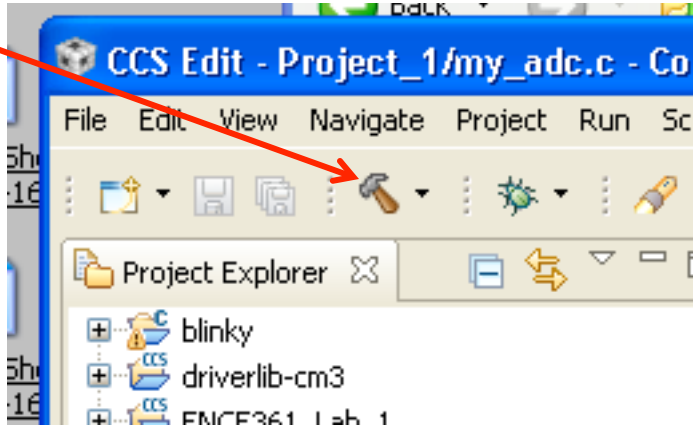


Do the same as the previous slide, but now check linker options, as outlined below…



Now you should be able build your new project…

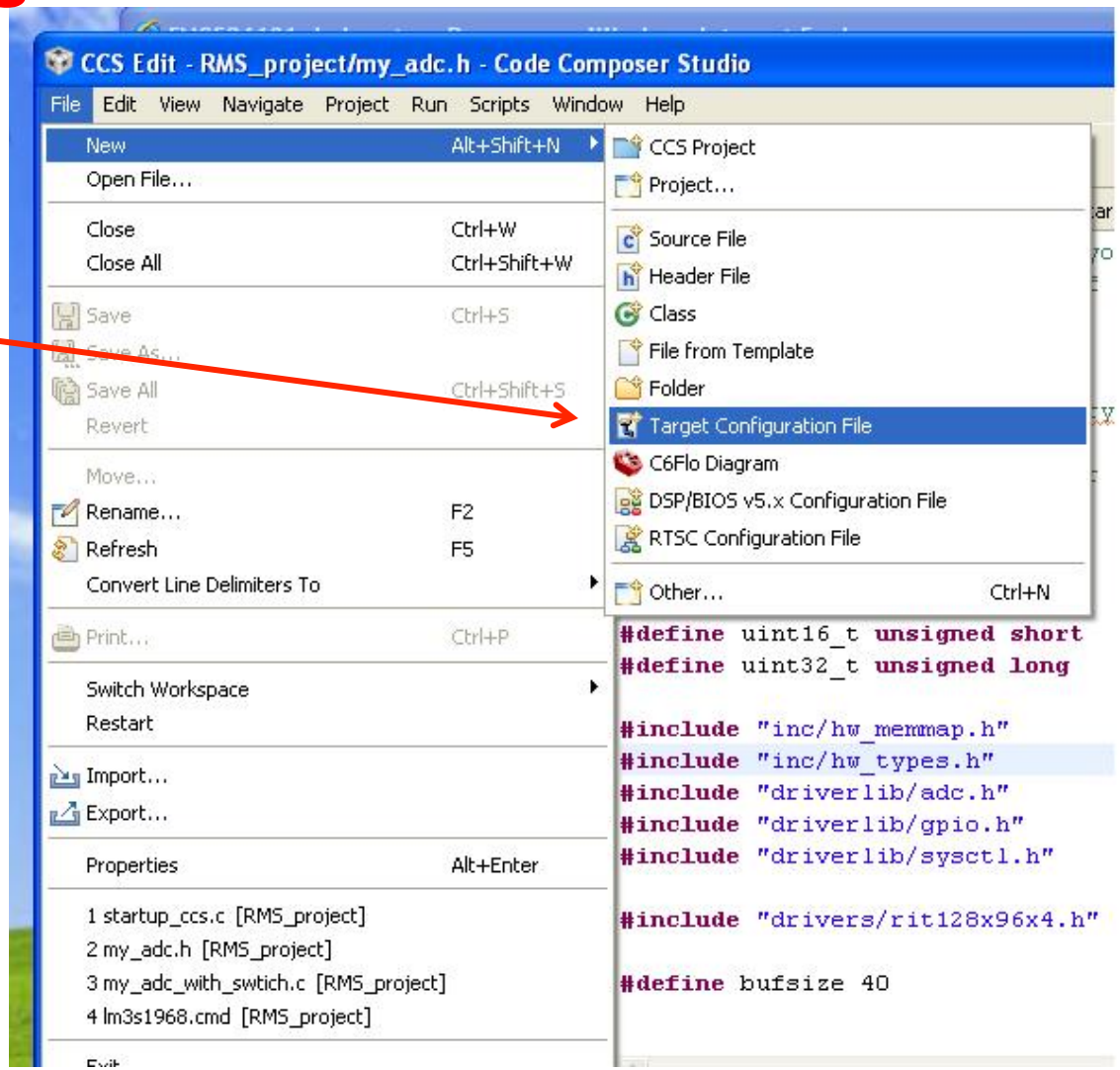
- Click on the hammer to build your project.



- Your project should build successfully, without any errors. **If you do have errors, go to the last two pages, i.e., under *Trouble-shooting***
- At this point, plug your Stellaris board into the USB socket of your lab PC using the USB cable supplied with your kit.
- Don't, however click on the bug symbol. There is one more critical step to perform…

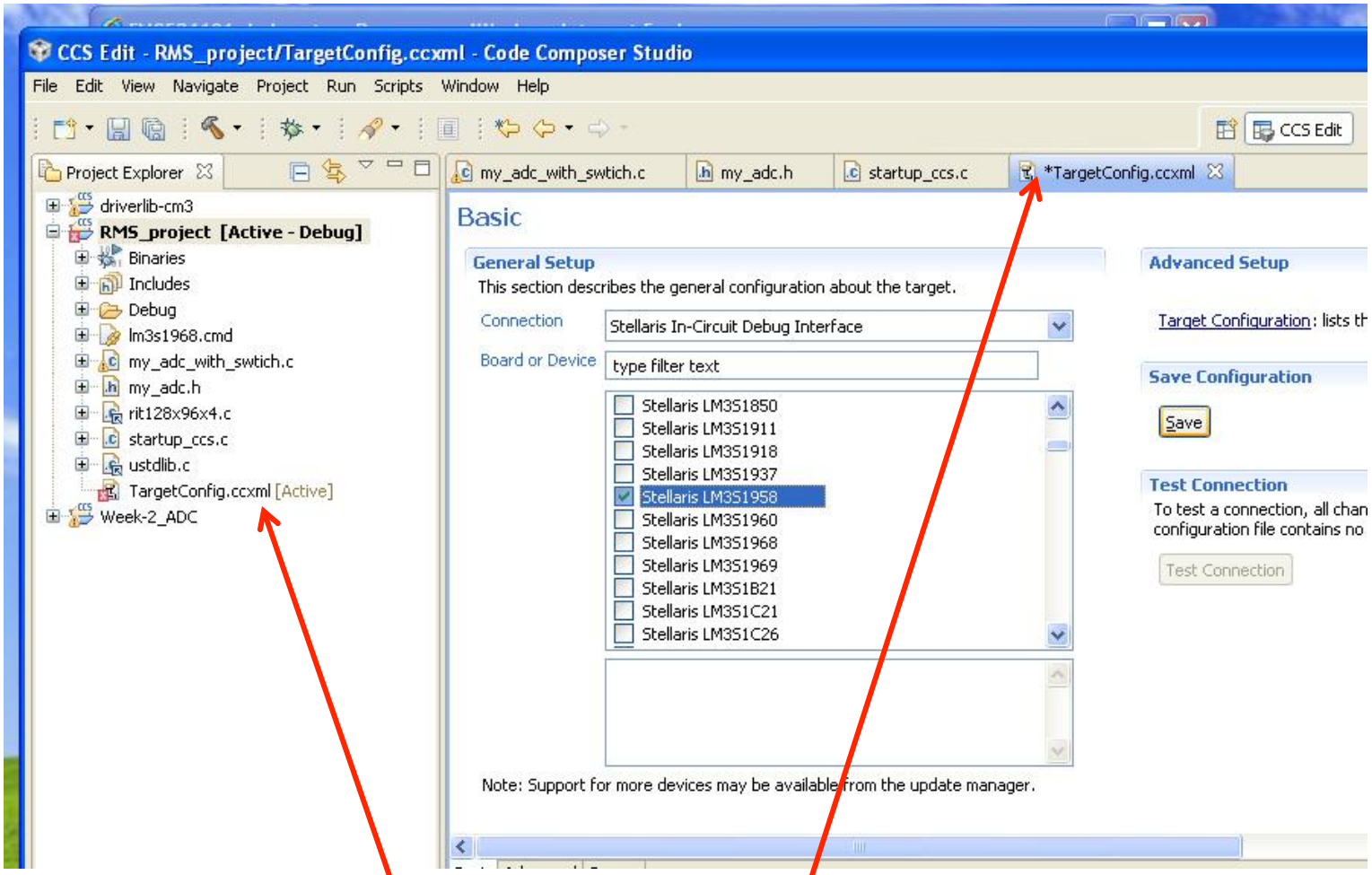
Next, add a New Target Configuration file for the debugger…

- Go to File | New | Target Configuration File as shown



- For consistency, rename this file “TargetConfig.ccxml” and select the Finish button.
- Eventually, you will see ….

The Debug configuration screen…



- Note that once created, you don't need to have the target configuration tab open. Close this by clicking on the 'x'.

Now you can press the bug icon to load and debug your built application…

- Press one of the navigation buttons to see the ADC capture the analogue value and display this to the screen.

- Examine the source code and determine how the button is being used to enable the ADC conversion.