



CREATING NEW PROJECTS IN CCS V4 FOR THE TMS320C6713 DSK

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OVERVIEW

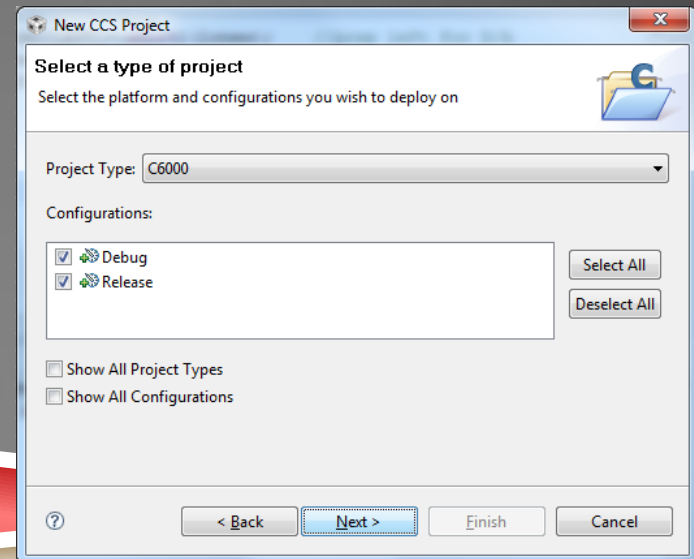
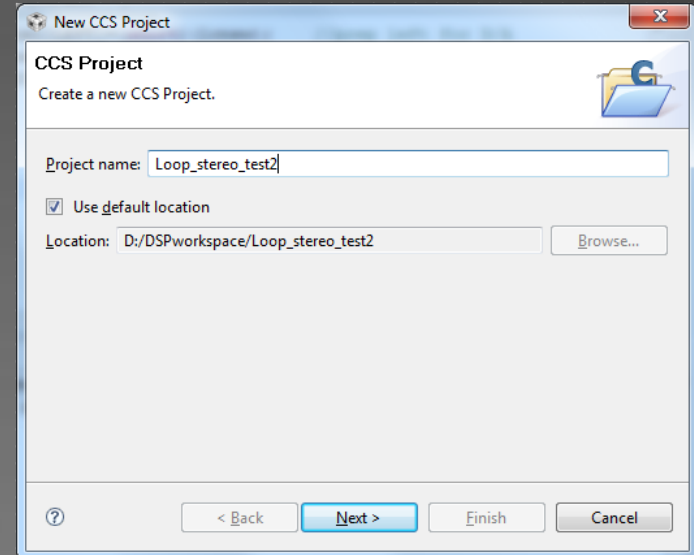
- ▶ In this tutorial you will create the “Loop_stereo_test.out” executable from scratch
- ▶ This tutorial covers the following:
 - ▶ Creating a new CCS v4 project
 - ▶ Assigning the DSK configuration file to the project
 - ▶ Configuring the Compiler and Linker settings
 - ▶ Adding source and other necessary support files
 - ▶ Building the executable and testing it on the DSK

CREATING A NEW PROJECT: 1 OF 2

- ▶ Select “File > New > CCS Project”
- ▶ Name the project “Loop_stereo_test2”
- ▶ Select “Next”

- ▶ The Project Type must be “C6000”
- ▶ Select “Next”

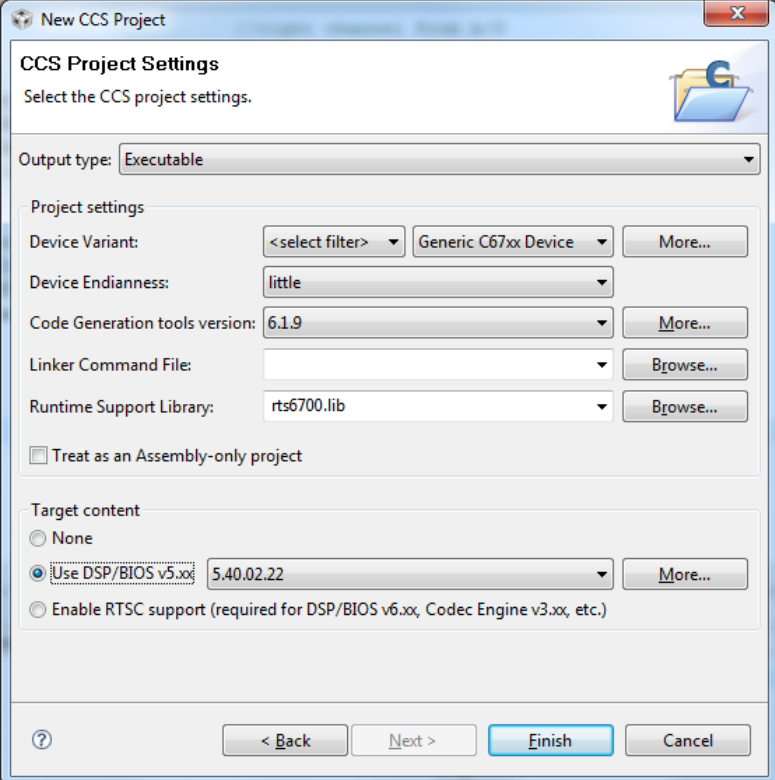
- ▶ Select “Next”



CREATING A NEW PROJECT: 1 OF 2

- ▶ The CCS Project Settings must **exactly** match the settings shown on the right
 - ▶ Device Variant: Generic C67xx Device
 - ▶ Device Endianness: little
 - ▶ Code Generation tools: 6.1.9
 - ▶ Target content: Use DSP/BIOS v5.xx

- ▶ Select “Finish”



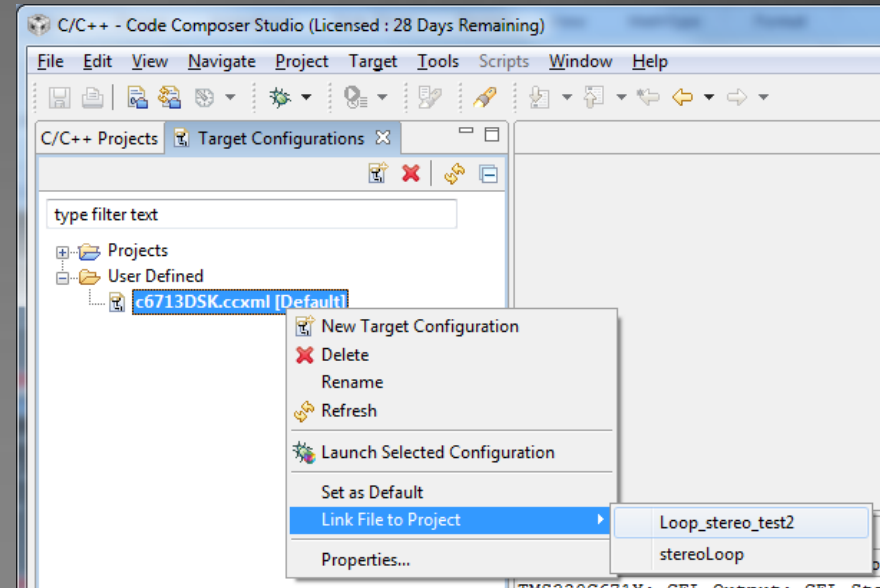
The screenshot shows the 'New CCS Project' dialog box with the following settings:

- Output type:** Executable
- Project settings:**
 - Device Variant:** Generic C67xx Device
 - Device Endianness:** little
 - Code Generation tools version:** 6.1.9
 - Linker Command File:** (empty)
 - Runtime Support Library:** rts6700.lib
 - Treat as an Assembly-only project
- Target content:**
 - Use DSP/BIOS v5.xx (5.40.02.22)
 - None
 - Enable RTSC support (required for DSP/BIOS v6.xx, Codec Engine v3.xx, etc.)

Buttons at the bottom: < Back, Next >, Finish, Cancel.

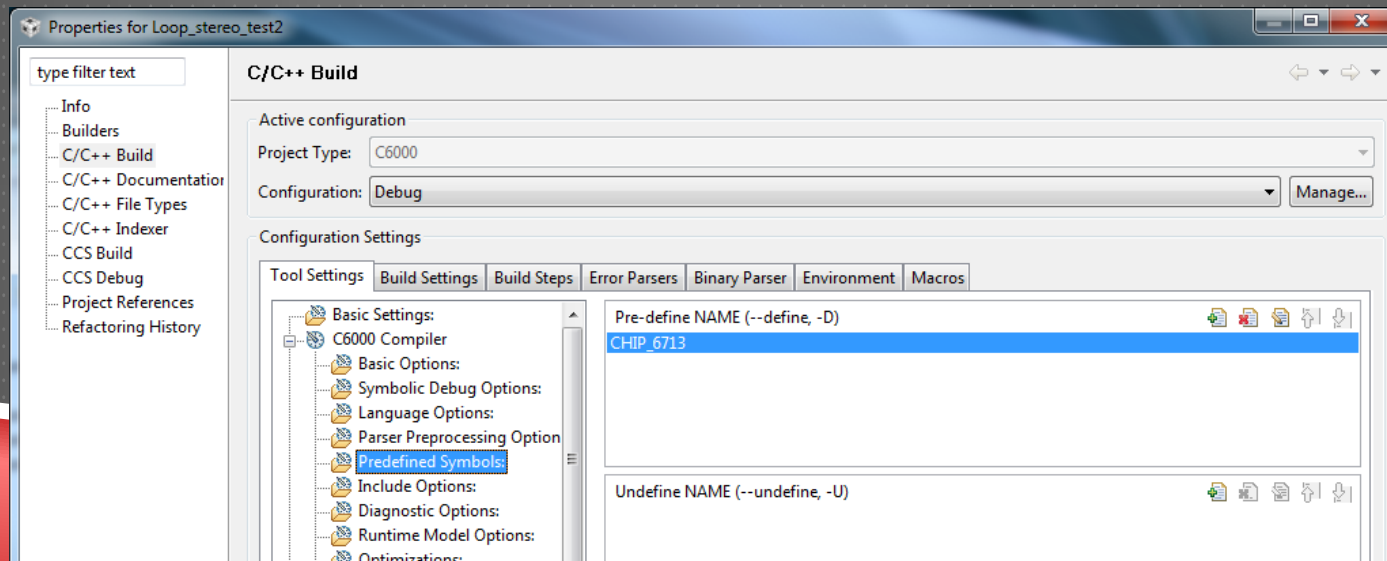
SETTING THE TARGET CONFIGURATION

- ▶ We must tell CCS that our hardware platform is the c6713 DSK
- ▶ We already created a target configuration file (in part II of this tutorial) so we just need to assign that file to the project
- ▶ Select “View > Target Configurations”
- ▶ Under “User Defined” you will find “c6713DSK.ccxml”
- ▶ Right-click the file and select
“Link File to Project >
Loop_stereo_test2”



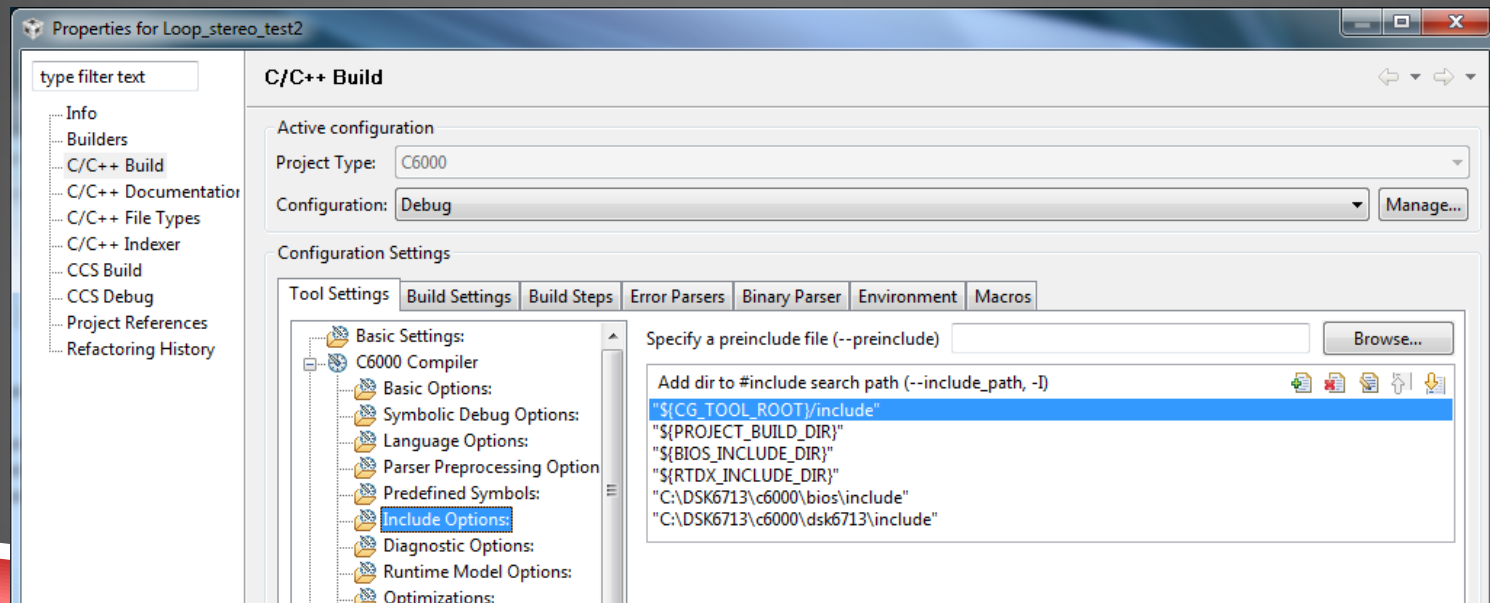
COMPILER AND LINKER SETTINGS: 1 OF 4

- ▶ We now must configure the compiler and linker
- ▶ Return the “View” to the “C/C++ Projects” tab
- ▶ Select “Project > Properties”
- ▶ Under (C/C++ Build : Tool Settings : C6000 Compiler : Predefined Symbols)
 - ▶ Add a symbol named CHIP_6713



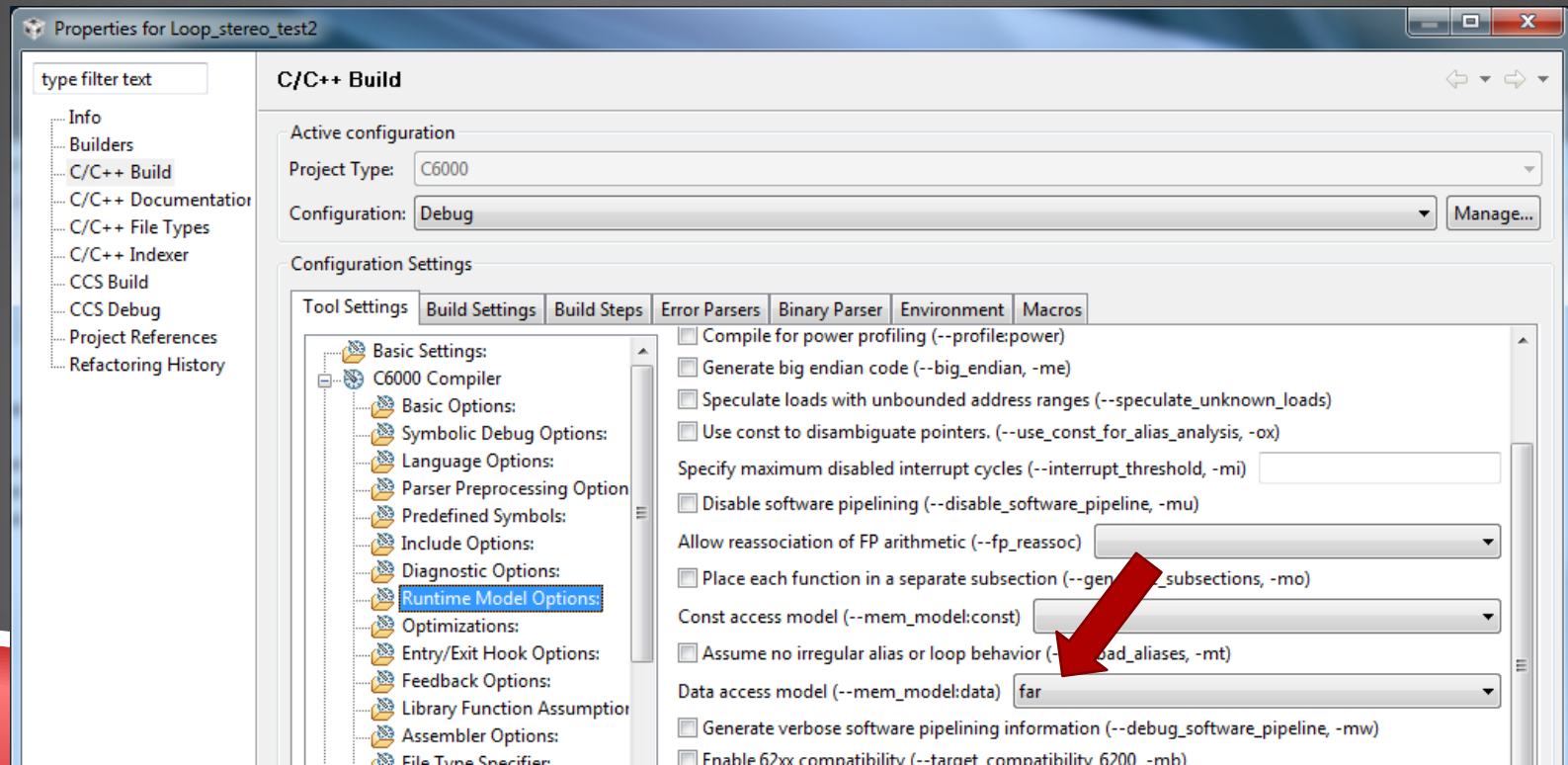
COMPILER AND LINKER SETTINGS: 2 OF 4

- ▶ Under (Tool Settings : C6000 Compiler : Include Options)
 - ▶ Add directory “C:\DSK6713\c6000\bios\include”
 - ▶ Add directory “C:\DSK6713\c6000\dsk6713\include”



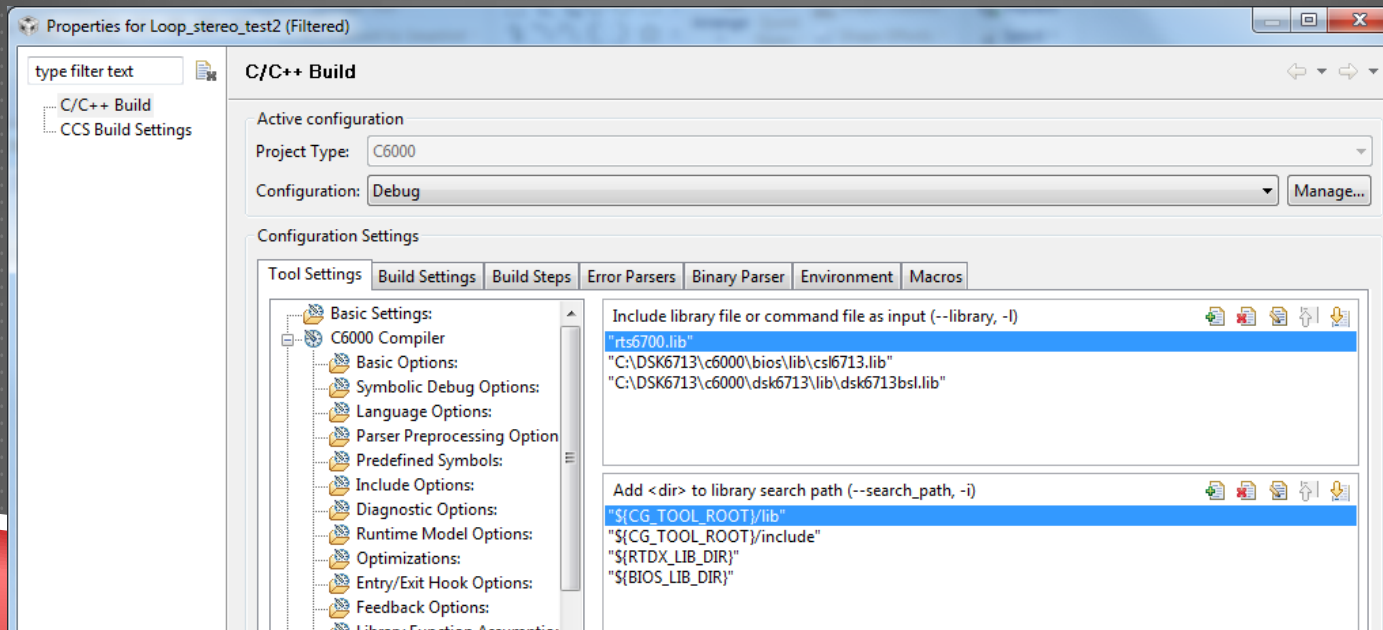
COMPILER AND LINKER SETTINGS: 3 OF 4

- ▶ Under (Tool Settings : C6000 Compiler : Runtime Model Options)
 - ▶ Set “Data access model” to “far”



COMPILER AND LINKER SETTINGS: 4 OF 4

- ▶ Under (Tool Settings : C6000 Linker : File Search Path)
 - ▶ Add file “C:\DSK6713\c6000\bios\lib\csl6713.lib”
 - ▶ Add file “C:\DSK6713\c6000\dsk6713\lib\dsk6713bsl.lib”
- ▶ Select “Apply” and then “OK”

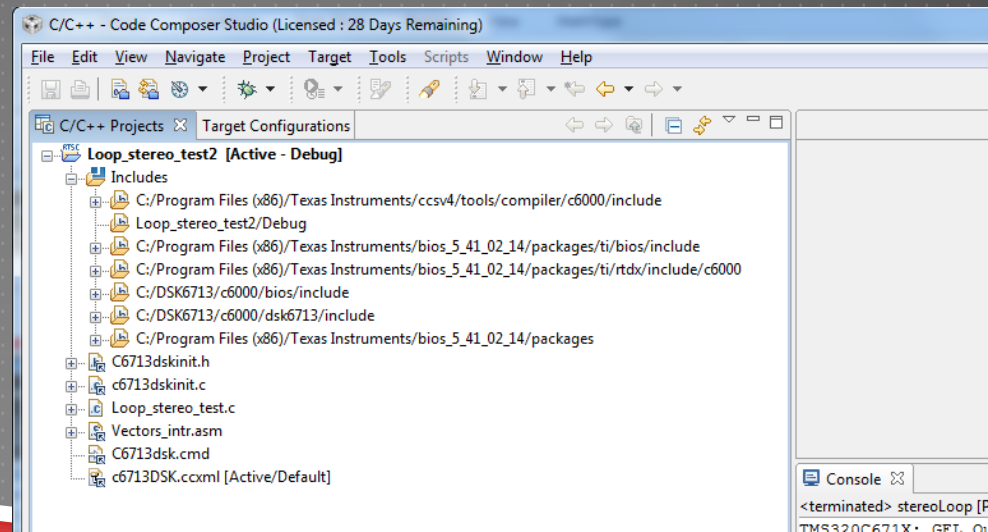


COMPILER AND LINKER SETTINGS: 1 OF 2

- ▶ We now must add the C source file and other supporting files
- ▶ Select “Project > Add Files to Active Project”
- ▶ Navigate to the “TestPrograms” directory (e.g., “D:\DSPworkspace\TestPrograms”)
 - ▶ Select “Loop_stereo_test.c” and press “Open”
- ▶ You should now see the source file under the project tree.
- ▶ Double-clicking the file will open it in the editor window.

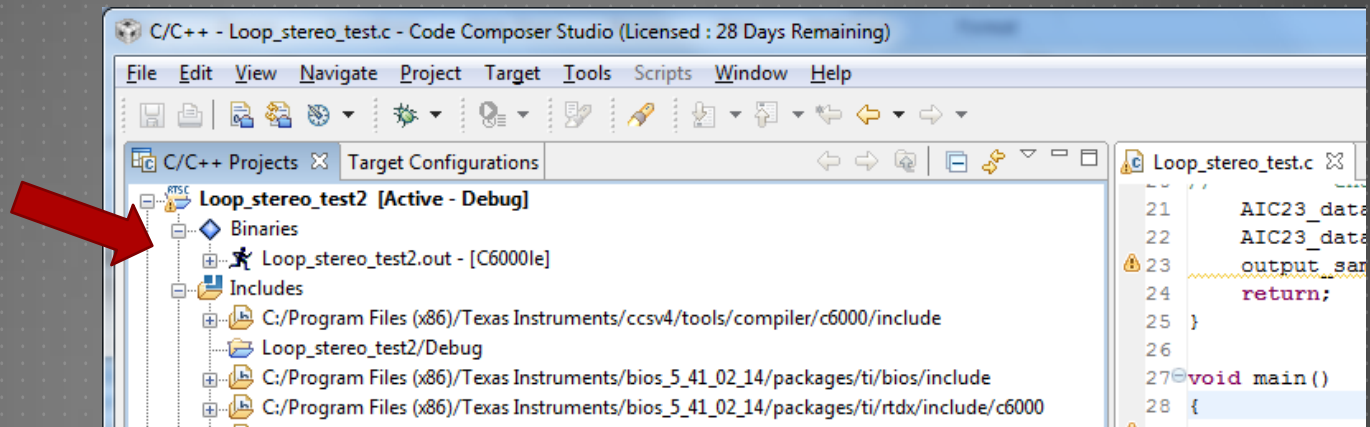
COMPILER AND LINKER SETTINGS: 2 OF 2

- ▶ Repeat the process by adding the following files from the “Support” directory
 - ▶ “C6713dsk.cmd”
 - ▶ “c6713dskinit.c”
 - ▶ “C6713dskinit.h”
 - ▶ “Vectors_intr.asm”
- ▶ Your Professor will provide more details on each of the files.
- ▶ Each file added will appear in the project tree



BUILDING THE PROJECT

- ▶ Select “Project > Build Active Project”
- ▶ The project should build without errors (you may see warnings)
- ▶ If built successfully, the “Loop_stereo_test2.out” file will appear under “Binaries” in the project tree



TESTING THE PROJECT

- ▶ Test the program on the DSK by starting the debugger.
- ▶ The “.out” file of the active project is automatically downloaded to the DSK when the debugger is started
- ▶ CONGRATULATIONS!!!