

## Downloading & Installing Code Composer Studio (CCS) v5.1

### Introduction

Code Composer Studio (CCS) is a Texas Instruments supported software package for developing and debugging embedded applications. The CCS integrated development environment (IDE) includes compilers for each of TI's DSPs, microcontrollers and application processors, a source code editor, project build environment, debugger, profiler, simulator and many other features. CCS can assemble and link code to program and use any of the digital signal processors (DSPs) in the TI product line, i.e., TMS320C2X, TMS320C3X, TMS320C5X, and also any controllers from the MSP, Stellaris, OMAP, and ARM. This tool also contains a C/C++ compiler, debugger and programming software to be used in conjunction with an XDS100 programmer.

### Procedure

1. Go to <http://my.ti.com> and create an account. You will get a screen that looks like the figure below. If you have already created a TI account in the past, log in as an existing user.

The screenshot shows the 'my.TI Account' page. It is divided into two main sections: 'Existing user? Log in here:' and 'New user? Register for free:'. The login section includes fields for 'Your email address:' and 'Your my.TI password:', a 'Remember me' checkbox, a 'Log in' button, and a 'Forgot your password?' link. The registration section includes a dropdown for 'Your country/region:', fields for 'Your email address:', 'Create a my.TI password:', 'Confirm password:', 'First name:', 'Last name:', and 'Your company name:'. It also has a 'Remember me' checkbox and a checkbox for 'I would like to receive personalized information by email from TI.', and a 'Register and continue' button.

2. Go to [http://processors.wiki.ti.com/index.php/Download\\_CCS](http://processors.wiki.ti.com/index.php/Download_CCS). (You can also navigate to this website by going to [www.ti.com](http://www.ti.com), searching for "CCS download" and clicking on first result of the search: "Download CCS - Texas Instruments Embedded Processors Wiki".)
3. Choose "CCSv5.1.x" from the table and select to download the "Windows (Offline Installer) 1200MB".

Release	Build #	Date	Download
<b>CCSv5.1.x</b>			
5.1.1	5.1.1.00031 Windows	February 16, 2012	<a href="#">Windows (offline installer) 1200MB</a>
			<a href="#">Linux (offline installer) 1100MB</a>

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4. Windows XP and Windows 7 users can skip this step and proceed on to #5 below. Windows Vista users must turn off user account control before installing CCS. (Note: I strongly suggest that you obtain and install Windows 7, since it is free to UF engineering students. Go to <http://msdnaa.eng.ufl.edu/> to download most Microsoft software for free.) This is performed by:  
**Start > control panel > user accounts > turn user account off.**  
After the CCS installation has completed, you may turn user account control back on.
5. Complete the U.S. Government export approval. Under “What end-equipment/application will you use this software for:” Type “Student” under “Other”. Similarly, type “Student Projects” in the abstract field. Certify that all the information is true and click “Submit.”
6. On the next window click “Download” and the software should download automatically. A link to this download window is sent to the email you provided when creating the TI account. Since the software is 1200MB, CCS may take several minutes or more. It took me about 3 minutes to download on campus (wired) and 5 minutes to download at home (wireless). Downloading took me about 15 minutes using the campus wireless network.
7. The downloaded file is a zip (compressed) file. Extract the files in a default location and then click on the executable to install the software.
  - a. You can ignore a message that **may** pop up titled “User Account Control enabled.” Just click “OK” and proceed.
  - b. Open the folder and then select (double click on) the `ccs_setup...exe` file.
  - c. Follow the installation windows and click “Next >” or “OK” when prompted. Use the default TI folder for the software installation location.
  - d. For “Setup Type,” select Custom.
  - e. When asked to select the “Processor Support,” select **only** the “C28x 32-bit Real-time MCUs” and then select “Next >.”
  - f. When asked to “Select Components”, leave everything as it appears on the screen, and make sure “TI Simulators” is checked and then select “Next >.”
  - g. When asked to “Select Emulators”, make sure “XDS100 Class Emulator support” is checked and then select “Next >.”
  - h. Select “Next” again to begin the installation.
8. Run CCS for the first time. The software will ask you to set up a workspace. Create a folder where all you projects (labs) will eventually be placed and where you will keep the workspace information, e.g., `c:\4744\ccs\workspace` . The workspace is the top level organization that holds all your projects. It allows you to quickly switch between projects (lab code) and re-use code if necessary.
9. When asked to select a license file, choose the "Free License".
10. Obtain the following documents from our website or from [www.TI.com](http://www.ti.com) (search using the TI # shown below) for future use in the course. These and other relevant TI documents are available from our website under Software/Docs.

Document Title and Information	TI #	Latest Version
TMS320C28x Assembly Language Tools (includes assembler directives, and descriptions of assembler, macros, and linker)	spru513	D
Data Manual (includes memory map, peripherals, electrical specs, functional overview)	sprs439	I
TMS320C28x CPU and Instruction Set Reference Guide (includes F28335 assembly code instruction set and CPU registers)	spru430	E