

# Getting Started Guide for Code Composer Studio

James Kretzschmar, AE7AX

Reference document for QEX article:

## **Controlling a 16x2 LCD Display with the Texas Instruments MSP430G2553 Microcontroller**

Code Composer Studio (Version 10.2.0.00009, current as of 1 March 2021)

Texas Instruments is continually updating Code Composer Studio, however, there has not been much change since Version 6. To download the free version of Code Composer Studio you will have to register with Texas Instruments and create a username and password.

### 1. Goto **www.TI.com**

Design Resources

Code Composer Studio

Code Composer Studio (Desktop)

Download CCS Desktop (Version 10.2.0.00009)

2. Upon entering into Code Composer one of the first screens will tell you where your projects will be saved on your computer. This is where you will go to find projects (programs) that you have previously worked on, or where new projects will be stored. It should say "Workspace". Hit "OK" and continue.

3. Before continuing on to start a new project make sure that you have your Launchpad plugged into a USB port on your computer. When you see the "New CCS Project" screen make the following selections.

Select a Wizard: CCS Project ... hit "Next"

Target: MSP430G Family

MSP430G2553

Connection (Default) ... hit "Identify"

(This will take a moment for CCS to make a connection with the MCU)

Project name: Name your project

Highlight "Empty Assembly-only Project" ... hit "Finish"

(A template will load that is a framework for writing an assembly program. Copy or write new code between the "Main Loop here" and "Stack Pointer definition" labels. Make sure you do not duplicate any of the template lines of code)

4. Code can be copied into the template from a text editor such as **Notepad Plus Plus**. All labels in the code need to be on the far left with no spacing. An example of a label is something like "DELAY\_3". Goto "File" and "Save" what was just copied in.

5. Next click on the "BUG" button (looks like a green beetle) in the scroll bar at the top. This will debug the program and show any errors you may have. If there are no errors ... a "Build Finished" will briefly appear and then a light green bar will appear through the "RESET" line of code. If there are any errors, the line number of the error will show in the "Console" box at the bottom of the code listing.

6. Next find the "Run" button at the top of the page and select "Resume" and your program should run. After making any modifications to the program go through the following steps:

- (1) Save
- (2) Debug
- (3) Run
- (4) Resume

7. To start a new program while keeping one on your screen goto "File" and hit "New" and go through the same process just described.