A Quick Start with the Keyboard-Decoder Project

By Jon Titus

Before you start to use the PSoC Creator software I strongly recommend you locate, print, and read two documents that explain how to download and install the free PSoC Creator software. Even if you don't plan to use this software, the PSoC Creator lets you examine all the files this project uses and creates. You also may view and change the schematic diagram and the C code, as well as modify my choices of I/O pins, and so on.

a. "Getting Started with PSoC 5LP," AN77759: http://www.cypress.com/documentation/application-notes/an77759-getting-started-psoc-5lp.

b. "PSoC 5LP Prototyping Kit Guide," Doc. No. 001-96498, Rev. C: http://www.cypress.com/documentation/development-kitsboards/cy8ckit-059-psoc-5lp-prototyping-kit-onboard-programmer-and. (Scroll down to the Related Files section. You can download the PSoC Creator tools from this page, too.)

Follow the instructions in these documents to properly install the PSoC Creator software on your computer, set up a workspace, and so on.

When asked, choose a typical installation. If asked about a license from Keil, ignore it and continue. This license covers software for other products not used here.

If you have problems, visit the Cypress Community at: https://community.cypress.com/welcome. Click on LogIn to register and then you may ask questions and search for information. Many times I have received help through this community group.

Step-by-Step

1. The Nuts & Volts download package includes the file labeled:

Workspace03Bundle02.zip

Place this folder on your desktop and un-zip it. You will get the folder:

Workspace03Bundle02

2. Open the Workspace03Bundle02 folder. Confirm it contains:

A folder: Design01.cydsn
A file: Workspace03Bundle02.cywrk
A file: Workspace03Bundle02.cywrk.jonti

3. Run the Cypress PSoC Creator software. After it starts, go to the File menu item in the upper-left corner of the PSoC Creator window. Click on File.

Next, click on Open and then click on Project/Workspace. A file-browser window will open. Locate the folder Workspace03Bundle02 on your desktop and double click on it to view its contents. You will see:

Folder: Design01.cydsn
File: Workspace03Bundle02.cywrk

Double click on the Design01.cydsn folder. You should now see three folders and the file:

Design01.cyprj

Double click on this file and the keyboard-decoder project should open in the PSoC Creator window.

4. The image below shows the Workspace Explorer in the upper-left section of the PSoC Creator window after you open the Design01.cyprj file.

Click on the "+" to the left of the "Design Wide Resources" label.

Click on the "+" to the left of the "Source Files" label.

5. Go to the top of the Workspace Explorer area and click on the label: TopDesign.cysch, which opens the schematic diagram for the circuits internal to the PSoC device.

If you wish, under the Design Wide Resources heading, double click on the Pins label. You will see the pins assigned for this project.

6. In the Workspace Explorer window, locate the main.c in the Source Files folder. Double click on main.c to open the project's C program.

Along the top of the main project window you will see tabs for the schematic, the pins, and the source code. You may switch windows at any time.

The two Cypress publications noted above provide instructions about how to build a PSoC project and then load it into a CY8CKIT-059 PSoC Prototyping Kit board.

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