

NuMicro[®] Family VSCode Quick Start Guide

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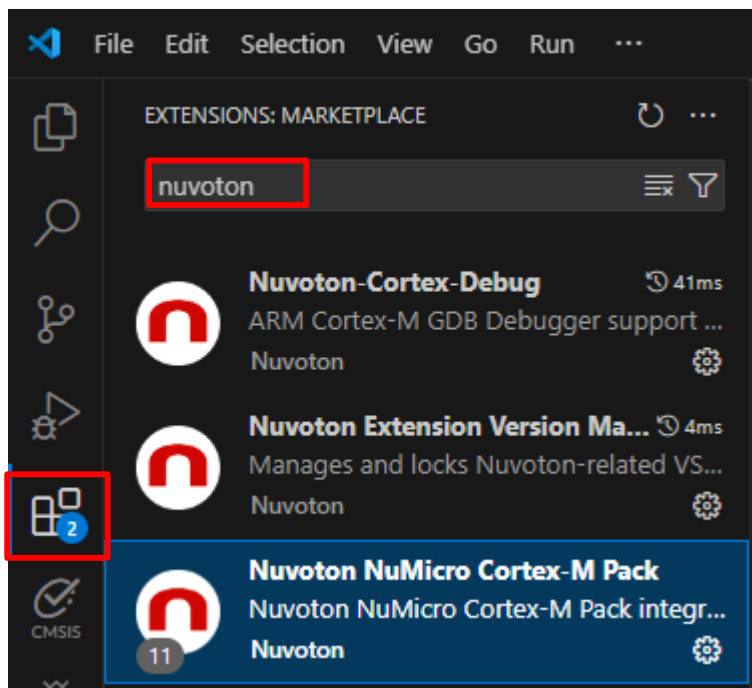
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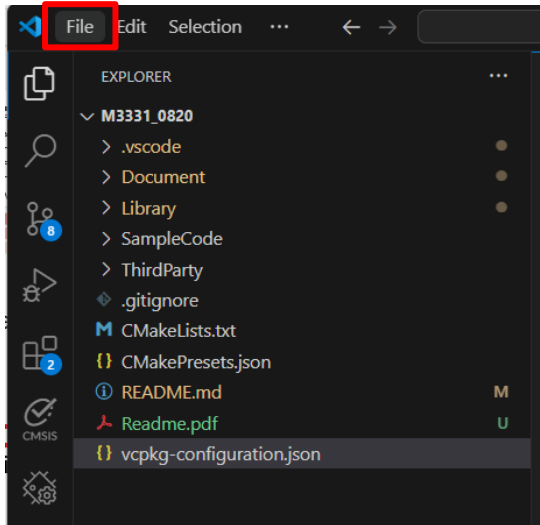
1 INSTALLATION VSCODE AND EXTENSIONS

1. Download VSCode from <https://code.visualstudio.com> and install it.
2. Launch VSCode and click Extensions in the Activity Bar.
3. Text “**Nuvoton NuMicro Cortex-M Pack Extension**” in search bar. Click install it.

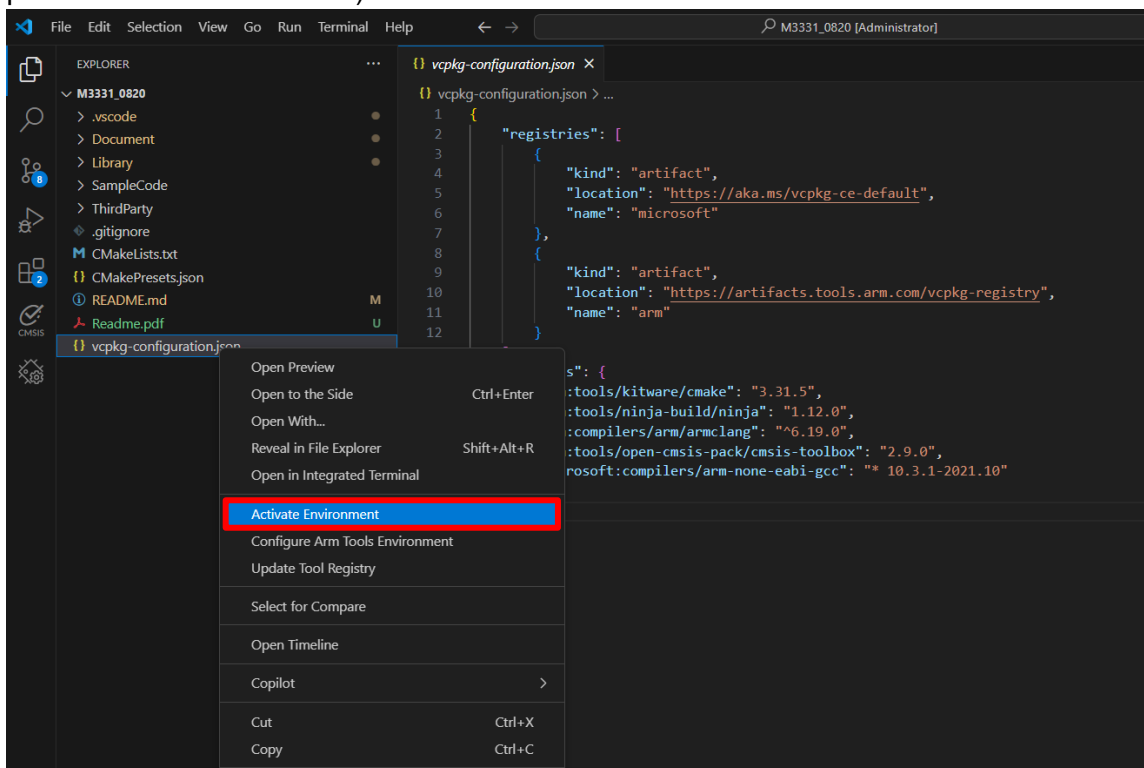


2 GET STARTED WITH AN EXAMPLE PROJECT

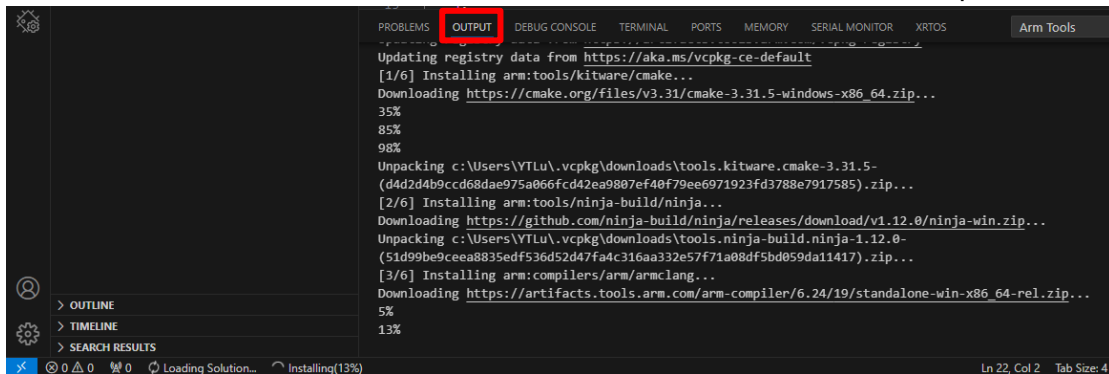
1. Click **File** and select "**Open Folder**" in the toolbar. Then select the path of the example project as below.



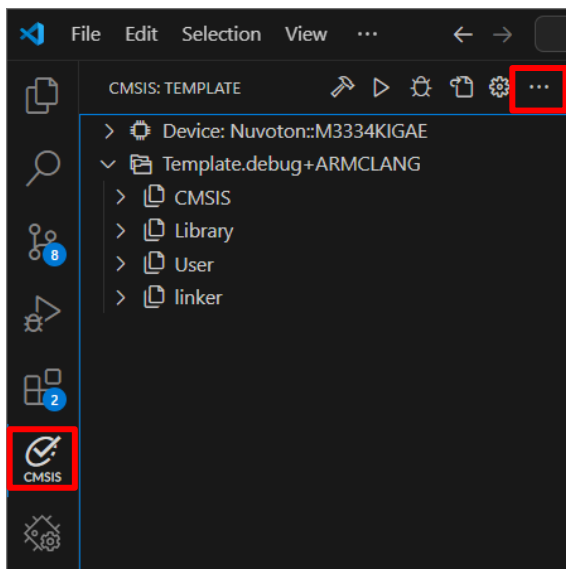
2. Right-click vcpkg-configuration.json and select **Activate Environment**. (Please use private network connection)



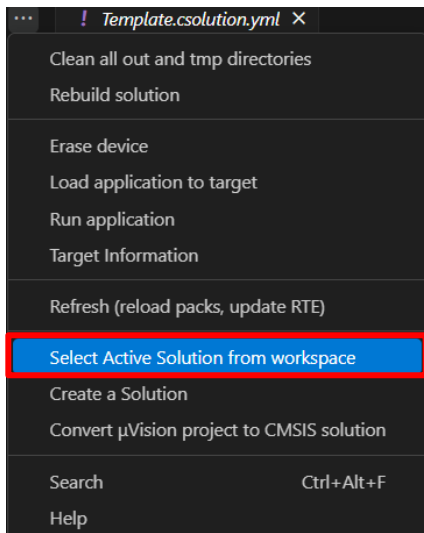
3. Check OUTPUT terminal at the bottom. It will download and install the requires tools.



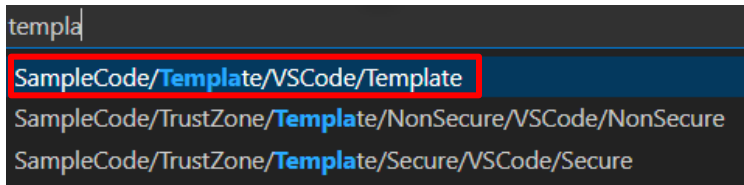
4. Click CMSIS in the Activity Bar. Then click “Views and More Actions” button.



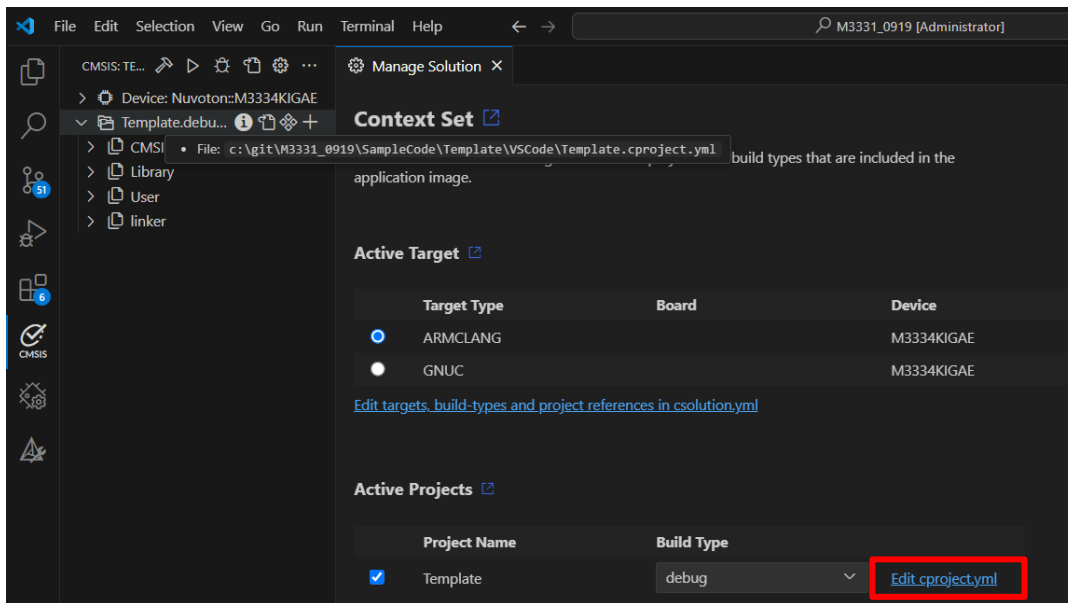
5. Select Active solution from workspace.



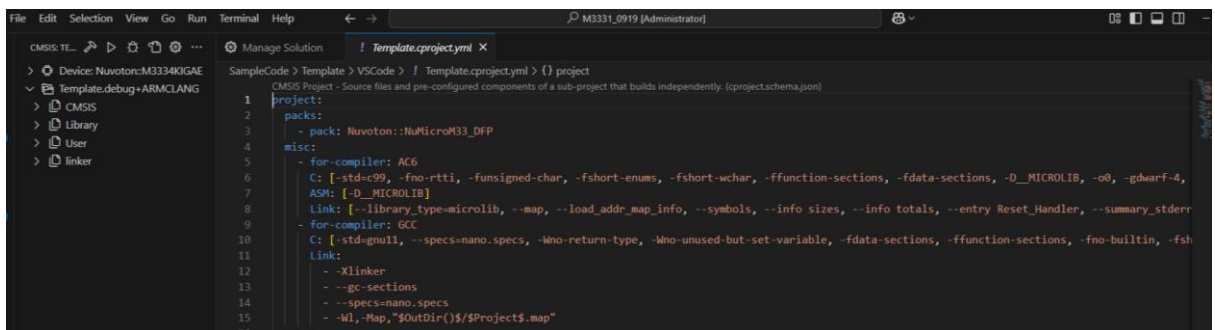
6. Select an example code to activate it.



7. Click "Edit cproject.yml" to open project settings.

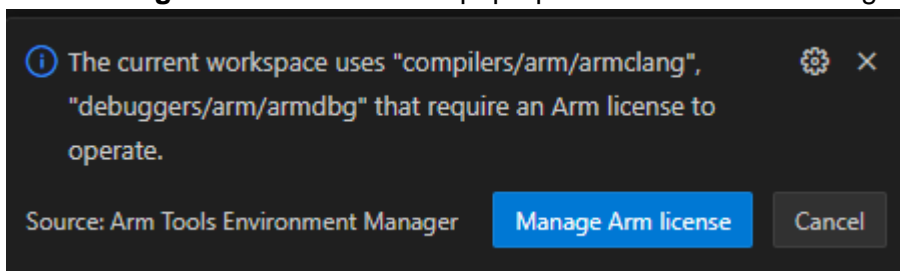


Add setting parameters in cproject.yml.

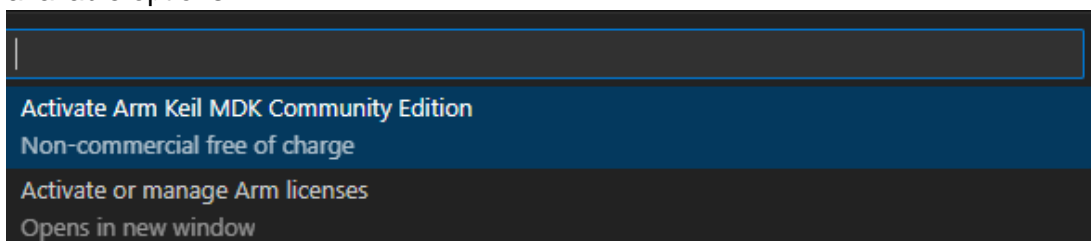


3 MANAGE ARM LICENSE

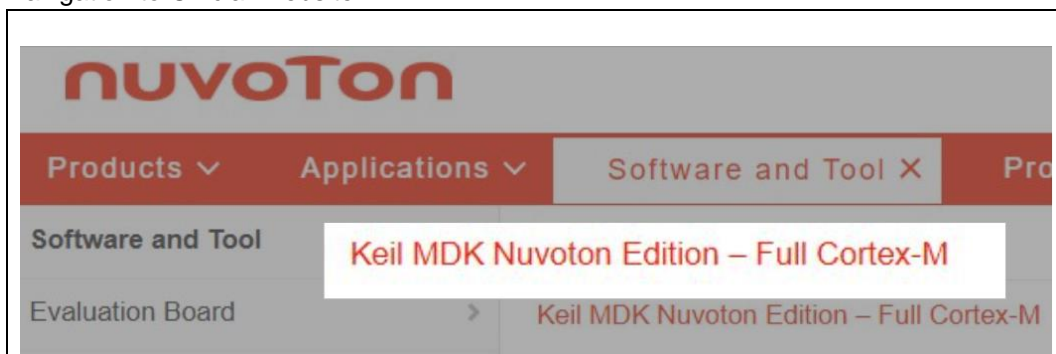
1. Click **Manage Arm License** in the pop-up window at the bottom right.



2. In the search bar at the top, select "**Activate or manage Arm licenses**" from the available options.



3. Get Keil MDK License ID code
 - a. Navigation to Official Website



- b. Fill Out the Form

Apply for Keil MDK Nuvoton Edition – Full Cortex-M

First Name*

Last Name*

Company / Organization*

Job Title*

Region / Country or region*

State / Province*

Email*

Phone*

Industry*

Application*

Series*

Part No.

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NUVOTON Privacy Policy

Last modified: June 01, 2023

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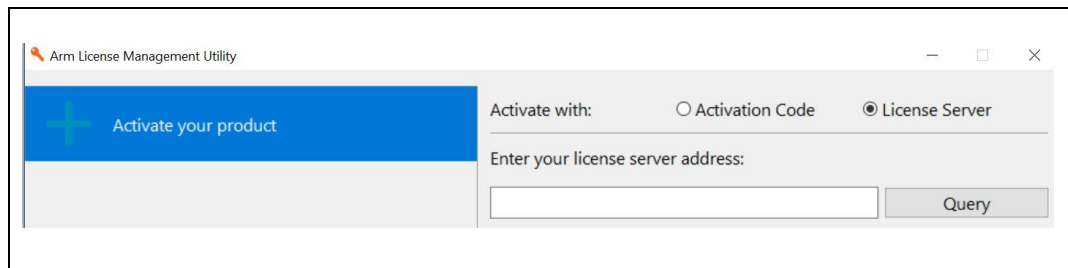
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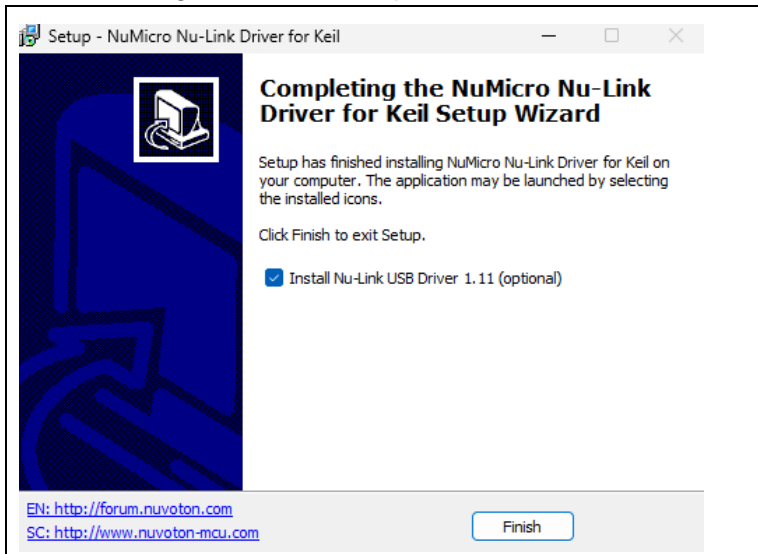
c. Check Mailbox and Fill in the License Server



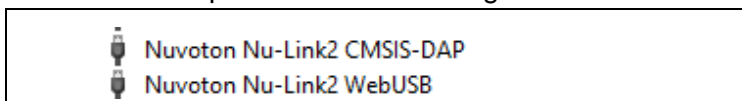
The screenshot shows a window titled "Arm License Management Utility". On the left, there is a blue button with a green plus icon and the text "Activate your product". On the right, there are two radio buttons under the heading "Activate with:". The first is "Activation Code" (unselected), and the second is "License Server" (selected). Below these, there is a text input field labeled "Enter your license server address:" and a "Query" button.

4 CONFIGURE THE DEVICE

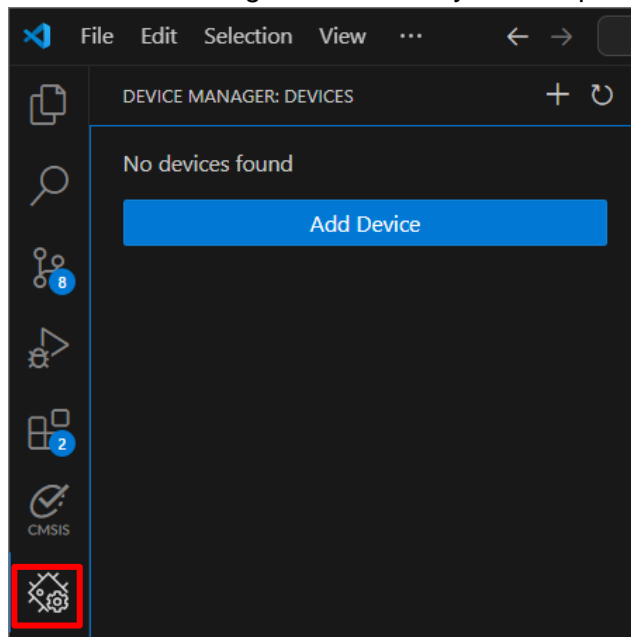
1. Install Nuvoton Nu-Link Keil Driver
2. After installing the Keil driver, please check the box to install the Nu-Link USB Driver.



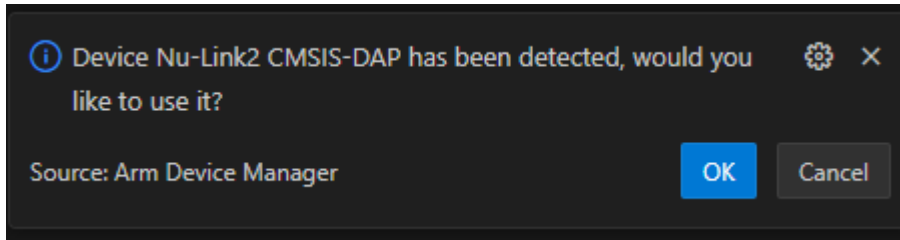
3. Installation complete in Device Manager



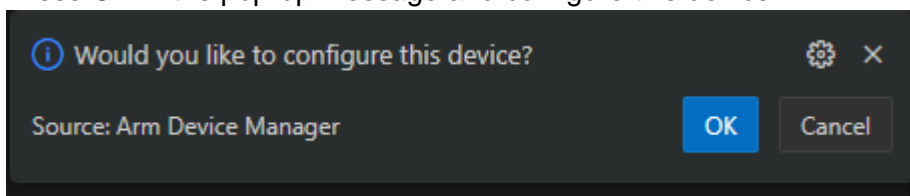
4. Click Device Manager in the Activity Bar to open the Device Manager.



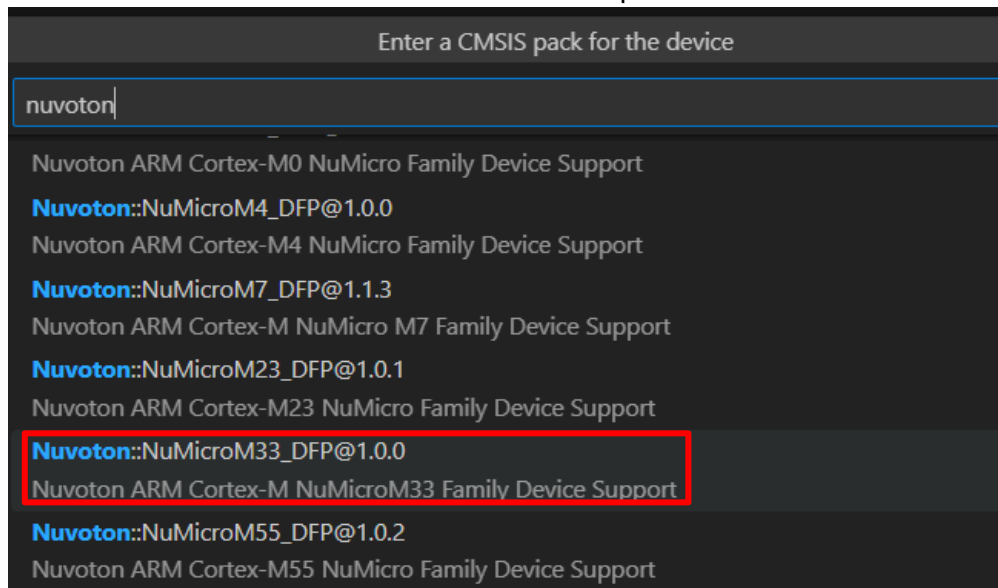
5. Connect device to your computer over USB.
The Device Manager detects the board and displays a pop-up message.
Press OK in the pop-up message and use it.



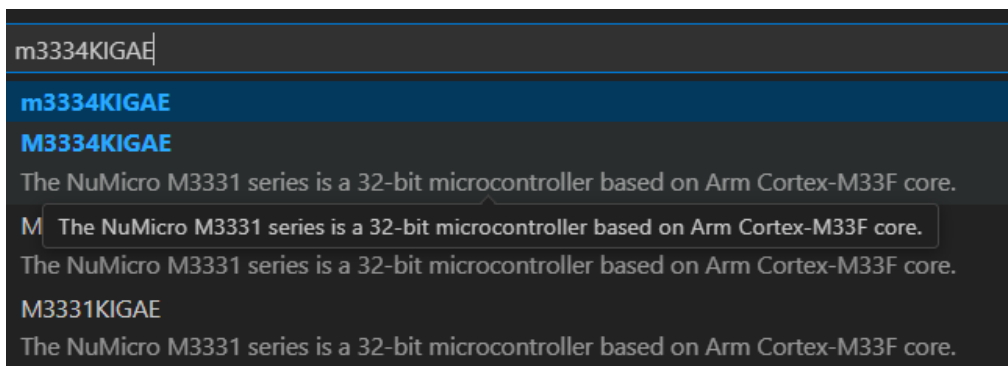
6. Press OK in the pop-up message and configure this device.



7. Text "nuvoton" in search bar and select CMSIS pack for the device.

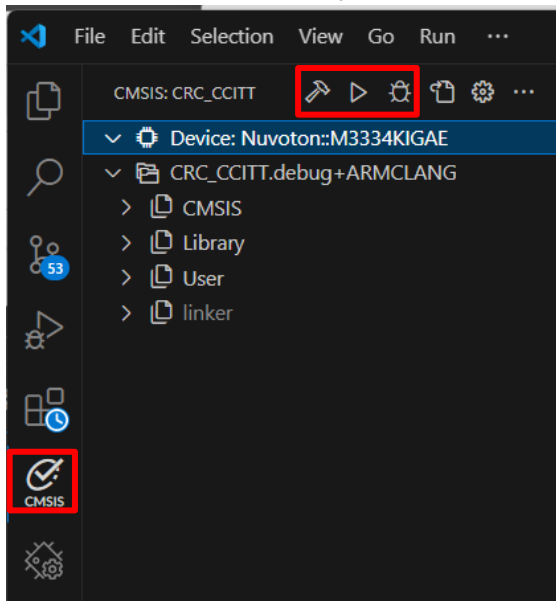


8. Text "device model number" in search bar.

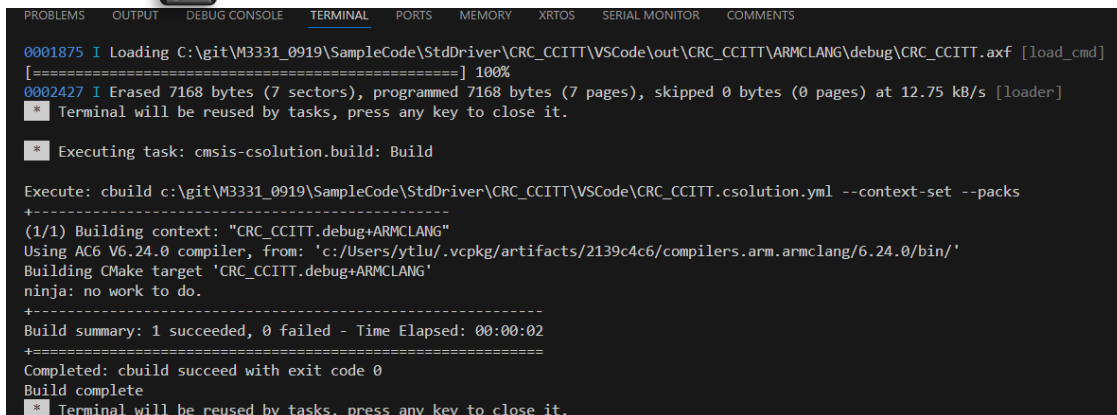


5 RUN THE EXAMPLE PROJECT

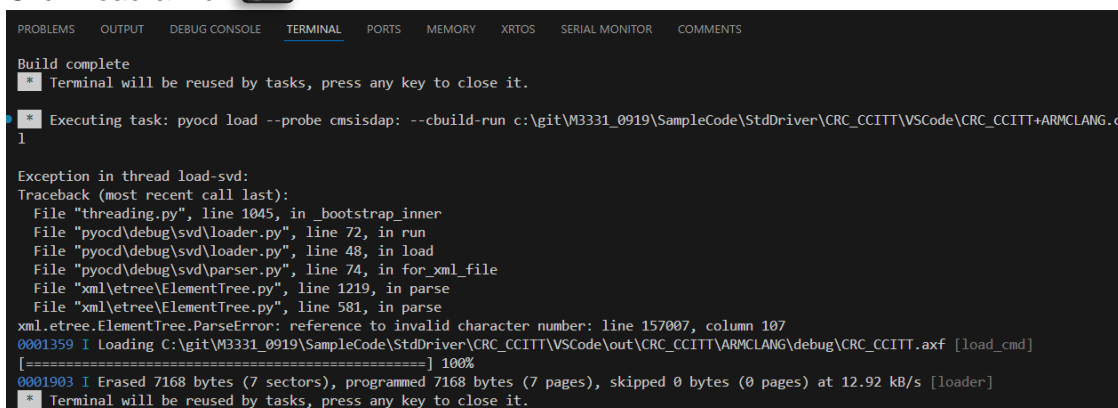
1. Click CMSIS in the Activity Bar



2. Click Build

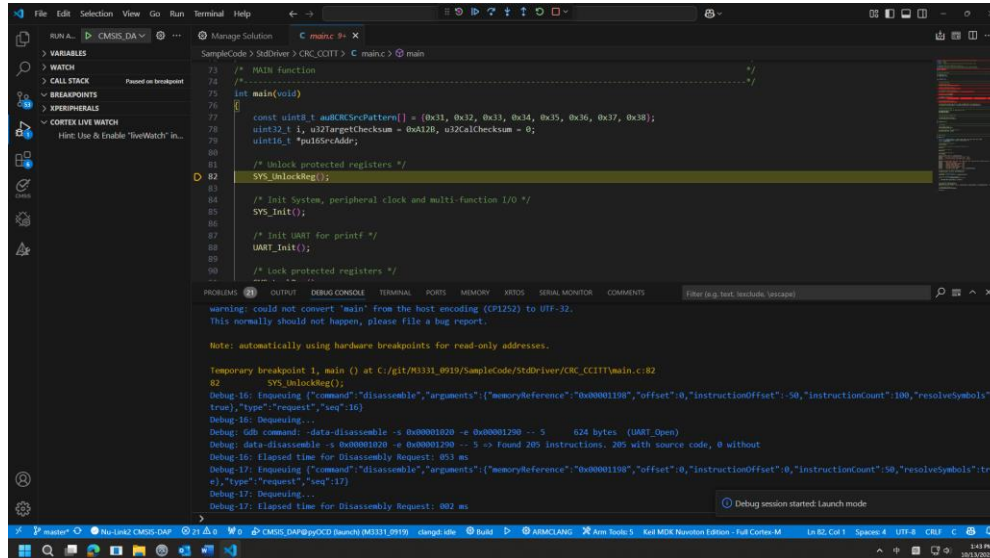


3. Click Load & Run

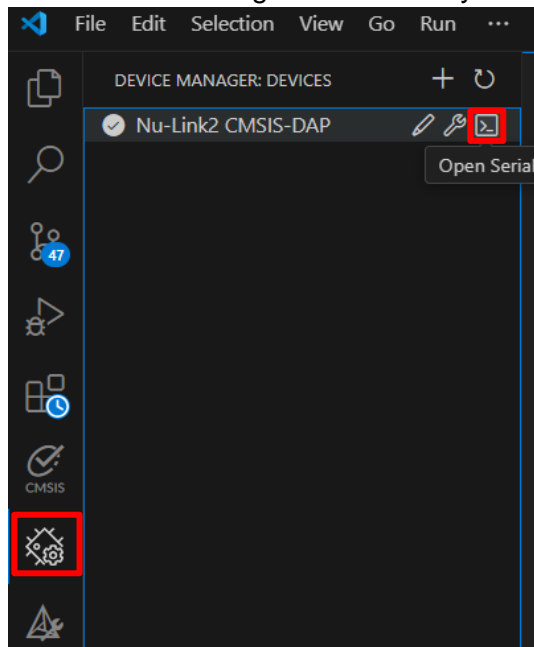


4. Click Load & Debug

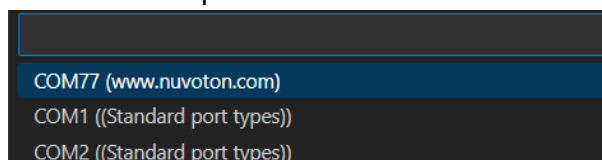
The debugger stops at the main function.



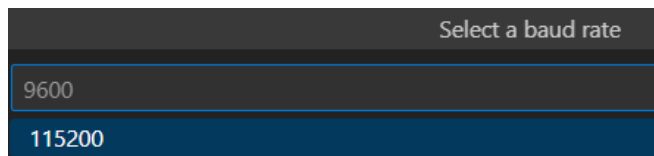
5. Click Device Manager in the Activity Bar and open serial port.



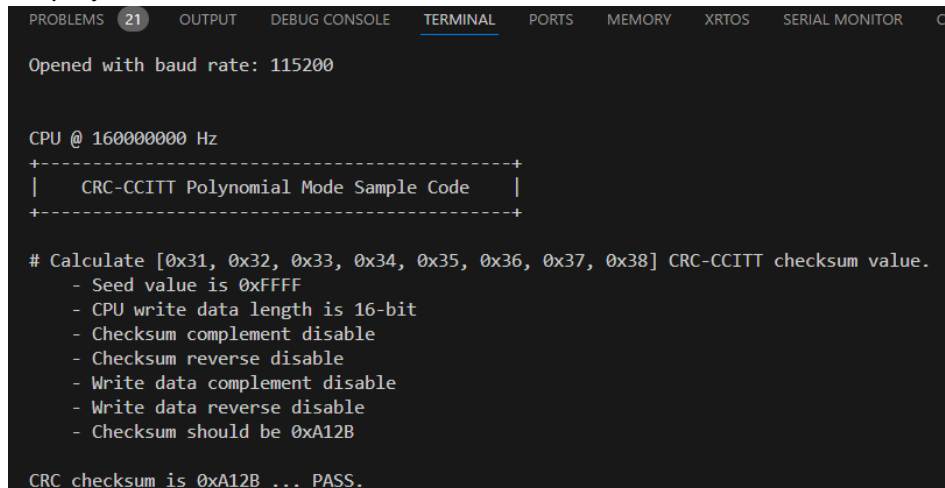
Select a serial port: COM77



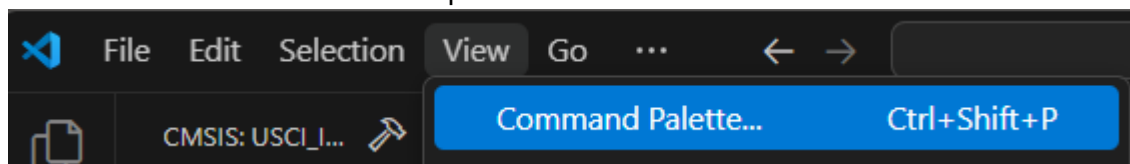
Select a baud rate: 115200



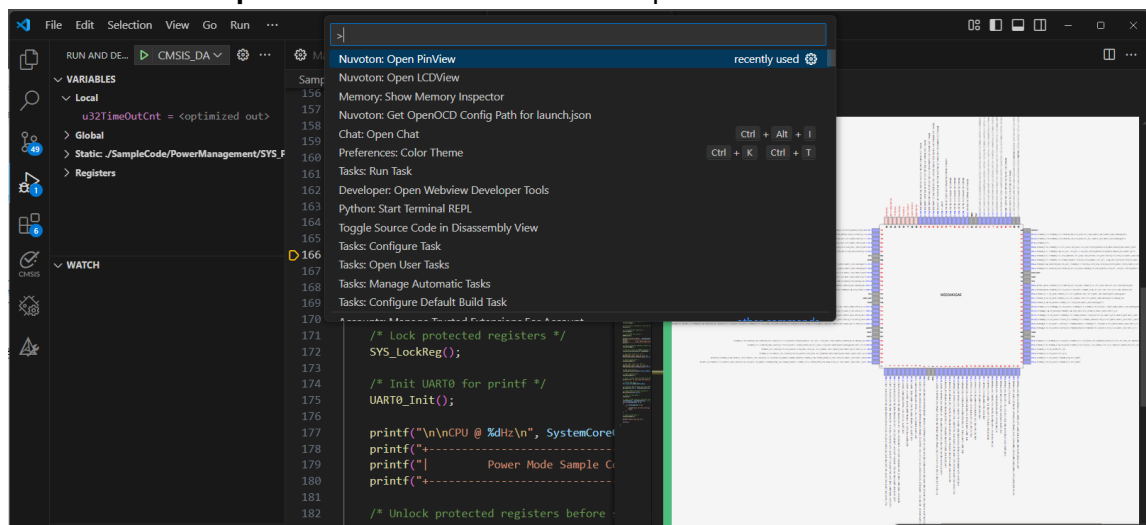
Display Terminal window as below



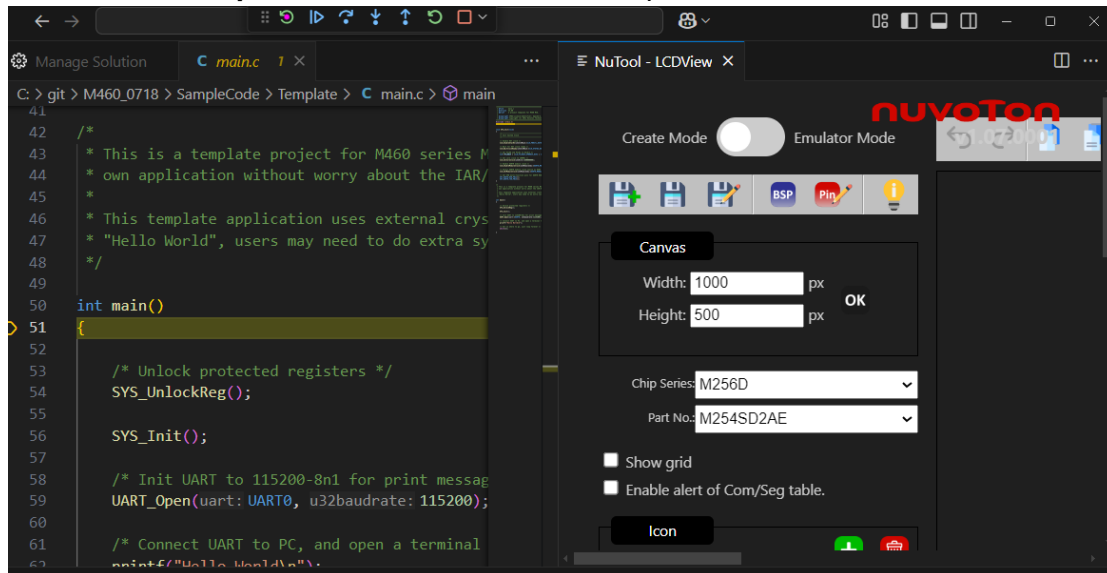
- Click View and select “Command palette” in the toolbar.



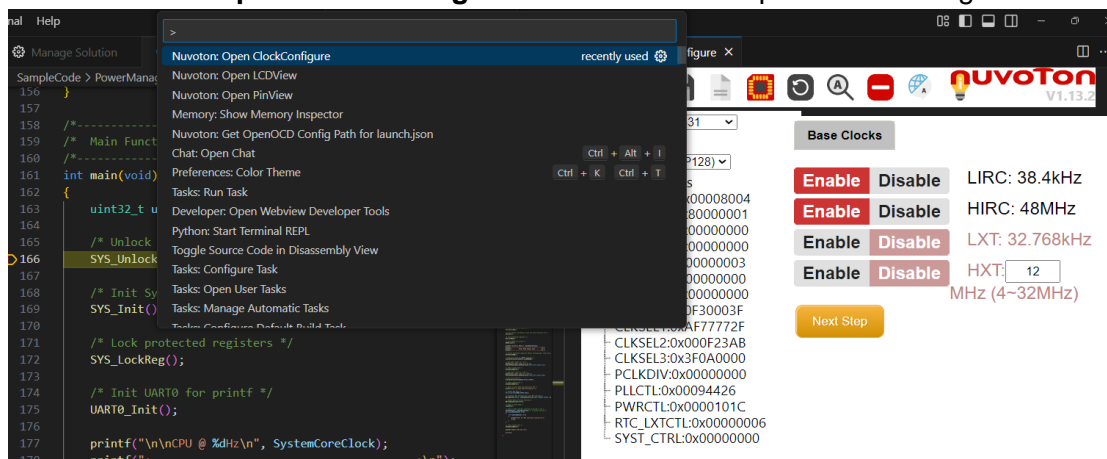
- Text “Nuvoton:Open PinView” in search bar to open PinView tool.



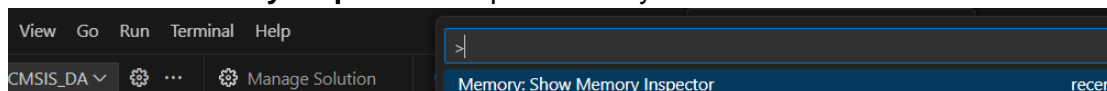
- Text “Nuvoton:Open PinLCD” in search bar to open PinLCD tool.



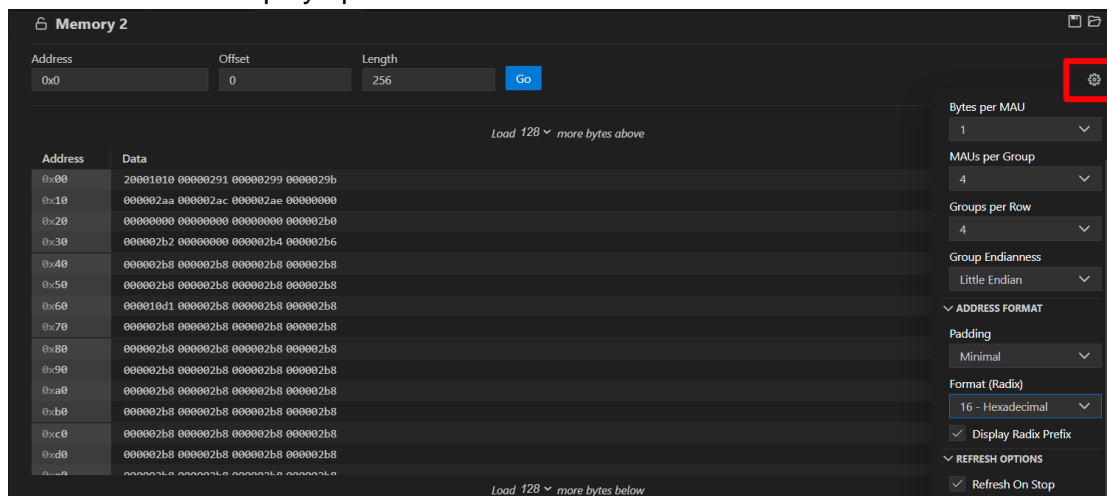
- Text “Nuvoton:Open ClockConfigure” in search bar to open ClockConfigure tool.



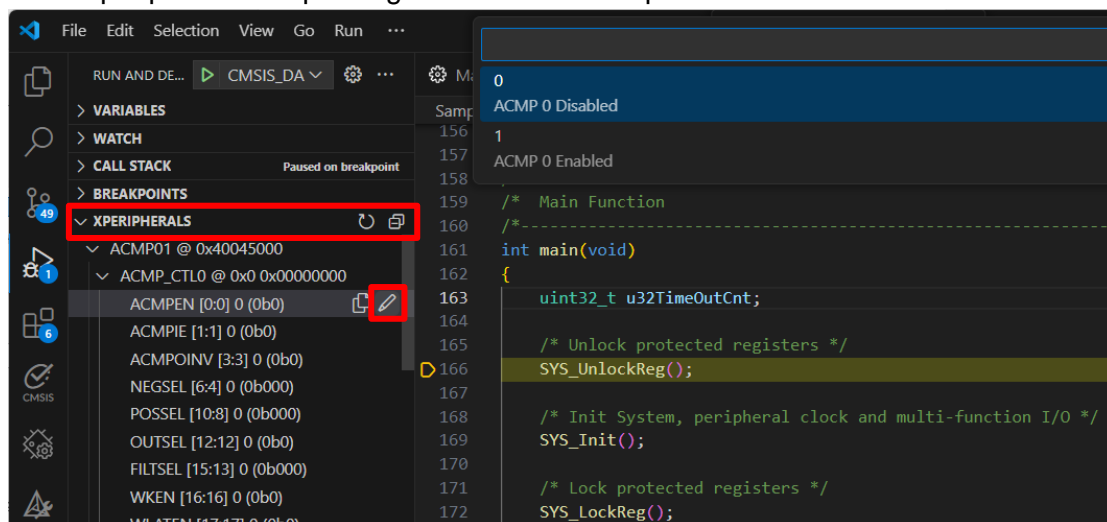
- Text “Show Memory Inspector” to open memory window.



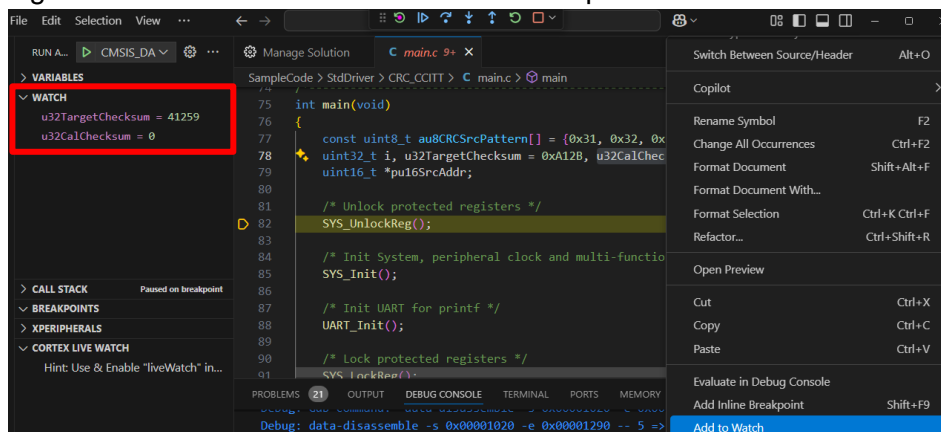
Click “advanced display options” button to set address format.



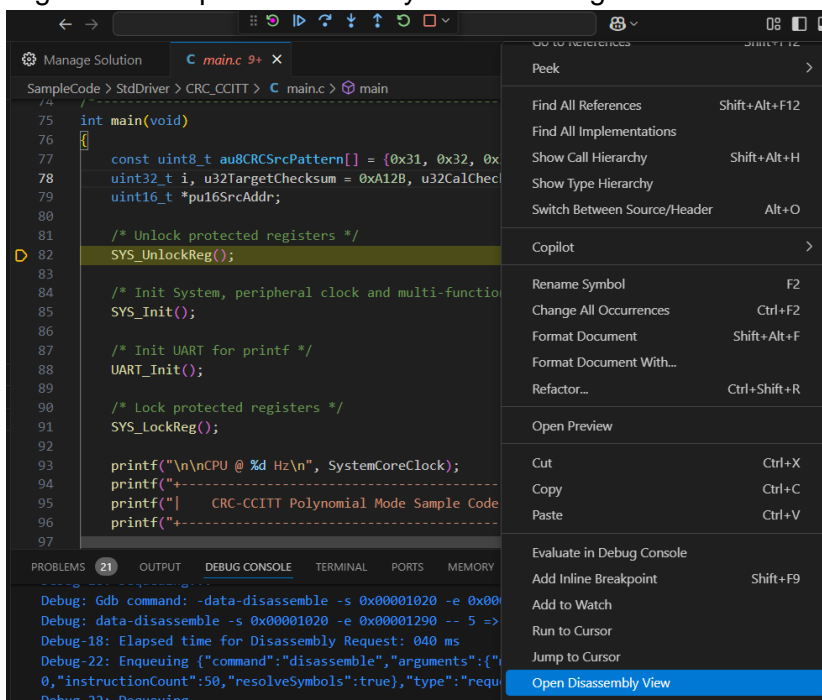
11. Click Xperipherals to open register window and update value.



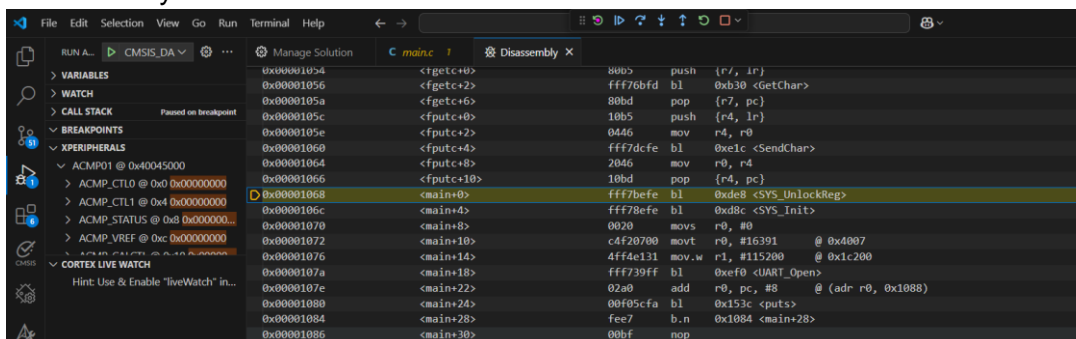
12. Right-click on variable u32CalChecksum to open add to watch.



13. Right-click to open disassembly view in debug mode.



14. Disassembly view as below.



REVISION HISTORY

Date	Revision	Description
2025.10.17	3.02	1. Add command to open window.
2025.08.20	3.01	1. Initially version.

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