NuMicro® Family
VS Code
Quick Start Guide

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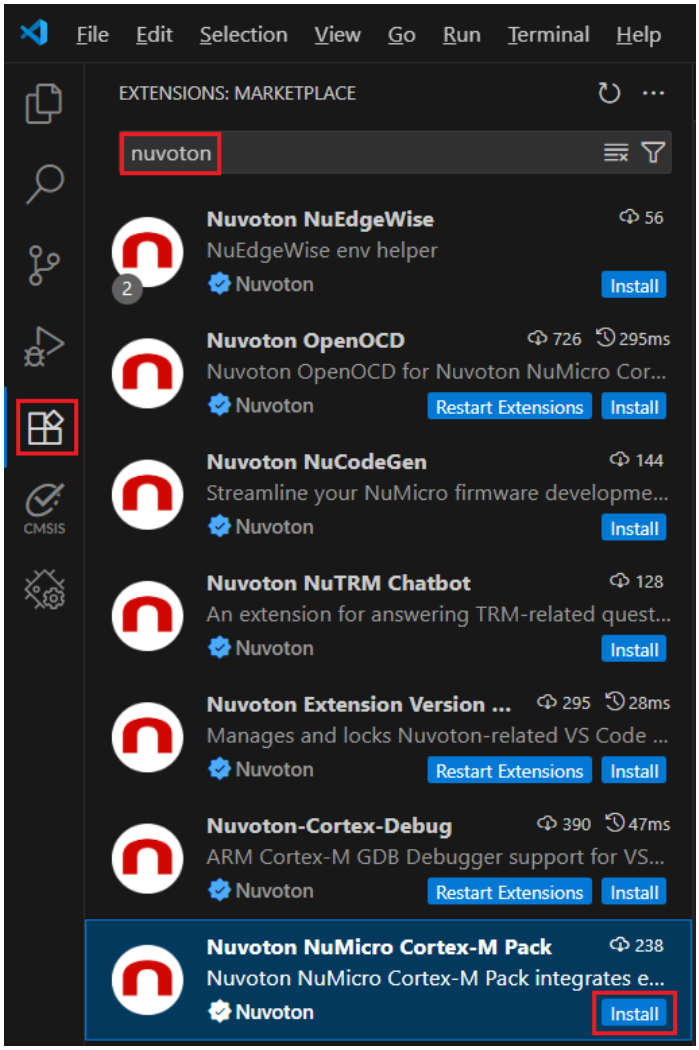
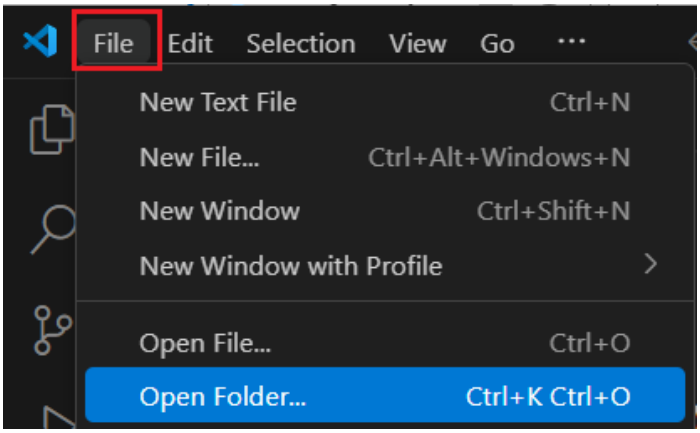
1 INSTALLATION VS CODE AND EXTENSIONS

1. Download VS Code from https://code.visualstudio.com and install it.
2. Launch VS Code and click Extensions in the Activity Bar.
3. Text "**Nuvoton NuMicro Cortex-M Pack Extension**" in search bar. Click the "**Install**" button to install.

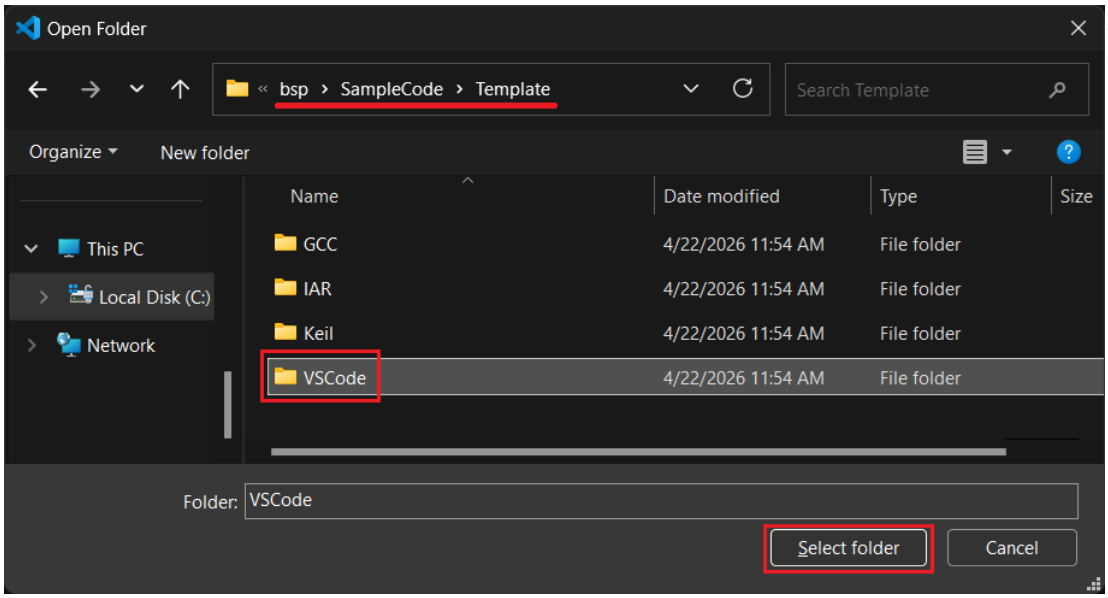


2 GET STARTED WITH A SAMPLE PROJECT

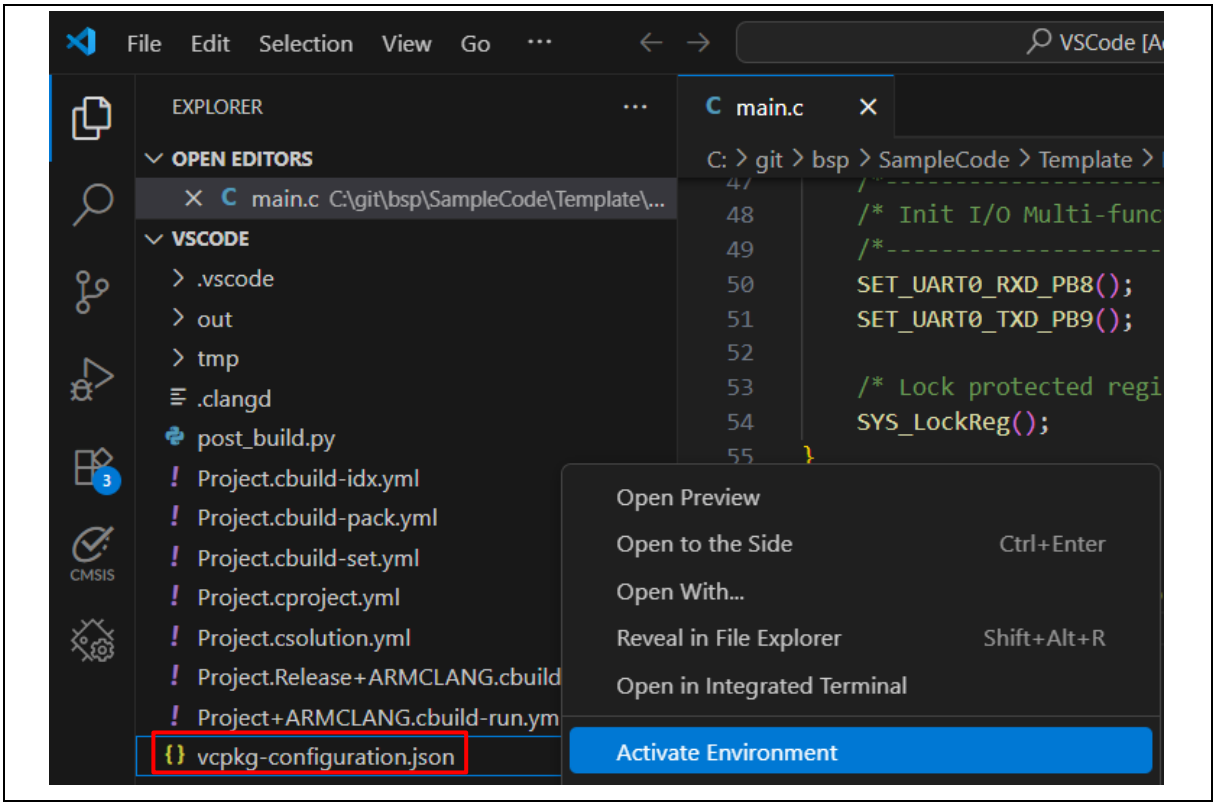
1. Click “**File**” menu and select “**Open Folder**” in the toolbar.



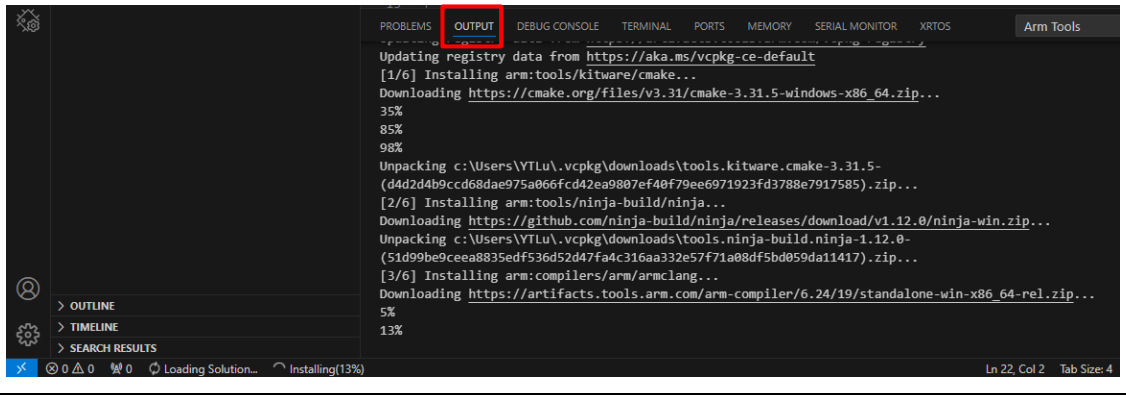
2. Select the **"VSCode"** folder of a sample project to open the project.



3. Right-click **“vcpkg-configuration.json”** file and select **“Activate Environment”** command. (Please use private network connection.)

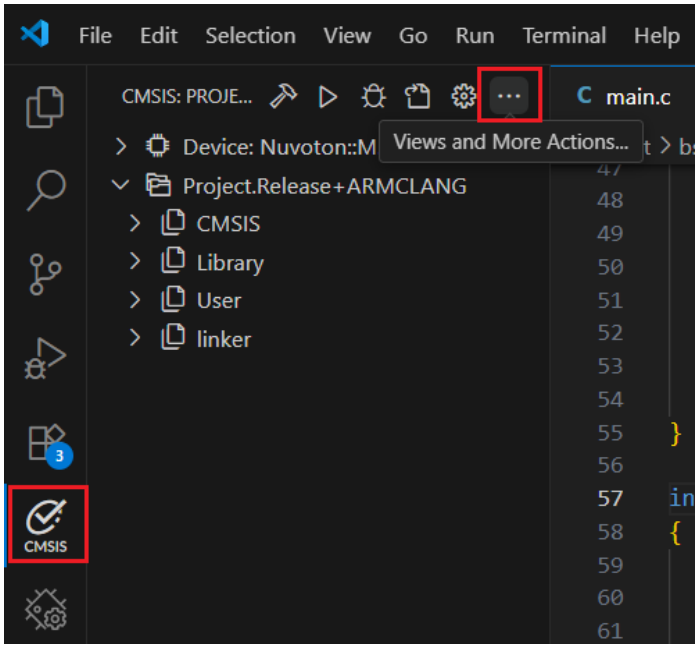


4. Check **OUTPUT** terminal at the bottom. It will download and install the requires tools.

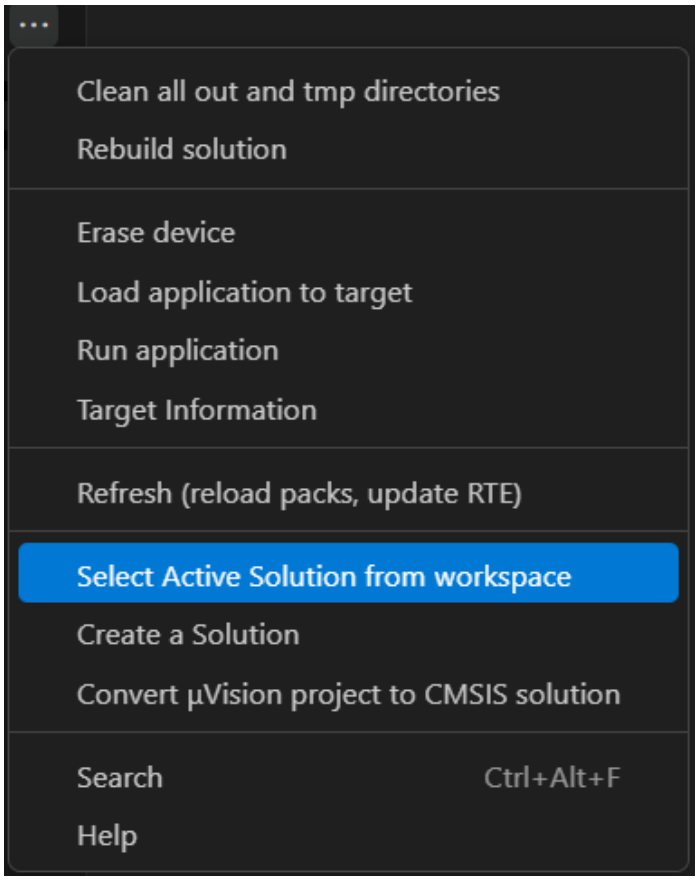


5. Click **CMSIS** icon in the Activity Bar.

   Then click **"Views and More Actions…"** button.

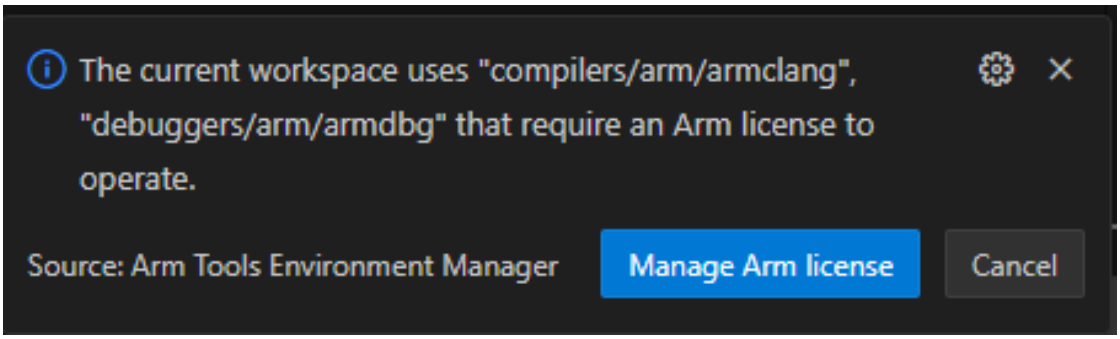


6. Select **"Select Active Solution from workspace"** command.

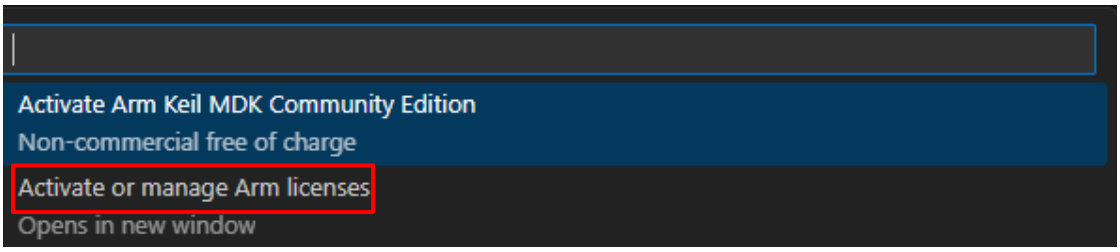


3 MANAGE ARM LICENSE

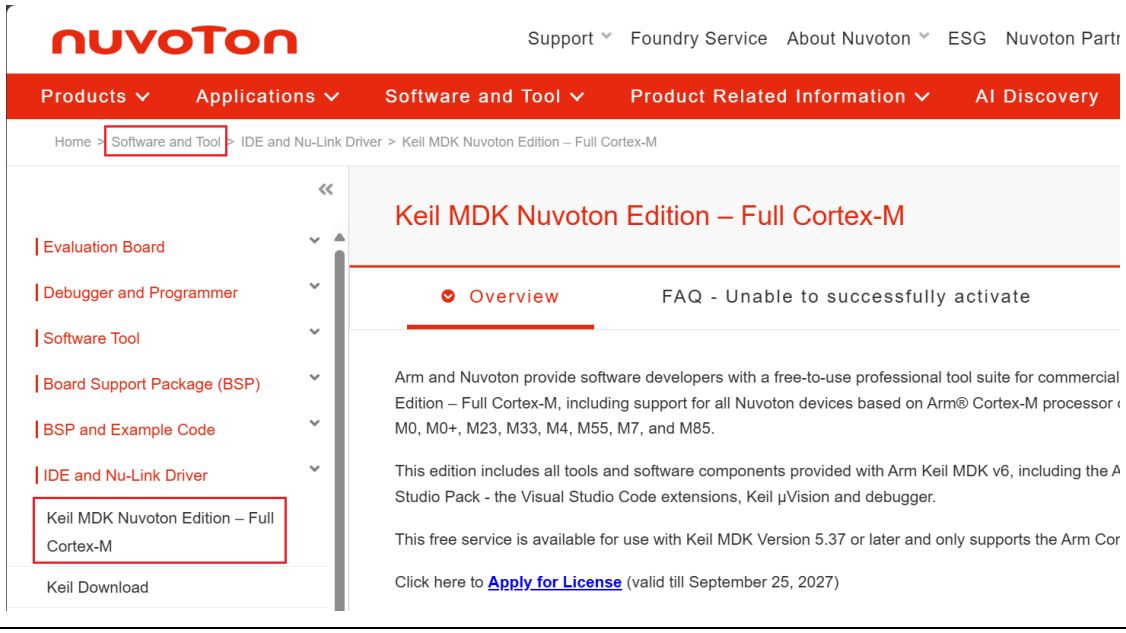
1. Click “**Manage Arm License”** button in the pop-up window at the bottom right.



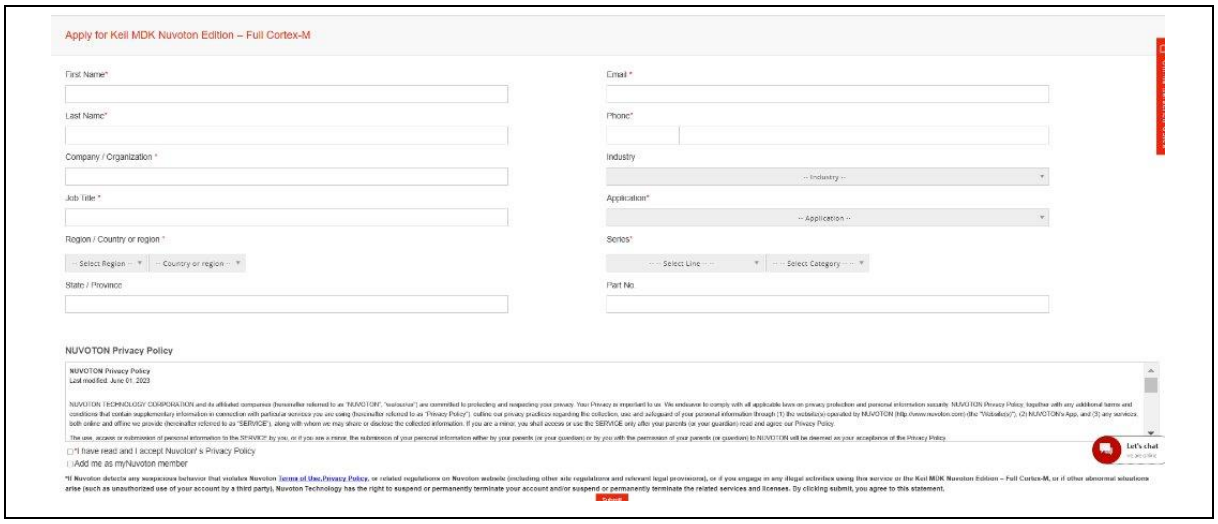
2. In the search bar at the top, select "**Activate or manage Arm licenses**" command from the available options.



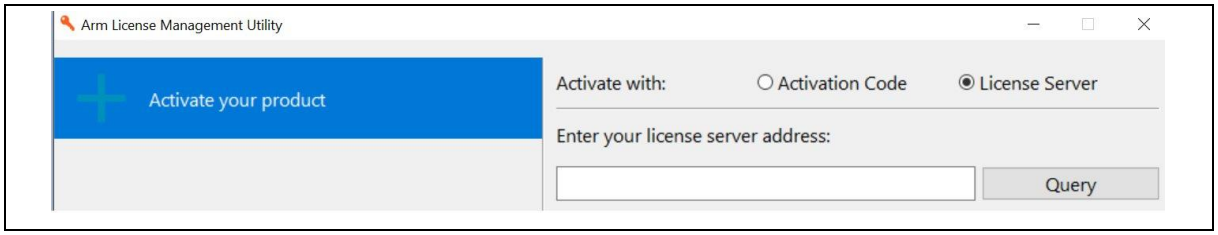
3. Get Keil MDK License ID code.
   1) Navigation to [Official Website](#).



2) Fill out the form.



3) Check mailbox and fill in the License Server.

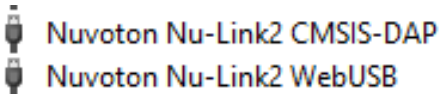


4 CONFIGURE THE DEVICE

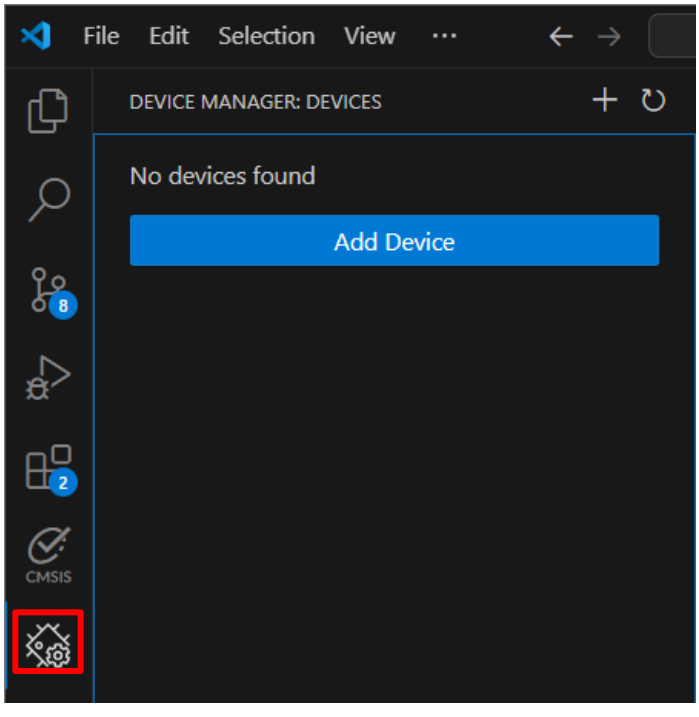
1. Install Nuvoton Nu-Link Keil Driver.

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

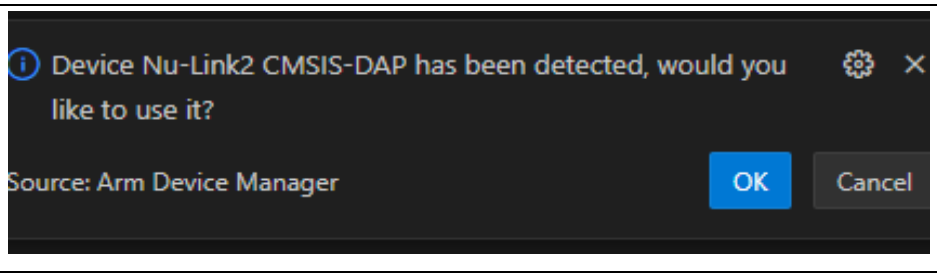
3. Installation complete in Windows Device Manager.



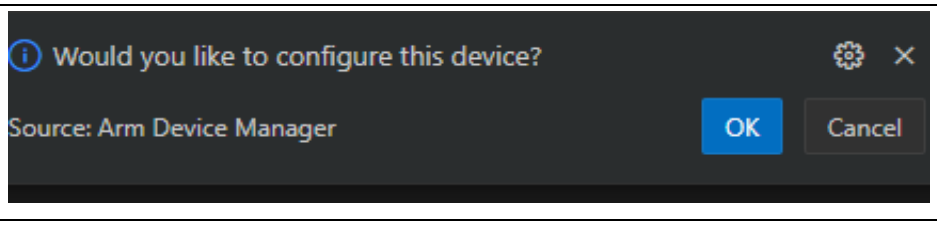
4. Click **"Device** Manager**"** icon in the Activity Bar to open the Device Manager.



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.

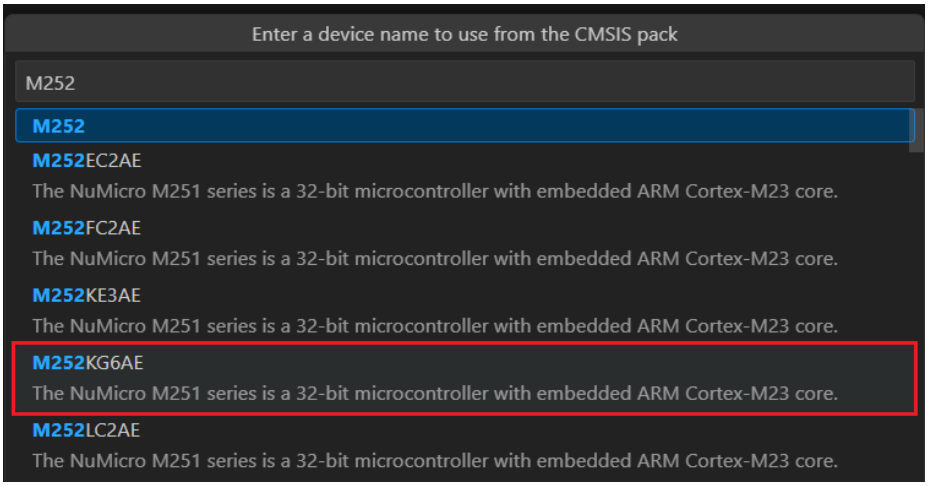


6. Press OK in the pop-up message and configure this device.



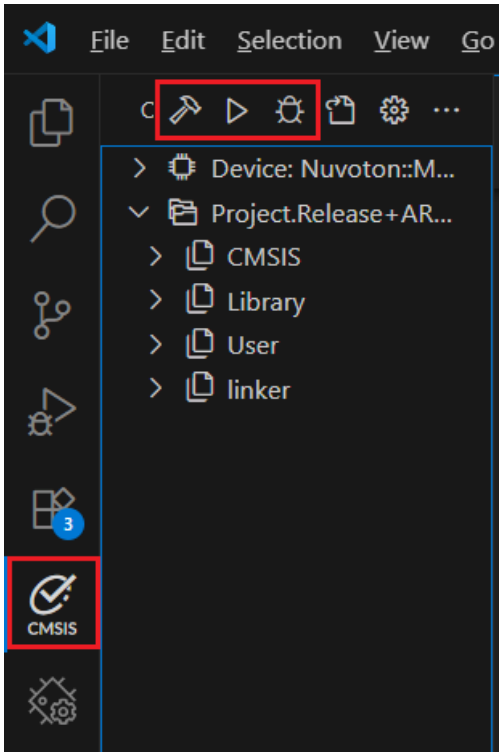
7. Text "**nuvoton**" in search bar and select corresponding CMSIS pack for the device.

8. Text your "**device model number**" in search bar and select your target device.

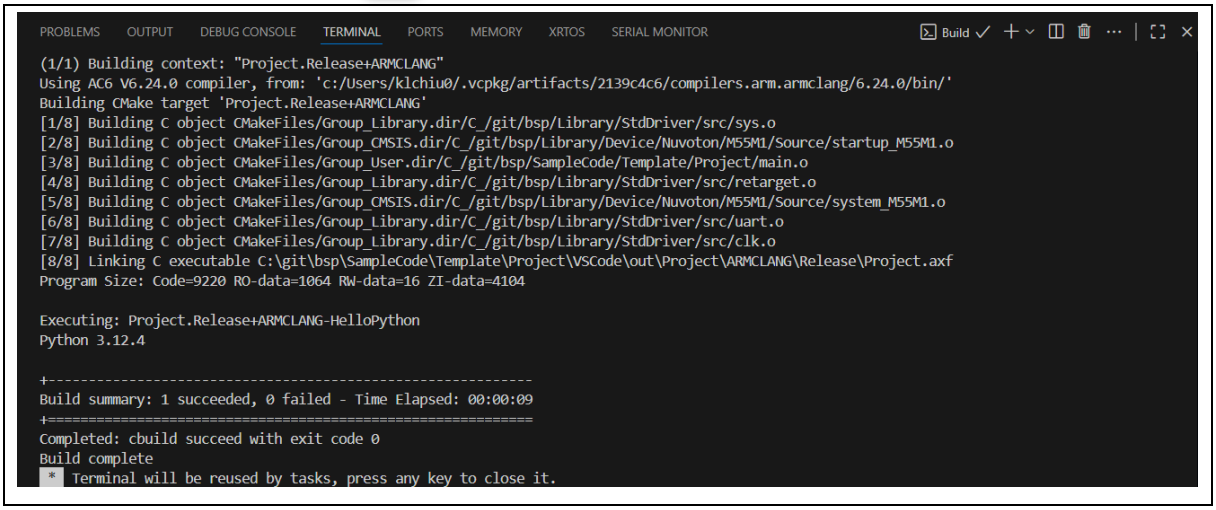


5 RUN THE SAMPLE PROJECT

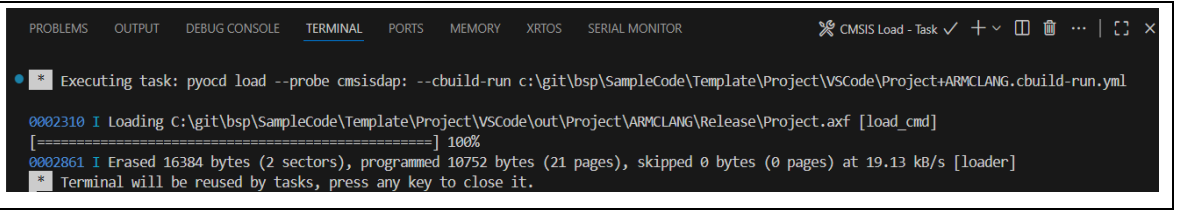
1. Click “**CMSIS**” icon in the Activity Bar.



2. Click “**Build**” button.

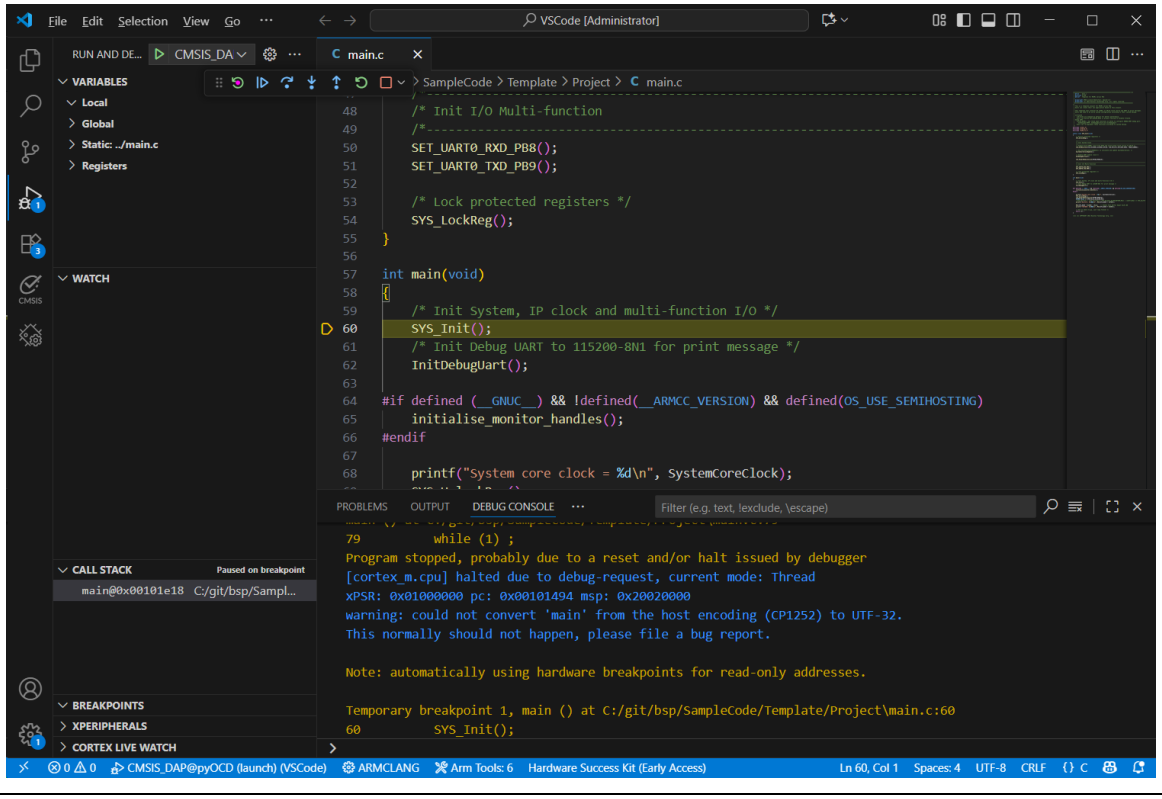


3. Click “**Load & Run**” button.

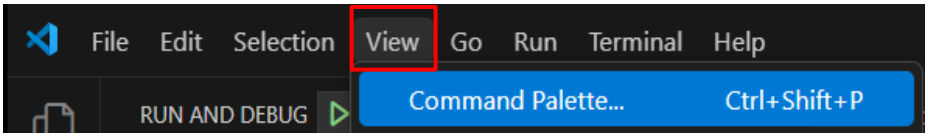


4. Click “**Load & Debug**” button.

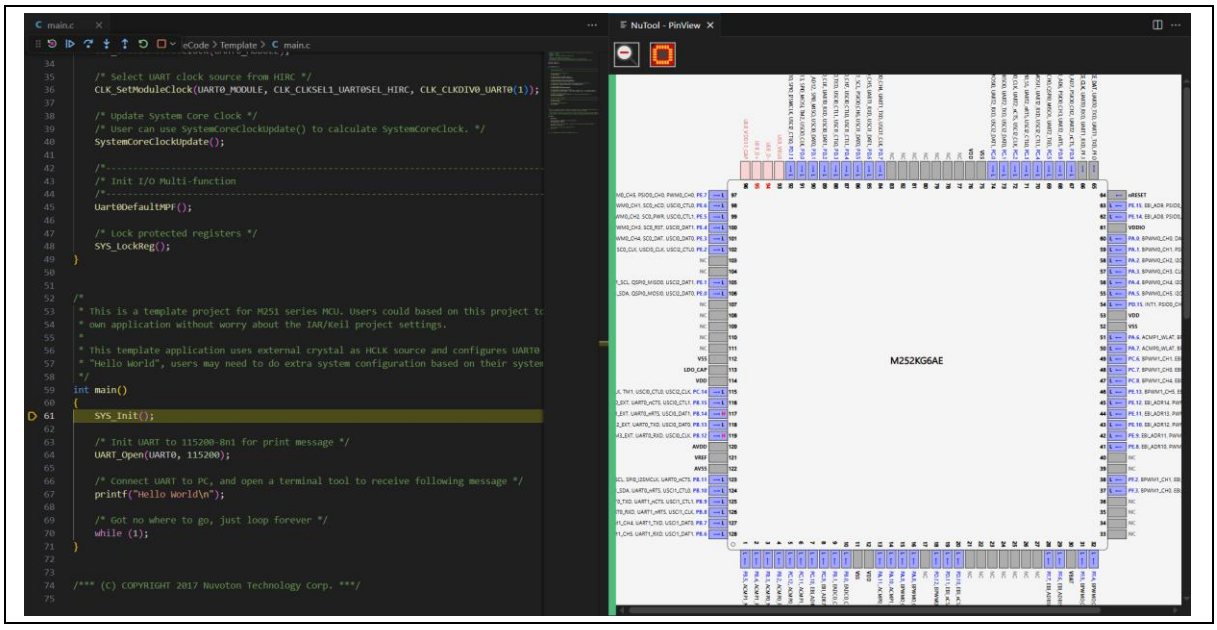
   The debugger stops at the main function.



5. Click “**View**” menu and select “**Command palette**” item in the toolbar.



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



6 ADDITIONAL NOTE

1. How to Fix Windows Long Path Errors in VS Code

   If you encounter the following compilation errors while working in VS Code, your project likely exceeds the default Windows path limit:

   1) The maximu full path to an object file is 250 characters.

```
ase/CMakeFiles/CMakeScratch/TryCompile-n0omuq/CMakeFiles/cmTC_a82c8.dir/./

  has 251 characters.  The maximum full path to an object file is 250
  characters (see CMAKE_OBJECT_PATH_MAX).  Object file

    CMakeCCompilerABI.o

  cannot be safely placed under this directory.  The build may not work
  correctly.
```

   2) The system canot find the path specified.

```
LANG-stamp/Template.Release+ARMCLANG-configure-.cmake:49 (message):
  Command failed: The system cannot find the path specified
```

   These To resolve this, follow these steps to enable Long Paths:

   1) Open Registry Editor: Press Win + R, type regedit, and press Enter.

   2) Navigate to: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\FileSystem

   3) Enable Feature: Double-click LongPathsEnabled and change the Value data from 0 to 1.

   4) Apply: Click OK and restart your computer (or restart VS Code) to apply the changes.

   For more technical details on why this limit exists and how Windows handles it, please refer to the official Microsoft documentation:

   Microsoft Learn: Maximum Path Length Limitation

REVISION HISTORY

Date	Revision	Description
2026.02.12	1.02	1. Add additional note.
2025.11.06	1.01	1. Initial version.

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