

Setting up Code Composer Studio

1. Download and install Code Composer Studio 12 (CCS12).

<https://www.ti.com/tool/download/CCSTUDIO/12.8.1>

CCSTUDIO -> Download options -> chose the version compatible with your operating system -> select the “on demand” version as shown in figure 1.

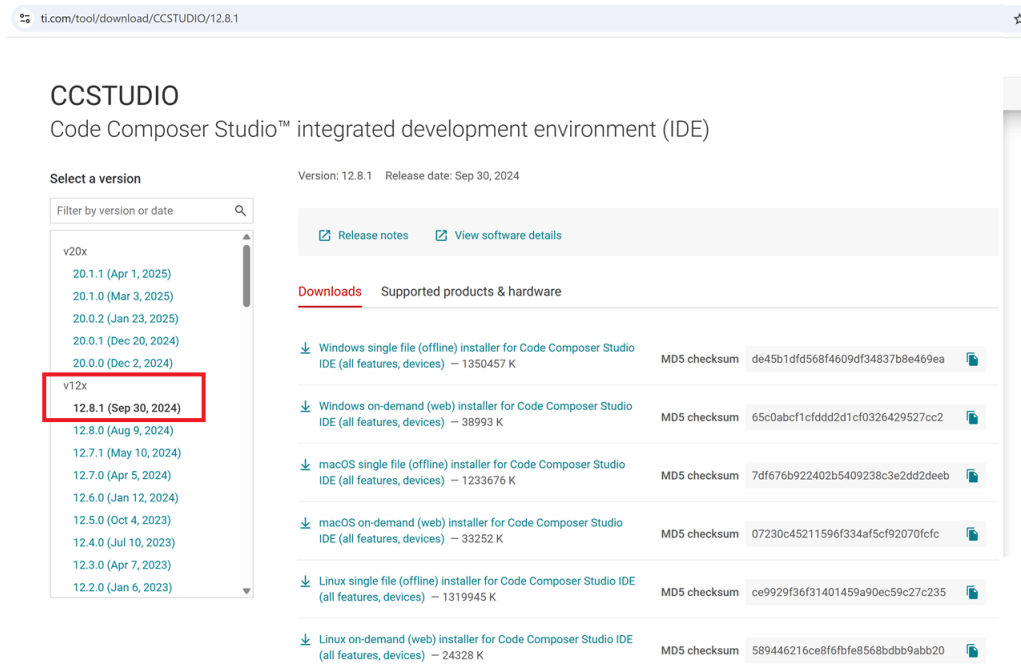


Figure 1. Download options

2. (During Installation) select Custom Installation and then select MSP430 as shown in figure 2.

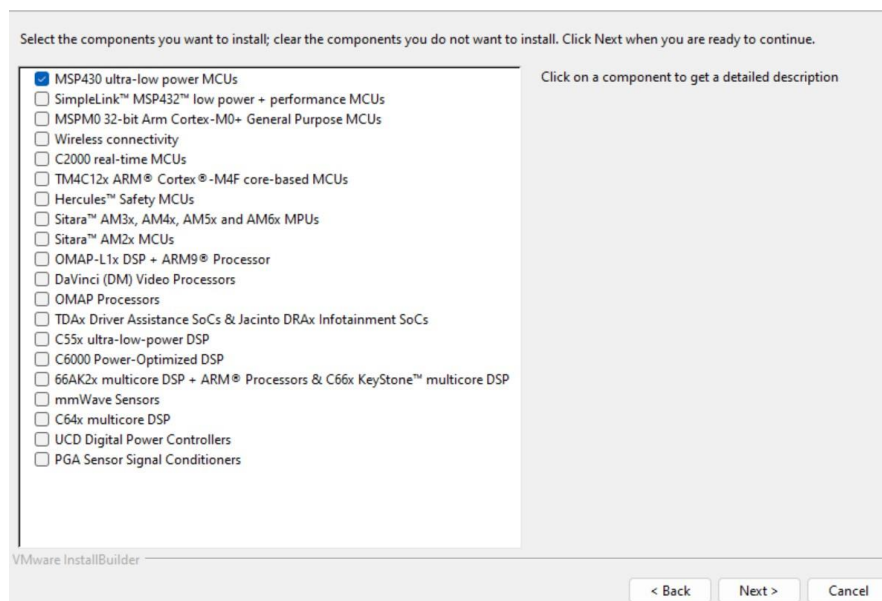


Figure 2. CCS MSP430 Installation

3. Turn on Resource Explorer (View-> Resource Explorer) and type MSP430F5438A in the search box.
4. Import some example from MSP430TM microcontrollers -> Embedded Software -> MSP430Ware -> Devices -> MSP430F5xx-F6xx -> MSP430F5438A -> Peripheral Examples -> Register Level, and click Import. *The first time it pops up a message about downloading a package from the TI server (about 700mb) - Accept it.*

Setting up code uploading with BSL

1. Right-click on your project name and then open properties.
2. Enable the MSP430 Hex Utility option as shown in Figure 3: CCS Build -> MSP430 Hex Utility -> check the option "Enable MSP430 Hex Utility".



Figure 3. Enable hex utility

3. Configure Output Format options as shown in Figure 4: CCS Build -> MSP430 Hex Utility -> Output Format Options -> Set Output format to: TI-TXT hex.

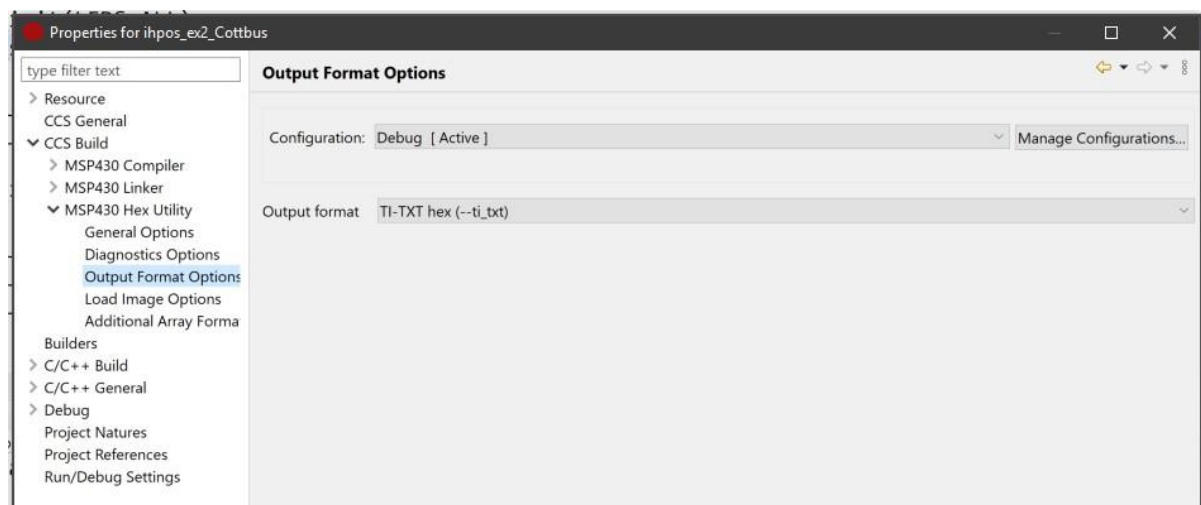


Figure 4. Output format configuration

4. Compile your application by right-clicking on your project_name -> *Rebuild Project* or *build button* (hammer icon). Check if a file with the extension ***.txt** has been created in the Debug folder

5. Install **Python 3** and **pyserial** if needed:

```
C:\Users\L4R0\CODING\CCS_CodeComposerStudio\cottbus_exercises\IHPOSv3_SA>python bsl-fwnode.py -h
Traceback (most recent call last):
  File "bsl-fwnode.py", line 6, in <module>
    import serial
ImportError: No module named serial
```

Figure 5. Pyserial error notification

```
python -m pip install --upgrade pip
pip install pyserial
```

6. Copy the IHPNODE_prog.py file to your workspace.
7. Run terminal in the workspace folder and run the BSL by executing this command

```
python IHPNODE_prog.py COM* {PROJECT_LOCATION}\Debug{PROJECT_NAME}.txt
```

Attention! Make sure that you changed **COM port**, and ***.txt** file name.

* - Stands for com port number (eg. COM10 or /dev/ttyS0)