

CUBEMX Standalone for STM32CubeIDE

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Previous versions of the STM32 cube IDE had a built-in GUI for the pin layout of the STM board. With version 2.0.0, it is different. If you try to click on your .ioc file in the project explorer, you will see a text file instead of the GUI. You will have to download a separate program for this GUI to work.

You can find the download for CUBEMX [here](#). Make sure to download the appropriate version for your operating system.

Accept all the default installation options and the installation location.

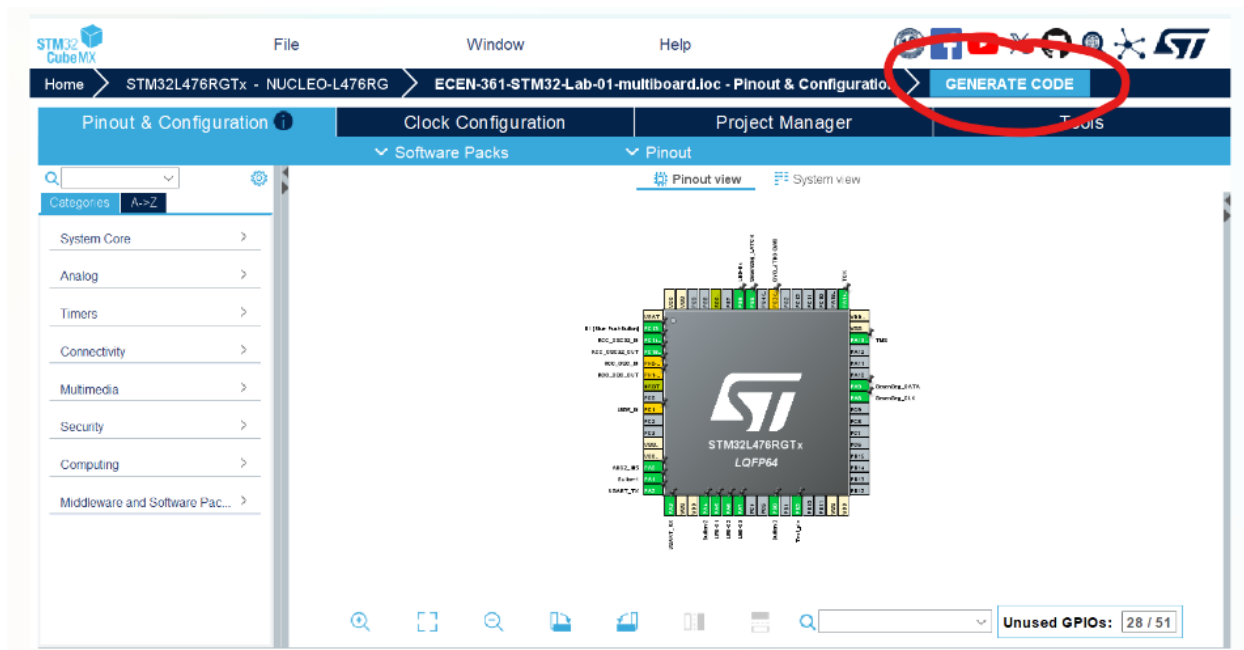
When completed successfully, you can click on your .ioc file and it will run CUBEMX in a separate process. It looks just as it did in previous versions.

Before you start making changes, make sure that you are in the correct project location by pressing project manager->project. The project location should be the same as your project in the CubeIDE, and your Toolchain should be STM32CubeIDE. If this is not true, then the code will not save and generate properly.

The screenshot shows the STM32CubeIDE Project Manager dialog box. The breadcrumb navigation at the top indicates the path: Home > STM32L476RGTx - NUCLEO-L476RG > ECEN-361-STM32-Lab-01-multiboard.ioc - Project Manager. A 'GENERATE CODE' button is visible in the top right. The dialog has four tabs: 'Pinout & Configuration', 'Clock Configuration', 'Project Manager' (which is active), and 'Tools'. The 'Project Manager' tab is divided into sections: 'Project', 'Code Generator', and 'Advanced Settings'. The 'Project' section contains fields for 'Project Name' (ECEN-361-STM32-Lab-01-multiboard), 'Project Location' (C:\Users\seth\OneDrive\Desktop\ECEN361\lab-01-stm32-and-multiboard-Sethricks340), 'Application Structure' (Advanced), 'Toolchain Folder Location' (C:\Users\seth\OneDrive\Desktop\ECEN361\lab-01-stm32-and-multiboard-Sethricks340), and 'Toolchain / IDE' (STM32CubeIDE) with a 'Generate Under Root' checkbox. The 'Code Generator' section has a 'Do not generate the main()' checkbox. The 'Advanced Settings' section includes 'Linker Settings' (Minimum Heap Size: 0x200, Minimum Stack Size: 0x400), 'Thread-safe Settings' (Cortex-M4NS, Enable multi-threaded support: unchecked, Thread-safe Locking Strategy: Default), and 'Mcu and Firmware Package' (Mcu Reference: STM32L476RGTx, Firmware Package Name and Version: STM32Cube_FW_L4_V1.18.0, with a 'Migrate to the latest supported Firmware version' button and a 'Use Default Firmware Location' checkbox).

Home	STM32L476RGTx - NUCLEO-L476RG	ECEN-361-STM32-Lab-01-multiboard.ioc - Project Manager	GENERATE CODE
Pinout & Configuration Clock Configuration Project Manager Tools			
Project	Project Settings Project Name: ECEN-361-STM32-Lab-01-multiboard Project Location: C:\Users\seth\OneDrive\Desktop\ECEN361\lab-01-stm32-and-multiboard-Sethricks340 [Browse] Application Structure: Advanced [v] <input type="checkbox"/> Do not generate the main() Toolchain Folder Location: C:\Users\seth\OneDrive\Desktop\ECEN361\lab-01-stm32-and-multiboard-Sethricks340 Toolchain / IDE: STM32CubeIDE [v] <input checked="" type="checkbox"/> Generate Under Root		
Code Generator	Linker Settings Minimum Heap Size: 0x200 Minimum Stack Size: 0x400		
Advanced Settings	Thread-safe Settings Cortex-M4NS <input type="checkbox"/> Enable multi-threaded support Thread-safe Locking Strategy: Default - Mapping suitable strategy depending on RTOS selection [v] Mcu and Firmware Package Mcu Reference: STM32L476RGTx Firmware Package Name and Version: STM32Cube_FW_L4_V1.18.0 [Migrate to the latest supported Firmware version] <input checked="" type="checkbox"/> Use Default Firmware Location		

IMPORTANT: When you are done editing the GUI, you must manually generate code. This is different from before, where the CubeIDE set a flag to notify you to generate code. You can do this by pressing the GENERATE CODE button shown below. If you don't do this, your changes will not be saved to main.h and other initialization code files, and your changes will not be realized.



After you have generated your code, you can return to CubeIDE to continue with your project as before. The changes you made to the Pinout GUI can be seen in your new code.