STM32Cube for Visual Studio Code installation guide

Introduction

This installation guide for STM32Cube for Visual Studio Code (STM32VSCode), in short STM32Cube for VS Code, gives directions on how to install software on each of the operating systems it supports. It is primarily intended to software developers or system administrators who are about to install the STM32Cube for VS Code product.

This installation guide covers the following topics:

- System requirements
- Important information
- STM32Cube for VS Code installation
- Probe drivers installation
- Uninstall STM32Cube for VS Code

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For further information, contact your local STMicroelectronics sales office.

www.st.com

1 System requirements

STM32Cube for VS Code is tested and verified on the Microsoft® Windows®, Linux®, and macOS® versions listed in this chapter.

Important: *Only 64-bit OS versions are supported.*

STM32Cube for VS Code provides tools to build, program, run, and debug applications targeting STM32 microcontrollers based on the Arm® Cortex®-M processor.

Note: *Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.*

arm

1.1 Microsoft® Windows®

- Microsoft® Windows® 10
- Microsoft® Windows® 11

Note: *Microsoft, Visual Studio, VS Code, and Windows are trademarks of the Microsoft group of companies.*

1.2 Linux®

- Ubuntu® LTS 22.04
- Ubuntu® LTS 24.04
- Fedora® 41

Note: *Linux® is a registered trademark of Linus Torvalds.*

Ubuntu® is a registered trademark of Canonical Ltd.

Fedora® is a trademark of Red Hat, Inc.

1.3 macOS®

- macOS® 14 (Sonoma)
  - x86
  - AArch64
- macOS® 15 (Sequoia)
  - x86
  - AArch64

Note: *macOS® is a trademark of Apple Inc., registered in the U.S. and other countries and regions.*

1.4 Hardware requirements

- Processor: 1.6 GHz or faster
- Memory: 1 Gbyte of RAM
- Hard disk space: 4 Gbytes of free space
- Display: 1024 × 768 minimum resolution

2 Important information

Installation of STM32Cube for VS Code extensions

VS Code$^®$ is a shared environment. Extensions might conflict with each other. For a sandboxed experience, STMicroelectronics recommends installing STM32Cube for VS Code in a dedicated profile.

More information about profiles is available at code.visualstudio.com/docs/configure/profiles.

Installation of probe drivers

In the current prerelease version, installing the debug probe drivers requires administrator privileges. The user must install them manually.

Uninstallation

In the current prerelease version, STM32Cube for VS Code is the only tool using packs and bundles. Consequently, these can be removed as part of the uninstallation procedure. However, users must be cautious not to apply this global procedure if other STM32Cube tools share some of the packs and bundles.

3 STM32Cube for VS Code installation

To get the full experience with the STM32 extension in Visual Studio® Code, follow these steps:

1. Open Visual Studio® Code.
2. Navigate to the extension view by clicking on the *Extensions* icon in the *Activity Bar* on the side of the window.
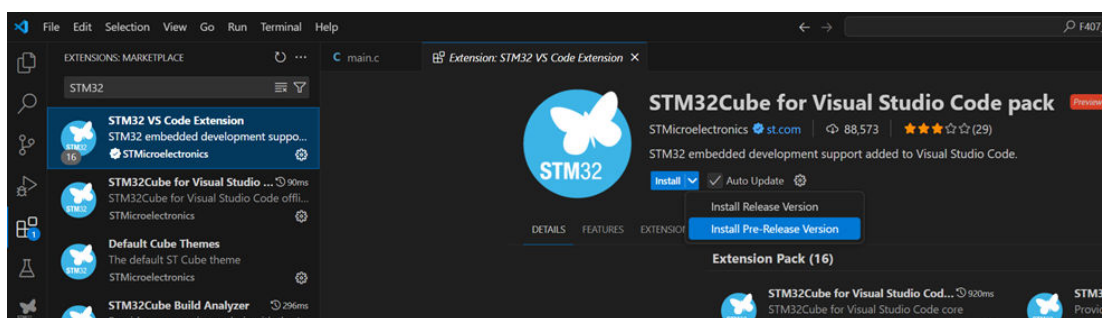
Figure 1. *Extensions* icon in VS Code® *Activity Bar*
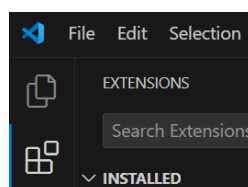
3. Search for *STM32* in the *Extensions* marketplace.

Figure 2. STM32Cube for Visual Studio Code in the *Extensions* marketplace

4. Click the caret next to the *Install* button for the *STM32Cube for Visual Studio Code* extension by STMicroelectronics, and select *Install Pre-Release Version* from the drop-down menu.

4 Probe drivers installation

When setting up STM32Cube for VS Code, installing the necessary drivers is crucial for ensuring proper communication between the development board and the computer. Below are the detailed instructions for installing drivers for both ST-LINK and SEGGER J-Link.

ST-LINK USB driver

For an ST-LINK probe, follow these steps:

1. Access STM32Cube for VS Code extension:
   Navigate to *STM32Cube for VS Code Extension*.
2. Locate STM32Cube resources:
   Within the extension, find the section labeled *STM32Cube Resources*.
3. Install ST-LINK USB driver:
   Click on *ST-Link USB Drivers* to begin the installation process. Ensure that the ST-LINK interface is correctly set up for communication with the STM32 development board.

SEGGER J-Link driver

For a SEGGER J-Link probe, follow these steps:

1. Visit SEGGER's website:
   Go to the SEGGER J-Link driver download page at www.segger.com/downloads/jlink.
2. Download the *J-Link Software and Documentation Pack*:
   Select the appropriate package for the operating system and download it.
3. Install the drivers:
   Follow the installation instructions provided by SEGGER to install the J-Link drivers on the computer.

5 Uninstall STM32Cube for VS Code

To uninstall the software package of STM32Cube for VS Code, follow the steps below:

1. Open the *Extensions* activity in VS Code® (**Ctrl+Shift+X**)
2. Select the extension in the primary bar
3. Uninstall *STM32Cube for Visual Studio Code extensions pack*

Depending on the operating system, common assets are located in the user's file system as follows:

- Windows®: `$HOME/AppData/Local/stm32cube/bundles`
- Linux®: `$HOME/.local/share/stm32cube/bundles`
- macOS®: `$HOME/Library/Application Support/stm32cube/bundles`

Revision history

Table 1. Document revision history

Date	Revision	Changes
04-Jun-2025	1	Initial release.

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IMPORTANT NOTICE – READ CAREFULLY