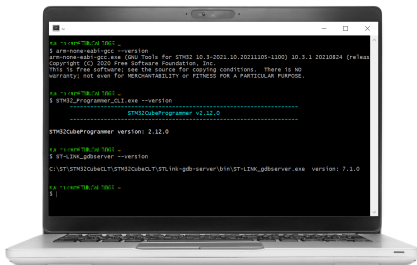


## Command-line toolset for STM32 MCUs



### Product status link

[STM32CubeCLT](#)



### Features

- Distribution of command-line tools and system view descriptors (SVD) extracted from [STM32CubeIDE](#)
- STM32Cube MCU Packages support for STM32 microcontrollers (MCU) at the following development steps:
  - Compile and link
  - Target board programming
  - Application run
  - Application debugging
- The [STM32CubeCLT](#) toolset includes:
  - GNU C/C++ for Arm® toolchain executables such as `arm-none-abi-gcc` (compiler), `arm-none-abi-nm` (symbol viewer), and many more
  - GDB debugger client and server
  - STM32CubeProgrammer ([STM32CubeProg](#)) utility
  - System view descriptor files (.SVD) for the entire STM32 MCU portfolio
  - Map file associating STM32 MCUs and MCU development boards to the appropriate SVD
- Multi-OS support: Windows®, Linux®, and macOS®, 64-bit versions only

### Description

STM32CubeCLT is an all-in-one multi-OS command-line toolset, which is part of the STM32Cube ecosystem.

STM32CubeCLT is a toolset for third-party integrated development environment (IDE) providers, allowing the use of STMicroelectronics proprietary tools within their own IDE frameworks.

STM32CubeCLT includes GNU C/C++ for Arm® toolchain executables, GDB debugger, and STM32CubeProgrammer ([STM32CubeProg](#)) utility. It provides system view descriptors for the entire STM32 MCU portfolio and associate each STM32 MCU and development board with the appropriate SVD.

## 1 General information

STM32CubeCLT supports STM32 products 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.

### 1.1 Ordering information

STM32CubeCLT is available for free download from the [www.st.com](http://www.st.com) website.

### 1.2 What is STM32Cube?

STM32Cube is an STMicroelectronics original initiative to improve designer productivity significantly by reducing development effort, time, and cost. STM32Cube covers the whole STM32 portfolio.

STM32Cube includes:

- A set of user-friendly software development tools to cover project development from conception to realization, among which are:
  - [STM32CubeMX](#), a graphical software configuration tool that allows the automatic generation of C initialization code using graphical wizards
  - [STM32CubeIDE](#), an all-in-one development tool with peripheral configuration, code generation, code compilation, and debug features
  - [STM32CubeCLT](#), an all-in-one command-line development toolset with code compilation, board programming, and debug features
  - STM32CubeProgrammer ([STM32CubeProg](#)), a programming tool available in graphical and command-line versions
  - STM32CubeMonitor ([STM32CubeMonitor](#), [STM32CubeMonPwr](#), [STM32CubeMonRF](#), [STM32CubeMonUCPD](#)), powerful monitoring tools to fine-tune the behavior and performance of STM32 applications in real time
- [STM32Cube MCU and MPU Packages](#), comprehensive embedded-software platforms specific to each microcontroller and microprocessor series (such as STM32CubeU5 for the STM32U5 Series), which include:
  - STM32Cube hardware abstraction layer (HAL), ensuring maximized portability across the STM32 portfolio
  - STM32Cube low-layer APIs, ensuring the best performance and footprints with a high degree of user control over hardware
  - A consistent set of middleware components such as ThreadX, FileX / LevelX, NetX Duo, USBX, USB-PD, touch library, network library, mbed-crypto, TFM, and OpenBL
  - All embedded software utilities with full sets of peripheral and applicative examples
- [STM32Cube Expansion Packages](#), which contain embedded software components that complement the functionalities of the STM32Cube MCU and MPU Packages with:
  - Middleware extensions and applicative layers
  - Examples running on some specific STMicroelectronics development boards

### 1.3 License

STM32CubeCLT is delivered under the *Mix Ultimate Liberty+OSS+3rd-party V1* software license agreement (SLA0048).

For more details about the license agreement of each component, refer to the release note ([RN0132](#)).

## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
7-Dec-2022	1	Initial release.

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