

# STM32CubeIDE

## All-in-one STM32 development tool



STM32CubeIDE is an advanced C/C++ development platform with peripheral configuration, code generation, code compilation, and debug features for STM32 microcontrollers and microprocessors. It is based on the ECLIPSE™/CDT framework and GCC toolchain for the development, and GDB for the debugging. It allows the integration of the hundreds of existing plugins that complete the features of the ECLIPSE™ IDE.

STM32CubeIDE integrates all STM32CubeMX functionalities to offer all-in-one tool experience and save installation and development time. After the selection of an empty STM32 MCU or MPU, or preconfigured microcontroller or microprocessor from the selection of a board, the project is created and initialization code generated. At any time during the development, the user can return to the initialization and configuration of the peripherals or middleware and regenerate the initialization code with no impact on the user code.

STM32CubeIDE includes build and stack analyzers that provide the user with useful information about project status and memory requirements.

STM32CubeIDE also includes standard and advanced debugging features including views of CPU core registers, memories, and peripheral registers, as well as live variable watch, Serial Wire Viewer interface, or fault analyzer.

### Key Features

- Integration of STM32CubeMX that provides services for:
  - STM32 microcontroller and microprocessor selection
  - Pinout, clock, peripheral, and middleware configuration
  - Project creation and generation of the initialization code
- Based on ECLIPSE™/CDT, with support of ECLIPSE™ add-ons, GNU C/C++ for Arm® toolchain and GDB debugger
- Additional advanced debug features including:
  - CPU core, peripheral register, and memory views
  - Live variable watch view
  - System analysis and real-time tracing (SWV)
  - CPU fault analysis tool
- Support of ST-LINK (STMicroelectronics) and J-Link (SEGGER) debug probes

- Import project from Atollic<sup>®</sup> TrueSTUDIO<sup>®</sup> and AC6 System Workbench for STM32 (SW4STM32)
- Multi-OS support: Windows<sup>®</sup>, Linux<sup>®</sup>, and macOS<sup>®</sup>, 64-bit versions only