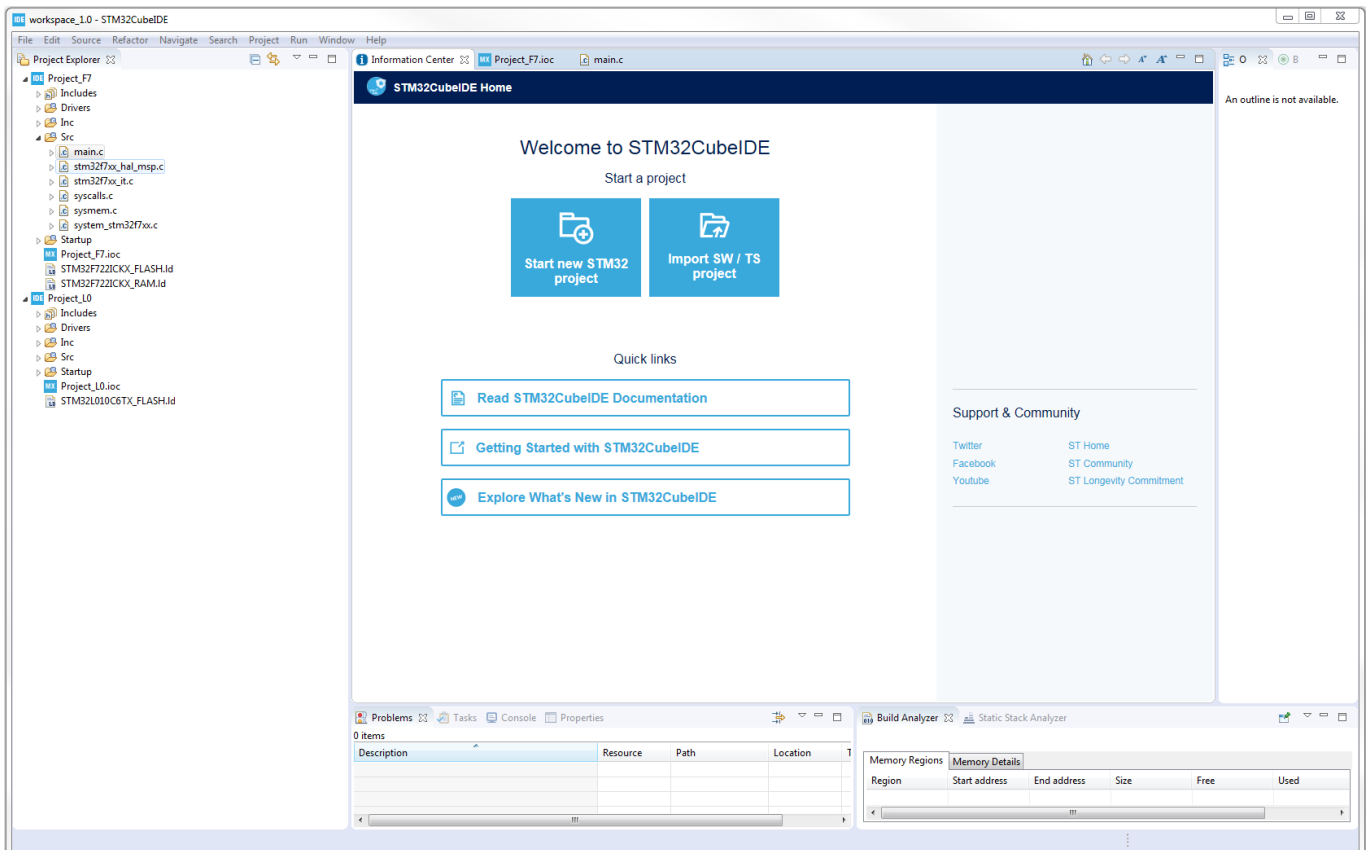
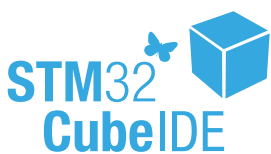


## Integrated development environment for STM32 products



Product status link

[STM32CubeIDE](#)



## Features

- Integration of [STM32CubeMX](#) that provides services for:
  - STM32 microcontroller selection
  - Pinout, clock, IP, 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, IP 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® TrueSTUDIO® and AC6 System Workbench for STM32
- Multi-OS support: Windows®, Linux®, and macOS®

## Description

[STM32CubeIDE](#) is an all-in-one multi-OS development tool, which is part of the [STM32Cube](#) software ecosystem.

[STM32CubeIDE](#) is an advanced C/C++ development platform with IP configuration, code generation, code compilation, and debug features for STM32 microcontrollers. 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 preconfigured microcontroller 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 IPs 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.

## 1 General information

STM32CubeIDE supports STM32 products based on the Arm® Cortex® processor.

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



### 1.1 Ordering information

STM32CubeIDE 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 significantly improve designer's productivity 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 the conception to the realization, among which:
  - 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 IP configuration, code generation, code compilation, and debug features
  - STM32CubeProgrammer (STM32CubeProg), a programming tool available in graphical and command-line versions
  - STM32CubeMonitor-Power (STM32CubeMonPwr), a monitoring tool to measure and help in the optimization of the power consumption of the MCU
- STM32Cube MCU & MPU Packages, comprehensive embedded-software platforms specific to each microcontroller and microprocessor series (such as STM32CubeF4 for the STM32F4 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 the HW
  - A consistent set of middleware components such as RTOS, USB, TCP/IP, and graphics
  - 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 & MPU Packages with:
  - Middleware extensions and applicative layers
  - Examples running on some specific STMicroelectronics development boards

### 1.3 License

STM32CubeIDE 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 (RN0114).

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
15-Apr-2019	1	Initial release.

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