Features

- Erases, programs, views and verifies the content of the device Flash memory
- Supports Motorola S19, Intel HEX, ELF, and binary formats
- Supports debug and bootloader interfaces:
  - ST-LINK debug probe (JTAG/SWD)
  - UART, USB DFU, I²C, SPI, and CAN bootloader interfaces
- Programs, erases and verifies external memories, with examples of external Flash loaders to help users to develop loaders for specific external memories
- Automates STM32 programming (erase, verify, programming, configuring option bytes)
- Allows OTP memory programming
- Supports the programming and configuring of option bytes
- Offers a command-line interface for automation through scripting
- ST-LINK firmware update
- Enables secure firmware creation using the STM32 Trusted Package Creator tool
- STM32MP1 Series peripheral boot and flashing
- Supports OTA programming for the STM32WB Series
- Multi-OS support: Windows®, Linux®, macOS®

Description

STM32CubeProgrammer (STM32CubeProg) is an all-in-one multi-OS software tool for programming STM32 products.

It provides an easy-to-use and efficient environment for reading, writing and verifying device memory through both the debug interface (JTAG and SWD) and the bootloader interface (UART, USB DFU, I²C, SPI, and CAN).

STM32CubeProgrammer offers a wide range of features to program STM32 internal memories (such as Flash, RAM, and OTP) as well as external memories.

STM32CubeProgrammer also allows option programming and upload, programming content verification, and programming automation through scripting.

STM32CubeProgrammer is delivered in GUI (graphical user interface) and CLI (command-line interface) versions.
STM32CubeProg 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
STM32CubeProg is available for free download from the 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.
  - 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 Packages, comprehensive embedded-software platforms specific to each microcontroller 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.

1.3 License
STM32CubeProg 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 (RN0109).
Revision history

Table 1. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-Dec-2017</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>12-Apr-2018</td>
<td>2</td>
<td>Part number changed to STM32CubeProg.</td>
</tr>
<tr>
<td>19-Jul-2018</td>
<td>3</td>
<td>Updated section License.</td>
</tr>
<tr>
<td>25-Feb-2019</td>
<td>4</td>
<td>Tool support extended to the STM32MP1 Series and STM32WB Series:</td>
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<tr>
<td></td>
<td></td>
<td>updated Features and Description.</td>
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<tr>
<td></td>
<td></td>
<td>Added General information.</td>
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