

## Introduction

This release note is updated periodically to keep abreast of the STM32CubeProgrammer (STM32CubeProg) evolution, problems and limitations. Check the ST support website at [www.st.com/stm32softwaretools](http://www.st.com/stm32softwaretools) for the latest version. Refer to [Table 1](#) for the latest release summary.

**Table 1. STM32CubeProgrammer v1.0.0 release summary**

Type	Summary
Initial release	<ul style="list-style-type: none"><li>– STM32 Flash erasing, programming and uploading</li><li>– Option bytes programming and uploading</li><li>– Support of debug and bootloader interfaces:<ul style="list-style-type: none"><li>- ST-LINK debug probe (JTAG/SWD)</li><li>- Bootloader interfaces UART and USB DFU</li></ul></li><li>– Secure firmware creation using the STM32 Trusted Package Creator tool</li></ul>

## Customer support

For more information or help concerning STM32CubeProgrammer, contact the nearest ST sales office. For a complete list of ST offices and distributors, refer to the [www.st.com](http://www.st.com) webpage.

## Software updates

Software updates and all the latest documentation can be downloaded from the ST microcontroller support webpage at [www.st.com/stm32softwaretools](http://www.st.com/stm32softwaretools).



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# 1 General Information

## 1.1 Overview

STM32CubeProgrammer is a tool that allows STM32 device programming through debug interfaces (JTAG and SWD) and bootloader interfaces (UART and USB).

The tool offers a wide range of features to program STM32 internal memories (Flash, RAM, OTP and others) and external memories, verify the programming content (checksum, verify during and after programming, compare with file), and automate STM32 programming.

The STM32CubeProgrammer package also offers the optional installation of the STM32 Trusted Package Creator tool, which is used to create secure firmware files for secure firmware install and update. For more information, refer to the *STM32 Trusted Package Creator tool software description* user manual (UM2238).

STM32CubeProgrammer supports STM32 32-bit microcontrollers based on the Arm<sup>®(a)</sup> Cortex<sup>®</sup>-M processor.



## 1.2 Host PC system requirements

### Supported operating systems and architectures

- Windows<sup>®</sup> 7, 8, and 10: 32 bits (x86) and 64 bits (x64)
- Linux<sup>®</sup> (tested on Ubuntu, 32 and 64 bits)
- macOS<sup>®(b)</sup> (minimum version OS X<sup>®</sup> Yosemite)

### Software requirements

The Java<sup>™</sup> SE Run Time Environment 1.8 (version 1.8.0\_121 or newer) by Oracle<sup>®</sup> must be installed (it is available for download from the [www.oracle.com](http://www.oracle.com) website).

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**Warning: Java OpenJDK is not supported.  
Java<sup>™</sup> SE Run Time Environment 9 by Oracle<sup>®</sup> is not supported.**

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## 1.3 Setup procedure

Refer to the *STM32CubeProgrammer software description* user manual (UM2237) available at [www.st.com](http://www.st.com).

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- a. Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.  
b. macOS<sup>®</sup> is a trademark of Apple Inc., registered in the U.S. and other countries.

## 1.4 Licensing

STM32CubeProg is delivered under the *Mix Ultimate Liberty + OSS + 3rd party V1* license.

[Table 2](#) summarizes the software components used in the development of STM32CubeProgrammer and their licenses.

**Table 2. List of software components licenses**

Name	Version	License type	Details
Java SE	1.8	Oracle Binary Code License Agreement	<a href="http://www.oracle.com/">http://www.oracle.com/</a> <sup>(1)</sup>
Java Native Access	4.5.0	Apache License, Version 2.0	<a href="https://mvnrepository.com/">https://mvnrepository.com/</a> <sup>(2)</sup>
lzpack	5.1.2	Apache License, Version 2.0	<a href="https://mvnrepository.com/">https://mvnrepository.com/</a> <sup>(2)</sup>
QT framework	5.4	LGPLv3	<a href="https://www.qt.io/">https://www.qt.io/</a> <sup>(3)</sup>
LibUSB	1.0.20	LGPLv2	<a href="https://github.com/libusb/libusb/">https://github.com/libusb/libusb/</a> <sup>(4)</sup>

1. Search for Java SE 1.8.0\_121 in the Oracle repository.
2. Search for the proper version of the component in the MVN repository.
3. Search for the proper version in the QT web site
4. Search for the component in the Git repository

## 2 STM32CubeProgrammer v1.0.0 release information

### 2.1 New features

- STM32 Flash programming and erasing over ST-LINK debug probe (JTAG/SWD) and over bootloader interfaces UART and USB DFU
- STM32 option bytes detailed display with description of each bit field
- Option bytes programming over ST-LINK debug probe (JTAG/SWD) and over bootloader interfaces UART and USB DFU
- External memories programming over ST-LINK debug probe (JTAG/SWD) for STM32 microcontroller evaluation and discovery boards
- Read, display and programming of binary files, ELF files, Intel hex files and Motorola S-record files
- Read and display of STM32 microcontroller memory content
- Command line and graphical user interface
- Generation of secure firmware using the STM32 Trusted Package Creator tool

### 2.2 Known problems and limitations

- The use of the UART bootloader prevents from increasing the RDP level and from programming the second bank of option bytes, or from enabling the two user secure areas simultaneously on STM32H7.
- Programming over USB bootloader is not reliable with USB2.0 for some devices.
- The erase command is not supported with data EEPROM on STM32L0 and STM32L1.
- External memory programming is only available with ST-LINK.
- Installing multiple instances of the same version of the tool in the same directory under Windows® leads to issues when uninstalling.

### 3 Revision history

**Table 3. Document revision history**

<b>Date</b>	<b>Revision</b>	<b>Changes</b>
24-Nov-2017	1	Initial release.
12-Apr-2018	2	Part number changed to STM32CubeProg.

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