

# STM32CubeIDE release v1.17.0

## Introduction

This release note is updated periodically to keep abreast of STM32CubeIDE evolution, problems, and limitations. Check the STMicroelectronics website at www.st.com/stm32softwaretools for the latest version. For the latest release summary, refer to Table 1.

Table 1. STM32CubeIDE v1.17.0 release summary

| Туре          | Summary  |
|---------------|--|
| Major release | <ul> <li>Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.13.0:         <ul> <li>Added the support for the STM32N6 series</li> <li>Added the support for the STM32U3 series</li> <li>Added the support for the STM32WL3x line</li> <li>Added the support for the STM32MP23xx microprocessors</li> <li>Added the support for the STM32MP25xx microprocessors in a TFBGA361 16 mm × 16 mm package</li> <li>Added the support for new microcontrollers in the STM32C0 series and related Nucleo boards (NUCLEO-C051C8 and NUCLEO-C092RC)</li> <li>Added the support for new microcontrollers in the STM32G4 series</li> <li>Added the support for new microcontrollers in the STM32WBA series and the related B-WBA5M-WPAN board</li> </ul> </li> <li>Simplified the user authentication interface</li> <li>Added the support for debug authentication with password for the STM32N6 series</li> <li>Improved the OpenSTLinux plugin support to be version agnostic</li> <li>Enabled the installation of both STM32MP1 and STM32MP2 flavors of OpenSTLinux plugins within the same STM32CubeIDE instance</li> <li>Added support for downloading the .bin file during debugging</li> </ul> |

# **Customer support**

For more information or help concerning STM32CubeIDE, contact the nearest STMicroelectronics sales office or use the ST community at community.st.com. For a complete list of STMicroelectronics offices and distributors, refer to the <a href="https://www.st.com">www.st.com</a> webpage.

# **Software updates**

Software updates and all the latest documentation can be downloaded from the STMicroelectronics support webpage at www.st.com/stm32cubeide.







# 1 General information

#### 1.1 Overview

STM32CubeIDE is an integrated development environment (IDE) based on the Eclipse<sup>®</sup> framework. It is aimed at users developing embedded software in C/C++ for the STMicroelectronics STM32 products. It uses an enhanced GNU toolchain for STM32, based on *GNU Arm Embedded*. It has an integrated version of STM32CubeMX and MCUFinder, which allows easy project configuration as well as the generation of the corresponding initialization C code through a step-by-step process. Furthermore, STM32CubeIDE integrates the command-line version of STM32CubeProgrammer (STM32CubeProg) for flash memory handling while using the ST-LINK GDB server. This allows the STM32 device programming through debug interfaces (JTAG and SWD).

STM32CubeIDE is based on the following technology, with STMicroelectronics specific enhancements:

- Eclipse<sup>®</sup> 2023-12 and CDT<sup>™</sup> version 11.4.0
- GNU tools for STM32, based on GNU Tools for Arm Embedded Processors 12.3.rel1.20240926-1715
- GNU GDB (GNU tools for STM32 12.3.rel1.20240926-1715)
- The bundled JRE<sup>™</sup> is Adoptium<sup>®</sup> Temurin<sup>™</sup> 21.0.3\_9 and JavaFX 21.0.3
- ST-LINK gdbserver 7.9.0, supporting ST-LINK V2.1.1-2
- SEGGER J-Link GDB server 8.10d
- STM32CubeProgrammer (STM32CubeProg) v2.18.0
- Open On-Chip Debugger 0.12.0+dev-00600-g090b431b1
- RTOS Proxy 0.16.0

Windows® specific build tools:

- BusyBox v1.31.0.st\_20240131-1810: mkdir.exe, rm.exe, echo.exe
- make-4.4.1 st 20231030-1220 longpath: make.exe

Linux® specific build tools:

4.4.1 st 20231030-1220: make

macOS® specific build tools:

make-4.4.1 st 20231030-1220: make

STM32CubeIDE supports STM32 32-bit products based on the Arm® Cortex® processor.

Note:

- Eclipse is a registered trademark of the Eclipse foundation.
- Adoptium and Temurin are trademarks of the Eclipse foundation.
- Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

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# 1.2 Host PC system requirements

# Supported operating systems and architectures

- Windows<sup>®</sup> 10 and 11, 64 bits (x64)
- Linux<sup>®</sup>: Ubuntu<sup>®</sup> LTS 22.04 and LTS 24.04, and Fedora<sup>®</sup> 40
- macOS<sup>®</sup> 14 (Sonoma), macOS<sup>®</sup> 15 (Sequoia)

Note:

Windows is a trademark of the Microsoft group of companies.

Linux<sup>®</sup> is a registered trademark of Linus Torvalds.

Ubuntu<sup>®</sup> is a registered trademark of Canonical Ltd.

Fedora® is a trademark of Red Hat, Inc.

macOS® is a trademark of Apple Inc., registered in the U.S. and other countries and regions.

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#### Memory and storage

- RAM: 4 Gbytes recommended
- Hard-disk space: 6 Gbytes of free space for non-STM32 MPU OpenSTLinux developers, 15 Gbytes for STM32 MPU OpenSTLinux usage

# 1.3 Setup procedure

Refer to the *STM32CubeIDE installation guide* (UM2563), *STM32CubeIDE quick start guide* (UM2553), and *STM32CubeIDE user guide* (UM2609) available at *www.st.com*.

# 1.4 Licensing

STM32CubeIDE is delivered under the *Mix Ultimate Liberty+OSS+3rd-party V1* software license agreement (SLA0048).

The open-source and third-party software components used in the development of STM32CubeIDE and their licenses are listed in a zip file available from the product page at STMicroelectronics *www.st.com* web site. Table 2 provides the description of the licenses of additional components in STM32CubeIDE.

| Name                  | Version | Copyright          | License     | Detail   |
|-----------------------|---------|--------------------|-------------|--|
| STLink-USB-Driver     | -       | STMicroelectronics | Proprietary | Refer to the global software license agreement |
| STLink-USB-Driver-lib | -       | STMicroelectronics | Proprietary | Refer to the global software license agreement |
| ST-LINK Server        | 2.1.1-2 | STMicroelectronics | Proprietary | Refer to the global software license agreement |

Table 2. Complementary component licenses

#### 1.5 Cross-selector data disclaimer

The information presented in the cross-reference tool is intended to help the users to narrow their search of STMicroelectronics products based on similarity to other available products. The information is based on data published by other semiconductor manufacturers and might contain errors. STMicroelectronics provides the information "as is" and does not make any representations or warranties as to its accuracy or suitability for any particular purpose. STMicroelectronics recommends that the users make their purchase decision based on their review of STMicroelectronics datasheets and other product documentation. Any pricing information is an estimate for budgetary purposes only.

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# 2 STM32CubeIDE v1.17.0 release information

## 2.1 New feature

- Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.13.0:
  - Added the support for the STM32N6 series
  - Added the support for the STM32U3 series
  - Added the support for the STM32WL3x line
  - Added the support for the STM32MP23xx microprocessors
  - Added the support for the STM32MP25xx microprocessors in a TFBGA361 16 mm × 16 mm package
  - Added the support for new microcontrollers in the STM32C0 series and related Nucleo boards (NUCLEO-C051C8 and NUCLEO-C092RC)
  - Added the support for new microcontrollers in the STM32G4 series
  - Added the support for new microcontrollers in the STM32WBA series and the related B-WBA5M-WPAN board
- Simplified the user authentication interface
- Added the support for debug authentication with password for the STM32N6 series
- Improved the OpenSTLinux plugin support to be version agnostic
- Enabled the installation of both STM32MP1 and STM32MP2 flavors of OpenSTLinux plugins within the same STM32CubeIDE instance
- Added support for downloading the .bin file during debugging

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 2.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 2.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

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# 3 Previous release information

## 3.1 STM32CubeIDE v1.16.1 release information

#### 3.1.1 New feature

- Alignment with STM32CubeMX v6.12.1
  - Added the support for the STM32MP255x microprocessors

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.1.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.1.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.2 STM32CubeIDE v1.16.0 release information

#### 3.2.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.12.0:
  - Added the support for the STM32WB0 series
  - Added the support for the STM32MP25xx microprocessors
  - Added the support for new microcontrollers in the STM32C0 series
  - Added the support for new boards based on the STM32G4 series
- Added CMake support for multicontext series
- Added new features for CMake project configuration
- Basic CMake support now also with Ninja
- Added the OZ in the optimization level to the build settings

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.2.2 Fixed issues

 $Refer\ to\ the\ STM32\ microcontrollers\ wiki\ at\ wiki.st.com/stm32mcu/wiki/Category: STM32CubeIDE\_errata.$ 

#### 3.2.3 Known problems and limitations

 $Refer\ to\ the\ STM32\ microcontrollers\ wiki\ at\ wiki.st.com/stm32mcu/wiki/Category: STM32CubeIDE\_errata.$ 

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## 3.3 STM32CubeIDE v1.15.1 release information

#### 3.3.1 New feature

- Fixed an issue with ST-LINK firmware upgrade concerning the boards with DFU v2 or older in the version 3.14.5 of ST-LINK GDB server.
- Fixed an issue with the build settings: The build settings do not save the latest linker modified by the user and select the default linker instead.

Refer to Fixed issues for details about this patch release.

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.3.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.3.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

## 3.4 STM32CubeIDE v1.15.0 release information

#### 3.4.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.11.0:
  - Added the support for the STM32U0 series
  - Added the support for the STM32H7Rx/7Sx microcontrollers in the STM32H7 series
  - Added the support for the STM32H523/533 microcontrollers in the STM32H5 series
  - Added the support for new boards based on the STM32U0 series, STM32H7Rx/7Sx, and STM32H523/533 microcontrollers
- Added the support for the Q-Format in the Live Expressions view
- Added the support for Arm<sup>®</sup> Cortex<sup>®</sup>-A7 registers in the SFRs view
- Switched to GCC 12 as a default toolchain
  - GCC 12 is available on the Eclipse<sup>®</sup> p2 update site
- Added the support for Fedora<sup>®</sup> 37
- Added the support for macOS<sup>®</sup> 14 (Sonoma)
- Updated to Eclipse<sup>®</sup> 2023-12

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.4.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

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## 3.4.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

# 3.5 STM32CubeIDE v1.14.1 release information

#### 3.5.1 New feature

Fixed an issue with prebuild or postbuild commands on Windows<sup>®</sup>.
 Refer to Fixed issues for details.

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.5.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.5.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.6 STM32CubeIDE v1.14.0 release information

# 3.6.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.10.0
  - Added the support for new microcontrollers in the STM32WBA series
  - Added the support for two new boards related to the STM32WBA series: NUCLEO-WBA55CG and STM32WBA55G-DK1
  - Added the support for one new board related to the STM32U5 series: STEVAL-MKBOXPRO
- Added support for the STM32CubeMP13 MPU Package, a bare-metal firmware dedicated to the STM32MP13xx microprocessors
- Signed macOS<sup>®</sup> installer
- Updated to Eclipse<sup>®</sup> 2023-09
- GCC update:
  - GCC 12 is available on the Eclipse<sup>®</sup> p2 update site

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.6.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

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## 3.6.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

# 3.7 STM32CubeIDE v1.13.2 release information

#### 3.7.1 New feature

- Alignment with STM32CubeMX v6.9.2
- Same embedded STM32CubeIDE user guide revision (UM2609) as the one on the product web page

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.7.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.7.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

## 3.8 STM32CubeIDE v1.13.1 release information

## 3.8.1 New feature

Alignment on STM32CubeMX v6.9.1.

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.8.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

# 3.8.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.9 STM32CubeIDE v1.13.0 release information

#### 3.9.1 New feature

- Added the support for new microcontrollers in the STM32U5 series
- Added the support for new microcontrollers in the STM32WBA series
- Added the support for two new boards related to the STM32U5 series: STM32U5G9J-DK1 and STM32U5G9J-DK2
- Added the support for one new board related to the STM32L4+ series: STEVAL-SMARTAG2

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- Added the user authentication interface to permit package download
- Updated to Eclipse<sup>®</sup> 2023-03
- Updated to GCC 11 support by default
- Added CMake project support
- Updated debug:
  - Changed values highlighted in yellow in the SFRs view
  - Debug authentication for STM32H5 products
  - Support for programming using multiple external loaders with OpenOCD
- Updated for microprocessors:
  - Support for the latest release 5.0.0 of OpenSTLinux
  - Addition of the TCP console for semihosting output

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.9.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

#### 3.9.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

# 3.10 STM32CubeIDE v1.12.1 release information

#### 3.10.1 New feature

- Alignment with STM32CubeMX v6.8.1.
- Fixed the STM32CubeIDE installation on Fedora<sup>®</sup>.
   Refer to Fixed issues for details.

## Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.10.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.10.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

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# 3.11 STM32CubeIDE v1.12.0 release information

#### 3.11.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.8.0
  - Added the support for the STM32H5 series microcontrollers
  - Added the support for new microcontrollers in the STM32U5 series
  - Added the support for the STM32WBA series microcontrollers
  - Added the support for one new board related to the STM32G4 series: B-G473E-ZEST1S
  - Added the support for three boards related to the STM32H5 series: NUCLEO-H563ZI, NUCLEO-H503RB, STM32H573I-DK
  - Added the support for three new boards related to the STM32U5 series: STM32U5A9J-DK, NUCLEO-U5A5ZJ-Q, NUCLEO-U545RE-Q
  - Added the support for one new board related to the STM32WBA series: NUCLEO-WBA52CG
- · Editor improved for project examples
  - When importing a project example, automatically opens the readme file if it exists
- Data analytics enabled by default
- GCC update enabled
  - Updates GCC 11, which is already available on the Eclipse<sup>®</sup> p2 update site
- Debug
  - Address column added to the Live Expressions view
- Code quality
  - Added the cyclomatic complexity feature that calculates the function complexity based on the built program
  - Added a view to display the complexity of each function included in the program

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.11.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

#### 3.11.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.12 STM32CubeIDE v1.11.2 release information

# 3.12.1 New feature

This patch release fixes the two issues related to the following cases:

- The latest Eclipse CDT<sup>™</sup> version 11.0.0 requires Java<sup>®</sup> 17 while some plug-ins inside STM32CubeIDE are incompatible with Java<sup>®</sup> 17. This patch fixes the issues with the *Toolchain Manager* and with OpenSTLinux installation
  - Patch limitation: The patch does not fix the issue with downloading plug-ins from the *Eclipse Marketplace*. To fix the *Eclipse Marketplace* issue, the JRE must be updated, which is not done in the STM32CubeIDE v1.11.2.
- With STM32CubeIDE v1.11.0, some code about the FreeRTOS<sup>™</sup> support is removed for the STM32F4 series.

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#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.12.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

# 3.12.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.13 STM32CubeIDE v1.11.0 release information

#### 3.13.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.7.0:
  - Added the support for one new module in the STM32WL series: STM32WL5MOC
  - Added the support for one new board based on the STM32WB series: STEVAL-PROTEUS1
  - Added the support for one board based on the STM32F0 series STM320518-EVAL
- Video tutorials:
  - Information Center updated with new videos
  - Tutorial Video access added in the help menu
- Microprocessor Linux<sup>®</sup> bootloader deployment:
  - Integration of OpenSTLinux Distribution v4.1.0
  - Creation of "MPU SSH weston" connection for GTK application debug
- SFRs view:
  - Possibility to create tabs with subsets of peripherals and registers
  - Dump of all peripheral registers to a file
  - Possibility to read the registers via live channel

## Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.13.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.13.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

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## 3.14 STM32CubeIDE v1.10.1 release information

#### 3.14.1 New feature

Integration of STM32CubeMX v6.6.1:

 Avoids the fact that, after a project migration with STM32CubeMX v6.6.0, some files may be deleted from the STM32CubeMX project

Note: Users are advised to use STM32CubeIDE v1.10.1 instead of STM32CubeIDE v1.10.0.

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.14.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

# 3.14.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.15 STM32CubeIDE v1.10.0 release information

#### 3.15.1 New feature

- Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.6.0
  - New STM32MP131, STM32MP133, and STM32MP135 microprocessors
  - New STM32WBxxxx microcontrollers
  - New STM32L4xxxx microcontrollers
  - New STM32MP135F-DK Discovery kit
  - New B-WB1M-WPAN1 Discovery kit
  - New STEVAL-ASTRA1B and STEVAL-STWINBX1 Evaluation boards
- Eclipse<sup>®</sup> update 2022-03
  - Including dark theme support improvement
- SEGGER J-Link update 7.66
- Microprocessors
  - Support for OP-TEE trusted applications
- Added Azure<sup>®</sup> RTOS views shortcuts
- Added a preference to change the debug probe by default
- SWV trace log export

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#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.15.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

#### 3.15.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.16 STM32CubeIDE v1.9.0 release information

#### 3.16.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.5.0
  - New STM32C0xxxx devices
  - New STM32U5xxxx devices
  - New STM32C0116-DK and STM32C0316-DK Discovery kits
  - Referencing of the P-L496G-CELL01 and P-L496G-CELL02 Discovery kits
- Eclipse<sup>®</sup> update 2021-12
- GCC update
  - GCC 10 support by default
- Video tutorials
  - Video tutorials available from mainland China on www.stmcu.com.cn

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.16.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.16.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE errata.

## 3.17 STM32CubeIDE v1.8.0 release information

## 3.17.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.4.0
  - New STM32L4xxxx devices
  - New NUCLEO-F756ZG

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- TraceX export
  - Easy export and visualization of Azure<sup>®</sup> RTOS TraceX trace buffer in TraceX
- Video tutorials
  - Information Center update with video browser
  - First ten video tutorials available on YouTube<sup>™</sup>
- GCC update
  - GCC 10 available on Eclipse<sup>®</sup> p2 update site
- Microprocessor Linux<sup>®</sup> bootloader deployment
  - Bootloader update on running target and test

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.17.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.17.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

#### 3.18 STM32CubeIDF v1.7.0 release information

## 3.18.1 New feature

- Eclipse® update 2021-03 (Q1 release) with improved macOS® Big Sur support
- STM32CubeMX v6.3.0 integration
- RTOS support improvements: full call stack for all tasks in the Debug view
- New feature highlight in the Information Center
- Projectless debug support: debug is possible with an elf file and no STM32 project
- Thread-safe malloc solution

## Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.18.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE\_errata.

## 3.19 STM32CubeIDE v1.6.1 release information

## 3.19.1 New feature

STM32CubeMX v6.2.1 integration

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Updated to OpenSTLinux v3.0.0 including FIP image generation

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.19.2 Fixed issues

Table 3. Main issues fixed in STM32CubeIDE v1.6.1

| ID     | Summary  |
|--------|--|
| 101797 | Updating the .ioc file no longer opens multiple project files on MPU projects. |
| 102318 | The Manage Embedded Software dialog now works correctly on macOS®.             |

# 3.20 STM32CubeIDE v1.6.0 release information

#### 3.20.1 New feature

- STM32CubeMX v6.2.0 integration
- New GNU Tools for STM32 toolchain v9.3.1
- Toolchain selector extension allowing third-party GCC toolchain selection
- Azure<sup>®</sup> RTOS kernel aware debug
- Pinout compatible search feature
- STM32MP1 application/library user land development

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.20.2 Fixed issues

Table 4. Main issues fixed in STM32CubeIDE v1.6.0

| ID    | Summary  |
|-------|--|
| 88719 | Build system improvements with respect to incremental builds. The build system now detects additional GUI option changes.          |
| 90364 | Fixed issue with STM32CubeMX building libraries in the wrong order.  |
| 93375 | Kubuntu®/Ubuntu®: Fixed issue with dependency on libwebkit2gtk-4.0-37 allowing proper rendering of the <i>Information Center</i> . |
| 95784 | Linux® tar.gz generic installer packages now report if the installation failed due to insufficient disk space.                     |
| 96347 | STM32CubeMX no longer reverts C++ projects to C projects upon the next code generate operation.                                    |

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| ID     | Summary   |
|--------|---|
| 98703  | STM32CubeIDE 1.6.0 bundles a new JRE <sup>™</sup> supporting Java <sup>®</sup> 11 fixing issues with Eclipse <sup>®</sup> Marketplace plugins such as eGit. |
| 98999  | STM32H7 series: fixed issue with missing memory regions in linker scripts.  |
| 99421  | STM32WB30xx: fixed issue with memory region Ram_Shared being set to the wrong address.  |
| 99537  | STM32Cube project generation outside the "default location" no longer cleans the folder in case of folder access permission issues.                         |
| 99857  | The <i>Toolchain Manager</i> supports Eclipse CDT <sup>™</sup> projects.  |
| 100002 | FreeRTOS <sup>™</sup> and Azure <sup>®</sup> RTOS ThreadX debug views now support dark theme.   |
| 100209 | Fixed issue leading to main.c being generated in the wrong folder for hierarchical projects.  |

# 3.21 STM32CubeIDE v1.5.1 release information

#### 3.21.1 New feature

STM32CubeMX v6.1.1 integration

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

## 3.21.2 Fixed issues

Table 5. Main issues fixed in STM32CubeIDE v1.5.1

| ID    | Summary                                   |   |
|-------|---|---|
| 97133 | [STM32CubeMX] Baud rate calculator issue. | [STM32CubeMX] Baud rate calculator issue. |

## 3.22 STM32CubeIDE v1.5.0 release information

# 3.22.1 New feature

- STM32CubeMX v6.1.0 integration
- Added the support for the STM32WL series
- Extended the support for the STM32G0 series to the new STM32G0Bxxx and STM32G0Cxxx devices
- Added FreeRTOS<sup>™</sup> support
- Added the toolchain manager
- Improved OpenOCD
  - Live expressions
  - Serial Wire Viewer (SWV)
- Added the ability to write values in the Live Expressions view and propagate to the target memory
- Extended the SFRs view with Arm® core registers
- Updated the Eclipse<sup>®</sup> platform
- Updated to OpenSTLinux 2.1

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# Added Ubuntu<sup>®</sup> 20.04 support

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

With STM32CubeIDE v1.5.0, the option "Disable thread-safe initialization of local static objects (-fno-threadsafe-statics)" has changed the default value from "true" to "false". This means that both flash memory and RAM usages are slightly increased with respect to previous versions of STM32CubeIDE, with the benefit of removing a potential race condition in the embedded code. To preserve the old behavior, make sure that the checkbox for the option is checked under [Project properties]>[C/C++ Build]>[Settings]>[Tool Settings]>[MCU G++ Compiler]>[Optimization].

#### 3.22.2 Fixed issues

Table 6. Main issues fixed in STM32CubelDE v1.5.0

| ID    | Summary   |
|-------|---|
| 89316 | Debug configuration for STM32L4+ is missing low-power and watchdog selections for ST-LINK GDB server. |
| 93098 | Headless build script should return with the same exit code as sub-process.                           |
| 93376 | [Kubuntu] Installing STM32CubeIDE on Kubuntu® 20.04 leads to corrupt installation.                    |

## 3.23 STM32CubeIDE v1.4.2 release information

#### 3.23.1 New feature

STM32CubeMX v6.0.1 integration

STM32CubeIDE v1.4.2 revisits the corrections of the issues quickly fixed in v1.4.1. It implements better solutions harmonized between STM32CubeMX stand-alone and IDE-integrated versions. STMicroelectronics recommends upgrading from v1.4.1 to v1.4.2.

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.4.x or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

#### 3.23.2 Fixed issues

Table 7. Main issues fixed in STM32CubeIDE v1.4.2

| ID    | Summary   |
|-------|---|
| 90615 | [STM32CubeMX] Unexpected project data deletion when some utilities are used.                              |
| 90636 | [STM32CubeMX] IRQ priorities for some "Non-System" IPs are set to minimal values after project migration. |
| 90727 | [STM32CubeIDE] Fixed issue with OpenOCD not being able to use with third-party debug probes.              |
| 90934 | [STM32CubeMX] Some boards do not boot after enabling FreeRTOS™.   |

## 3.24 STM32CubeIDE v1.4.1 release information

This patch version provides a quick fix of some issues encountered in STM32CubeMX v6.0.0 and with OpenOCD debug on third-party debug probes. There is no corresponding revision of the release note. The resulting STM32CubeIDE v1.4.1 release information is integrated within the STM32CubeIDE v1.4.2 release information.

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# 3.25 STM32CubeIDE v1.4.0 release information

#### 3.25.1 New feature

- STM32CubeMX v6.0.0 integration
- Additional support for STM32MP1 devices: STM32 MPU OpenSTLinux 2.0 SDK and project support
- Additional support for STM32H7 devices
- Additional support for STM32G4 devices
- OpenOCD support improvements

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.2.0 or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

## 3.25.2 Fixed issues

Table 8. Main issues fixed in STM32CubeIDE v1.4.0

| ID                      | Summary  |
|-------------------------|--|
| 47930<br>62821<br>87084 | STM32CubeIDE Serial Wire Viewer selecting large amounts of data to copy to the clipboard no longer crashes STM32CubeIDE.                           |
| 72289                   | Debugging a project using ST-LINK GDB server on a board and having multiple boards connected to the PC works if <i>Shared ST-LINK</i> is selected. |
| 73302                   | An STM32MP1 project generated with STM32CubeMX can be debugged in both the engineering and production modes.                                       |
| 79065                   | STM32L5 projects are generated properly when FreeRTOS <sup>™</sup> is activated.   |
| 79853                   | Using OpenOCD with ST-LINK checks and forces ST-LINK firmware update at debug launch.  |
| 85191                   | Improved sysmem.c function _sbrk.  |

## 3.26 STM32CubeIDE v1.3.1 release information

## 3.26.1 New feature

STM32CubeMX v5.6.1 integration

Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.2.0 or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

#### 3.26.2 Fixed issues

Table 9. Main issues fixed in STM32CubeIDE v1.3.1

| ID    | Summary  |
|-------|--|
| 79013 | Changing the call order in the Advanced Settings tab can now be saved. |
| 81455 | It is now possible to save the DDR tuning configuration.               |

# 3.27 STM32CubeIDE v1.3.0 release information

## 3.27.1 New feature

STM32CubeMX v5.6.0 integration

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- Additional support for STM32WB devices
- Run configurations support, allowing the user to download an application and reset the target without launching a full debug session

## Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.2.0 or later versions. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

#### 3.27.2 Fixed issues

Table 10. Main issues fixed in STM32CubeIDE v1.3.0

| ID    | Summary   |
|-------|---|
| 63770 | The Linux® installers no longer install any packages before the license agreement is accepted.  |
| 64277 | The run configuration and <b>[Run]</b> button now allow the user to download and reset the device without launching a full debug session.   |
| 66769 | Importing the ioc file created by stand-alone STM32CubeMX is now fully supported.   |
| 72960 | Peripherals are correctly initialized when creating an STM32CubeIDE project for several STM32G4 boards.   |
| 72978 | Now all STM32CubeIDE projects for STM32H7 boards can be built.  |
| 73657 | Pin assigment in ioc-editor pinout view on STM32L5, STM32MP1 and STM32H7 devices now works and leads to a dirty ioc file no longer requiring the user to manually generate code with the Alt + K shortcut.                    |
| 75322 | It is now possible to adjust JTAG/SWD frequency through the UI for ST-LINK GDB server.  |
| 75927 | Debug in low-power modes are now selectable in the debug configuration dialog when using ST-LINK GDB server.  |
| 75934 | It is now possible to configure watchdog counters during debugging for ST-LINK GDB server.  |
| 76789 | Fix for external Flash loaders. Added option <code>-external-init</code> to the ST-LINK GDB server. Use this option to call <code>Init()</code> after reset. Calling <code>Init()</code> was previously the default behavior. |
| 80498 | It is now possible to use absolute paths to .elf files in the debug configuration.  |

# 3.28 STM32CubeIDE v1.2.0 release information

# 3.28.1 New feature

- STM32CubeMX v5.5.0 integration
- Support for STM32L5 devices

#### Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.2.0. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

# 3.28.2 Fixed issues

Table 11. Main issues fixed in STM32CubeIDE v1.2.0

| ID    | Summary   |
|-------|---|
| 62132 | The macOS $^{\$}$ installer displays incompatible version dialog when installing the stlink-server package. This can safely be ignored.                         |
| 66327 | Updating field [HCLK] in tab Clock Configuration is difficult.  |
| 69113 | Importing a project from an earlier version into the current one will hang STM32CubeIDE when opening the . $ioc$ editor. This only affects macOS <sup>®</sup> . |

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| ID    | Summary  |
|-------|--|
| 69233 | In the STM32CubeMX .ioc editor under [ <b>Project Manager</b> ]>[ <b>Code Generator</b> ], there is a [ <b>settings</b> ] button that is not yet implemented.  |
| 70529 | <i>Null Pointer Exception</i> occurs when trying to create a new debug configuration on a hierarchical root project, selecting OpenOCD debug probe, and changing some options.   |
| 73310 | For importing an MPU project, consult application note <i>Getting started with projects based on the STM32MP1</i> Series in STM32CubeIDE (AN5360).   |
| 73521 | For STM32H7 devices using OpenOCD, the Cortex <sup>®</sup> -M7 must launch the debug session first.  |
| 73635 | Projects with a debug configuration from a previous version of STM32CubeIDE need to disable, click [apply], and then enable SWV and Live Expressions.  |
| 73652 | ST-LINK GDB-server debugger may lose control over STM32H7 dual-core devices during reset operations. This is less prevalent if Flash loading is disabled. Preferrably use multiple use case oriented debug configurations.                 |
| 73785 | ST-LINK GDB-server debugger may fail while attaching to a core in a low-power state, even if option Halt all cores is enabled. This is circumvented by waiting to attach to the core until the application has exited any low-power state. |
| 73790 | The [Reset] toolbar button might fail during a multi-core debug scenario. Restart of the debug session is then required.   |
| 73890 | ST-LINK GDB-server does not work properly with the macOS® version of STM32CubeIDE. The use of OpenOCD or J-Link is required.   |
| 78587 | STM32L5 empty projects have incorrect linker scripts.  |

# 3.29 STM32CubeIDE v1.1.0 release information

# 3.29.1 New feature

- STM32CubeMX v5.4.0 integration
- Support for STM32MP1 devices
- Beta support for STM32L5 devices<sup>(1)</sup>
- Support for STM32H7 devices
- Beta support only. Contact the local STMicroelectronics sales office or distributor (refer to www.st.com/content/st\_com/en/contact-us.html) to get STM32CubeL5 MCU Package V0.7.0.

# Important:

STMicroelectronics recommends that a new workspace is created for the work done with STM32CubeIDE v1.1.0. Existing projects made with a previous version of STM32CubeIDE must be imported and copied into the new workspace.

## 3.29.2 Fixed issues

Table 12. Main issues fixed in STM32CubelDE v1.1.0

| ID    | Summary  |
|-------|--|
| 64364 | The [Help]>[Data refresher] can be invoked several times without pop-up dialog.  |
| 65331 | The creation of static libraries with the option add libraries as reference leads to the unintended generation of the Drivers folder.  |
| 65482 | Creating a BOARD project with Code generator options add necessary library files as reference and initialize all peripherals with default settings can cause build errors if BOARD depends on the USB library. |
| 66391 | The Generate code operation re-includes excluded files in folders that are created by STM32CubeMX.   |
| 68131 | The user cannot change <i>Application Structure</i> from Basic to Advanced or vice versa without losing user's code.   |

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| ID    | Summary   |
|-------|---|
| 69380 | When creating an empty project, the FPU is enabled in the build settings, but the project is generated without a SystemInit function to initialize FPU at run-time. |
| 71371 | Pre- and post-build steps, build configuration, and non-STM32CubeMX generated files inside project and others get deleted when project is regenerated.              |

# 3.30 STM32CubelDE v1.0.2 release information

## 3.30.1 New feature

STM32CubeMX v5.3.0 integration.

# 3.30.2 Fixed issues

Table 13. Main issues fixed in STM32CubelDE v1.0.2

| ID    | Summary   |
|-------|---|
| 56619 | Conditional breakpoints do not work. Fixed in ST-LINK and J-Link provided that Live expressions is enabled.                       |
| 61897 | On macOS®, the ioc editor does not show the <i>Peripheral categories</i> frame on the left side by default.                       |
| 62712 | Opening one ioc file and trying to open a second ioc file while the first one loads causes the IDE to crash.                      |
| 65141 | The uninstaller sometimes does not work on non-English Windows <sup>®</sup> installations.  |
| 65335 | The font size menu is not available for ioc editor content.   |
| 65452 | Changing from HAL to LL driver or vice versa in the ioc editor does not save the ioc file.  |
| 65458 | The USE_HAL_DRIVER symbol is not properly removed when switching from HAL to LL driver, which can cause build failure.            |
| 66949 | <i>TeamSynchronizing</i> perspective remains hidden after Git <sup>™</sup> is installed.  |
| 67089 | Creating a C project after having created a C++ project results in C++ nature set in all future projects in the active workspace. |
| 67458 | The -u_printf_float in [MCU Settings] generates a warning about being disabled despite being enabled.                             |
| 67679 | Al software pack projects are not generated properly.   |

# 3.31 STM32CubeIDE v1.0.1 release information

# 3.31.1 New feature

 ${\bf STM32Cube} {\bf MX} \ {\bf v5.2.1} \ integration \ including \ latest \ MCUF inder \ evolution.$ 

# 3.31.2 Fixed issues

Table 14. Main issues fixed in STM32CubeIDE v1.0.1

| ID                      | Summary  |
|-------------------------|--|
| 59230                   | X-CUBE-Al links properly.                      |
| 65403<br>65897<br>67661 | On Windows®: BusyBox sh.exe pwd command fixed. |

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| ID    | Summary   |
|-------|---|
| 66212 | Fixed loss of source files upon regeneration of code with dependencies on STM32Cube Expansion Packages. |
| 66986 | Integrated STM32CubeMX 5.2.1 supporting latest .ioc file format.  |
| 67014 | Fixed project nature warning message when importing SW4STM32 projects.                                  |
| 67155 | Fixed _estack value on newly generated projects to be correctly aligned.                                |
| 67664 | Removed shortcut to non-existing readme.txt from Windows® start menu.                                   |

## 3.32 STM32CubeIDE v1.0.0 release information

# 3.32.1 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<sup>®</sup>/CDT, with support of Eclipse<sup>®</sup> add-ons
- GNU C/C++ for Arm<sup>®</sup> toolchain and GDB debugger:
  - GNU Arm Embedded
  - GNU tools for STM32, with enhancements compared to the standard toolchain
- Additional advanced features including:
  - Build Analyzer view
  - Static Stack Analyzer view
  - CPU core, IP register, and memory views
  - Live Expressions view
  - System analysis and real-time tracing views (SWV)
  - Fault Analyzer view
  - ITM software tracing
  - SFR view
- Support of STMicroelectronics ST-LINK/V2 and STLINK-V3:
  - ST-LINK\_gdbserver 5.2.2
  - OpenOCD 0.10.0+dev00021-g524e8c8
- Support of SEGGER J-Link
  - SEGGER J-Link gdbserver v6.44c
- Import of projects from Atollic<sup>®</sup> and AC6 System Workbench for STM32

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# **Revision history**

Table 15. Document revision history

| Date        | Revision | Changes  |
|-------------|----------|--|
| 19-Apr-2019 | 1        | Initial release.   |
| 11-Jun-2019 | 2        | Added information related to STM32CubeIDE v1.0.1:  STM32CubeIDE v1.0.1 release information Cross-selector data disclaimer  |
| 16-Jul-2019 | 3        | Added information related to STM32CubeIDE v1.0.2:  • STM32CubeIDE v1.0.2 release information   |
| 15-Oct-2019 | 4        | Added information related to STM32CubeIDE v1.1.0:  • STM32CubeIDE v1.1.0 release information   |
| 08-Jan-2020 | 5        | Added information related to STM32CubeIDE v1.2.0:  • STM32CubeIDE v1.2.0 release information   |
| 20-Feb-2020 | 6        | Added information related to STM32CubeIDE v1.3.0:  • STM32CubeIDE v1.3.0 release information   |
| 10-Apr-2020 | 7        | Added information related to STM32CubeIDE v1.3.1:  • STM32CubeIDE v1.3.1 release information   |
| 27-Jul-2020 | 8        | Added information related to STM32CubeIDE v1.4.0:  STM32CubeIDE v1.4.0 release information  Updated Overview and Host PC system requirements                     |
| 20-Aug-2020 | 9        | Added information related to STM32CubeIDE v1.4.1 and v1.4.2:  STM32CubeIDE v1.4.1 release information  STM32CubeIDE v1.4.2 release information                   |
| 17-Nov-2020 | 10       | Added information related to STM32CubeIDE v1.5.0:  STM32CubeIDE v1.5.0 release information   |
| 17-Dec-2020 | 11       | Added information related to STM32CubeIDE v1.5.1:  • STM32CubeIDE v1.5.1 release information   |
| 18-Feb-2021 | 12       | Added information related to STM32CubeIDE v1.6.0:  STM32CubeIDE v1.6.0 release information   |
| 25-Mar-2021 | 13       | Added information related to STM32CubeIDE v1.6.1:  • STM32CubeIDE v1.6.1 release information   |
| 05-Jul-2021 | 14       | Added information related to STM32CubeIDE v1.7.0:  • STM32CubeIDE v1.7.0 release information   |
| 18-Nov-2021 | 15       | Added information related to STM32CubeIDE v1.8.0:  STM32CubeIDE v1.8.0 release information  Updated supported operating systems in Host PC system requirements   |
| 23-Feb-2022 | 16       | Added information related to STM32CubeIDE v1.9.0:  STM32CubeIDE v1.9.0 release information  Updated supported operating systems in Host PC system requirements   |
| 13-Jun-2022 | 17       | Added information related to STM32CubeIDE v1.10.0:  STM32CubeIDE v1.10.0 release information  Updated supported operating systems in Host PC system requirements |
| 05-Jul-2022 | 18       | Added information related to STM32CubeIDE v1.10.1:  • STM32CubeIDE v1.10.1 release information   |
| 21-Nov-2022 | 19       | Added information related to STM32CubeIDE v1.11.0:  STM32CubeIDE v1.11.0 release information   |

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| Date        | Revision | Changes  |
|-------------|----------|--|
| 11-Jan-2023 | 20       | Added information related to STM32CubeIDE v1.11.2:  • STM32CubeIDE v1.11.2 release information |
| 21-Feb-2023 | 21       | Added information related to STM32CubeIDE v1.12.0:  STM32CubeIDE v1.12.0 release information   |
| 03-Apr-2023 | 22       | Added information related to STM32CubeIDE v1.12.1:  • STM32CubeIDE v1.12.1 release information |
| 05-Jul-2023 | 23       | Added information related to STM32CubeIDE v1.13.0:  STM32CubeIDE v1.13.0 release information   |
| 20-Jul-2023 | 24       | Added information related to STM32CubeIDE v1.13.1:  • STM32CubeIDE v1.13.1 release information |
| 04-Sep-2023 | 25       | Added information related to STM32CubeIDE v1.13.2:  • STM32CubeIDE v1.13.2 release information |
| 06-Nov-2023 | 26       | Added information related to STM32CubeIDE v1.14.0:  STM32CubeIDE v1.14.0 release information   |
| 08-Jan-2024 | 27       | Added information related to STM32CubeIDE v1.14.1:  • STM32CubeIDE v1.14.1 release information |
| 07-Mar-2024 | 28       | Added information related to STM32CubeIDE v1.15.0:  STM32CubeIDE v1.15.0 release information   |
| 11-Apr-2024 | 29       | Added information related to STM32CubeIDE v1.15.1:  • STM32CubeIDE v1.15.1 release information |
| 25-Jun-2024 | 30       | Added information related to STM32CubeIDE v1.16.0:  STM32CubeIDE v1.16.0 release information   |
| 02-Sep-2024 | 31       | Added information related to STM32CubeIDE v1.16.1:  • STM32CubeIDE v1.16.1 release information |
| 14-Nov-2024 | 32       | Added information related to STM32CubeIDE v1.17.0:  STM32CubeIDE v1.17.0 release information   |

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