STM32CubeIDE release v2.1.0

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 v2.1.0 release summary

Type	Summary
Major release	• Microcontroller, microprocessor, and board lists: – Added the support for the STM32C5 series – Added the support for the STM32WBA2xxx microcontrollers in the STM32WBA series – Added the support for new dual-core STM32WL5xxx microcontrollers in the STM32WL series – Added the support for new microcontrollers in the STM32H5 series – Added the support for new microcontrollers in the STM32U3 series – Added the support for new microcontrollers in the STM32F7 series – Added the support for new boards: NUCLEO-C542RC, NUCLEO-C562RE, NUCLEO-C5A3ZG, NUCLEO-WBA25CE1, NUCLEO-H5E5ZJ, STM32H5F5J-DK, and NUCLEO-U3C5ZI-Q • Support for GCC 14 toolchain as default toolchain • Support for CMake presets • Support for Apple® Silicon with ARM64 architecture • Update to STARM-Clang 21.1.1

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 *www.st.com* 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® framework. It is aimed at users developing embedded software in C/C++ for STMicroelectronics STM32 products. It uses an enhanced GNU toolchain for STM32, based on *GNU Arm Embedded*. STM32CubeIDE integrates the command-line version of STM32CubeProgrammer (STM32CubeProg) for flash memory operation and uses the ST-LINK GDB server for debugging. This enables programming and debugging of STM32 devices through standard debug interfaces such as JTAG and SWD.

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

- Eclipse® 2024-09 and CDT™ version 11.6.1
- GNU tools for STM32, based on *GNU Tools for Arm Embedded Processors 14.3.rel1.20251027-0700*
- GNU GDB (GNU tools for STM32 14.3.rel1.20251027-0700)
- STARM-Clang 21.1.1
- The bundled JRE™ is Adoptium® Temurin® 21.0.9+10 and JavaFX 21.0.9
- ST-LINK_gdbserver 7.13.0, supporting ST-LINK/V2 and STLINK-V3
- SEGGER J-Link GDB server 9.14a
- STM32CubeProgrammer (STM32CubeProg) v2.22.0
- Open On-Chip Debugger 0.12.0+dev-00645-g2306f32ee
- RTOS Proxy 0.18.0

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 Eclipse Foundation, Inc.*
- *Adoptium and Temurin are registered trademarks of Eclipse Foundation, Inc.*
- *Arm and Cortex are registered trademarks of Arm Limited (or its subsidiaries or affiliates) in the US and/or elsewhere.*
  The Arm word and logo are trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere. All rights reserved.

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1.2 Host PC system requirements

Supported operating systems and architectures

- Windows® 10 and 11, 64 bits (x64)
- Linux®: Ubuntu® LTS 22.04 and LTS 24.04, and Fedora® 43
- macOS® 15 (Sequoia), macOS® 26 (Tahoe)

Note: *Windows is a trademark of the Microsoft group of companies.*

Linux® is a registered trademark of Linus Torvalds.

Ubuntu® 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.

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 *SOFTWARE PACKAGE LICENSE AGREEMENT ("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* website.

Table 2 provides the description of the licenses of additional components in STM32CubeIDE.

Table 2. Complementary component licenses

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	2.1.2-1	STMicroelectronics	Proprietary	Refer to the global software license agreement

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.

2 STM32CubeIDE v2.1.0 release information

2.1 New feature

- Microcontroller, microprocessor, and board lists:
  - Added the support for the STM32C5 series
  - Added the support for the STM32WBA2xxx microcontrollers in the STM32WBA series
  - Added the support for new dual-core STM32WL5xxx microcontrollers in the STM32WL series
  - Added the support for new microcontrollers in the STM32H5 series
  - Added the support for new microcontrollers in the STM32U3 series
  - Added the support for new microcontrollers in the STM32F7 series
  - Added the support for new boards: NUCLEO-C542RC, NUCLEO-C562RE, NUCLEO-C5A3ZG, NUCLEO-WBA25CE1, NUCLEO-H5E5ZJ, STM32H5F5J-DK, and NUCLEO-U3C5ZI-Q
- Support for GCC 14 toolchain as default toolchain
- Support for CMake presets
- Support for Apple® Silicon with ARM64 architecture
- Update to STARM-Clang 21.1.1

2.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

2.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

3 Previous release information

3.1 STM32CubeIDE v2.0.0 release information

3.1.1 New feature

- Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.16.0:
  - Added the support for new microcontrollers in the STM32WBA series
  - Added the support for new microcontrollers in the STM32N6 series
  - Added the support for new microcontrollers in the STM32H5 series
  - Added the support for new microcontrollers in the STM32WL3x product line
  - Added the support for new boards: NUCLEO-WL3RKB1 and NUCLEO-WL3RKB2
- STM32CubeMX detached from STM32CubeIDE integration
  - User authentication removed
  - ST-MCU-FINDER-PC removed
- Support for STARM-Clang, STMicroelectronics LLVM-based toolchain for Arm®, through site update mechanism
- Support for GCC 14 toolchain through site update mechanism
- Support for semihosting feature through debug via ST-LINK GDB server
- Support for bundled CMake/Ninja binaries

3.1.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

3.1.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

3.2 STM32CubeIDE v1.19.0 release information

3.2.1 New feature

- Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.15.0:
  - Added the support for STM32MP21xx microprocessors to the STM32MP2 series and extended the support for boards based on the STM32MP2 microprocessors
  - Added the support for STM32WL30xx and STM32WL31xx microcontrollers to the STM32WL3x line
- Added automatic external memory loader prefilling in debug configuration for boards based on the STM32N6 series
- Added the support for OpenSTLinux 6.1.0 through the update site mechanism
- Added the support for STM32MP2x-M33-TD projects generated from STM32CubeMX standalone
- Added the Cortex®-A35 support in the *SFRs* view
- Added the capability to install OpenSTLinux through the update site mechanism on empty projects for STM32MP1 and STM32MP2 devices
- Added the support for TF-M projects debugging for STM32MP2x-M33-TD
- Added the new view *Flash memories programming* allowing the programming of a TSV file for STM32MP1 and STM32MP2 devices in single or dual storage
- Added the support for new reset strategies when debugging with SEGGER J-Link
- Added incremental programming as an experimental feature for a defined set of devices:
  - Internal flash memory programming is tested on the following microcontrollers: STM32C03xxx, STM32C05xxx, STM32C09xxx, STM32F101/F102/F103, STM32F37xxx, STM32F411xC/E, STM32F72xxx, STM32F73xxx, STM32F76xxx, STM32F77xxx, STM32G03xxx, STM32G04xxx, STM32G0B0xx/B1xx/C1xx, STM32G491xx, STM32H50xxx, STM32H523/533, STM32H562, STM32H563/573, STM32H723/STM32H733, STM32H725/STM32H735, STM32H730 Value line, STM32H7R3/7S3, STM32H7R7/7S7, STM32L05xxx/L06xxx/L010xx, STM32L4P5/Q5, STM32L4x1, /STM32L475xx/STM32L476xx/STM32L486xx, STM32L5, STM32U0, STM32U3, STM32U535/545, STM32U575/585, STM32U595/5A5, STM32U599/5A9, STM32WB35xx/5xxx, STM32WBA52, STM32WBA54/55, STM32WBA62, STM32WBA63, STM32WBA64/65, and STM32WL
  - External flash memory programming is tested on the following boards: STM32H735G-DK, STM32H7S78-DK, STM32H573I-DK, STM32U575I-EV, and STM32WBA65I-DK1

3.2.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

3.2.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

Note: Access to the wiki content requires logging in.

3.3 STM32CubeIDE v1.18.1 release information

3.3.1 New feature

Alignment with STM32CubeMX v6.14.1.

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 v1.18.0 release information

3.4.1 New feature

- Microcontroller, microprocessor, and board lists aligned with STM32CubeMX v6.14.0:
  - Added the support for STM32WBA6xxx microcontrollers in the STM32WBA series
- Eclipse® updated to 2024-09: Possibility to install the *Copilot4Eclipse* (Copilot for Eclipse) plugin
- Updated to GCC 13 as default toolchain
- Support for Fedora® 41

3.4.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

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 v1.17.0 release information

3.5.1 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**].*

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 v1.16.1 release information

3.6.1 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**].*

3.6.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

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 v1.16.0 release information

3.7.1 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**].*

3.7.2 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 v1.15.1 release information

3.8.1 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]**.*

3.8.2 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 v1.15.0 release information

3.9.1 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® Cortex®-A7 registers in the *SFRs* view
- Switched to GCC 12 as a default toolchain
  - GCC 12 is available on the Eclipse® p2 update site
- Added the support for Fedora® 37
- Added the support for macOS® 14 (Sonoma)
- Updated to Eclipse® 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]**.*

3.9.2 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 v1.14.1 release information

3.10.1 New feature

- Fixed an issue with prebuild or postbuild commands on Windows®.
  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.

3.11 STM32CubeIDE v1.14.0 release information

3.11.1 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® installer
- Updated to Eclipse® 2023-09
- GCC update:
  - GCC 12 is available on the Eclipse® 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**].*

3.11.2 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 v1.13.2 release information

3.12.1 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**].*

3.12.2 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 v1.13.1 release information

3.13.1 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**].*

3.13.2 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.

3.14 STM32CubeIDE v1.13.0 release information

3.14.1 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
- Added the user authentication interface to permit package download
- Updated to Eclipse® 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]**.*

3.14.2 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 v1.12.1 release information

3.15.1 New feature

- Alignment with STM32CubeMX v6.8.1.
- Fixed the STM32CubeIDE installation on Fedora®.
  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**].*

3.15.2 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 v1.12.0 release information

3.16.1 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® 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**].*

3.16.2 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 v1.11.2 release information

3.17.1 New feature

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

- The latest Eclipse CDT™ version 11.0.0 requires Java® 17 while some plug-ins inside STM32CubeIDE are incompatible with Java® 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™ support is removed for the STM32F4 series.

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 STM32CubeIDE v1.11.0 release information

3.18.1 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® 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**].*

3.18.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.18.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.19 STM32CubeIDE v1.10.1 release information

3.19.1 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**].*

3.19.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.19.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.20 STM32CubeIDE v1.10.0 release information

3.20.1 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® update 2022-03
  - Including dark theme support improvement
- SEGGER J-Link update 7.66
- Microprocessors
  - Support for OP-TEE trusted applications
- Added Azure® RTOS views shortcuts
- Added a preference to change the debug probe by default
- SWV trace log export

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

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.20.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.21 STM32CubeIDE v1.9.0 release information

3.21.1 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® 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**].*

3.21.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.21.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.22 STM32CubeIDE v1.8.0 release information

3.22.1 New feature

- Microcontroller and board lists aligned with STM32CubeMX v6.4.0
  - New STM32L4xxxx devices
  - New NUCLEO-F756ZG
- TraceX export
  - Easy export and visualization of Azure® RTOS TraceX trace buffer in TraceX
- Video tutorials
  - *Information Center* update with video browser
  - First ten video tutorials available on YouTube™
- GCC update
  - GCC 10 available on Eclipse® p2 update site
- Microprocessor Linux® 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**].*

3.22.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.22.3 Known problems and limitations

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.23 STM32CubeIDE v1.7.0 release information

3.23.1 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]**.*

3.23.2 Fixed issues

Refer to the STM32 microcontrollers wiki at wiki.st.com/stm32mcu/wiki/Category:STM32CubeIDE_errata.

3.24 STM32CubeIDE v1.6.1 release information

3.24.1 New feature

- STM32CubeMX v6.2.1 integration
- 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]**.*

3.24.2 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®.

3.25 STM32CubeIDE v1.6.0 release information

3.25.1 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® 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**].*

3.25.2 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 *Information Center*.
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.
98703	STM32CubeIDE 1.6.0 bundles a new JRE™ supporting Java® 11 fixing issues with Eclipse® Marketplace plug-ins 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 *Toolchain Manager* supports Eclipse CDT™ projects.
100002	FreeRTOS™ and Azure® RTOS ThreadX debug views now support dark theme.
100209	Fixed issue leading to `main.c` being generated in the wrong folder for hierarchical projects.

3.26 STM32CubeIDE v1.5.1 release information

3.26.1 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**].*

3.26.2 Fixed issues

Table 5. Main issues fixed in STM32CubeIDE v1.5.1

ID	Summary
97133	[STM32CubeMX] Baud rate calculator issue.

3.27 STM32CubeIDE v1.5.0 release information

3.27.1 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™ 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® platform
- Updated to OpenSTLinux 2.1
- Added Ubuntu® 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**].*

3.27.2 Fixed issues

Table 6. Main issues fixed in STM32CubeIDE 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.

3.28 STM32CubeIDE v1.4.2 release information

3.28.1 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.*

3.28.2 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™.

3.29 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.

3.30 STM32CubeIDE v1.4.0 release information

3.30.1 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.

3.30.2 Fixed issues

Table 8. Main issues fixed in STM32CubeIDE v1.4.0

ID	Summary
47930 62821 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 *Shared ST-LINK* 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™ is activated.
79853	Using OpenOCD with ST-LINK checks and forces ST-LINK firmware update at debug launch.
85191	Improved `sysmem.c` function `_sbrk`.

3.31 STM32CubeIDE v1.3.1 release information

3.31.1 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.

3.31.2 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.

3.32 STM32CubeIDE v1.3.0 release information

3.32.1 New feature

- STM32CubeMX v5.6.0 integration
- 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.

3.32.2 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 [**Run**] 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 `-external-init` to the ST-LINK GDB server. Use this option to call `Init()` after reset. Calling `Init()` was previously the default behavior.
80498	It is now possible to use absolute paths to `.elf` files in the debug configuration.

3.33 STM32CubeIDE v1.2.0 release information

3.33.1 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.

3.33.2 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.

ID	Summary
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®.
69233	In the STM32CubeMX `.ioc` editor under [**Project Manager**]>[**Code Generator**], there is a [**settings**] button that is not yet implemented.
70529	*Null Pointer Exception* 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 *Getting started with projects based on the STM32MP1 Series in STM32CubeIDE* (AN5360).
73521	For STM32H7 devices using OpenOCD, the Cortex®-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.

3.34 STM32CubeIDE v1.1.0 release information

3.34.1 New feature

- STM32CubeMX v5.4.0 integration
- Support for STM32MP1 devices
- Beta support for STM32L5 devices(1)
- Support for STM32H7 devices

1. *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.

3.34.2 Fixed issues

Table 12. Main issues fixed in STM32CubeIDE 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.

ID	Summary
66391	The *Generate code* operation re-includes excluded files in folders that are created by STM32CubeMX.
68131	The user cannot change *Application Structure* from `Basic` to `Advanced` or vice versa without losing user's code.
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.

3.35 STM32CubeIDE v1.0.2 release information

3.35.1 New feature

STM32CubeMX v5.3.0 integration.

3.35.2 Fixed issues

Table 13. Main issues fixed in STM32CubeIDE 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 *Peripheral categories* 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® 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	*TeamSynchronizing* perspective remains hidden after Git™ 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	AI software pack projects are not generated properly.

3.36 STM32CubeIDE v1.0.1 release information

3.36.1 New feature

STM32CubeMX v5.2.1 integration including latest MCUFinder evolution.

3.36.2 Fixed issues

Table 14. Main issues fixed in STM32CubeIDE v1.0.1

ID	Summary
59230	X-CUBE-AI links properly.

ID	Summary
65403 65897 67661	On Windows®: BusyBox `sh.exe pwd` command fixed.
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.

3.37 STM32CubeIDE v1.0.0 release information

3.37.1 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®/CDT, with support of Eclipse® add-ons
- GNU C/C++ for Arm® 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® and AC6 System Workbench for STM32

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*

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*
14-Feb-2025	33	Added information related to STM32CubeIDE v1.18.0: • *STM32CubeIDE v1.18.0 release information*
27-Mar-2025	34	Added information related to STM32CubeIDE v1.18.1: • *STM32CubeIDE v1.18.1 release information*
17-Jun-2025	35	Added information related to STM32CubeIDE v1.19.0: • *STM32CubeIDE v1.19.0 release information*
03-Nov-2025	36	Added information related to STM32CubeIDE v2.0.0: • *STM32CubeIDE v2.0.0 release information*
18-Feb-2026	37	Added information related to STM32CubeIDE v2.1.0: • STM32CubeIDE v2.1.0 release information

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