

UM2563

User manual

STM32CubeIDE installation guide

Introduction

This installation guide for STM32CubeIDE gives directions on how to install software on each of the operating systems it supports. It is primarily intended to software developers or system administrators who are about to install the STM32CubeIDE product.

This installation guide covers the following topics:

- System requirements
- Important information
- STM32CubeIDE installation (Windows)
- STM32CubeIDE installation (Linux)
- STM32CubeIDE installation (macOS)
- Update an STM32CubeIDE installation
- Uninstall STM32CubeIDE (Windows)
- Uninstall STM32CubeIDE (Linux)
- Uninstall STM32CubeIDE (macOS)





1	System requirements					
	STM32CubeIDE is tested and verified on the Microsoft [®] Windows [®] , Linux [®] , and macOS [®] versions listed in this chapter.					
Important:	Only 64-bit OS versions are supported.					
	STM32CubeIDE supports STM32 32-bit products based on the Arm [®] Cortex [®] processor.					
Note:	Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.	arm				
1.1	Microsoft [®] Windows [®]					
	 Microsoft[®] Windows 8[®] Microsoft[®] Windows 10[®] 					
1.2	Linux [®]					
	• Ubuntu [®] 18.04					
	Ubuntu [®] 20.04					
	• Fedora [®] 29					
	• Fedora [®] 31					
Note:	Linux [®] is a registered trademark of Linus Torvalds.					
	Ubuntu [®] is a registered trademark of Canonical Ltd.					
	Fedora [®] is a trademark of Red Hat, Inc.					
1.3	macOS®					
	• macOS [®] 10.14 (Mojave)					
	• macOS [®] 10.15 (Catalina)					
	• macOS [®] 11 (Big Sur)					
Note:	Refer to Section 5.1 for possible macOS [®] Gatekeeper blocking issues.					
	$macOS^{I\!\!R}$ is a trademark of Apple Inc. registered in the U.S. and other countries.					
	All other trademarks are the property of their respective owners.					
1.4	Hardware requirements					
	The following hardware requirements apply:					
	2 Gbytes of RAM minimum. 4 Gbytes of RAM recommended					
	 6 Gbytes of free hard-disk space for non STM32 MPU OpenSTLinux Distribution developers, 15 G STM32 MPU OpenSTLinux Distribution usage 	bytes for				

2 Important information

This chapter contains important information regarding the installation of STM32CubeIDE.

2.1 Product installer

The latest version of the STM32CubeIDE installer can be downloaded from the STMicroelectronics web site at *www.st.com*.

2.2 Installing from USB memory

It is not recommended to launch the STM32CubeIDE installer directly from a USB memory. Instead, copy the executable installation file from the USB memory to the local hard-disk drive of the computer and execute the installation from the hard-disk drive.

If an installation from a USB memory is still preferred, make sure that the USB memory is not write-protected and that there is at least 6 GBytes of free memory beyond the space occupied by the installation executable. The extra space is required for temporary files during the installation.

Caution: Do not remove the USB memory from the computer until the installation process is completely finished or the installation would fail.

2.3 Product upgrades

It is possible to install new versions of STM32CubeIDE in parallel with older versions.

Note:

3 STM32CubeIDE installation (Windows[®])

This section describes how to install the STM32CubeIDE product on Microsoft® Windows®.

The installation is done through a product installer. Make sure that the user account, from which the installer is launched, has administrative privileges.

Proceed as follows:

1. Launch the product installer (. exe file)

st-stm32cubeide_VERSION_ARCHITECHURE.exe

where:

- VERSION is the actual product version and build date
 Example: 1.0.0_2026_20190221_1309
- ARCHITECTURE is the architecture of the target host computer to run STM32CubeIDE
 Example: x86_64

If, when launching the product installer, it reports an attempt to install a version that is already installed:

- a. Launch the register dialog by typing <code>regedit.exe</code> in the search bar
- b. Remove registry key
 - HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\STMicroelectronics\STM32CubeIDE
- 2. During the installation process, the operating system may display a dialog stating: "Do you want to allow this app to make changes to your device?" with info "Verified publisher: STMicroelectronics Software AB". Accept ([YES]) to let the installer continue.
- 3. Wait for the installer Welcome dialog to be displayed and click on [Next >].



Figure 1. Installer Welcome page (Windows®)

4. Read the license agreement. Click on **[I Agree]** to accept the terms of the agreement, or **[Cancel]** to abort the installation. If the agreement is accepted, the installation wizard continues.

Figure 2. License agreement dialog (Windows[®])

STMicroelectronics STM32CubeIDE	_		\times
icense Agreement			IDE
Please review the license terms before installing STMicroelectronics STM32CubeIDE.			IDE
Press Page Down to see the rest of the agreement.			
STMicroelectronics Software License Agreement			^
SLA0048 Rev4/March 2018			
BY INSTALLING COPYING, DOWNLOADING, ACCESSING OR OTHERWI SOFTWARE PACKAGE OR ANY PART THEREOF (AND THE RELATED DO FROM STMICROELECTRONICS INTERNATIONAL N.V, SWISS BRANCH, AFFILIATED COMPANIES (STMICROELECTRONICS), THE RECIPIENT, 6 HIMSELF OR HERSELF, OR ON BEHALF OF ANY ENTITY BY WHICH SUC EMPLOYED AND/OR ENGAGED AGREES TO BE BOUND BY THIS SOFTW LICENSE AGREEMENT.	SE USIN (CUMEN AND/OR ON BEH/ CH RECII ARE PA(IG THIS TATION) LITS ALF OF PIENT IS CKAGE	*
If you accept the terms of the agreement, click I Agree to continue. Yo	u must a	accept th	e
agreement to install STMICroelectronics STM32CubeLDE.			
< Back I Ag	ree	Ca	ncel
(East, 197			

5. In this dialog, the user selects the location for the installation. It is recommended to choose a short path to avoid facing Windows[®] limitations with too long paths for the workspace.

Figure 3. Installer location dialog (Windows[®])

STMicroelectronics STM32CubelDE		-		×
Choose Install Location Choose the folder in which to install STMicroelectronics				IDE
STM32CubeIDE.				
Setup will install STMicroelectronics STM32CubeIDE in the different folder, click Browse and select another folder. C Destination Folder	following fold lick Next to co	er. To inst ontinue.	all in a	
C:\ST\STM32CubeIDE		B <u>r</u> ow	se	
Space required: 2.2 GB Space available: 88.4 GB				
< <u>B</u> ac	k <u>N</u> ex	t >	Car	ncel

6. Wait for the **Choose Components** dialog to be displayed. Select the GDB Server components to be installed together with STM32CubeIDE. A server is needed for each type of JTAG probe used for debugging with STM32CubeIDE.

Figure 4. Selection of components dialog (Windows [®])								
IDE STMicroelectronics STM32C	ubelDE	– 🗆 X						
Choose Components Choose which features of STMi want to install.	croelectronics STM32CubeIDE you	IDE						
Check the components you war install. Click Install to start the i	nt to install and uncheck the comp installation.	onents you don't want to						
Select components to install:	SEGGER J-Link drivers	Description Position your mouse over a component to see its description,						
Space required: 2.2 GB								
	< <u>B</u> ack	<u>I</u> nstall Cancel						

7. Click on [Install] to start the installation. The drivers that were selected are installed in parallel with this installation of STM32CubeIDE from here on.

STMicroelectronics STM32CubeIDE		_		\times
Installation Complete Setup was completed successfully.				IDE
Completed				
Show <u>d</u> etails				
I	< <u>B</u> ack	<u>N</u> ext >	Ca	ncel

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8. Click on **[Next]** to continue to the final step of the installation process. That is a **Confirmation** dialog informining the user that the installation is finished. Once the user clicks on **[Finish**], the installation process in complete.

Figure 6. Installation finished (Windows [®])							
IDE STMicroelectronics	STM32CubelDE			\times			
ife.augmented	Completing STI STM32CubeIDI STMicroelectronics STM32 your computer. Click Finish to dose Setup	Microelectron E Setup CubeIDE has been in:	iCS stalled on				
	< <u>B</u> ack	<u> </u>	Cancel				

Note:

4 STM32CubeIDE installation (Linux[®])

This section describes how to install the STM32CubeIDE product on Linux[®].

The installation is done through a product installer. $Linux^{\mathbb{R}}$ root privileges are required to complete the installation.

The installer comes in different bundles to suit the various Linux[®] distributions. The bundles are named according to:

st-stm32cubeide_VERSION_ARCHITECTURE.PACKAGE
where

where:

- VERSION is the actual product version and build date Example: 1.0.0 2026 20190221 1309
- ARCHITECTURE is the architecture of the target host computer to run STM32CubeIDE Example: amd64
- PACKAGE is the Linux[®] package type to be installed. The supported packages are:
 - rpm_bundle.sh for Fedora[®]/CentOS
 - deb bundle.sh **for Ubuntu**®
 - .sh for generic Linux[®]

Proceed as follows:

- 1. Navigate to the location of the installer file with a command console on the host computer.
- 2. Enter the following command in the console window: sudo sh ./st-stm32cubeide_VERSION_ARCHITECHURE.PACKAGE where VERSION, ARCHITECTURE and PACKAGE must be entered after the selected Linux[®] package.
- 3. Follow the further instructions provided through the console window.

Manual installation (.rpm/.deb)

For RPM-based distributions (Red Hat[®], CentOS[™], SUSE[®], Fedora[®]):

```
sudo rpm -Uhv segger-jlink-udev-rules-xxxx-linux-noarch.rpm st-stlink-
udev-rules-xxxx-linux-noarch.rpm st-stlink-server-xxxx-linux-amd64.rpm st-
stm32cubeide_xxxx_amd64.rpm
```

For Debian-based distributions (Debian[®], Ubuntu[®]):

```
sudo apt-get install ./segger-
jlink-udev-rules-xxxx-linux-all.deb ./st-stlink-udev-rules-xxxx-linux-all.deb ./st-
stlink-server-xxxx-linux-amd64.deb ./st-stm32cubeide xxxx amd64.deb
```

Note: CentOS is a trademark of Red Hat, Inc. SUSE is a trademark of SUSE LLC or its subsidiaries or affiliates. Note:

5 STM32CubeIDE installation (macOS[®])

This section describes how to install the STM32CubeIDE product on macOS[®].

The installation is done through a product installer. Make sure that the user account, from which the installer is launched, has administrative privileges.

Proceed as follows:

1. Launch the product installer (.dmg file)

st-stm32cubeide_VERSION_ARCHITECHURE.dmg

where:

- VERSION is the actual product version and build date
 - Example: 1.0.0_2026_20190221_13091309
- ARCHITECTURE is the architecture of the target host computer to run STM32CubeIDE
 Example: x86 64
- 2. Read the license agreement. Click on [Agree] to accept the terms of the agreement, or [Disagree] to abort the installation. If the agreement is accepted, the installation wizard continues.

Figure 7. License agreement dialog (macOS®)



3. Wait for the installation welcome page to appear.



4. Double click on the .pkg file indicated with the curved arrow and text stating "Install me 1st".



Figure 8. Installation welcome page (macOS®)

5. This installation is required and installs the ST Link Server. Click on the [Continue] button.



Figure 9. ST Link Server welcome page (macOS®)

- 6. In this dialog, select the location for the installation of the ST Link Server.
- 7. Click on [Install]. Log in to authorize the installation if prompted to do so.



8. If a warning is displayed stating "This package is incompatible with this version of macOS and may fail to install", click on [Install Anyway].



Figure 10. ST Link Server installer location dialog (macOS[®])

9. Click on [Close] and continue the installation of the STM32CubeIDE product.

Figure 11. ST Link Server installation finished (macOS®)





10. After successfully installing *ST Link Server*, drag the STM32CubeIDE icon to the Applications folder as indicated by the straight arrow.



Figure 12. STM32CubeIDE install page (macOS[®])

11. Wait for the installation to finish. When done, it is possible to launch STM32CubeIDE from the Launchpad by clicking on the IDE icon.

Figure 13. Installation progress bar (macOS®)



5.1 Gatekeeper tips

Because STM32CubeIDE is neither signed, nor Apple[®]-notarized, it is not unusual that the Gatekeeper blocks the first launch of the application as shown in Figure 14.

Figure 14. macOS[®] - Gatekeeper blocking STM32CubeIDE launch

"STM32CubeIDE.app" cannot be opened because the developer cannot be verified. macOS cannot verify that this app is free from malware.
Move to Rin Cancel

This section presents two workarounds for such a blocking issue, using either the macOS security preferences or the Terminal application.

macOS[®] security preferences

1. Open the Security & Privacy preferences in macOS[®] System Preferences (highlighted in Figure 15).



Figure 15. macOS[®] - System Preferences window



2. Click on [**Open Anyway**] (highlighted in Figure 16).





3. Enter administrator account credentials.

Figure	17	. macOS®	-	Administrator	authen	tication	window
---------------	----	----------	---	---------------	--------	----------	--------





4. Confirm by clicking on [Open].

57/

Figure 18. macOS[®] - Opening a blocked application



Terminal application

```
Execute the following command:
xattr -c /Applications/STM32CubeIDE.app
```

5.2 Rosetta[®] installation on M1-based computers

To install STM32CubeIDE on an M1-based computer running macOS[®], the user is prompted to install Rosetta[®] for the STM32CubeIDE installation to proceed.

After accepting to install Rosetta[®], the user credentials must be entered (see Figure 19), after which Rosetta[®] installation starts (see Figure 20).

	Installer is	trying to install Apple software.				
Enter your password to allow this.						
	Username:	STMicroelectronics				
	Password:					
		Cancel Install Software				

Figure 19. Authentication window for Rosetta[®] installation

Figure 20. Rosetta[®] installation proceeding

Installing	
	Not Now

6

Update an STM32CubeIDE installation

The Eclipse[®] update mechanism permits the quick update of available patches when STM32CubeIDE is already installed. To use this mechanism:

- 1. Launch STM32CubeIDE
- 2. Update the tool by [Help]>[Check for updates...]
- 3. Restart STM32CubeIDE
 - Either automatically if STM32CubeIDE proposes it
 - By exiting STM32CubeIDE and restarting it otherwise

By default, the update is done with the last version. If another version is needed, follow the steps below:

1. Open the Install dialog box as shown in Figure 21 by [Help]>[Install new software...]

Install					×
Available Software					
Select a site or enter the location of a site.					
Work with: [®] type or select a site		~	Add	Manag	ge
type filter text				Select	All
Name ① There is no site selected.	Version			Desele	ct All
Details					
					0
Show only the latest versions of available software	✓ <u>H</u> ide items that are a	lready installed			
Group items by category	What is <u>already instal</u>	led?			
Show only software applicable to target environment					
✓ ⊆ontact all update sites during install to find required software					
0	< <u>B</u> ack	<u>N</u> ext >	Einish	Cance	I

Figure 21. Install dialog box

2. Click on the [Manage...] button



Select [STM32CubeIDE Releases] and click on [Edit] as shown in Figure 22

Preferences					\times
type filter text	Available Software Sites			\$ * \$	• •
 > General > C/C++ > Help > Install/Update Automatic Upr Available Sofn > Remote Developr > Remote Developr > Remote Developt > Rem/Debug > STM32Cube 	type filter text Name	Location http://download.eclipse.org/tools/cdt/releases/9.9 https://download.eclipse.org/releases/2019-09 http://sw-center.st.com/stm32cubeide/openstlinux/updatesite1 http://sw-center.st.com/stm32cubeide/updatesite1	×	Add Edit Bernove Reload Disable	
> ieam Terminal	٢		>	Import	
< >					
? è 4		Apply and	Close	Cancel	

Figure 22. Preferences window

Add the desired version number at the end of the url in the [Location] field as shown in Figure 23 4.

DE Edit Si	te	\times	
<u>N</u> ame:	STM32CubeIDE Releases		
Location:	http://sw-center.st.com/stm32cubeide/updatesite1/1.5.0		
?	A <u>d</u> d Cancel		

Figure 23. Edit Site dialog box

Note: The update mechanism has the same requirements as the installation in term of administration rights. If the installation has been made with administration rights, the update must be made also with the same administration rights.



3.

7 Uninstall STM32CubeIDE (Windows[®])

To uninstall STM32CubeIDE, under the installation folder:

- 1. Launch the product uninstaller (uninstall.exe)
- 2. Wait for the uninstaller dialog box and click on [Uninstall]

Note: In Windows[®], the removal of the installation directory instead of using the uninstall procedure prevents further installation. In this case, delete registry key

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\STMicroelectronics\STM32CubeIDE\VersionToS uppress **using** regedit.exe.

8 Uninstall STM32CubeIDE (Linux[®])

The uninstallation of STM32CubeIDE depends on the distribution. Uninstall STM32CubeIDE according to the step below corresponding to the distribution used:

- For any distribution or if the distribution is not known: sudo /opt/st/stm32cubeide_xxxx/uninstall.sh
- For RPM-based distributions (such as Red Hat[®], CentOS[™], SUSE[®], Fedora[®] or others):
 sudo rpm -e st-stm32cubeide_xxxx st-stlink-udev-rules st-stlink-server segger-jlink-udev-rules
- For Debian-based distributions (such as Debian[®], Ubuntu[®] or others): sudo apt-get remove st-stm32cubeide-xxxx st-stlink-udev-rules st-stlink-server segger-jlink-udev-rules

9 Uninstall STM32CubeIDE (macOS[®])

To uninstall STM32CubeIDE:

- 1. Locate the version of STM32CubeIDE to uninstall in the Applications folder in the Finder
- 2. Drag the STM32CubeIDE app to uninstall to the trash
- 3. To delete the app permantently, choose [Finder]>[Empty Trash]

Revision history

Table 1. Document revision history

Date	Revision	Changes
18-Apr-2019	1	Initial version.
3-Nov-2020	2	Added: • Update an STM32CubeIDE installation • Uninstall STM32CubeIDE (Windows) • Uninstall STM32CubeIDE (Linux) • Uninstall STM32CubeIDE (macOS) Updated: • System requirements • STM32CubeIDE installation (Linux)
17-Nov-2021	3	Updated supported operating systems in sections Microsoft Windows and macOS. Added sections Gatekeeper tips and Rosetta installation on M1-based computers.



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