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:

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For further information contact your local STMicroelectronics sales office.

www.st.com

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.*

1.1 Microsoft® Windows®

- Microsoft® Windows® 10
- Microsoft® Windows® 11

Note: *Microsoft and Windows are trademarks of the Microsoft group of companies.*

1.2 Linux®

- Ubuntu® LTS 20.04
- Ubuntu® LTS 22.04
- Fedora® 37

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® 13 (Ventura)
- macOS® 14 (Sonoma)

Note: *Refer to Section 5.1: Application launch for possible macOS® Gatekeeper permission requests when launching STM32CubeIDE.*

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

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 Gbytes for STM32 MPU OpenSTLinux Distribution usage

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.

3 STM32CubeIDE installation (Windows®)

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

Note: *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 `regedit.exe` 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®)
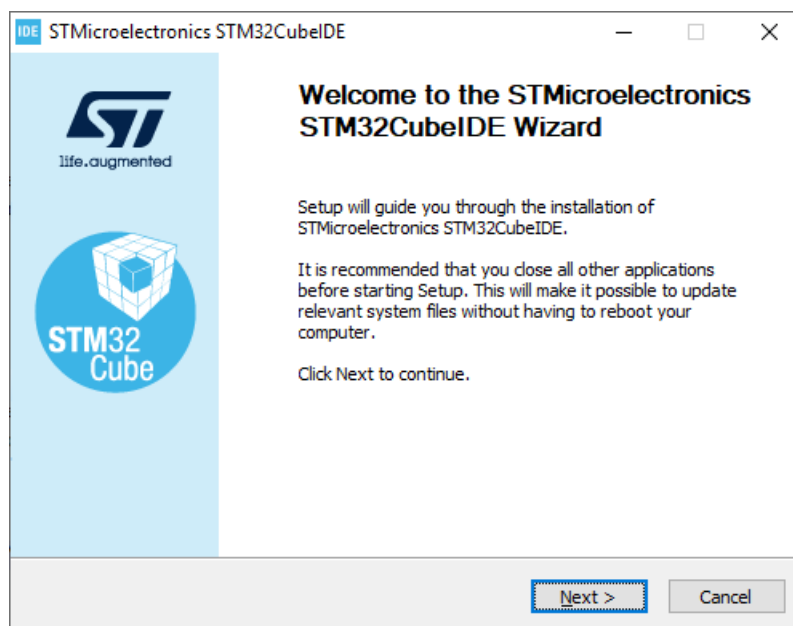
4. Read the license agreement. Click on [**I Agree**] to accept the terms of the agreement, or [**Cancel**] to abort the installation. If the agreement is accepted, the installation wizard continues.

**Figure 2. License agreement dialog (Windows®)**
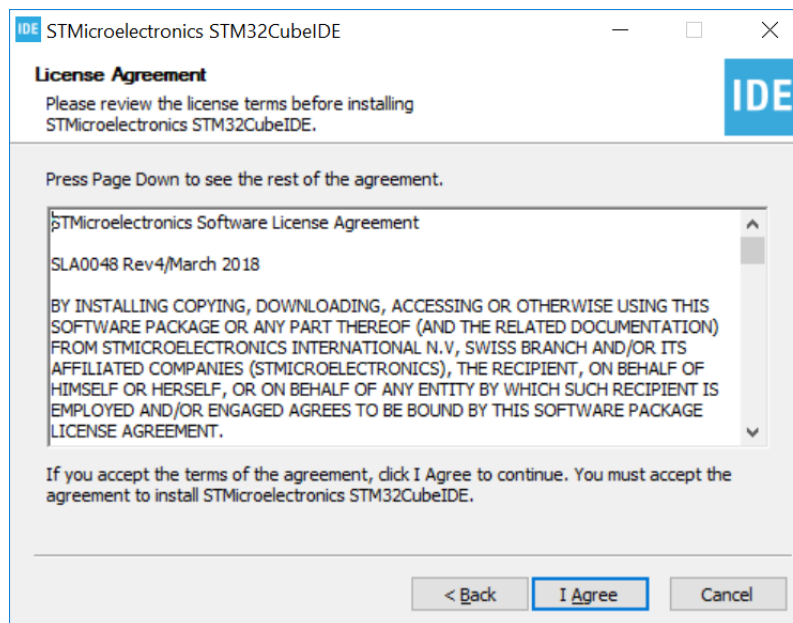
5. In this dialog, the user selects the location for the installation. It is recommended to choose a short path to avoid facing Windows® limitations with too long paths for the workspace.

Figure 3. Installer location dialog (Windows®)
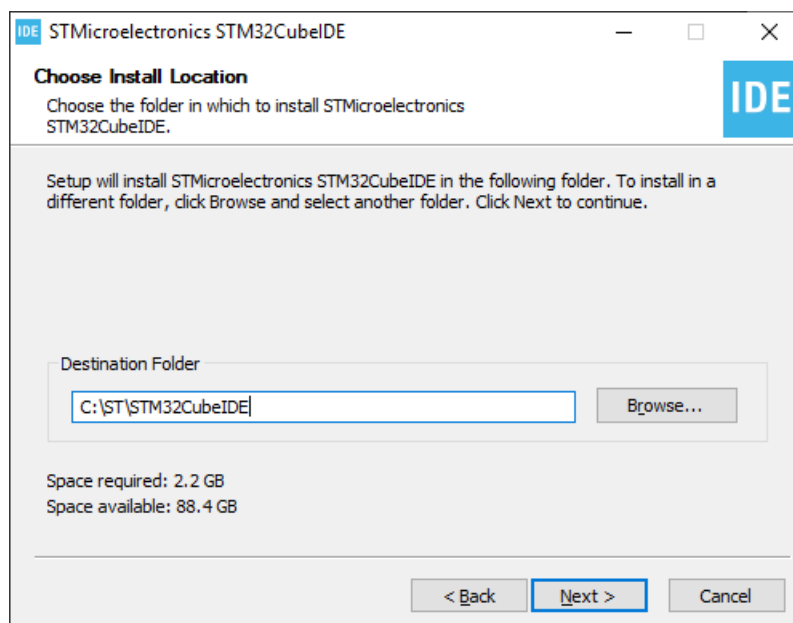
6. Wait for the **Choose Components** dialog to be displayed. Select the GDB Server components to be installed together with STM32CubeIDE. A server is needed for each type of JTAG probe used for debugging with STM32CubeIDE.

Figure 4. Selection of components dialog (Windows®)
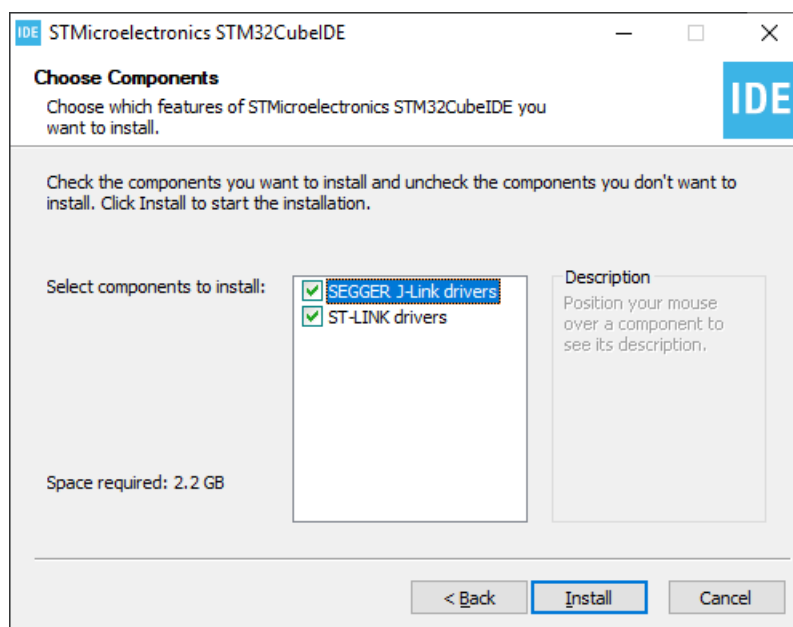
7. Click on [**Install**] to start the installation. The drivers that were selected are installed in parallel with this installation of STM32CubeIDE from here on.

Figure 5. Installation successful (Windows®)
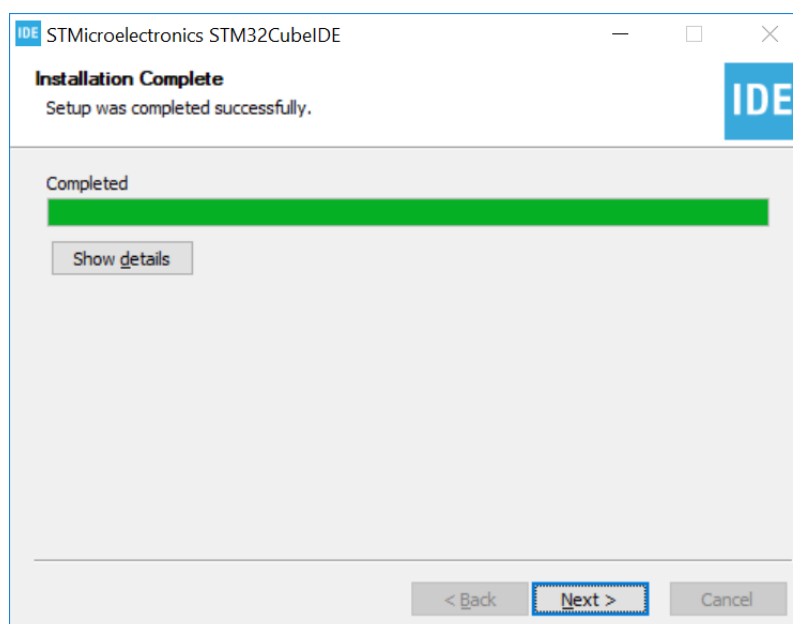
8. Click on [**Next**] to continue to the final step of the installation process. That is a **Confirmation** dialog informing the user that the installation is finished. Once the user clicks on [**Finish**], the installation process in complete.

Figure 6. Installation finished (Windows®)
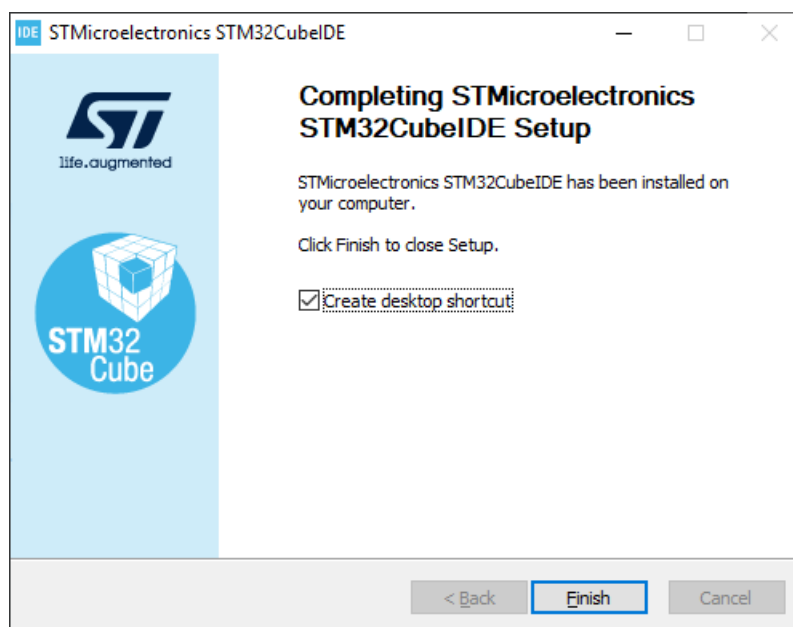
4 STM32CubeIDE installation (Linux®)

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

Note: *The installation is done through a product installer. Linux® 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:

- `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: *If the following error is met when using STM32CubeIDE:*

    missing libncurses5.so

Execute the following command:

    sudo yum -y install libncurses.so.5 ncurses-compat-libs

Then resume the work with STM32CubeIDE.

Note: *CentOS is a trademark of Red Hat, Inc.*

SUSE is a trademark of SUSE LLC or its subsidiaries or affiliates.

5 STM32CubeIDE installation (macOS®)

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

Note: *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®)
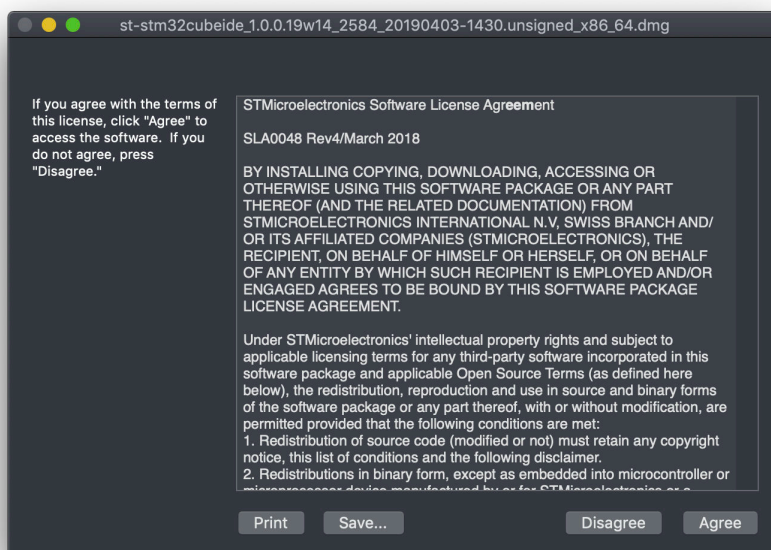
3. Wait for the installation **welcome page** to appear.

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

Figure 8. Installation welcome page (macOS®)
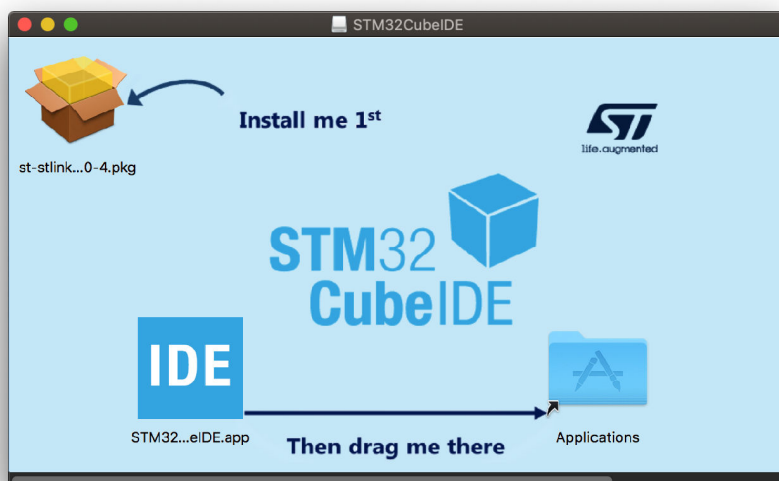
5. This installation is required and installs the *ST Link Server*. Click on the [**Continue**] button.

Figure 9. ST Link Server welcome page (macOS®)
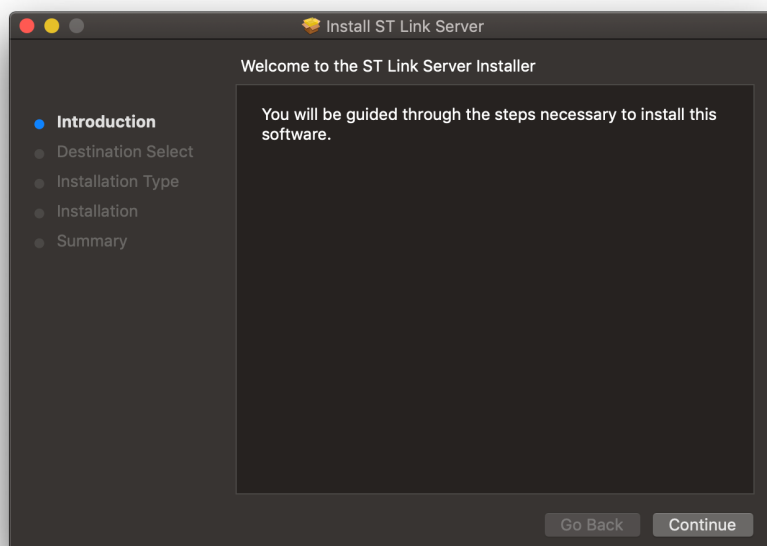
6. In this dialog, select the location for the installation of the *ST Link Server*.
7. Click on [**Install**]. Log in to authorize the installation if prompted to do so.

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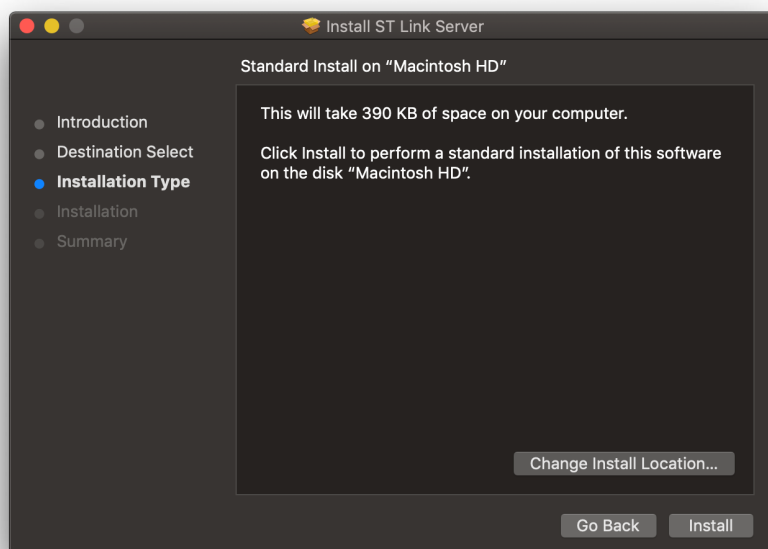
9. Click on [**Close**] and continue the installation of the STM32CubeIDE product.

Figure 11. ST Link Server installation finished (macOS®)
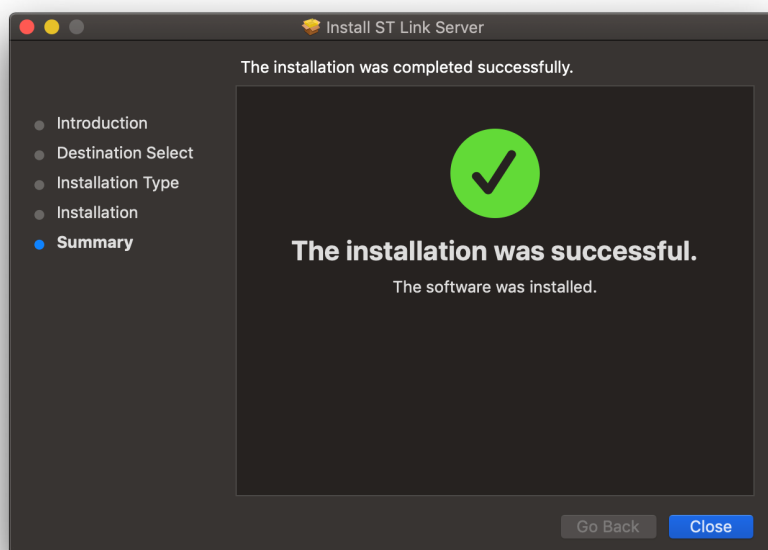
10. After successfully installing *ST Link Server*, drag the STM32CubeIDE icon to the `Applications` folder as indicated by the straight arrow.

Figure 12. STM32CubeIDE install page (macOS®)
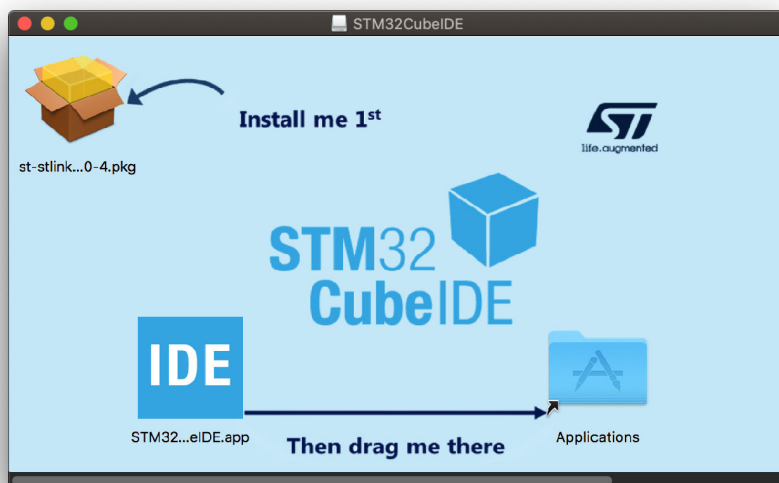
11. Wait for the installation to finish. When done, it is possible to launch STM32CubeIDE from the **Launchpad** by clicking on the IDE icon.

Figure 13. Installation progress bar (macOS®)
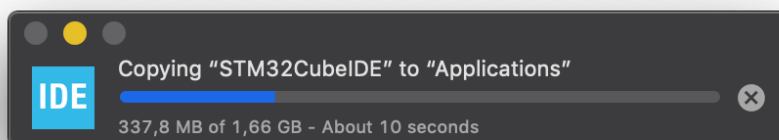
5.1 Application launch

As STM32CubeIDE is not downloaded from the App Store®, the Gatekeeper might ask the user for permission at the first launch of the application, as shown in Figure 14.

Figure 14. macOS® - Gatekeeper requesting permission to launch STM32CubeIDE
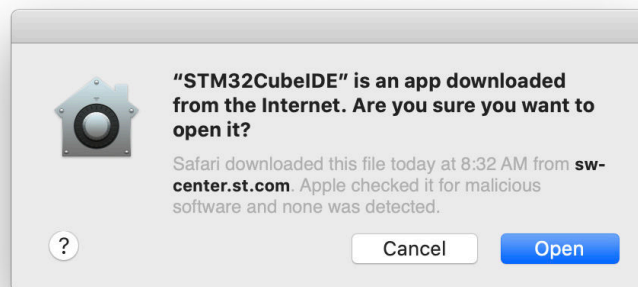
5.2 Rosetta® installation on M1-based computers

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 15), after which Rosetta® installation starts (see Figure 16).

Figure 15. Authentication window for Rosetta® installation
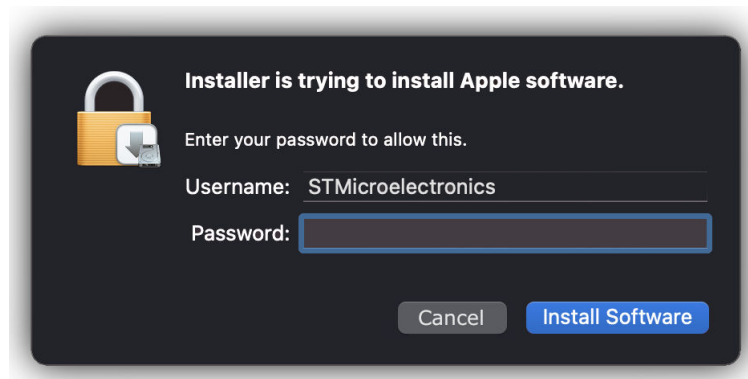
Figure 16. Rosetta® installation proceeding
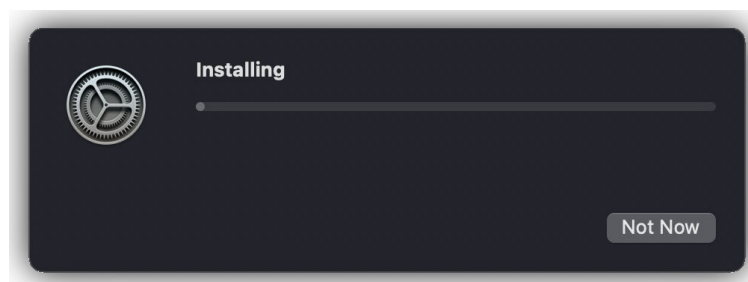
6 Update an STM32CubeIDE installation

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 17 by [**Help**]>[**Install new software...**]

Figure 17. *Install* dialog box
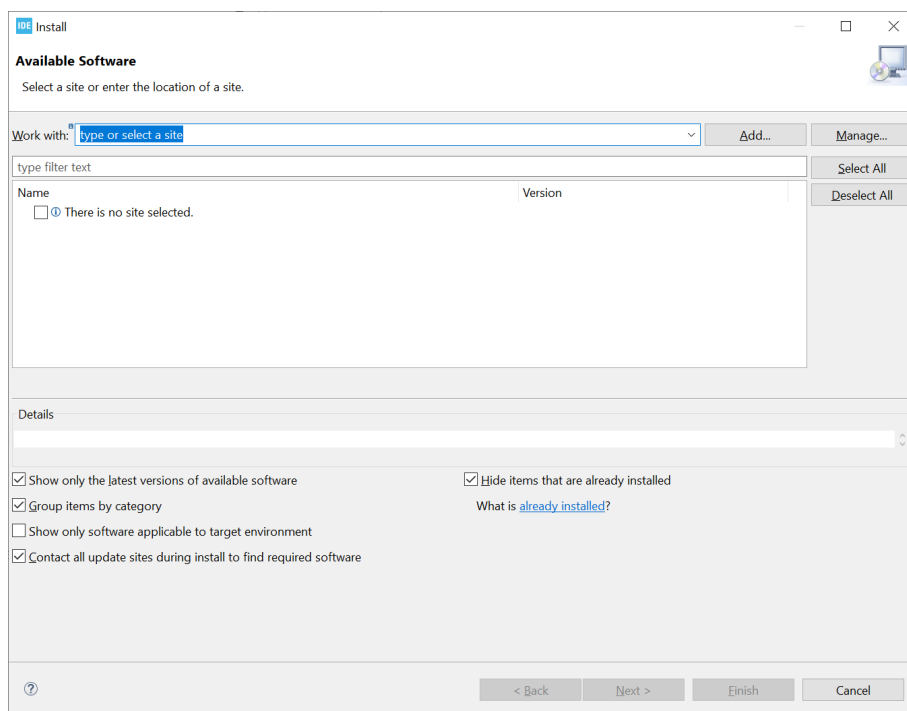
2. Click on the [**Manage...**] button

3. Select [**STM32CubeIDE Releases**] and click on [**Edit**] as shown in Figure 18

Figure 18. *Preferences* window
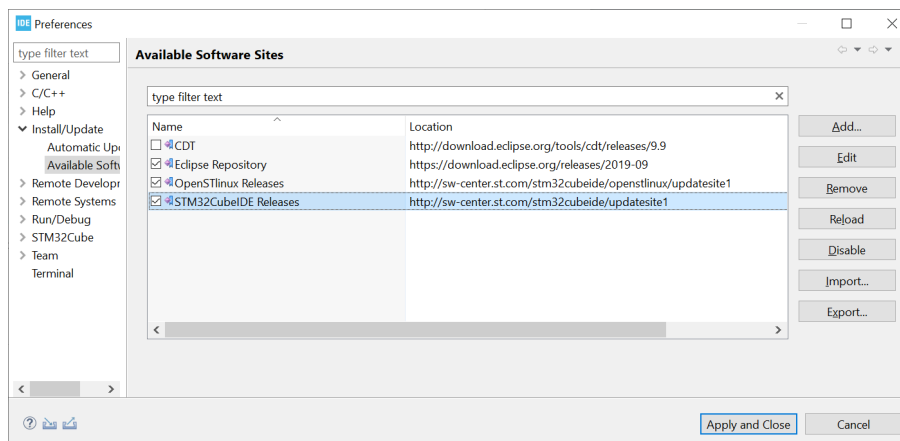
4. Add the desired version number at the end of the url in the [**Location**] field as shown in Figure 19

Figure 19. *Edit Site* dialog box
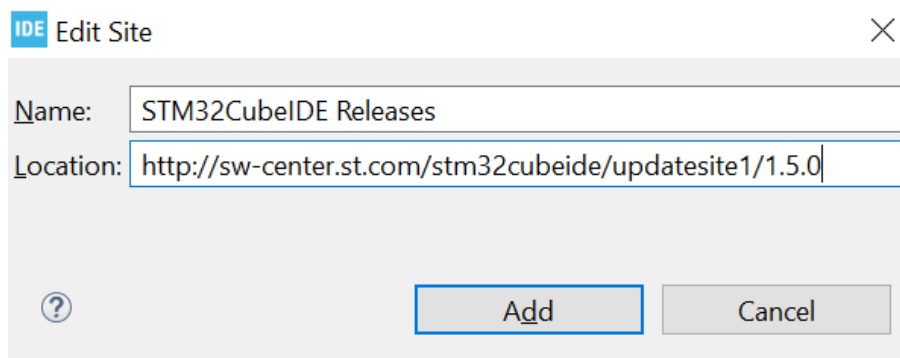
Note: *The update mechanism has the same requirements as the installation in term of administration rights. If the installation has been made with administration rights, the update must be made also with the same administration rights.*

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.
03-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*.
23-Feb-2022	4	Updated supported operating systems in sections *Microsoft Windows* and *macOS*.
07-Mar-2024	5	Updated supported operating systems in sections Microsoft® Windows®, Linux®, and macOS®. Updated Section 5.1: Application launch (was previously *Gatekeeper tips*).

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IMPORTANT NOTICE – READ CAREFULLY