

VISUAL STUDIO 2022 & Qt 6.7.3 INSTALLATION

History:

No.	Descriptions	Versions	Date	Author
1	Initializing version	1.0.0	25 Sep 2025	Sang Phan

1. Required Environments for Qt 6 Installation

1.1 Operating Systems

Windows 10 / 11 (64-bit)
Linux (Ubuntu, openSUSE, etc.)

1.2 Compilers / Toolchains

Windows:
MSVC 2019 or newer (MSVC 2019 16.7+ recommended)
Linux:
GCC 9.3+ or Clang 10+

1.3 Build Tools

CMake 3.24+ (required for Qt 6, replaces qmake as primary build system)
Ninja (recommended for fast builds, optional)
Perl, Python 3, Ruby (only needed if building from source for certain Qt modules)

1.4 Dependencies (platform specific)

Windows:
Windows SDK (installed with Visual Studio)
Linux:
Development packages like libxcb, libx11, libgl1-mesa-dev, libfontconfig-dev, libfreetype6-dev, libssl-dev, etc.

1.5 Disk Space & Hardware

At least 10 GB free space (more if building full Qt from source).
Minimum 8 GB RAM (16 GB recommended if building from source).

2. Install Qt via the Official Online Installer (recommended)

Step 1: Download the installer

Go to the official Qt website: <https://www.qt.io/download-open-source>
Click "Download the Qt Online Installer" (choose Windows, or Linux).

Step 2: Run the installer

On Windows, you'll get a .exe file (qt-online-installer-windows-x64-4.10.0.exe).
On Linux, you'll get a .run file.

Step 3: Sign in

You need a Qt Account (free, can be created during installation).

Step 4: Select Qt version

Recommend installing to directory "C:\Qt"
During installation, you'll see a menu with Qt versions:
Choose the version + compiler that matches your environment.
Here is my choices:

Uncheck Qt 6.9.2, then check on Qt 6.7.3
Check MSVC 2019 64-bit

After installing completely, if you want to add or remove packages:
Go to Qt folder (C:\Qt) --> Run MaintenanceTool.exe --> Choose Add or Remove components --> Open follow Qt versions --> Check packages you need --> Next --> Install

Why MSVC 2019 is recommended ?

- Qt builds and tests official binary releases primarily against MSVC 2019 (and MinGW).
- That means if you download Qt from the Qt Online Installer, you'll always see ready-made binaries for MSVC 2019 64-bit.
- Using MSVC 2019 ensures maximum compatibility with prebuilt Qt packages.

Step 5: Finish

After installation, you'll have Qt Creator IDE and all Qt libraries.

Qt License info: <https://doc.qt.io/qt-6/lgpl.html>

3. Visual Studio 2022 Community

3.1 Install Visual Studio 2022 Community:

1. Open Microsoft Store → search for Visual Studio Community 2022 → Install.
2. During first launch, Visual Studio will ask what workloads to install.
 - Select Desktop development with C++.
 - This ensures you get MSVC compiler + Windows SDK.
 - You can also check C++ CMake tools for Windows (optional but useful).
3. Wait for installation to finish, then restart VS.

3.2 Install Qt Visual Studio Tools Plugin

1. Open Visual Studio 2022.
2. Go to Extensions → Manage Extensions.
3. In the search bar, type Qt Visual Studio Tools.
4. Click Download.
5. The plugin will install when you restart VS.

3.. Configure Qt in Visual Studio

1. After restart, go to Extensions → Qt VS Tools → Qt Versions.
2. Click Add → Browse to your Qt installation directory: C:\Qt\6.7.3\msvc2019_64
3. Give it a name like Qt 6.7.3 (MSVC 2019 64-bit).

3.4 Update OS PATH environment variable

1. Press Win + R, type sysdm.cpl, and press Enter.
2. Go to Advanced → Environment Variables.

3. Under System variables (recommended) or User variables, select Path → Edit.
4. Click New and add: "C:\Qt\6.7.3\msvc2022_64\bin"
5. Press OK on all dialogs.