

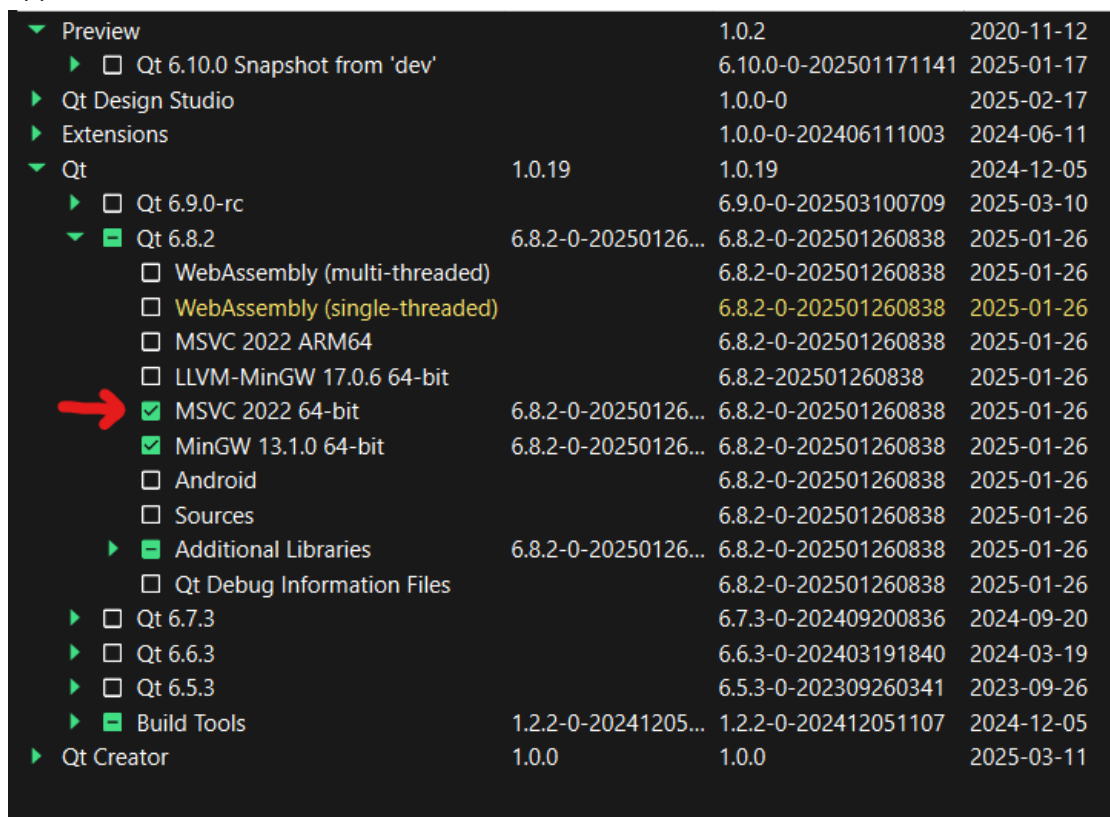
## Nullzec Qt Application Instructions to make it work on Windows:

Stack needed:

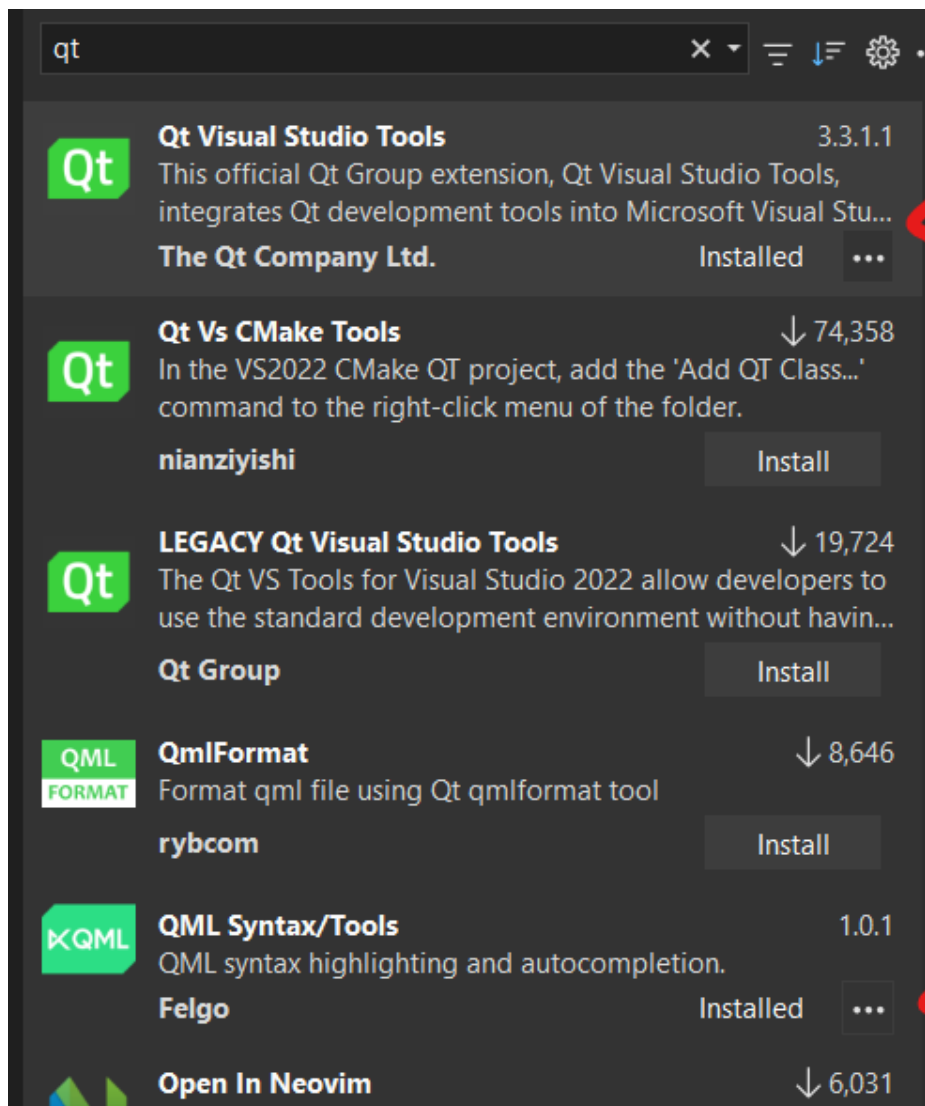
- Qt version 6.8.2 **with** msvc 2022 64-bit kit
- MS Visual Studio 2022

### How to set up Qt on Visual Studio:

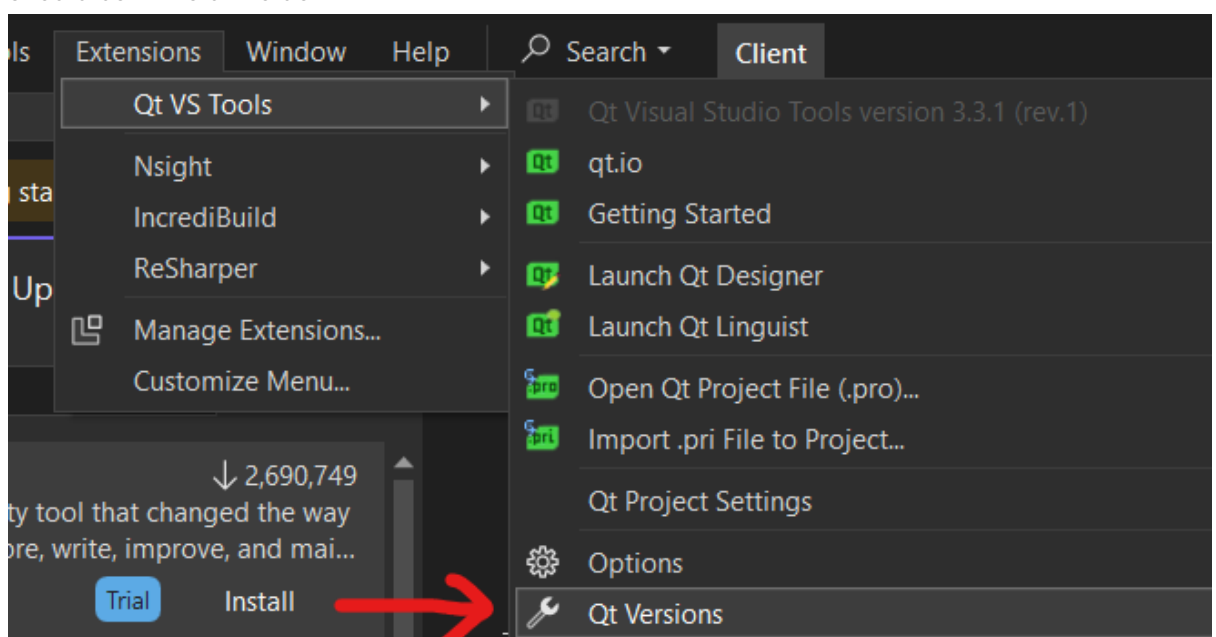
- After installing the required Qt version and the kit, configure VS to run the Qt client application.

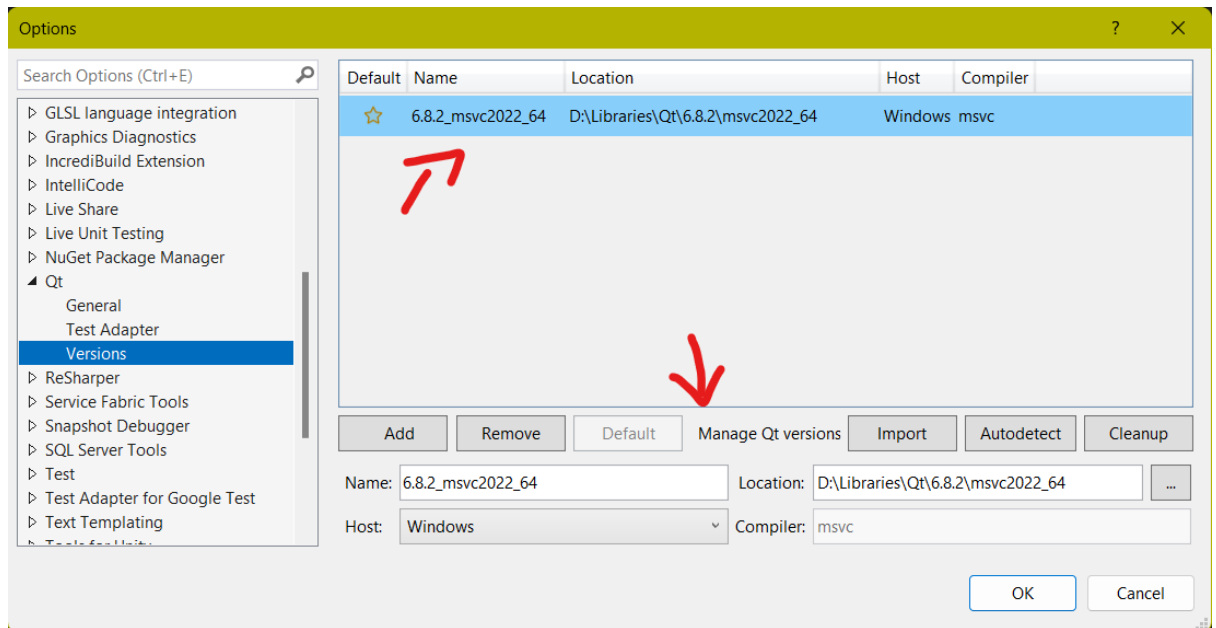


- Install **Qt Visual Studio Tools** and **QML Syntax/Tools** extensions on VS, as shown in the image below:



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- Once installed, go to **Qt Versions** and select the **qmake.exe** in the msvc2022\_64 folder. It should be in the bin folder.





## Other instructions:

- The client application has a kill switch. When it fails to receive message from the server, it will reinitialize after a certain number of re-tries.
- The client will exit when no server is found to connect to. You must have the server running before you run the client.
- I am sending only the modified rects, although it may have  $O(\text{width} * \text{height})$  as the worst case complexity, it usually ends up with  $O(\log(\text{width} * \text{height}))$ .
- I have kept the old code in the project either commented out of the way or in unused files and classes. I have kept the actual code clean. This is to show my learning process as I was figuring out 2 libraries: Qt, and vncserver and vncclient.
- I tried sending frame buffer in packets via UDP. However, there involved quite a bit of logic to assemble the packets on the client side into meaningful buffer. Given more time, I can achieve this. However, I am now only sending modified chunks in 256x256 rects to the client. The block size can be adjusted.
- Please find the Constants.h file that stores all the constant variables on the server side.
- For a bigger application, I would compartmentalize the code on the server side into multiple classes. Although, it is getting big already.

Thank you for giving me this wonderful opportunity.