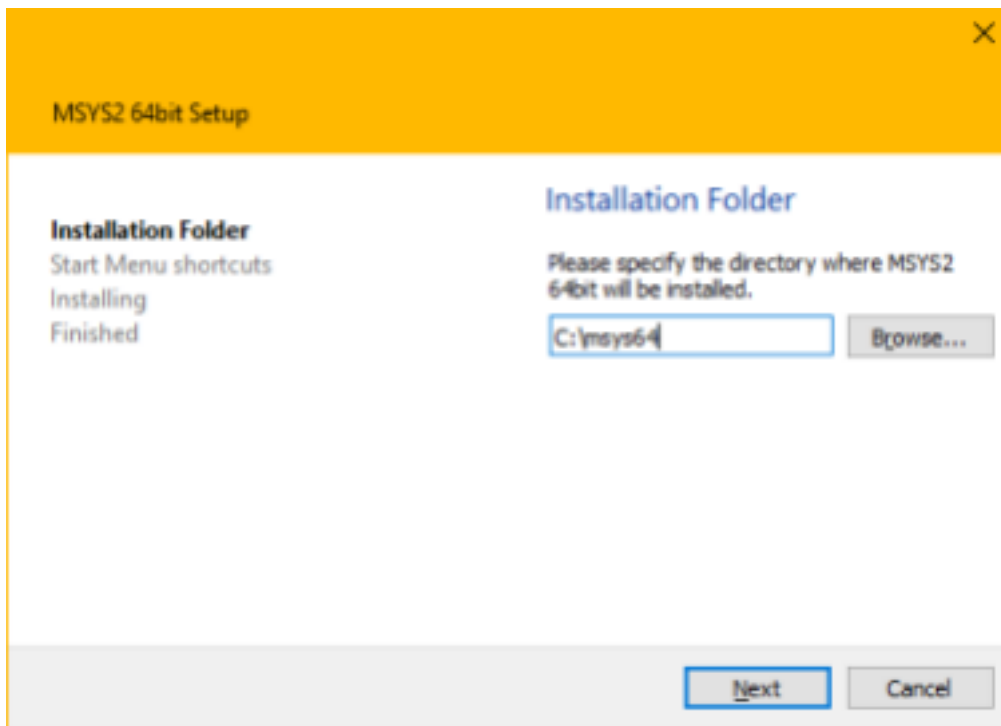
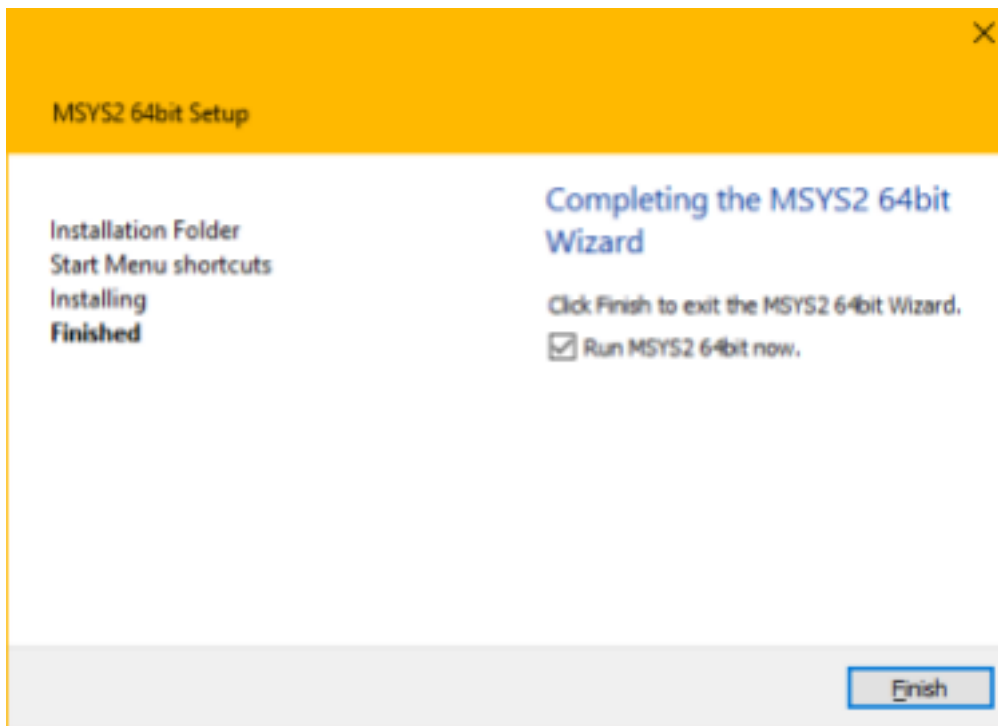


Procedure to Install MinGW-w64

1. Download the installer: [msys2-x86_64-20210228.exe](https://sourceforge.net/projects/mingw-w64/files/Tool%20chains/MSYS2/20210228/mingw-w64-x86_64-20210228.exe)
2. Run the installer. MSYS2 requires 64 bit Windows 7 or more
3. Enter your desired **Installation Folder**.



4. When done, tick Run MSYS2 now.



5. Update the package database and base packages. Unless your setup file is very recent, it will take two steps. First run

Command: `pacman -Syu`:

```
$ pacman -Syu
:: Synchronizing package databases...
mingw32                               885.0 KiB
mingw32.sig                           438.0 B
mingw64                               887.9 KiB
mingw64.sig                           438.0 B
msys                                   289.3 KiB
msys.sig                              438.0 B
:: Starting core system upgrade...
warning: terminate other MSYS2 programs before proceeding
resolving dependencies...
looking for conflicting packages...

Packages (6) bash-5.1.004-1 filesystem-2021.01-1
             mintty-1-3.4.4-1 msys2-runtime-3.1.7-4
             pacman-5.2.2-9 pacman-mirrors-20201208-1

Total Download Size: 11.05 MiB
Total Installed Size: 53.92 MiB
Net Upgrade Size: -1.24 MiB

:: Proceed with installation? [Y/n]
:: Retrieving packages...
bash-5.1.004-1-x86_64                2.3 MiB
filesystem-2021.01-1-any             33.2 KiB
mintty-1-3.4.4-1-x86_64              767.2 KiB
msys2-runtime-3.1.7-4-x86_64         2.6 MiB
pacman-mirrors-20201208-1-any        3.8 KiB
pacman-5.2.2-9-x86_64                5.4 MiB
(6/6) checking keys in keyring        100%
(6/6) checking package integrity       100%
(6/6) loading package files           100%
(6/6) checking for file conflicts      100%
(6/6) checking available disk space    100%
:: Processing package changes...
(1/6) upgrading bash                  100%
(2/6) upgrading filesystem             100%
(3/6) upgrading mintty                100%
(4/6) upgrading msys2-runtime          100%
(5/6) upgrading pacman-mirrors         100%
(6/6) upgrading pacman                100%
:: To complete this update all MSYS2 processes including this terminal will be closed. Con
```

6. Run "MSYS2 MSYS" from Start menu. Update the rest of the base packages with

Command: `pacman -Su`:

```
$ pacman -Su
:: Starting core system upgrade...
there is nothing to do
:: Starting full system upgrade...
resolving dependencies...
looking for conflicting packages...

Packages (20) base-2020.12-1  bsdtar-3.5.0-1
[... more packages listed ...]

Total Download Size:  12.82 MiB
Total Installed Size: 44.25 MiB
Net Upgrade Size:     3.01 MiB

:: Proceed with installation? [Y/n]
[... downloading and installation continues ...]
```

7. Now MSYS2 is ready for you. You will probably want to install some tools and the mingw-w64 GCC to start compiling:

Command: `pacman -S --needed base-devel mingw-w64-x86_64-toolchain`

```
$ pacman -S --needed base-devel mingw-w64-x86_64-toolchain
warning: file-5.39-2 is up to date -- skipping
[... more warnings ...]
:: There are 48 members in group base-devel:
:: Repository msys
   1) asciidoc  2) autoconf  3) autoconf2.13  4) autogen
   [... more packages listed ...]

Enter a selection (default=all):
:: There are 19 members in group mingw-w64-x86_64-toolchain:
:: Repository mingw64
   1) mingw-w64-x86_64-binutils  2) mingw-w64-x86_64-crt-git
   [... more packages listed ...]

Enter a selection (default=all):
resolving dependencies...
looking for conflicting packages...

Packages (123) docbook-xml-4.5-2 docbook-xsl-1.79.2-1
               [... more packages listed ...]
               m4-1.4.18-2 make-4.3-1 man-db-2.9.3-1
               mingw-w64-x86_64-binutils-2.35.1-3
               mingw-w64-x86_64-crt-git-9.0.0.6090.ad98746a-1
               mingw-w64-x86_64-gcc-10.2.0-6
               mingw-w64-x86_64-gcc-ada-10.2.0-6
               mingw-w64-x86_64-gcc-fortran-10.2.0-6
               mingw-w64-x86_64-gcc-libgfortran-10.2.0-6
               mingw-w64-x86_64-gcc-libs-10.2.0-6
               mingw-w64-x86_64-gcc-objc-10.2.0-6
               mingw-w64-x86_64-gdb-10.1-2
               mingw-w64-x86_64-gdb-multiarch-10.1-2
               [... more packages listed ...]

Total Download Size:   196.15 MiB
Total Installed Size: 1254.96 MiB

:: Proceed with installation? [Y/n]
[... downloading and installation continues ...]
```

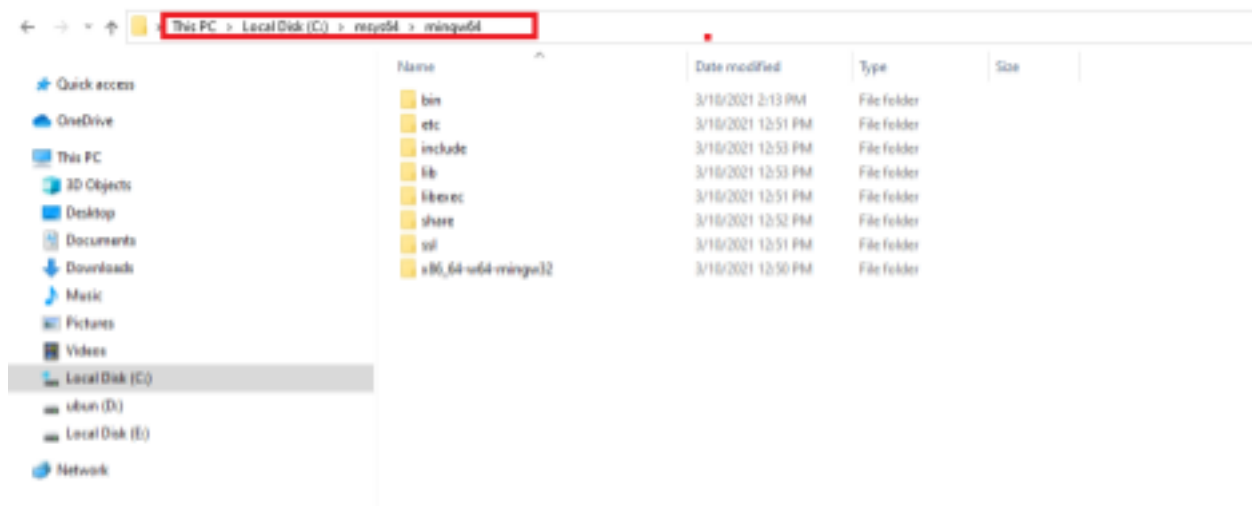
8. To start building using the mingw-w64 GCC, close the present window and run **"MSYS MinGW 64-bit"** from Start menu.

Now you can call make or gcc to build software for Windows.

9. Check out [the introduction page](#) to learn which Start menu item to use when and which packages to install. Take look at [Detailed MSYS2 install guide](#) for troubleshooting and additional details on how to keep your MSYS2 up-to-date

10. You can check mingw64 is installed in this path

C:\msys64\mingw64

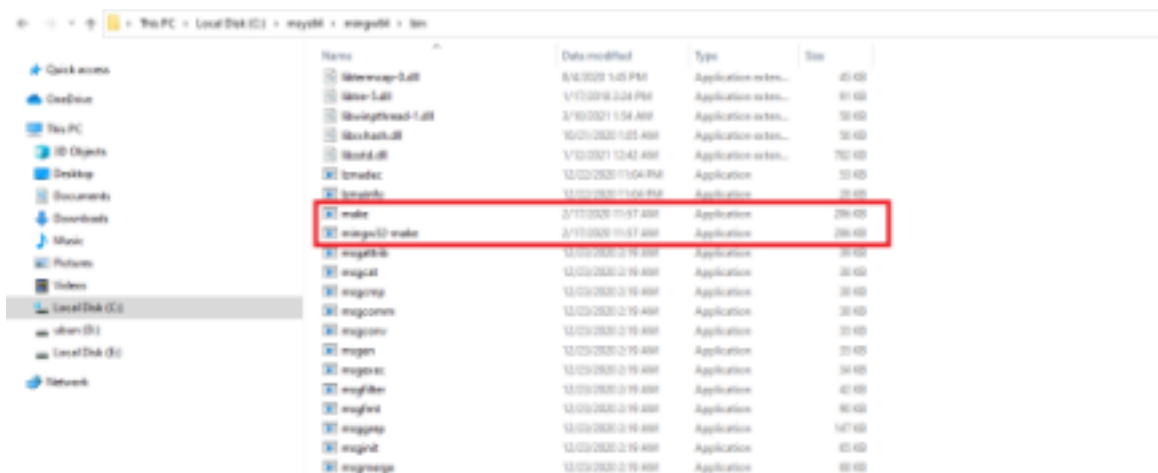


After installing, you need to set the PATH variable

1. You can access the System Control Center by pressing Windows Key + Pause.
2. In the System window, click Advanced System Settings → Advanced (tab) → Environment Variables.
3. For Windows 10, a quick access is to enter "Edit the system environment variables" in the Start Search of Windows and click the button "Environment Variables". Change the PATH variable (double-click on it or Select and Edit), and add the path where your **MinGW-w64** has been installed to e.g., **C:\msys64\mingw64\bin**. This folder should contain a number of .exe-files that you can see in your Explorer.

Change name of the make executable

1. In your installation folder, inside the bin directory, you should find a file called mingw32-make.exe. Create a copy of the file in the same directory named make.exe.



To Test MinGW-w64

Open the command prompt of Windows either via the Program Menu or type cmd in the Start Search of Windows. Enter:

g++ --version

(Note: If you are not able to find gcc, then copy the given bin files into C:\msys64\mingw64\bin). Then open the terminal and type **gcc**

Bin files Link :

<https://drive.google.com/drive/folders/1Ug4madU69ueMEXtft8FO3oC3l4jcL4gi?usp=sharing>

Source: <https://www.msys2.org/>