



MinGW-w64 - for 32 and 64 bit Windows

A complete runtime environment for gcc

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GeneralUsageInstructions



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General Usage Instructions

Downloading the toolchain

There are several options you can choose from:

- rubenvb "release" builds: these are stable builds using the latest released GCC and MinGW-w64. GCC 4.5 and up is covered, along with packages for Clang 3.1 and up. Some experimental and unstable packages are also provided for those that want prerelease versions of the software.
 - [64-bit target](#)
 - [32-bit target](#)

The prefix i686=32-bit x86_64=64-bit shows what kind of binaries the toolchain builds. The suffix shows what OS the toolchain is built for. If you need to build 32-bit binaries on Windows, it is recommended to use the i686...win32 package.

- **MinGW-builds:** high quality toolchains, providing dual-target builds(host=x32 -> target=x32/x64 & host=x64 -> target=x64/x32). GCC 4.6.2 and up is covered. The builds are divided into two categories: [stable](#) and [unstable](#). Also, the builds provide two models of threads: posix/win32. In addition to this, you can select dwarf/sjlj/seh builds at your choice. And one more important feature of the builds is that the builds include python interpreter built within the MinGW-builds project, and which is used for the 'GDB pretty-printers'. Also provides other useful packages.
 - [64-bit target](#)
 - [32-bit target](#)

The prefix x32=32-bit x64=64-bit shows what kind of binaries the toolchain builds. If you need to build 32-bit binaries on Windows, it is recommended to use the x32 package.

- **Automated builds:** produced regularly, as often as possible. These will use upstream GCC versions and may not be very stable at times, but these are tested to at least function. The binary packages do not include optional mingw-w64 SDKs, including the DXSDK and DDK.
 - [64-bit target](#)
 - [32-bit target](#)
- **TDM-GCC:** TDM, who also catered updated GCC installers for mingw.org, supports a mingw-w64 toolchain. Be sure to read the Getting Started page. This is of course not usable for cross-compilation. Please understand TDM uses nonstandard patching that makes his builds binary incompatible with all other builds without these patches.

For linux, see below.

Installing the toolchain

Windows native

TDM-GCC comes with an easy installer, please use that. The other builds are quite straightforward to set up:

- extract the toolchain to a directory: 32-bit mingw-w32: eg `C:\mingw32` so that `C:\mingw32\bin` contains i686-w64-mingw32-gcc.exe 64-bit mingw-w64: eg `C:\mingw64` so that `C:\mingw64\bin` contains x86_64-w64-mingw32-gcc.exe
- open a cmd.exe and do `set PATH=C:\mingw64\bin;%PATH%` for 64-bit building. `set PATH=C:\mingw32\bin;%PATH%` for 32-bit building.
- You should be ready to go. Execute `i686-w64-mingw32-gcc -v` or `x86_64-w64-mingw32-gcc -v` to see that everything has gone well.
- (Autobuilds only) If you need mingw32-make, please download it from the mingw-w64 downloads site under Extra tools.

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Linux

Several distributions already provide mingw64 packages:

- Arch (AUR): <https://aur.archlinux.org/packages.php?ID=53926>

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- Debian: <http://packages.debian.org/sid/mingw-w64> and related packages.
- Fedora: <https://fedoraproject.org/wiki/MinGW/Tutorial>
- Ubuntu: <http://packages.ubuntu.com/source/lucid/mingw-w64> and related packages

Using the Toolchain

The toolchain consists of compilers, linkers assemblers and supporting utilities (comparable to what you get with the Windows SDK. It does not include an IDE.

If you need to compile GNU software which requires the use of a configure script for Windows, see [MSYS].

CMake can be used for generating "MinGW Makefiles", which of course work fine for mingw-w64/w32.

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Discussion



RoestVrijStaal - 2014-09-19

There is an error:

"x86_w64-w64-mingw32-gcc -v" must be "x86_64-w64-mingw32-gcc -v"



Georg - 2018-07-03

There is an error:

"x86_86-w64-mingw32-gcc -v" must be "x86_64-w64-mingw32-gcc -v"

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No, Thank you