

Cygwin: How to actually use gcc-mingw

Asked 9 years, 3 months ago Active 3 years, 2 months ago Viewed 45k times

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Since "gcc-mno-cygwin" does not work anymore, I was looking for a way to get a MinGW-targeted GCC running within my Cygwin environment. (Running a MSYS environment is not an option at this point.)

The Cygwin installer offers a package "gcc-mingw", which installs, among others:

```
lib/gcc/i686-pc-mingw32/3.4.4/cc1.exe
lib/gcc/i686-pc-mingw32/3.4.4/collect2.exe
lib/gcc/i686-pc-mingw32/3.4.4/crtbegin.o
lib/gcc/i686-pc-mingw32/3.4.4/crtend.o
```

What is absent is the "gcc" frontend. So, how do I actually *invoke* this compiler? I hopefully don't have to go through "cc1" manually, have I?

I googled, but couldn't find anything relevant on the subject...

gcc cygwin mingw

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asked Sep 23 '10 at 7:09

DevSolar

53.9k 15 104 175

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As you already found, you can use gcc-3 with `-mno-cygwin`. The other possibility is to install the 32-bit and/or 64-bit toolchains from the MinGW-w64 project, which have been packaged for Cygwin very recently and hence are available through `setup.exe` now. Don't be put off by the rather confusing executable names: `i686-w64-mingw32-gcc` is the 32-bit compiler and `x86_64-w64-mingw32-gcc` is the 64-bit one.

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answered Sep 23 '10 at 9:09

ak2

6,031 26 23

2 This actually works. Any idea why they keep an apparently non-functional package "gcc-mingw" in there and hide the working stuff as "i686-w64-mingw32-gcc"? – DevSolar Sep 24 '10 at 11:41

I think the gcc-mingw packages are part of the `gcc-3 -mno-cygwin` functionality. They don't actually contain anything except postinstall scripts that create links which I guess are needed for that. Those funny names follow the usual target triplet pattern for cross-compilers: `cpu-vendor-os`, with `vendor=w64` (for MinGW-w64) and `os=mingw32` (for hystorical reasons). – ak2 Sep 24 '10 at 19:16

3 Note that as of June '12 at least, the string to run the MinGW compiler from Cygwin after installing the toolchain is simply `mingw-gcc`. This resolves the issue raised by the [comments](#) in the [post below](#). – Chris Krycho Jun 28 '12 at 19:41

1 Just be careful which mingw-toolchain you use. The "true" mingw32 is win32-based ("mingw-gcc" probably being from that and not from the cygwin gang) and use Windows paths e.g. They are thus somewhat incompatible with the cygwin native versions (producing `.d` files with different path notations etc.). The cygwin-based gcc4 cross-compiler is one of the two mentioned in the answer. – thoni56 Aug 29 '12 at 17:36

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Further searches revealed that [the MinGW-targeted cross-compiler is not ready yet](#), and that one has to either use GCC v3 with `-mno-cygwin`, or install a cross-compiler manually (see link above)...

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answered Sep 23 '10 at 7:37

DevSolar

53.9k 15 104 175

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[Cygwin homepage](#) says that "Individual packages like bash, gcc, less, etc. are released independently of the DLL."

[Here](#) you can find how to install gcc under cygwin, so you should also select gcc package during install not only gcc-mingw.

share improve this answer

answered Sep 23 '10 at 7:13

rics

4,923 5 28 40

I have installed (among others) gcc, gcc4, and gcc-mingw. My question is how to actually *reach* the MinGW-targeting GCC. "gcc" obviously doesn't do it, "gcc-mno-cygwin" neither, and there is no such thing as a "gcc-mingw". – DevSolar Sep 23 '10 at 7:18

I see it is not so simple as I first thought. Here ([cygwin.com/ml/cygwin/2009-10/msg00061.html](#)) I found a possible solution. – rics Sep 23 '10 at 7:34

I also found this do-it-yourself solution: [sourceforge.net/apps/trac/mingw-w64/wiki/...](#) – rics Sep 23 '10 at 7:39

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