

Precompiled packages for 32-bit and 64-bit Windows are available on <http://www.freddiechopin.info/> > Download > Software > [bleeding-edge-toolchain](#)  
bleeding-edge-toolchain - what it's all about? - [read here](#).

What kind of benefits are in this release?

*FreddieChopin napísal ...*

First of all - it uses most recent tools, especially GCC 8.1, which was released yesterday (; "Official" ARM packages with the toolchain will most likely have GCC 8 at the very end of 2018 (their new release schedule says the major release is in Q4). Whether or not you want all the new features (and potential bugs ;) ) of these new releases is of course an open question, however if you are working with C++ and want to try new features then the bleeding-edge releases of the tools are mandatory. If you are using plain C and you don't use fancy new features (e.g. LTO optimization) then the only differences you will see are better diagnostics and (possibly) better optimizations.

Second reason is that in my personal opinion the options used to compile target libraries (newlib and libstdc++v3) are better suited for a microcontroller when you actually want to use some of the heavy-weight features (like stdio, RTOS with proper integration with the toolchain [think - per-thread errno instance], ...) or want to develop code in C++. In this toolchain I've completely disabled C++ exceptions in the libraries and selected newlib options which are more appropriate for a chip with limited amount of RAM. Generally this is a bit similar to the "nano" variant of the libraries (bundled with the ARM toolchain as well as mine), but optimized with -O2 instead of -Os (which sometimes produces really slow code).

Some time ago there was also a third reason - the toolchain built by ARM was compiled in a way to make it compatible with as many systems as possible, which resulted in the compilation being pretty slow (in some cases 2-3x slower than with bleeding-edge-toolchain), but I think they have resolved that issue and now there is no difference, but I did not check it.