0.6 - 安装集成开发环境（IDE）

由ALEX于2007年5月28日| 最后由ALEX于2018年9月26日修改

一个**集成开发环境（IDE）**是一个软件包含了所有你需要开发，编译，链接和调试程序的事情。

使用典型的C ++ IDE，您将获得一个代码编辑器，用于执行行编号和语法突出显示。许多（但不是全部）IDE包括C ++编译器和链接器，IDE将知道如何与源代码进行交互以将源代码转换为可执行文件。当您需要调试程序时，可以使用集成调试器。

此外，IDE通常捆绑了许多其他有用的编辑功能，例如集成帮助，名称完成，自动格式化，有时还有版本控制系统。因此，虽然您可以单独执行所有这些操作，但安装IDE并使它们都可以从单个界面访问它们要容易得多。

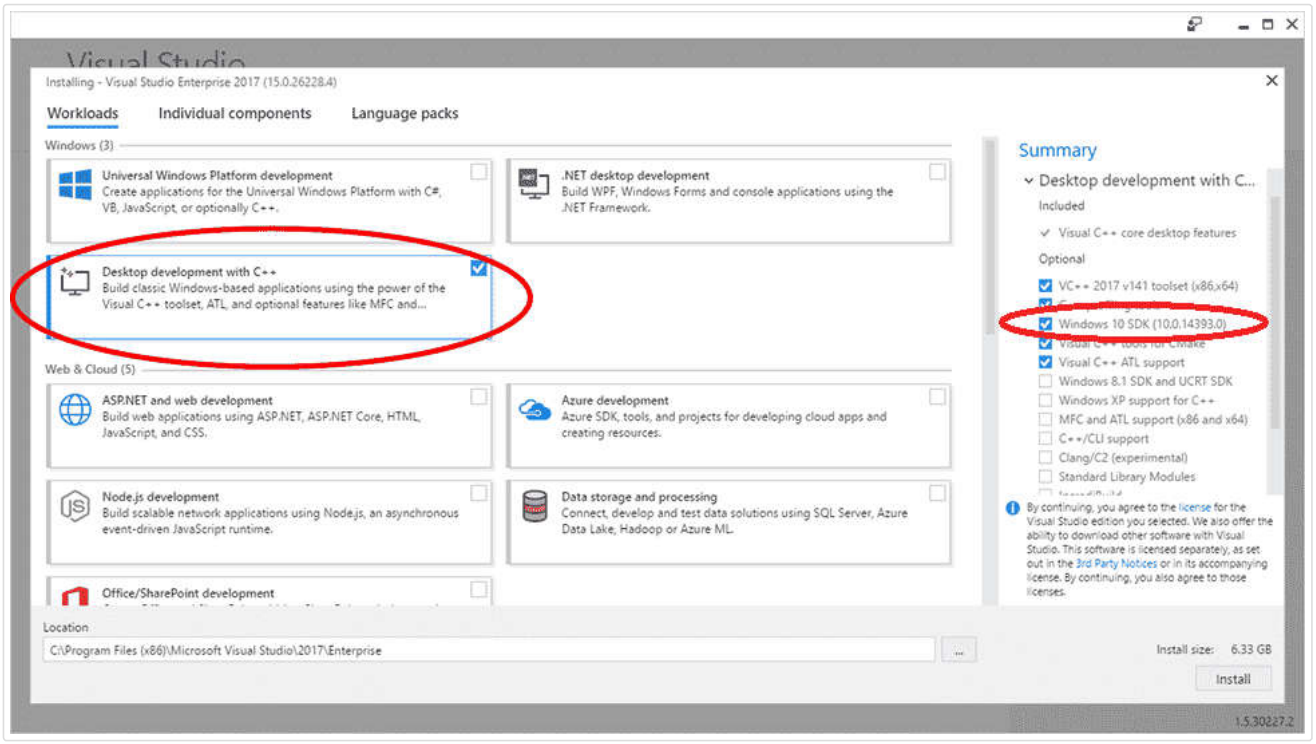
所以让我们安装一个！明显的下一个问题是，“哪一个？”。许多IDE都是免费的（价格合理），如果您愿意，可以安装多个IDE，因此这里没有“错误的决定”。我们将在下面推荐一些我们的最爱。

如果您还有其他IDE，那也没关系。我们在这些教程中向您展示的概念通常适用于任何体面的现代IDE。但是，各种IDE使用不同的名称，布局，键映射等...因此您可能需要在IDE中进行一些搜索才能找到相同的功能。

Visual Studio（适用于Windows）

如果您在Windows机器上进行开发（大多数人都是如此）并且磁盘空间和下载大小不是约束，那么我们强烈建议您使用**Visual Studio Community 2017**。当您运行安装程序时，您最终会进入一个屏幕，询问您要安装的工作负载。选择*使用C ++进行桌面开发*。如果不这样做，那么C ++功能将无法使用。

在屏幕右侧选择的默认选项应该没问题，但请确保选择了*Windows 10 SDK*。Windows 10 SDK可以在旧版本的Windows上使用，因此如果您仍在运行Windows 7或8，请不要担心。



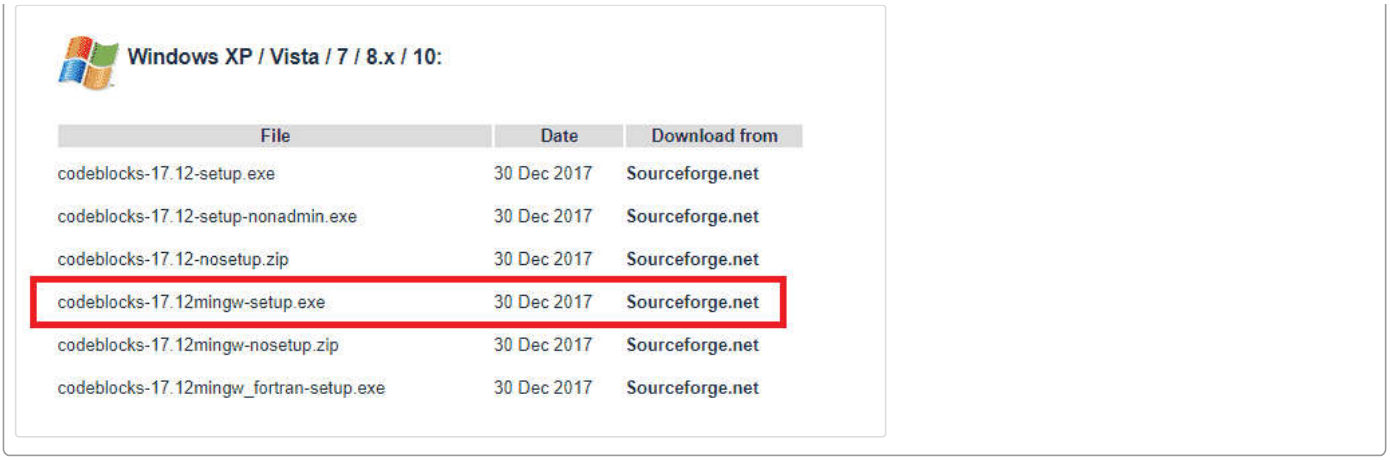
如果磁盘空间和/或下载大小是一个挑战，那么我们建议使用Microsoft免费**的Windows桌面Visual Studio Express 2017**，您可以在页面底部找到它。

Code :: Blocks（适用于Linux或Windows）

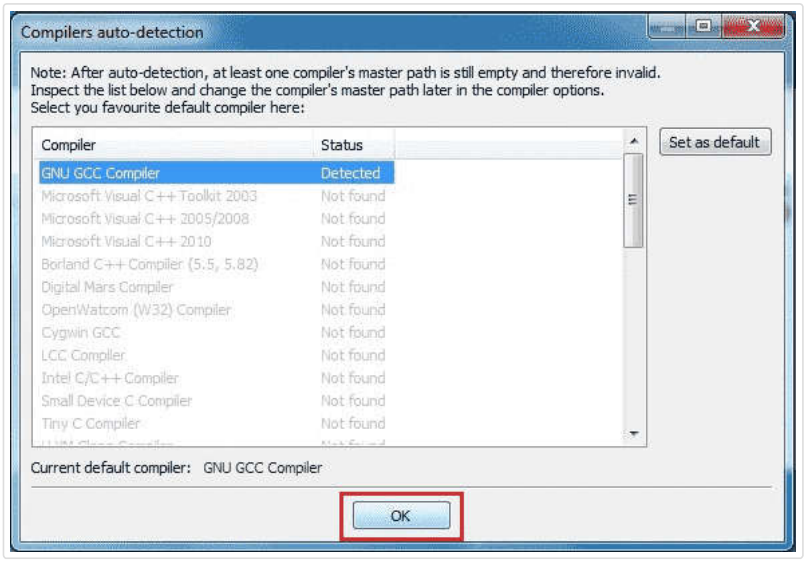
如果您正在使用Linux进行开发（或者您正在开发Windows但希望编写可以轻松移植到Linux的程序），我们建议使用**Code :: Blocks**。Code :: Blocks是一个免费的开源跨平台IDE，可以在Linux和Windows上运行。

对于Windows用户

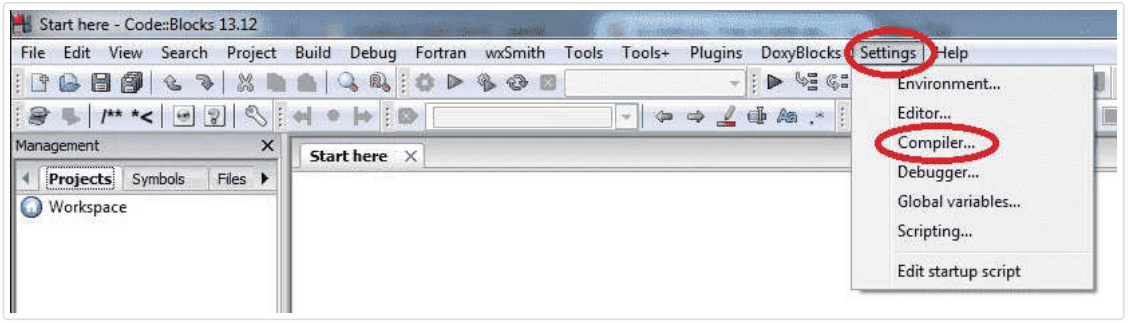
确保获得捆绑了MinGW的Code :: Blocks的版本（它应该是其文件名以*mingw-setup.exe*结尾的版本）。这将安装MinGW，其中包括GCC C ++编译器的Windows端口：



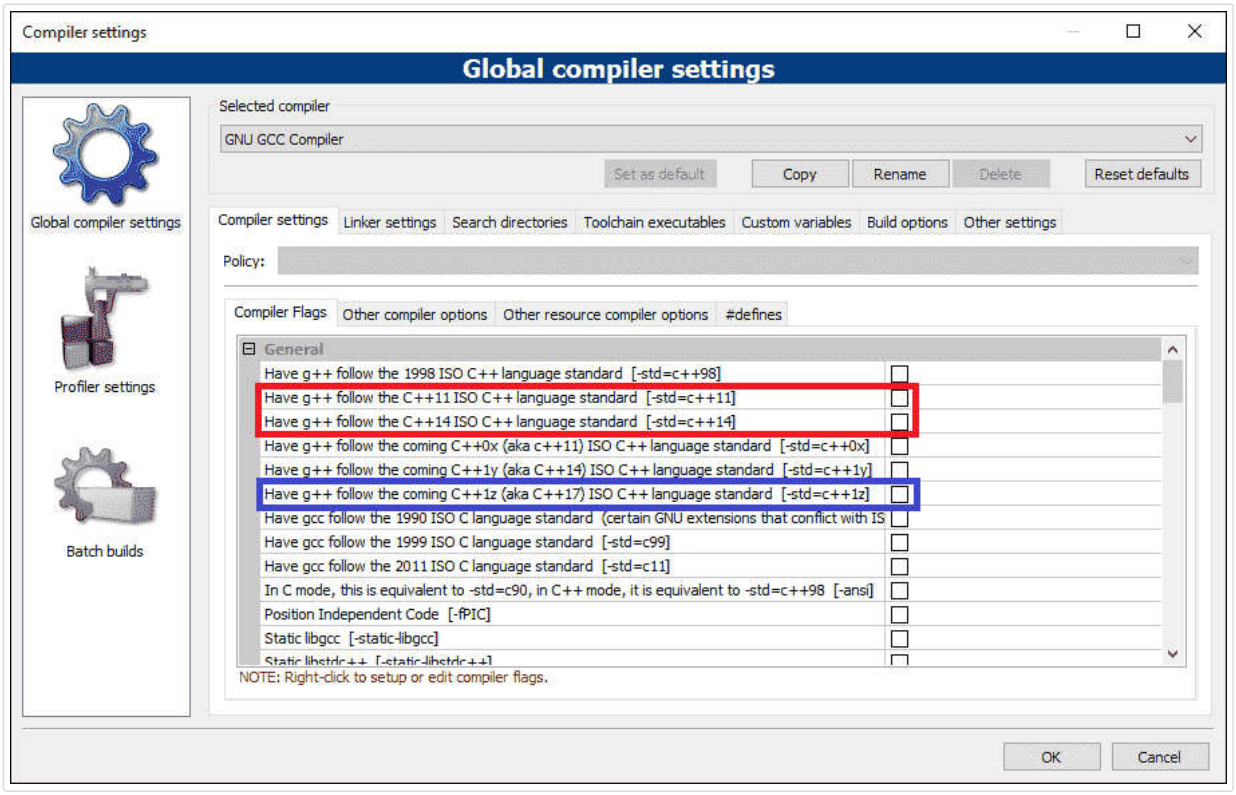
当您第一次启动Code :: Blocks时，您可能会得到一个*编译器自动检测*对话框。如果这样做，请确保将*GNU GCC Compiler*设置为默认编译器，然后选择*确定*按钮。



使用Code :: Blocks，默认情况下可以禁用C ++ 11 / C ++ 14 / C ++ 17功能。你肯定想检查并打开它。首先，转到*"设置"菜单>"编译器"*：



Then find the box or boxes labeled *Have g++ follow the C++XX ISO C++ language standard [-std=c++XX]:*, where XX is 11, 14, or some other higher number (see the items inside the red box below for examples):



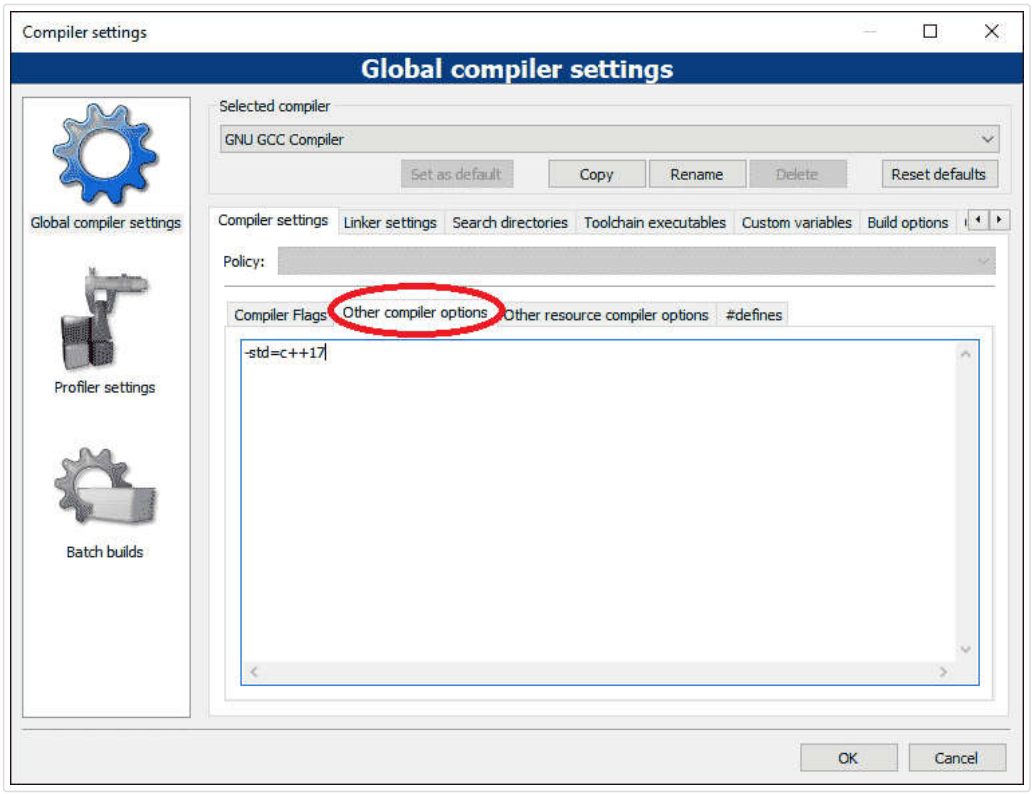
Check the one with the highest number (in the above case, that's the C++14 option inside the red box).

Your version of Code::Blocks may also have support for experimental, or just released versions of C++. If so, this will be labeled *Have g++ follow the coming C++11YY (aka C++XX) ISO C++ language standard [-std=c++ZZ]* (see the blue box above). You can optionally check these if you would like to enable features in that version, but note that support may be incomplete (e.g. some features may be missing).

Q: I want to enable C++17 features in Code::Blocks, but I don't see a -std=C++17 option

If you see an option for -std=C++1z, that is equivalent (C++17 was called C++1z before they knew what year it would be finalized).

Alternatively, you can go to the Other Compiler Options tab and type in *-std=c++17*.



This will work if your compiler has C++17 support. If you're using an older version of Code::Blocks and C++17 features don't seem to work, upgrade your compiler.

Q: I'm getting a "Can't find compiler executable in your configured search paths for GNU GCC Compiler" error

Try the following:

1. In you're on Windows, make sure you've downloaded the version of Code::Blocks WITH MinGW. It's the one with "mingw" in the name.
2. Try going to settings, compiler, and choose "reset to defaults".
3. Try going to settings, compiler, toolchain executables tab, and make sure "Compiler's installation directory" is set to the MinGW directory (e.g. C:\Program Files (x86)\CodeBlocks\MinGW).
4. Try doing a full uninstall, then reinstall.
5. Try a different compiler.

Mac OSX IDEs

Popular Mac choices include **Xcode** (if it is available to you), or **Eclipse**. Eclipse is not set up to use C++ by default, and you will need to install the optional C++ components.

Although Visual Studio for Mac has been released, as of Aug 2018 it does not support C++, so at this time we can not recommend it.

Can I use a web-based compiler?

Yes, for some things. While your IDE is downloading (or if you're not sure you want to commit to installing one yet), you can continue this tutorial using a web-based compiler, such as the one at **TutorialsPoint**.

Web-based compilers are fine for dabbling and simple exercises. However, they are generally quite limited in functionality -- many won't allow you to save projects, create executables, or effectively debug your programs. You'll want to migrate to a full IDE when you can.

Can I use a command-line compiler (e.g. g++ on Linux)?

Yes, but you'll need to find your own editor and look up how to use it elsewhere.

When things go wrong (a.k.a. when IDE stands for "I don't even...")

IDE installation seems to cause its fair share of problems. Installation might fail outright (or installation might work but the IDE will have problems when you try to use it due to a configuration issue). If you encounter such issues, try uninstalling the IDE (if it installed in the first place), reboot your machine, disable your antivirus or anti-malware temporarily, and try the installation again.

If you're still encountering issues at this point, you have two options. The easier option is to try a different IDE. The other option is to fix the problem. Unfortunately, the causes of installation and configuration errors are varied and specific to the IDE software itself, and we're unable to effectively advise on how to resolve such issues. In this case, we recommend copying the error message or problem you are having into a Google search and trying to find a forum post elsewhere from some poor soul who has inevitably encountered the same issue. Often there will be suggestions on things you can try to remedy the issue.

Moving on

Once your IDE is installed (which can be one of the hardest steps if things don't go as expected), or if you're temporarily proceeding with a web-based compiler, you are ready to write your first program!

0.7 -- Compiling your first program

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0.5 -- Introduction to the compiler, linker, and libraries

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Bob Ross
October 11, 2018 at 6:44 pm · Reply

Are there any IDE's or recommended websites for Lenovo Chromebook (or just google based)?

David
September 21, 2018 at 3:36 pm · Reply

HI, I own a Lenovo PC that is running Windows 10 S. That means it is running in Safe Mode and is the recommended mode for security. I would ideally like to keep it that way, but in "S mode" it won't let me download anything like a compiler, let alone and IDE. I know there is the option to switch out of the S mode, but is there any way around this while still keeping the PC secure?

Alex
September 24, 2018 at 7:37 am · Reply

I couldn't say. You could use a web compiler temporarily (at least long enough to see if you like the lessons and want to stick with them) before making a call.

Christian
August 10, 2018 at 6:23 am · Reply

Hello and thank you for these tutorials. Which IDE should I download if I am using Ubuntu on a Windows machine? Still the ones suggested for Windows or those for Ubuntu?

nascardriver
August 11, 2018 at 5:39 am · Reply

Hi Christian!
The IDE for Ubuntu.

Christian
August 12, 2018 at 8:07 am · Reply

Thanks!

P-z
July 23, 2018 at 8:02 am · Reply

Hello, I'm using Linux Mint 18.3 with the kernel 4.10.0-38 and I encountered this problem with Code::Blocks.
When I tried to compile a simple "Hello World" program with g++, it exited with error code 127. This was because g++ was never installed. After I installed it it compiled fine, but it wasn't running. I tried running the command shown in the build log manually and it said xterm wasn't installed either.
After I installed both of those, everything worked fine.

If anybody else encounters these errors, just use this command to download both of them from your repository:

```
1 sudo apt-get install g++ && sudo apt install xterm
```

~ P-z

nascardriver
July 23, 2018 at 8:20 am · Reply

```
1 sudo apt install g++ xterm
```

Haguen
September 12, 2018 at 3:29 pm · Reply

As another solution for the xterm issue, you can do this in case you're using Linux Mint Mate:
1 - click on Settings->Environment...
2 - Select General Settings on left panel (I guess it's selected by default, it is the first icon in the panel)
3 - locate the last option 'Terminal to launch console programs: xterm -T $TITLE -e'
4 - change it to : mate-terminal -t $TITLE -x

The difference of the last parameter is that for mate-terminal the '-e' option won't ask you to press ENTER when running the project from CodeBlocks causing the terminal window to blink preventing you to check the output.
The option to print the title is in lowercase for mate-terminal.

Alex, it could be a good idea to inform this option in your lesson.

Cheers !

Manish
July 2, 2018 at 10:54 pm · Reply

I am getting the below error. Please help

1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\Common7\IDE\VC\VCTargets\Microsoft.CppCommon.targets(273,5): error MSB6006: "CL.exe" exited with code -1073741515.

Mixhail
June 26, 2018 at 9:18 pm · Reply

use xcode for macs

承煒
June 26, 2018 at 10:24 am · Reply

Is this free? download and use?
Though it's hard for me to read English,
hope it will help me.
Thank you!

Jacob
June 17, 2018 at 4:33 pm · Reply

There is a version of Visual Studio for Macs. You can find it via this link:
https://www.visualstudio.com/vs/mac/

Alex
June 21, 2018 at 3:53 pm · Reply

Good call out. I've integrated that information into the lesson. Thanks!

Nic
July 7, 2018 at 8:18 pm · Reply

Hi Alex, I downloaded Visual Studio for Mac and I believe the consensus is that it does not support C++
https://stackoverflow.com/questions/49221954/using-c-in-visual-studio-community-2017-on-mac
https://visualstudio.microsoft.com/vs/features/cplusplus/

Bummer : /

Alex
July 9, 2018 at 3:00 pm · Reply

Wow. Thank you for pointing this out. I've updated the recommendation in the article accordingly. Many thanks.

Joe
May 14, 2018 at 9:52 am · Reply

Trying to download code::blocks
getting “Can’t find compiler executable in your configured search paths for GNU GCC Compiler”

searched around for the file you said it should have in dos, but I find mingwm10. is this comparable?

Joe
May 14, 2018 at 10:12 am · Reply

update
possible solution for code::blocks

https://stackoverflow.com/questions/23254518/cant-find-file-executable-in-your-configured-search-path-for-gnc-gcc-compiler

Mark
May 14, 2018 at 12:45 am · Reply

There are only minor syntax changes for c++ 11 iso c++ language standard and c++14 iso c++ language standard right?

nascardriver
May 14, 2018 at 3:04 am · Reply

Hi Mark!

Quoting Wikipedia:
1 New language features
1.1 Function return type deduction
1.2 Alternate type deduction on declaration[5]
1.3 Relaxed constexpr restrictions
1.4 Variable templates
1.5 Aggregate member initialization
1.6 Binary literals
1.7 Digit separators
1.8 Generic lambdas
1.9 Lambda capture expressions
1.10 The attribute [[deprecated]]
2 New standard library features
2.1 Shared mutexes and locking
2.2 Heterogeneous lookup in associative containers
2.3 Standard user-defined literals

2.4 Tuple addressing via type
2.5 Smaller library features

- https://en.wikipedia.org/wiki/C%2B%2B14

Try getting a compiler that supports C++17.

Mark
May 15, 2018 at 2:11 am · Reply

Thanks,
The newest version I got on Codeblocks is c++14.

Brian
May 11, 2018 at 1:29 pm · Reply

I am downloading on a windows 10 but I am running the IDE on a windows xp which IDE should I get.

Aditya prasad
May 9, 2018 at 12:00 am · Reply

I have turbo c++ not Microsoft's visual c++ , so would that make any difference or would i have to download the latter .

nascardriver
May 9, 2018 at 2:25 am · Reply

Hi Aditya!
Turbo C++ is discontinued so it might lack new language features, I suggest you to get an up-to-date compiler.
There's no need for msvc++, you can use any compiler you want.

Munachi
April 7, 2018 at 1:27 pm · Reply

Is there anyone for ios??

Munachi
April 5, 2018 at 8:10 am · Reply

Lol i dont even know what my mates are doing here
I love programming i have tried to understand it but no way ;(

nascardriver
April 5, 2018 at 8:31 am · Reply

You love programming but give up at installing an IDE? Something's off here.

Roland
April 2, 2018 at 7:25 pm · Reply

Is visual studio 2017 community free or a trial version? I got a notification saying that the trial license will expire, was wondering if anyone could let me know what it means?

nascardriver
April 3, 2018 at 3:45 am · Reply

Hi Roland!
The community versions are free for life, I don't know what kind of notification you got there.

Alex
April 3, 2018 at 2:17 pm · Reply

They're free, but you need to register with Microsoft for a free license. If you don't, they will expire.

Aleks
March 27, 2018 at 10:48 am · Reply

Nascardriver,
Thank you!

Aleks
March 27, 2018 at 9:40 am · Reply

#include <iostream>
#include <cmath>
#include <iomanip>

using namespace std;

```
int main()
{
long double i = 0, sum = 0;
for(;i <= 63; i ++){
cout « "..." « i « "..." « setprecision(21)« pow(2,i) « endl;
sum = sum + pow(2,i);
}
cout « "........" « setprecision(21) « sum « endl;

return 0;
}
```

1.在cpp.sh中显示（（sizeof（long double）== 16bytes））18446744073709551615（true）;
2.在VS2017中显示（（sizeof（long double）== 8bytes））18446744073709551616（false）;

编译时为什么会得到这样的结果？

nascardriver
2018年3月27日上午9:47 ·回复

嗨亚历克斯！

这与double的二进制表示有关。你会得到相同的范围，但精度会降低。

请在下次使用代码标签。

«旧评论 1 ... 6 7 8