

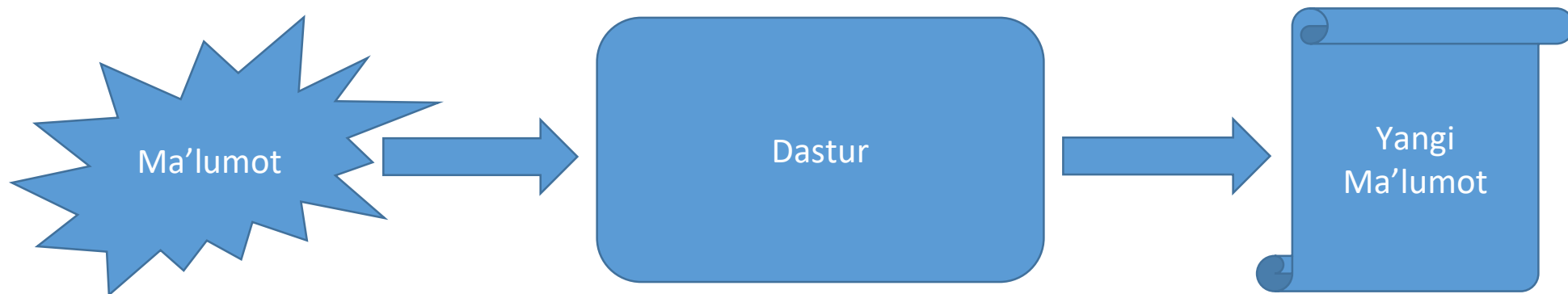
C++ dasturlash tili. Dasturlash muhitini sozlash

Reja:

- Dastur, dasturlash, dasturlash tili haqida
- Dasturlash tillarining turlari
- C++ dasturlash tili
- Basic syntax
- Comments

Dastur nima?

Dastur



Dasturlash nima?

Kompyuter va boshqa axborot texnologiyalari qurilmalari uchun dastur tuzish jarayoni **dasturlash** deb ataladi.

Dasturlash tili nima?

Dasturlash tili – bu dasturchi va kompyuter o'rtasidagi muloqot vositasi hisoblanadi.



Dasturlash tillari 2 ta katta guruhlarga bo'linadi:

- Quyi darajali
- Yuqori darajali

Quyi darajadagi dasturlash tillari kompyuter qurilmalari bilan bevosita bogʻliq boʻlib, buyruqlar maxsus raqamlar (kodlar) yordamida yoziladi.



ENIAC – Birinchi EHM

Yuqori darajali dasturlash tillaridagi ko'rsatmalar inson tiliga yaqin bo'lgan so'zlar majmuidan iborat.

Bu tilda tuzilgan dasturlarni **translyatorlar** deb nomlanuvchi maxsus dasturlar kompyuterlar bajara olishi uchun raqamli ko'rinishga o'tkazib beradi.



python™



JavaScript

C++



Ruby



Scala



node.js™

C#

C++ nima?

C++ - bu C tilining
kengaytmasi sifatida
Bjarne Stroustrup
tomonidan ishlab
chiqilgan dasturlash
tili.



Nima uchun C++?



C++ dasturchilarga tizim resurslari va xotirani yuqori darajada boshqarish imkoniyatini beradi.

Compiler nima?

Compiler / interpretator – dastur kodini ikkilik kodga (mashina tiliga) aylantiradigan vosita (dasturiy ta'minot).



Source Code



Compile




Machine Code

C++ ni install qilish


mingw



 Bce

 Видео

 Картинки

 Новости


 Книги

 Ещё

Настройки

Инструменты

Результатов: примерно 2 760 000 (0,60 сек.)

<https://sourceforge.net/projects/>  [Перевести эту страницу](#)

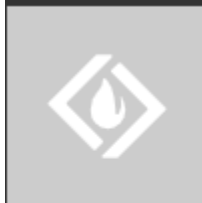
MinGW - Minimalist GNU for Windows download ...

MinGW: A native Windows port of the GNU Compiler Collection (GCC), with freely distributable import libraries and header files for building native Windows applications; includes extensions to the MSVC runtime to support C99 functionality. All of **MinGW's** software will execute on the 64bit Windows platforms.

★★★★★ Рейтинг: 4,1 · 156 голосов · Бесплатно · Windows · Инструменты и утилиты

[Browse /Installer](#) · [MinGW](#) · [Files](#) · [Mingw-get](#)

[Home](#) / [Browse](#) / [Development](#) / [Build Tools](#) / MinGW - Minimalist GNU for Windows



MinGW - Minimalist GNU for Windows

A native Windows port of the GNU Compiler Collection (GCC)

Brought to you by: [cstrauss](#), [earnie](#), [gressett](#), [keithmarshall](#)



156 Reviews

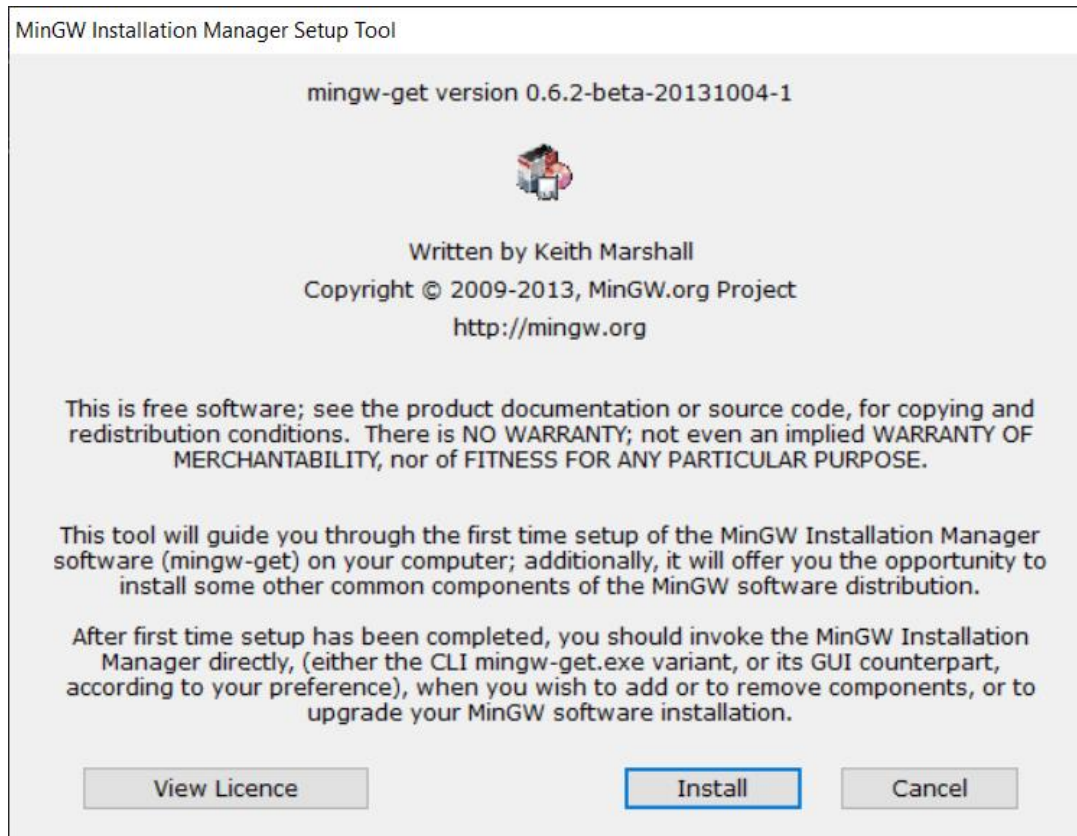
Downloads: 2,531,599 This Week



Get Updates

Share This

Windows



mingw-get version 0.6.2-beta-20131004-1



Step 1: Specify Installation Preferences

Installation Directory

C:\MinGW

Change

If you elect to change this, you are advised to avoid any choice of directory which includes white space within the absolute representation of its path name.

User Interface Options

Both command line and graphical options are available. The command line interface is always supported; the alternative only if you choose the following option to ...

☒ ... also install support for the graphical user interface.

Program shortcuts for launching the graphical user interface should be installed ...

☒ ... just for me (the current user), or ... ☐ ... for all users * ...

☒ ... in the start menu, and/or ... ☒ ... on the desktop.

* selection of this option requires administrative privilege.

View Licence

Continue

Cancel

MinGW Installation Manager Setup Tool

mingw-get version 0.6.2-beta-20131004-1



Step 2: Download and Set Up MinGW Installation Manager

Download Progress

Updating catalogue: mingw32-mpfr.xml

Processed 26

of

38 items

:

68 %

Details

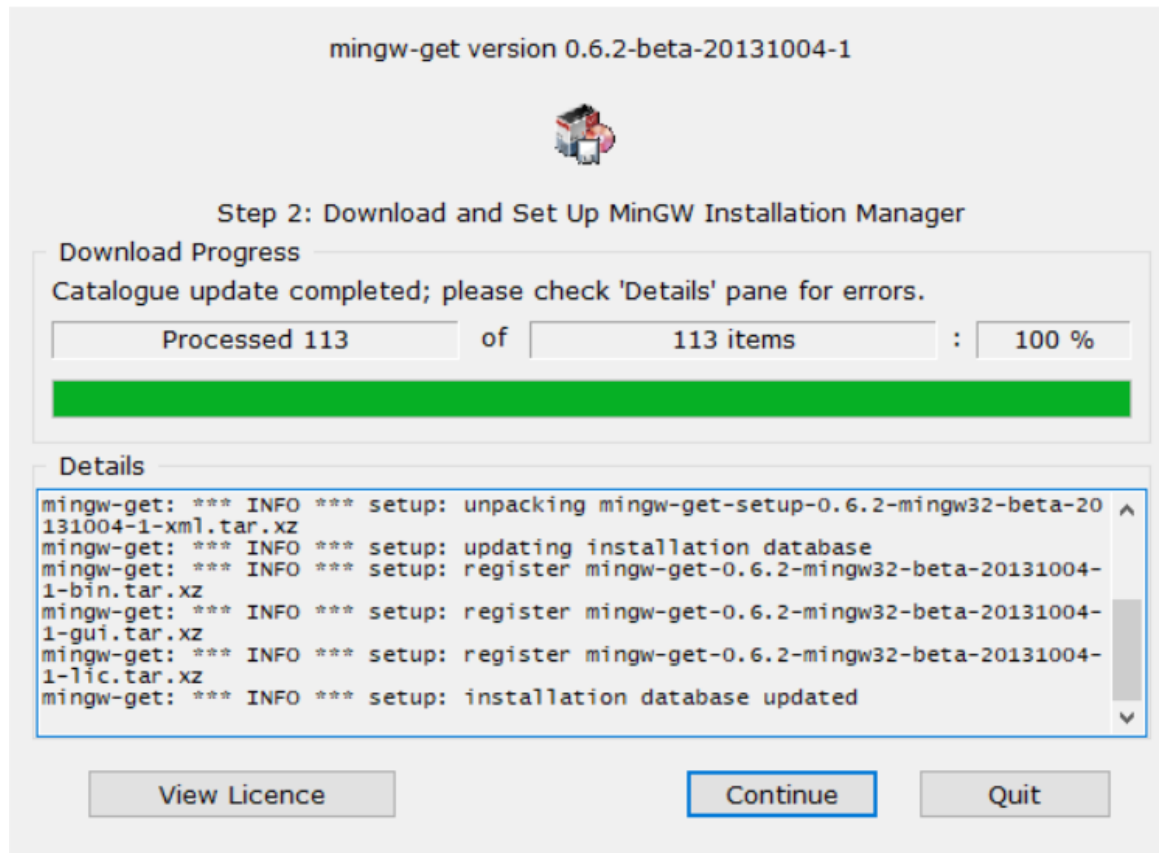
```
mingw-get: *** INFO *** setup: unpacking mingw-get-setup-0.6.2-mingw32-beta-20131004-1-xml.tar.xz
mingw-get: *** INFO *** setup: updating installation database
mingw-get: *** INFO *** setup: register mingw-get-0.6.2-mingw32-beta-20131004-1-bin.tar.xz
mingw-get: *** INFO *** setup: register mingw-get-0.6.2-mingw32-beta-20131004-1-gui.tar.xz
mingw-get: *** INFO *** setup: register mingw-get-0.6.2-mingw32-beta-20131004-1-lic.tar.xz
mingw-get: *** INFO *** setup: installation database updated
```

View Licence

Continue

Quit

MinGW Installation Manager Setup Tool



MinGW Installation Manager

Installation Package Settings Help

Basic Setup
All Packages

Package	Class	Installed Version	Repository Version	Description
<input type="checkbox"/> mingw-developer-toolkit	bin		2013072300	An MSYS Installation for MinGW Developers (meta)
<input type="checkbox"/> mingw32-base	bin		2013072200	A Basic MinGW Installation
<input type="checkbox"/> mingw32-gcc-ada	bin		6.3.0-1	The GNU Ada Compiler
<input type="checkbox"/> mingw32-gcc-fortran	bin		6.3.0-1	The GNU FORTRAN Compiler
<input type="checkbox"/> mingw32-gcc-g++	bin		6.3.0-1	The GNU C++ Compiler
<input type="checkbox"/> mingw32-gcc-objc	bin		6.3.0-1	The GNU Objective-C Compiler
<input type="checkbox"/> msys-base	bin		2013072300	A Basic MSYS Installation (meta)

General

Description

Dependencies

Installed Files

Versions

No package selected.
Please select a package from the list above, to view related data.

Basic Setup
All Packages

Package	Class	Installed Version	Repository Version	Description
<input checked="" type="checkbox"/> min			2013072300	An MSYS Installation for MinGW Developers (meta)
<input type="checkbox"/> min			2013072200	A Basic MinGW Installation
<input type="checkbox"/> min			6.3.0-1	The GNU Ada Compiler
<input type="checkbox"/> min			6.3.0-1	The GNU FORTRAN Compiler
<input type="checkbox"/> min			6.3.0-1	The GNU C++ Compiler
<input type="checkbox"/> min			6.3.0-1	The GNU Objective-C Compiler
<input type="checkbox"/> msys			2013072300	A Basic MSYS Installation (meta)

General Description Dependencies Installed Files Versions

An MSYS Installation for MinGW Developers (meta)

This meta package contains the components necessary to create a relatively complete MSYS installation suitable for most MinGW developers' needs. It includes the msys-base system, as well as the autotools (autoconf, automake, libtool, gettext, and libiconv) configured for use in maintaining and building native win32 (MinGW) programs. It includes m4, perl, vim, patch, cvs, guile, mktemp, bison, flex, lndir, and other useful command line tools. It also includes networking clients for ssh, rsh, telnet, and ftp protocols.





Note that, for certain esoteric reasons, some of the packages installed by this meta package are MSYS packages, and install, as expected, in the / == /usr directory (that is, into C:\msys\1.0, or whatever you've chosen as the "root" MSYS path). However, it also includes some MinGW packages: the autotools are technically configured for MinGW, and are installed into the /mingw directory (that is, into C:\MinGW or whatever you've chosen as the "root" MinGW path).

MinGW Installation Manager

Installation Package Settings

Help

Basic Setup
All Packages

Package	Class	Installed Version	Repository Version	Description
 mingw-developer-toolkit	bin		2013072300	An MSYS Installation for MinGW Developers (meta)
 mingw32-base	bin		2013072200	A Basic MinGW Installation
<input type="checkbox"/> mingw32-gcc-ada	bin		6.3.0-1	The GNU Ada Compiler
<input type="checkbox"/> mingw32-gcc-fortran	bin		6.3.0-1	The GNU FORTRAN Compiler
 mingw32-gcc-g++	bin		6.3.0-1	The GNU C++ Compiler
<input type="checkbox"/> mingw32-gcc-objc	bin		6.3.0-1	The GNU Objective-C Compiler
 msys-base	bin		2013072300	A Basic MSYS Installation (meta)

General Description Dependencies Installed Files Versions

No package selected.

Please select a package from the list above, to view related data.

MinGW Installation Manager

Installation Package Settings

Update Catalogue





Mark All Upgrades

Apply Changes

Quit

Alt+F4

Help

	Package	Class	Installed Version	Repository Version	Description	
	mingw-developer-toolkit	bin		2013072300	An MSYS Installation for MinGW Developers (meta)	
	mingw32-base	bin		2013072200	A Basic MinGW Installation	
<input type="checkbox"/>	mingw32-gcc-ada	bin		6.3.0-1	The GNU Ada Compiler	
<input type="checkbox"/>	mingw32-gcc-fortran	bin		6.3.0-1	The GNU FORTRAN Compiler	
	mingw32-gcc-g++	bin		6.3.0-1	The GNU C++ Compiler	
<input type="checkbox"/>	mingw32-gcc-objc	bin		6.3.0-1	The GNU Objective-C Compiler	
	msys-base	bin		2013072300	A Basic MSYS Installation (meta)	

General Description Dependencies Installed Files Versions

No package selected.

Please select a package from the list above, to view related data.

Schedule of Pending Actions

Okay to proceed?

The package changes itemised below will be implemented when you choose "Apply"

Apply

Defer

Discard

0 installed packages will be removed

0 installed packages will be upgraded

114 new/upgraded packages will be installed

msysCORE-1.0.19-1-msys-1.0.19-doc.tar.xz
termcap-0.20050421_1-2-msys-1.0.13-bin.tar.lzma
libguile-1.8.7-2-msys-1.0.15-rtm.tar.lzma
libregex-1.20090805-2-msys-1.0.13-dll-1.tar.lzma
libtermcap-0.20050421_1-2-msys-1.0.13-dll-0.tar.lzma
libpopt-1.15-2-msys-1.0.13-dll-0.tar.lzma

Download Package

msysCORE-1.0.19-1-msys-1.0.19-bin.tar.xz

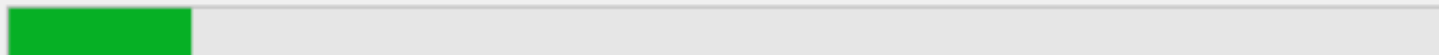
480.00 kB

of

615.50 kB

:

77 %



Applying Scheduled Changes

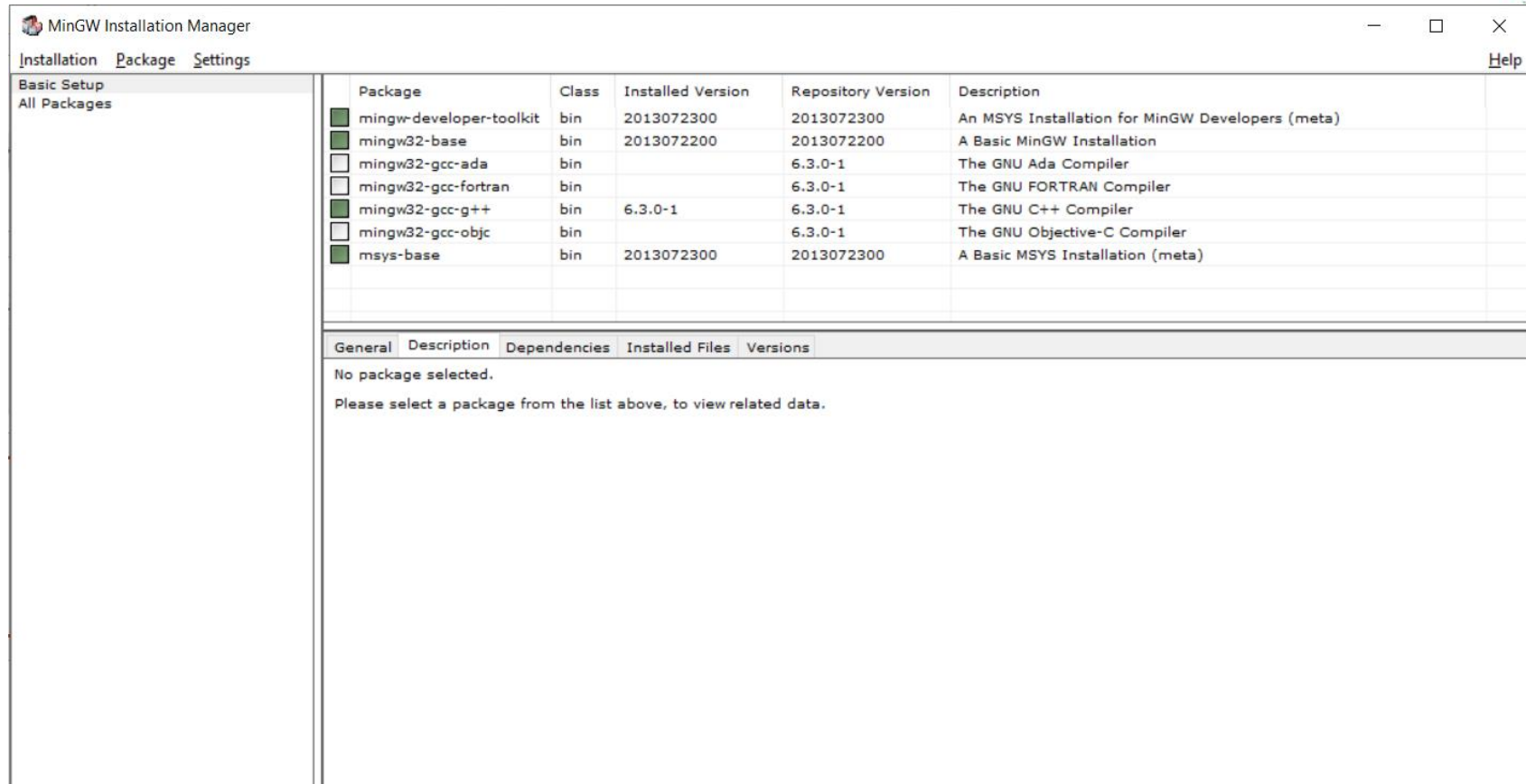
All changes were applied successfully; you may now close this dialogue.

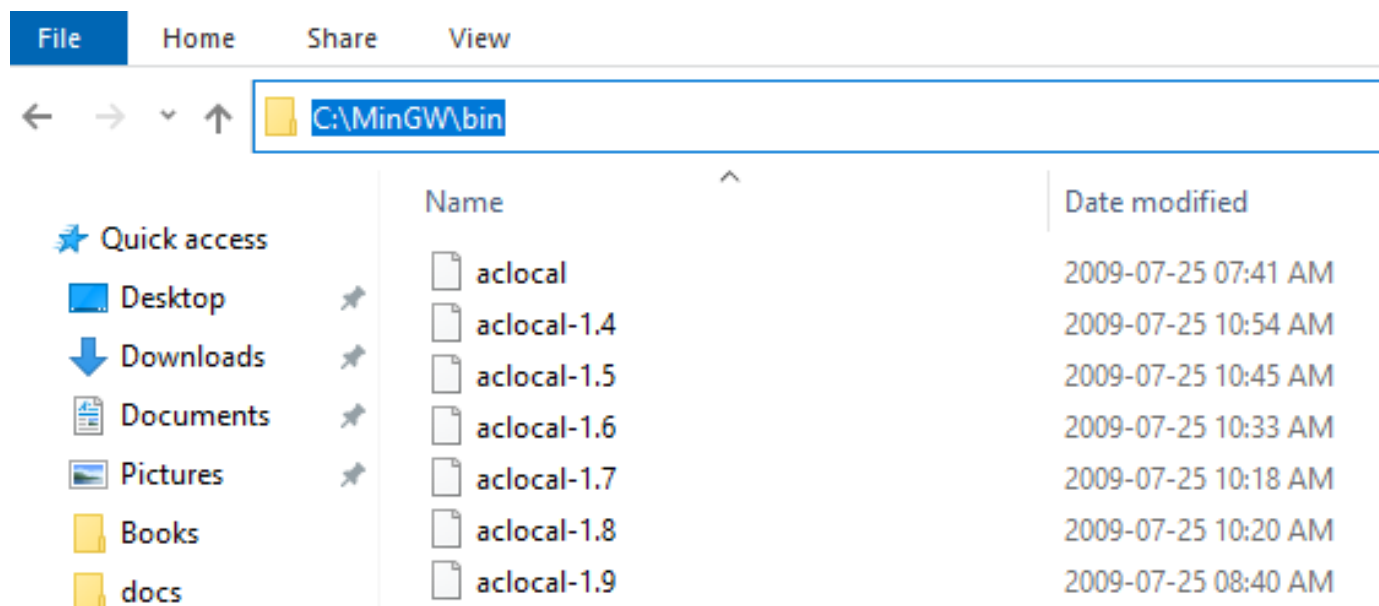
☐ Close dialogue automatically, when activity is complete.

Close

Details

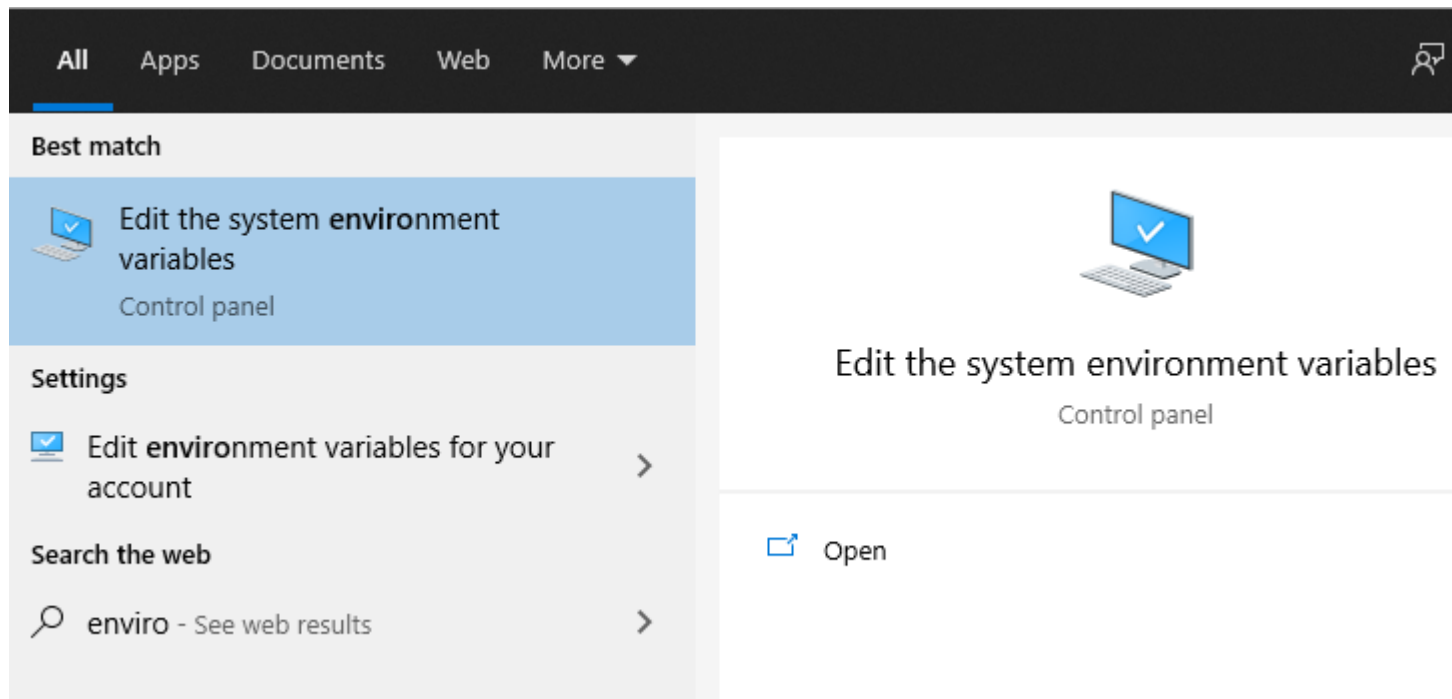
```
install: w32api-5.0.2-mingw32-dev.tar.xz
installing w32api-5.0.2-mingw32-dev.tar.xz
install: mingwrt-5.0.2-mingw32-dev.tar.xz
installing mingwrt-5.0.2-mingw32-dev.tar.xz
install: binutils-2.28-1-mingw32-bin.tar.xz
installing binutils-2.28-1-mingw32-bin.tar.xz
install: libatomic-6.3.0-1-mingw32-dll-1.tar.xz
installing libatomic-6.3.0-1-mingw32-dll-1.tar.xz
install: libz-1.2.8-1-mingw32-dll-1.tar
installing libz-1.2.8-1-mingw32-dll-1.tar
install: gdb-7.6.1-1-mingw32-bin.tar.lzma
installing gdb-7.6.1-1-mingw32-bin.tar.lzma
install: make-3.82.90-2-mingw32-cvs-20120902-bin.tar.lzma
installing make-3.82.90-2-mingw32-cvs-20120902-bin.tar.lzma
install: gcc-6.3.0-1-mingw32-lic.tar.xz
installing gcc-6.3.0-1-mingw32-lic.tar.xz
install: gcc-core-6.3.0-1-mingw32-bin.tar.xz
installing gcc-core-6.3.0-1-mingw32-bin.tar.xz
install: mingw32-base-2013072200-mingw32-bin.meta
installing mingw32-base-2013072200-mingw32-bin.meta
install: gcc-c++-4.8.2-mingw32-dev.tar.meta
installing gcc-c++-4.8.2-mingw32-dev.tar.meta
install: gcc-c++-6.3.0-1-mingw32-bin.tar.xz
installing gcc-c++-6.3.0-1-mingw32-bin.tar.xz
```

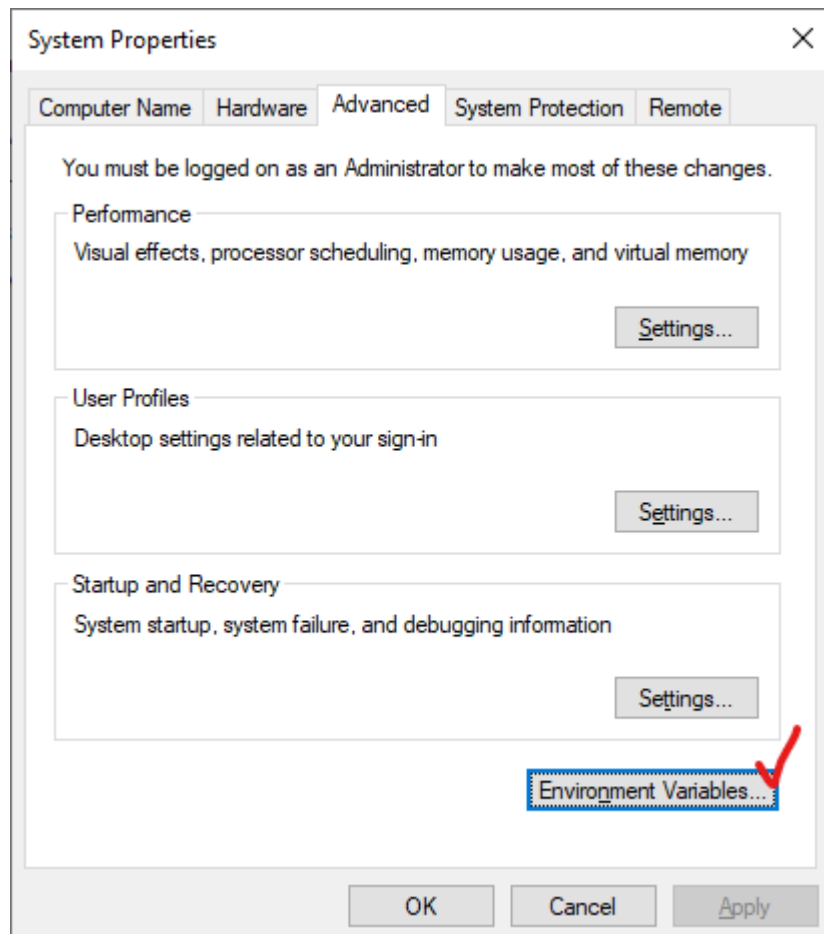


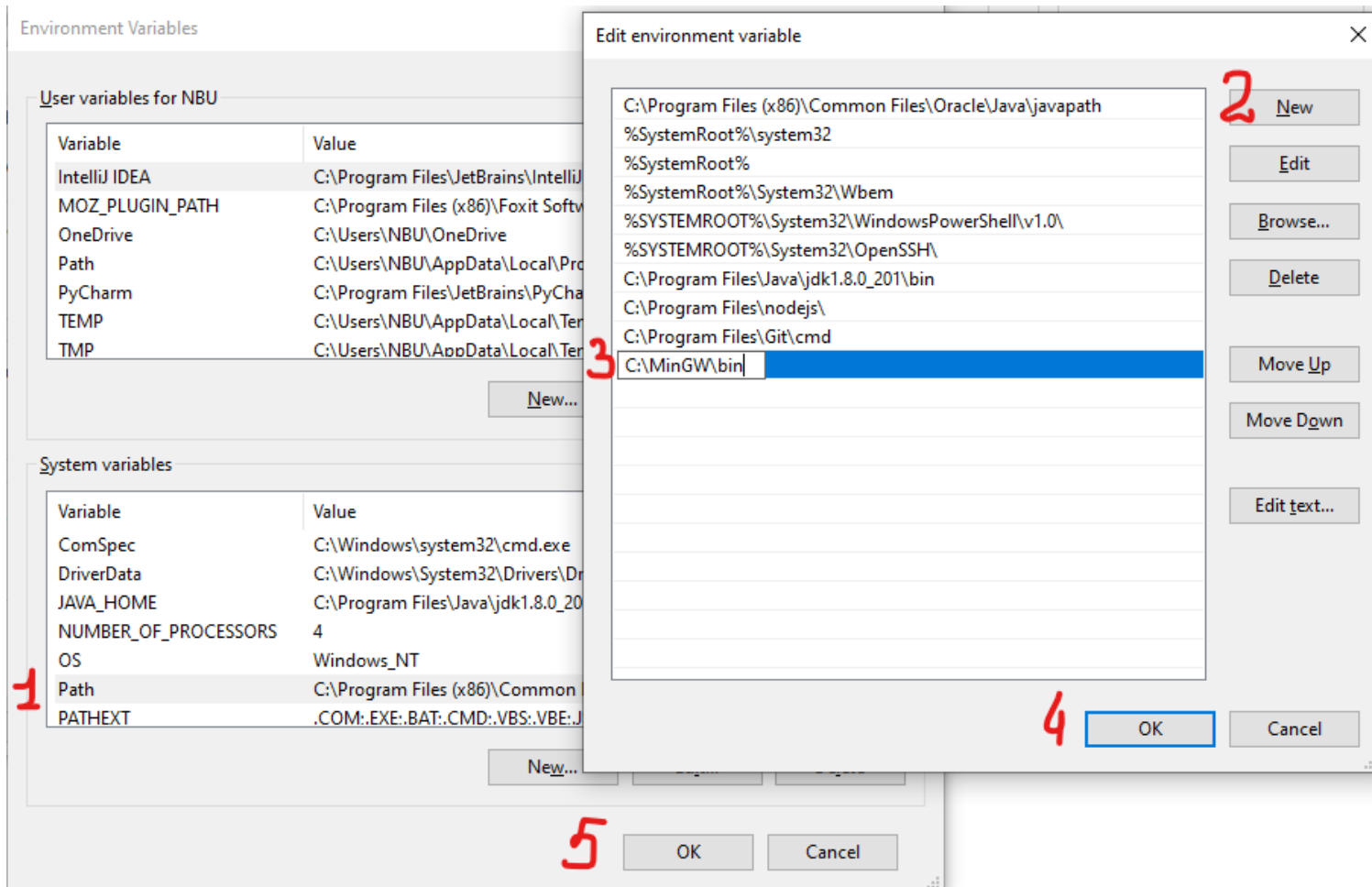


The screenshot shows a Windows File Explorer window with the address bar set to `C:\MinGW\bin`. The left sidebar displays the 'Quick access' section with links to Desktop, Downloads, Documents, Pictures, Books, and docs. The main pane shows a list of files with columns for Name and Date modified.

Name	Date modified
aclocal	2009-07-25 07:41 AM
aclocal-1.4	2009-07-25 10:54 AM
aclocal-1.5	2009-07-25 10:45 AM
aclocal-1.6	2009-07-25 10:33 AM
aclocal-1.7	2009-07-25 10:18 AM
aclocal-1.8	2009-07-25 10:20 AM
aclocal-1.9	2009-07-25 08:40 AM







g++ --version

Administrator: Command Prompt

Microsoft Windows [Version 10.0.19041.985]
(c) Microsoft Corporation. All rights reserved.

```
C:\Users\NBU>g++ --version
g++ (MinGW.org GCC-6.3.0-1) 6.3.0
Copyright (C) 2016 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```


Birinchi C++ dasturimizni yozamiz



*hello - Notepad

File Edit Format View Help

```
#include<iostream>
```

```
using namespace std;
```

```
int main(){  
    cout<<"Hello World!";  
    return 0;  
}
```



*hello - Notepad

File Edit Format View Help

New Ctrl+N

New Window Ctrl+Shift+N

Open... Ctrl+O

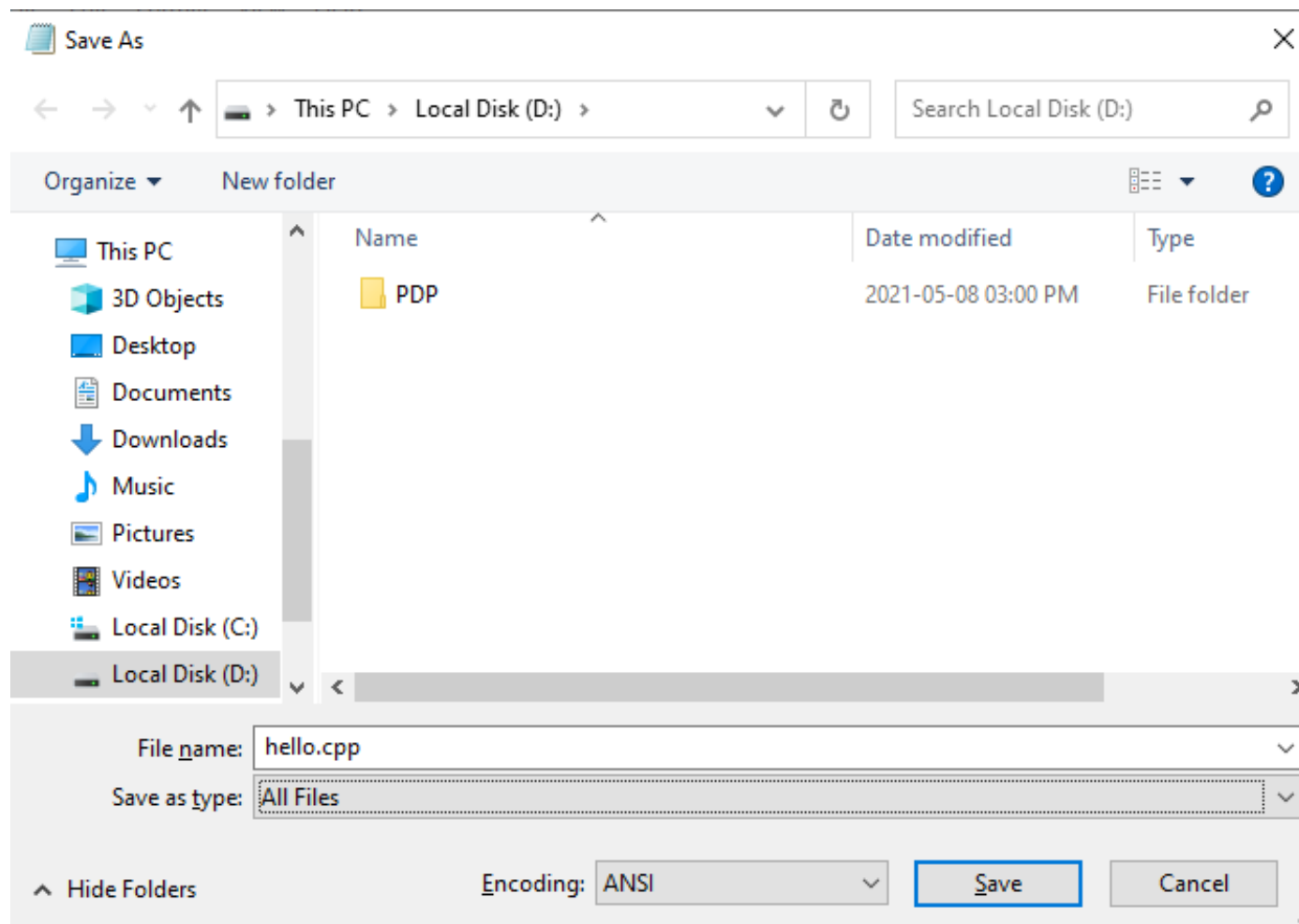
Save Ctrl+S

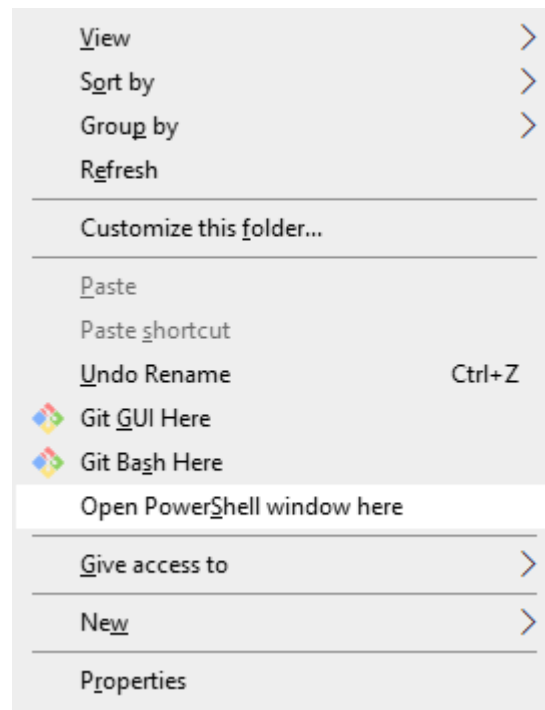
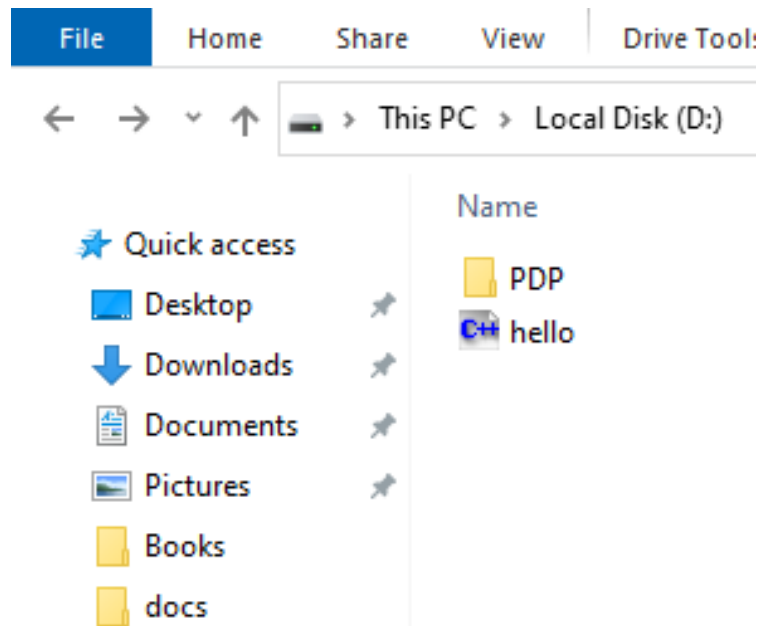
Save As... Ctrl+Shift+S

Page Setup...




Print... Ctrl+P


Exit





This PC > Local Disk (D:) >

Name	Date modified	Type	Size
 PDP	2021-05-08 03:00 PM	File folder	
 hello	2021-05-20 05:24 PM	C++ source file	1 KB
 a	2021-05-20 05:27 PM	Application	44 KB

 Administrator: Windows PowerShell
PS D:\> g++ hello.cpp
PS D:\> _

Bu yerda: a faylni ishga tushiramiz.

 hello - Notepad






File Edit Format View Help


```
#include<iostream>
#include<stdlib.h>
```

```
using namespace std;
```

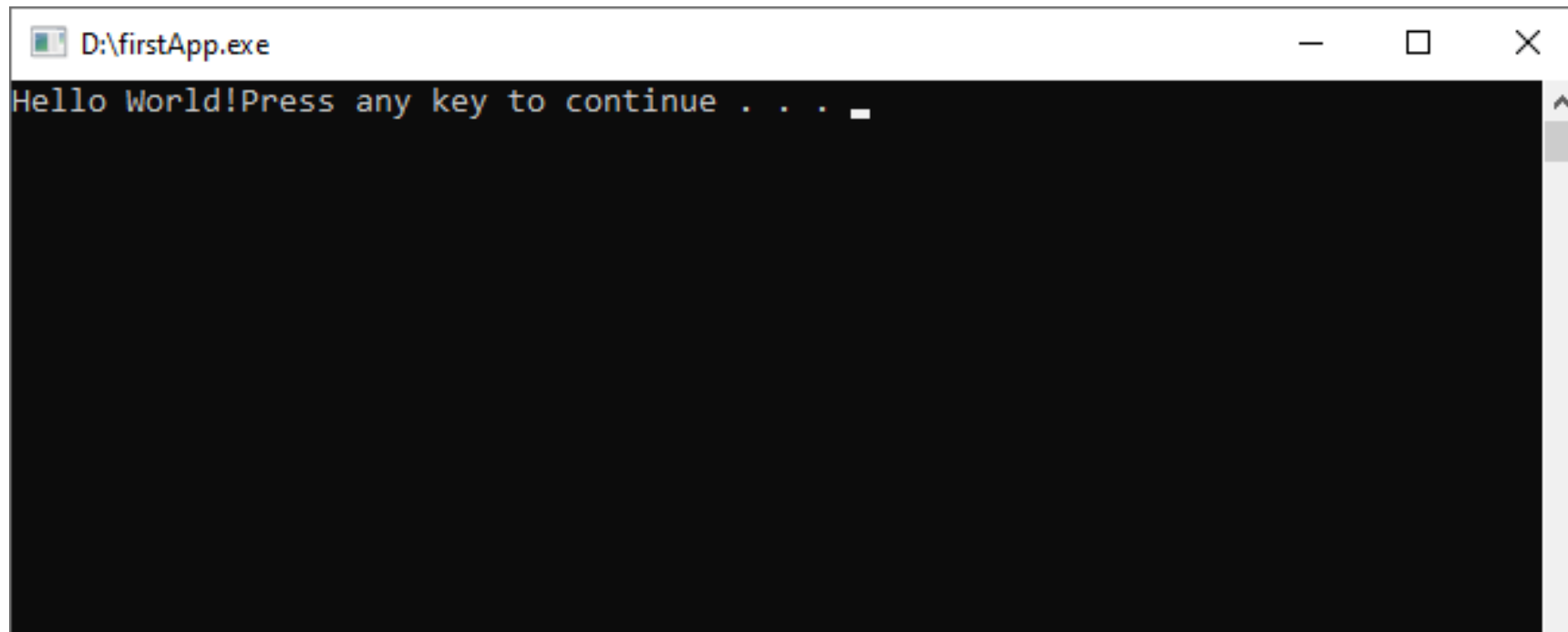
```
int main(){
    cout<<"Hello World!";
    system("pause");
    return 0;
}
```

This PC > Local Disk (D:) >

Name	Date modified	Type	Size
 PDP	2021-05-08 03:00 PM	File folder	
 hello2	2021-05-20 05:32 PM	C++ source file	1 KB
 hello	2021-05-20 05:32 PM	C++ source file	1 KB
 a	2021-05-20 05:34 PM	Application	44 KB
 firstApp	2021-05-20 05:35 PM	Application	44 KB

 Administrator: Windows PowerShell

```
PS D:\> g++ hello2.cpp -o firstApp
PS D:\> _
```

```
D:\firstApp.exe
Hello World!Press any key to continue . . . _
```



Tabriklaymiz! Siz birinchi C++
dasturingizni yozdingiz.

IDE nima?

IDE (Integrated development environment) - integratsiyalashgan rivojlanish muhiti, dasturiy ta'minotni yaratish uchun ishlatiladigan dasturdir.

Dev C++, Code::Blocks , Visual Studio, C free lar C++ dasturlash tili uchun IDE lar hisoblanadi .

IDE ni o'rnatish

<https://www.codeblocks.org> ▼

Code::Blocks

The free C/C++ and Fortran IDE. Code::Blocks is a free C/C++ and Fortran IDE built to meet the most demanding needs of its users. It is designed to be very ...

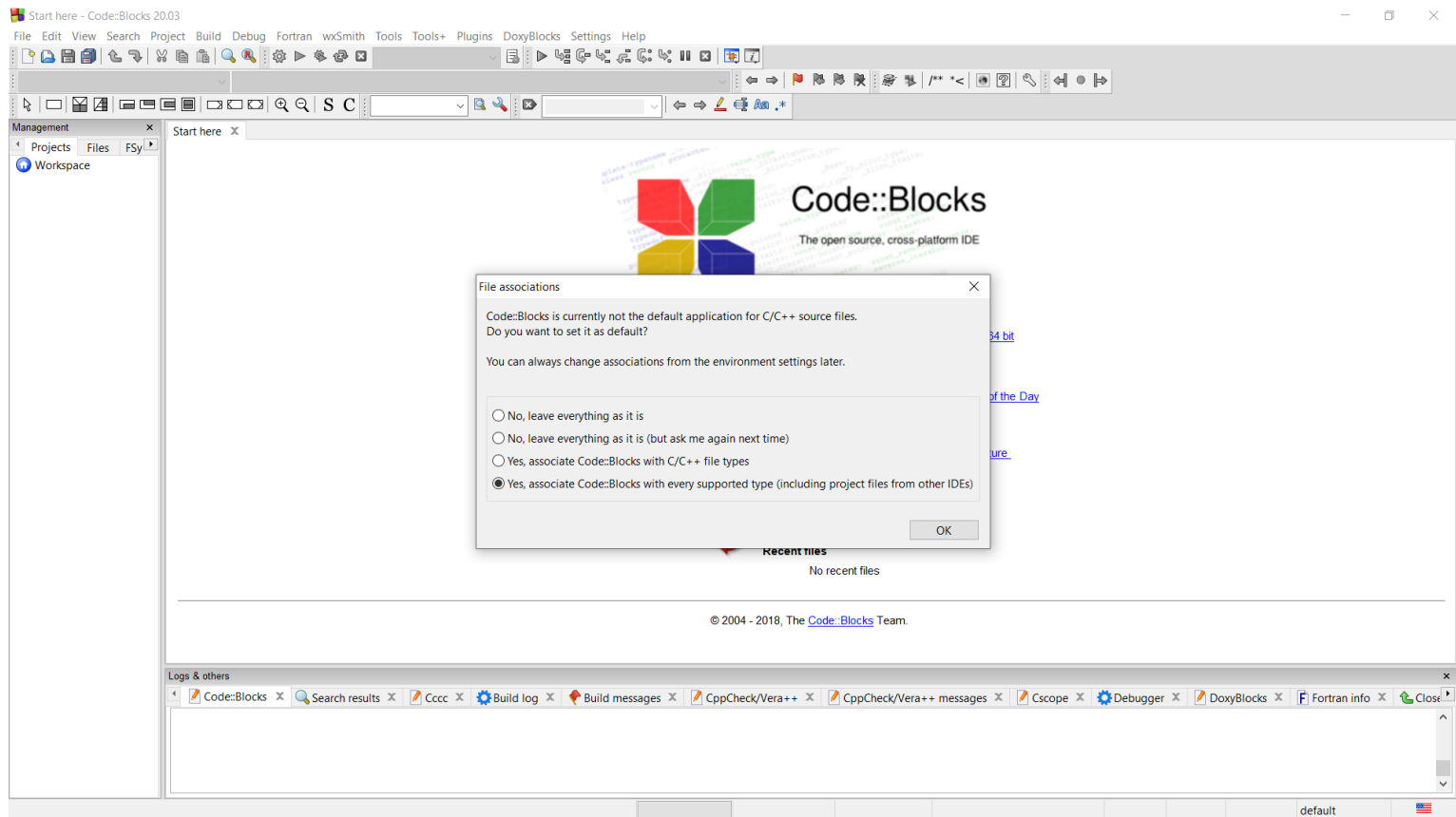
Binary releases

Windows XP / Vista / 7 / 8.x / 10;
Linux 32 and 64-bit; Mac OS X.

Source code

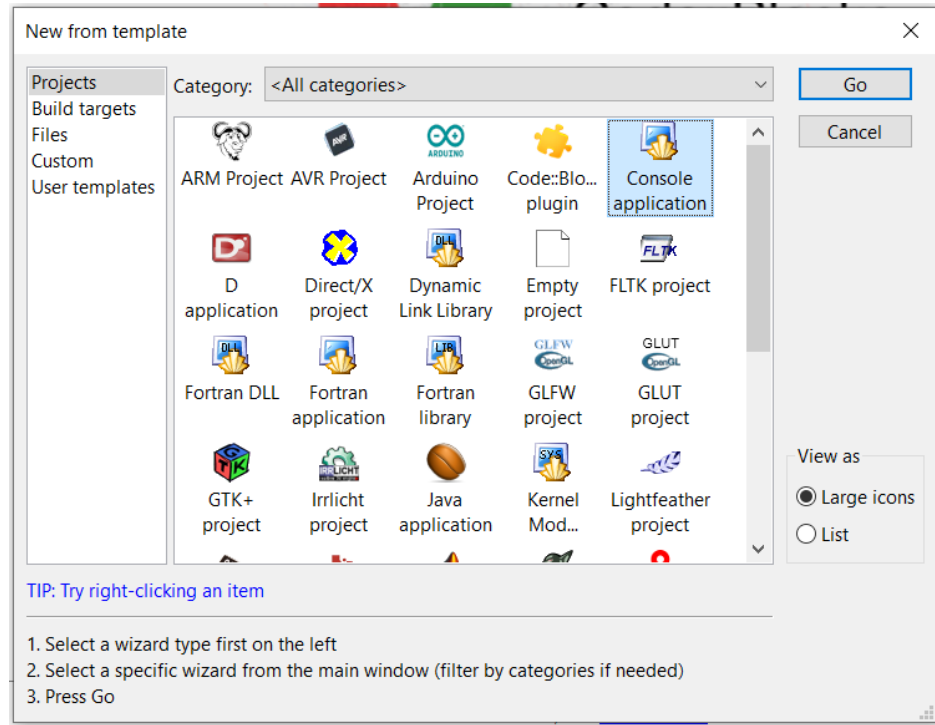
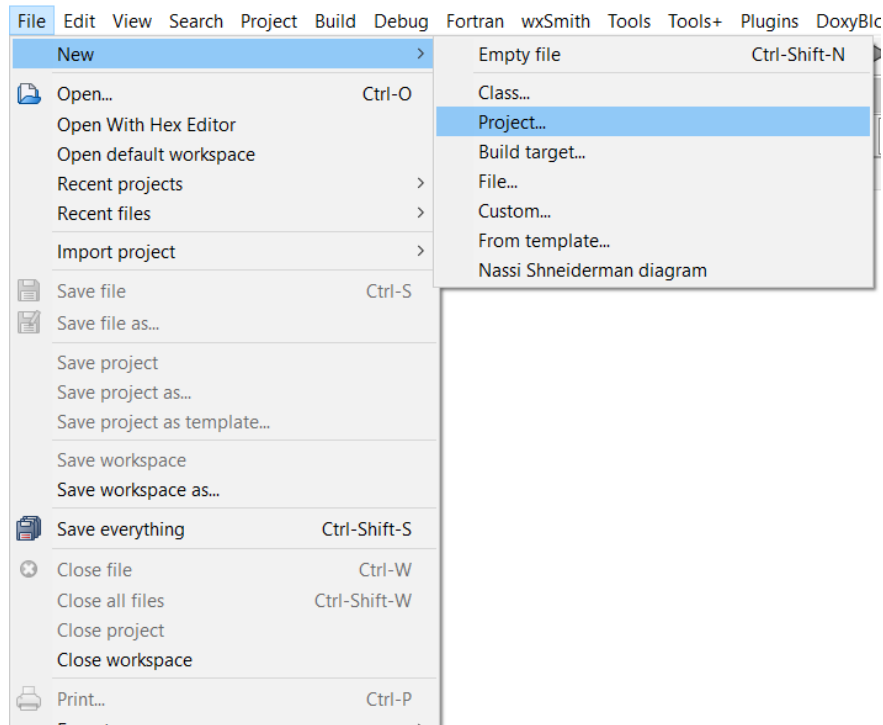
If you want to download the source
code of Code::Blocks 20.03 ...

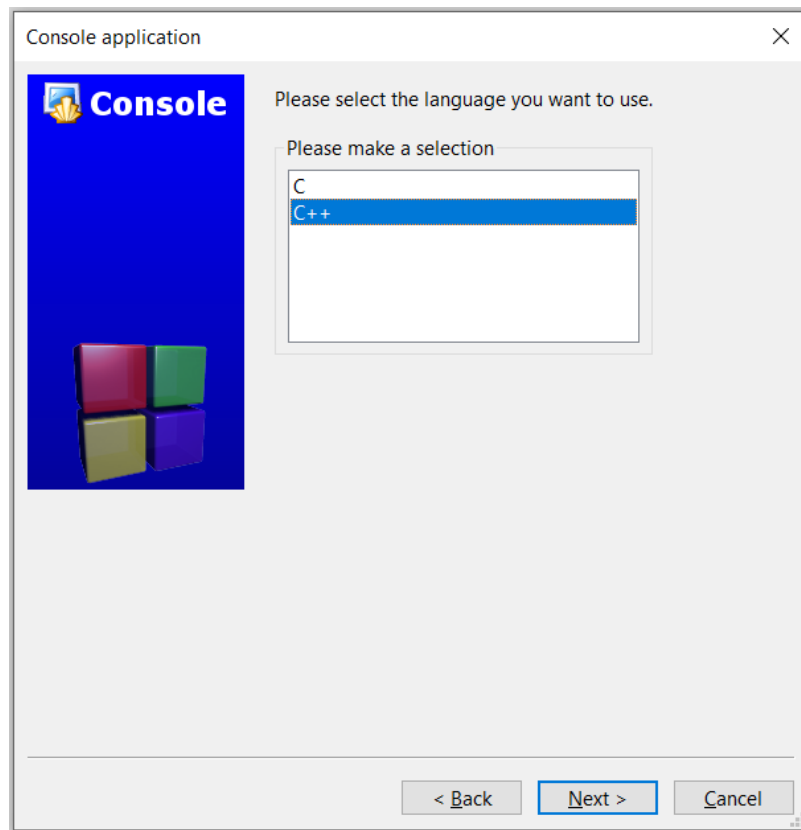
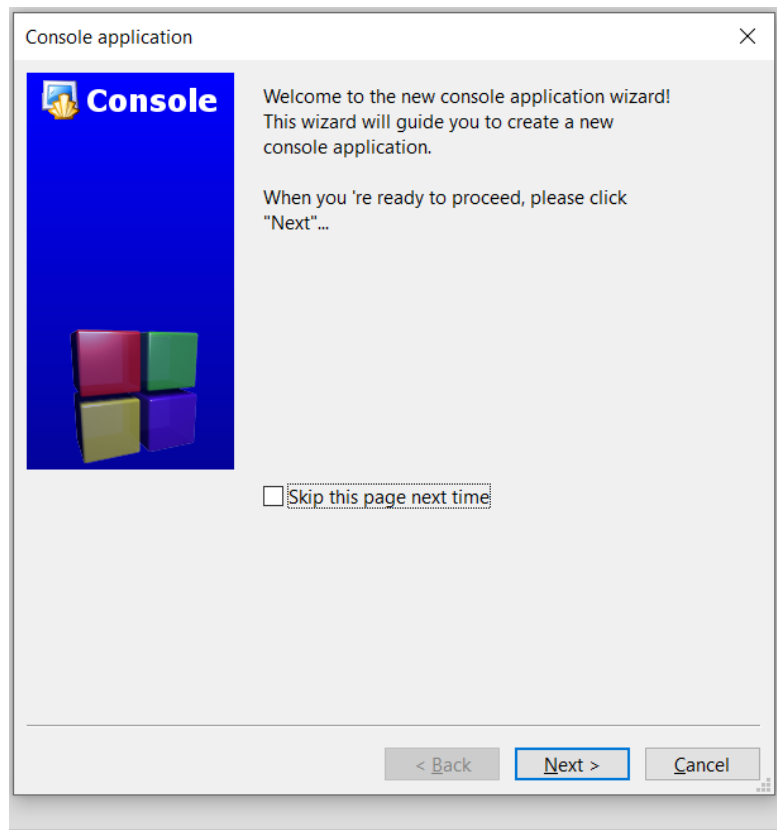





New Project Console application

File > New > Project...





Console application

 **Console**

Please select the folder where you want the new project to be created as well as its title.

Project title:

Folder to create project in:

Project filename:

Resulting filename:
<invalid path>

< Back Next > Cancel

Please select the folder to create your project in

← → ▾ ▴ 📁 > This PC > Local Disk (C:) > Users > Islam > C++ ▾ ↻ Search C++ 🔍

Organise ▾ New folder

	Name	Date modified	Type	Size
📁	FirstProject	4/28/2021 10:23 AM	File folder	

Folder:


Select Folder Cancel

Basic syntax

Build > Build and Run

```
main.cpp x
1      #include <iostream>
2
3      using namespace std;
4
5      int main()
6      {
7          cout << "Hello world!" << endl;
8          return 0;
9      }
10
```

Result

 C:\Users\Islam\C++\FirstProject\lesson1\bin\Debug\lesson1.exe

Hello world!

Process returned 0 (0x0) execution time : 0.009 s
Press any key to continue.

C++ Comments

(izohlar)

Commentlar – C++ kodini tushuntirish uchun foydalaniladi. Commentlar bir qatorli yoki ko'p qatorli bo'lishi mumkin.

Comments

// Single line comment

/* Multi-line comment */

Bir qatorli commentlar ikkita slash (kesma)lar bilan boshlanadi (//).

// va satr oxiri orasidagi har qanday matn kompilyator tomonidan e'tiborga olinmaydi (bajarilmaydi).

```
int main()  
{  
    //Bu comment  
    cout << "Hello world!" << endl;  
    return 0;  
}
```


Ko'p qatorli commentlar `/*` bilan boshlanadi va `*/` bilan tugaydi.

`/*` va `*/` orasidagi har qanday matn kompilyator tomonidan e'tiborga olinmaydi:

```
int main()  
{  
    /*Dasturlashni  
    pdp.uz da o`rganing!*/  
    cout << "Hello world!" << endl;  
    return 0;  
}
```

E`tiboringiz uchun
rahmat!