# Using C++ with NetBeans

For Introduction to Programming With C++

#### NOTE: This tutorial is for experience users to develop C++ programs using NetBeans.

To use C++ with NetBeans, you have to download and install a C++ compiler and NetBeans.

#### Installing a C++ Compiler

NetBeans can work with any C++ compiler. In this tutorial, we will use the Cygwin compiler.

1. To download the Cygwin compiler, go to <u>www.Cygwin.com</u>, as shown in Figure 1. Click the hyperlink on setup.exe to download setup.exe, as shown in Figure 2. After it is saved, open and run the file, as shown in Figure 3. Click the Run button to start the setup, as shown in Figure 4.



# Figure 1

Download setup.exe to install a C++ compiler.



You need to save setup.exe and then run it.



# Figure 3

Run setup.exe to start setup.

Cygwin Net Release Setup Program						
This setup program is used for the initial installation of the Cygwin environment as well as all subsequent updates. Make sure to remember where you saved it.						
The pages that follow will guide you through the installation. Please note that Cygwin consists of a large number of packages spanning a wide variety of purposes. We only install a base set of packages by default. You can always run this program at any time in the future to add, remove, or upgrade packages as necessary.						
Setup every version 2,738						
Setup.exe version 2.738 Copyright 2000-2010						
Setup.exe version 2.738 Copyright 2000-2010 http://www.cvgwin.com/						

#### Figure 4

The setup program will install a C++ compiler.

 Continue to click Next on each subsequent dialog box until you see the Select Packages dialog box, as shown in Figure 5. In the Search field, enter gcc-core, you will see gcc-core compiler appearing Package column. Select it.

Search gcc	-core	ear	0	<u>K</u> eep	O Prev	● <u>C</u> urr	Category
Category	Current	New	В	S	Size	Package	
	efault A Default						
	3.4.4-999	A 3.4.4-3		$\mathbf{X}$	16.634k	acc-core: C compiler	
	0.14.44.08.09.120	() Skip	n/a	n/a	7,977k	mingw64-i686-gcc-core: GC	CC for MinG
		😯 Skip	nja	n/a	8,191k	mingw64-x86_64-gcc-core:	GCC for Mi
1		····					

You need to select appropriate packages to install.

- 3. Continue to search and select the following packages
  gcc-g++: C++ compiler
  gdb: The GNU Debugger
  make: the GNU version of the 'make' utility.
- 4. Click Next to install the selected packages.
- 5. After installation is completed, go to c:\cygwin\bin to verify if gcc.exe, g++.exe, gdb.exe, and make.exe are present. If not, go back to re-run setup and select these packages to install.

# Configuring C++ with NetBeans

- If you are not familiar with NetBeans, go to <u>http://www.cs.armstrong.edu/liang/intro8e/idesupplement.html</u> to obtain the information on installing and using NetBeans.
- 2. Launch NetBeans. Go to the **Tools** menu and choose Plugins to display the Plugins window, as shown in Figure 6.
- 3. In the **Available Plugins** tab, choose C/C++ and click the Install button. After the installation is completed, restart NetBeans.

<u>Incline un</u>	d Catalog				Search:
Install	Name 🔻	Category	Source		
E	Accessible Controller API	Infrastructure	ß		C/C++
100	Always On Top Pin	Tools	-	1	
100	Ant 1.7.1 Documentation	Java			VetBeans Certified Plugin
100	Automatic Projects	Java SE	ß		Varsion: 1.8.3
[27]	AutoSave Module	Editing	-	E	Date: 3/24/10
122	Axis2 Support	Web Services	B		Source: NetBeans
199	Blue J Project Support	Java	0		Homepage: http://www.netbeans.org/
1997	Bundled Subversion Client for Win	Bridges	ň	-	
V	C/C++	C/C++	ñ		Blugin Description
100	Clearcase	Versioning	ß		Plugin Description
10	Code Coverage Plugin	Tools	B		For the list of included fixed bugs please check
100	Cucumber Features	Languages Supp	B		http://wiki.netbeans.org/NetBeans6.8PatchesInfo.
m	EasyPmd	Java	150		and the set of the set of the set of the
100	Echo2 Support	Web	B		C/C++ support, including editing, projects, GDB debugger and make. There is a bas a project for Eastern and Assemblas (LOC/C4, CDADC).
100	Embedded Browser UI - XUL Runner	Base IDE	B		support for Ford an and Assembler (xoo/64, SPARC)
100	Extra Color Themes	Ruby	B		
100	Facelets 1.1.14 (JSF 1.2)	Web	0		
100	Fantom	Fantom	Ũ		
122	Freeform Project Extras	Java	B		
1997	Generic Portlets	PortalPack			
1921	GWT4NB	Web	B	-	

Choose C/C++ to install C/C++ in NetBeans.

4. From the **Tools** menu, choose Options to display the Options dialog box, as shown in Figure 7. Click C/C++. In the C/C++ page, click the Add button to display the Add New Tool Collection dialog box, as shown in Figure 8.

						2		
General	Editor	Fonts & Co	olors Keymap	C/C++	Miscellaneous	Python		
uild Tools	Project Options	Code Assis	tance Highlighting	Other				
Developm	ent Ho <u>s</u> t:	ŀ	ocalhost	▼ Edit				
Tool Collection:			<sup>=</sup> amily:	MinGW_TDM				
MinGW_TDM			Base Directory:	c:\MinGW\bin				
			Compiler:	c:\MinGW\bin\	gcc.exe			
		c	2++ Compiler:	c: WinGW \bin \	g++.exe			
		F	Fortran Compiler:					
		1	Assembler:	c:\MinGW\bin\	as.exe			
			Make Command:	C:\cygwin\bin	make.exe			
		ſ	Jebugger Command:	C:\cygwin\bin	gdb.exe			
A <u>d</u> d	. Duglici	ate	QMake Command:					
Remov	e Defi	iault C	:Make Command:					
						Versions	re Defaults	
Export	Import					OK Cancel	Help	

# Figure 7

Click the Add button to add a new tool.

Enter the base directo	y, the family, and the fiame of the	e new tool collection.
Base <u>D</u> irectory:	C:\cygwin\bin	Browse
Tool Collection Eamily:	Cygwin 🗸	
Tool Collectio <u>n</u> Name:	Cygwin	

Browse for c:\cygwin\bin to set it as the Base Directory.

 Browse to set c:\cygwin\bin as the Base Directory and click OK. You will see the compiler, assembler, make, and debugging commands set for the tool, as shown in Figure 9.

General	Editor	Fonts & Colors	Keymap	C/C++ Miscellaneous Python			
uild Tools	Project Options	Code Assistance	e Highlighting	Other			
Development Host:			localhost 👻 Edit				
Tool Colle	ction:	Famil	<i>/</i> :	MinGW_TDM			
MinGW_	TDM	Base	Directory:	c: \MinGW \bin			
			npiler:	c: \MinGW \bin \g			
			Compiler:	c:\MinGW\bin\g			
		Fortra	an Compiler:				
		Asser	nbler:	c:\MinGW\bin\;	] [		
		Make	Make Command: C:\cygwin\bin\ma		make.exe		
		Debu	gger Command:	C:\cygwin\bin\	gdb.exe		
A <u>d</u> d	. Duglica	ate QMak	e Command:				
Remo	/e Defa	eult CMak	e Command:				
				<u>V</u> e	rsions	store Defaults	

## Figure 9

The compiler and other supporting commands are set in the option.

## Creating a C++ Project

 Now you can create a C++ project to hold C++ programs. Choose File, New Project to display the New Project dialog box. Choose C/C++ in the Category section and choose C/C++ Application in the Projects section and click Next to display the New C/C++ Application dialog box, as shown in Figure 10.

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