

VSCODE

C언어 개발 환경 구축하기

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최예진

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확장프로그램에서 C/C++ 설치

The screenshot shows the Visual Studio Code interface with the Extensions view open. The search bar at the top of the Extensions panel contains "C/C++". The search results list several extensions, with "C/C++" by Microsoft highlighted. The right-hand pane displays the details for the "C/C++" extension, version 1.21.6, published by Microsoft. It includes a description: "C/C++ IntelliSense, debugging, and code browsing." and buttons for "사용 안 함" (Disable), "제거" (Remove), and "자동 업데이트" (Auto Update). Below the extension details, there are links for "Repository", "Issues", "Documentation", and "Code Samples", and a "Live Share" status indicator showing "enabled".

파일(F) 편집(E) 선택 영역(S) 보기(V) 이동(G) ... < > 검색

확장: 마켓플레이스

C/C++

C/C++
C/C++ IntelliSense, debuggi...
Microsoft

C/C++ Themes
UI Themes for C/C++ exten...
Microsoft

C/C++ Runner
Compile, run and debug...
franneck94

C/C++ Extension Pack
Popular extensions for C++ ...
Microsoft

C/C++ Compil... 4M ★ 4.5

C/C++ v1.21.6
Microsoft microsoft.com
C/C++ IntelliSense, debugging, and code browsing.

사용 안 함 제거 자동 업데이트

세부 정보 기능 변경 로그

C/C++ for Visual Studio Code

Repository | Issues | Documentation | Code Samples

Live Share enabled

MinGW 설치

Home / Browse Open Source / Software 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](#)



★★★★★ 204 Reviews

Downloads: 4,109,147 This Week

Last Update: 2021-09-05

 **Download**  [Get Updates](#) [Share This](#)

Windows

VSCODE는 컴파일러 제공을 안 하기 때문에 MinGW를 설치해야 한다.

<https://sourceforge.net/projects/mingw/>

MinGW 설치

MinGW Installation Manager Setup Tool

mingw-get version 0.6.2-beta-20131004-1



Written by Keith Marshall

Copyright © 2009-2013, MinGW.org Project

<http://mingw.org>

This is free software; see the product documentation or source code, for copying and redistribution conditions. There is NO WARRANTY; not even an implied WARRANTY OF MERCHANTABILITY, nor of FITNESS FOR ANY PARTICULAR PURPOSE.

This tool will guide you through the first time setup of the MinGW Installation Manager software (mingw-get) on your computer; additionally, it will offer you the opportunity to install some other common components of the MinGW software distribution.

After first time setup has been completed, you should invoke the MinGW Installation Manager directly, (either the CLI mingw-get.exe variant, or its GUI counterpart, according to your preference), when you wish to add or to remove components, or to upgrade your MinGW software installation.

View Licence

Install

Cancel

MinGW 설치

MinGW Installation Manager Setup Tool

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 설치

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

Catalogue update completed; please check 'Details' pane for errors.

Processed 113

of

113 items

:

100 %



Details

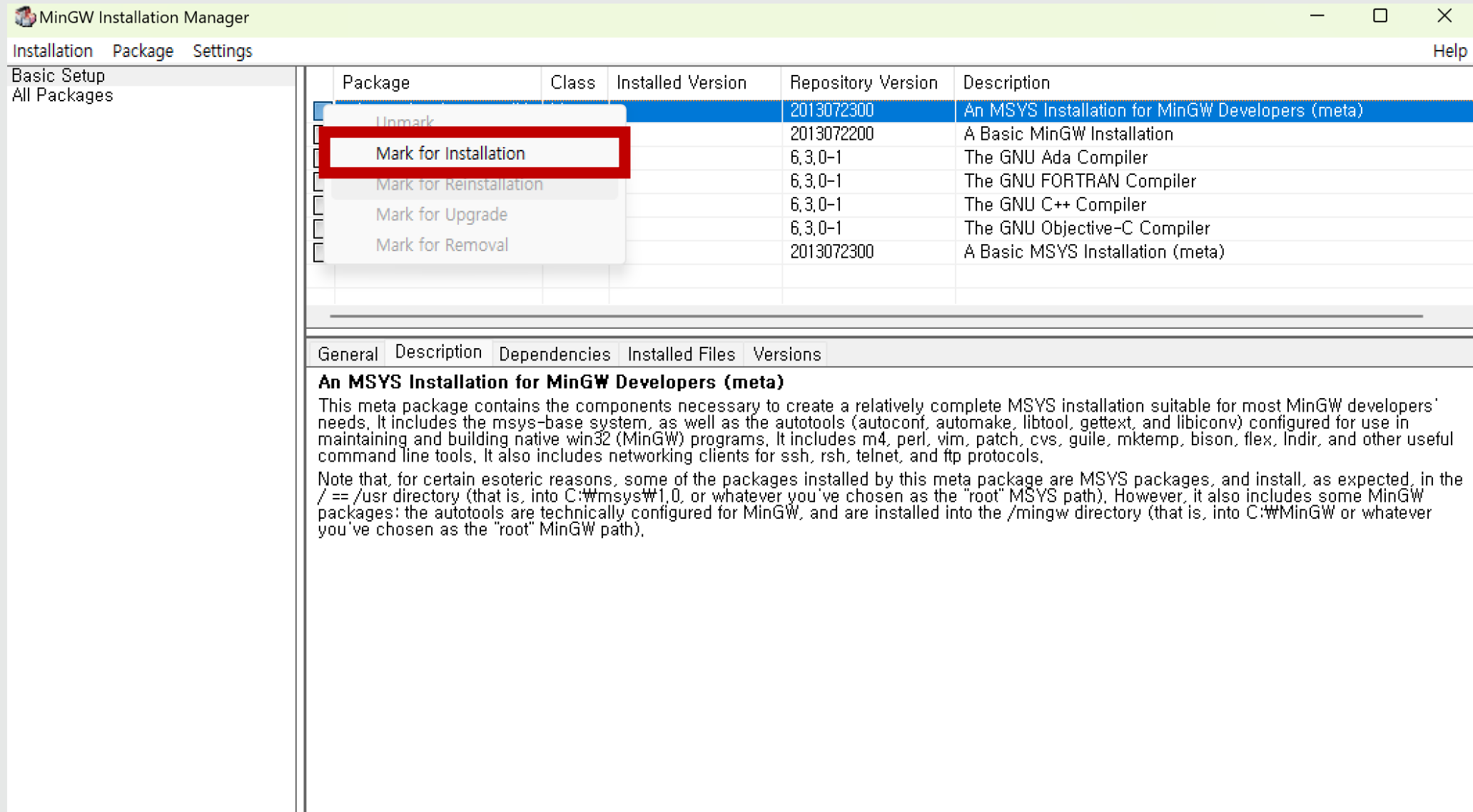
```
mingw-get: *** INFO *** setup: unpacking mingw-get-setup-0.6.2-mingw32-beta-20131004-1-xml.tar.xz
mingw-get: *** INFO *** setup: updating installation database
mingw-get: *** INFO *** setup: register mingw-get-0.6.2-mingw32-beta-20131004-1-bin.tar.xz
mingw-get: *** INFO *** setup: register mingw-get-0.6.2-mingw32-beta-20131004-1-gui.tar.xz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



MinGW Installation Manager

Installation Package Settings Help

Basic Setup
All Packages

Package	Class	Installed Version	Repository Version	Description
An MSYS Installation for MinGW Developers (meta)			2013072300	An MSYS Installation for MinGW Developers (meta)
A Basic MinGW Installation			2013072200	A Basic MinGW Installation
The GNU Ada Compiler			6,3,0-1	The GNU Ada Compiler
The GNU FORTRAN Compiler			6,3,0-1	The GNU FORTRAN Compiler
The GNU C++ Compiler			6,3,0-1	The GNU C++ Compiler
The GNU Objective-C Compiler			6,3,0-1	The GNU Objective-C Compiler
A Basic MSYS Installation (meta)			2013072300	A Basic MSYS Installation (meta)

Unmark
Mark for Installation
Mark for Reinstallation
Mark for Upgrade
Mark for Removal

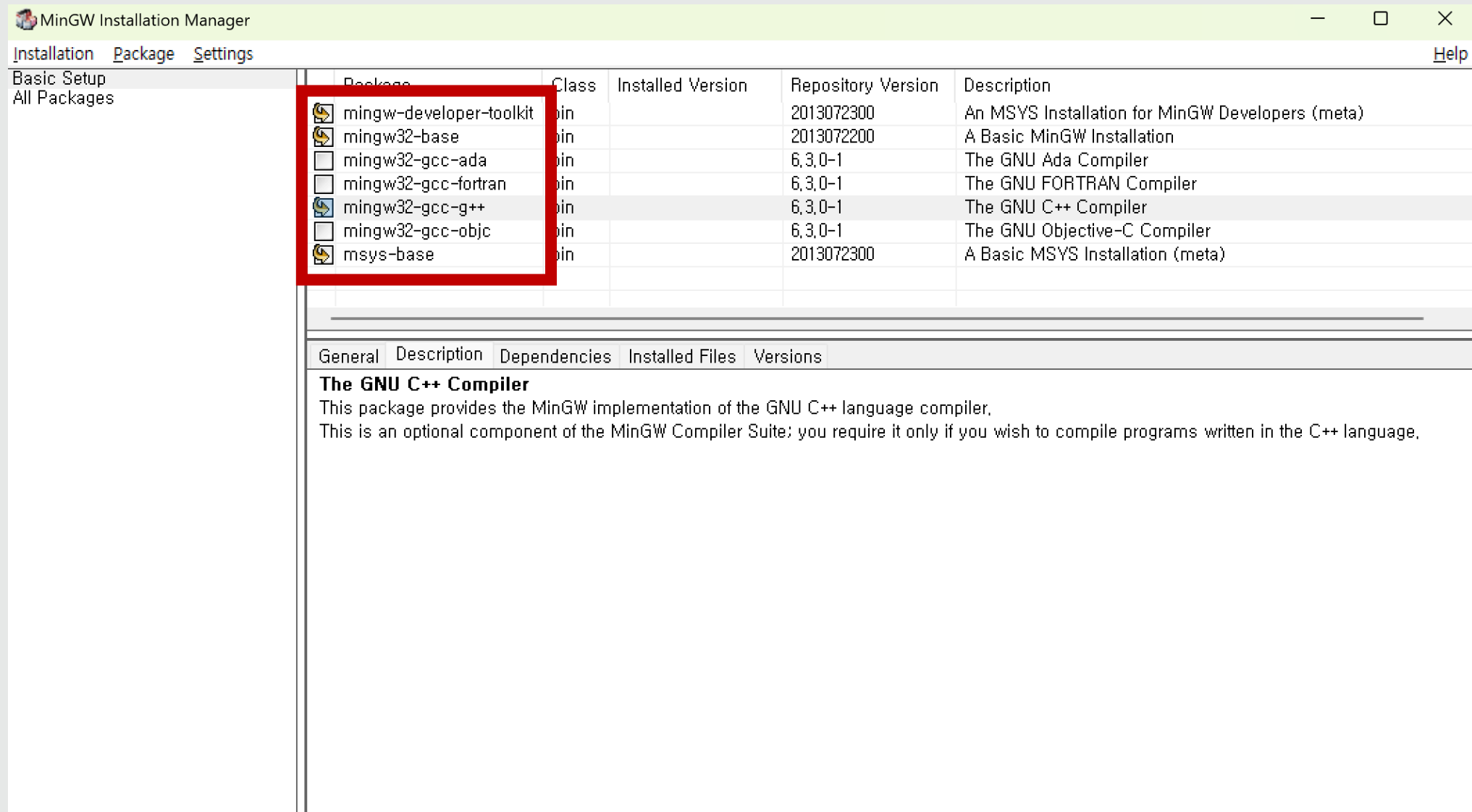
General Description Dependencies Installed Files Versions

An MSYS Installation for MinGW Developers (meta)

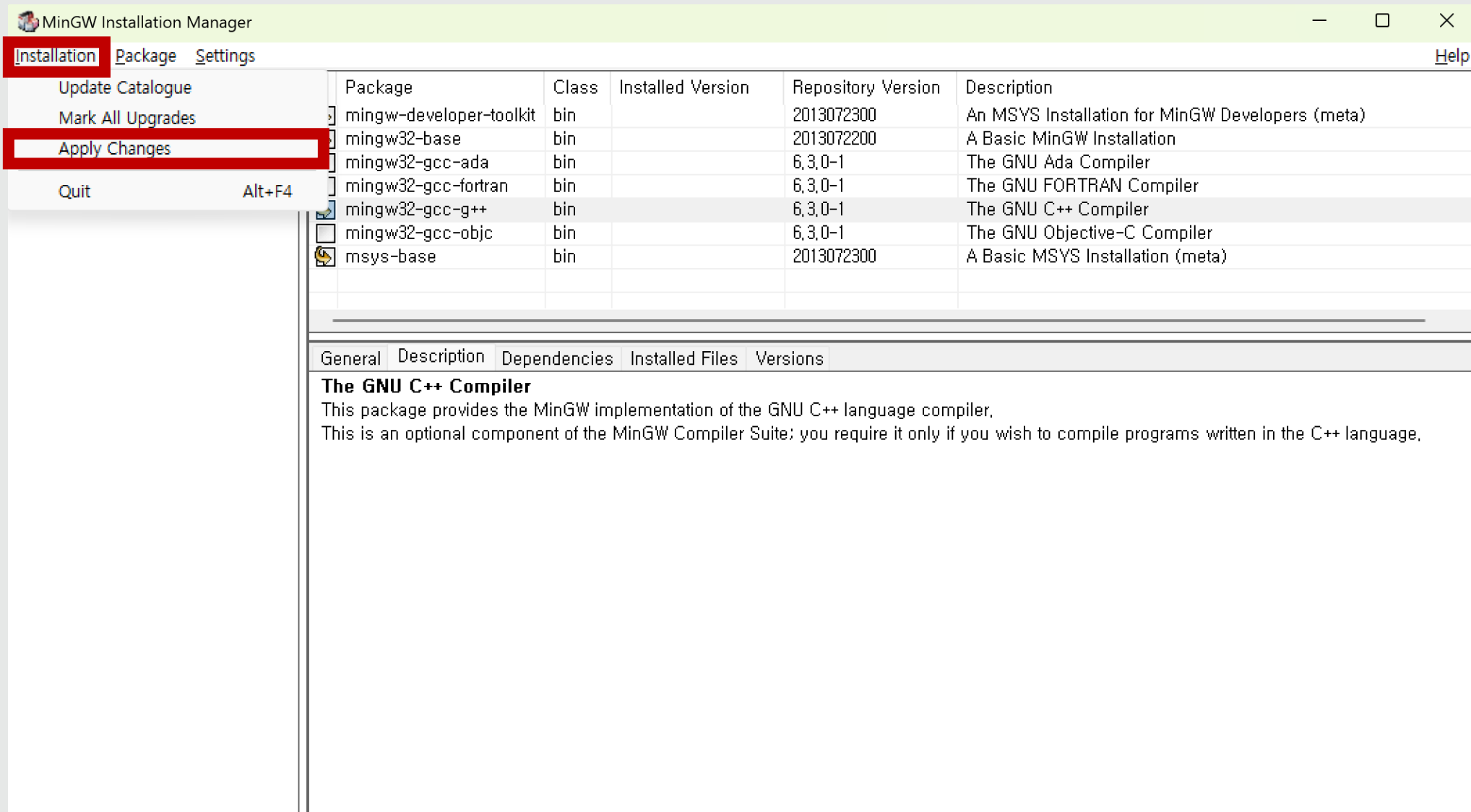
This meta package contains the components necessary to create a relatively complete MSYS installation suitable for most MinGW developers' needs. It includes the msys-base system, as well as the autotools (autoconf, automake, libtool, gettext, and libiconv) configured for use in maintaining and building 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 설치



MinGW 설치



MinGW 설치

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
```

MinGW 설치

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

Download Package

Connecting to prdownloads.sourceforge.net ... |

19.57 kB

of

19.57 kB

:

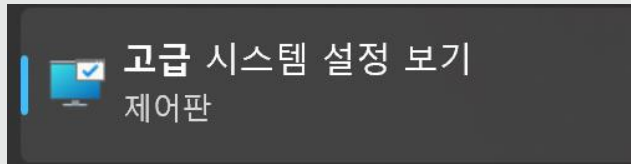
100 %

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

환경 변수 설정하기



시스템 속성

컴퓨터 이름하드웨어고급시스템 보호원격

이 내용을 변경하려면 관리자로 로그인해야 합니다.

성능

시각 효과, 프로세서 일정, 메모리 사용 및 가상 메모리

설정(S)...

사용자 프로필

사용자 로그인에 관련된 바탕 화면 설정

설정(E)...

시작 및 복구

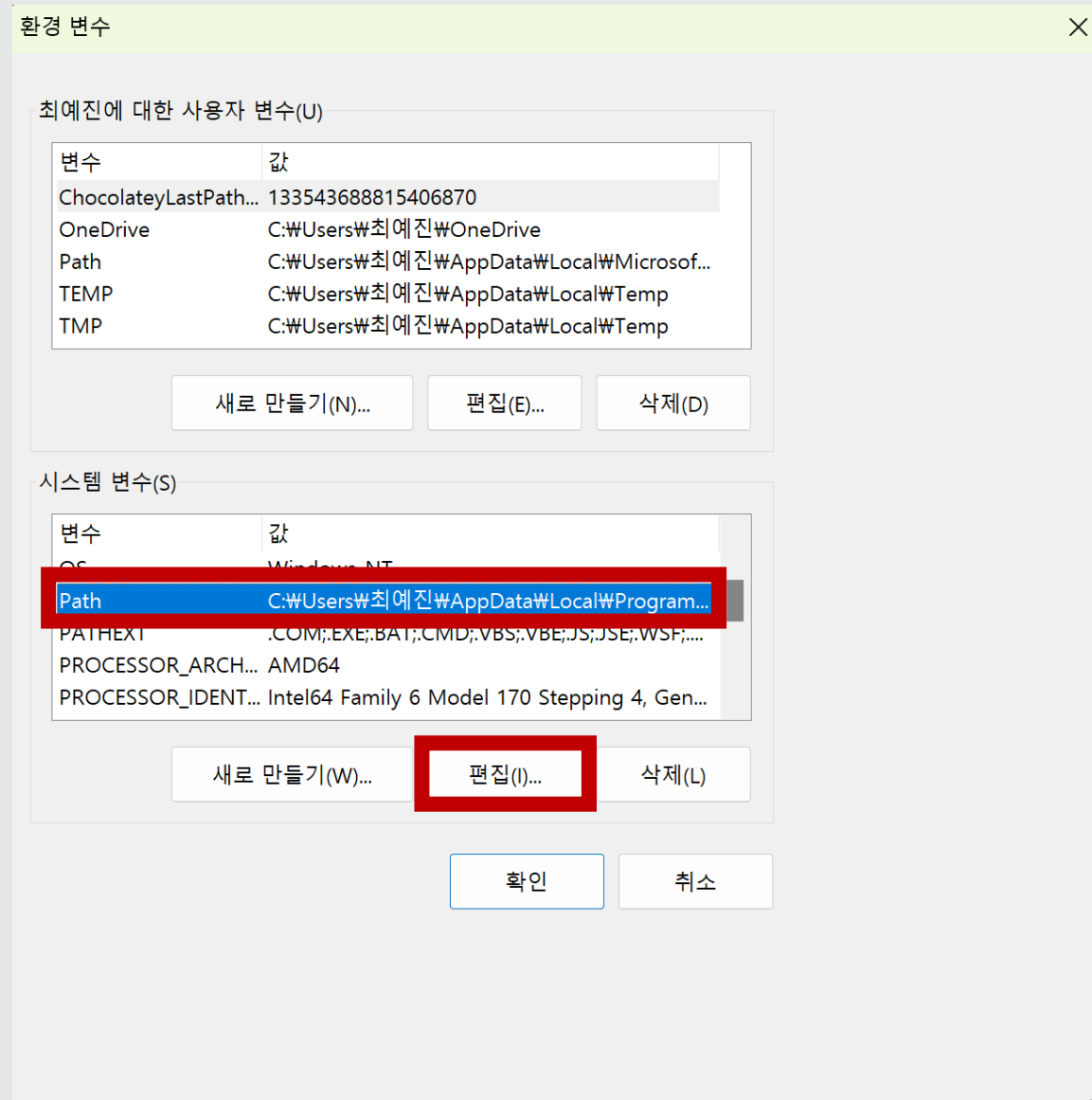
시스템 시작, 시스템 오류 및 디버깅 정보

설정(T)...

환경 변수(N)...

확인취소적용(A)

환경 변수 설정하기



환경 변수 설정하기

환경 변수 편집

C:\Users\최예진\AppData\Local\Programs\Python\Python312\S...
C:\Users\최예진\AppData\Local\Programs\Python\Python312\W...
C:\Program Files\Common Files\Oracle\Java\javapath
C:\Ruby32-x64\bin
%SystemRoot%\system32
%SystemRoot%\...
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\W...
%SYSTEMROOT%\System32\OpenSSH\W...
C:\Program Files\Git\cmd
C:\mingw64\bin
C:\Program Files\Microsoft SQL Server\150\Tools\Binn\W...
C:\Program Files (x86)\Incredibuild\...
C:\Program Files (x86)\Windows Kits\10\Windows Performance To...
C:\ProgramData\chocolatey\bin
C:\Program Files\nodejs\W...
C:\Program Files (x86)\Yarn\bin\W...
C:\Program Files\MySQL\MySQL Server 8.0\bin
C:\Users\User\AppData\Local\Programs\Python\Python39...
C:\Users\User\AppData\Local\Programs\Python\Python39\Scripts...
C:\MinGW\bin

새로 만들기(N)
편집(E)
찾아보기(B)...
삭제(D)
위로 이동(U)
아래로 이동(O)
텍스트 편집(T)...

확인취소

새로 만들기 - C:\MinGW\bin - 확인

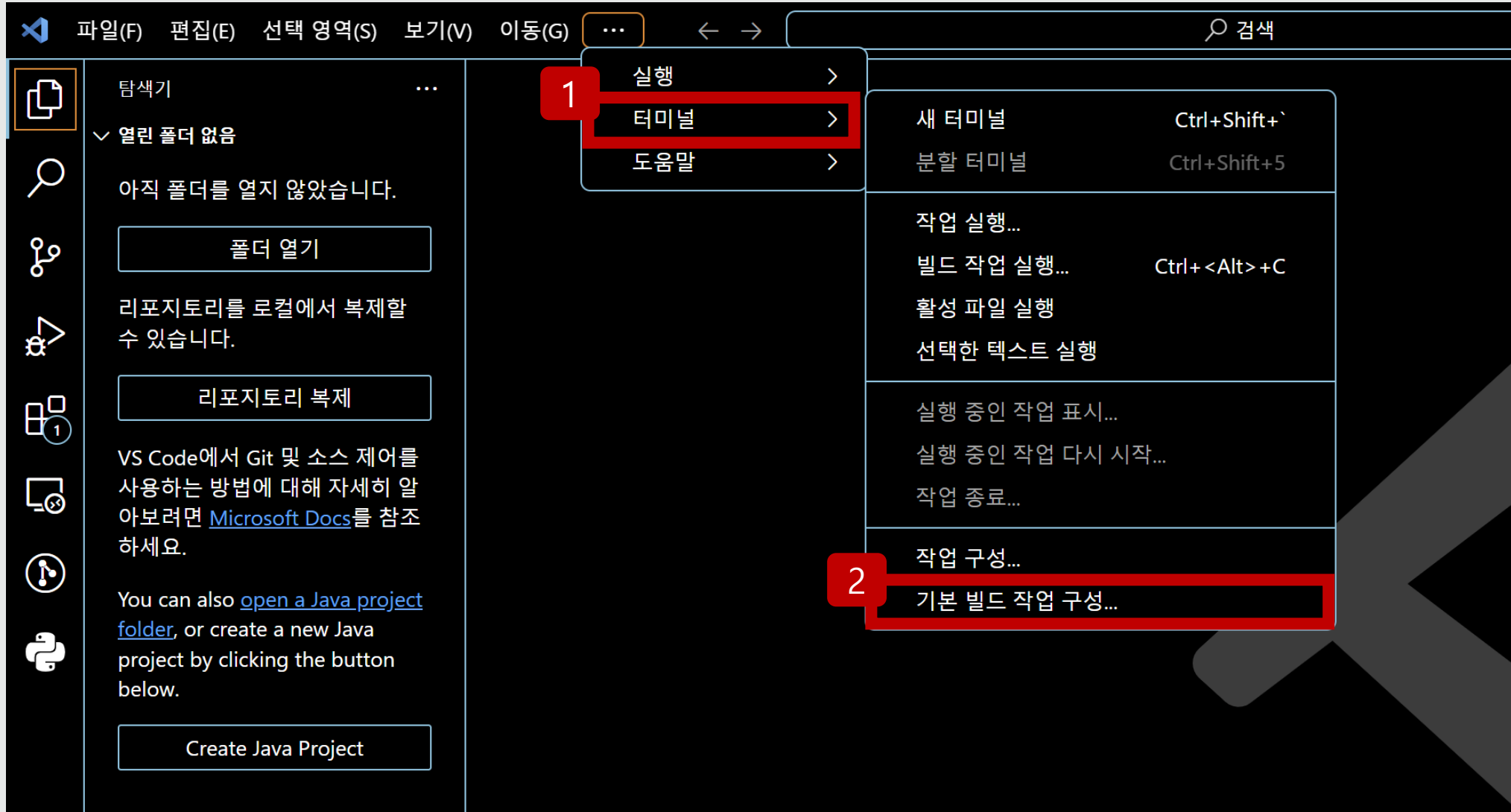
gcc 버전 확인

```
명령 프롬프트
Microsoft Windows [Version 10.0.22631.3958]
(c) Microsoft Corporation. All rights reserved.

C:\Users\최예진>gcc -v
Using built-in specs.
COLLECT_GCC=gcc
COLLECT_LTO_WRAPPER=c:/mingw/bin/./libexec/gcc/mingw32/6.3.0/lto-wrapper.exe
Target: mingw32
Configured with: ../src/gcc-6.3.0/configure --build=x86_64-pc-linux-gnu --host=mingw32 --target=mingw32 --with-gmp=/mingw
--with-mpfr --with-mpc=/mingw --with-isl=/mingw --prefix=/mingw --disable-win32-registry --with-arch=i586 --with-tune=
generic --enable-languages=c,c++,objc,obj-c++,fortran,ada --with-pkgversion='MinGW.org GCC-6.3.0-1' --enable-static --en
able-shared --enable-threads --with-dwarf2 --disable-sjlj-exceptions --enable-version-specific-runtime-libs --with-libic
onv-prefix=/mingw --with-libintl-prefix=/mingw --enable-libstdcxx-debug --enable-libgomp --disable-libvtv --enable-nls
Thread model: win32
gcc version 6.3.0 (MinGW.org GCC-6.3.0-1)
```

cmd – gcc -v

tasks.json 파일 작성



tasks.json 파일 작성

구성할 작업 선택

execute 사용자

save and compile for C 사용자

save and compile for C++ 사용자

템플릿에서 tasks.json 파일 만들기

⚙ Grunt 작업 검색을 꺾습니다. grunt 작업 검색 사용...

⚙ Gulp 작업 검색을 꺾습니다. gulp 작업 검색 사용...

⚙ Jake 작업 검색을 꺾습니다. jake 작업 검색 사용...

작업 템플릿 선택

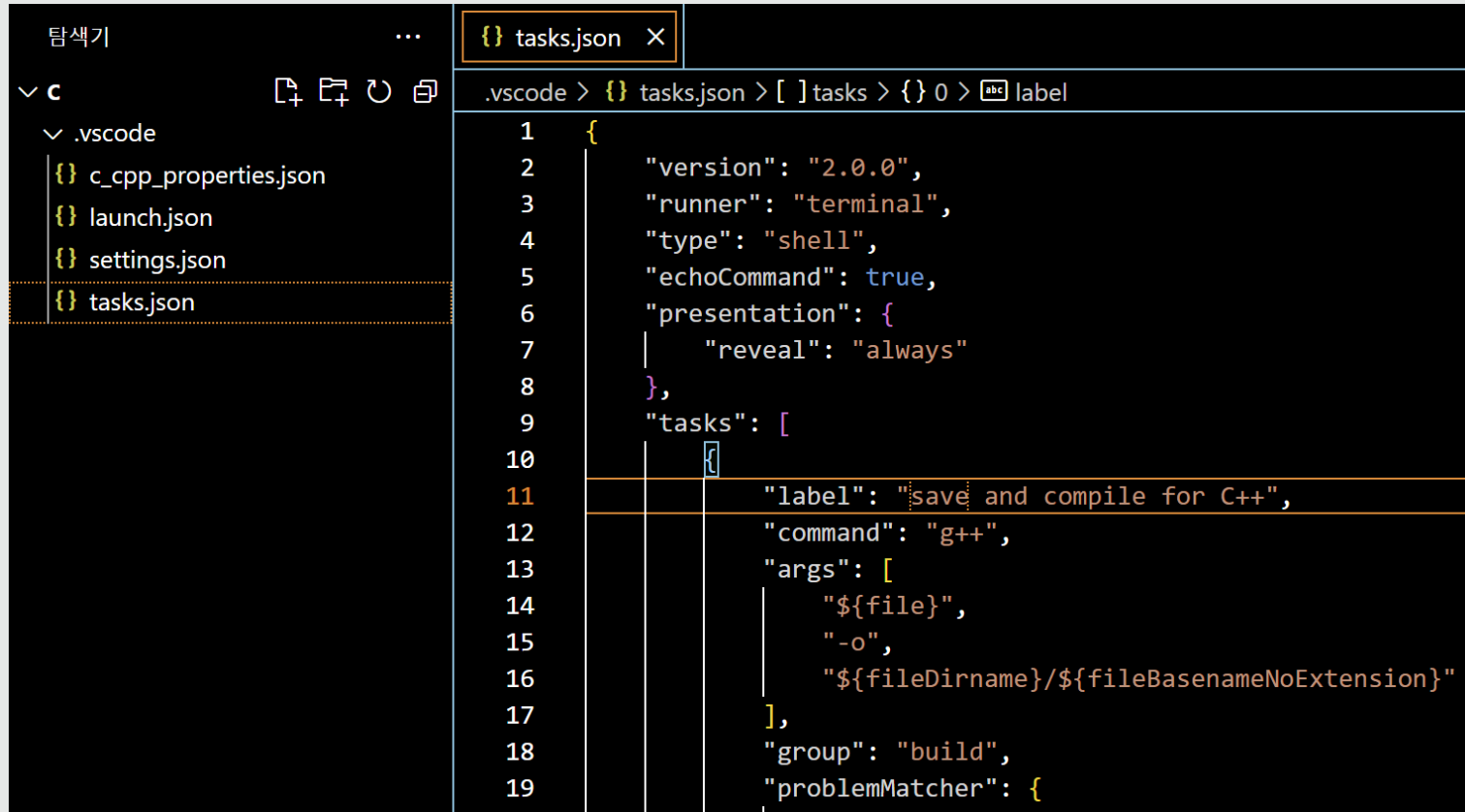
MSBuild 빌드 대상을 실행합니다.

maven 일반적인 Maven 명령을 실행합니다.

.NET Core .NET Core 빌드 명령을 실행합니다.

Others 임의의 외부 명령을 실행하는 예

tasks.json 파일 작성



The screenshot shows the Visual Studio Code interface. On the left, the Explorer sidebar shows the file structure with `tasks.json` selected under the `.vscode` folder. The main editor area shows the content of `tasks.json` with the following JSON structure:

```
1  {
2    "version": "2.0.0",
3    "runner": "terminal",
4    "type": "shell",
5    "echoCommand": true,
6    "presentation": {
7      "reveal": "always"
8    },
9    "tasks": [
10     {
11       "label": "save and compile for C++",
12       "command": "g++",
13       "args": [
14         "${file}",
15         "-o",
16         "${fileDirname}/${fileBasenameNoExtension}"
17       ],
18       "group": "build",
19       "problemMatcher": {
```

tasks.txt 파일 복사/붙여넣기

단축키 설정

The screenshot shows the Visual Studio Code interface with the 'File' menu open and the 'Basic Settings' option selected. The 'Keyboard Shortcuts' view is active, displaying a list of shortcuts. The 'Go to File' shortcut (Ctrl+K Ctrl+S) is highlighted.

명령	키 바인딩	언제	소스
<Tab> 키로 포커스 이동 설정/해제	Ctrl + M	-	시스템
가리키기 또는 포커스 표시	Ctrl + K Ctrl + I	editorTextFocus	시스템
가져오기 구성	Shift + <Alt> + O	textInputFocus && !editorReadOnly && supportedCodeAction =~...	시스템
개발자: 개발자 도구 설정/해제	Ctrl + Shift + I	isDevelopment	시스템
개발자: 창 다시 로드	Ctrl + R	isDevelopment	시스템
검색 편집기: 검색 편집기 입력 포커스	Escape	inSearchEditor	시스템
검색 편집기: 다시 검색	Ctrl + Shift + R	inSearchEditor	시스템
검색 편집기: 단어 단위로 토글	<Alt> + W	inSearchEditor && searchInputBoxFocus	시스템

단축키 설정

```
{ } tasks.json  바로 가기 키  { } keybindings.json X
C: > Users > 최예진 > AppData > Roaming > Code > User > { } keybindings.json > ...
1  // Place your key bindings in this file to override the defaults
2  [
3      // 컴파일
4      {
5          "key": "ctrl+alt+c",
6          "command": "workbench.action.tasks.build"
7      },
8      // 실행
9      {
10         "key": "ctrl+alt+r",
11         "command": "workbench.action.tasks.test"
12     }
]
```

key.txt 파일 복사/붙여넣기

// Place your key bindings in this file to override the defaults

```
[
    // 컴파일
    {
        "key": "ctrl+alt+c",
        "command": "workbench.action.tasks.build"
    },
    // 실행
    {
        "key": "ctrl+alt+r",
        "command": "workbench.action.tasks.test"
    }
]
```

코드 작성 후 실행 파일 생성

1

Ctrl

+

Alt

+

C



코드 작성 후 실행 파일 생성

1

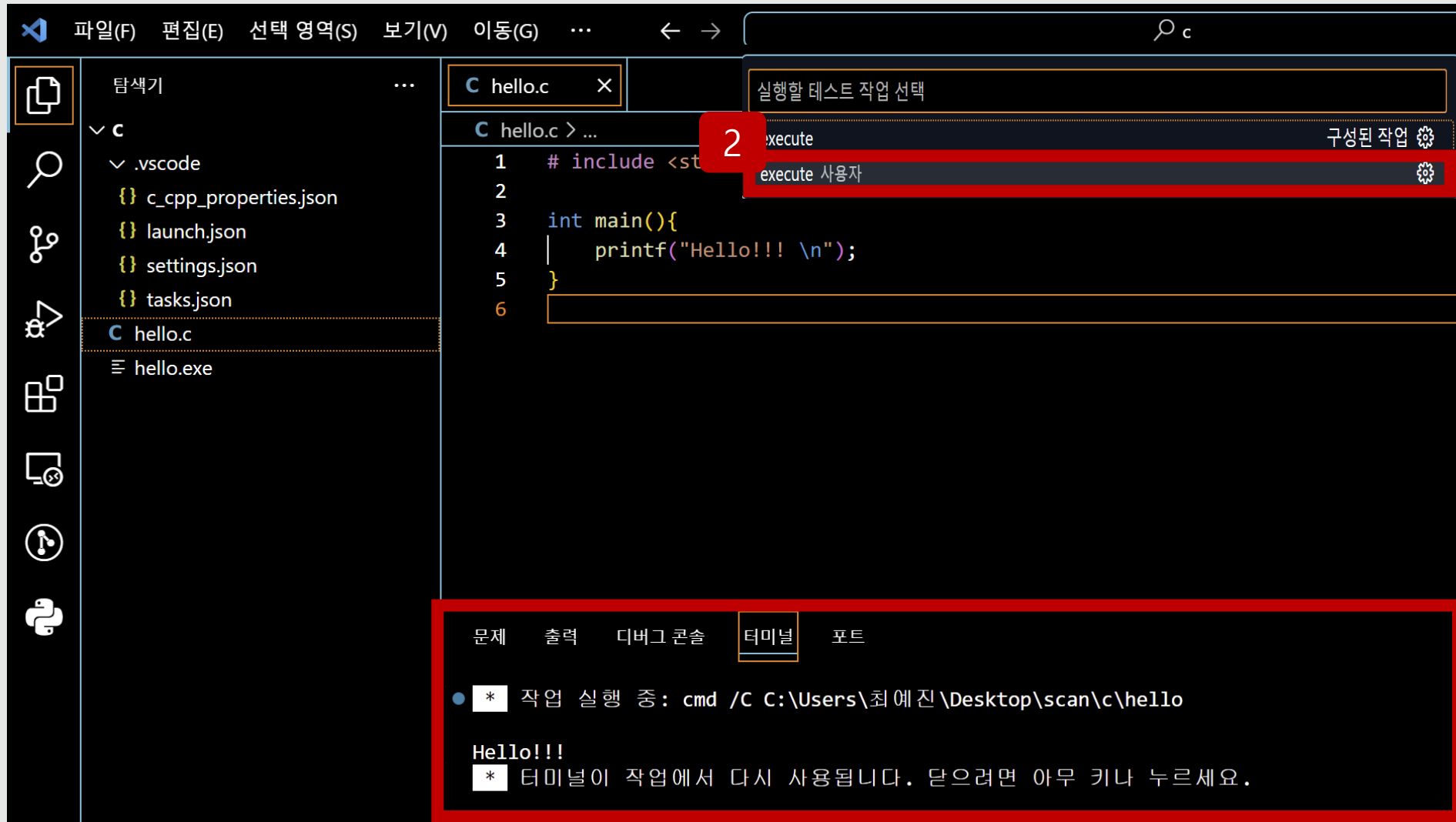
Ctrl

+

Alt

+

r



Reference

<https://nanglam.tistory.com/4>

감사

합니다