Debugger

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Downloading Code::Blocks

- codeblocks-20.03mingw-setup.exe

Windows XP / Vista / 7 / 8.x / 10:

File	Date	Download from
codeblocks-20.03-setup.exe	29 Mar 2020	**FossHUB** or **Sourceforge.net**
codeblocks-20.03-setup-nonadmin.exe	29 Mar 2020	**FossHUB** or **Sourceforge.net**
codeblocks-20.03-nosetup.zip	29 Mar 2020	**FossHUB** or **Sourceforge.net**
codeblocks-20.03mingw-setup.exe	29 Mar 2020	**FossHUB** or **Sourceforge.net**
codeblocks-20.03mingw-nosetup.zip	29 Mar 2020	**FossHUB** or **Sourceforge.net**

Installing Thesaurus

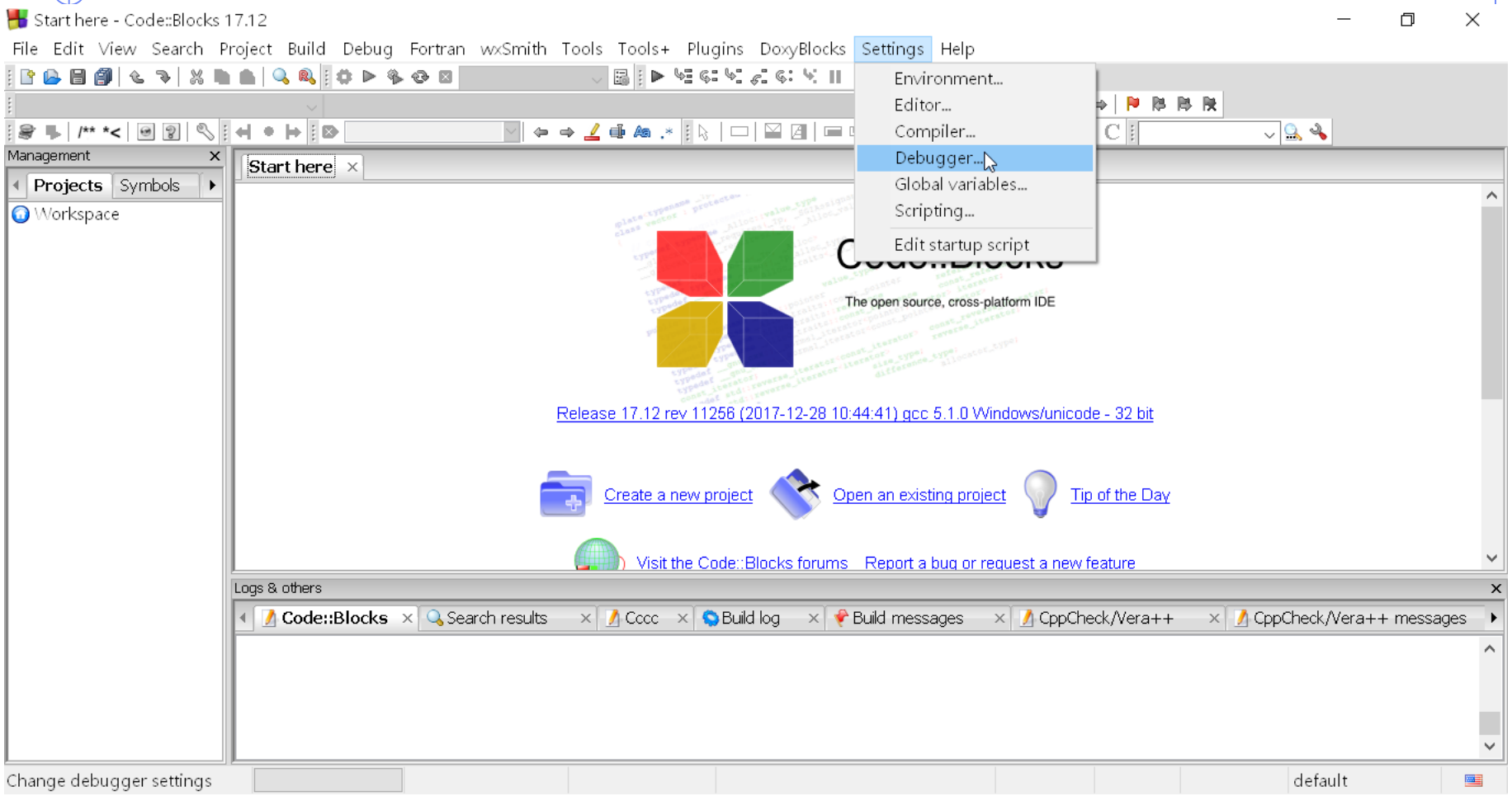
- SpellChecker: Thesaurus files 'C:\Program Files\CodeBlocks/share/codeblocks\SpellChecker\th_en_US.idx' not found!
  - Go to https://wiki.openoffice.org/wiki/Dictionaries
  - Download Thesaurus: OpenOffice.org MyThes

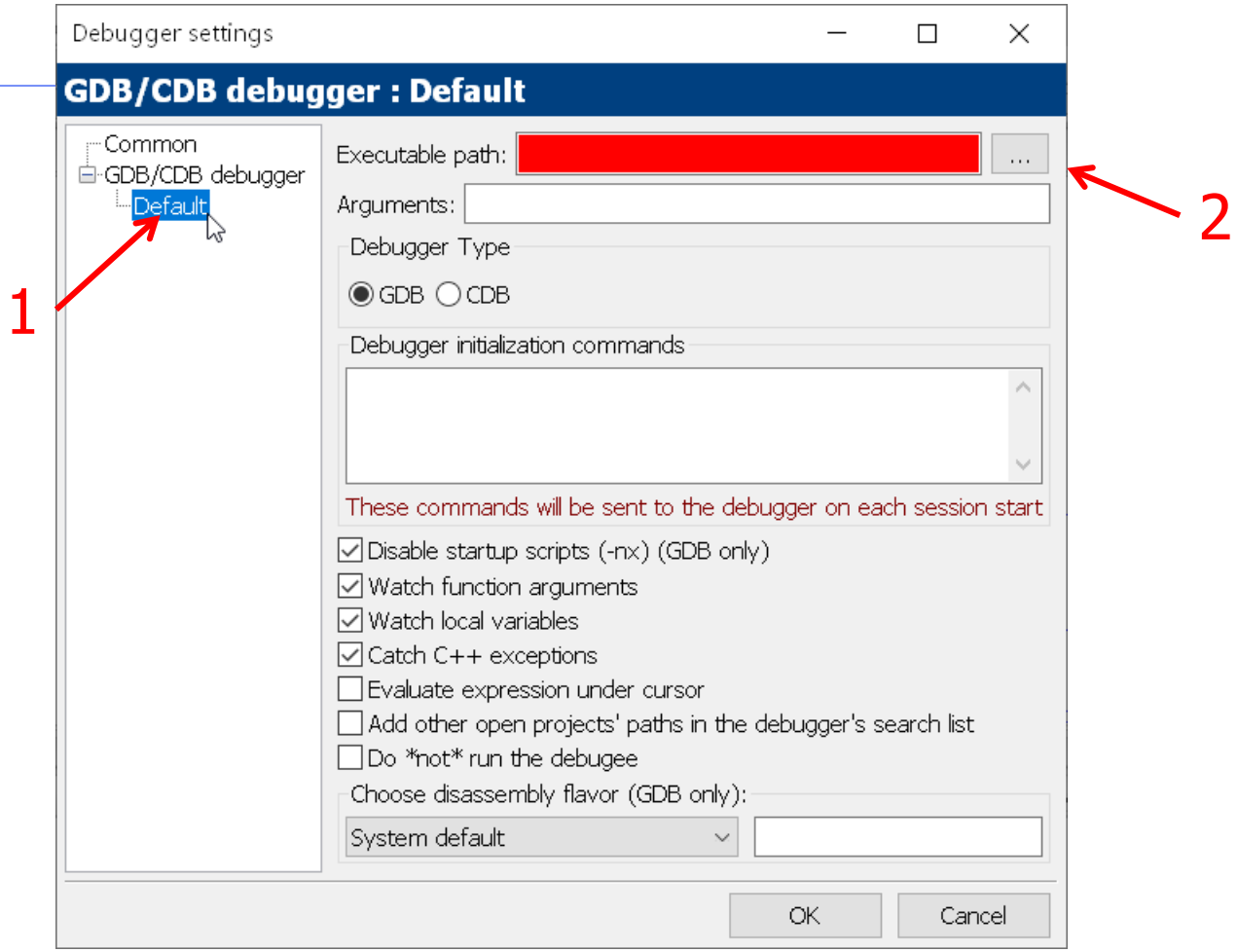
Tools for dictionary developers:

- Spellchecker/Thesaurus: Proofing Tool GUI 2014-02-14.
- Spellchecker: Hunspell.
- Hyphenator: Hyphen.
- Thesaurus: OpenOffice.org MyThes.
- Grammar checker: LanguageTool, After the Deadline, CoGrOO and Lightproof.

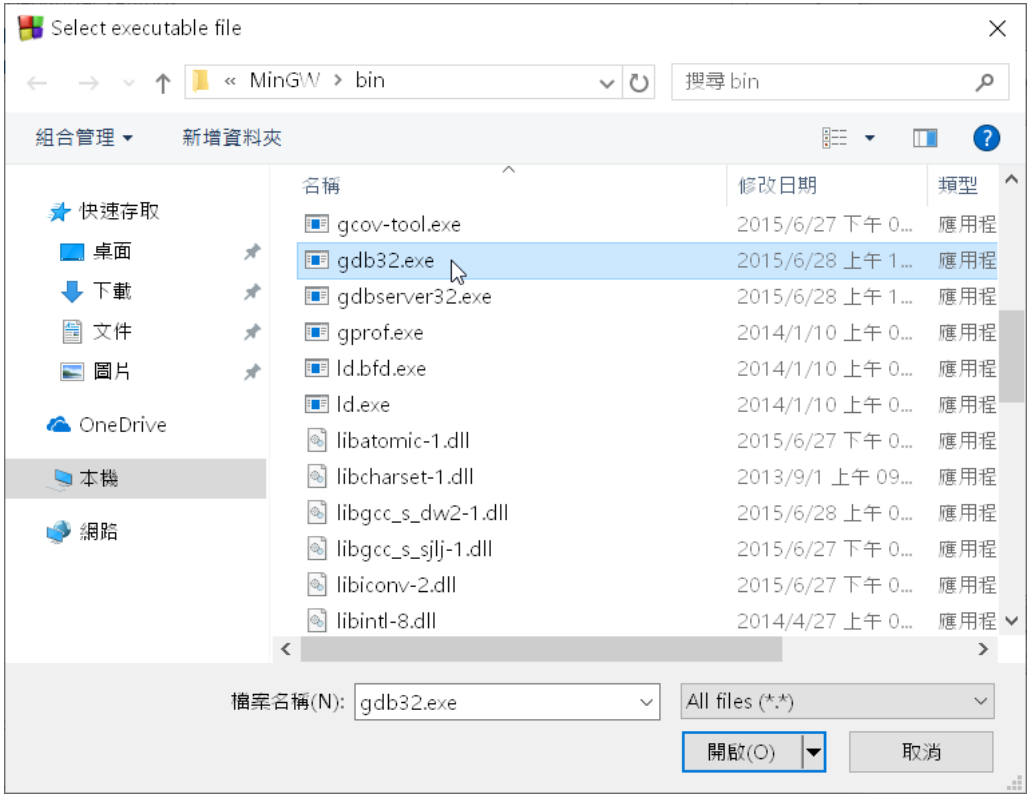
- Unzip the downloaded zip file
- Rename 'th_en_US_new.dat' to 'th_en_US.dat' and 'th_en_US_new.idx' to 'th_en_US.idx'
- Copy th_en_US.dat and th_en_US.idx to 'C:\Program Files\CodeBlocks/share/codeblocks\SpellChecker\'

Setting Up Debugger

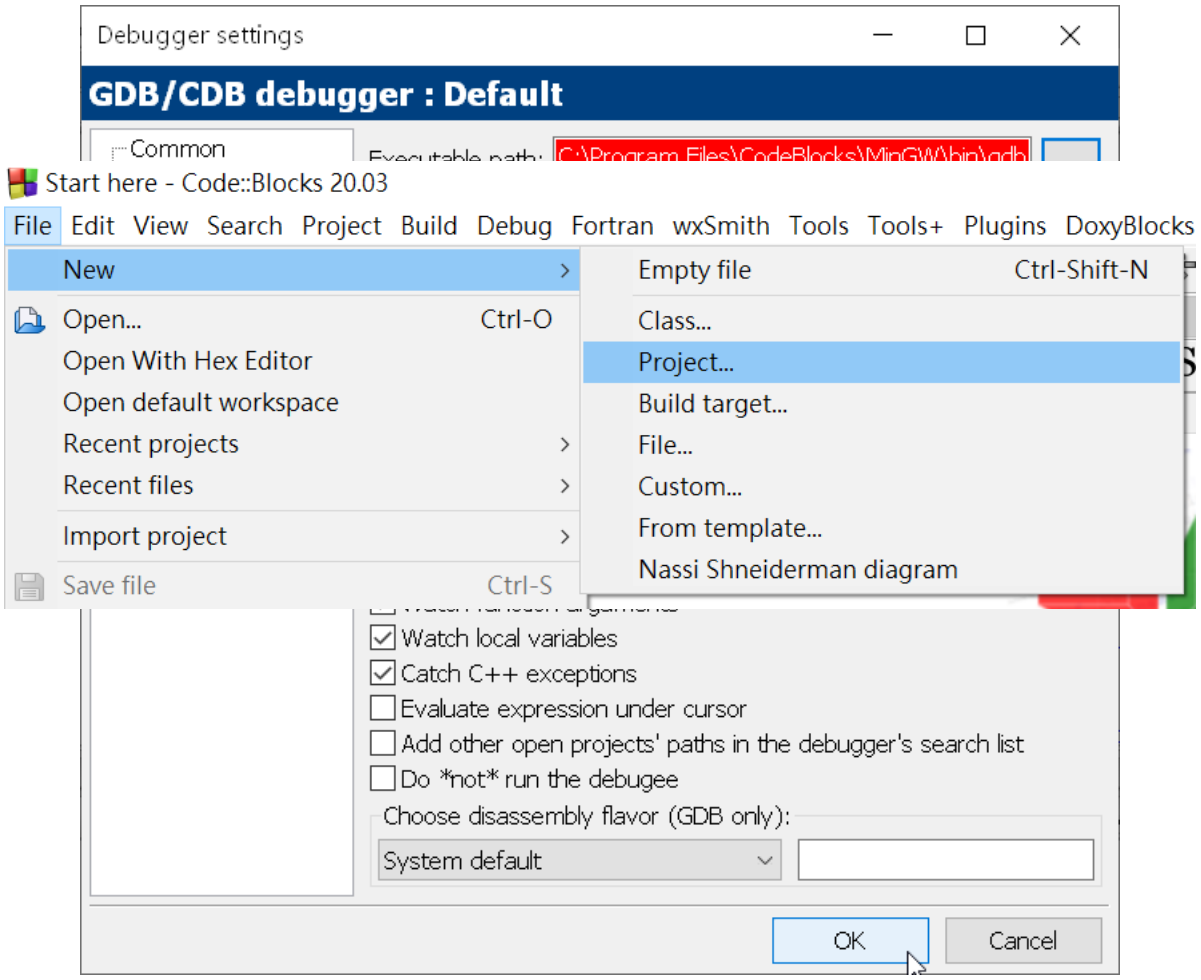


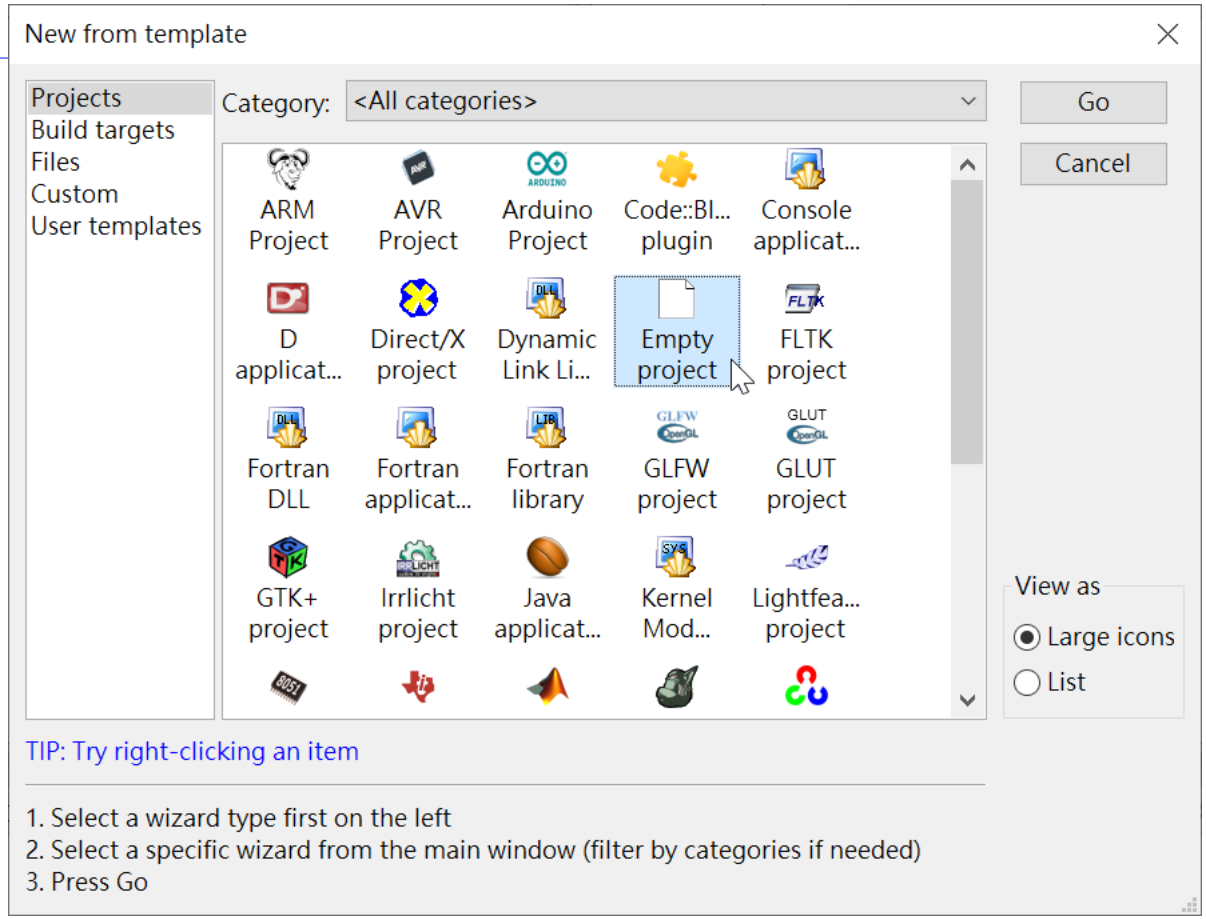

Debugger settings
GDB/CDB debugger : Default
Common
GDB/CDB debugger
Default
Executable path:
...
Arguments:
Debugger Type
GDB
CDB
Debugger initialization commands
These commands will be sent to the debugger on each session start
Disable startup scripts (-nx) (GDB only)
Watch function arguments
Watch local variables
Catch C++ exceptions
Evaluate expression under cursor
Add other open projects' paths in the debugger's search list
Do *not* run the debugee
Choose disassembly flavor (GDB only):
System default
OK
Cancel
1
2

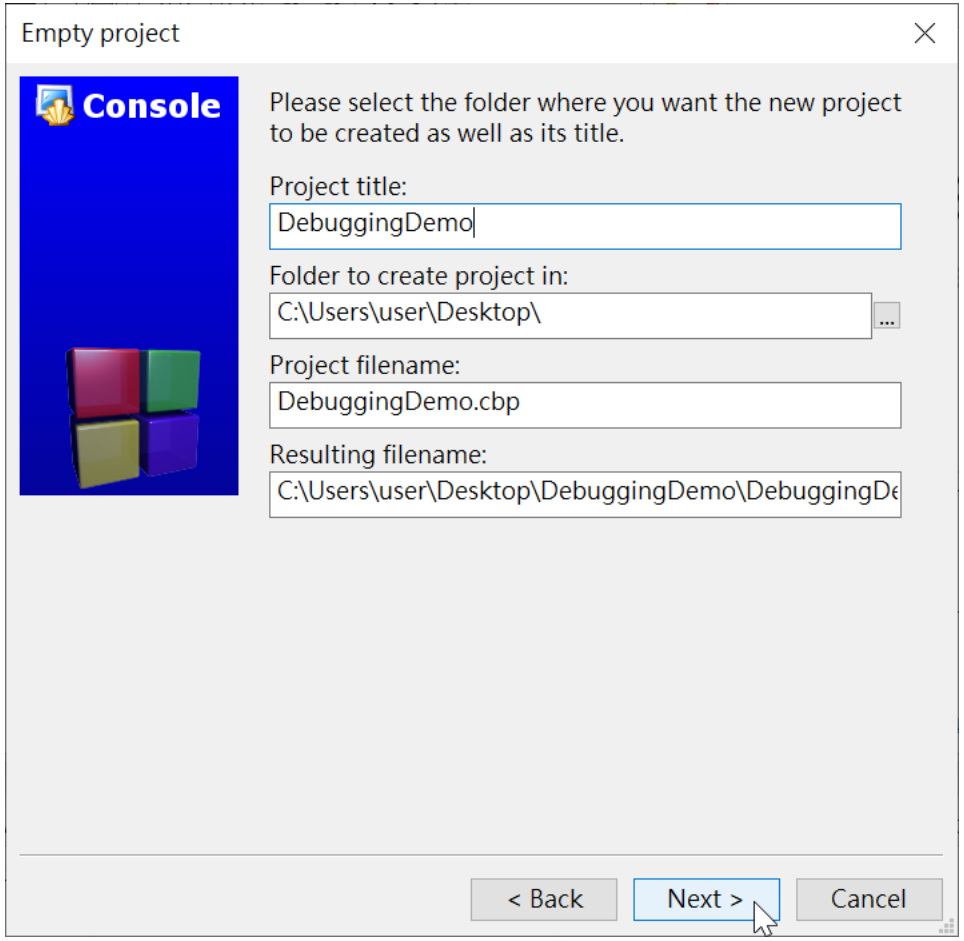
- C:\Program Files\CodeBlocks\MinGW\bin\gdb32.exe

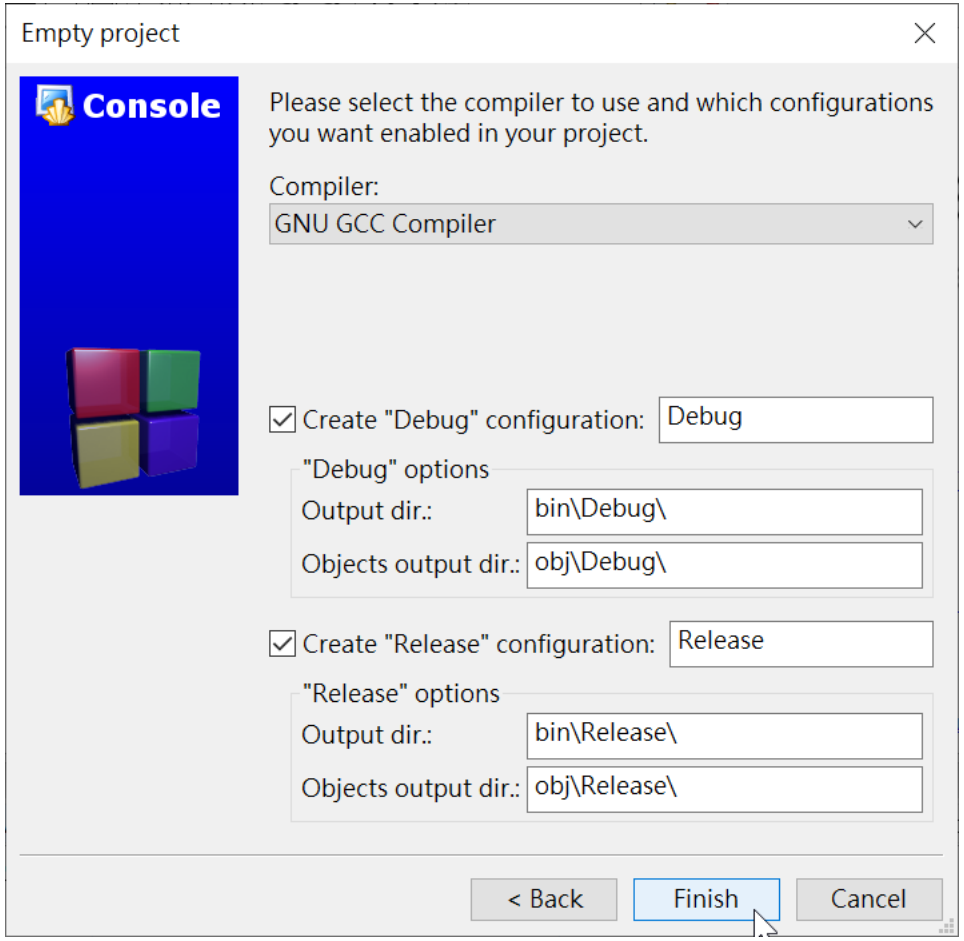


Create A Project

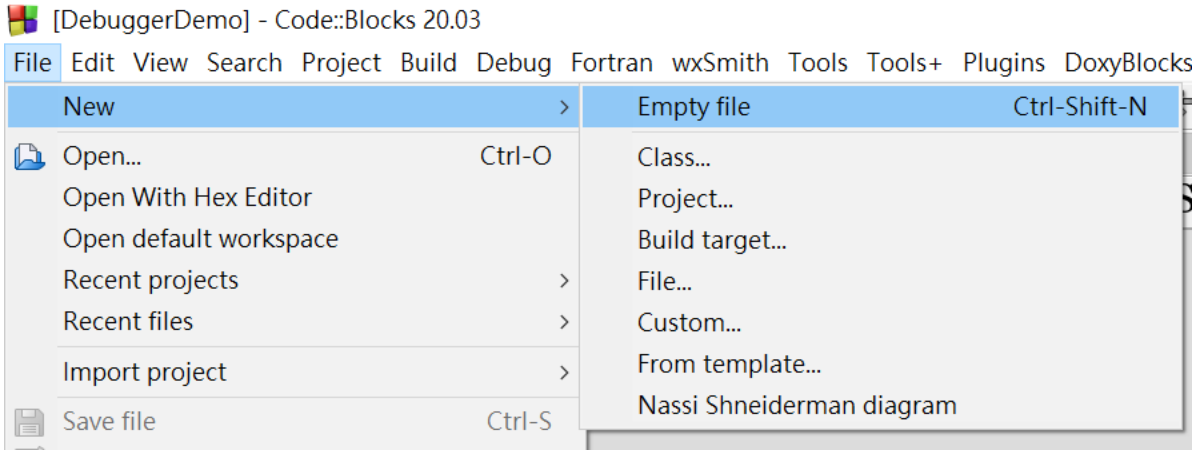


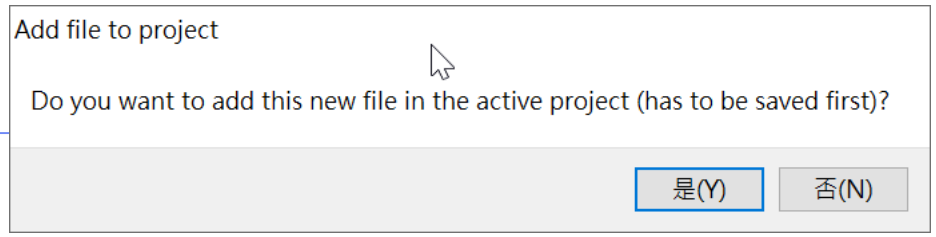

New from template
Projects
Build targets
Files
Custom
User templates
Category:
<All categories>
Go
Cancel
ARM Project
AVR Project
Arduino Project
Code::Bl... plugin
Console applicat...
D applicat...
Direct/X project
Dynamic Link Li...
Empty project
FLTK project
Fortran DLL
Fortran applicat...
Fortran library
GLFW project
GLUT project
GTK+ project
Irrlicht project
Java applicat...
Kernel Mod...
Lightfea... project
View as
Large icons
List
TIP: Try right-clicking an item
1. Select a wizard type first on the left
2. Select a specific wizard from the main window (filter by categories if needed)
3. Press Go

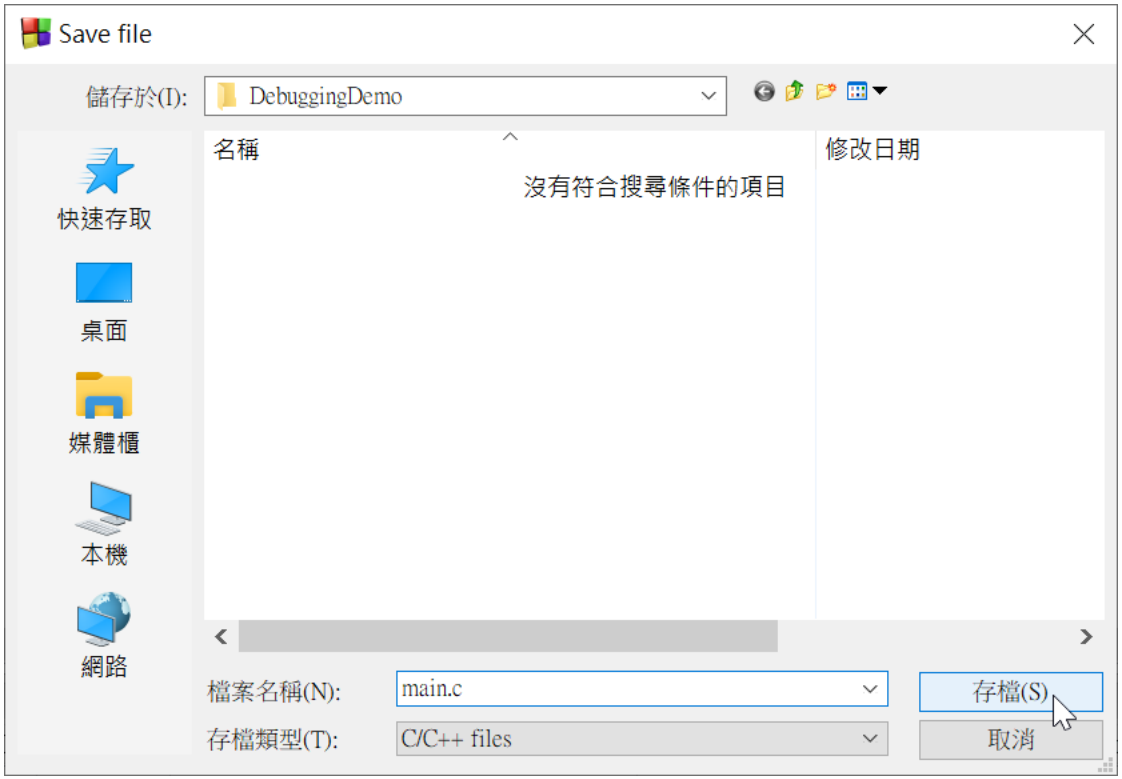

Empty project
Console
Please select the folder where you want the new project to be created as well as its title.
Project title:
DebuggingDemo
Folder to create project in:
C:\Users\user\Desktop\
...
Project filename:
DebuggingDemo.cbp
Resulting filename:
C:\Users\user\Desktop\DebuggingDemo\DebuggingDe
< Back
Next >
Cancel

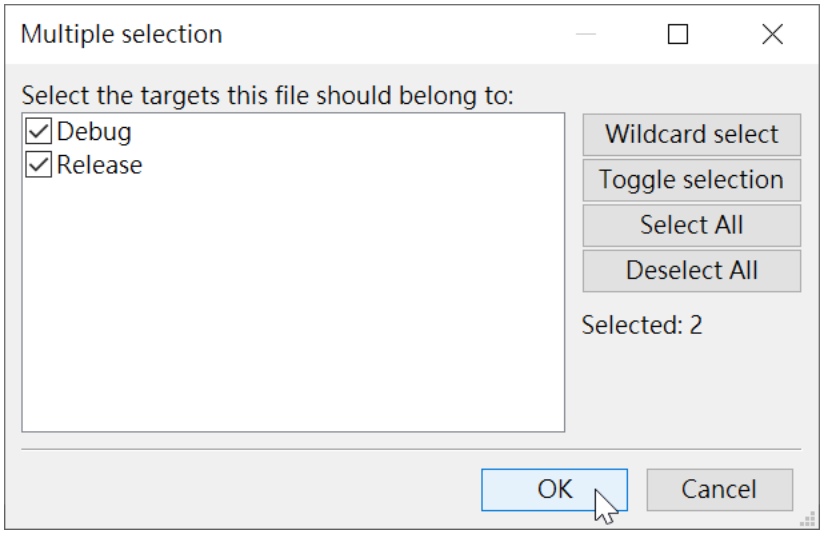

Empty project
Console
Please select the compiler to use and which configurations you want enabled in your project.
Compiler:
GNU GCC Compiler
Create "Debug" configuration:
Debug
"Debug" options
Output dir.:
bin\Debug\
Objects output dir.:
obj\Debug\
Create "Release" configuration:
Release
"Release" options
Output dir.:
bin\Release\
Objects output dir.:
obj\Release\
< Back
Finish
Cancel

Create A Source File

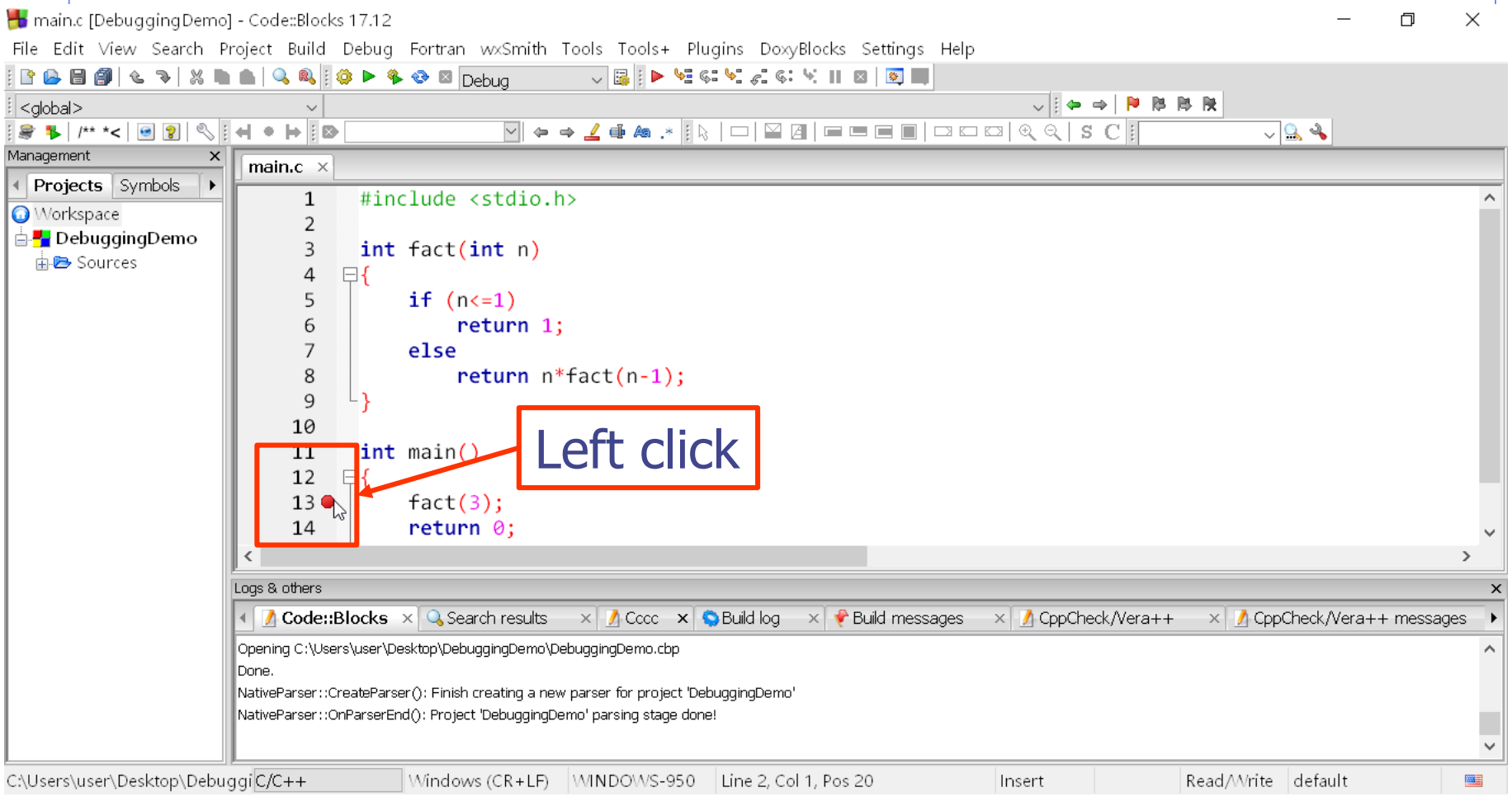



Add file to project
Do you want to add this new file in the active project (has to be saved first)?
是(Y)
否(N)

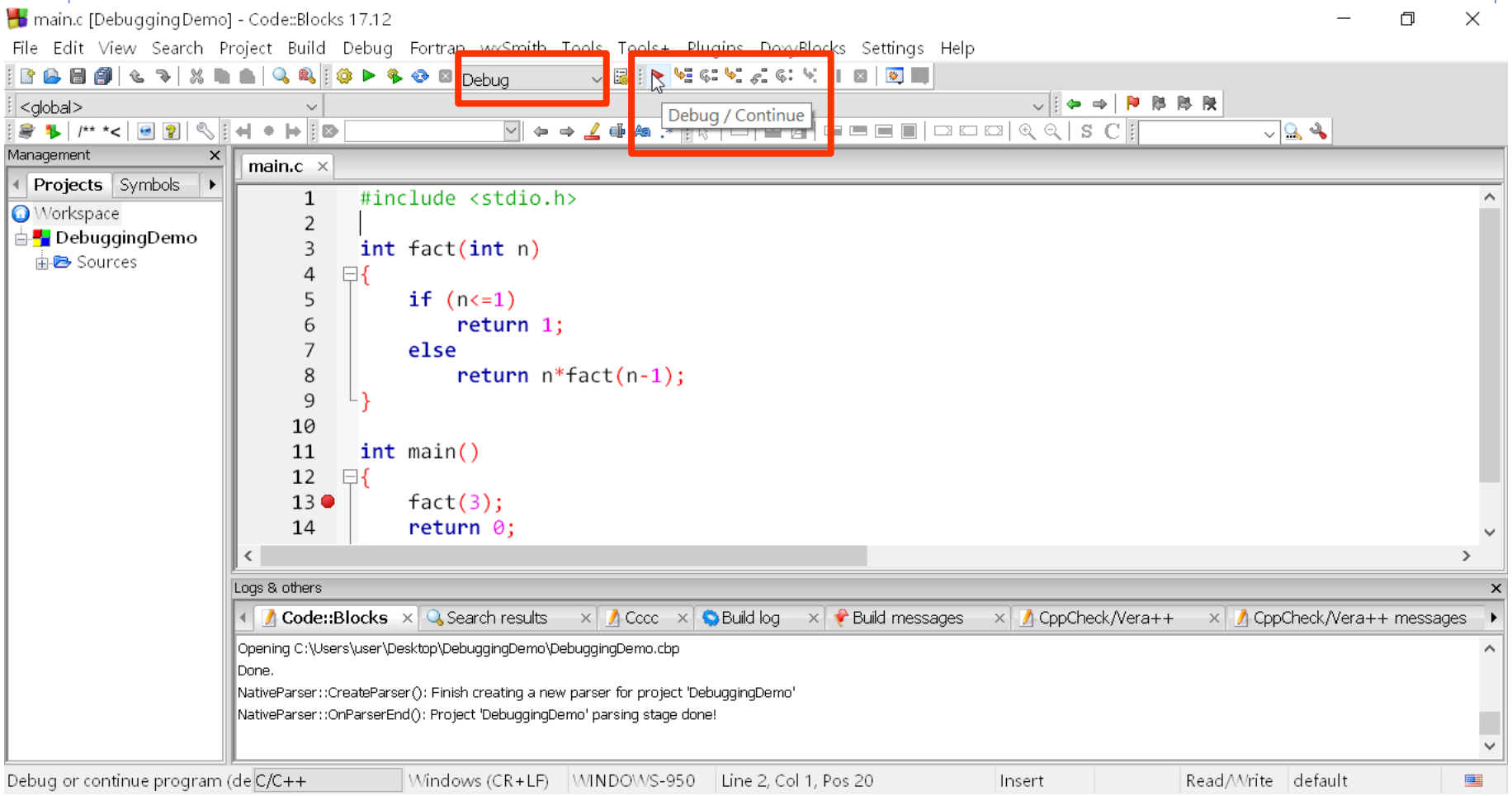

Save file
儲存於(I):
DebuggingDemo
名稱
修改日期
沒有符合搜尋條件的項目
快速存取
桌面
媒體櫃
本機
網路
檔案名稱(N):
main.c
存檔(S)
存檔類型(T):
C/C++ files
取消

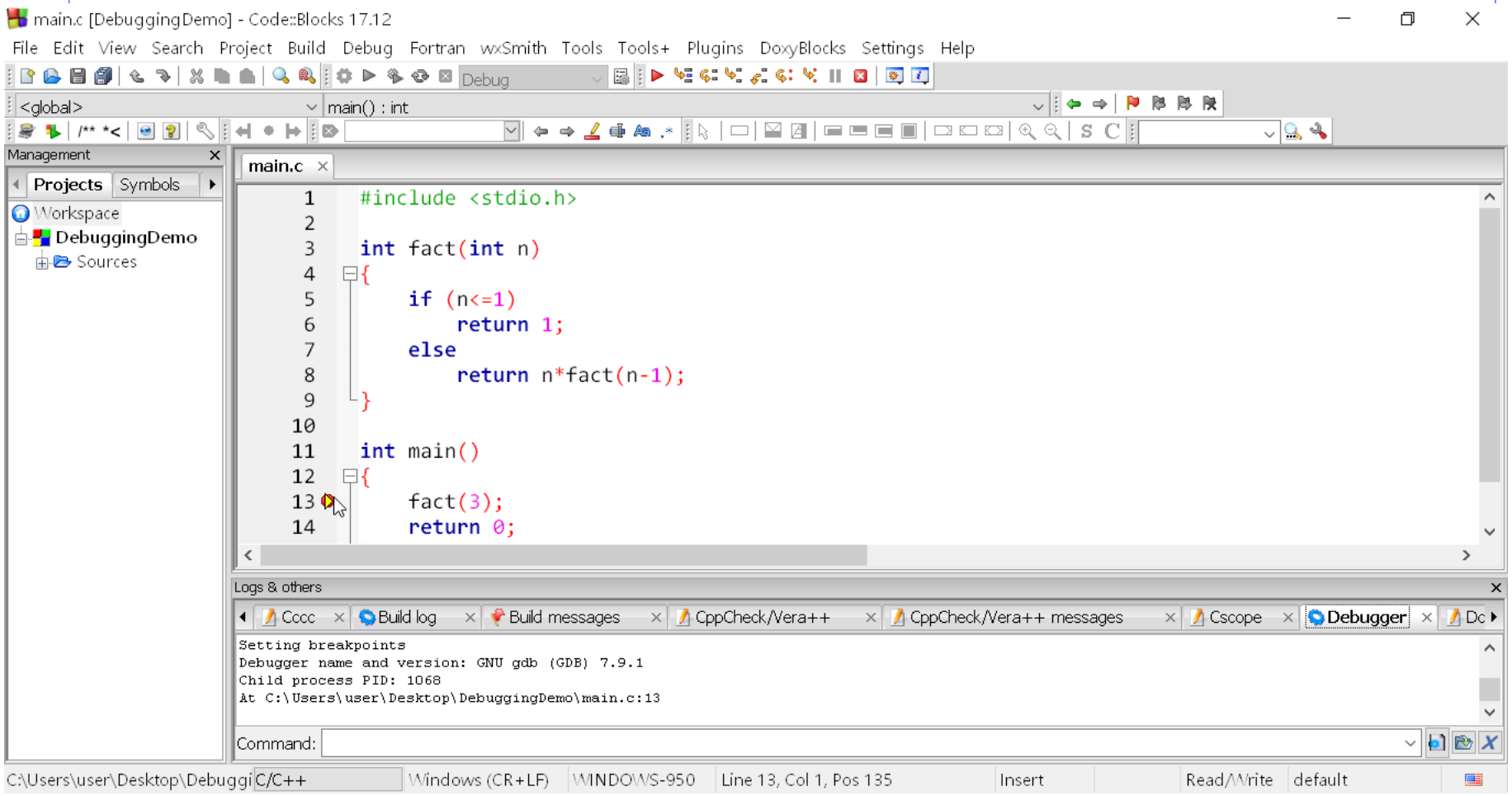

Multiple selection
Select the targets this file should belong to:
Debug
Release
Wildcard select
Toggle selection
Select All
Deselect All
Selected: 2
OK
Cancel

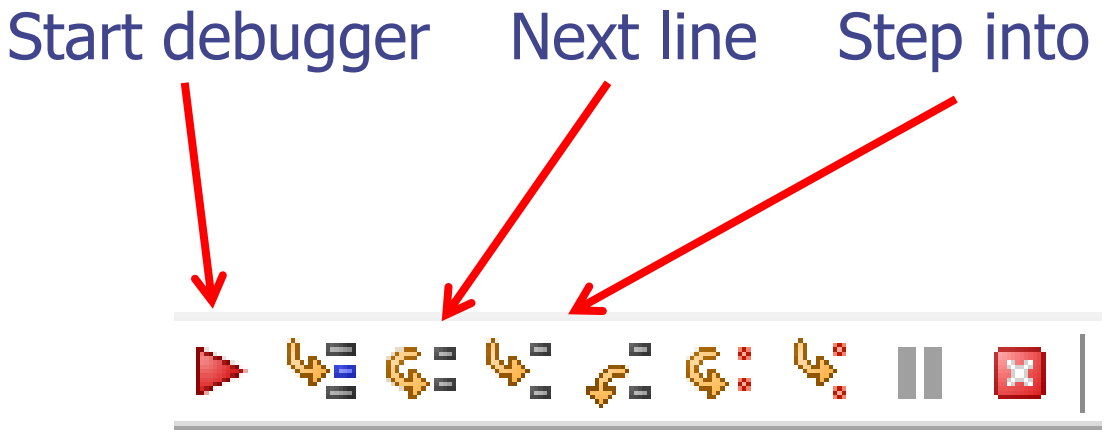
Add Breakpoint



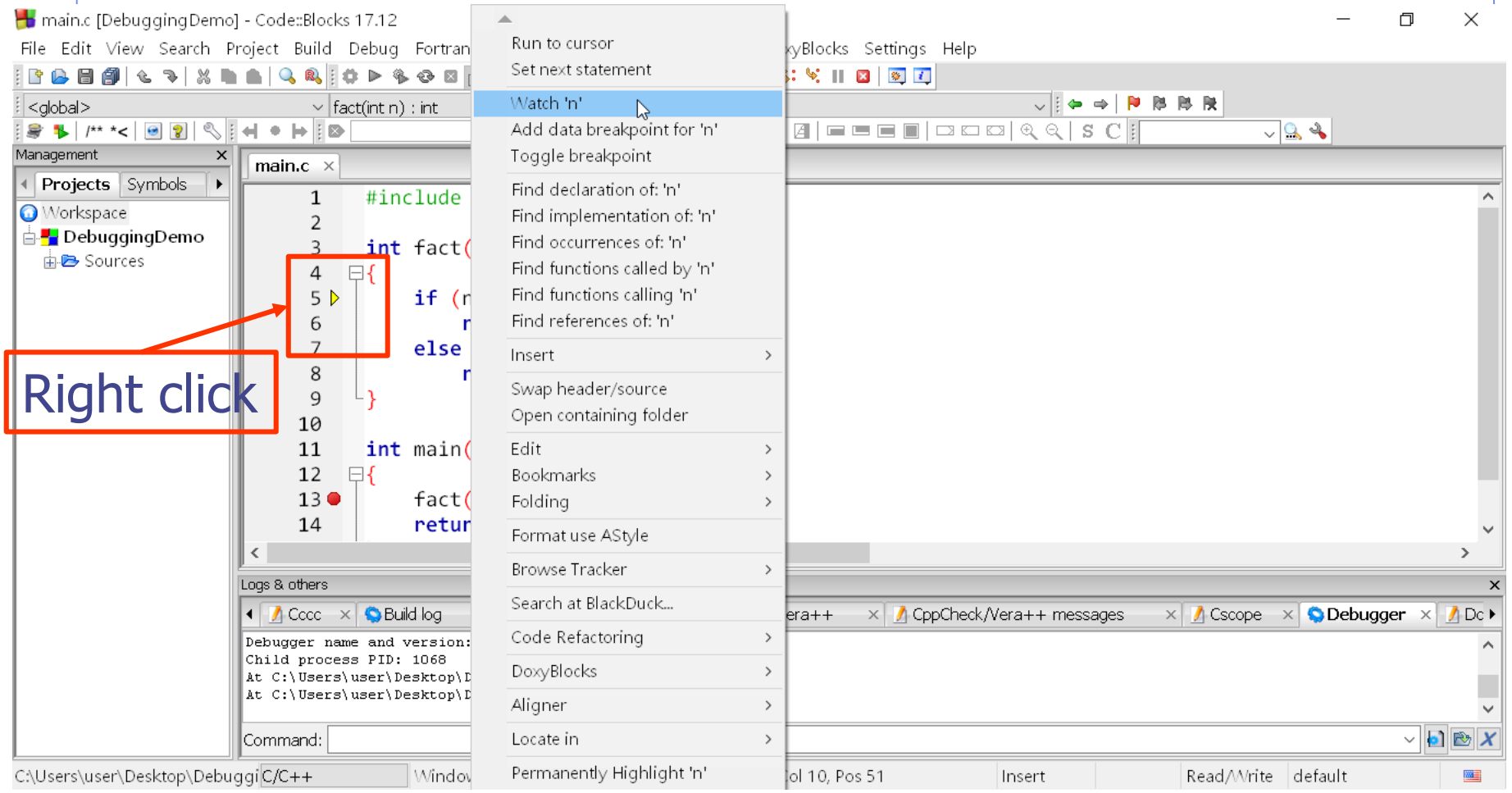
Starting Debugger

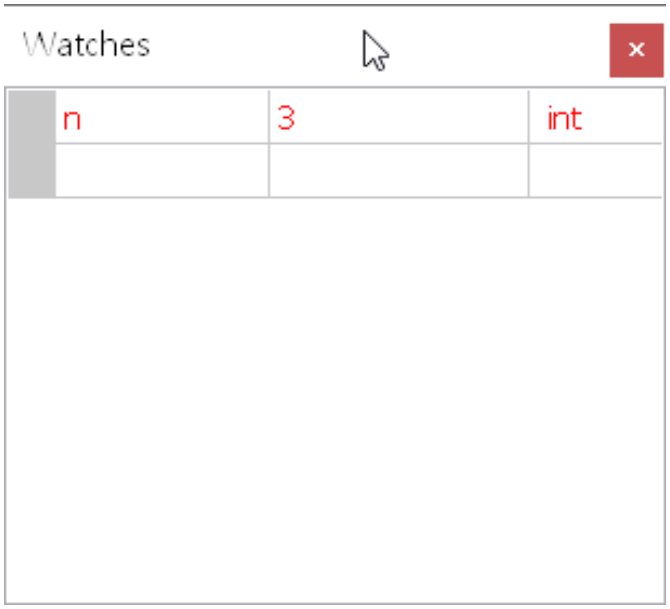



main.c [DebuggingDemo] - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Debug
<global>
main() : int
Management
Projects
Symbols
Workspace
DebuggingDemo
Sources
main.c
1 #include <stdio.h>
2
3 int fact(int n)
4 {
5 if (n<=1)
6 return 1;
7 else
8 return n*fact(n-1);
9 }
10
11 int main()
12 {
13 fact(3);
14 return 0;
Logs & others
Cccc
Build log
Build messages
CppCheck/Vera++
CppCheck/Vera++ messages
Cscope
Debugger
Setting breakpoints
Debugger name and version: GNU gdb (GDB) 7.9.1
Child process PID: 1068
At C:\Users\user\Desktop\DebuggingDemo\main.c:13
Command:
C:\Users\user\Desktop\Debuggi
C/C++
Windows (CR+LF)
WINDOWS-950
Line 13, Col 1, Pos 135
Insert
Read/Write
default


Start debugger
Next line
Step into

Add Watch


main.c [DebuggingDemo] - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran
Run to cursor
Set next statement
Watch 'n'
Add data breakpoint for 'n'
Toggle breakpoint
Find declaration of: 'n'
Find implementation of: 'n'
Find occurrences of: 'n'
Find functions called by 'n'
Find functions calling 'n'
Find references of: 'n'
Insert
Swap header/source
Open containing folder
Edit
Bookmarks
Folding
Format use AStyle
Browse Tracker
Search at BlackDuck...
Code Refactoring
DoxyBlocks
Aligner
Locate in
Permanently Highlight 'n'
Right click
Management
Projects
Symbols
Workspace
DebuggingDemo
Sources
main.c
Logs & others
Build log
Debugger
Command:
C/C++


Watches
n
3
int

Preprocessor

```
>>> cat test.c
#define N 10

int main(void)
{
  int a=N;
}
```

```
>>> gcc -E test.c
# 1 "test.c"
# 1 "<built-in>"
# 1 "<command-line>"
# 1 "test.c"


int main(void)
{
  int a=10;
}
```

```
>>> gcc test.c
>>> ls -l a.out
-rwxr-xr-x  1 jlhuang  faculty  7256 Nov  6 20:41 a.out*
>>> gcc –g test.c
>>> ls -l a.out
-rwxr-xr-x  1 jlhuang  faculty  8136 Nov  6 20:42 a.out*
```

```
>>> gdb a.out
(gdb) break main
Breakpoint 1 at 0x400779: file test.c, line 5.
(gdb) run
Starting program: /net/faculty/jlhuang/Code/a.out

Breakpoint 1, main () at test.c:5
5           int a=N;
(gdb) print a
$1 = 32767
(gdb) print N
No symbol "N" in current context.
(gdb)
```