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10. August 2015

Install FLTK and Codeblocks on Win7 Step by Step

Preparations

Legen Sie einen neuen Ordner an
Create a new Folder

"E : \CODEBLOCKS-FLTK"

in diesen Ordner legen Sie einen weiteren Ordner an
in this folder, create another folder

"E : \CODEBLOCKS-FLTK\TEST"

Jetzt laden Sie die folgenden Programme runter und speichern diese in
Now download the following programs and store them in

"E : \CODEBLOCKS-FLTK"

1.

Mingw-Installer

from

<http://www.mingw.org/> („Download Installer“ rechts oben/see top right)

or from

<http://sourceforge.net/projects/mingw/files/>

2.

Codeblocks 13.12 für Windows 2000 / XP / Vista / 7:

codeblocks-13.12-setup.exe

from

<http://www.codeblocks.org/>

<http://www.codeblocks.org/downloads/26>

3.

Fltk

from

<http://www.fltk.org/software.php>

4.

Sie benötigen noch **7-Zip**.

Falls Sie es noch nicht installiert haben, dann machen Sie es jetzt.

You still need **7-Zip**.

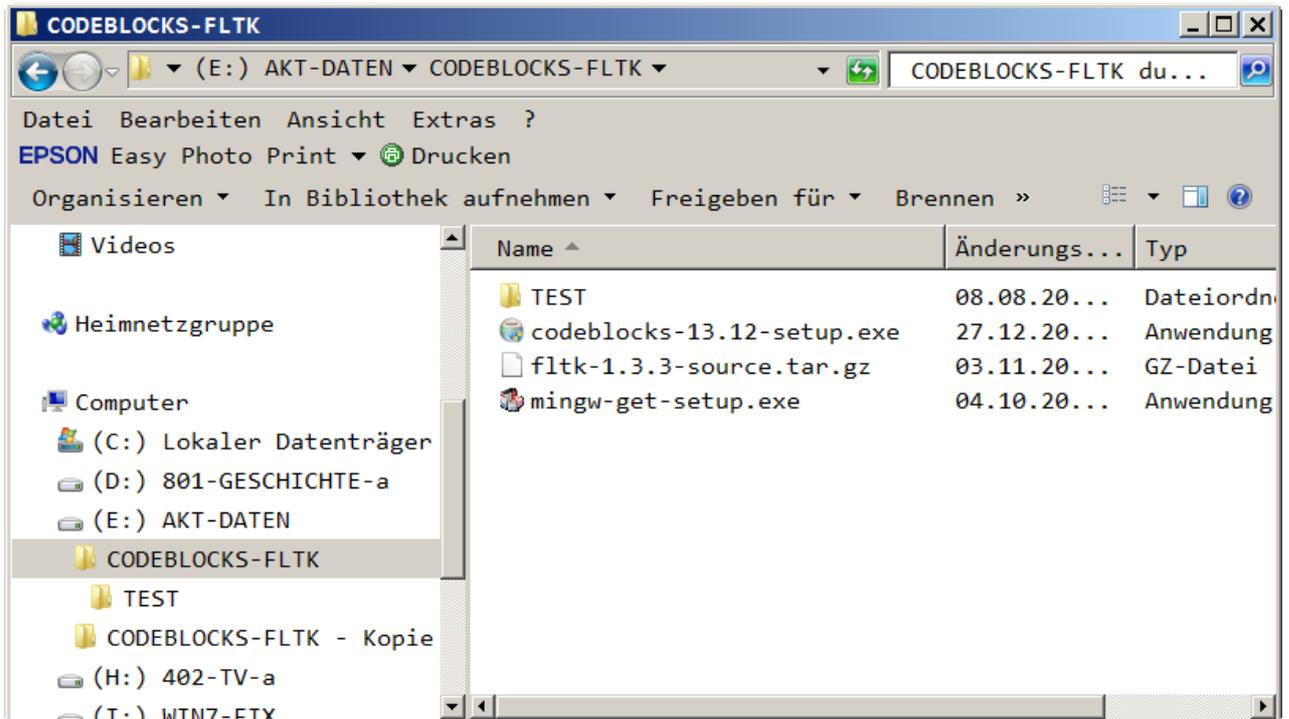
If you have not yet installed it, then do it now.

<http://www.7-zip.org/>

"E:\CODEBLOCKS-FLTK"

sieht jetzt so aus:

now looks like this:

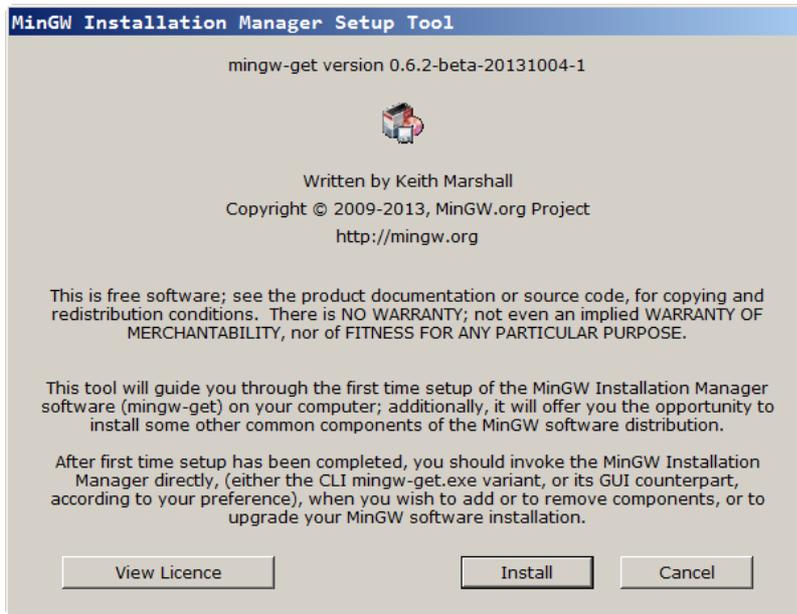


Installation Mingw

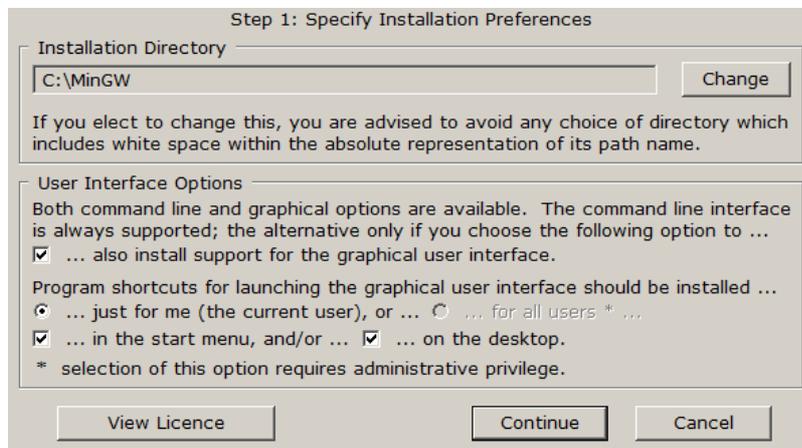
Installieren Sie jetzt Mingw und übernehmen Sie alle Voreinstellungen
Install now Mingw and take all default settings

"E : \CODEBLOCKS-FLTK\mingw-get-setup.exe"

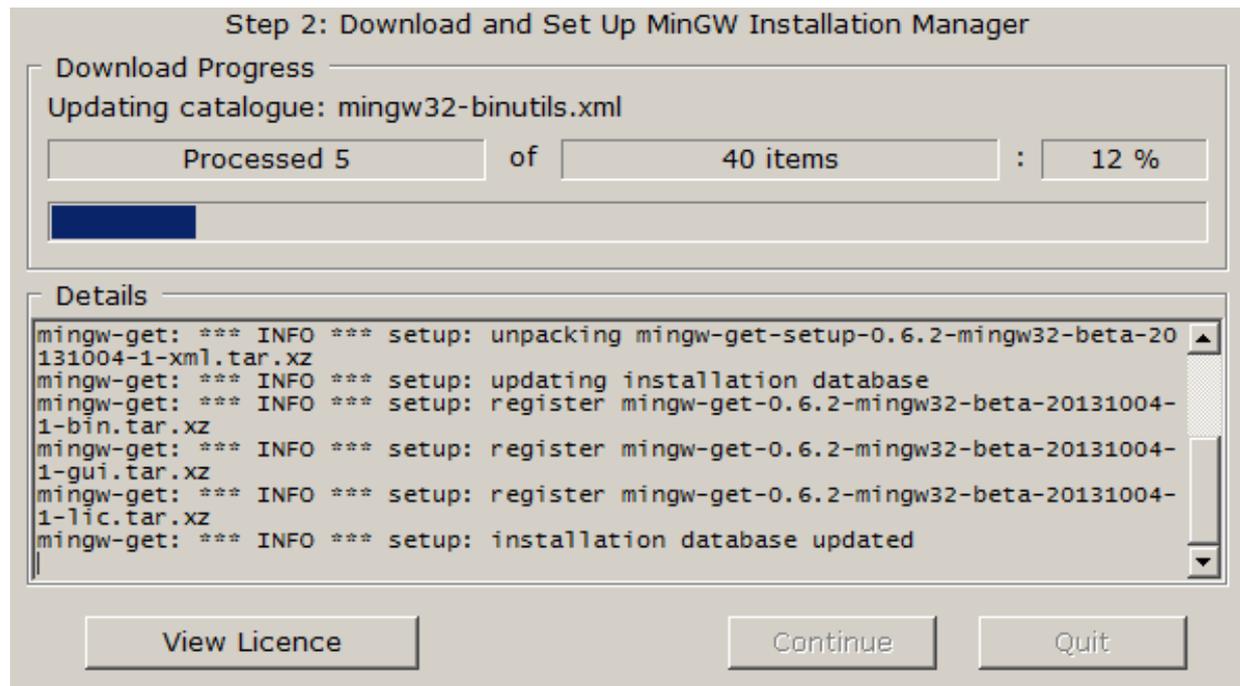
Click **Install**



Click **Continue**

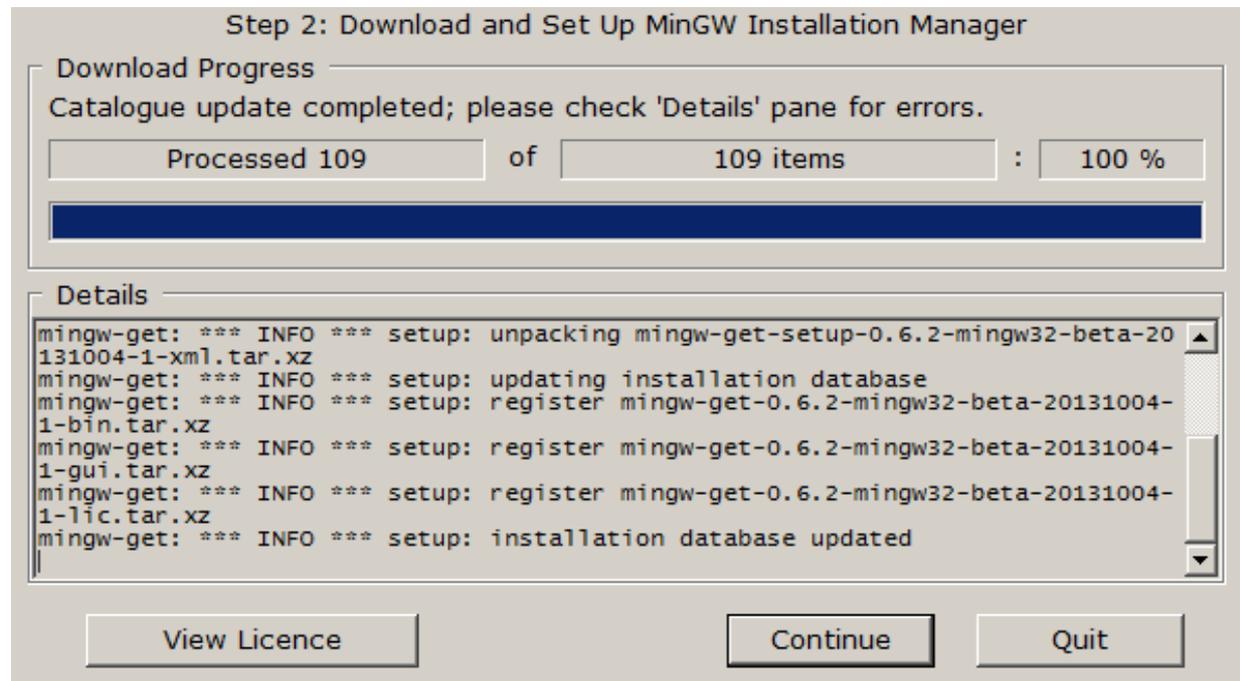


Der Download startet/the download starts



Der Download ist beendet. Es folgt Step2
The download is complete. It follows Step2

Click **Continue**



Wählen Sie im linken Fenster

Select in the left window

Basic Setup

und im rechten Fenster markieren Sie durch Rechtsklick diese Tools für den Download aus
and in the right window, select with right-click these tools for download

mingw-developer-toolkit

mingw-32-base

mingw32-gcc-g++

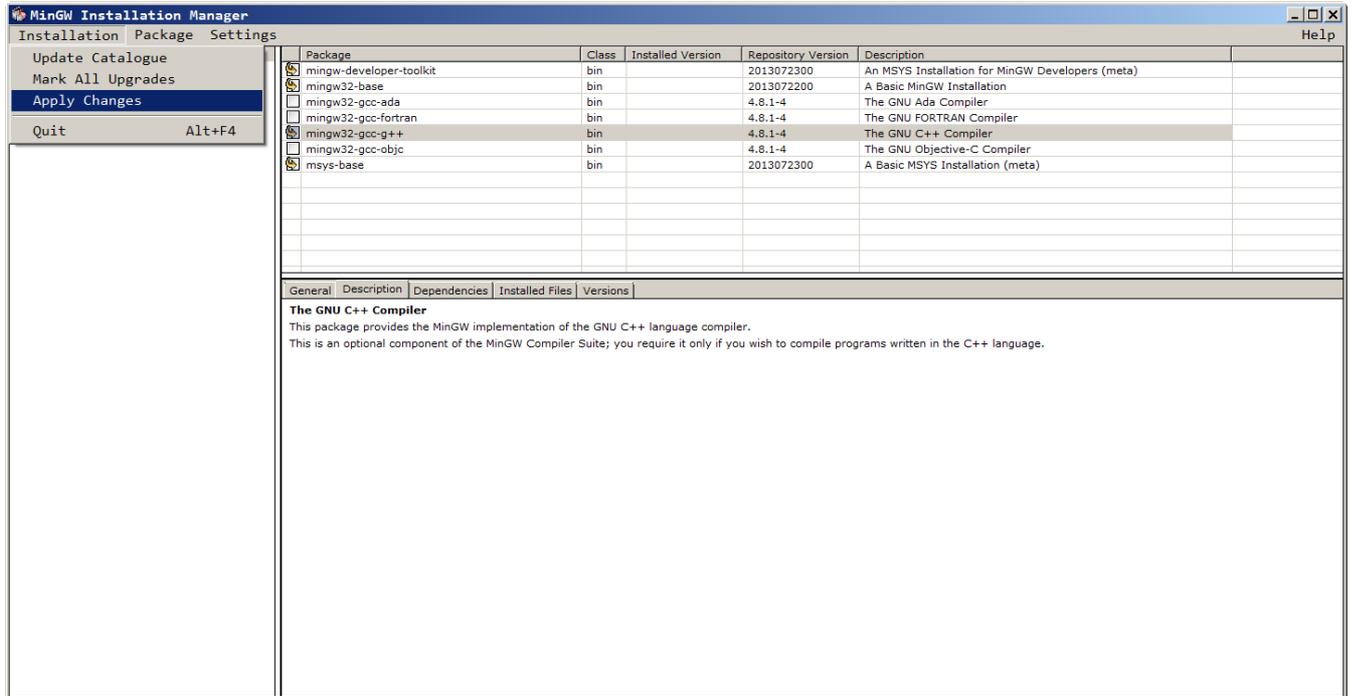
msys-base

The screenshot shows the MinGW Installation Manager window. The left pane is titled 'Basic Setup' and contains a tree view with 'All Packages' selected. The main pane displays a table of packages with a context menu open over the 'mingw-developer-toolkit' row. The context menu options are: Unmark, Mark for Installation, Mark for Reinstallation, Mark for Upgrade, and Mark for Removal. Below the table, the 'General' tab is active, showing the description for 'An MSYS Installation for MinGW Developers (meta)'. The description states that this meta package contains components for a complete MSYS installation, including the msys-base system and various autotools. It also includes networking clients for ssh, rsh, telnet, and ftp protocols. A note at the bottom explains that some packages are MSYS packages and are installed into the /usr directory, while others are MinGW packages and are installed into the /mingw directory.

Package	Class	Installed Version	Repository Version	Description
mingw-developer-toolkit	Meta			An MSYS Installation for MinGW Developers (meta)
mingw32-base	Meta			A Basic MinGW Installation
mingw32-gcc-ada	Compiler			The GNU Ada Compiler
mingw32-gcc-fortran	Compiler			The GNU FORTRAN Compiler
mingw32-gcc-g++	Compiler			The GNU C++ Compiler
mingw32-gcc-objc	Compiler			The GNU Objective-C Compiler
msys-base	Meta			A Basic MSYS Installation (meta)

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, mktmp, bison, flex, Indir, 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:\msys1.0, 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).

Den Download aktivieren Sie im Menü mit
In the menu You activate the download with
Installation/Apply Changes

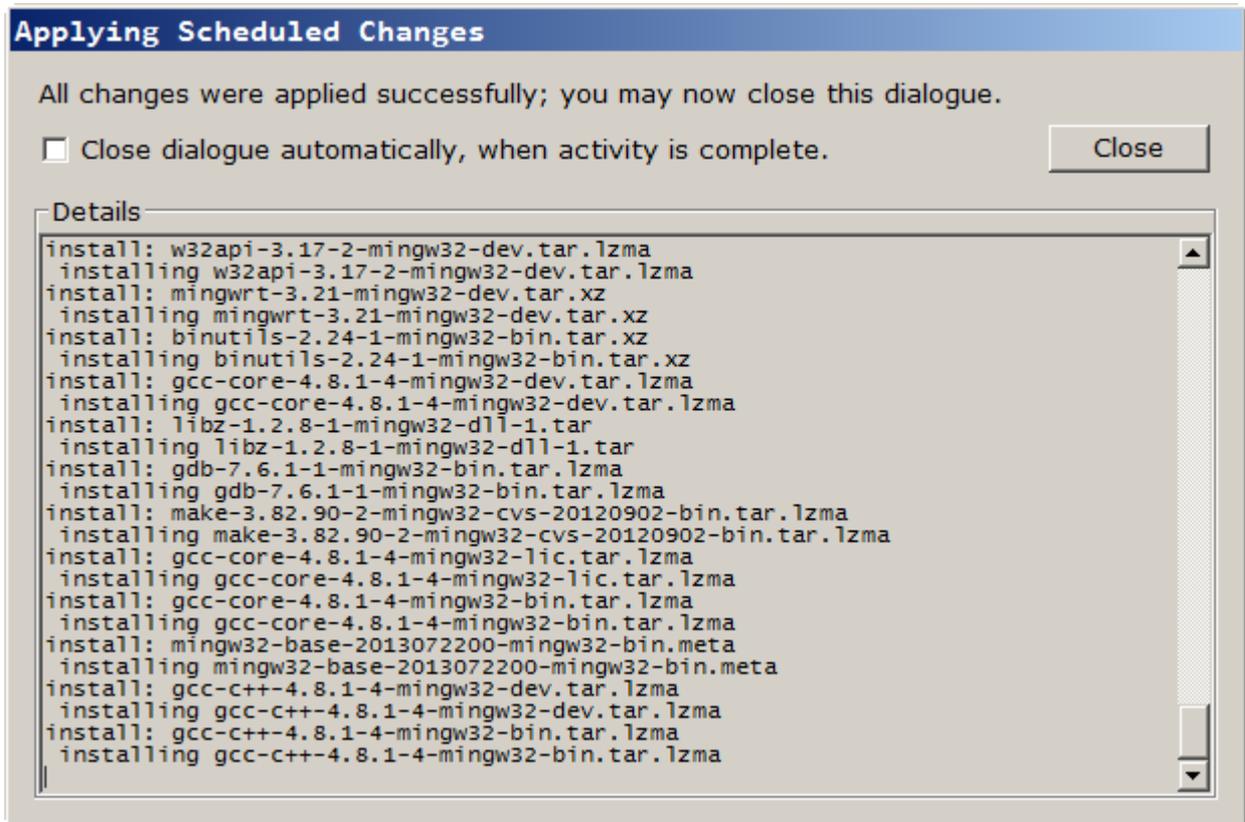


Nachdem der Download beendet ist, kommt die Meldung

After the download is finished, it shows this message

All changes were applied successfully;

Click **Close**.



Überzeugen Sie sich, dass Mingw installiert wurde.

Dieser Pfad muss vorhanden sein:

Convince yourself that Mingw was installed.

This path must be present:

"C:\MinGW"

Die Compiler wurden hier installiert
The compilers have been installed here
"C:\MinGW\bin"

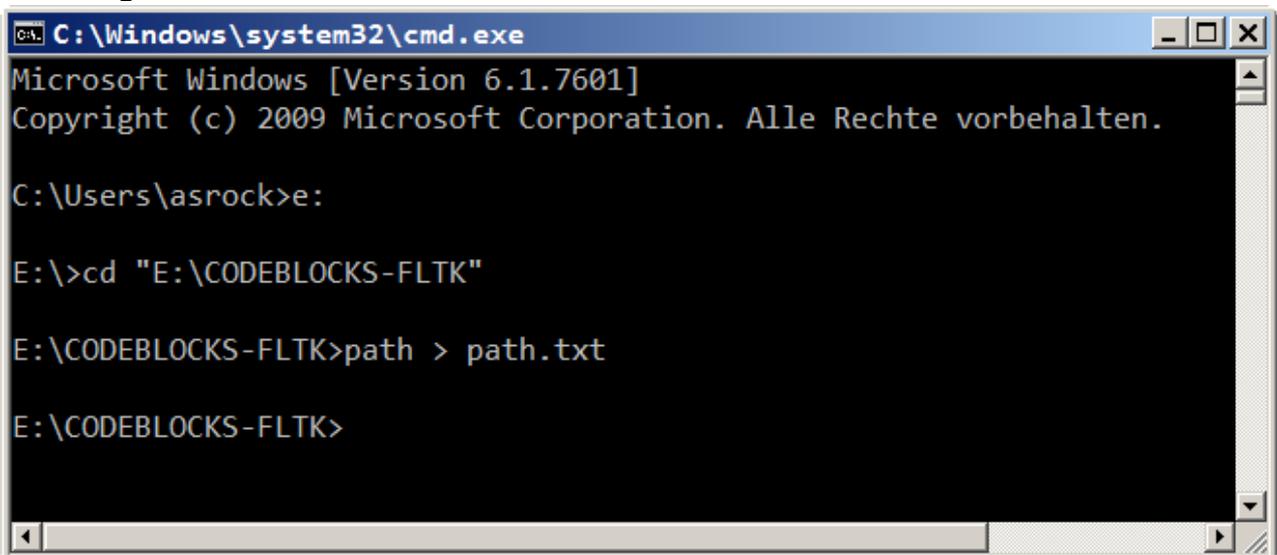
Dieser Pfad ist jetzt unbedingt in den Windows-Suchpfad einzutragen.
Da hierbei leicht ein Fehler passieren kann, sollten Sie sich den vorhandenen Pfad in einer Datei sichern.

- Cmd-Window öffnen
- Ordner auswählen, in dem die Datei gespeichert werden soll

This path is now necessarily to be entered to the Windows search path.
Since it can easily happen an error, You should back up the existing path to a file

- open a Cmd-Window
- Select a folder where the file should be saved

Im Cmd-Window eingeben
In the Cmd-Window enter
path > path.txt



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Alle Rechte vorbehalten.

C:\Users\asrock>e:

E:\>cd "E:\CODEBLOCKS-FLTK"

E:\CODEBLOCKS-FLTK>path > path.txt

E:\CODEBLOCKS-FLTK>
```

Der Windows-Suchpfad wird hier geändert

The Windows search path is changed here

Windows-Startmenü

Systemsteuerung

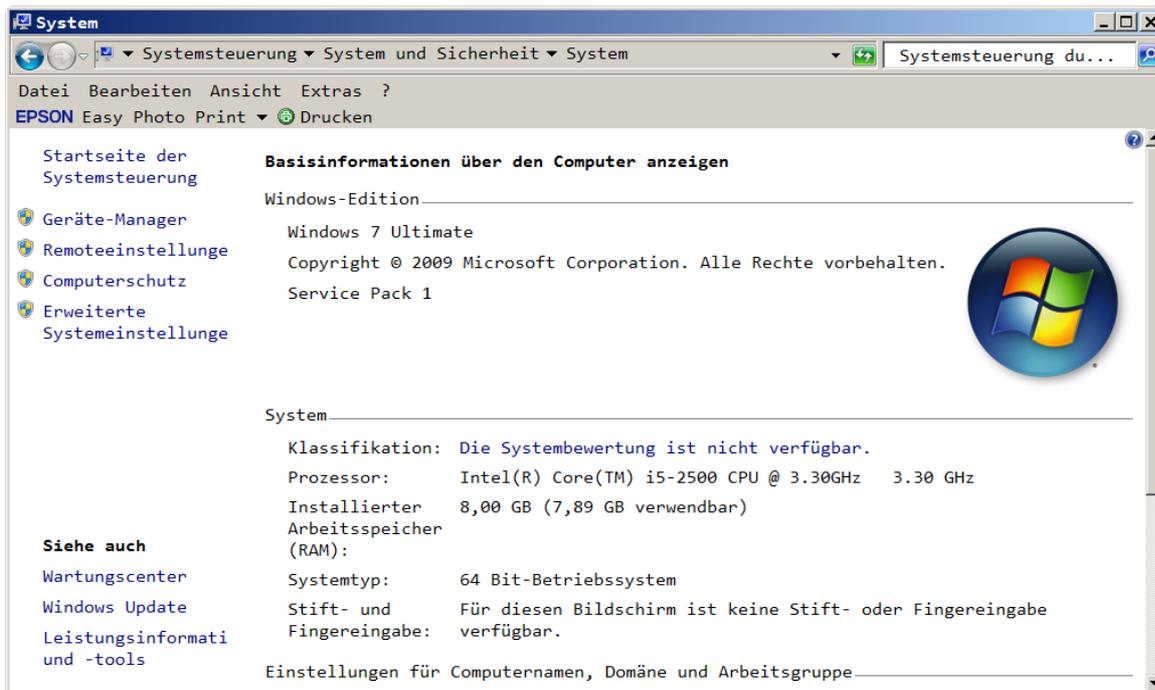
System und Sicherheit

System

auf der linken Seite dann anklicken

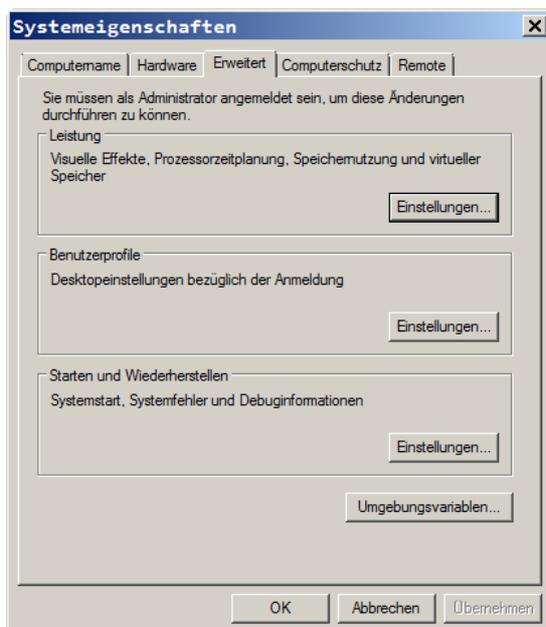
then click on the left side

„Erweiterte Systemeinstellungen“



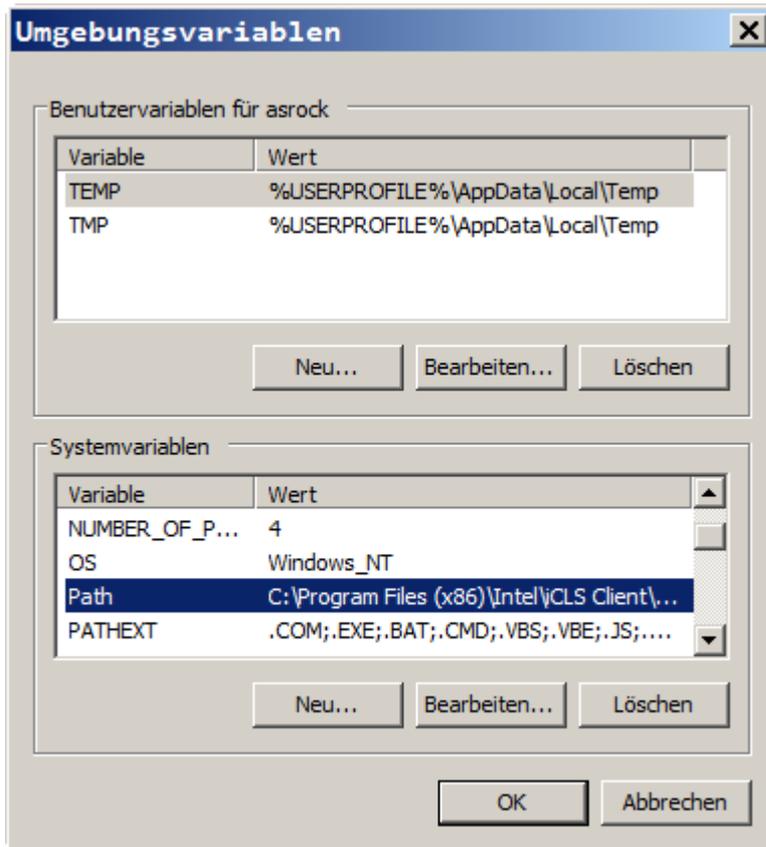
Click Tab „Erweitert“

Click „Umgebungsvariablen“



Path auswählen und dann **OK**

Select **Path** and then **OK**



To „**Wert der Variablen**“

hinzufügen (Nicht ersetzen!!!)

add (Not replace !!!)

C:\MinGW\bin;

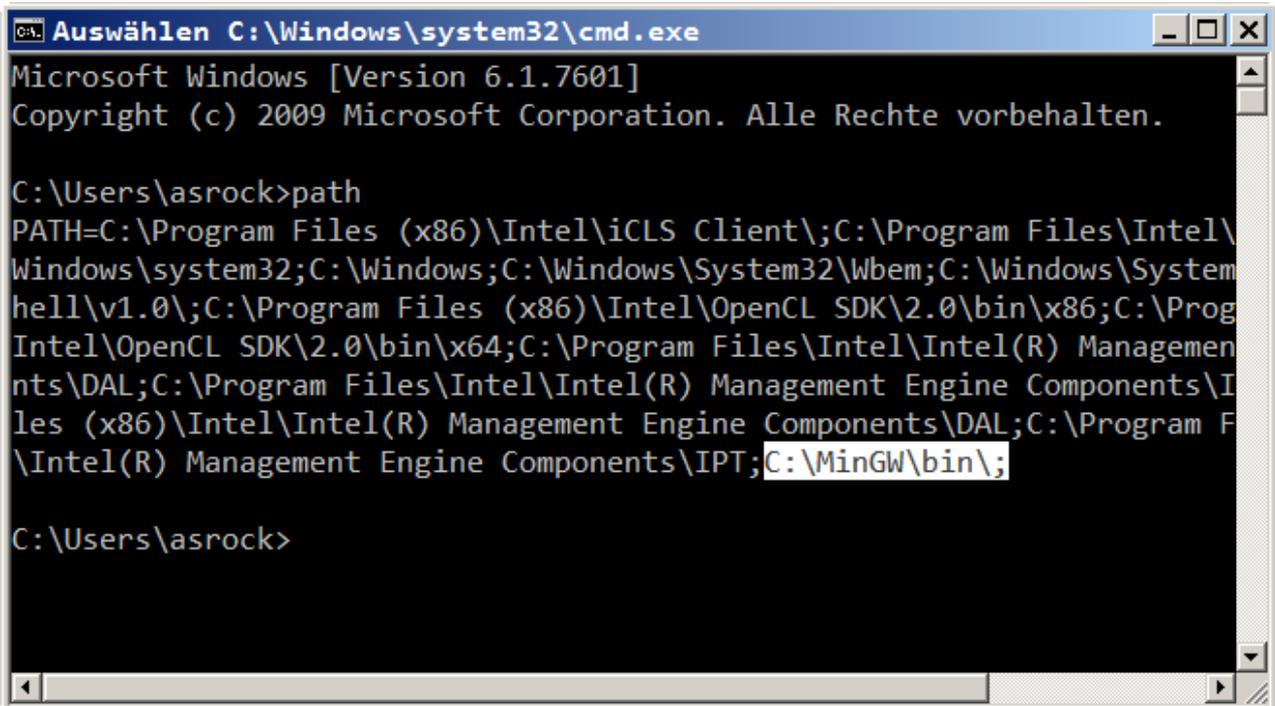
Click **OK**



Überzeugen Sie sich, dass der Pfad richtig eingetragen wurde
Öffnen Sie ein cmd-Fenster und geben ein

Check that the path has been entered correctly
Open a cmd-Window and enter

path



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. Alle Rechte vorbehalten.

C:\Users\asrock>path
PATH=C:\Program Files (x86)\Intel\iCLS Client\;C:\Program Files\Intel\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\Systemhell\v1.0\;C:\Program Files (x86)\Intel\OpenCL SDK\2.0\bin\x86;C:\Program Files\Intel\OpenCL SDK\2.0\bin\x64;C:\Program Files\Intel\Intel(R) Management Engine Components\DAL;C:\Program Files\Intel\Intel(R) Management Engine Components\Intel (x86)\Intel\Intel(R) Management Engine Components\DAL;C:\Program Files\Intel\Intel(R) Management Engine Components\IPT;C:\MinGW\bin\;

C:\Users\asrock>
```

Installation Codeblocks

Starten Sie die Installation von CB

Wenn die Installation abgeschlossen ist, starten Sie CB.

Start the installation of CB

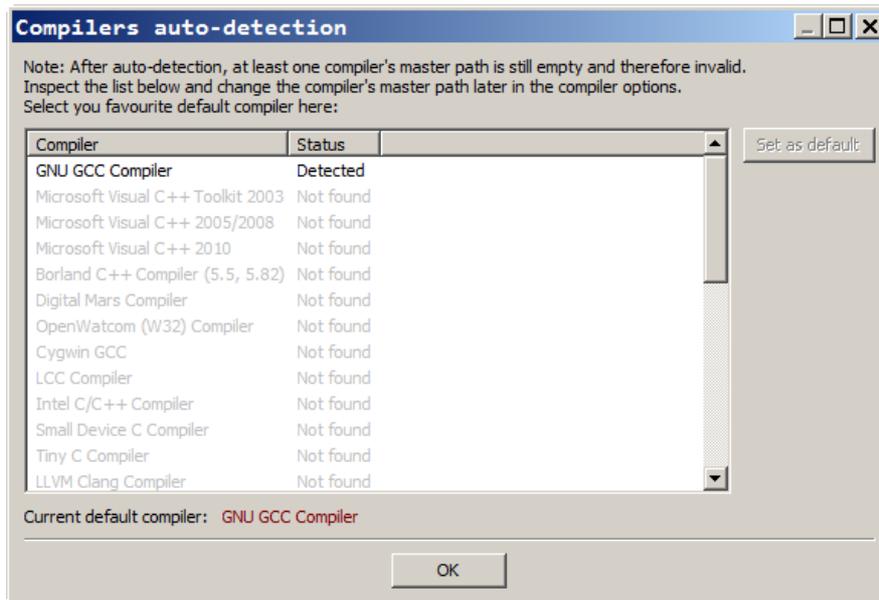
When the installation is completed You start CB

"E : \CODEBLOCKS-FLTK\codeblocks-13.12-setup.exe"

CB erkennt den installierten Compiler.

CB detects the installed compiler.

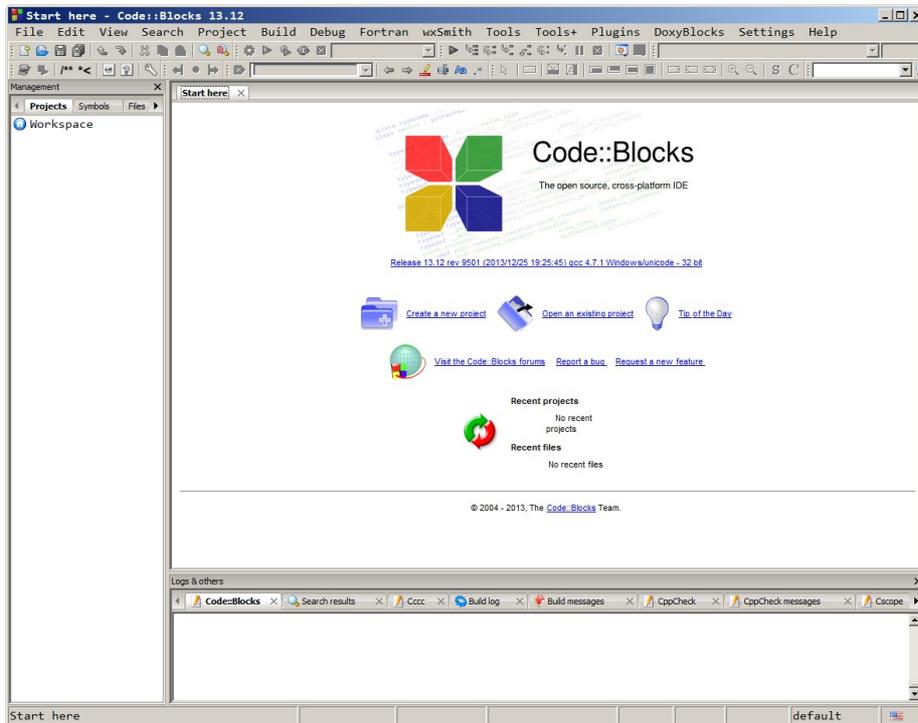
Click **OK**



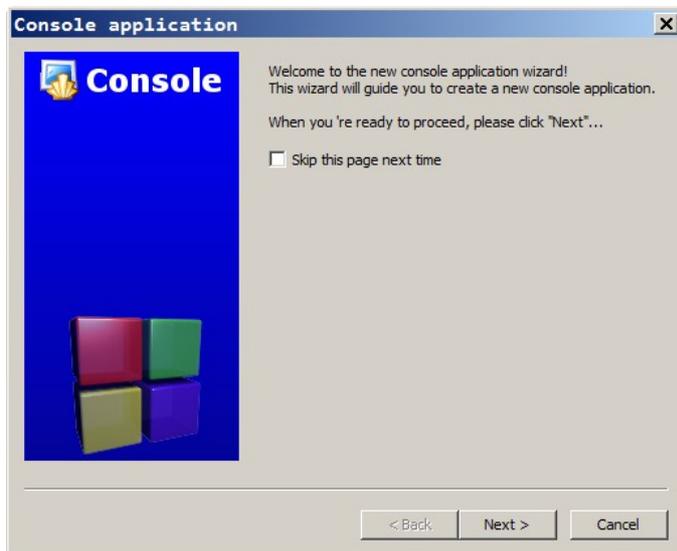
Legen Sie ein neues Projekt an.
Wählen Sie dazu in der Mitte:

Create a new project.
To do so, select in the middle:

Create a new project

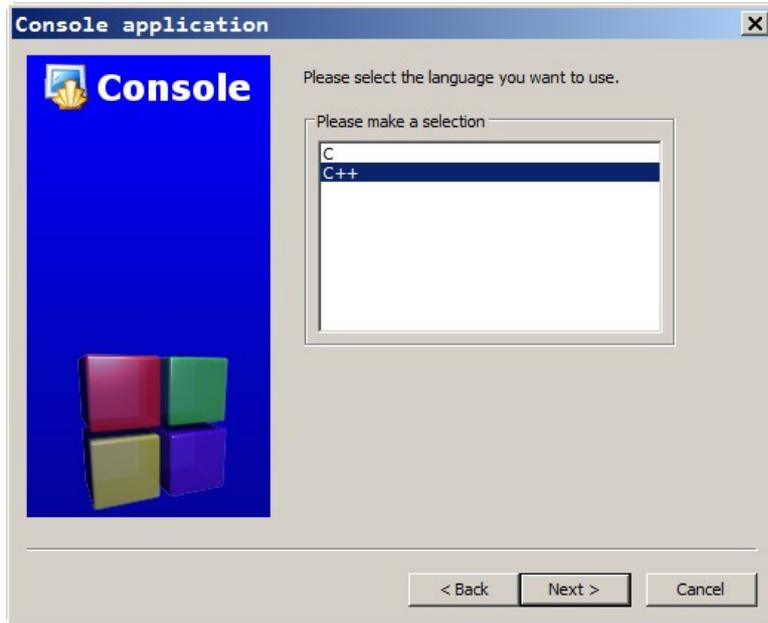


Click **Next**



Wählen Sie den Compiler aus
Select the compiler

Click **Next**



Wählen Sie den Ordner aus, in dem das Projekt gespeichert werden soll. Anklicken die 3 Punkte ...
Verwenden Sie dafür den bereits von Ihnen angelegten Ordner

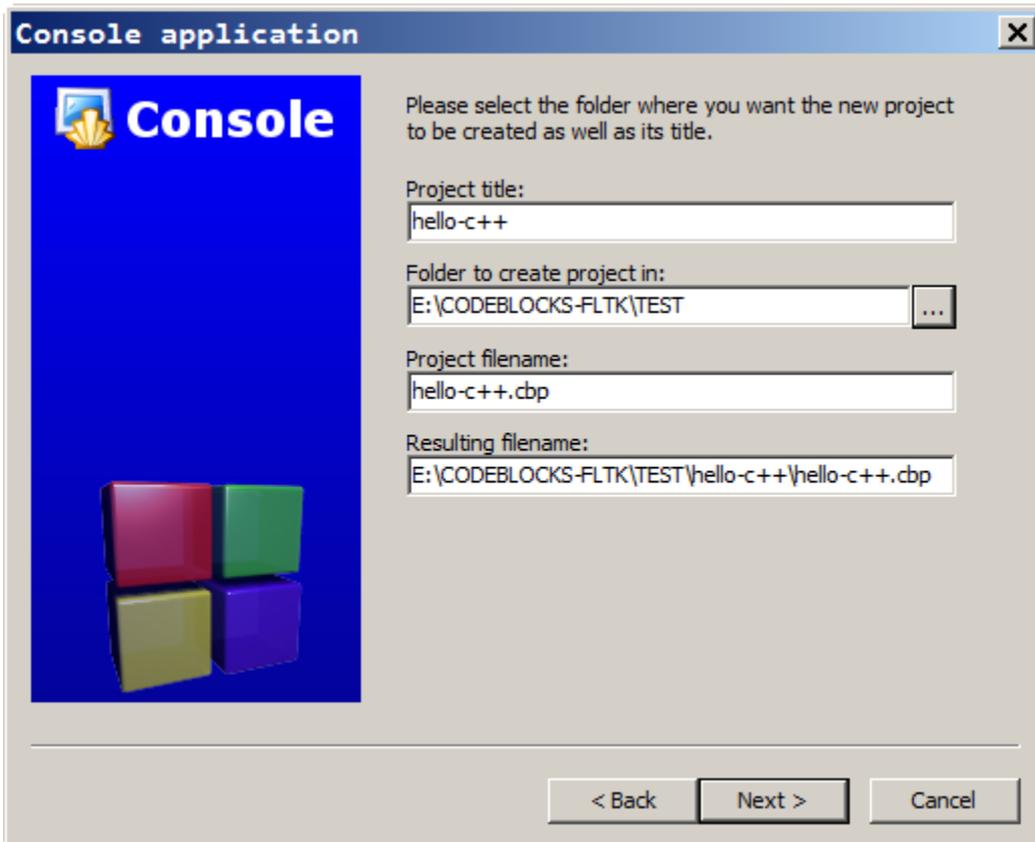
Select the folder where the project should be saved. Click the three Points ...
Use the already created folder

"E:\CODEBLOCKS-FLTK\TEST"

Nennen Sie das Projekt
Name the project

hello-c++

Click **Next**



Bestätigen Sie die Einstellungen
Confirm the settings

Click **Finish**.

Console application

Please select the compiler to use and which configurations you want enabled in your project.

Compiler:
GNU GCC Compiler

Create "Debug" configuration: Debug

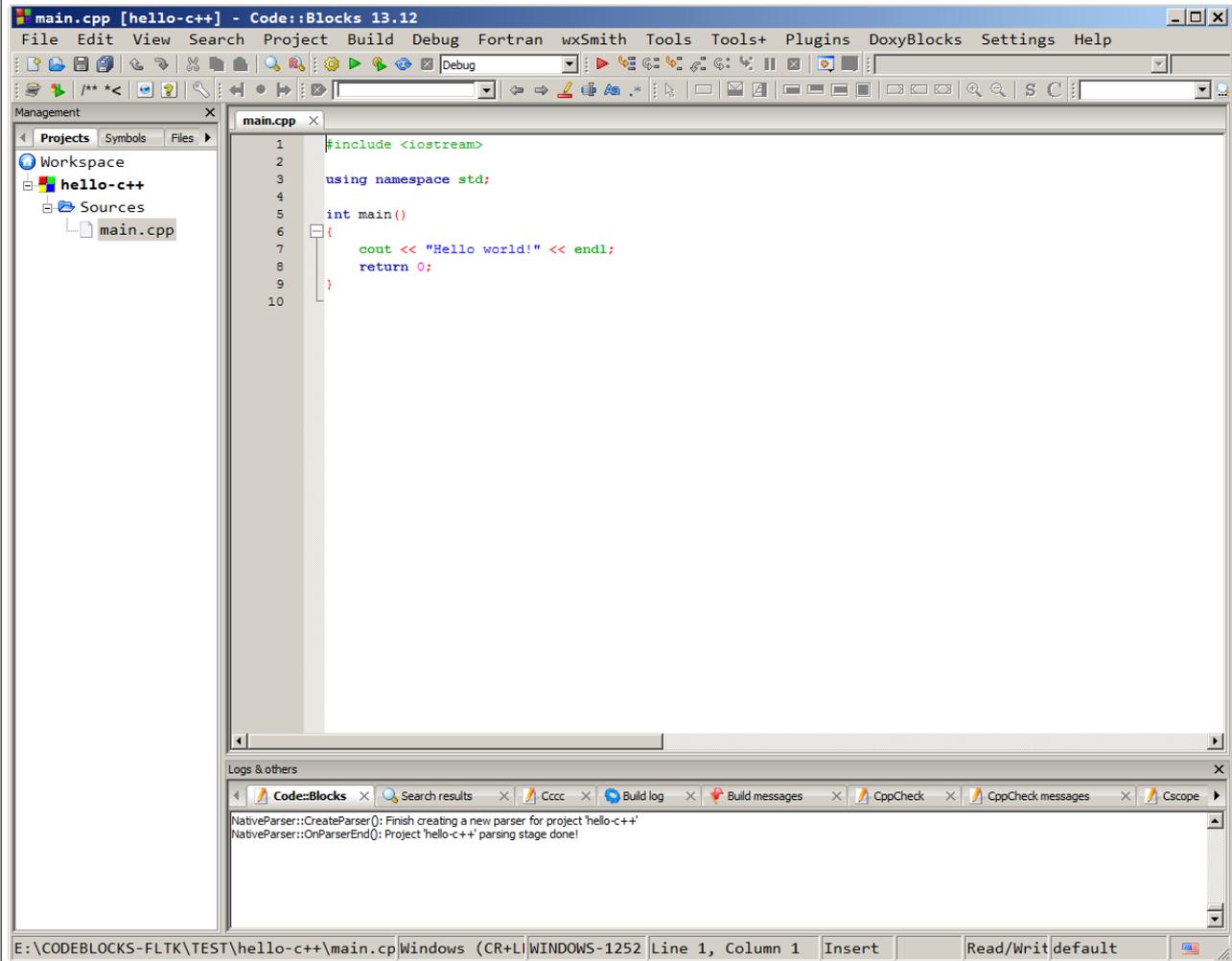
"Debug" options
Output dir.: bin\Debug
Objects output dir.: obj\Debug

Create "Release" configuration: Release

"Release" options
Output dir.: bin\Release
Objects output dir.: obj\Release

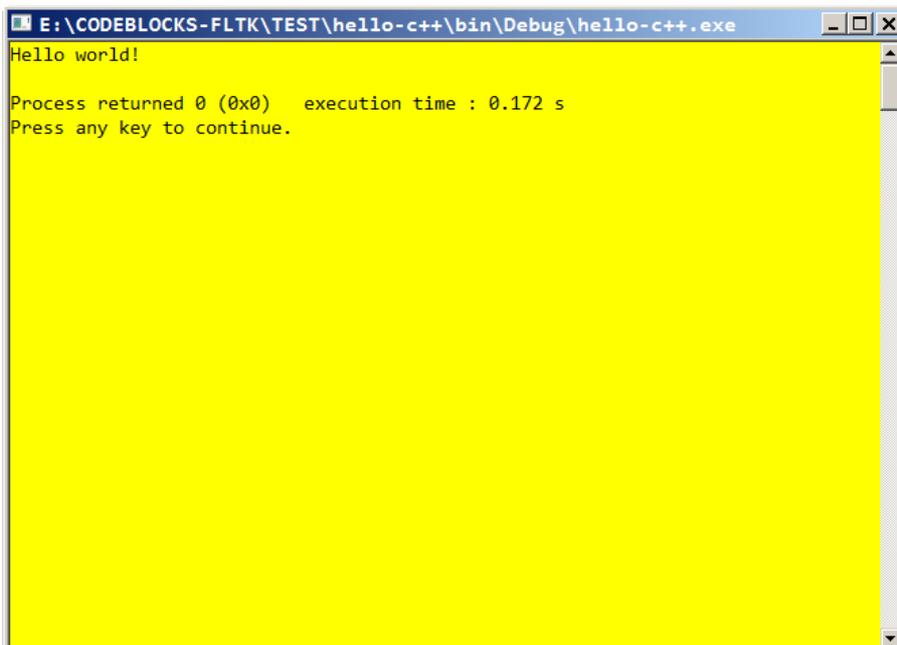
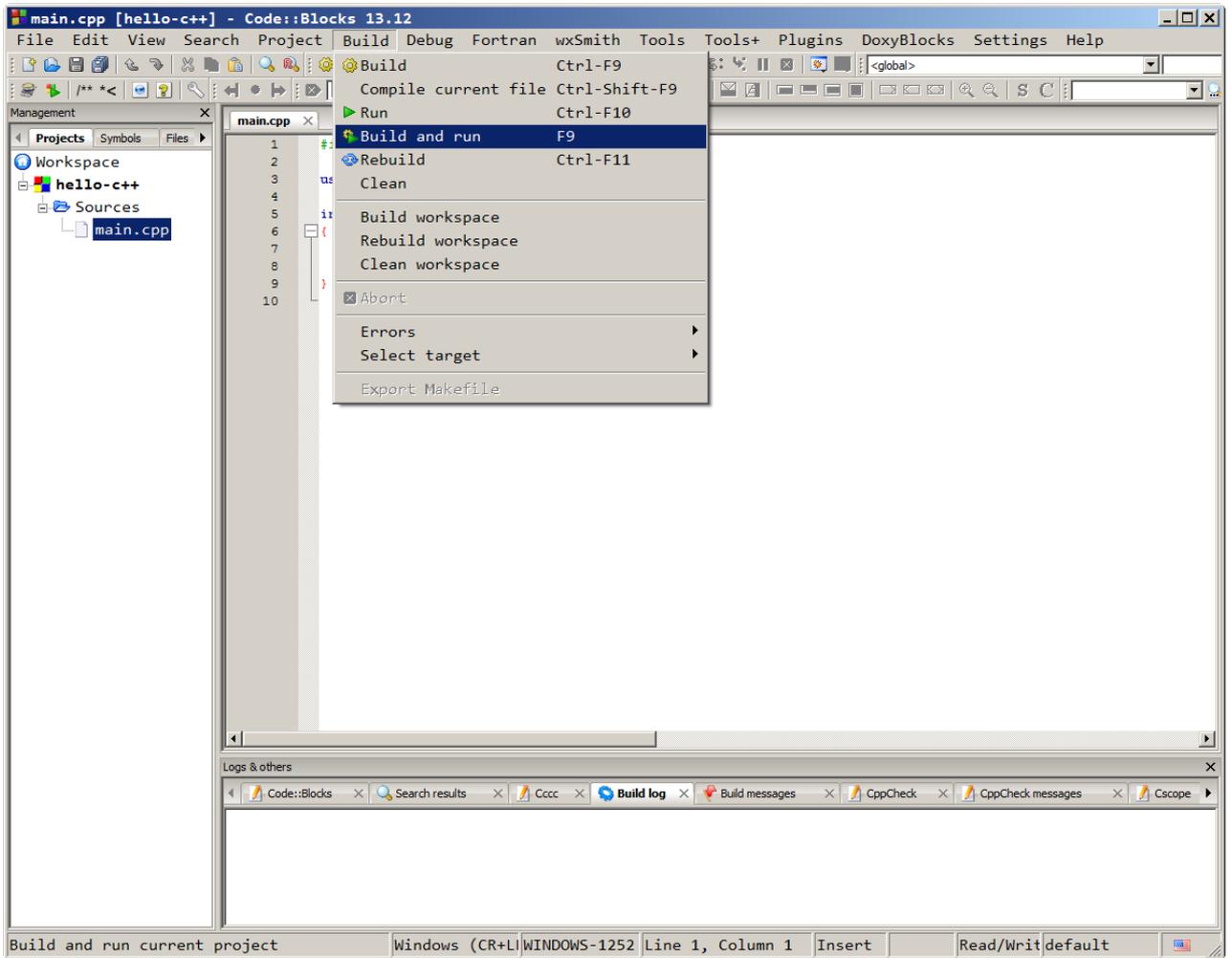
< Back Finish Cancel

CB generiert das Projekt und Sie erhalten
CB generates the project and You receive



Compilieren und Ausführen Compiling and running

Build/Build and run or <F9>



Installation FLTK

Machen Sie einen Rechtsklick auf diese Datei

Make a right click on this file

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source.tar.gz"

und entpacken Sie diese mit 7-Zip nach

and unpack it with 7-Zip to

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source.tar"

Machen Sie einen Rechtsklick auf diese Datei

Make a right click on this file

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source.tar"

und entpacken Sie diese mit 7-Zip nach

and unpack it with 7-Zip to

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source"

In

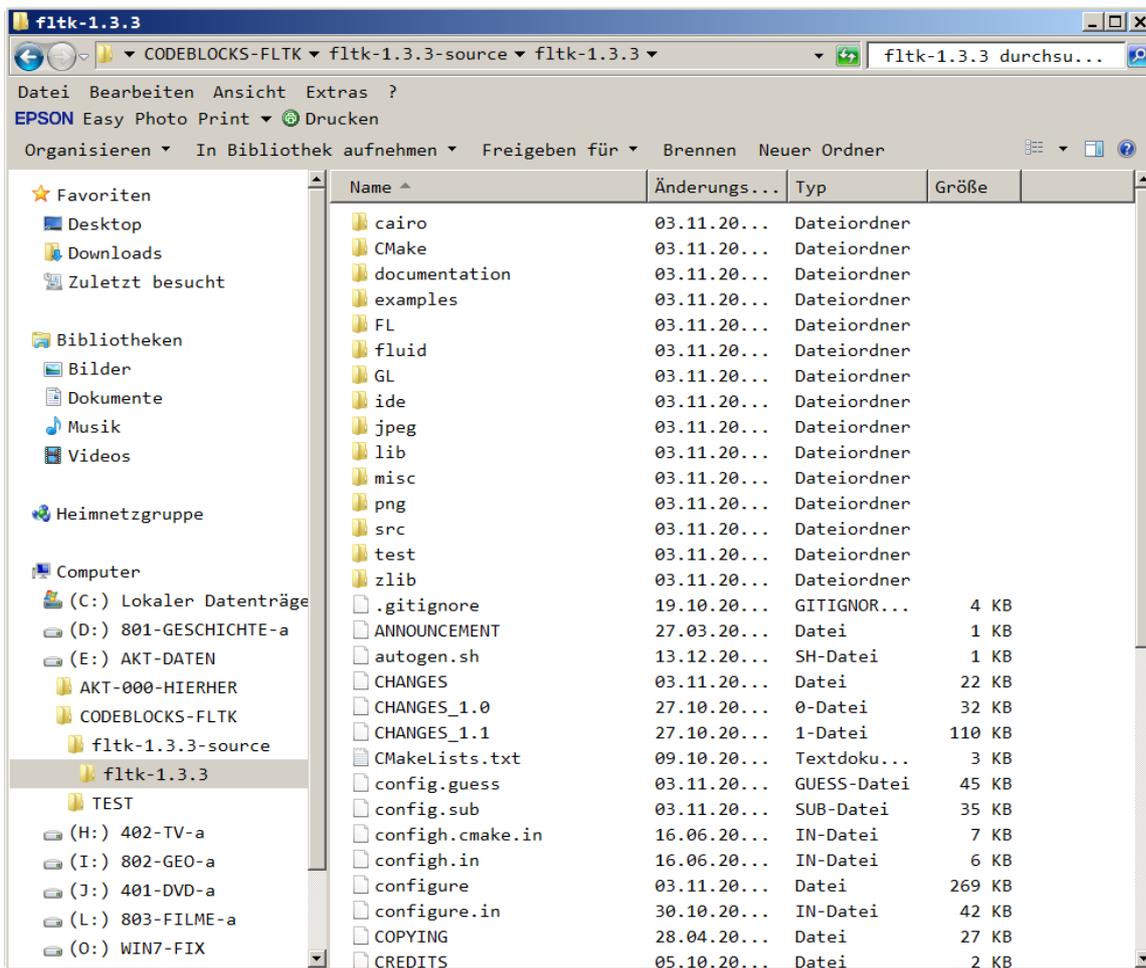
"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source"

befindet sich der Ordner / is this folder

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source\fltk-1.3.3"

in dem sich alle FLTK-Dateien befinden

in which all FLTK files are located



Um diese Dateien zu kompilieren und die erforderlichen Libraries herzustellen starten Sie die Mingw-Console mit

To compile these files and produce the required libraries start the Mingw Console with
"C:\MinGW\msys\1.0\msys.bat"

gehen Sie innerhalb dieser Konsole zu der Stelle, wo die FLTK-Dateien gespeichert sind und geben ein
go inside this console to the location where the FLTK Files are stored, to do so enter

cd "E:\CODEBLOCKS-FLTK\fltk-1.3.3-source\fltk-1.3.3"

dann geben Sie ein

then You enter

make



```
MINGW32: /e/CODEBLOCKS-FLTK/fltk-1.3.3-source/fltk-1.3.3
asrock@asrock ~
$ cd "E:\CODEBLOCKS-FLTK\fltk-1.3.3-source\fltk-1.3.3"

asrock@asrock /e/CODEBLOCKS-FLTK/fltk-1.3.3-source/fltk-1.3.3
$ make
Makefile:19: makeinclude: No such file or directory
if test -f config.status; then \
    ./config.status --recheck; \
    ./config.status; \
else \
    ./configure; \
fi
checking build system type... i686-pc-mingw32
checking host system type... i686-pc-mingw32
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.exe
checking for suffix of executables... .exe
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler...
```

Achtung

Wenn der gcc-Compiler nicht gefunden wurde, dann

- überprüfen Sie, ob die Windows Suchpfad-Variable richtig ist
- starten Sie Ihren PC neu

Attention

If the gcc compiler is not found, then

- Check whether the Windows search pathvariable is correct
- restart your PC

Testen Sie FLTK und geben Sie ein
test FLTK and enter
cd test
demo

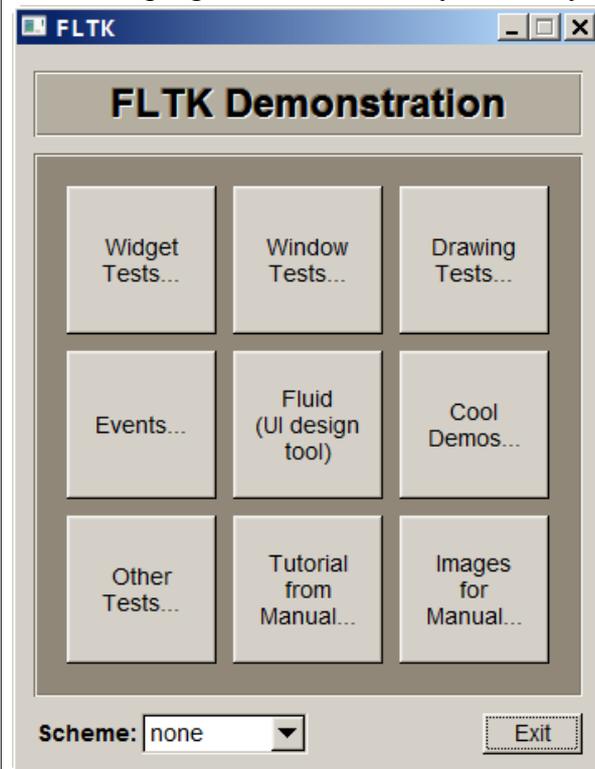


```
MINGW32:/e/CODEBLOCKS-FLTK/fltk-1.3.3-source/fltk-1.3.3/test
Compiling gl_overlay.cxx...
Linking gl_overlay.exe...
Compiling glpuzzle.cxx...
Linking glpuzzle.exe...
Compiling shape.cxx...
Linking shape.exe...
=== making documentation ===
Formatting src/fltk.man...
/bin/sh: man: command not found
Formatting src/fltk-config.man...
/bin/sh: man: command not found
Formatting src/fluid.man...
/bin/sh: man: command not found
Formatting src/blocks.man...
/bin/sh: man: command not found
Formatting src/checkers.man...
/bin/sh: man: command not found
Formatting src/sudoku.man...
/bin/sh: man: command not found

asrock@asrock /e/CODEBLOCKS-FLTK/fltk-1.3.3-source/fltk-1.3.3
$ cd test

asrock@asrock /e/CODEBLOCKS-FLTK/fltk-1.3.3-source/fltk-1.3.3/test
$ demo
```

Das Demo-Programm startet und Sie können diverse Beispiele ausprobieren
The demo program will start and you can try out several examples



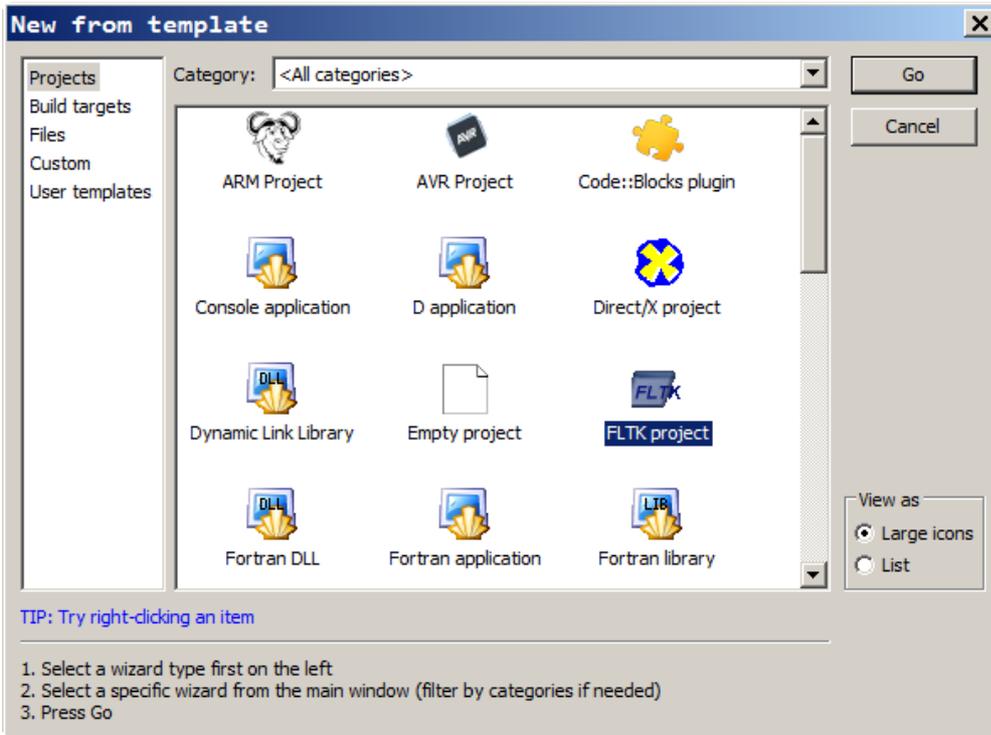
Create Your own FLTK-Program

Starten Sie CB
Create a new project

Als Vorlage wählen Sie jetzt

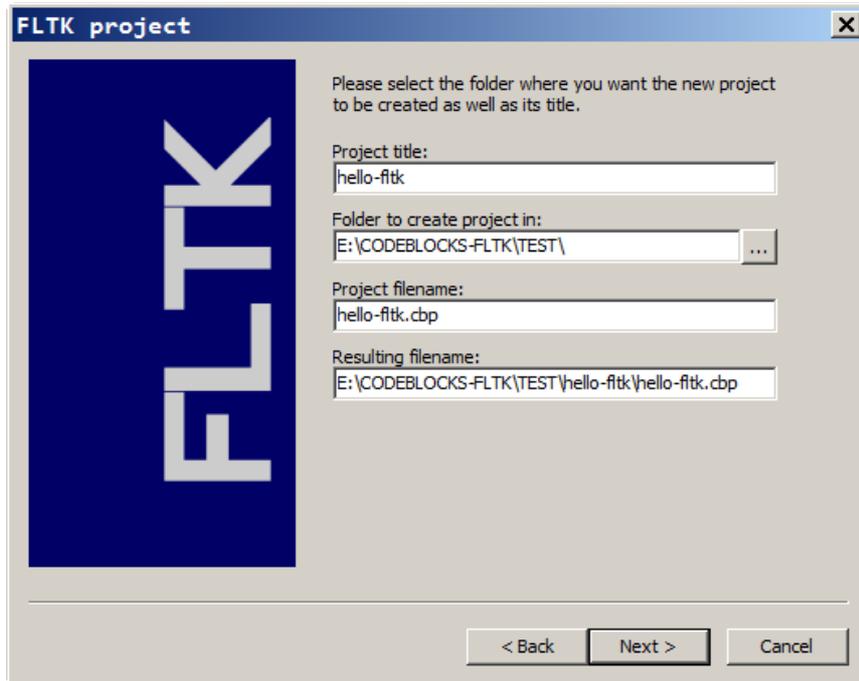
As a template, select now

FLTK project



Als Projektnamen geben Sie ein
As the project name, type
hello-fltk

Click **NEXT**



The screenshot shows a dialog box titled "FLTK project" with a close button (X) in the top right corner. On the left side, there is a blue vertical rectangle containing the white text "FLTK" written vertically. The main area of the dialog contains the following text and input fields:

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

Project title:
hello-fltk

Folder to create project in:
E:\CODEBLOCKS-FLTK\TEST\ ...

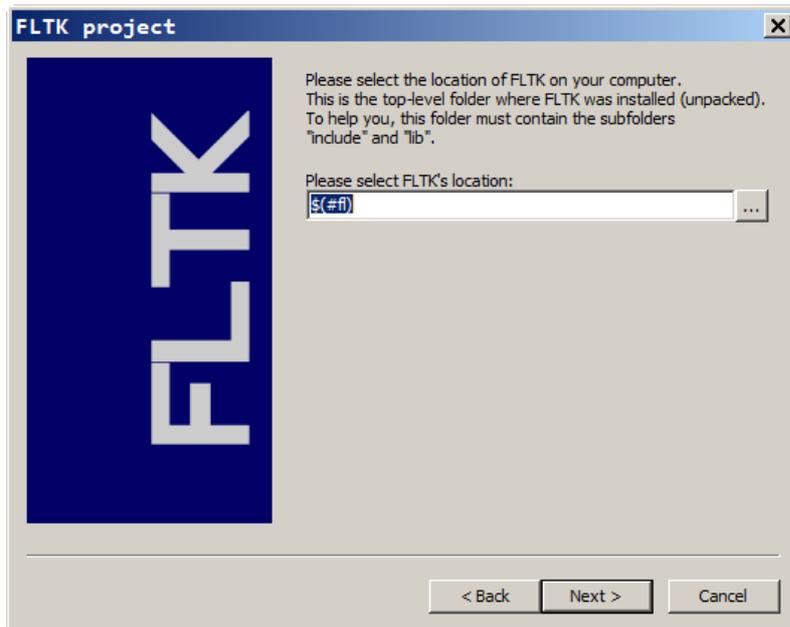
Project filename:
hello-fltk.cbp

Resulting filename:
E:\CODEBLOCKS-FLTK\TEST\hello-fltk\hello-fltk.cbp

At the bottom of the dialog, there are three buttons: "< Back", "Next >" (which is highlighted), and "Cancel".

CB muss gesagt werden, wo sich die FLTK-Dateien befinden
CB must be said, where are the FLTK files

Click **Next** (not the three Points ...)



Die FLTK-Dateien können irgendwo auf dem Rechner sein.
Es gibt keine Vorschrift wo sie sein müssen.
In unserem Fall befinden sie sich hier

The FLTK files can be anywhere on the computer.
There is no provision where they need to be.
In our case, they are here

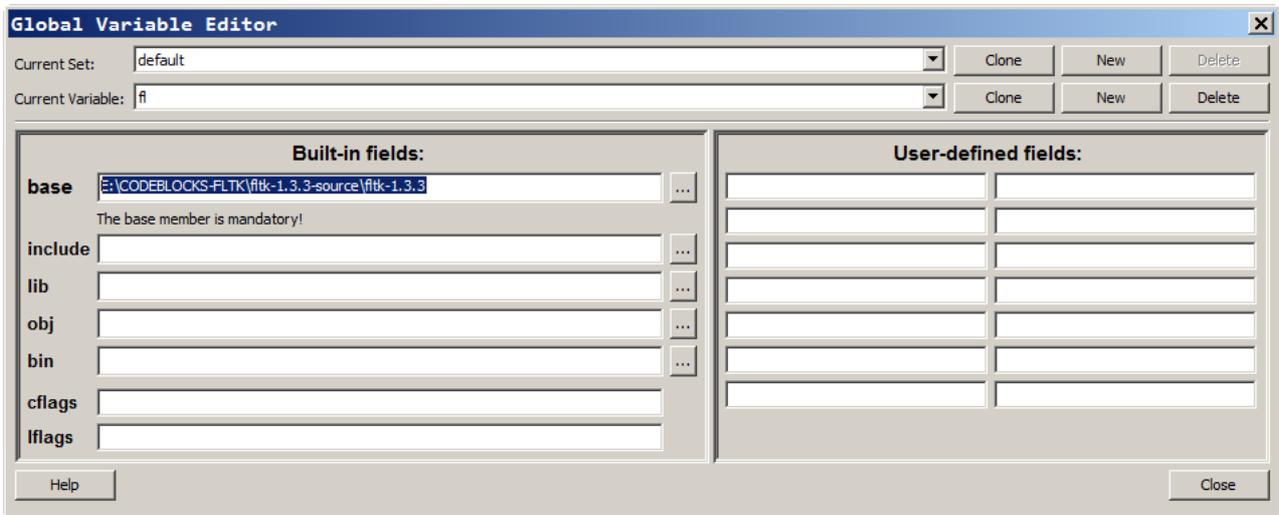
"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source\fltk-1.3.3"

Klicken Sie die drei Punkte ... an und wählen Sie den Ordner aus.

Click the three points ... and select the folder.

"E:\CODEBLOCKS-FLTK\fltk-1.3.3-source\fltk-1.3.3"

Click **Close**



Hinweis:

Der Ordner wird in der globalen CB-Variablen **fl** gespeichert. Sie können diese jederzeit im CB-Menü über

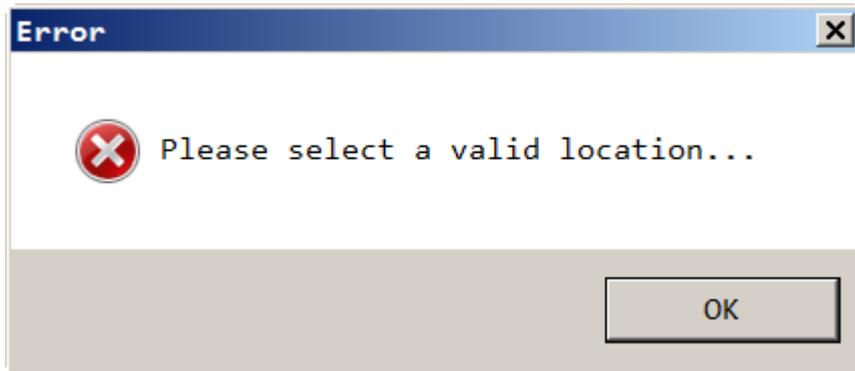
Settings/Global variable ...
ändern

Note:

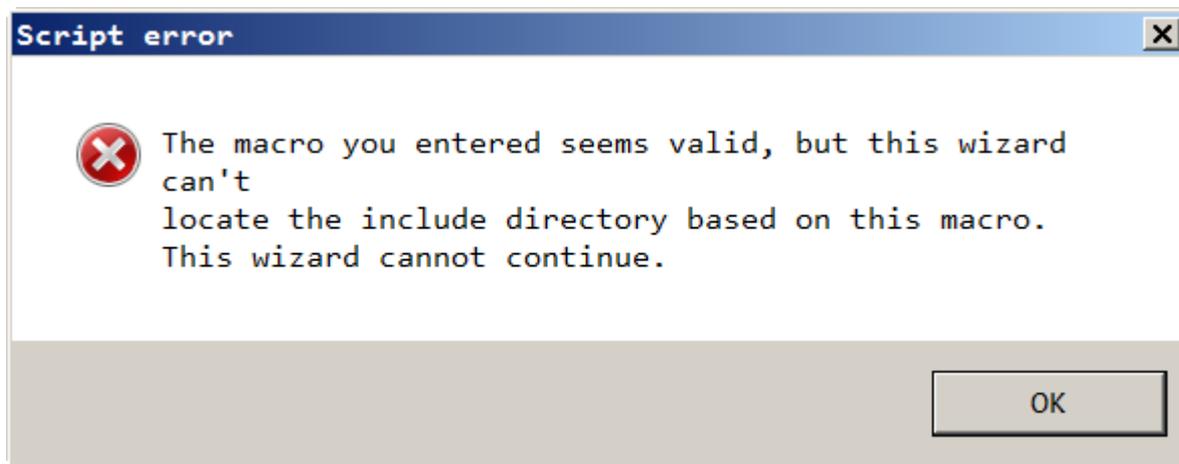
The folder is saved in the global CB variable **fl**. You may change it any time in the CB menu
Settings/Global variable ...

Sie erhalten diese Fehlermeldung
You receive this error message

Click **OK**



Danach erhalten Sie diese Meldung
Then You receive this message



Click **OK** und beenden Sie CB komplett
Click **OK** and quit CB completely

In der CB-FLTK-Vorlage befindet sich ein Fehler.
Wie dieser zu beheben ist, habe ich glücklicherweise auf dieser Seite gefunden

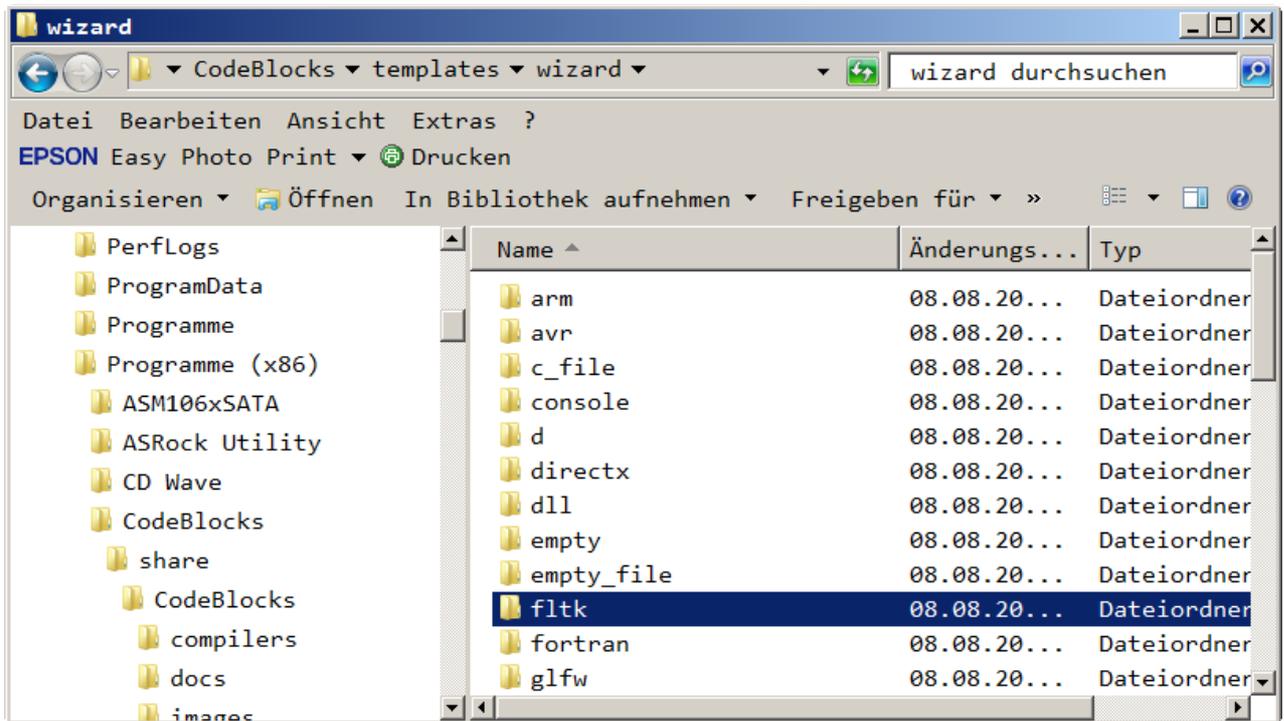
In the CB FLTK template there is an error.
How this is to fix, I have fortunately found on this page

<http://www.complete-concrete-concise.com/programming/fltk/using-fltk-with-codeblocks>

Sie haben CB beendet.
Wählen diesen Ordner an

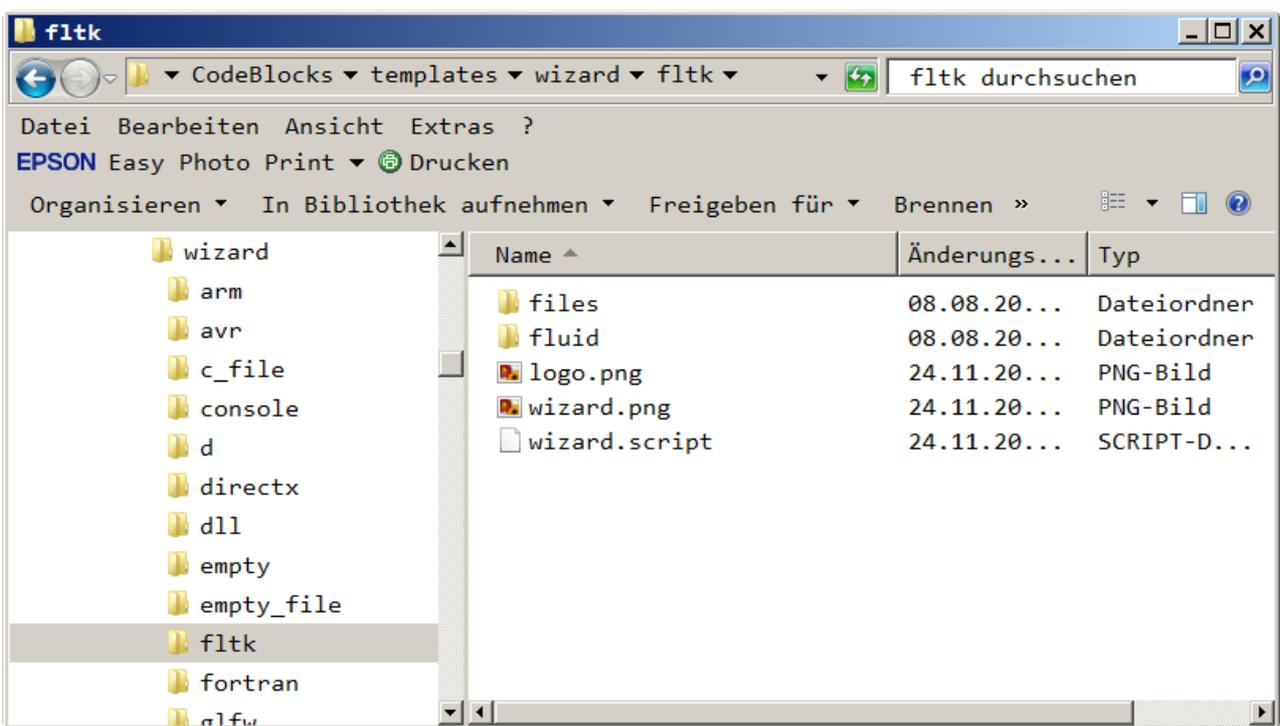
You have finished CB.
Choose this folder

"C:\Program Files
(x86)\CodeBlocks\share\CodeBlocks\templates\wizard"



Dann wählen Sie **flt** und kommen in diesen Ordner

Then select **flt** and You come into this folder



In diesem Ordner befindet sich die fehlerhafte Datei

In this folder You will find the faulty file

wizard.script

"C:\Program Files (x86)\CodeBlocks\share\CodeBlocks\templates\wizard\fltk\wizard.script"

Öffnen Sie diese Datei mit einem Editor.

Löschen Sie die vorhandene braun markierte Zeile und fügen Sie die blau markierte Zeile neu hinzu.

Open this file with a text editor.

Delete the existing brown highlighted line and add the blue highlighted line

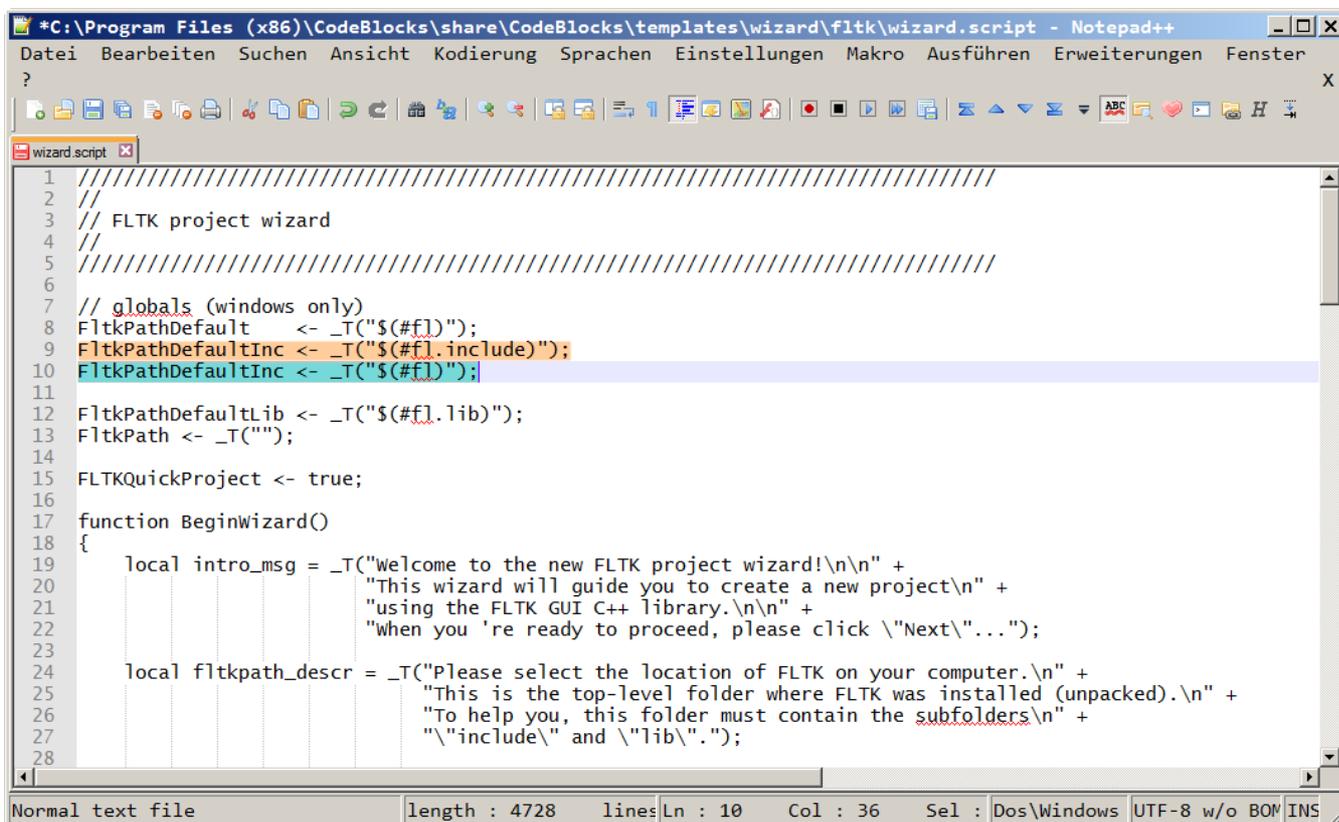
Oder ändern Sie einfach die braune Zeile von

Or just change the brown line from

```
FltkPathDefaultInc <- _T("#fl.include");
```

nach / to

```
FltkPathDefaultInc <- _T("#fl");
```



```
+C:\Program Files (x86)\CodeBlocks\share\CodeBlocks\templates\wizard\fltk\wizard.script - Notepad++
Datei Bearbeiten Suchen Ansicht Kodierung Sprachen Einstellungen Makro Ausführen Erweiterungen Fenster
?
wizard.script
1 ////////////////////////////////////////////////////////////////////
2 //
3 // FLTK project wizard
4 //
5 ////////////////////////////////////////////////////////////////////
6
7 // globals (windows only)
8 FltkPathDefault <- _T("#fl");
9 FltkPathDefaultInc <- _T("#fl.include");
10 FltkPathDefaultInc <- _T("#fl");
11
12 FltkPathDefaultLib <- _T("#fl.lib");
13 FltkPath <- _T("");
14
15 FLTKQuickProject <- true;
16
17 function BeginWizard()
18 {
19     local intro_msg = _T("welcome to the new FLTK project wizard!\n\n" +
20         "This wizard will guide you to create a new project\n" +
21         "using the FLTK GUI C++ library.\n\n" +
22         "when you 're ready to proceed, please click \"Next\"...");
23
24     local fltkpath_descr = _T("Please select the location of FLTK on your computer.\n" +
25         "This is the top-level folder where FLTK was installed (unpacked).\n" +
26         "To help you, this folder must contain the subfolders\n" +
27         "\"include\" and \"lib\".");
28
Normal text file      length : 4728      lines: Ln : 10      Col : 36      Sel : Dos\Windows      UTF-8 w/o BOM      INS
```

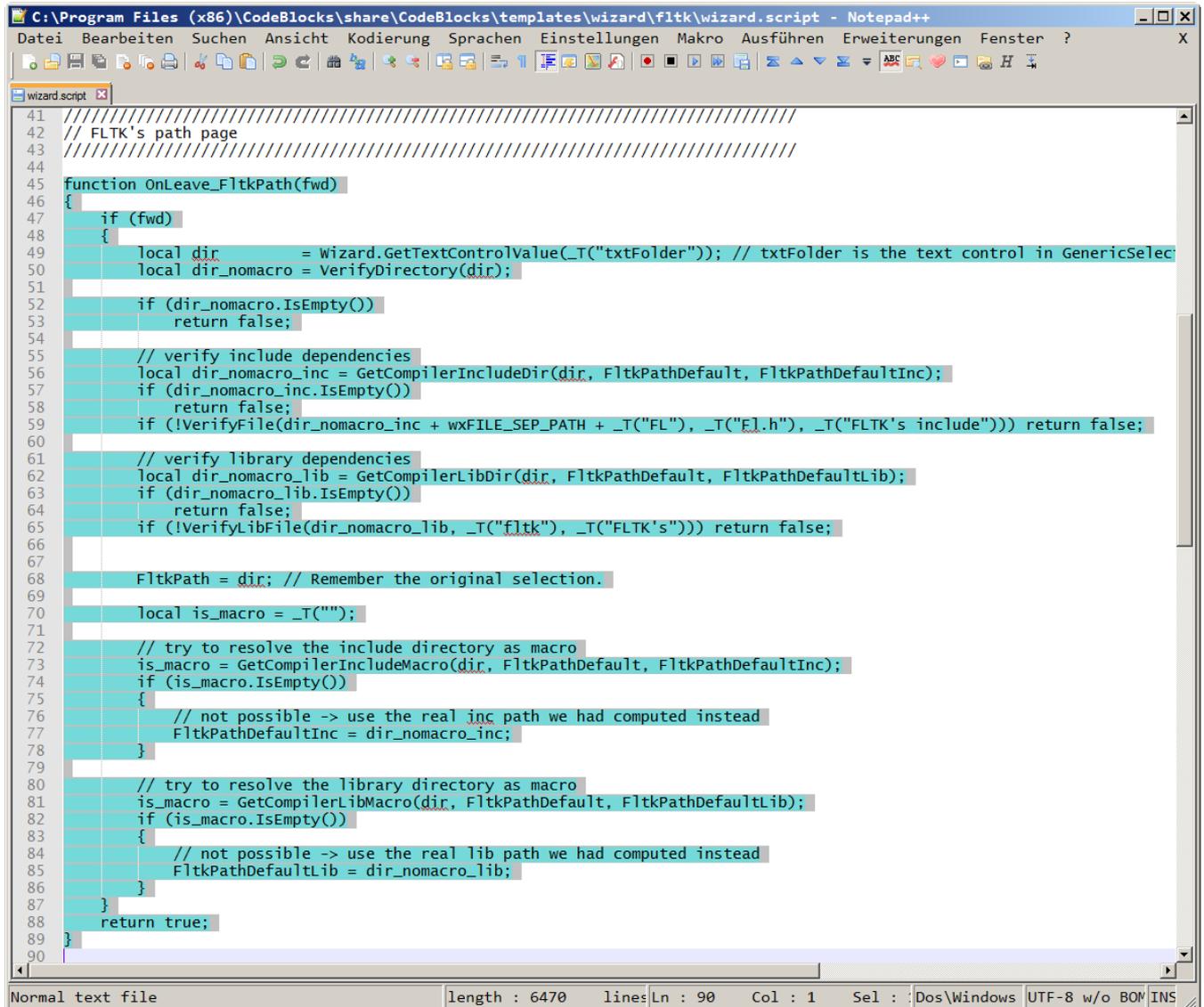
Löschen Sie die gesamte blau markierte Funktion

Delete the entire blue marked function

function OnLeave_FltkPath(fwd)

und speichern die Datei ab.

and save the file.



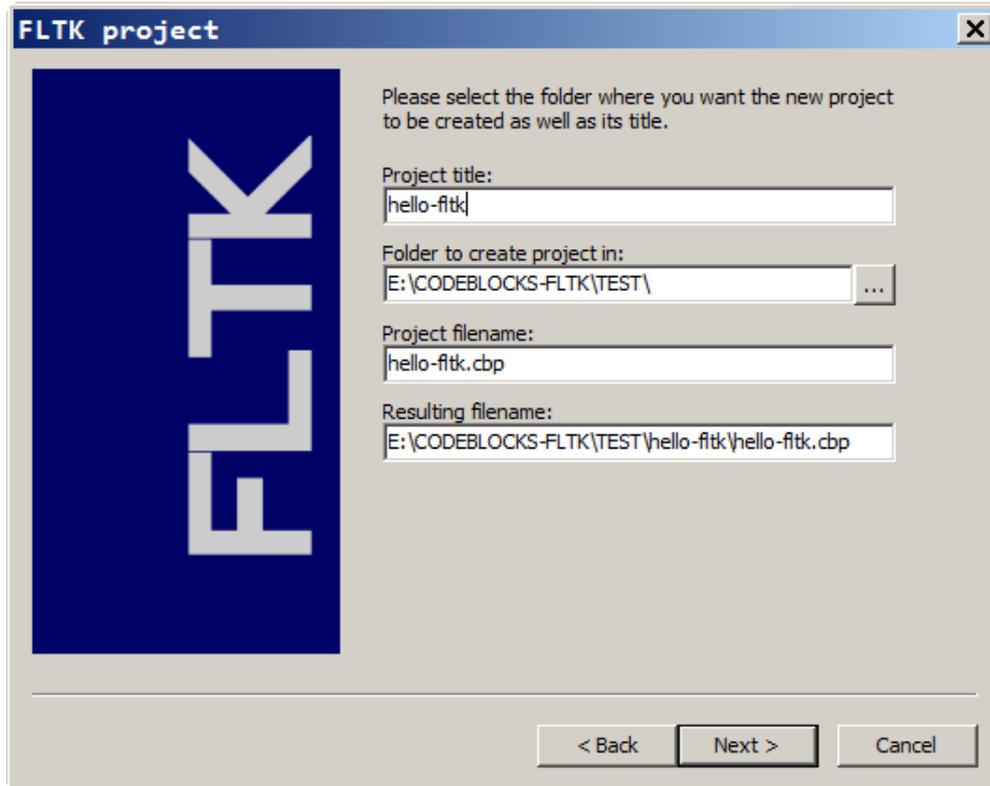
```
41 ////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
42 // FLTK's path page
43 ////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
44
45 function OnLeave_FltkPath(fwd)
46 {
47     if (fwd)
48     {
49         local dir      = Wizard.GetTextControlValue(_T("txtFolder")); // txtFolder is the text control in GenericSelect
50         local dir_nomacro = VerifyDirectory(dir);
51
52         if (dir_nomacro.IsEmpty())
53             return false;
54
55         // verify include dependencies
56         local dir_nomacro_inc = GetCompilerIncludeDir(dir, FltkPathDefault, FltkPathDefaultInc);
57         if (dir_nomacro_inc.IsEmpty())
58             return false;
59         if (!VerifyFile(dir_nomacro_inc + wxFILE_SEP_PATH + _T("FL"), _T("Fl.h"), _T("FLTK's include"))) return false;
60
61         // verify library dependencies
62         local dir_nomacro_lib = GetCompilerLibDir(dir, FltkPathDefault, FltkPathDefaultLib);
63         if (dir_nomacro_lib.IsEmpty())
64             return false;
65         if (!VerifyLibFile(dir_nomacro_lib, _T("fltk"), _T("FLTK's"))) return false;
66
67         FltkPath = dir; // Remember the original selection.
68
69         local is_macro = _T("");
70
71         // try to resolve the include directory as macro
72         is_macro = GetCompilerIncludeMacro(dir, FltkPathDefault, FltkPathDefaultInc);
73         if (is_macro.IsEmpty())
74         {
75             // not possible -> use the real inc path we had computed instead
76             FltkPathDefaultInc = dir_nomacro_inc;
77         }
78
79         // try to resolve the library directory as macro
80         is_macro = GetCompilerLibMacro(dir, FltkPathDefault, FltkPathDefaultLib);
81         if (is_macro.IsEmpty())
82         {
83             // not possible -> use the real lib path we had computed instead
84             FltkPathDefaultLib = dir_nomacro_lib;
85         }
86     }
87     return true;
88 }
89
90
```

Normal text file | length : 6470 | lines:Ln : 90 | Col : 1 | Sel : | Dos\Windows | UTF-8 w/o BOM | INS

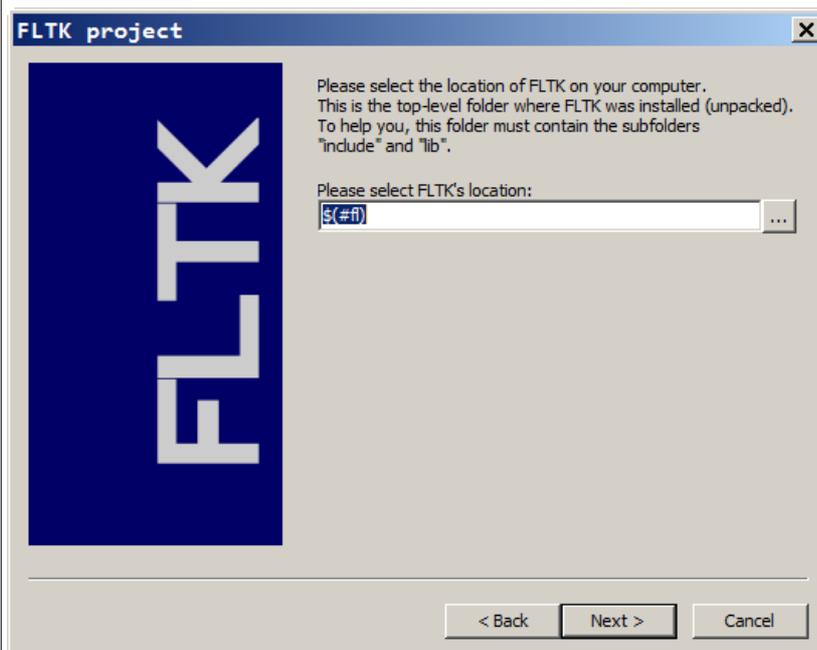
Jetzt starten Sie CB neu und gehen wie schon gewohnt vor
Now you start CB new and proceed as already used before

Create a new Projekt
Fltk project
Next
Projektname hello-fltk

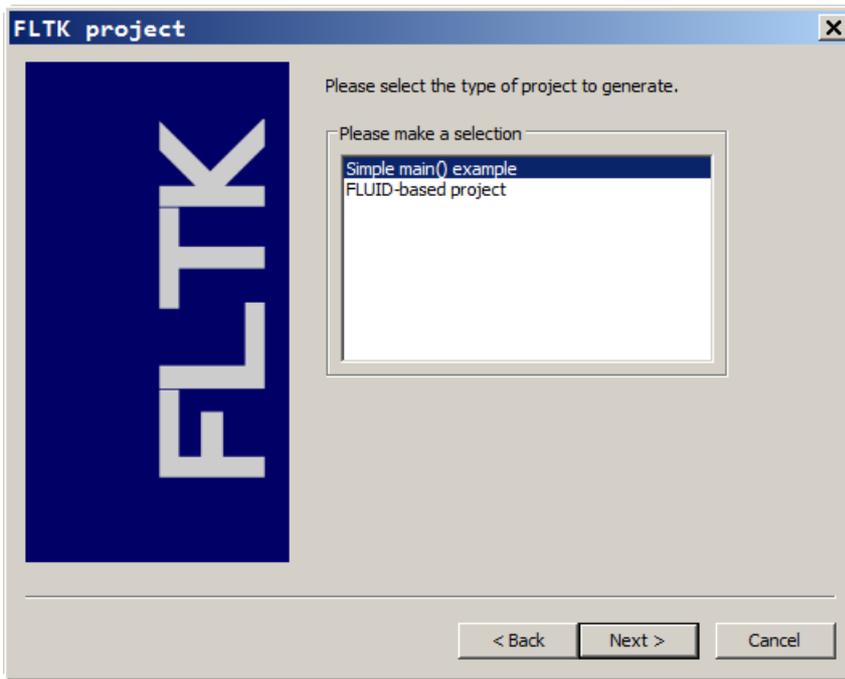
Click **Next**



Click **Next**

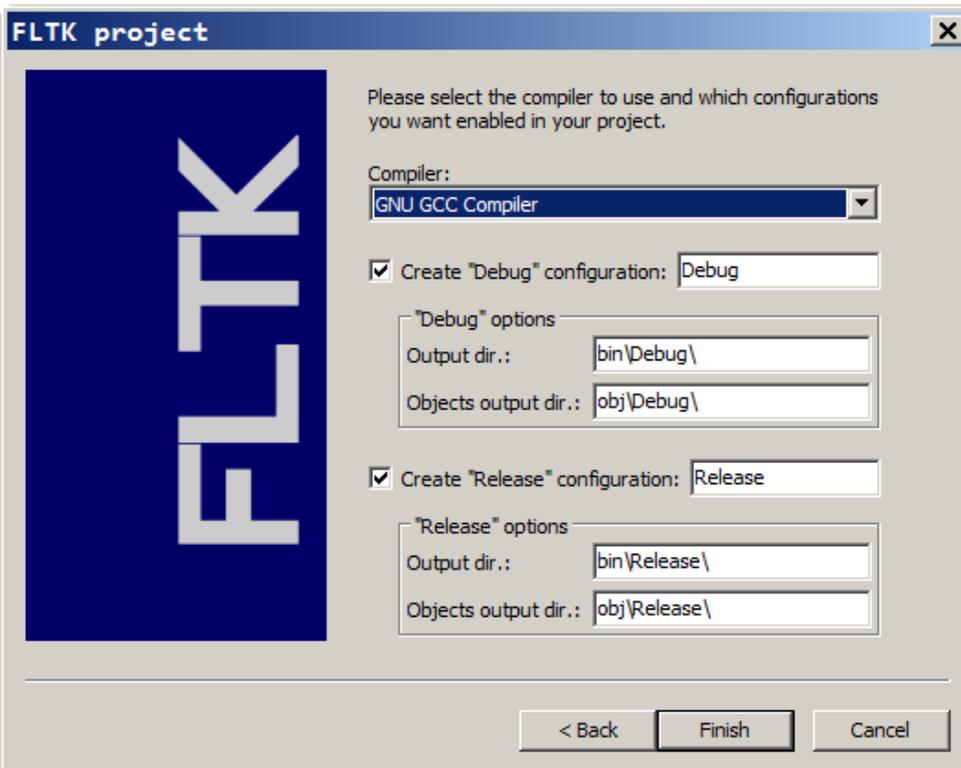


Click **N**ext

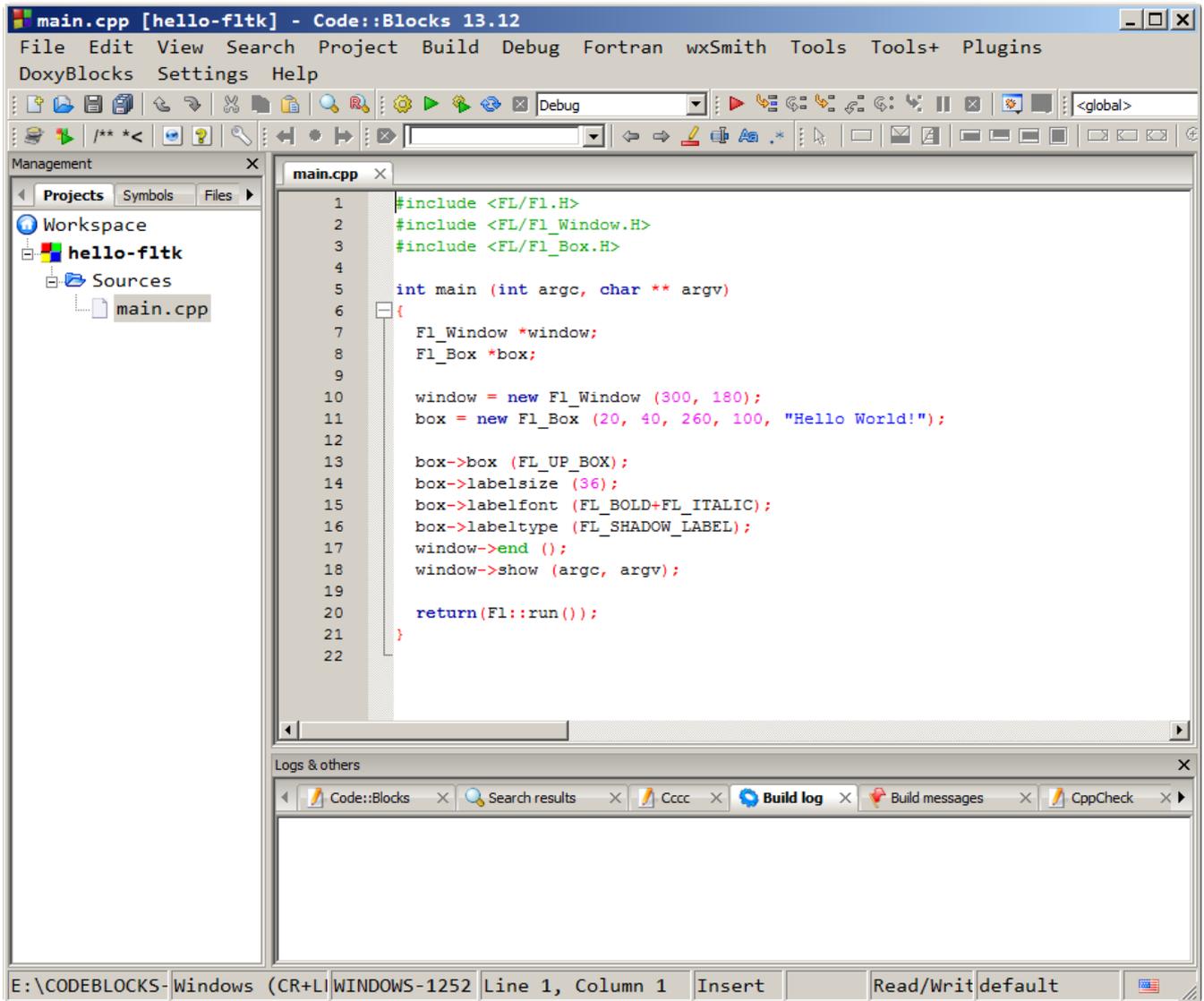


Übernehmen Sie mit **F**inish

Accept with **F**inish



Der CB-Wizard generiert dieses FLTK-Programm
The CB-Wizard generated this FLTK program



Klicken Sie im CB-Menü
On the CB menu choose
Build/Build and run
oder/or **<F9>**

Das Programm wird kompiliert und ausgeführt
The program will be compiled and executed

