



## **Compiling GnuCOBOL with MS Visual Studio 2012 Express Edition**

László Erdős  
E-Mail: [lex-x@freenet.de](mailto:lex-x@freenet.de)  
<https://www.facebook.com/wortfee>

---

## Contents

1.	Download and install MS Visual Studio 2012 Express Edition .....	3
1.1.	Search in Google .....	3
1.2.	Download and install Microsoft Visual Studio Express 2012 for Windows Desktop .....	3
1.3.	After it you have this in your windows start menu .....	3
2.	Download GnuCOBOL 2.0.....	4
2.1.	Go to in GnuCOBOL branches.....	4
2.2.	Click on the button "Download Snapshot" .....	4
2.3.	Download the zip file .....	5
2.4.	Directory structure after unzip .....	5
3.	Download windows prerequisites for GnuCOBOL.....	6
3.1.	Go to this page.....	6
3.2.	Download the file "win_prerequisites_vc11.7z" .....	6
3.3.	Directory structure after unzip .....	7
3.4.	Files under win_prerequisites_vc11 .....	7
4.	Copy the "win_prerequisites_vc11" under GnuCOBOL .....	8
4.1.	Copy the header files .....	8
4.2.	Copy the directories "Win32" and "x64" .....	8
4.3.	Files and directories in "build_windows".....	9
5.	Compile GnuCOBOL .....	10
5.1.	The solution file "GNU Cobol.sln" .....	10
5.2.	The solution Explorer .....	10
5.3.	Change properties for the Solution "GNU Cobol".....	11
5.4.	Change properties for the "cobc" project .....	14
5.5.	Change properties for the "cobcrun" project .....	16
5.6.	Change properties for the "libcob" project.....	18
5.7.	Change properties for the "libsupport" project .....	20
5.8.	Build the Solution (compile GnuCobol).....	22
5.9.	Result Exe files after compile .....	23
6.	Copy your working directory into C:\GnuCobol .....	25
6.1.	Copy the new compiled GnuCOBOL directory into C:\GnuCobol.....	25
7.	Compile Hello World .....	26
7.1.	Create a "hello.cob" program file in your favorite directory .....	26
7.2.	Create a "comp_hello.bat" compile script .....	27
7.3.	Start the "comp_hello.bat" compile script.....	28
7.4.	Compilation and execution result.....	28

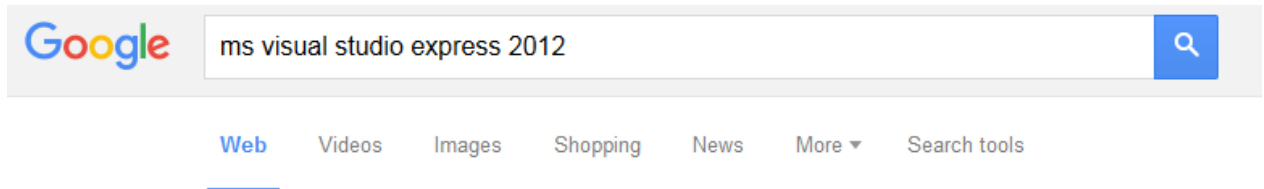
---

## 1. Download and install MS Visual Studio 2012 Express Edition

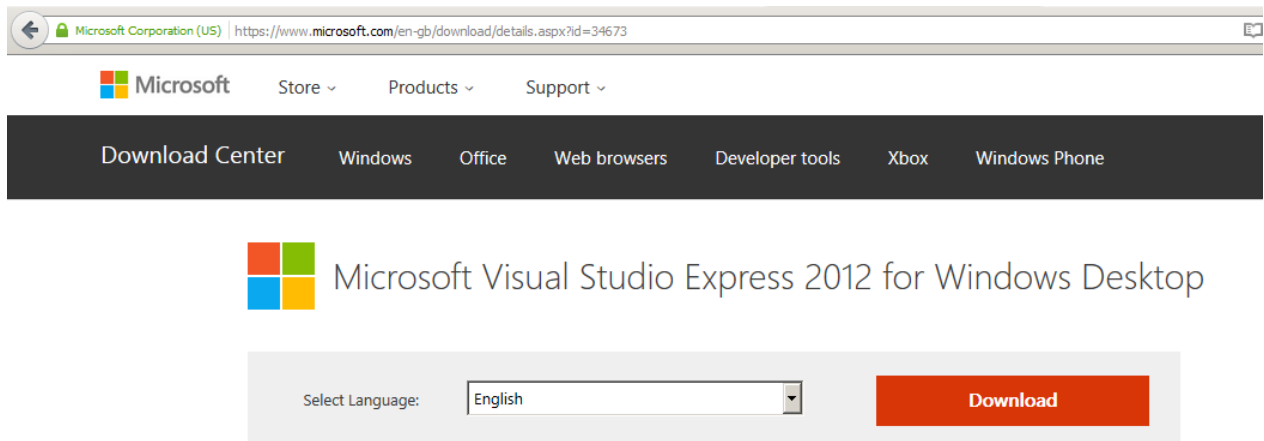
---

### 1.1. Search in Google

Remember later, the express edition is a win32 bit version!

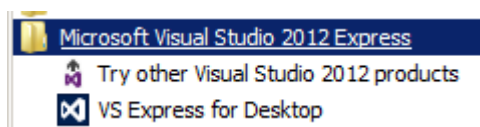


### 1.2. Download and install Microsoft Visual Studio Express 2012 for Windows Desktop



You can use Visual Studio Express 2012 for Windows Desktop to build powerful desktop apps in C#, Visual Basic, and C++. You can target client technologies such as Windows Presentation Foundation (WPF), Windows Forms, and Win32.

### 1.3. After it you have this in your windows start menu



## 2. Download GnuCOBOL 2.0

### 2.1. Go to in GnuCOBOL branches

<http://sourceforge.net/p/open-cobol/code/HEAD/tree/branches/gnu-cobol-2.0>

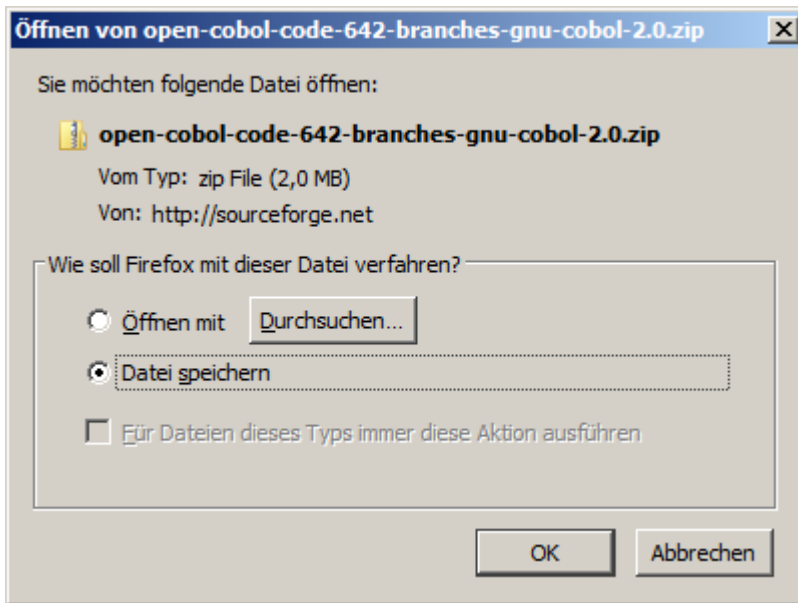
The screenshot shows the SourceForge project page for GnuCOBOL (formerly OpenCOBOL). The page title is "GnuCOBOL (formerly OpenCOBOL) A free COBOL compiler". The breadcrumb trail is "Home / Browse / Projects / GnuCOBOL (formerly OpenCOBOL) / Code (GNU/OC 1.1, 1.1CE, 2.x, C++)". The main content area shows the "branches" section for "gnu-cobol-2.0". It includes a "Download Snapshot" button, a "History" link, and a table of commits.

File	Date	Author	Commit
bin	2015-08-03	btiffin	[r630] Allow cobc to compile from stdin
build_aux	2015-07-10	sf-mensch	[r624] * general: moved additional build-scripts from ...
build_windows	2015-04-03	sf-mensch	[r556] * General: removed "Experimental" marker from C...

### 2.2. Click on the button "Download Snapshot"

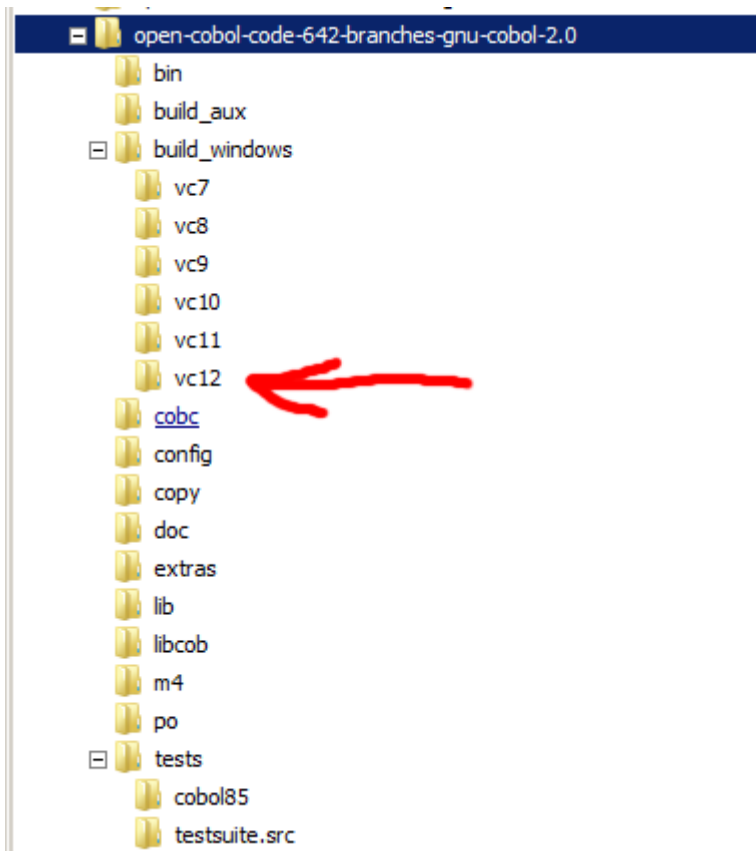
The screenshot shows the same SourceForge project page as above, but with the "Download Snapshot" button highlighted by a red circle. The button is located in the top right corner of the branches section, next to the "History" link and a RSS icon.

## 2.3. Download the zip file



## 2.4. Directory structure after unzip

For Microsoft Visual Studio Express 2012 you have to use the "vc12" directory.



### 3. Download windows prerequisites for GnuCOBOL

---

#### 3.1. Go to this page

[http://sourceforge.net/projects/open-cobol/files/win\\_prerequisites](http://sourceforge.net/projects/open-cobol/files/win_prerequisites)

Home / Browse / Development / Software Development / GnuCOBOL (formerly OpenCOBOL) / Files



## GnuCOBOL (formerly OpenCOBOL)

A free COBOL compiler

Brought to you by: [bgiroud](#), [btiffin](#), [knishida](#), [sf-mensch](#), [simrw](#)

Summary | **Files** | Reviews | Support | Discussion | Wiki | Mailing Lists | Code (GNU/OC 1.1, 1.1C)  
FAQ and How-To | Manuals and Guides | Contributions (Tools/Samples incl. Games) | CVS-History

Looking for the latest version? [Download gnu-cobol-1.1.tar.gz \(1.0 MB\)](#)

Home / win\_prerequisites

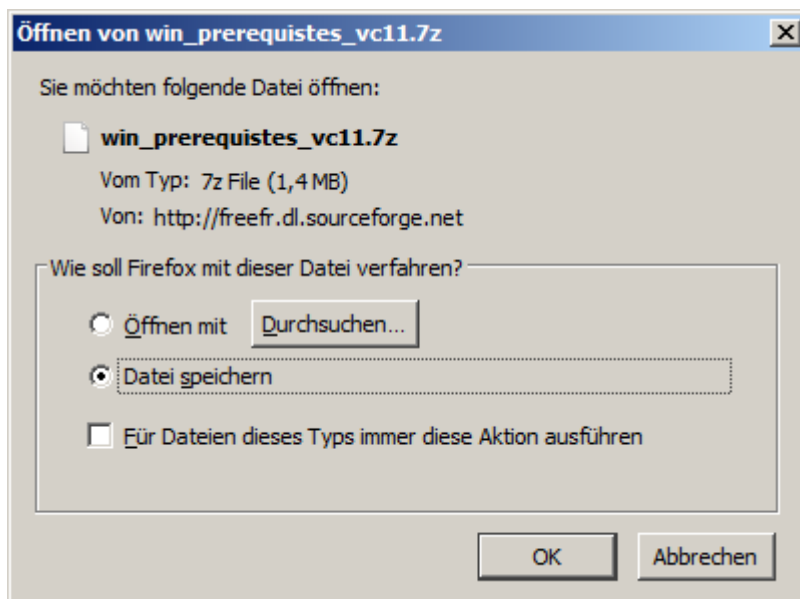
Name ▾	Modified ▾	Size ▾	Downloads / Week ▾
<a href="#">↑ Parent folder</a>			
<a href="#">win_prerequisites_vc11.7z</a>	<a href="#">2014-08-27</a>	1.5 MB	27
Totals: 1 Item		1.5 MB	27

GNU Cobol

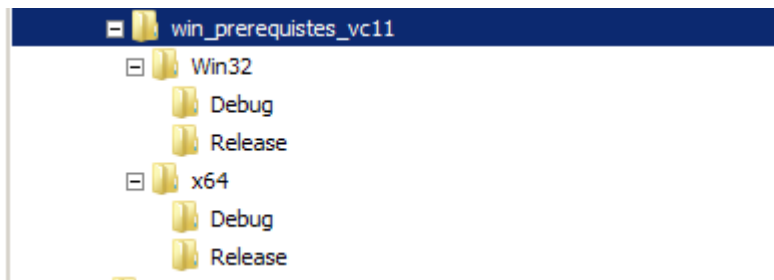
<http://www.opencobol.org/>

<http://sourceforge.net/projects/open-cobol/>

#### 3.2. Download the file "win\_prerequisites\_vc11.7z"



### 3.3. Directory structure after unzip



### 3.4. Files under win\_prerequisites\_vc11

Name ^	Änderungsdatum	Typ	Größe
Win32	27.08.2014 21:48	Dateiordner	
x64	27.08.2014 22:30	Dateiordner	
curses.h	10.02.2014 15:25	H-Datei	49 KB
gmp.h	10.02.2014 15:39	H-Datei	94 KB
gmpxx.h	10.02.2014 15:31	H-Datei	117 KB
vbdecimal.h	20.06.2014 16:31	H-Datei	3 KB
vbisam.h	20.06.2014 16:31	H-Datei	11 KB

## 4. Copy the "win\_prerequisites\_vc11" under GnuCOBOL

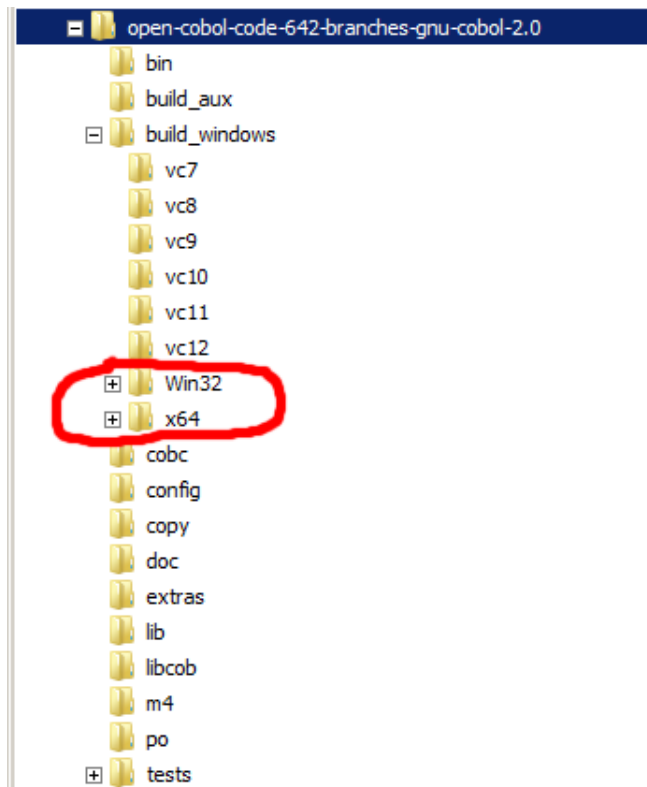
### 4.1. Copy the header files

In the directory "win\_prerequisites\_vc11" there are some header files. Copy these header files in "C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows".

Name ^	Änderungsdatum	Typ	Größe
Win32	27.08.2014 21:48	Dateiordner	
x64	27.08.2014 22:30	Dateiordner	
curses.h	10.02.2014 15:25	H-Datei	49 KB
gmp.h	10.02.2014 15:39	H-Datei	94 KB
gmpxx.h	10.02.2014 15:31	H-Datei	117 KB
vbdecimal.h	20.06.2014 16:31	H-Datei	3 KB
vbisam.h	20.06.2014 16:31	H-Datei	11 KB

### 4.2. Copy the directories "Win32" and "x64"


























Copy the directories "Win32" and "x64" also in "C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows". After it you have this directory structure.





### 4.3. Files and directories in "build\_windows".

Files and directories in "C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows".













Name ^	Änderungsdatum	Typ	Größe
 vc7	15.09.2015 22:31	Dateiordner	
 vc8	15.09.2015 22:31	Dateiordner	
 vc9	15.09.2015 22:31	Dateiordner	
 vc10	15.09.2015 22:31	Dateiordner	
 vc11	15.09.2015 22:31	Dateiordner	
 vc12	15.09.2015 22:31	Dateiordner	
 Win32	15.09.2015 23:45	Dateiordner	
 x64	15.09.2015 23:45	Dateiordner	
 config.h.bdb.win	03.04.2015 15:08	WIN-Datei	12 KB
 config.h.vb.win	03.04.2015 15:08	WIN-Datei	12 KB
 curses.h	10.02.2014 15:25	H-Datei	49 KB
 gmp.h	10.02.2014 15:39	H-Datei	94 KB
 gmpxx.h	10.02.2014 15:31	H-Datei	117 KB
 makedist.bat	23.06.2014 17:18	Windows-Batchdatei	4 KB
 README	23.06.2014 17:18	Datei	1 KB
 resource.h	20.06.2014 16:39	H-Datei	1 KB
 set_env_vs.bat	23.06.2014 17:18	Windows-Batchdatei	3 KB
 set_env_vs_dist.bat	23.06.2014 17:18	Windows-Batchdatei	4 KB
 set_env_vs_dist_x64.bat	23.06.2014 17:18	Windows-Batchdatei	4 KB
 set_env_vs_x64.bat	23.06.2014 17:18	Windows-Batchdatei	3 KB
 vbdecimal.h	20.06.2014 16:31	H-Datei	3 KB
 vbisam.h	20.06.2014 16:31	H-Datei	11 KB
 version_cobc.rc	20.06.2014 16:39	RC-Datei	3 KB
 version_cobcrun.rc	20.06.2014 16:39	RC-Datei	3 KB
 version_libcob.rc	20.06.2014 16:39	RC-Datei	3 KB

## 5. Compile GnuCOBOL

### 5.1. The solution file "GNU Cobol.sln"

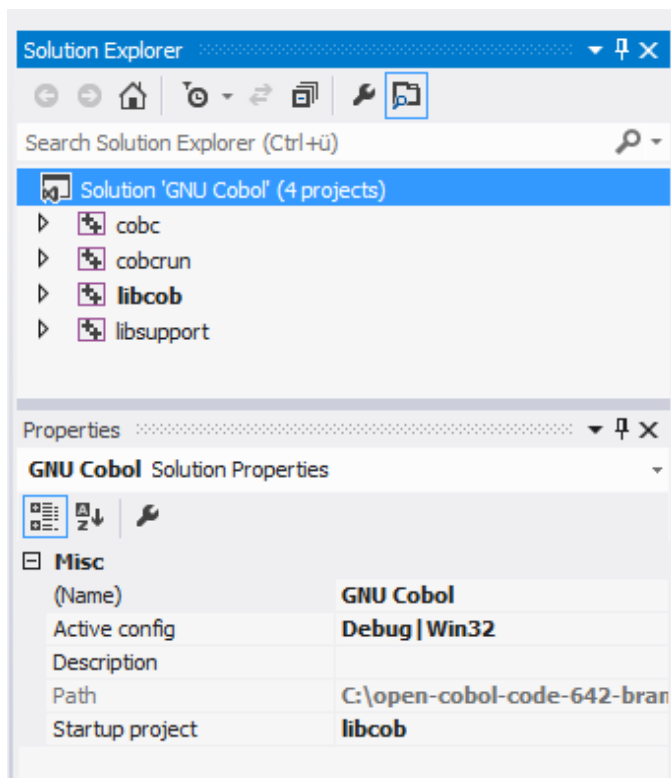
Files in C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows\vc12.

Double click on the solution file "GNU Cobol.sln". (Or start Visual Studio and open the solution file.)

Name ^	Änderungsdatum	Typ	Größe
 cobc.vcxproj	27.02.2015 10:20	VC++ Project	19 KB
 cobc.vcxproj.filters	27.02.2015 10:20	VC++ Project Filter...	5 KB
 cobcrun.vcxproj	27.02.2015 10:20	VC++ Project	11 KB
 cobcrun.vcxproj.filters	27.02.2015 10:20	VC++ Project Filter...	2 KB
 config.h	03.04.2015 15:08	H-Datei	12 KB
 defaults.h	20.06.2014 16:39	H-Datei	2 KB
 GNU Cobol.sln 	20.06.2014 16:39	Microsoft Visual Stu...	4 KB
 libcob.vcxproj	27.02.2015 10:20	VC++ Project	13 KB
 libcob.vcxproj.filters	27.02.2015 10:20	VC++ Project Filter...	3 KB
 libsupport.vcxproj	27.02.2015 10:20	VC++ Project	10 KB
 libsupport.vcxproj.filters	23.06.2014 06:52	VC++ Project Filter...	1 KB

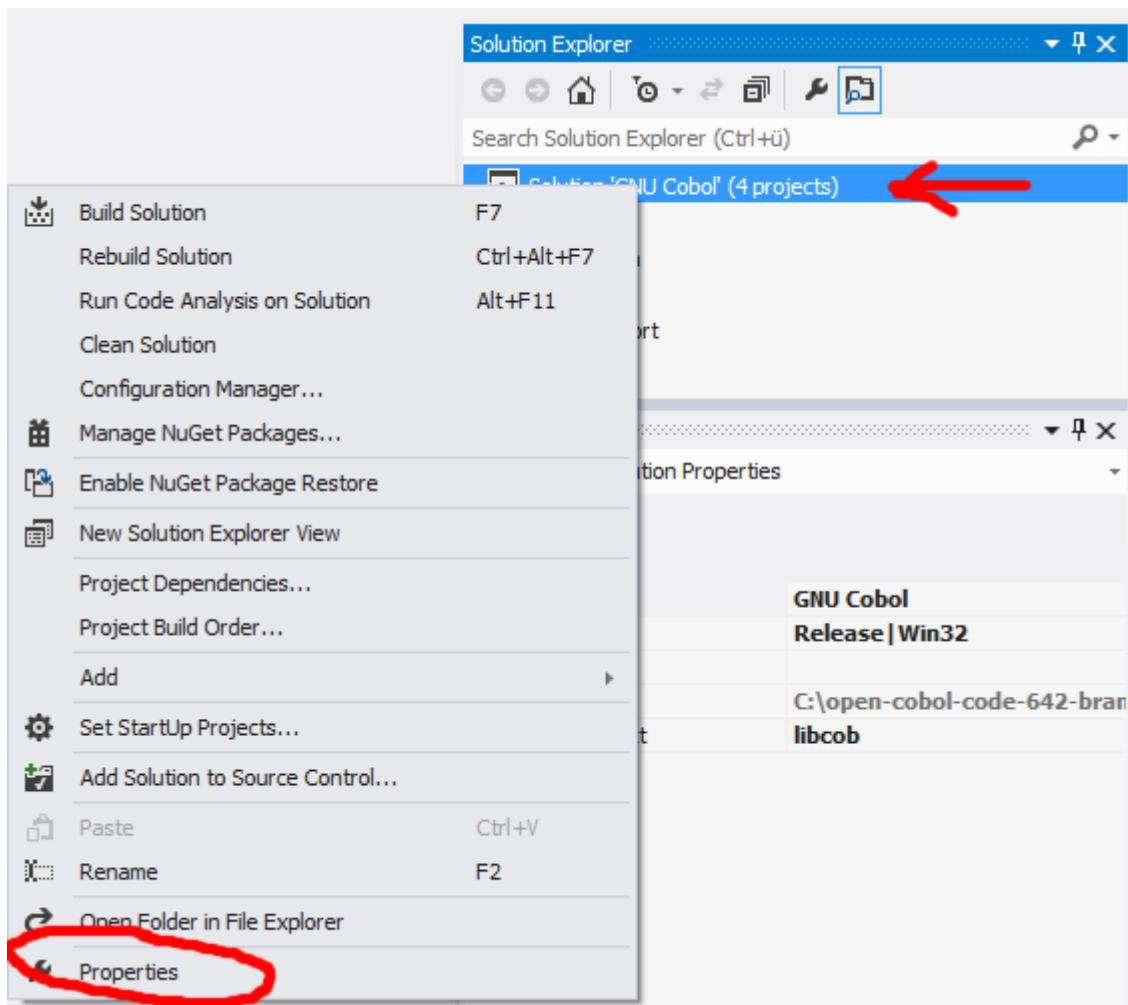
### 5.2. The solution Explorer

There are four projects in the solution explorer.

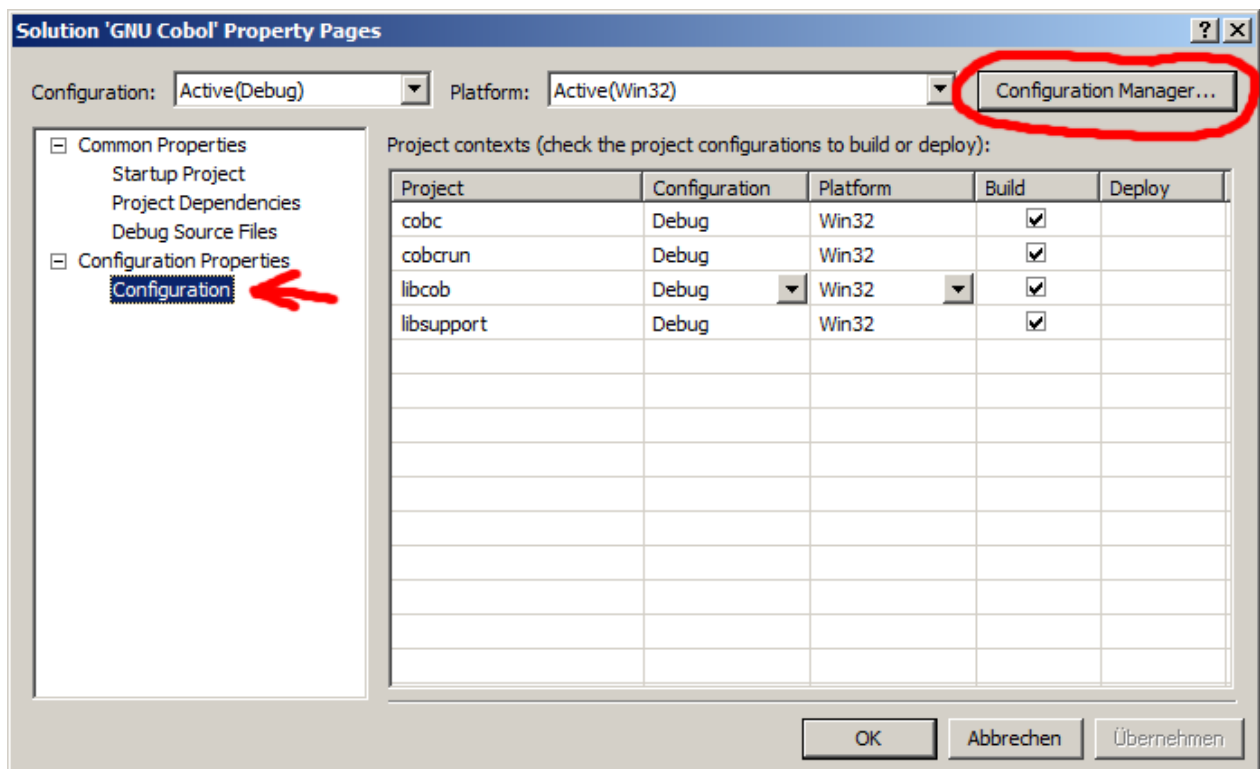


### 5.3. Change properties for the Solution “GNU Cobol”

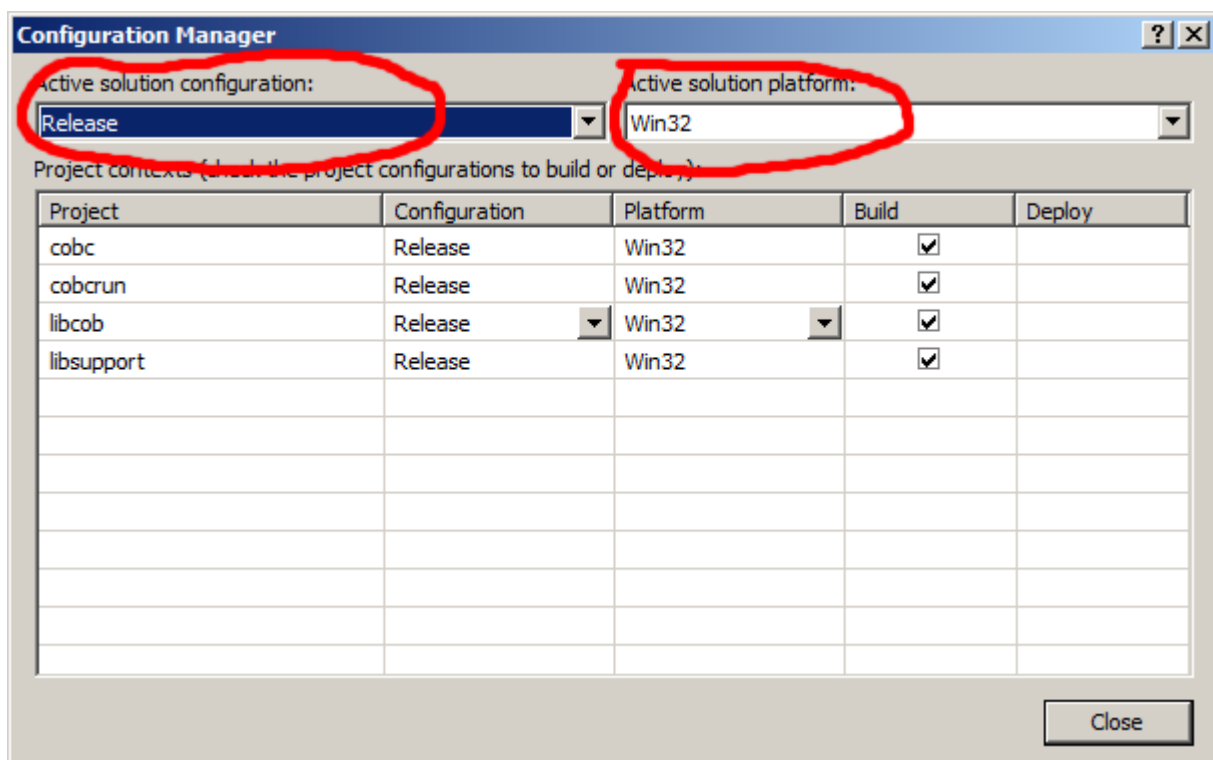
Right click on Solution “GNU Cobol”, and select properties.



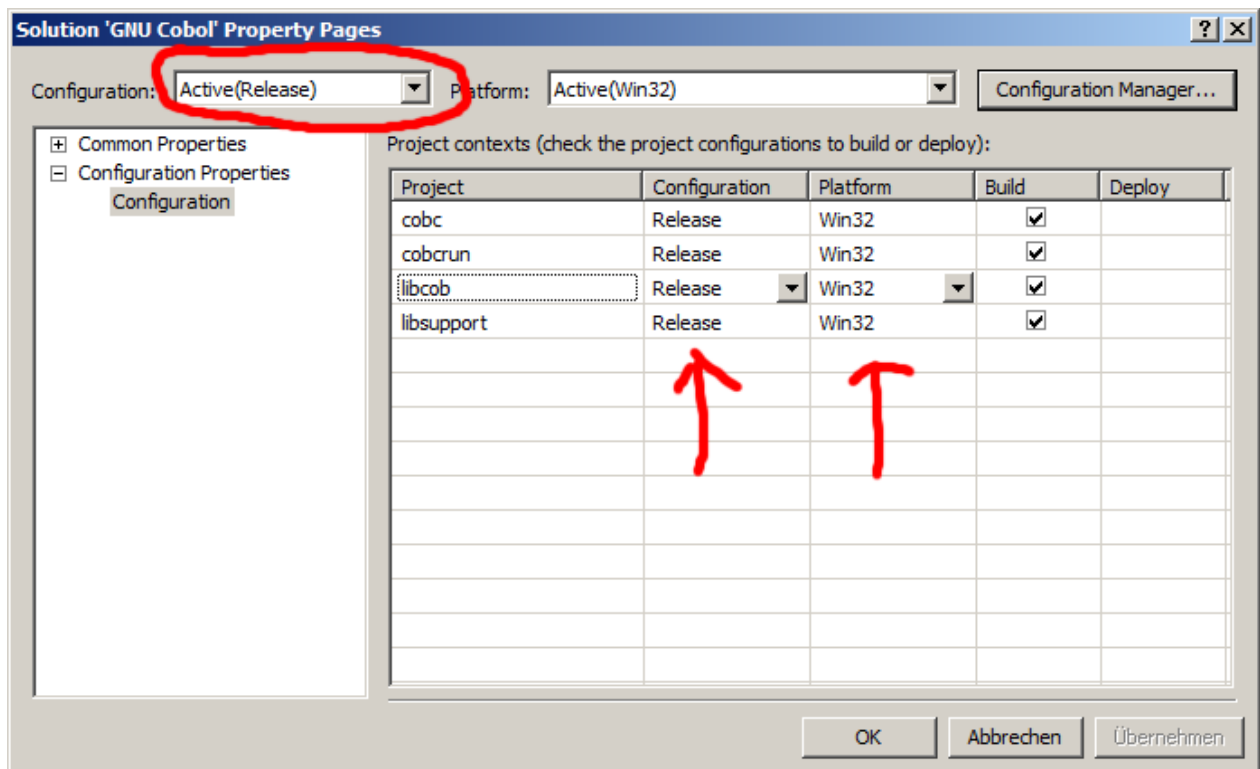
Select „Configuration“, and click on the button „Configuration Manager...“.



Select „Release“ and „Win32“.

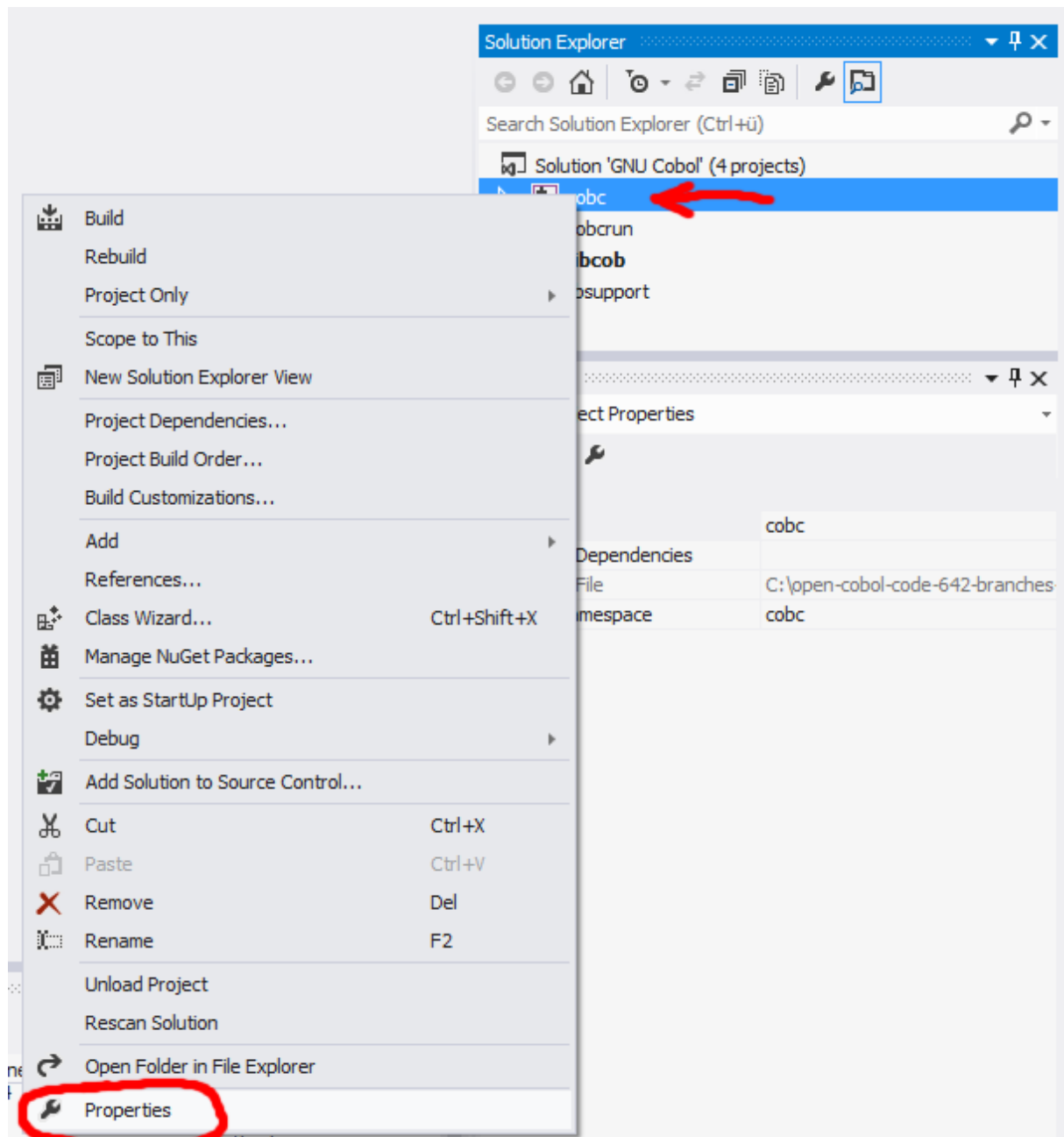


The "Solution "GNU Cobol" properties after settings.

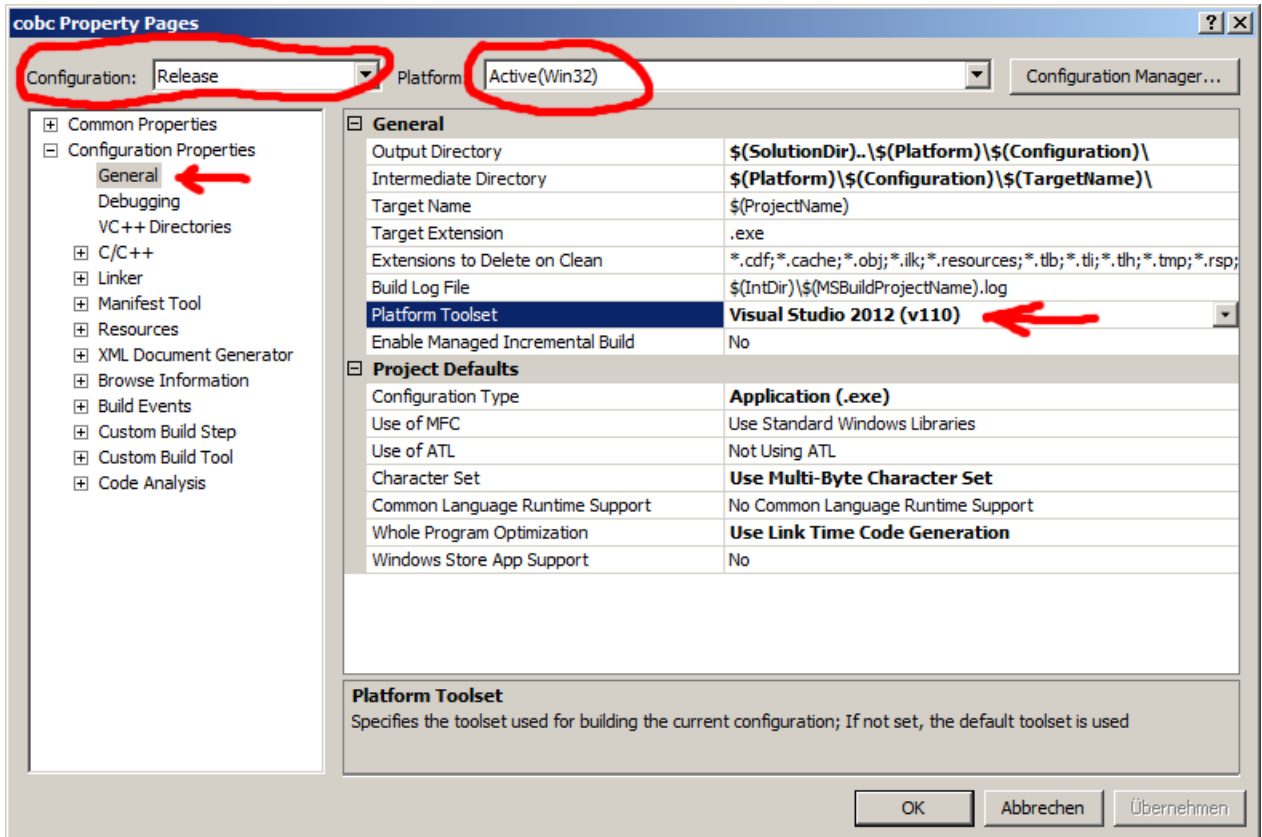


#### 5.4. Change properties for the “cobc” project

Right click on “cobc” project, and select properties.

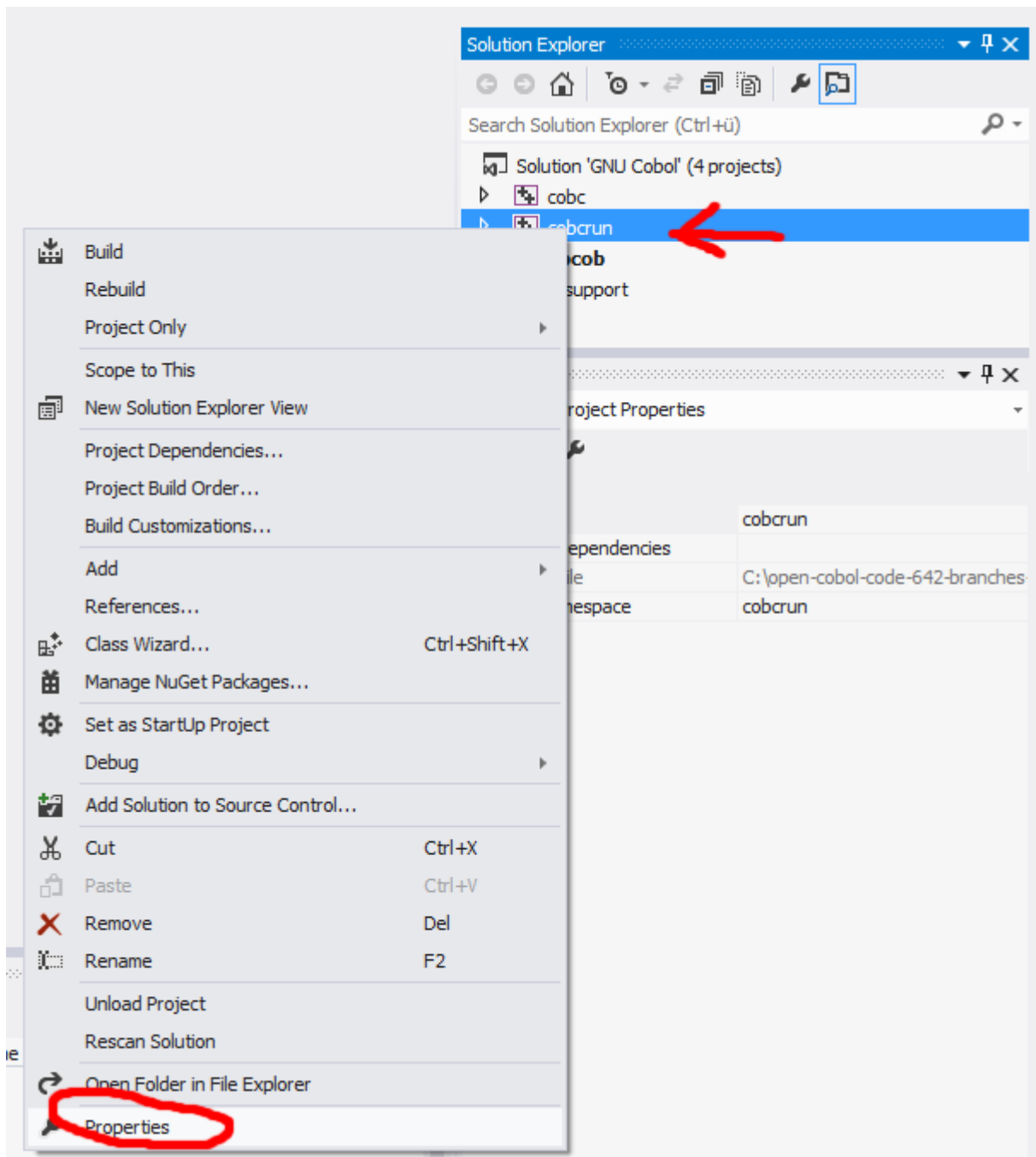


Set Configuration to Release, Platform to Active (Win32), Platform Toolset (under General) to Visual Studio 2012 (v110). Save these settings.



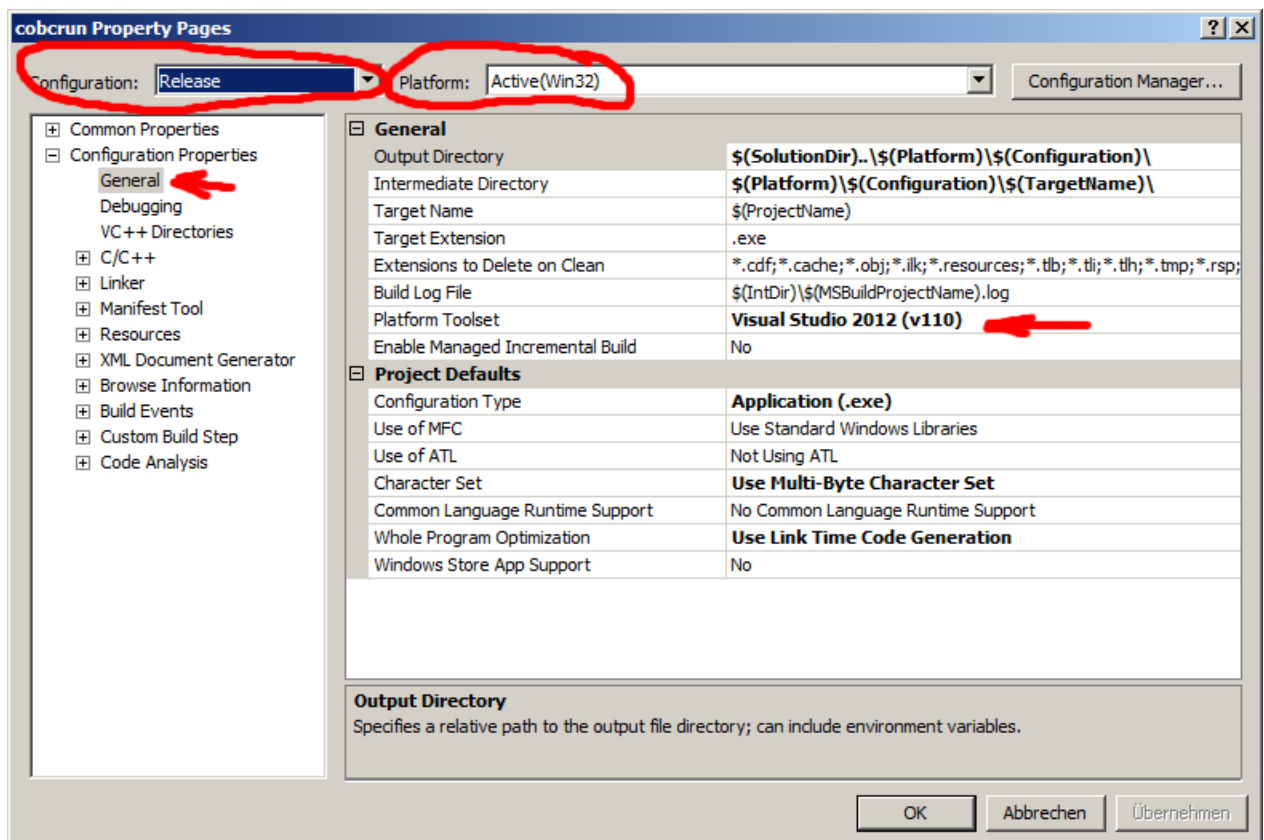
## 5.5. Change properties for the “cobcrun” project

Right click on “cobcrun” project, and select properties.



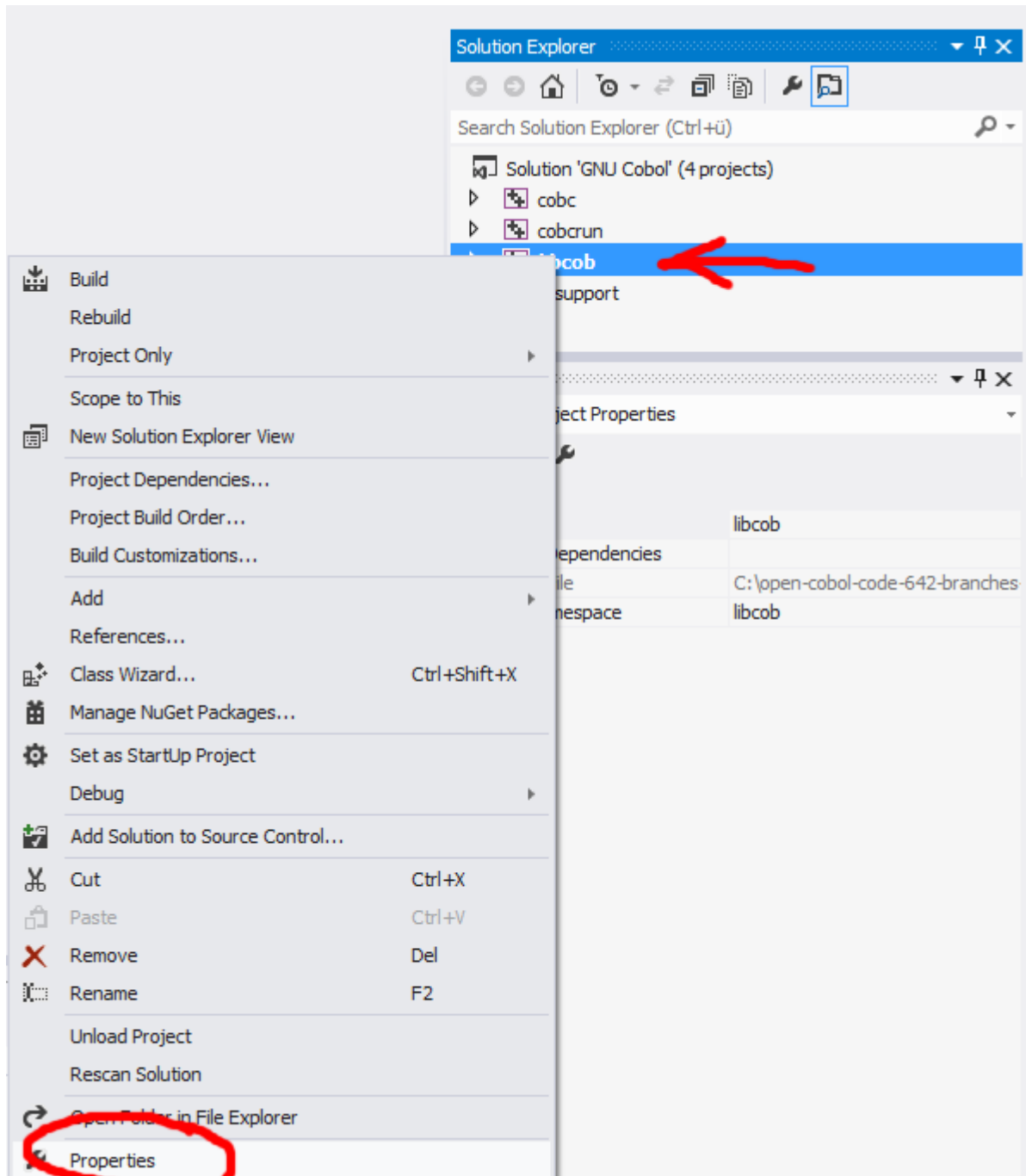


Set Configuration to Release, Platform to Active (Win32), Platform Toolset (under General) to Visual Studio 2012 (v110). Save these settings.

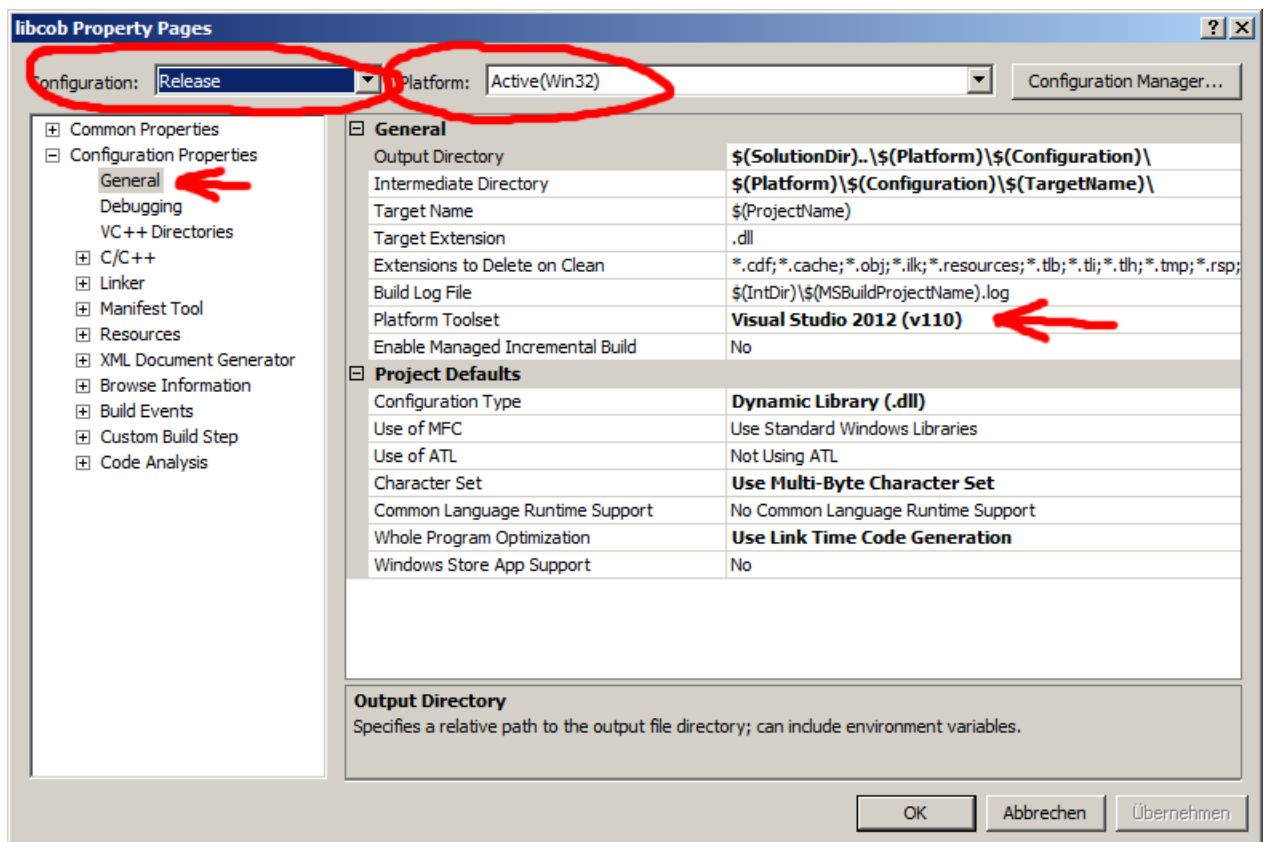


## 5.6. Change properties for the “libcob” project

Right click on “libcob” project, and select properties.

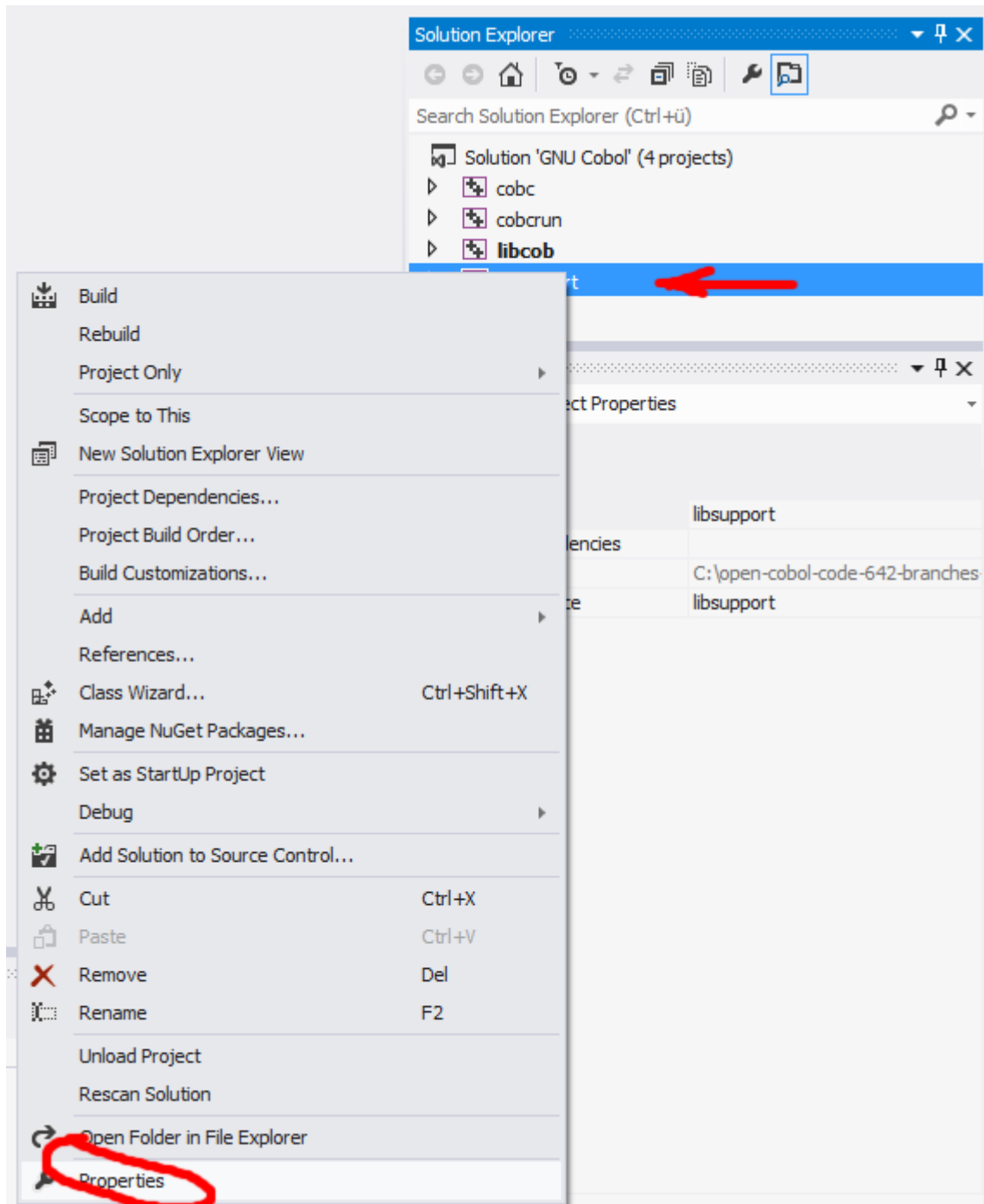


Set Configuration to Release, Platform to Active (Win32), Platform Toolset (under General) to Visual Studio 2012 (v110). Save these settings.

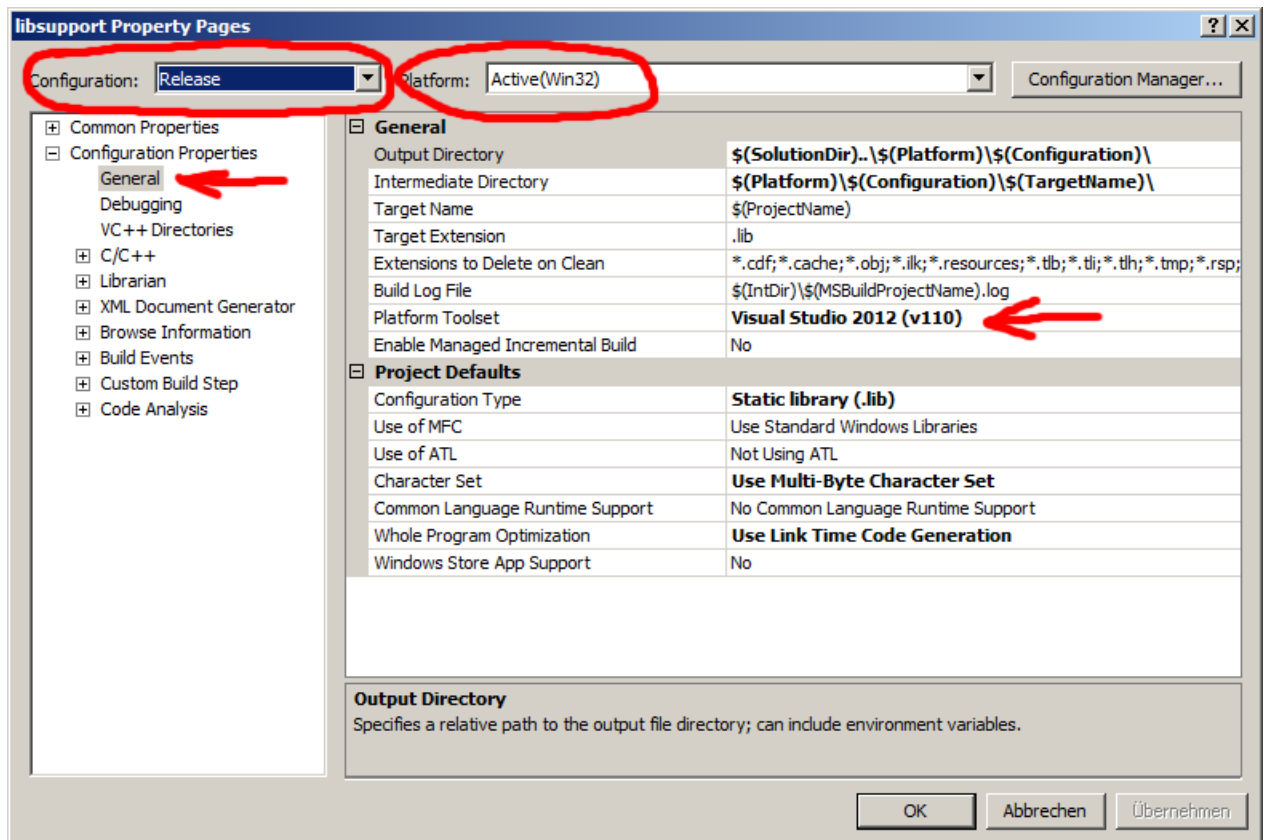


## 5.7. Change properties for the “libsupport” project

Right click on “libsupport” project, and select properties.

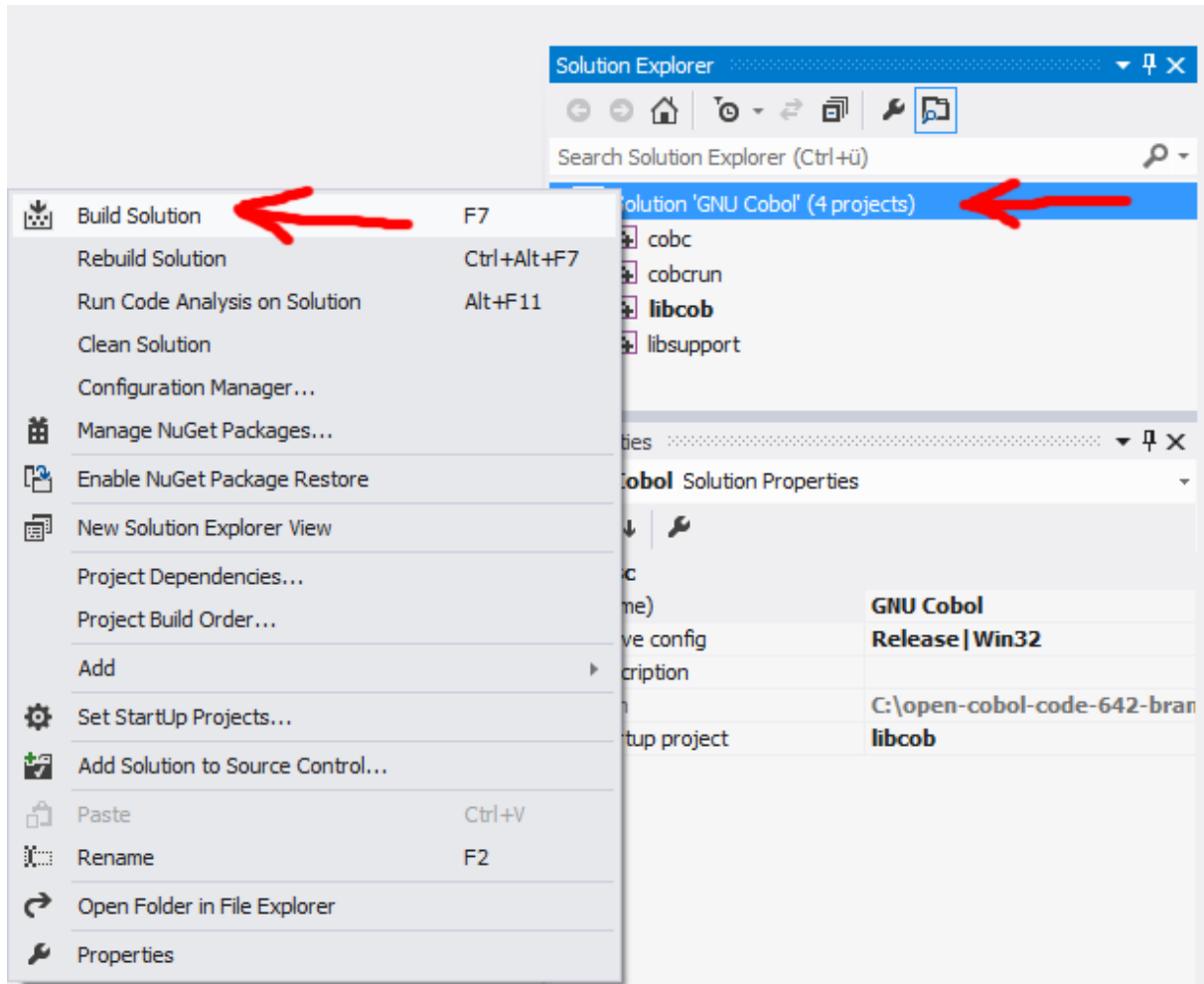


Set Configuration to Release, Platform to Active (Win32), Platform Toolset (under General) to Visual Studio 2012 (v110). Save these settings.



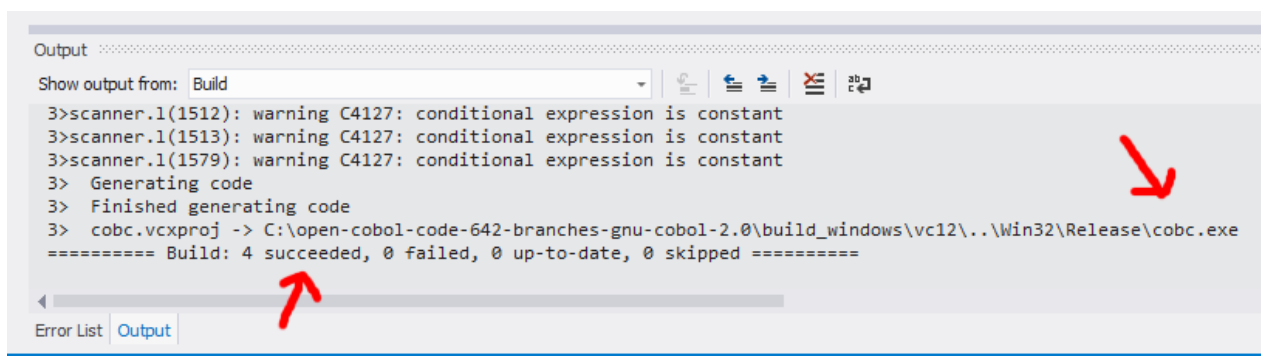
## 5.8. Build the Solution (compile GnuCobol)

Right click on the Solution “GNU Cobol”, and select Build Solution. (Or you can also find this function in the BUILD menu.)



You get some warnings, but these are not important. At the end you have to get this:

```
===== Build: 4 succeeded, 0 failed, 0 up-to-date, 0 skipped =====
```



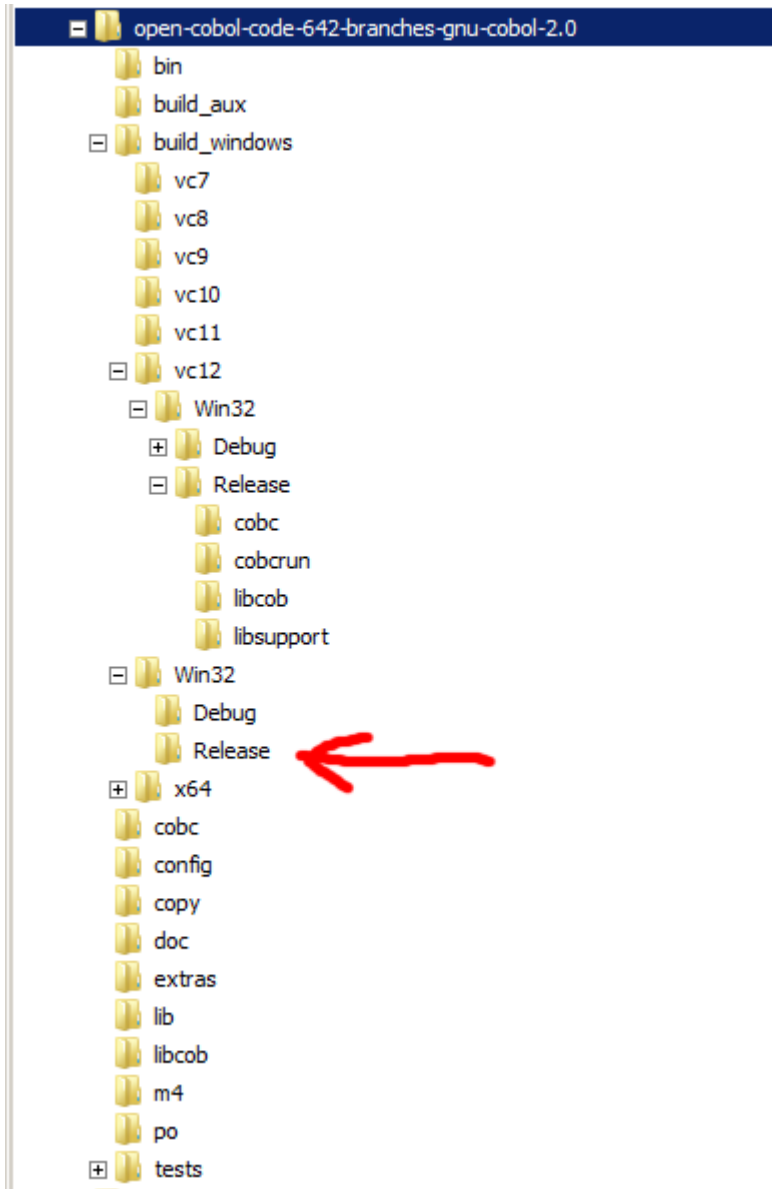
## 5.9. Result Exe files after compile

Under this directory there are the four projects, they are only working directories:

C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows\vc12\Win32\Release












You can find the result files under:

C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows\Win32\Release



Files in the directory:

C:\open-cobol-code-642-branches-gnu-cobol-2.0\build\_windows\Win32\Release

Name ^	Änderungsdatum	Typ	Größe
 cobc.exe	16.09.2015 01:17	Anwendung	538 KB
 cobc.pdb	16.09.2015 01:17	Source Browser Dat...	1.299 KB
 cobcrun.exe	16.09.2015 01:17	Anwendung	10 KB
 cobcrun.pdb	16.09.2015 01:17	Source Browser Dat...	203 KB
 libcob.dll	16.09.2015 01:17	Anwendungserweit...	200 KB
 libcob.exp	16.09.2015 01:17	Source Browser Dat...	43 KB
 libcob.lib	16.09.2015 01:17	Source Browser Dat...	71 KB
 libcob.pdb	16.09.2015 01:17	Source Browser Dat...	755 KB
 libvbisam.dll	20.06.2014 16:34	Anwendungserweit...	77 KB
 mpir.dll	27.08.2014 21:45	Anwendungserweit...	452 KB
 pdcurses.dll	27.08.2014 22:32	Anwendungserweit...	151 KB



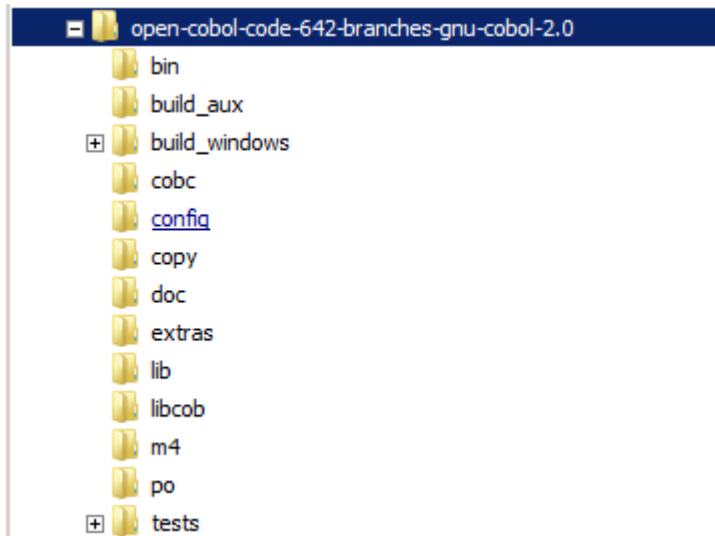
## 6. Copy your working directory into C:\GnuCobol

---

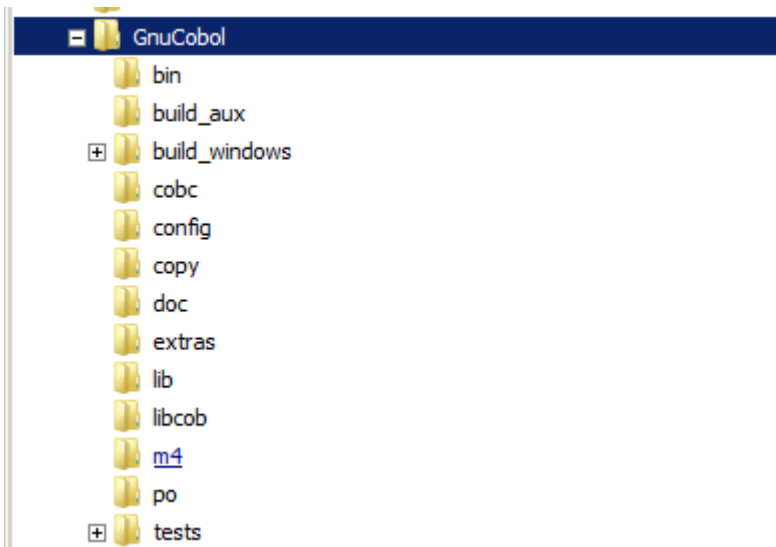
### 6.1. Copy the new compiled GnuCOBOL directory into C:\GnuCobol.

**This step is important, because of the configuration files!**

Until yet you have this:



After the copy into **C:\GnuCobol**:

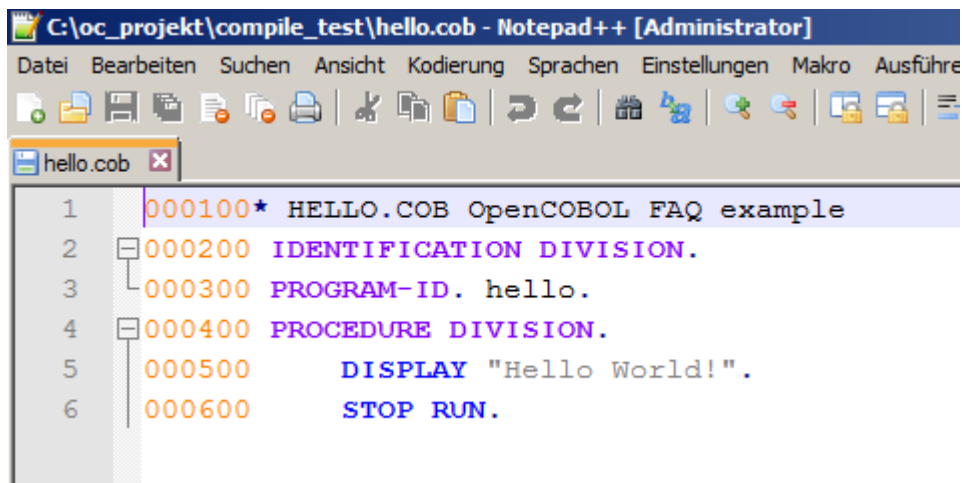


## 7. Compile Hello World

---

### 7.1. Create a “hello.cob” program file in your favorite directory

```
000100* HELLO.COB OpenCOBOL FAQ example
000200 IDENTIFICATION DIVISION.
000300 PROGRAM-ID. hello.
000400 PROCEDURE DIVISION.
000500     DISPLAY "Hello World!".
000600     STOP RUN.
```

A screenshot of a Notepad++ window titled "C:\oc\_projekt\compile\_test\hello.cob - Notepad++ [Administrator]". The window shows a COBOL program with six lines of code, each with a line number in the left margin. The code is: 1 000100\* HELLO.COB OpenCOBOL FAQ example, 2 000200 IDENTIFICATION DIVISION., 3 000300 PROGRAM-ID. hello., 4 000400 PROCEDURE DIVISION., 5 000500 DISPLAY "Hello World!.", 6 000600 STOP RUN. The text is color-coded: line numbers are grey, asterisks are red, and keywords like IDENTIFICATION, PROGRAM-ID, PROCEDURE, DISPLAY, and STOP are in blue, while other text is black.

## 7.2. Create a “comp\_hello.bat” compile script

```
rem go into your directory
cd C:\oc_projekt\compile_test

rem clean old exe file
del hello.exe

rem add cobc to path
PATH=%PATH%;C:\GnuCobol\build_windows\Win32\Release

rem set environment for MS Visual Studio
call "C:\Program Files (x86)\Microsoft Visual Studio 11.0\VC\vcvarsall.bat"

rem compile
cobc -x hello.cob

rem exec program
hello.exe

pause
```




```

C:\oc_projekt\compile_test\comp_hello.bat - Notepad++ [Administrator]
Datei Bearbeiten Suchen Ansicht Kodierung Sprachen Einstellungen Makro Ausführen TextFX Erweiterungen Fenster ?
comp_hello.bat x
1 rem go into your directory
2 cd C:\oc_projekt\compile_test
3
4 rem clean old exe file
5 del hello.exe
6
7 rem add cobc to path
8 PATH=%PATH%;C:\GnuCobol\build_windows\Win32\Release
9
10 rem set environment for MS Visual Studio
11 call "C:\Program Files (x86)\Microsoft Visual Studio 11.0\VC\vcvarsall.bat"
12
13 rem compile
14 cobc -x hello.cob
15
16 rem exec program
17 hello.exe
18
19 pause
20





```

### 7.3. Start the "comp\_hello.bat" compile script

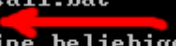
Double click on "comp\_hello.bat".

Name ^	Änderungsdatum	Typ	Größe
 comp_hello.bat 	16.09.2015 02:22	Windows-Batchdatei	1 KB
 hello.cob	16.09.2015 02:23	COB-Datei	1 KB

### 7.4. Compilation and execution result

Name ^	Änderungsdatum	Typ	Größe
 comp_hello.bat	16.09.2015 02:22	Windows-Batchdatei	1 KB
 hello.cob	16.09.2015 02:23	COB-Datei	1 KB
 hello.exe 	16.09.2015 02:31	Anwendung	8 KB

```

C:\oc_projekt\compile_test>rem set environment for MS Visual Studio
C:\oc_projekt\compile_test>call "C:\Program Files (x86)\Microsoft Visual Studio
11.0\VC\vcvarsall.bat"
Hello World! 
Drücken Sie eine beliebige Taste . . .

```