



# Guida Installazione IDE in Informatica A (Ing. Matematica Prof. Campi, Boracchi)

Informatica a, AA 2021/2022

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<https://boracchi.faculty.polimi.it/>



## Credits

Queste slides integrano diversi materiali preparati negli anni da:  
Gian Enrico Conti, Diego Carrera, Alberto Metelli, Mirco Mutti



## MOLTO IMPORTANTE

All'esame sarà possibile **utilizzare solamente uno dei seguenti IDE:**

- **Code::Blocks** (cross platform ma non supportato dalle recenti versioni di Mac)
- **DevC++** (Windows)
- **Xcode** (Mac)

E' possibile usare altri IDE per i laboratori, ma gli esercitatori verosimilmente non riusciranno a darvi assistenza nella risoluzione di problemi di installazione



# Code::Blocks

Installazione



# 1. Scaricare Code::Blocks


The screenshot shows the homepage of the Code::Blocks website. The browser's address bar at the top contains the URL [www.codeblocks.org](http://www.codeblocks.org), which is highlighted with a red box. Below the address bar is the website's header, featuring the Code::Blocks logo (four colored blocks: red, green, yellow, purple) and the text "Code::Blocks" in a large, bold font. To the right of the logo, the tagline "Code::Blocks - The IDE with all the features you need, having a consistent look, feel and operation across platforms." is visible. Below the header is a dark blue navigation bar with several menu items: "Home", "Features", "Downloads", "Forums", and "Wiki". The "Downloads" menu item is highlighted with a red box. Below the navigation bar is the main content area. On the left side, there is a sidebar with a "Main" section containing a list of links: Home, Features, Screenshots, Downloads, Plugins, User manual, Licensing, and Donations. Below this is a "Quick links" section with links to FAQ, Wiki, Forums, and Forums (mobile). The main content area features a large heading: "The open source, cross platform, free C, C++ and Fortran IDE". Below this heading is a paragraph of text: "Code::Blocks is a free C, C++ and Fortran IDE built to meet the most demanding needs of its users. It is designed to be Finally, an IDE with all the features you need, having a consistent look, feel and operation across platforms. Built around a plugin framework, Code::Blocks can be extended with plugins. Any kind of functionality can be added by i functionality is already provided by plugins! Special credits go to damar for his great work on the FortranProject plugin, bundled since release 13.12. We hope you enjoy using Code::Blocks! The Code::Blocks Team".

## 2. Selezionare "binary release"



## 3. Scegliere il sistema operativo

← → ↻ ⓘ www.codeblocks.org/downloads/26



# Code::Blocks

Code::Blocks - The IDE with all the features you need, having

- Home
- Features
- Downloads
- Forums
- Wiki

### Main

- Home
- Features
- Screenshots
- Downloads
  - Binaries
  - Source
  - SVN
- Plugins
- User manual
- Licensing
- Donations

### Quick links

- FAQ
- Wiki
- Forums
- Forums

Please select a setup package depending on your platform:


- Windows XP / Vista / 7 / 8.x / 10
- Linux 32-bit
- Linux 64-bit
- Mac OS X

**NOTE:** For older OS'es use older releases. There are releases for many OS version and platforms on the [Sourceforge](#)

**NOTE:** There are also more recent *nightly builds* available in the [forums](#) or (for Debian and Fedora users) in [Jens' Deb](#)

**NOTE:** We have a [Changelog for 16.01](#), that gives you an overview over the enhancements and fixes we have put in t

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

File
codeblocks-16.01-setup.exe

28 Ja



Selezionare "**codeblocks-20.03mingw-setup.exe**"  
(o anche -17.12-mingwsetup.exe)



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

File	Date	Download from
<a href="#">codeblocks-20.03-setup.exe</a>	29 Mar 2020	<a href="#">FossHUB</a> or <a href="#">Sourceforge.net</a>
<a href="#">codeblocks-20.03-setup-nonadmin.exe</a>	29 Mar 2020	<a href="#">FossHUB</a> or <a href="#">Sourceforge.net</a>
<a href="#">codeblocks-20.03-nosetup.zip</a>	29 Mar 2020	<a href="#">FossHUB</a> or <a href="#">Sourceforge.net</a>
<a href="#">codeblocks-20.03mingw-setup.exe</a>	29 Mar 2020	<a href="#">FossHUB</a> or <a href="#">Sourceforge.net</a>


Cliccare su SourceForge:

[FossHUB](#) or [Sourceforge.net](#)





appare:



# Code::Blocks

A free C, C++ and Fortran IDE  
Brought to you by: [killerbot](#), [mandrav](#), [mortenmacfly](#), [thomas-denk](#)

Your download will start shortly... 0

.. privacy..  
(accept)

### We value your privacy

Our site is supported by advertising and we and our partners use technology such as cookies on our site to personalize content and ads, provide social media features, and analyze our traffic. Click "I Accept" below to consent to the use of this technology across the web. You can change your mind and change your consent choices at any time by returning to this site and clicking the Privacy Choices link.

By choosing I Accept below you are also helping to support our site and improve your browsing experience.

I DO NOT ACCEPT

I ACCEPT

Salvare:

What do you want to do with codeblocks-17.12mingw-nosetup.zip (91.2 MB)?

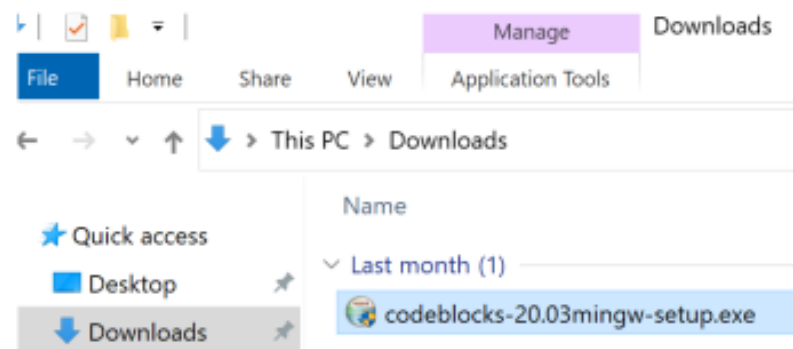
From: [netix.dl.sourceforge.net](http://netix.dl.sourceforge.net)

Save



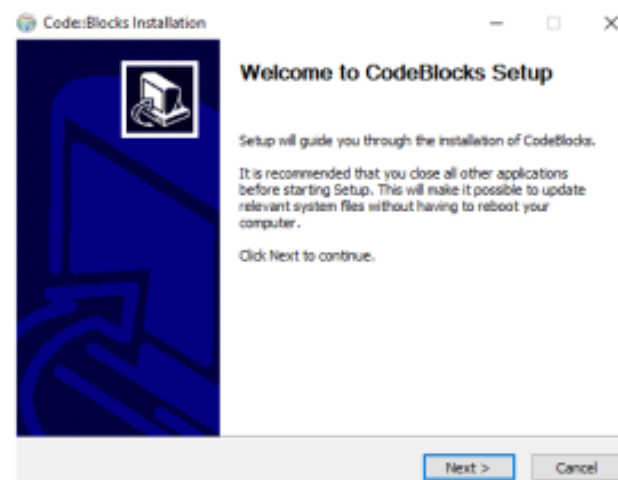
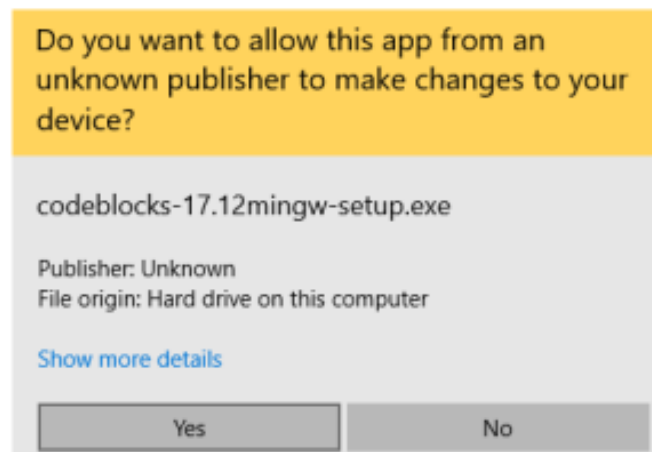
Open folder...

troverete:



doppio click..

Yes..



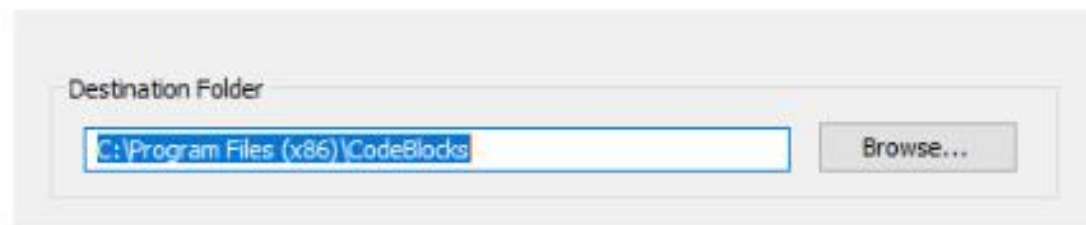
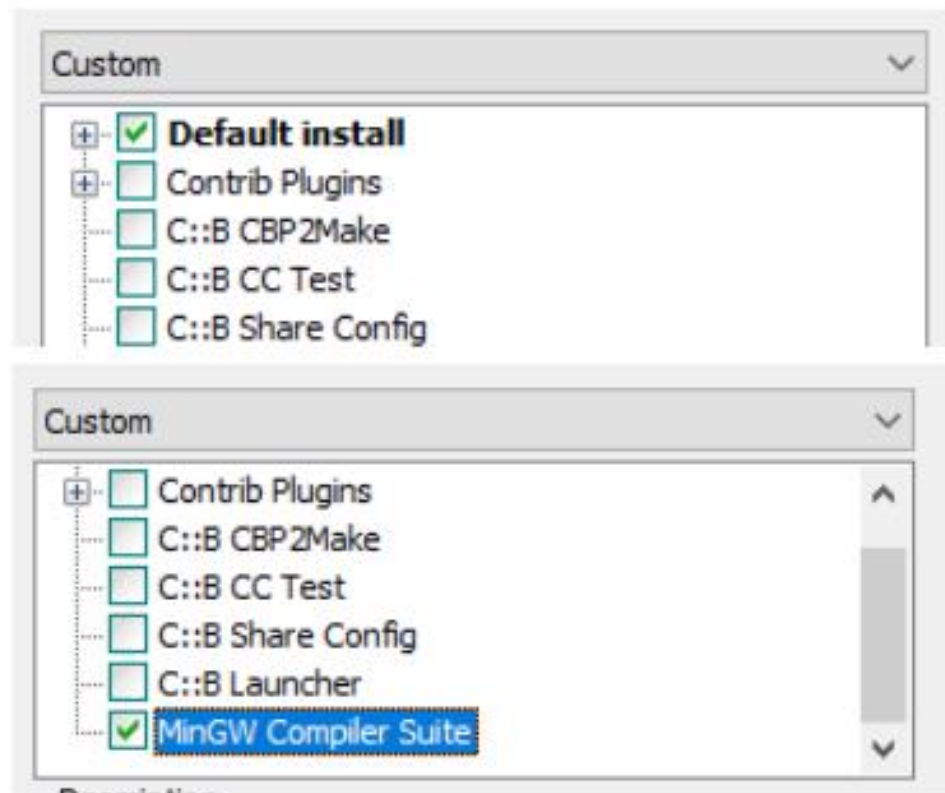
next...



ATTENZIONE alle OPZIONI!

1' e ultima:

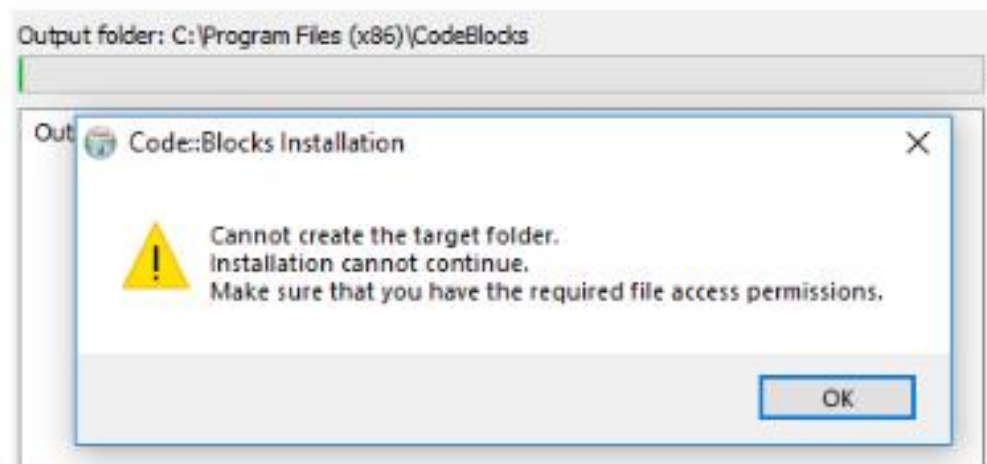
(altre inutili x noi..)



destinazione: (puo' variare se windows a 32 bit.. )



Se accettate il valore proposto puo' dare errore.. (privilegi)



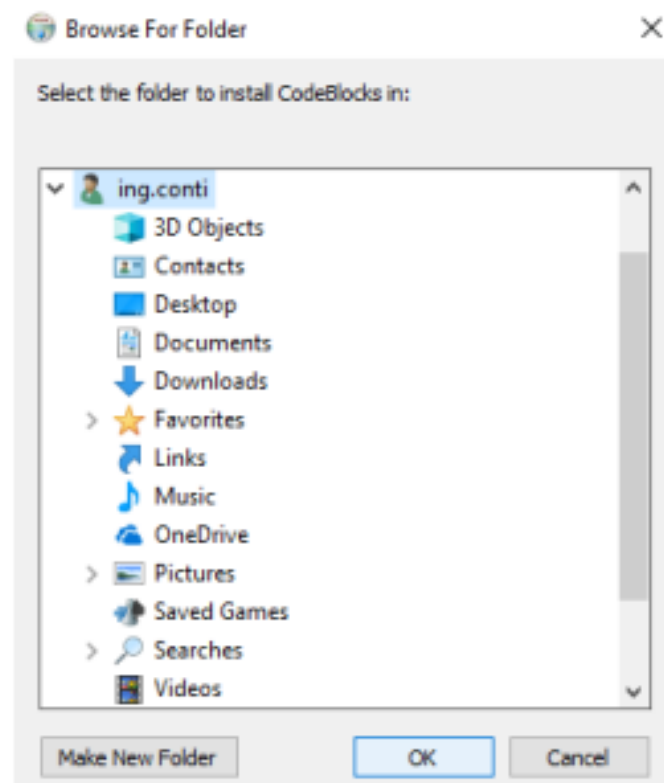
dare OK e Cancel.

*Nota: sarebbe preferibile avere accesso alla cartella dei programmi, ma richiede setup adeguato/modifica privilegi.*

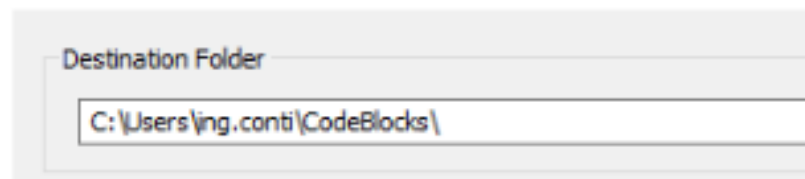


**SOLO** se da Errore

Cliccare su Browse..  
e scegliere la vs. cartella:

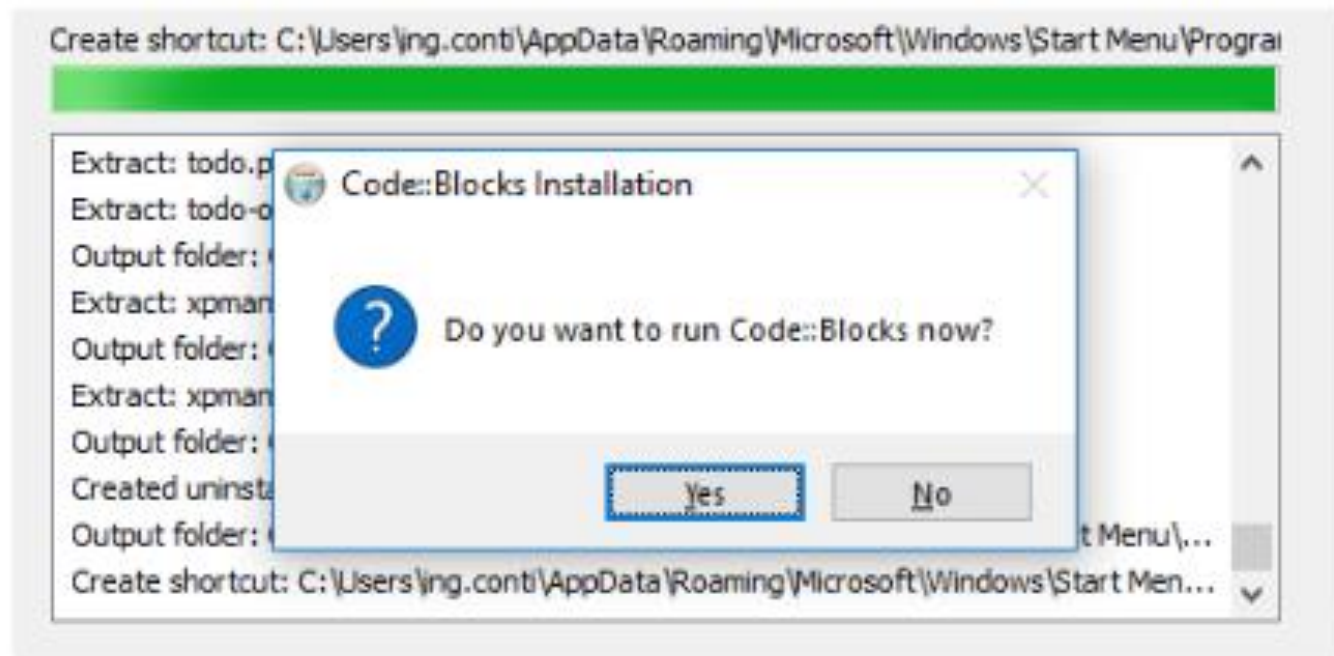


apparira:



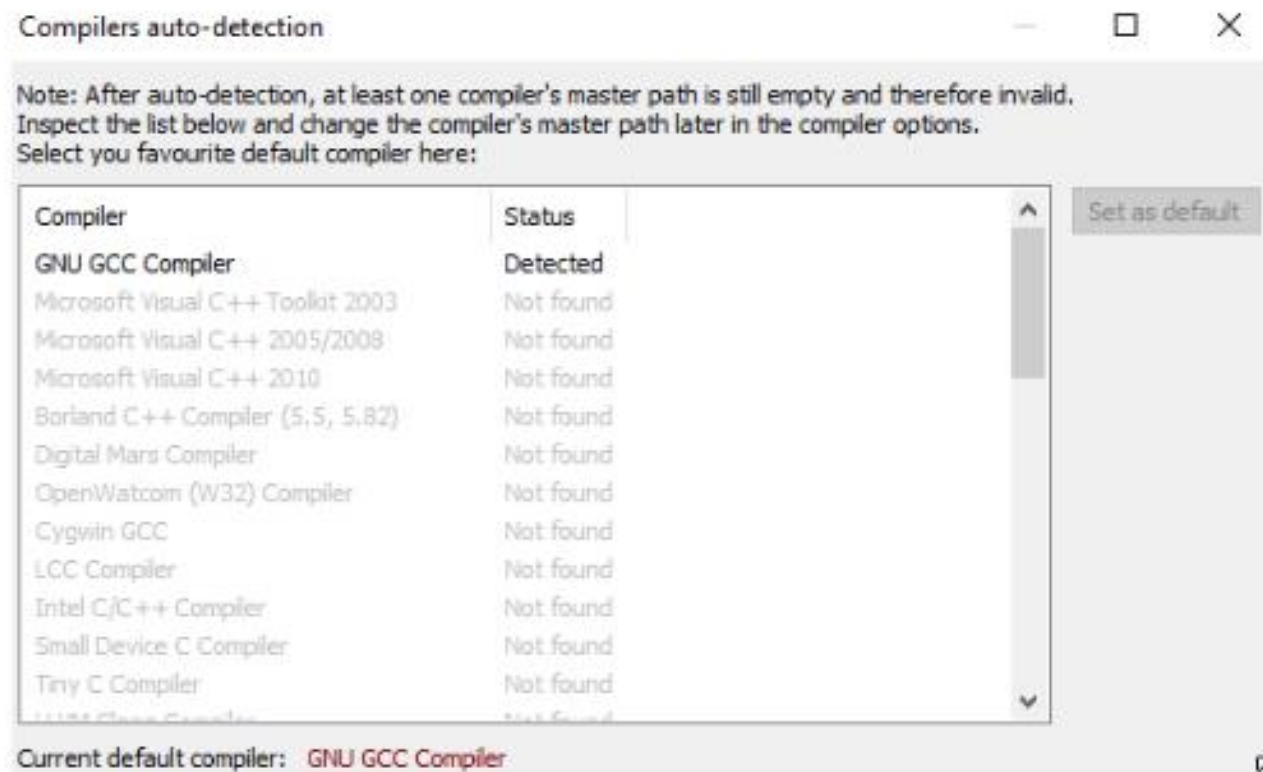
cliccare su **Install ..**

parte setup..alla fine appare:



provare con YES

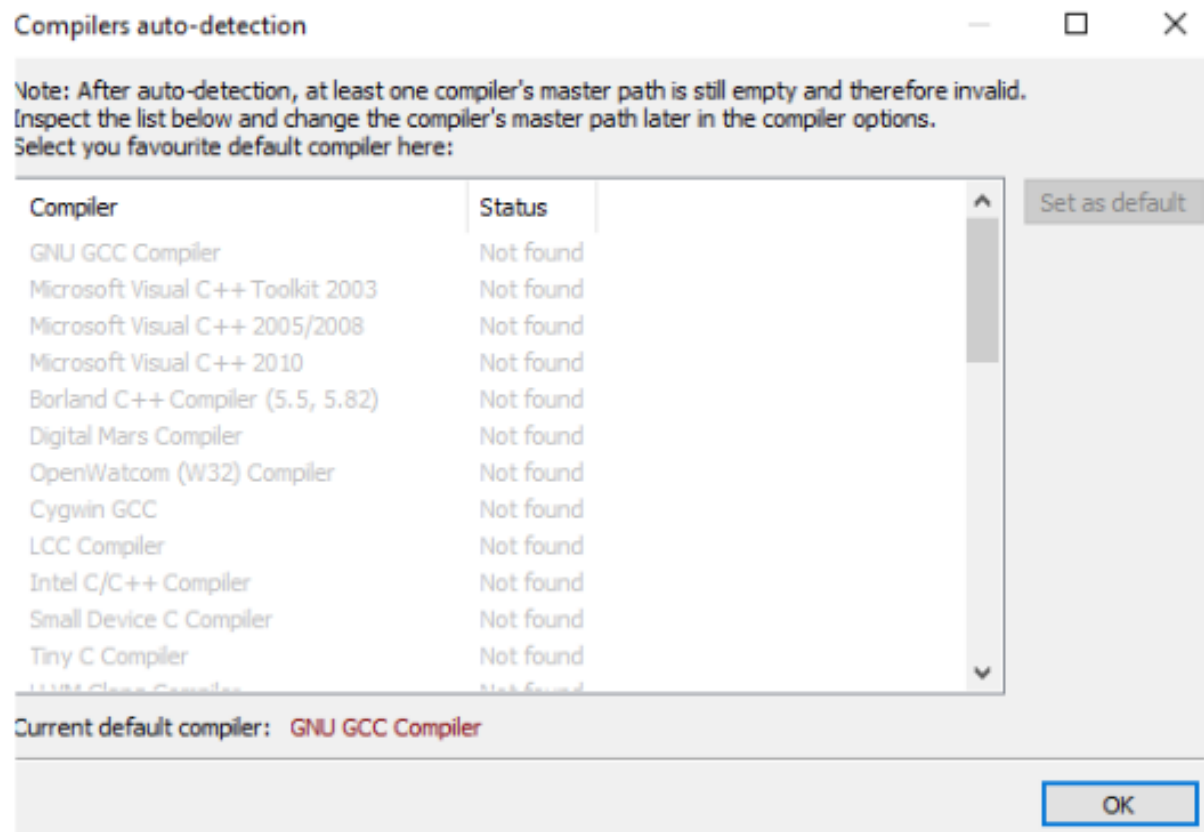
Dovreste avere:



almeno uno deve essere “detected”

se no..

Se NON vi appare ALCUN compilatore....

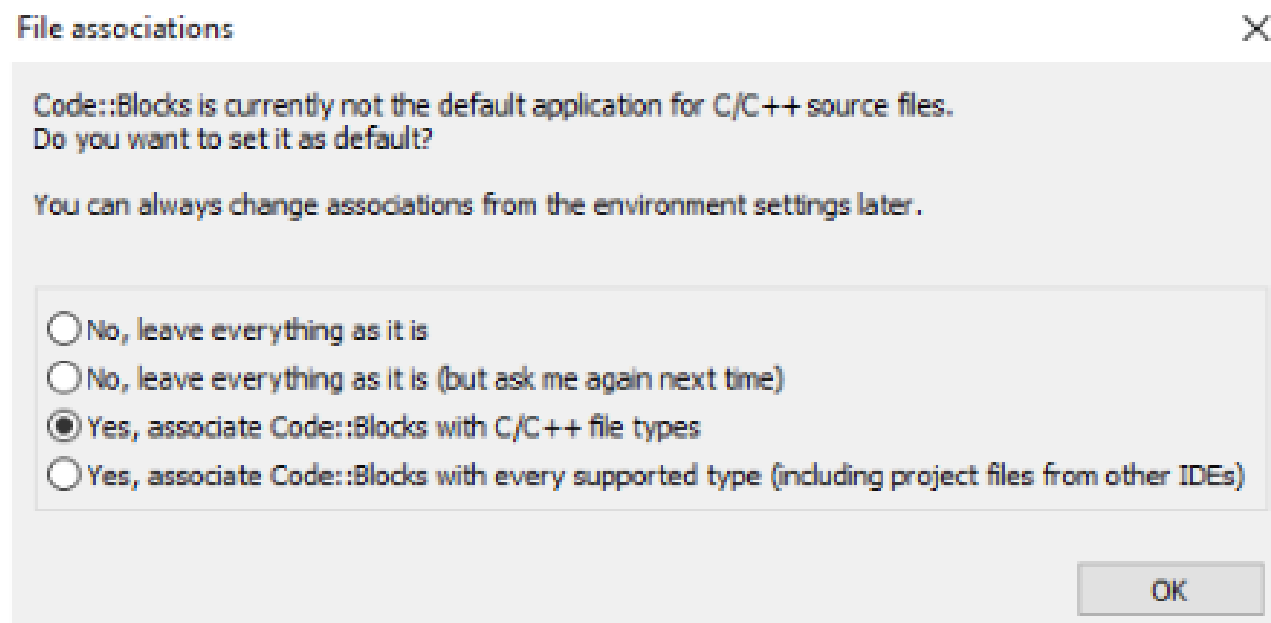


AVETE SBAGLIATO INSTALLER!! (tornare ai download..)





### 3' opzione (preferibile ma non mandatory)



Dare OK

(se re-installate NON lo chidera' di nuovo)



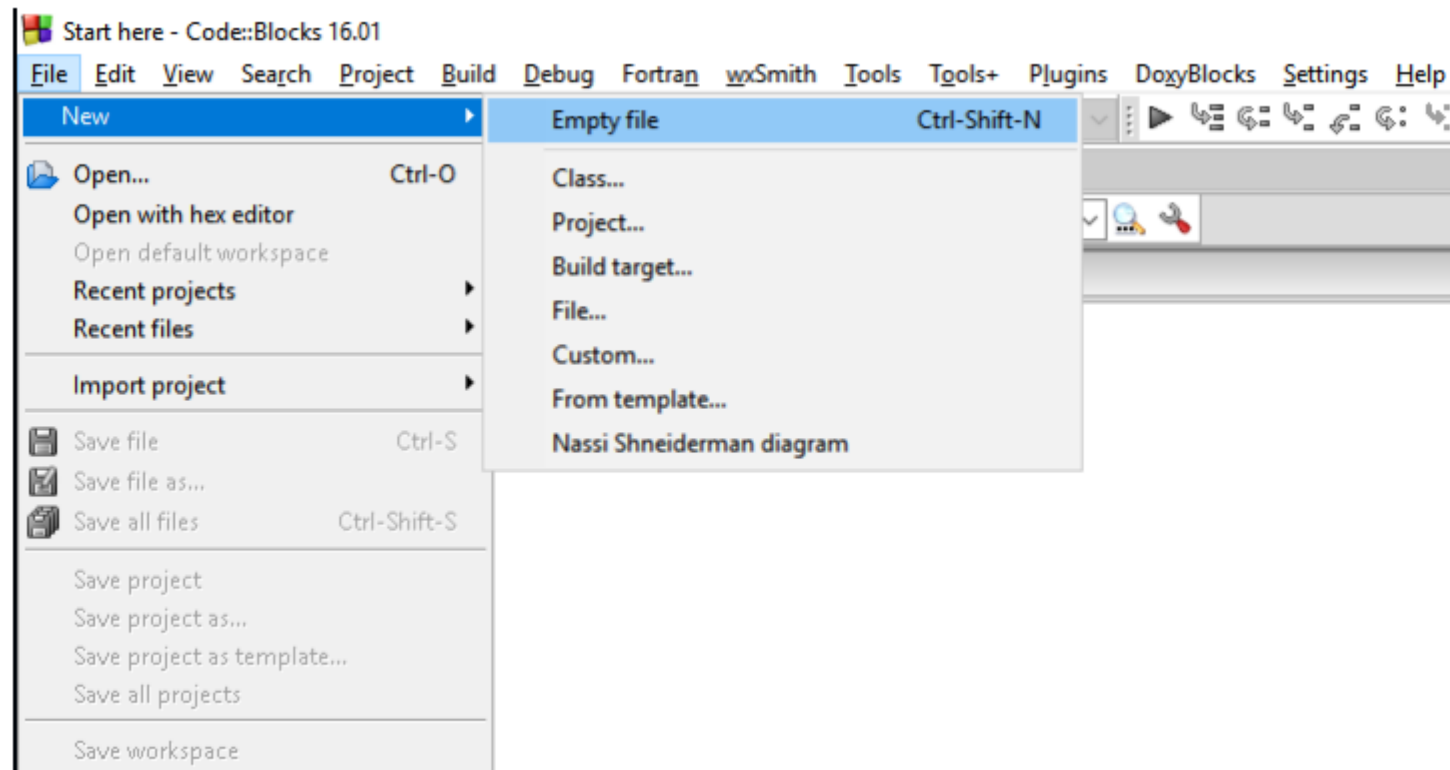
# Code::Blocks

Preparazione Hello World



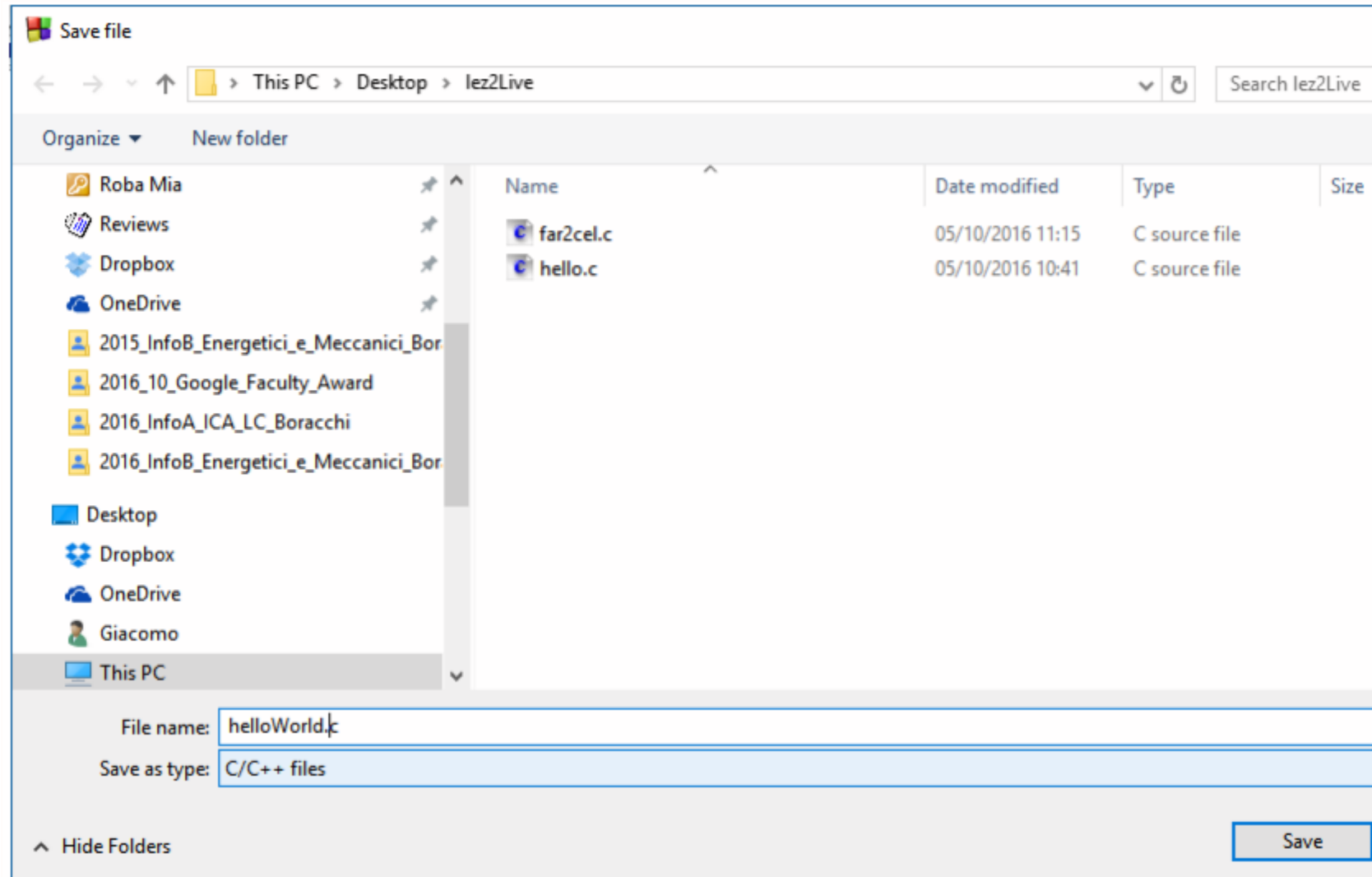
## 4. Creare un nuovo file sorgente

Selezionare “empty file” dal menu File→New



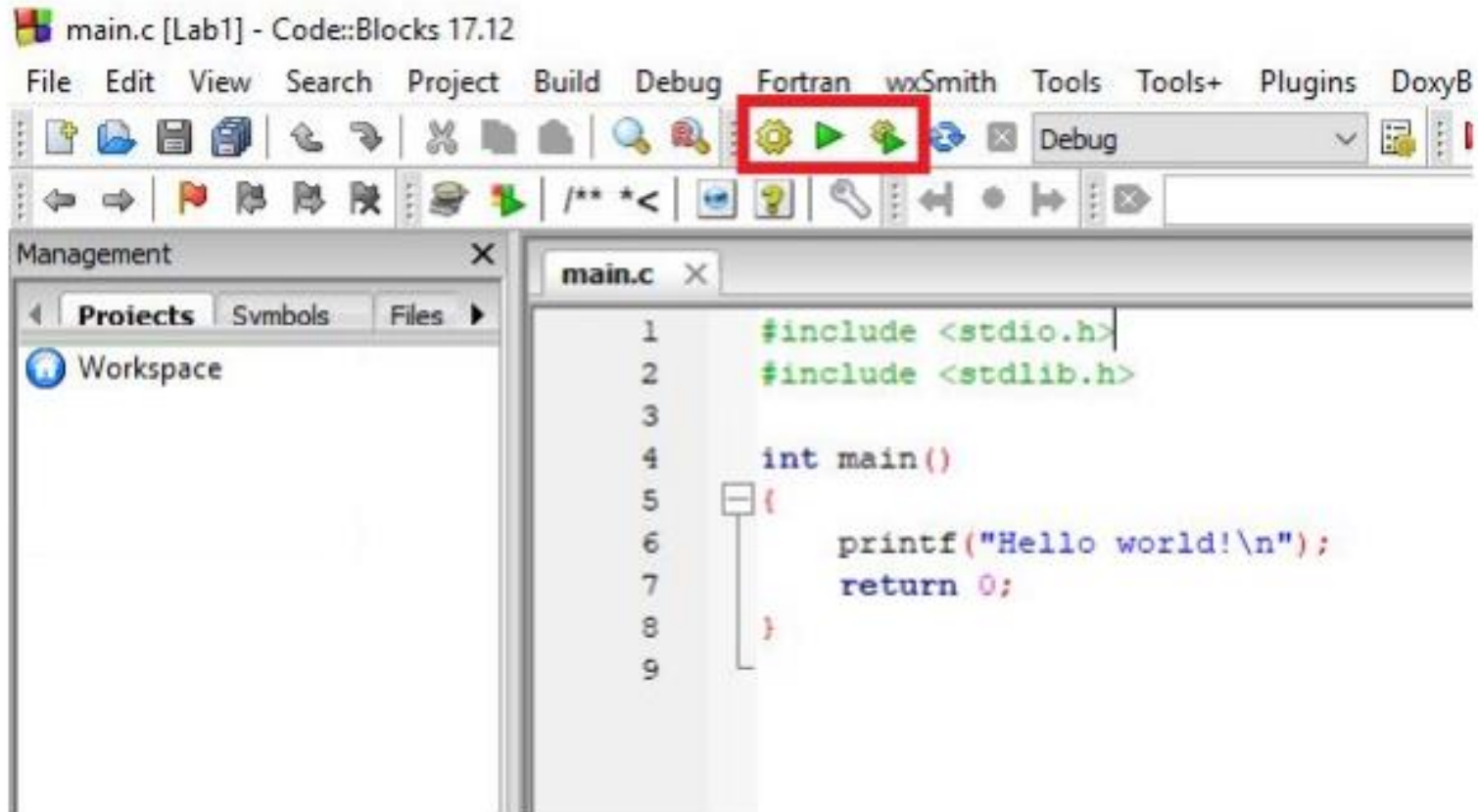
## 5. Salvare il file sorgente

Salvare il file con estensione .c e tipo C/C++ files



## 7. Compilare ed eseguire il programma

Compilare il programma cliccando sull'ingranaggio giallo e lanciare l'eseguibile generato cliccando sulla freccia verde. Alternativamente, cliccare sull'icona ingranaggio+freccia per eseguire queste due azioni in automatico.





Se tutto va a buon fine dovrete vedere un terminale con stampato “Hello world!”

```
Hello world!  
Process returned 0 (0x0)   execution time : 1.908 s  
Press any key to continue.  
_
```

## 8. Errori in Compilazione

Se ci sono errori sintattici/lessicali, questi vengono visualizzati nella scheda “Build messages”.

Leggete tutto attentamente prima di chiedere aiuto... ad esempio in questo log dice che non conosce la variabile `usleep`.



```
Code::Blocks X Search results X Cccc X Build log X Build messages X CppCheck X CppCheck messages

File      Line  Message
==== Build: all in otclient (compiler: GNU GCC Compiler) ====
C:\otclient-ma... In function 'void stdext::millisleep(std::size_t)':
C:\otclient-ma... 52  error: 'usleep' was not declared in this scope
C:\otclient-ma... In function 'void stdext::microsleep(std::size_t)':
C:\otclient-ma... 61  error: 'usleep' was not declared in this scope
CMakeFiles\otc... 241  recipe for target 'CMakeFiles/otclient.dir/src/framework/stdext/time.cpp.obj' failed
CMakeFiles\Mak... 66  recipe for target 'CMakeFiles/otclient.dir/all' failed
C:\ot\Makefile 128  recipe for target 'all' failed
==== Build failed: 5 error(s), 0 warning(s) (0 minute(s), 58 second(s)) ====
```



# Dev-C++

Installazione

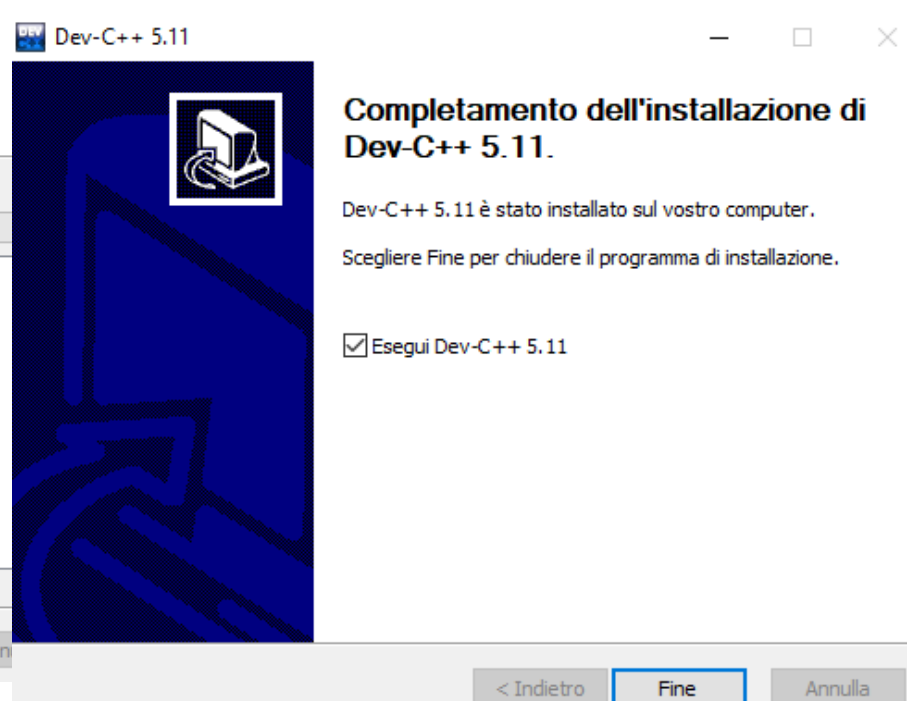
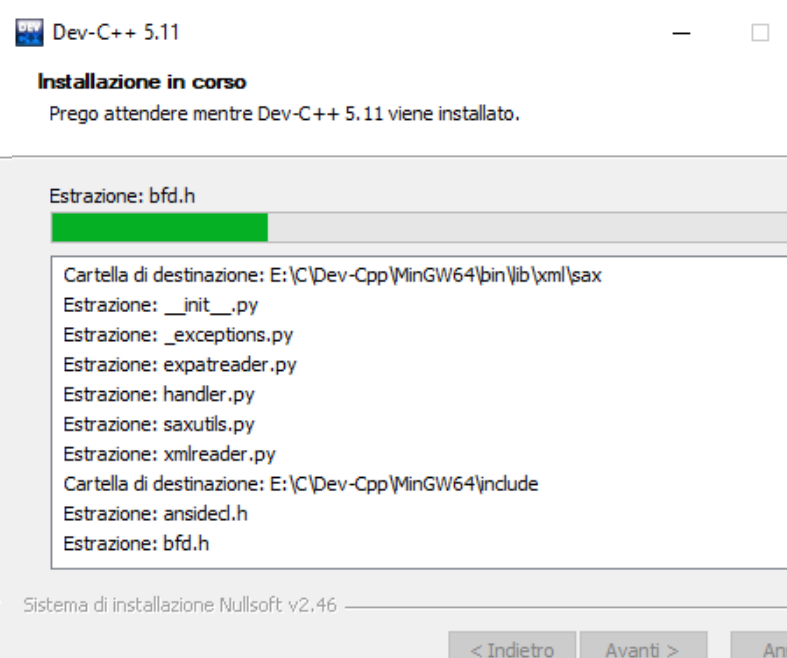
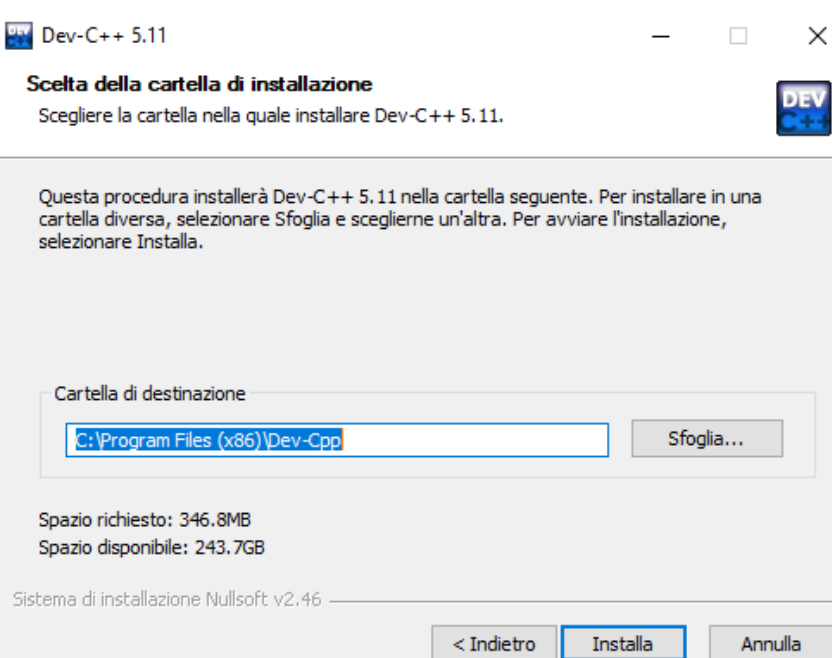
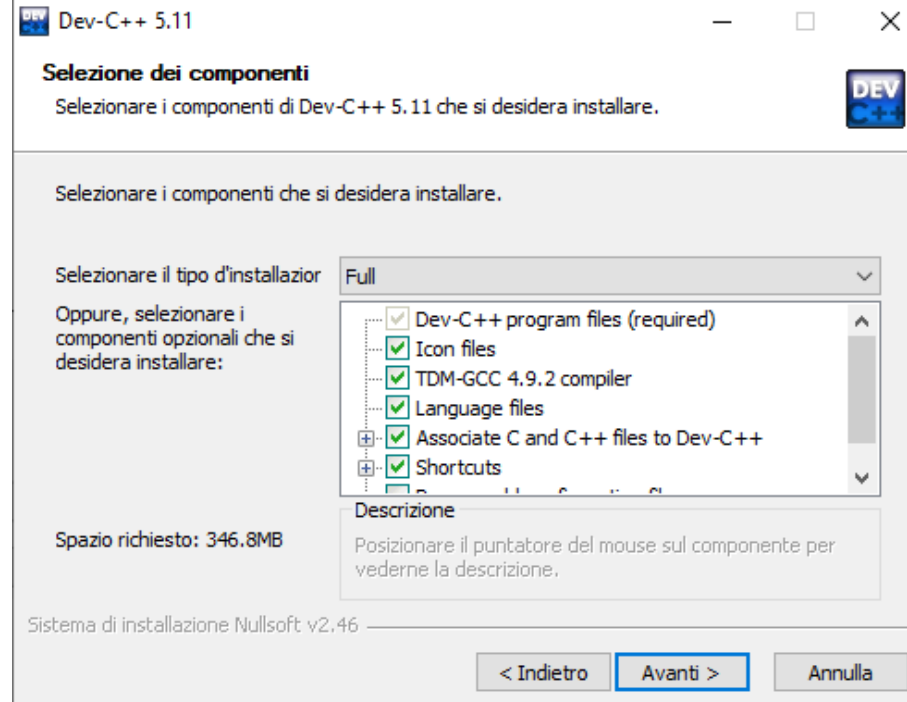
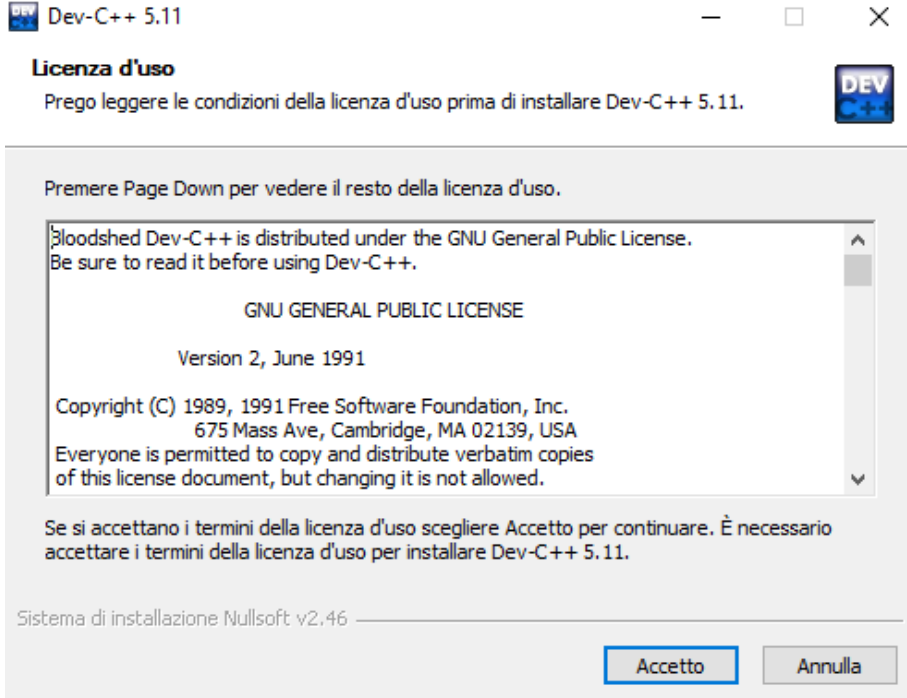
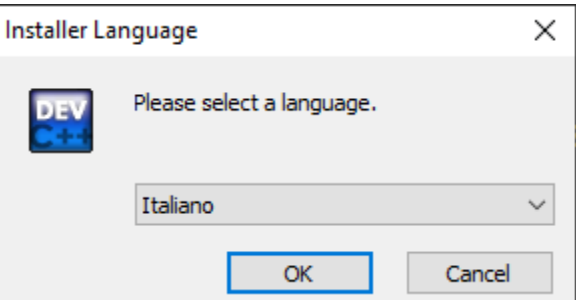




## Attenzione al file che scaricate

- Esistono diverse versioni di Dev-Cpp.
- Quella che funziona sui PC Windows moderni è la **Orwell version**
- La potete scaricare qua: <https://sourceforge.net/projects/orwelldvcpp/>



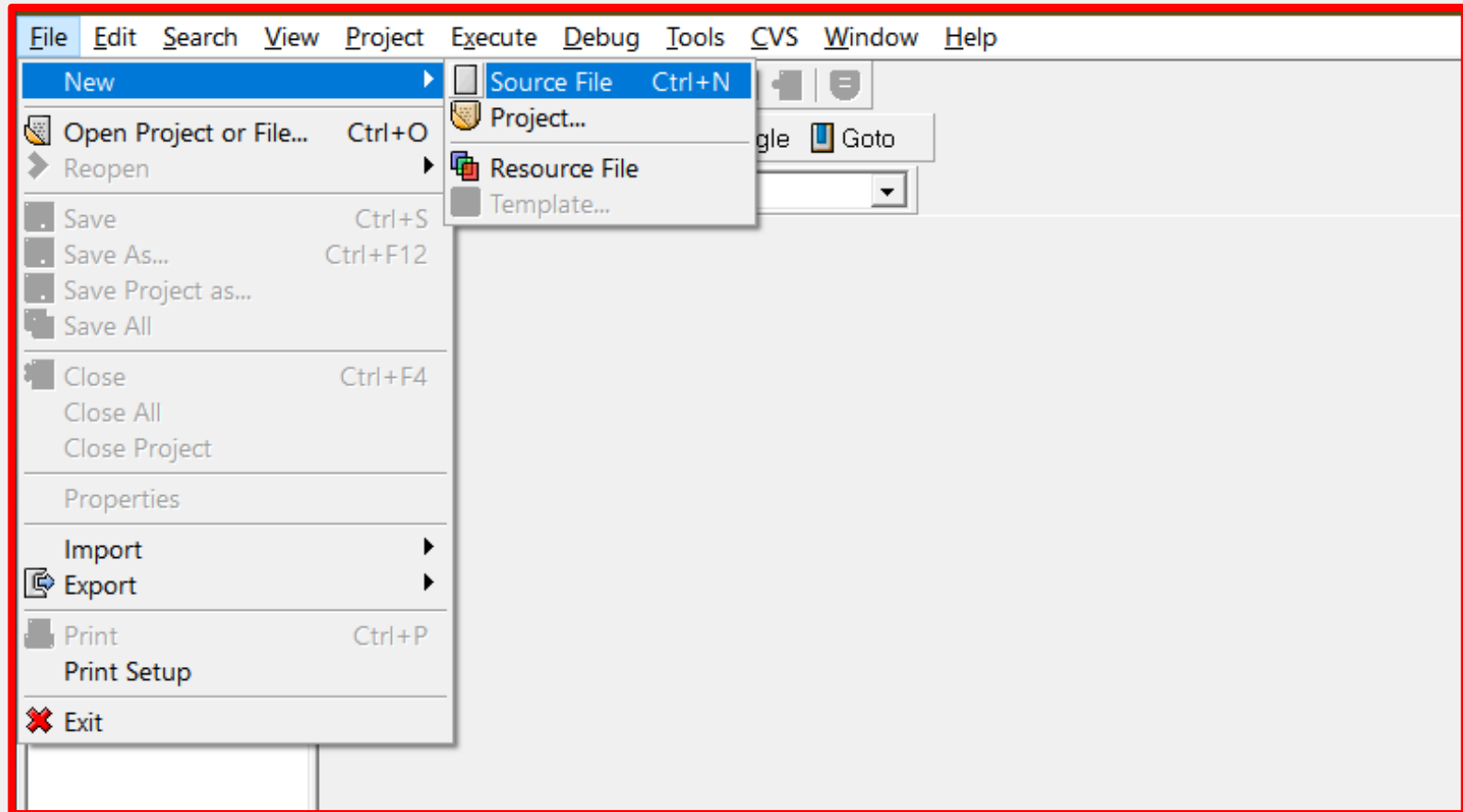
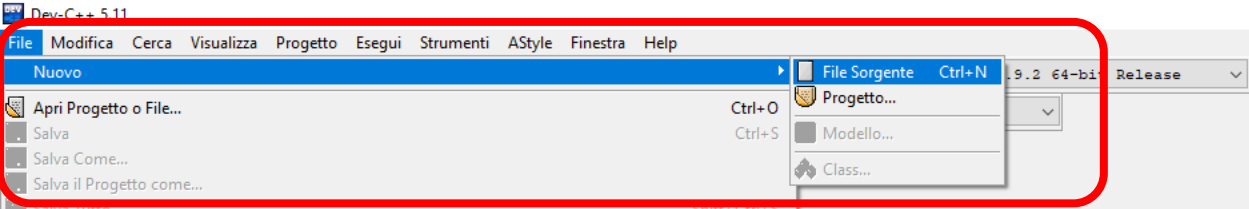




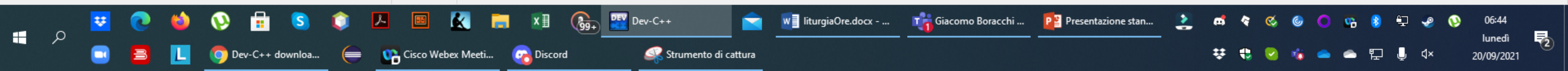
# Dev-C++

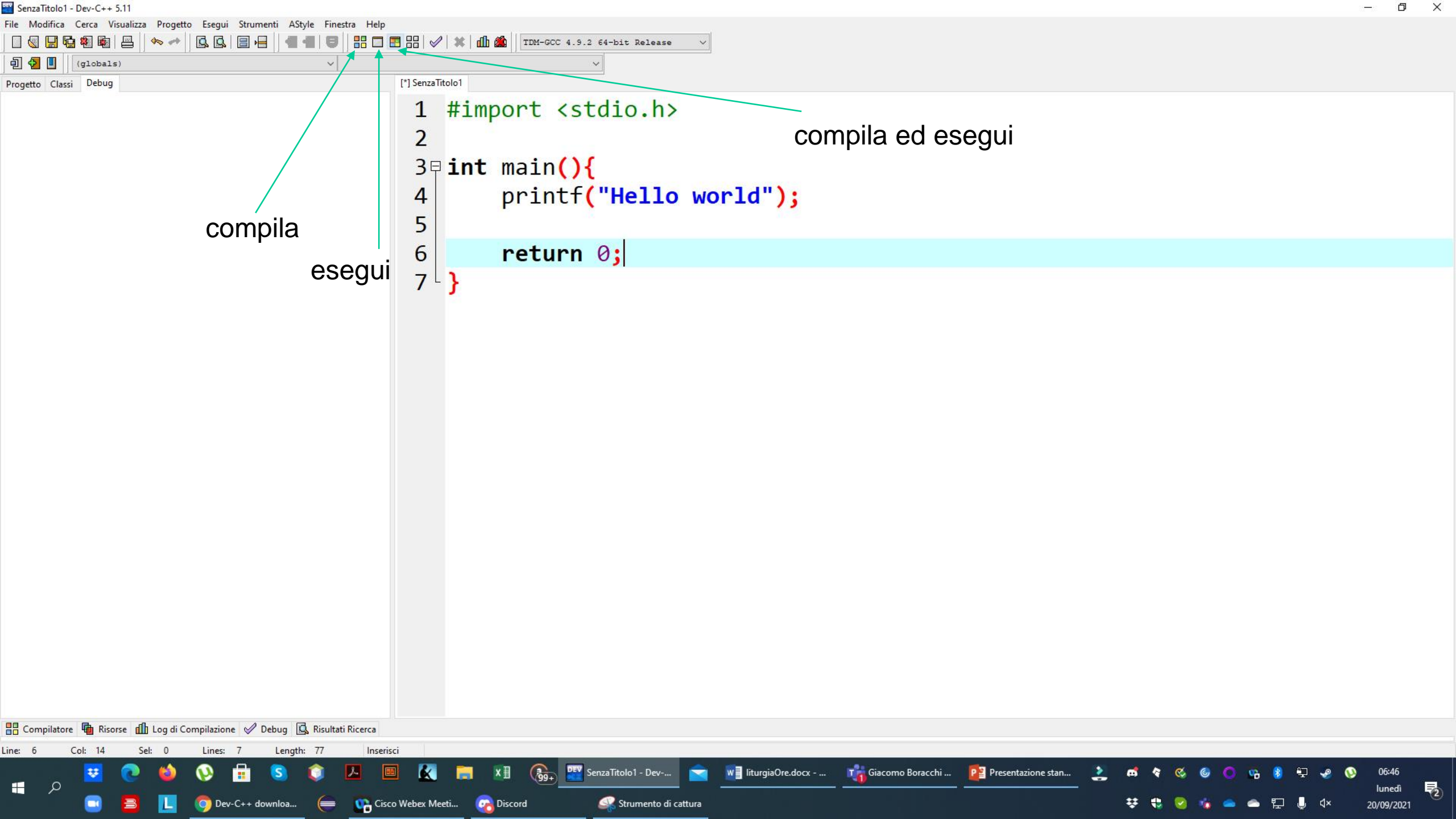
Hello World





Compiler Risorse Log di Compilazione Debug Risultati Ricerca





compila

esegui

compila ed esegui

```
1 #import <stdio.h>
2
3 int main(){
4     printf("Hello world");
5
6     return 0;
7 }
```

Compiler Risorse Log di Compilazione Debug Risultati Ricerca

Line: 6 Col: 14 Sel: 0 Lines: 7 Length: 77 Inserisci



SenzaTitolo1 - Dev-C++ 5.11

File Modifica Cerca Visualizza Progetto Esegui Strumenti AStyle Finestra Help

TDM-GCC 4.9.2 64-bit Release

(globals)

Progetto Classi Debug

```
1 #import <stdio.h>
2
3 int main(){
4     printf("Hello world");
5
6     return 0;
7 }
```

Save As

Salva in: provec

Nome	Ultima modifica	Tipo
lab3.2.c	14/10/2020 10:09	C Sou
main (1).c	14/10/2020 11:33	C Sou
main.c	27/10/2020 21:01	C Sou
ordine alfabetico.c	30/09/2020 11:39	C Sou

Nome file: SenzaTitolo1.c

Salva come: C source files (\*.c)

Salva Annulla

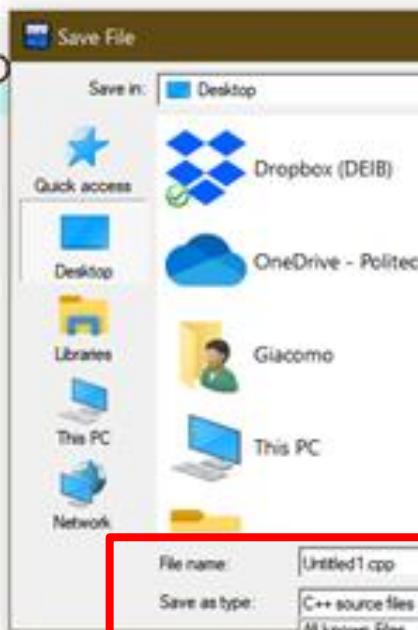
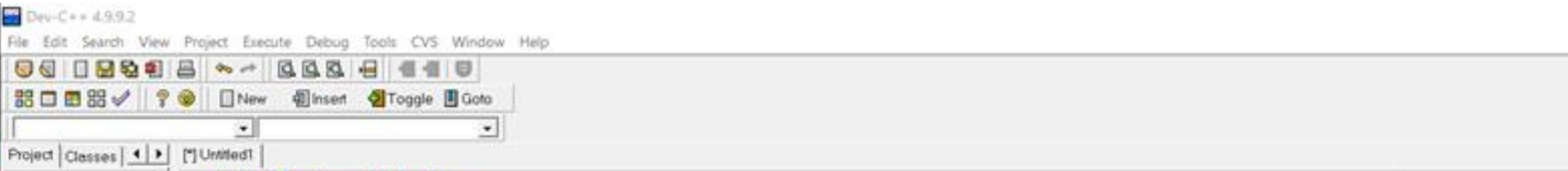
Compilatore Risorse Log di Compilazione Debug Risultati Ricerca Chiudi

Ferma la Compilazione

Shorten compiler paths



# Attenzione: Salvare il file come file C (e non C++)



File name:

Untitled1.c

Save as type:

C source files (\*.c)

All known Files

Dev-C++ project (\*.dev)

Header files (\*.h;\*.hpp;\*.rh;\*.hh)

Resource scripts (\*.rc)

C source files (\*.c)

C++ source files (\*.cpp;\*.cc;\*.cxx;\*.c++;\*.cp)

All files (\*.\*)

File name:

Untitled1.cpp

Save as type:

C++ source files (\*.cpp;\*.cc;\*.cxx;\*.c++;\*.cp)

All known Files

Dev-C++ project (\*.dev)

Header files (\*.h;\*.hpp;\*.rh;\*.hh)

Resource scripts (\*.rc)

C source files (\*.c)

C++ source files (\*.cpp;\*.cc;\*.cxx;\*.c++;\*.cp)

All files (\*.\*)

**Non salvate il file come C++ source files che**

```
1 #import <stdio.h>
2
3 int main(){
4     printf("Hello world");
5
6     return 0;
7 }
```

```
Hello world
-----
Process exited after 1.305 seconds with return value 0
Premere un tasto per continuare . . .
```

Linea	Col...	Unità	Messaggio
1	2	C:\Users\alesi\Desktop\provec\SenzaTitolo1.c	[Warning] #import is a deprecated GCC extension [-Wdeprecated]



# XCode

Installazione

Xcode e' una "normale" APP, quindi.:

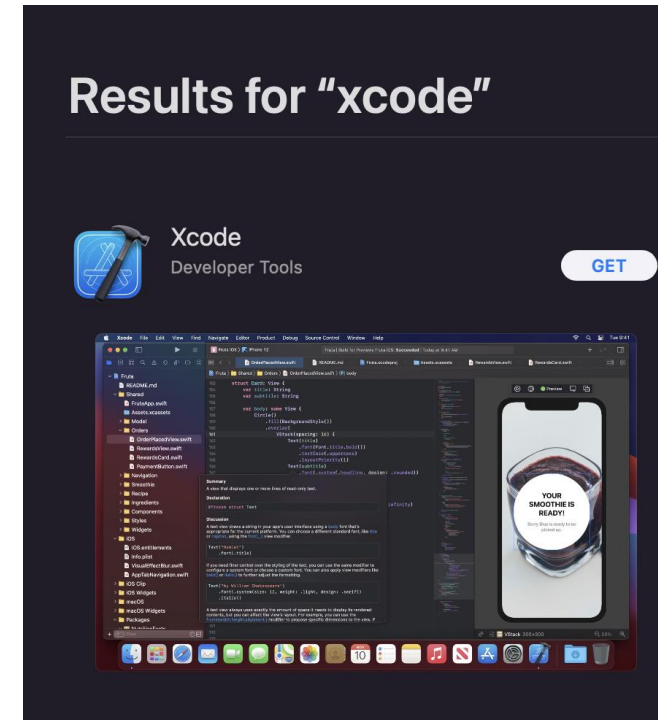
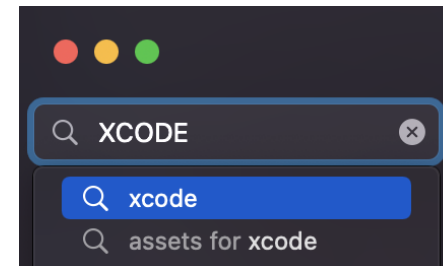
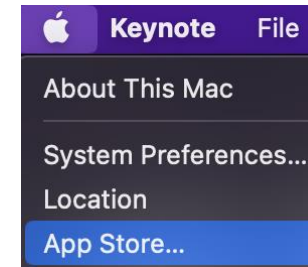
1) andare su AppStore

2) cercare...

3) scaricare Xcode..

*Nota: richiederà del tempo..*

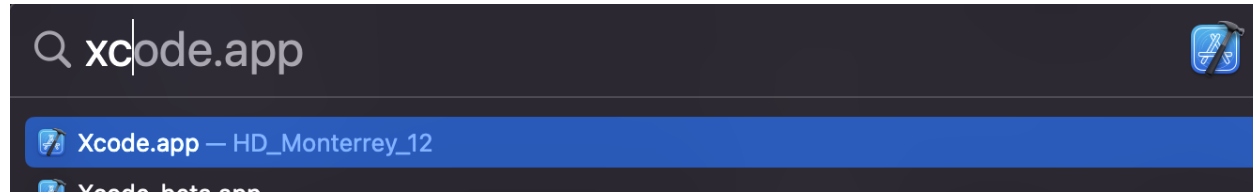
*Sono molti GB*



A fine scarico andare nella App (cmd A)

(o solito cmd barra di Spotlight ...)

Aprire Xcode ...





# XCode

Hello World



## Progetto

In Xcode non è possibile compilare un singolo file ma occorre creare un progetto che contiene il vostro «helloworld.c»

# 1' progetto

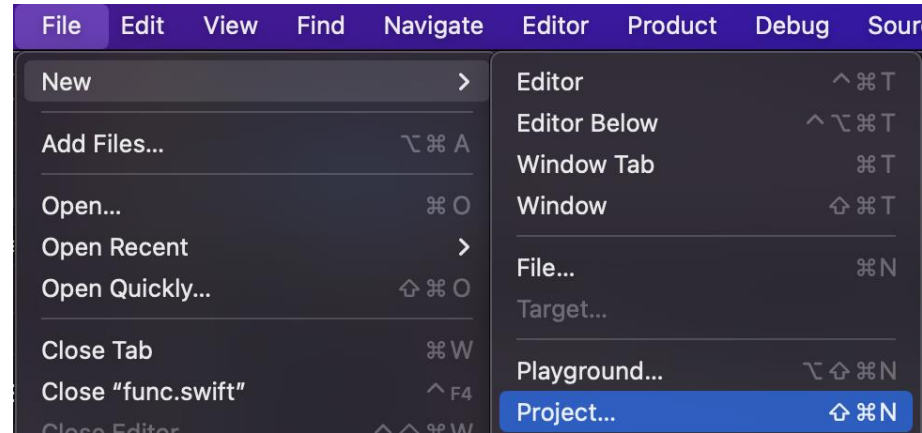
Concetti sottesi:

- useremo **SOLO** il C
- ogni attività ingegneristica ha un "progetto"
- creeremo un mini-project
- Xcode serve x moltissimi altri tipi di progetti.... Non li vedremo!



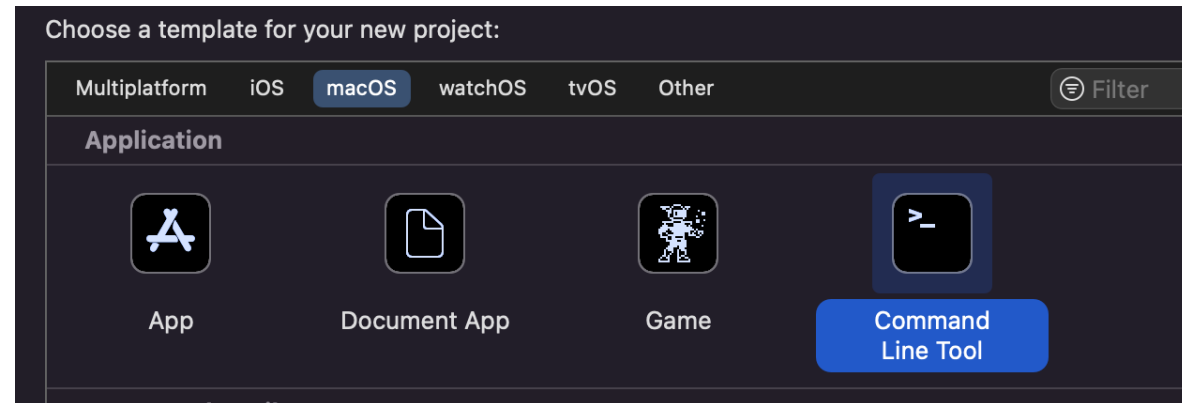
# 1' progetto: Hello World

1) da menu File,  
nuovo progetto..  
(cmd shift N)



2) appare:

Scegliere  
macOS E CmdlienTool

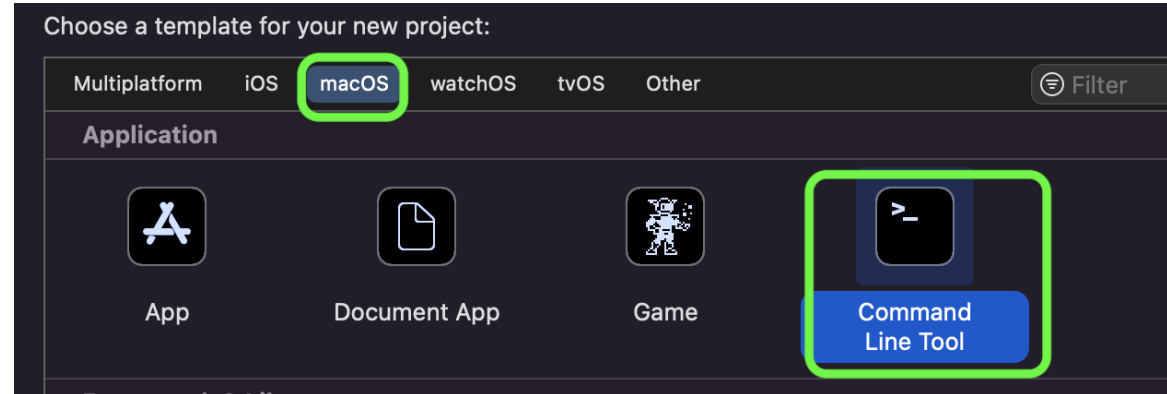


# 1' progetto: Hello World (2)

3) Scegliere

macOS **E**  
Command line Tools

Altre "combinazioni" non servono/non vanno usate.



# 1' progetto: Hello World (3)

A) Product name:  
HelloWorld

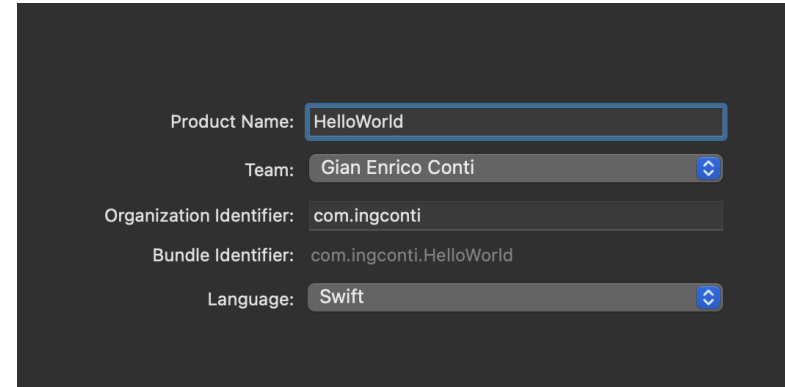
(Non usare spazi... ogni altro nome va benissimo...)

B) Team: None

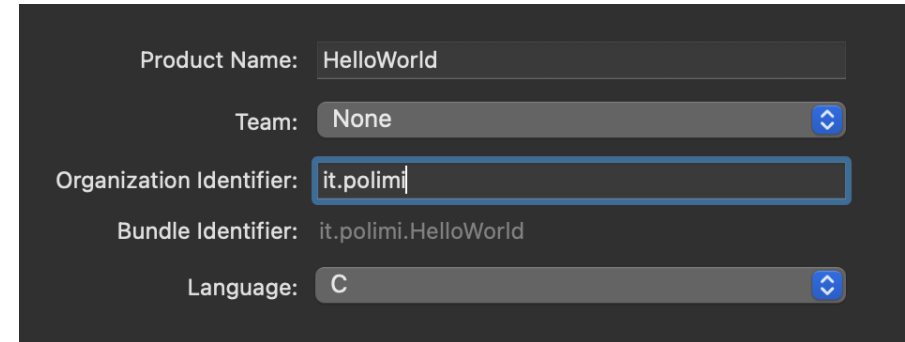
C) Org. Identifier: it.polimi

(A meno ne abbiate già uno...)

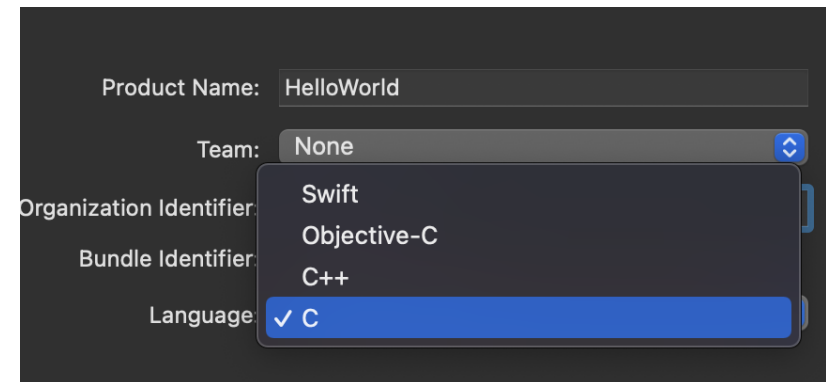
D) linguaggio "C"



Product Name: HelloWorld  
Team: Gian Enrico Conti  
Organization Identifier: com.ingconti  
Bundle Identifier: com.ingconti.HelloWorld  
Language: Swift



Product Name: HelloWorld  
Team: None  
Organization Identifier: it.polimi  
Bundle Identifier: it.polimi.HelloWorld  
Language: C



Product Name: HelloWorld  
Team: None  
Organization Identifier: it.polimi  
Bundle Identifier: it.polimi.HelloWorld  
Language: C

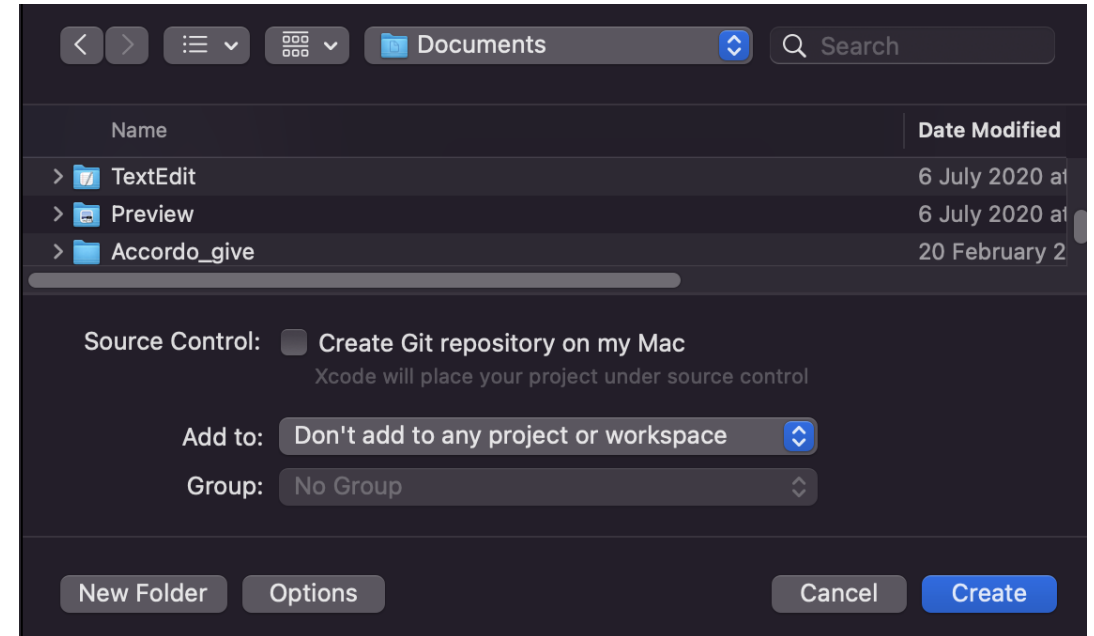
- Swift
- Objective-C
- C++
- ✓ C

# 1' progetto: Hello World (4)

Salvare in cartella a vs scelta.. (evitare desktop...)

"Git" non serve, nè workspace, per noi.

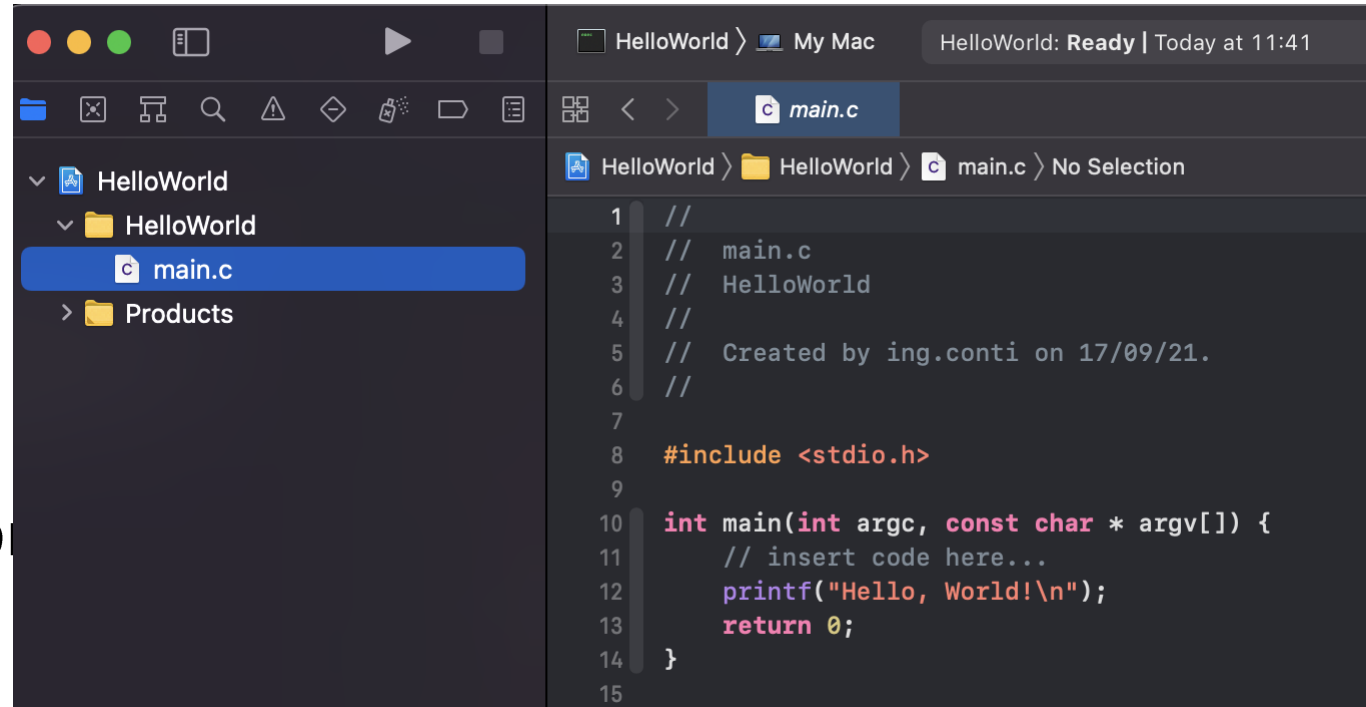
**"Create"...**



# 1' progetto: Hello World (5)

Apparirà:

Fate click su main.c: AVETE un p  
**funzionante!**



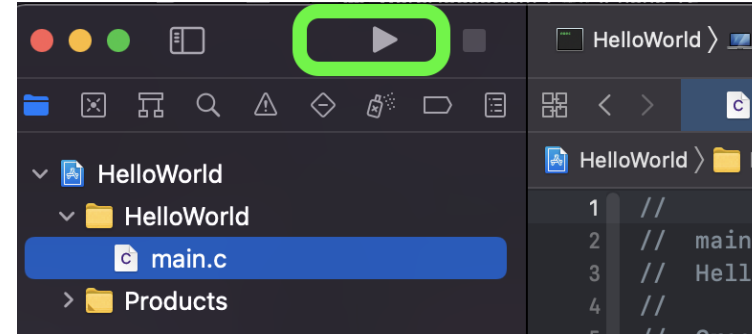
The screenshot shows a code editor window with a dark theme. The left sidebar displays a file explorer with a folder named 'HelloWorld' containing a file 'main.c' and a subfolder 'Products'. The main editor area shows the content of 'main.c' with the following code:

```
1 //  
2 // main.c  
3 // HelloWorld  
4 //  
5 // Created by ing.conti on 17/09/21.  
6 //  
7  
8 #include <stdio.h>  
9  
10 int main(int argc, const char * argv[]) {  
11     // insert code here...  
12     printf("Hello, World!\n");  
13     return 0;  
14 }  
15
```

# 1' progetto: Hello World (6) RUN

Cliccare sul pulsante

RUN (non è "play 😊 )



Apparirà:

```
main.c
HelloWorld > HelloWorld > main.c > No Selection
1 //
2 // main.c
3 // HelloWorld
4 //
5 // Created by ing.conti on 17/09/21.
6 //
7
8 #include <stdio.h>
9
10 int main(int argc, const char * argv[]) {
11     // insert code here...
12     printf("Hello, World!\n");
13     return 0;
14 }
```

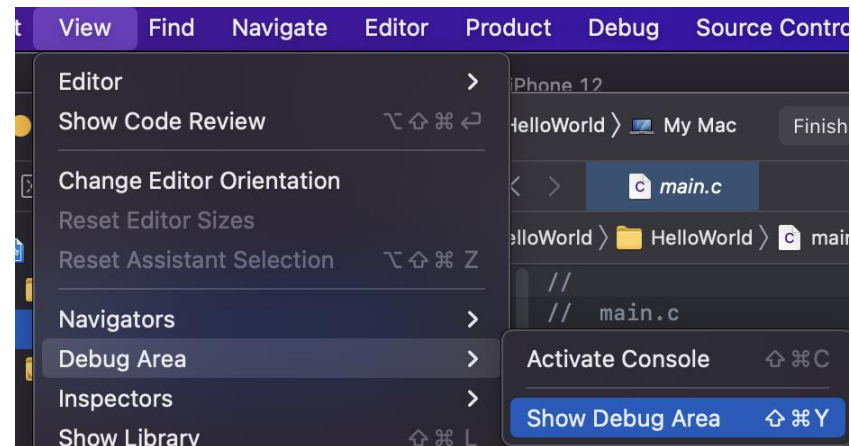
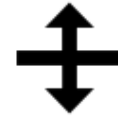
```
Hello, World!
Program ended with exit code: 0
```

# 1' progetto: Hello World (7) Area inferiore

Se non vedete la zona inferiore..

A) spostate le zone con il cursore

B) oppure Cmd Shift Y



# 1' progetto: Hello World (9) errors

Se avete errori,

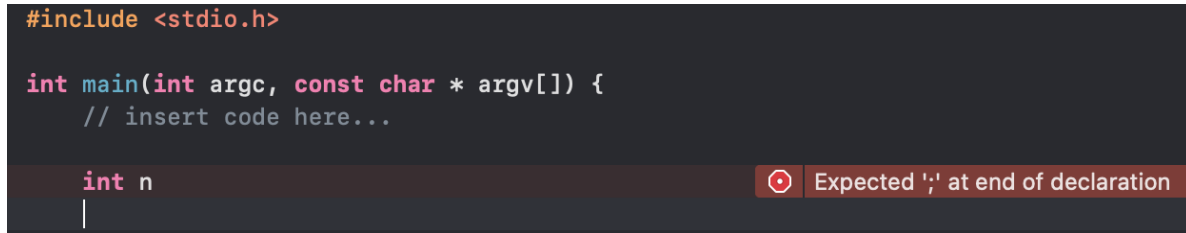
Appare diagnostica.

Se fate click sul pulsante rosso, FIXA lui!

```
#include <stdio.h>

int main(int argc, const char * argv[]) {
    // insert code here...

    int n
    |
```

A screenshot of a code editor with a dark background. The code is in C and shows a compilation error. The code is: `#include <stdio.h>`, `int main(int argc, const char * argv[]) {`, `// insert code here...`, and `int n`. A red error message box is visible on the right side of the code, containing a red circle with a white exclamation mark and the text "Expected ';' at end of declaration".