



- Eclipse

- Integrated Development Environment (IDE)
- Version: Oxygen.3a Release (4.7.3a)

- can use the gcc compiler and gdb debugger
 - and Makefiles
- Requires a Java Runtime Environment

<http://www.eclipse.org/downloads>

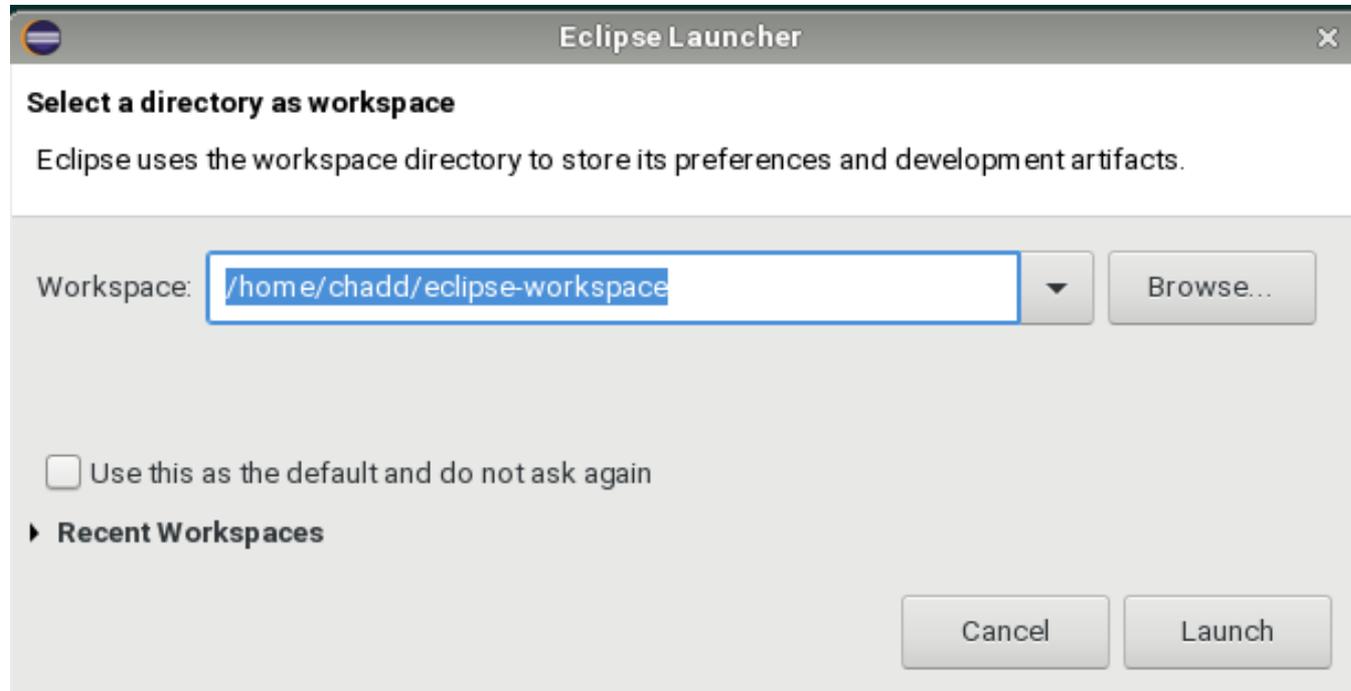
- Eclipse IDE for C/C++ Linux Developers

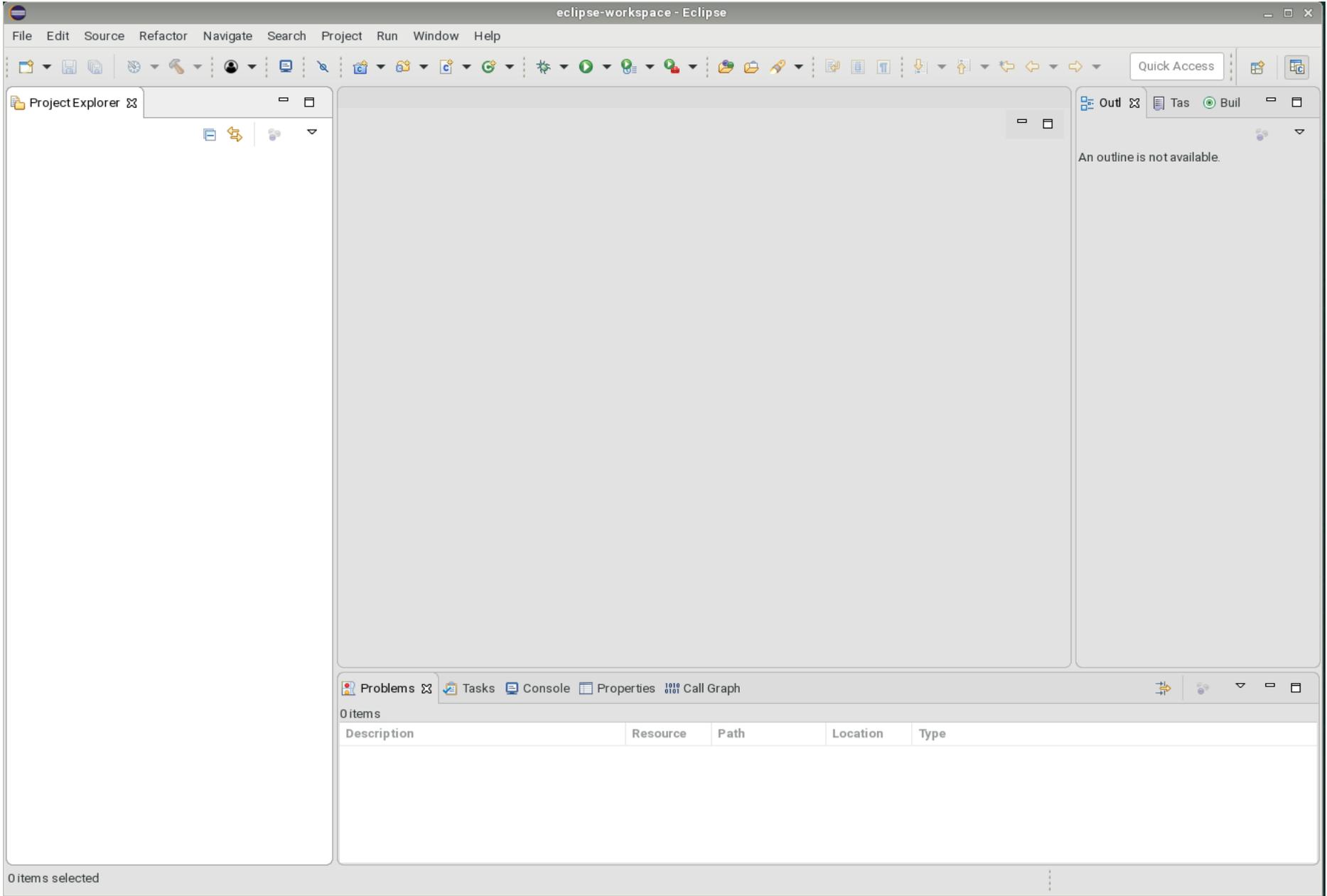
<http://www.eclipse.org/cdt/>

DANGER!

- Does Eclipse run on Windows?
 - Yes
- Can I write C code on Windows?
 - Yes, with the Cygwin suite installed
- Can I write C code on Windows for this class?
 - No

Workspace Launcher





Create a new HelloWorld project

File → New → C/C++ Project

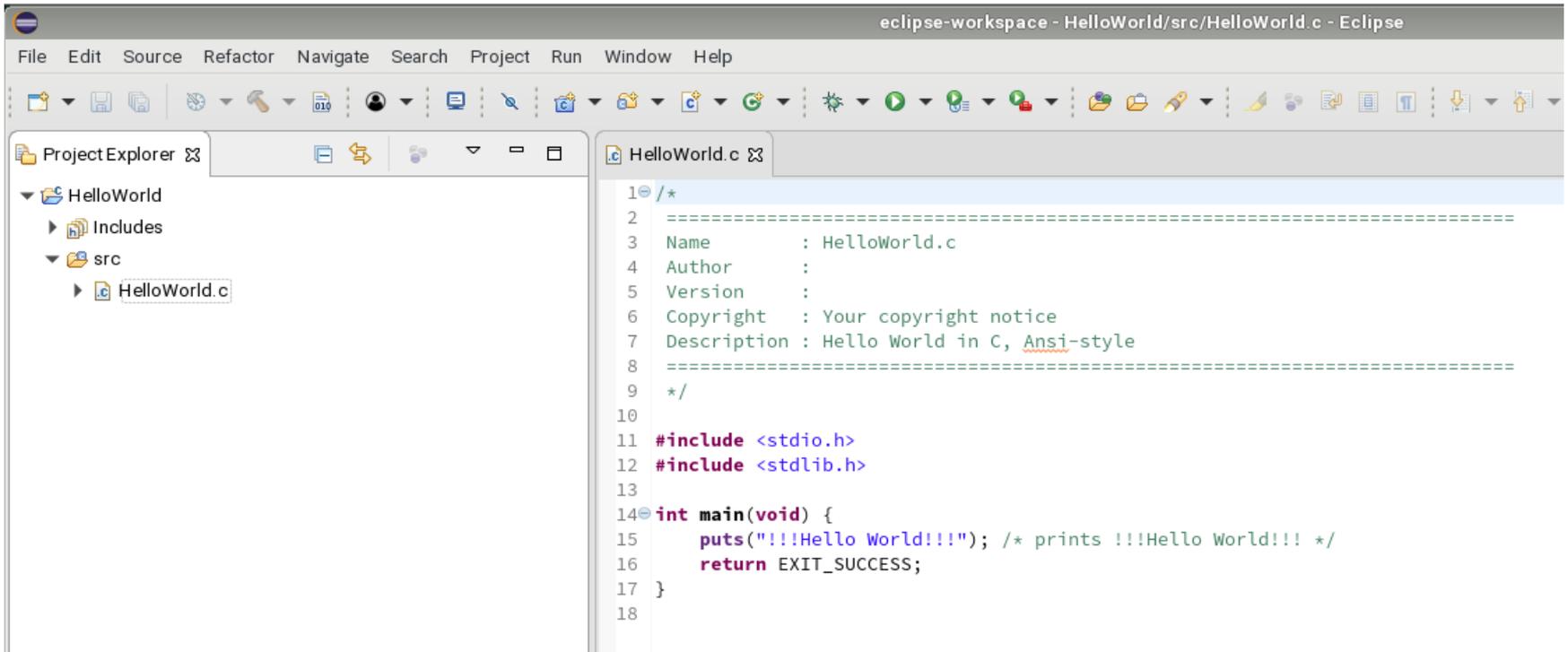
C Managed Build

Project Name: HelloWorldAgain

Executable → Hello World ANSI C Project → Linux
GCC

Next, Next, Next, Finish

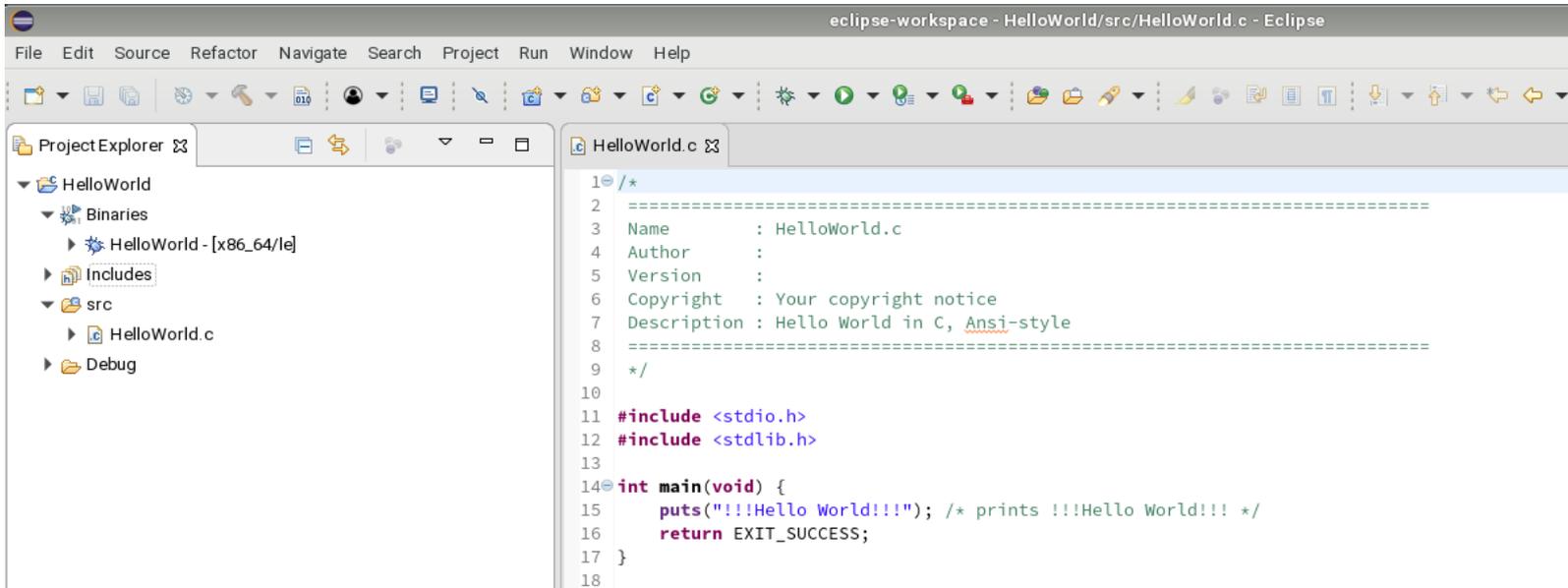
Build



```
1 /*
2  =====
3  Name      : HelloWorld.c
4  Author    :
5  Version   :
6  Copyright : Your copyright notice
7  Description : Hello World in C, Ansi-style
8  =====
9  */
10
11 #include <stdio.h>
12 #include <stdlib.h>
13
14 int main(void) {
15     puts("!!!Hello World!!!"); /* prints !!!Hello World!!! */
16     return EXIT_SUCCESS;
17 }
18
```

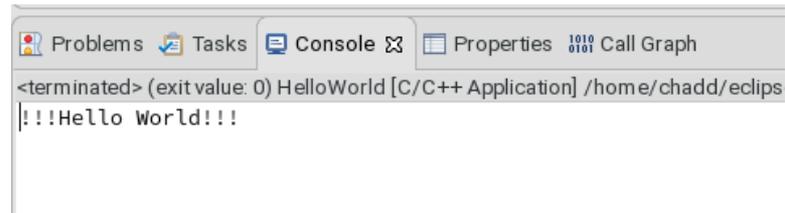
Click on HelloWorld, then Project → Build Project

How to run your project ?



The screenshot shows the Eclipse IDE interface. The Project Explorer on the left displays the project structure: HelloWorld > Binaries > HelloWorld - [x86_64/le], Includes, src > HelloWorld.c, and Debug. The main editor window shows the source code for HelloWorld.c, which includes a header section with project metadata and a main function that prints "!!!Hello World!!!".

```
1 /*
2 =====
3 Name      : HelloWorld.c
4 Author    :
5 Version   :
6 Copyright : Your copyright notice
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```

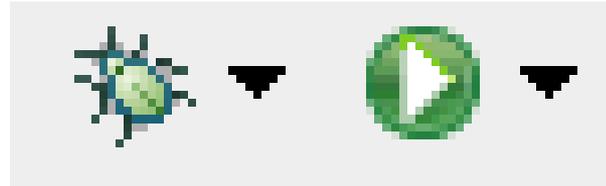


The screenshot shows the Eclipse IDE Console window. The output displays the message "!!!Hello World!!!" printed by the application. The console title is "<terminated> (exit value: 0) HelloWorld [C/C++ Application] /home/chadd/eclips".

```
<terminated> (exit value: 0) HelloWorld [C/C++ Application] /home/chadd/eclips
!!!Hello World!!!
```

Right click on HelloWorld and Run As → Local C/C++ Application

Run versus Debug



Debug

Run

Debug

- Build
- Debug As ... Local C/C++ Application
- Step In / Step Over / Continue
- Breakpoint
- Variables

Printing

- Windows | Preferences
- General | Appearance | Colors and Fonts
- C/C++ | Editor | C/C++ Editor Text Font
 - Use Courier 10 Pitch, Size 8
- This changes the font on the screen!
 - You may want to change back after printing
- Print doubled sided!

Coding Standards

- Download CodingStandardsProfile
 - CS300PrefsF17.xml
 - sets tabs, newlines, spacing
 - Does not fix everything!
- Window | Preferences | C/C++ | Code Style | Formatter | Import
- Open your .c file
 - Source | Format
 - Shift+Control+F

Helpful Commands

- F3 while cursor on function call
 - go to that function
- Control-L
 - go to line
- Control-A
 - select all
- Control-I
 - correct indentation

Be sure to look through the
Source and Navigate menu!

Other tips

- Window | Preferences
 - search for template to setup .c and .h file templates
 - you can add the file comment header automatically!
 - search for margin
 - set the print margin column to 75!
 - search for name style
 - to set naming conventions
 - search for code analysis
 - setup error/warnings in code style

Setup file header comments

- Windows | Preferences
 - Eclipse | Window | Preferences | C/C++ | Code Style | Code Templates
- In the main window
 - Comments | Files
- Edit
 - Add header comment