



# Building Hello World using the Arm Compiler

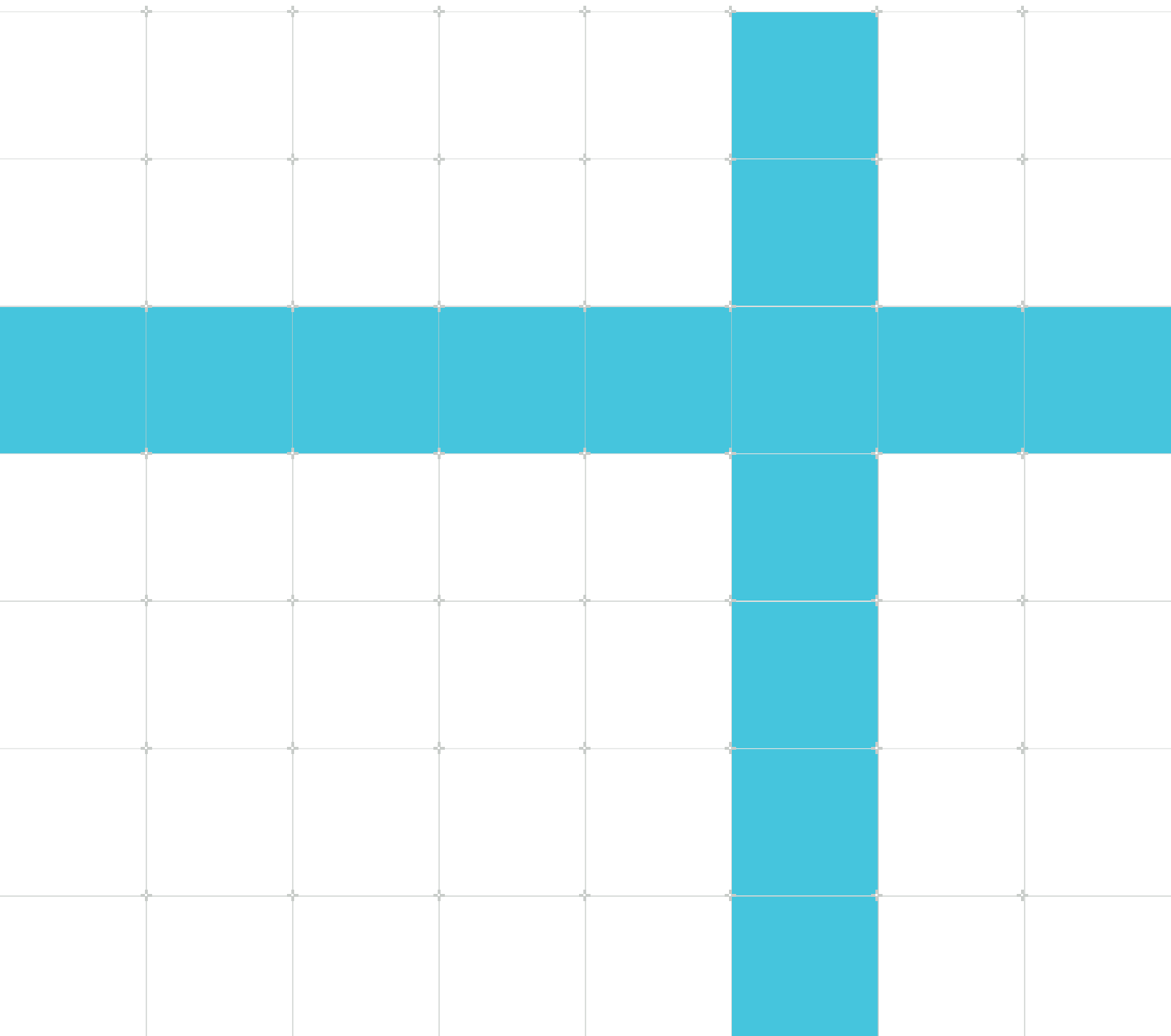
Version 1.0

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## Issue 02

102627\_0100\_02\_en



## Building Hello World using the Arm Compiler

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### Release information

#### Document history

Issue	Date	Confidentiality	Change
0100-02	1 January 2020	Non-Confidential	Initial release

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(LES-PRE-20349)

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# 1. Building Hello World using Arm Compiler

In this tutorial, we show how to build a simple C program called `hello_world.c` with the Arm Compiler toolchain in DS-5.

You can find an overview of the [Arm Compiler toolchain](#).

This tutorial assumes you have installed and licensed Arm DS-5. For more information, see [Getting Started with Arm DS-5 Development Studio](#).

**Figure 1-1: Hello world code**



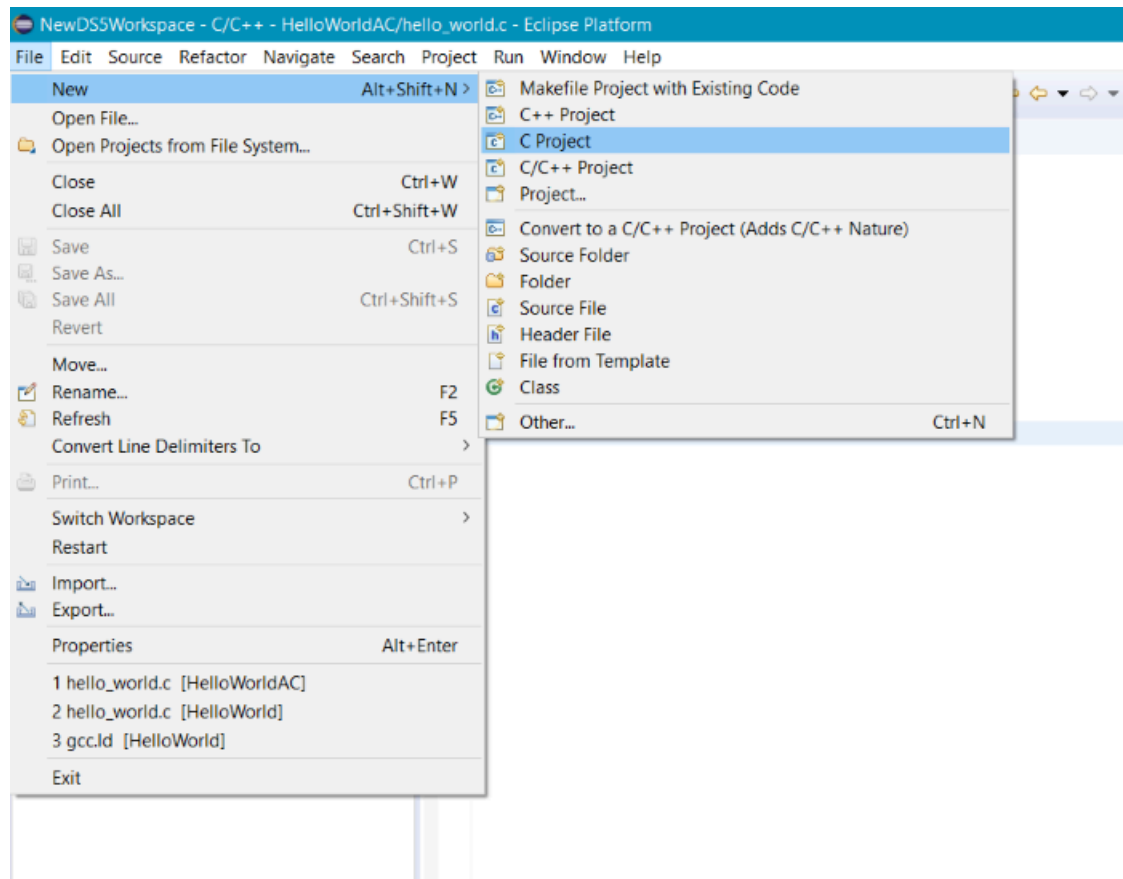
```
1 /*  
2  * hello_world.c  
3  *  
4  * Created on: Sep 13, 2018  
5  * Author: jammar02  
6  */  
7  
8 #include <stdio.h>  
9 main()  
10 {  
11     printf("Hello World");  
12 }  
13
```

## 2. Create a new project

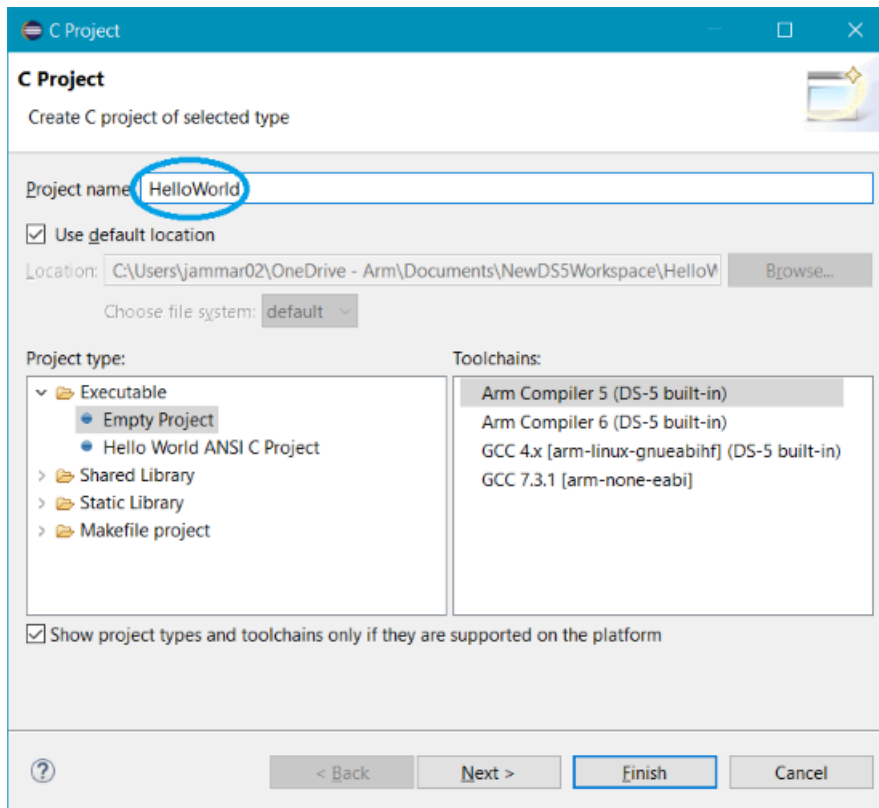
To create a new project, follow the steps:

1. Select File > New > C Project from the main menu to display the C Project dialog box.

**Figure 2-1: New C Project option under File menu.**

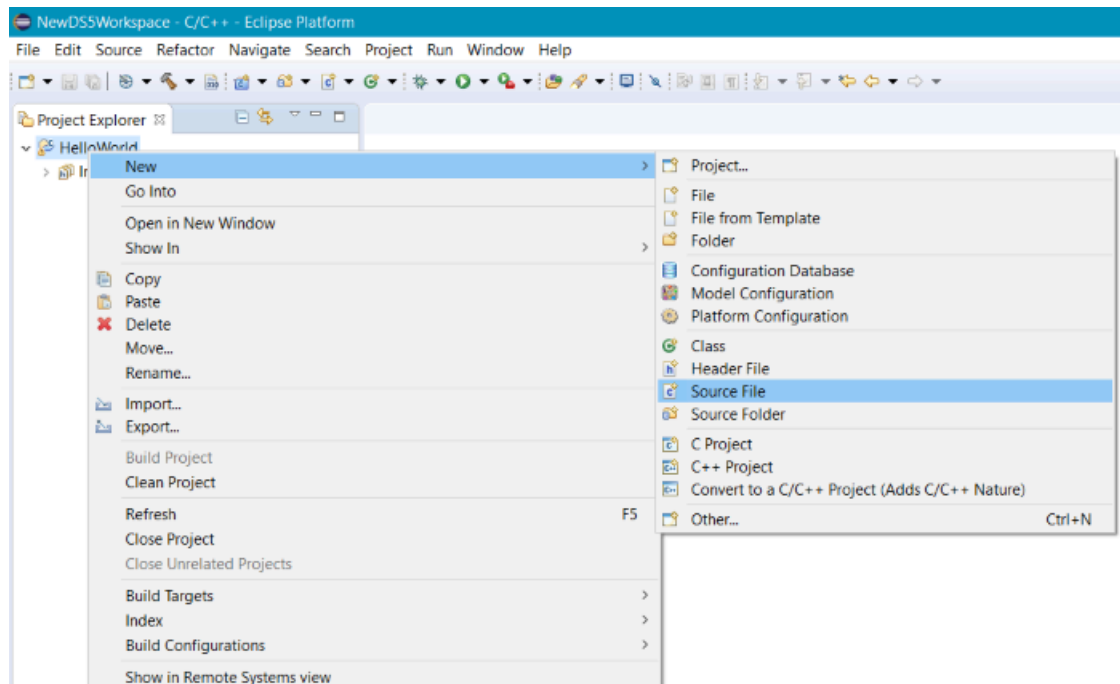


2. Enter the project name Hello World.

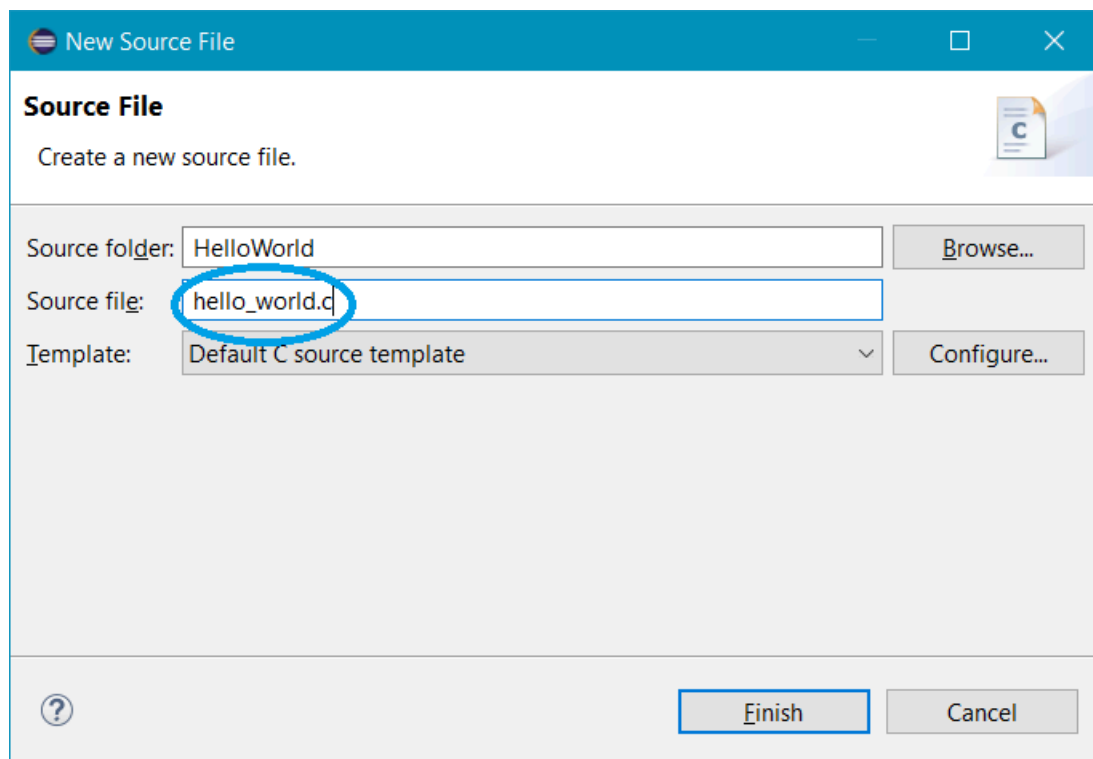
**Figure 2-2: New C project view**

3. Click on Finish to create the new project. The project is visible in the Project Explorer view.
4. Right-click on the Hello World project in the Project Explorer view.
5. Select New > Source File from the context menu to display the New Source File dialog box.



**Figure 2-3: Source file option under New menu.**

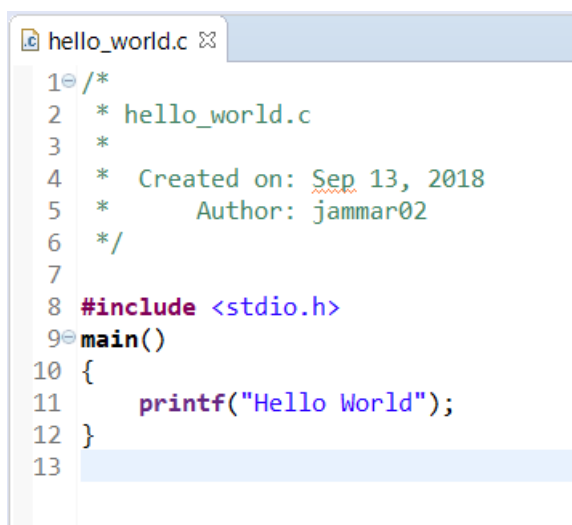
6. Enter the file name `hello_world.c`.

**Figure 2-4: New source file dialog.**

7. Click on Finish to create the new source file and open it in an editor. The new source file is visible in the Project Explorer view, under the Hello World project.
8. Add the following code to the new source file, and press Ctrl+S to save:

```
#include <stdio.h>
main()
{
    printf("Hello World");
}
```

**Figure 2-5: Hello world source code**

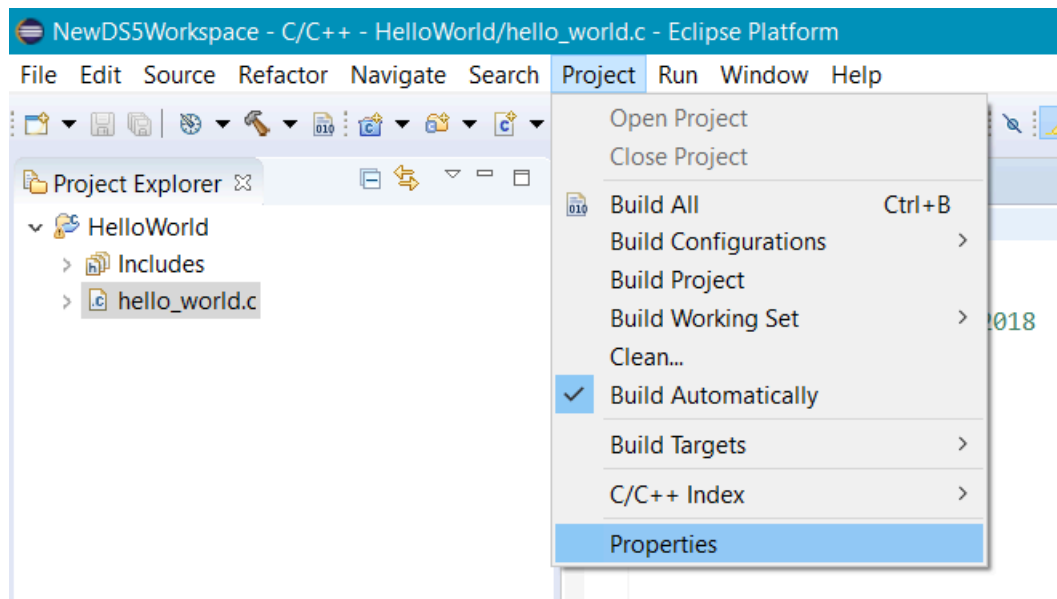


### 3. Configure compiler settings

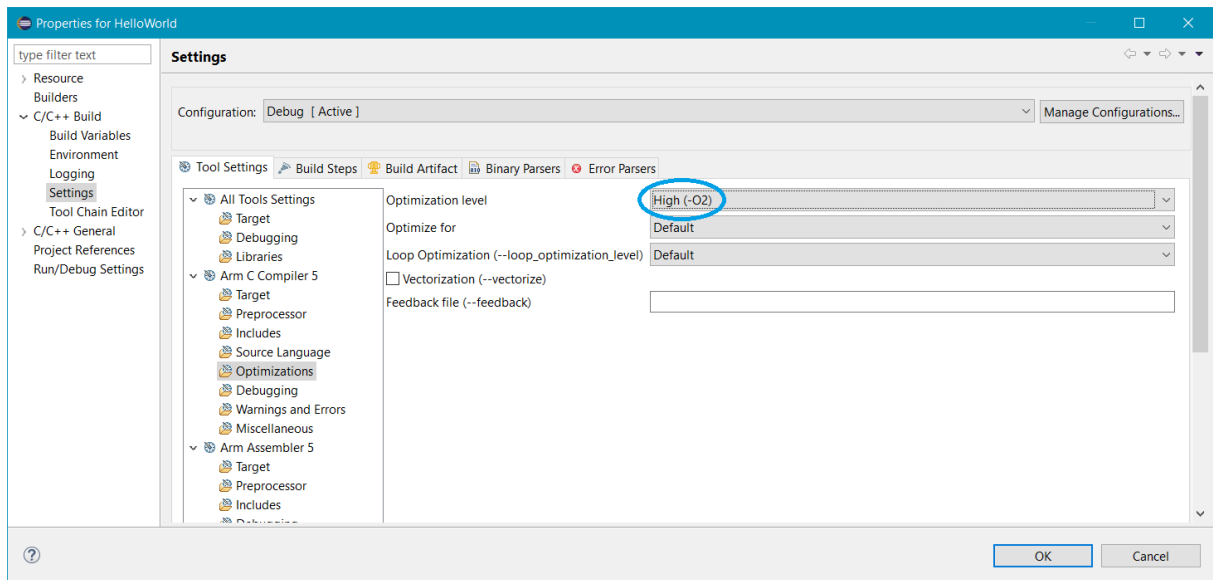
To configure compiler settings, follow the steps:

1. Select the Hello World project in the Project Explorer view.
2. Select Project > Properties from the main menu to display the Properties dialog box.
3. Expand C/C++ Build in the Properties dialog box.

**Figure 3-1: Properties option under project menu.**



4. Select Settings.
5. On the Tool Settings tab, select Arm C Compiler > Optimizations to display the optimization settings.
6. Change Optimization level to High (-O2).

**Figure 3-2: Optimization settings view.**

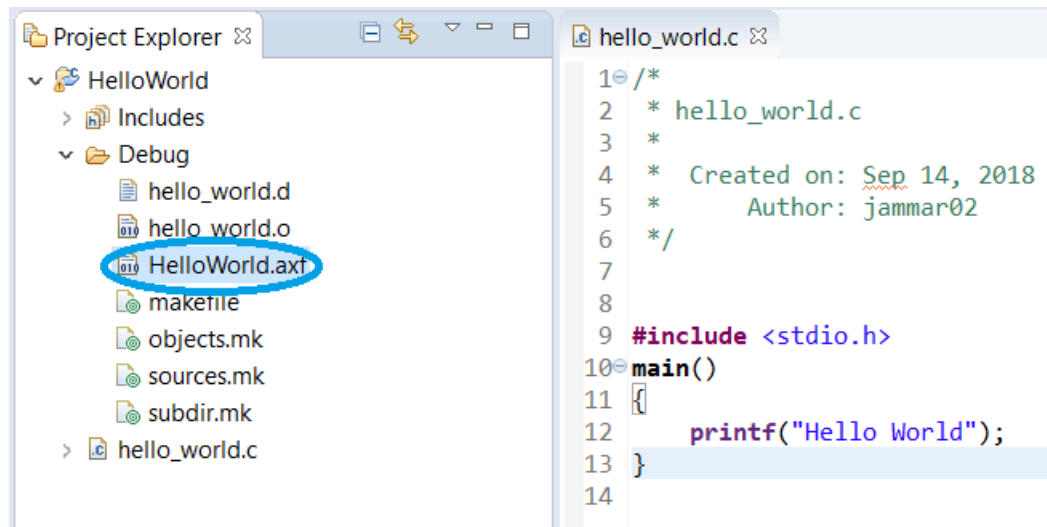
7. Click OK to save the settings.

## 4. Build the project

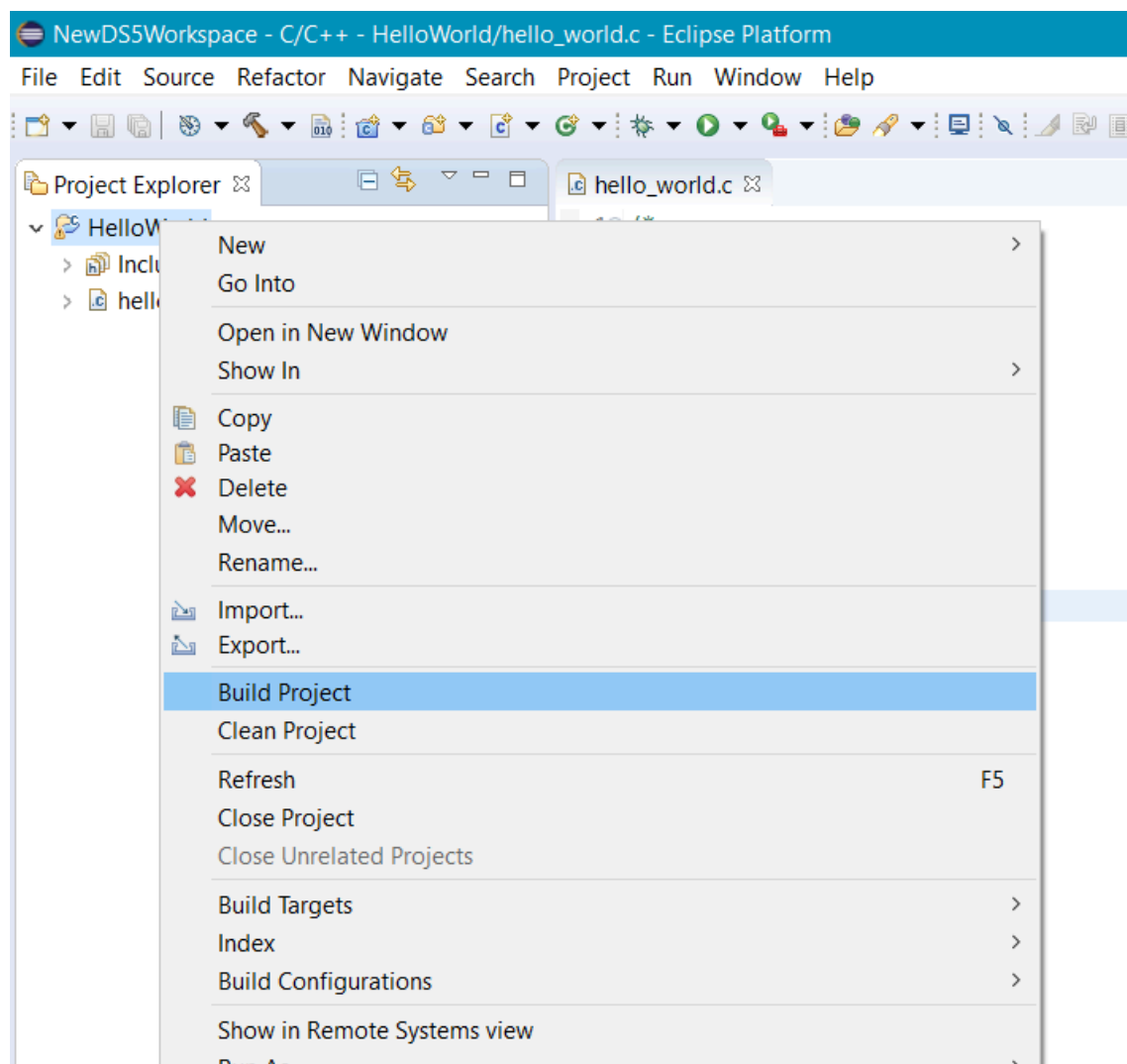
To build the project, follow the steps:

1. Right-click on the Hello World project in the Project Explorer view.

**Figure 4-1: Hello World project in the Project Explorer view.**



2. Select Build Project.

**Figure 4-2: Build project from drop-down menu.**

The output image `hello_world.axf` appears in the Debug folder.

That's it. You have built your first program using Arm Compiler.

## 5. Further reading

To learn more about Arm compiler, check out the links:

- [Arm Compiler 5 Documentation](#)
- [Arm Compiler armcc User Guide](#)
- [Compiler Command-line Options](#)
- [Arm Compiler 6 Documentation](#)