# HOW TO

## Port an S32DS example to use another compiler

Rev. 1 — 25 March 2022

**Revision History**

| Revision | Date | Author | Description |
|---|---|---|---|
| 1.0 | 25/03/2022 | NXP RTD Team | Create document how to port an S32DS example to use another compiler |

# 1 Introduction

Sometimes you would like to compile an existing S32DS example with another compiler. For example, an example project on S32DS was created using GCC compiler. And your device and SDKs also supported other compilers such as Green Hills Software(GHS), IAR Embedded Workbench and Wind River(DIAB)... Now you want to compile that S32DS example using other these compilers.

This document describes how to port an existing S32DS example to compile with another compiler.

# 2 Step-by-step instructions

To able to use another compiler on S32DS, you need to make sure the Eclipse plug-in of that compiler is already installed into S32DS. You can refer list of how to install Eclipse plug-in of some compilers below:

- How to install IAR Eclipse plug-in into S32DS.
- How to install Wind River(DIAB) Eclipse plug-in into S32DS.
- How to install Green Hills Software(GHS) Eclipse plug-in into S32DS.

Each S32DS project will have a MEX file to contain the data configuration of all components used. So, that MEX file will be used to port a S32DS example to new S32DS project using another compiler. In the steps below, we will see the way to port an S32DS example created with GCC to new S32DS project with GHS using the same MEX file. To port to a compiler other than GHS you can do similar with those steps.

**1.** On S32DS graphical user interface, select an example project you want to port to another compiler(eg: Adc_example_S32G274A_M7) from "File" -> "New" -> "S32DS Project From Example"

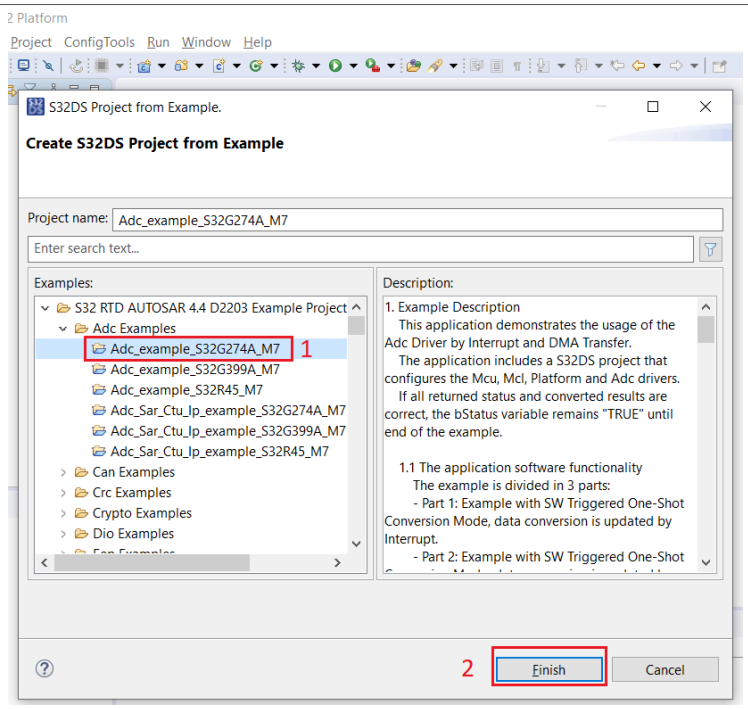


**Figure 1. Select an example project**

**2.** Create a new project with the desired compiler(eg: GHS compiler) from "File" -> "New" -> "S32DS Application Project". And set the name is "GHS_Adc_example_S32G274A_M7" for example.

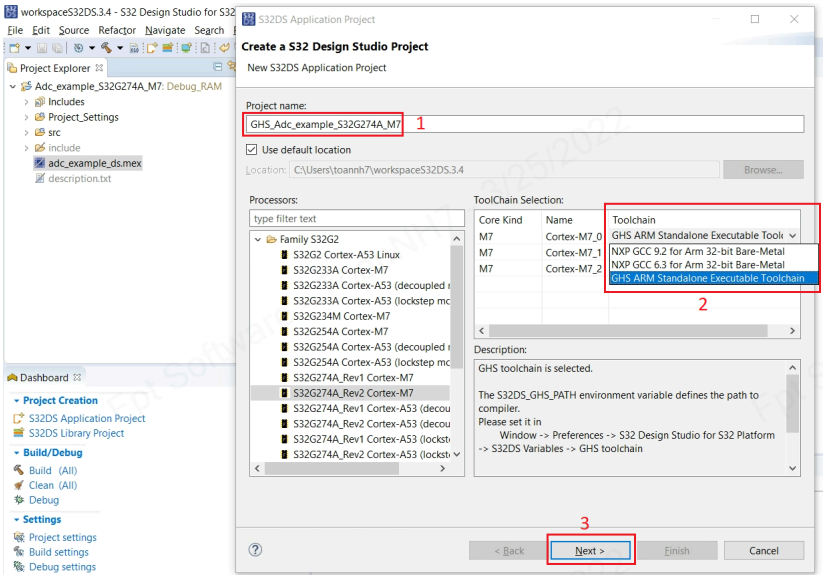


**Figure 2. Create a new project with the desired GHS compiler**

**3.** Replace the "GHS_Adc_example_S32G274A_M7_M7_0.mex" file and the "src" folder from the newly created project(GHS_Adc_example_S32G274A_M7_M7_0) with the "src", "include" and "adc_example_ds.mex" file from the example project(Adc_example_S32G274A_M7).

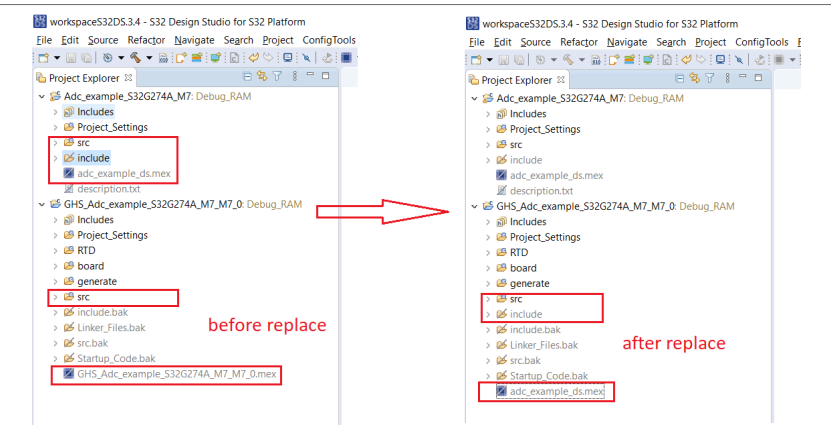


**Figure 3. Replace the "include" "src" folders and MEX file of the newly created project**

**4.** Open the "adc_example_ds.mex" file from the new project(GHS_Adc_example_S32G274A_M7_M7_0) and press the "Update Code" button.

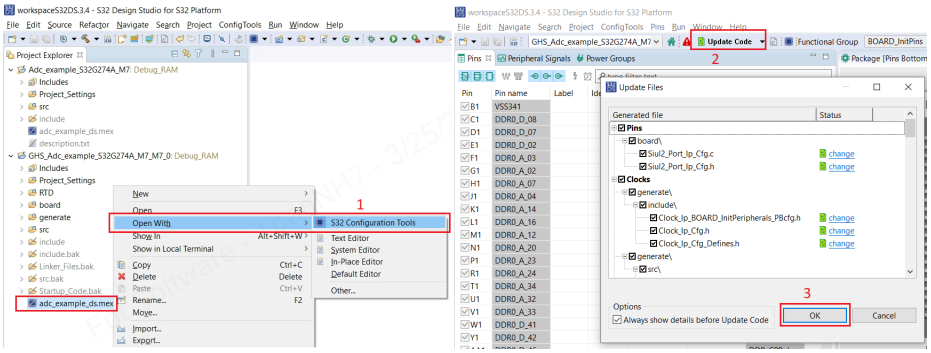

Figure 4. Open the "adc_example_ds.mex" file from the new project

**5.** Open the S32DS project properties of the new project(GHS_Adc_example_S32G274A_M7_M7_0) by click right on the project and select "Properties". Navigate to "C/C++ General" → "Paths and Symbols". Under the "Includes" tab add the include folder "${ProjDirPath}/include"

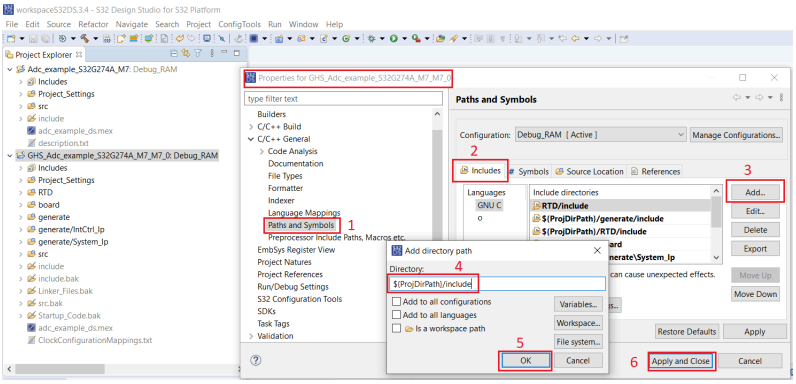

Figure 5. Add include path to "include" folder of the new project

**6.** Open the S32DS project properties of the example project(Adc_example_S32G274A_M7) by click right on the project and select "Properties". Navigate to "C/C++ General" → "Paths and Symbols". Under the "Symbols" tab, copy the symbol VV_RESULT_ADDRESS and its value to new project(GHS_Adc_example_S32G274A_M7_M7_0).

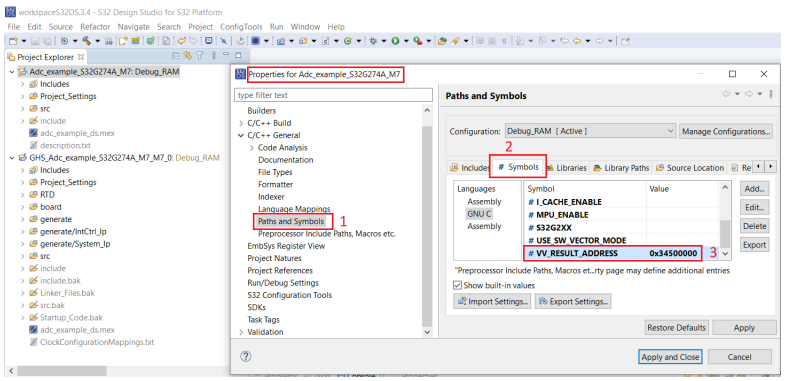

Figure 6. Copy the symbol VV_RESULT_ADDRESS and its value of example project

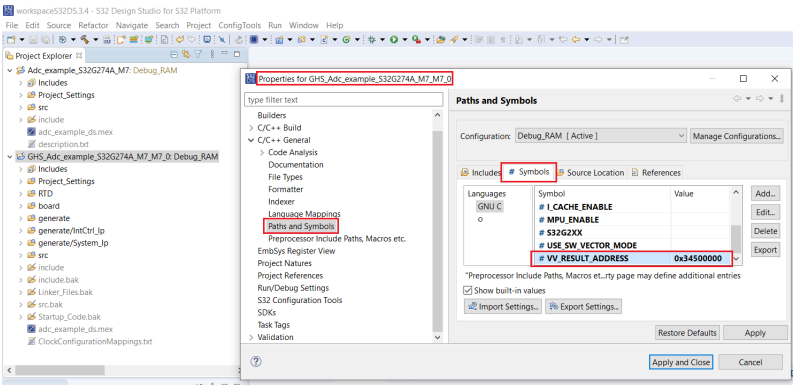


**Figure 7. VV_RESULT_ADDRESS after copied to the new project**

**Note:** The value for VV_RESULT_ADDRESS may be deferent from processor to processor.

**7.** Apply the changes and build the new project.

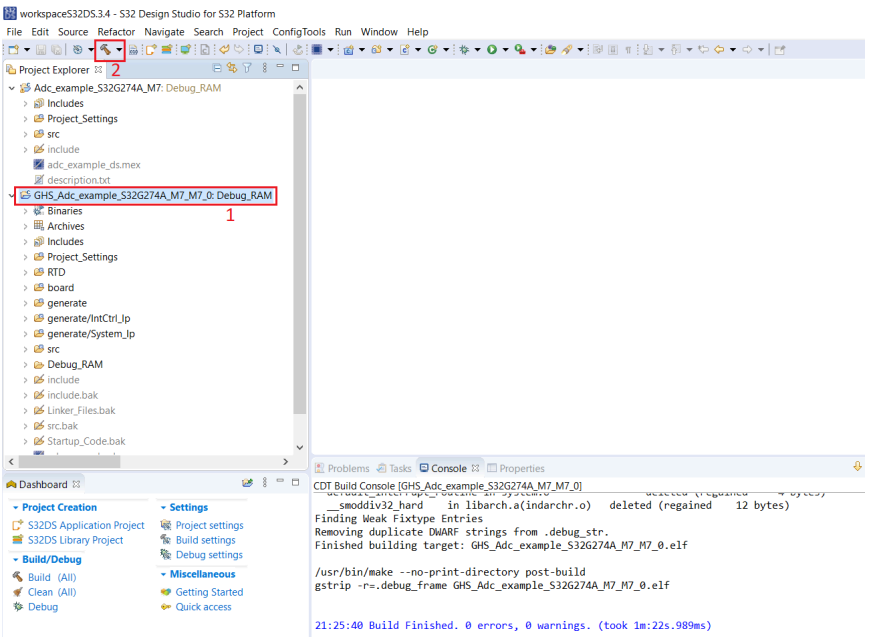


**Figure 8. Apply the changes and build the new project**

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