Import DAVE™ version 4 generated library sources into Rowley CrossWorks® for ARM®

XMC™ microcontrollers

July 2016

Agenda

1. Purpose: Import the DAVE™ version 4 generated source files to Rowley
2. Concept
3. Prerequisites to follow the tutorial

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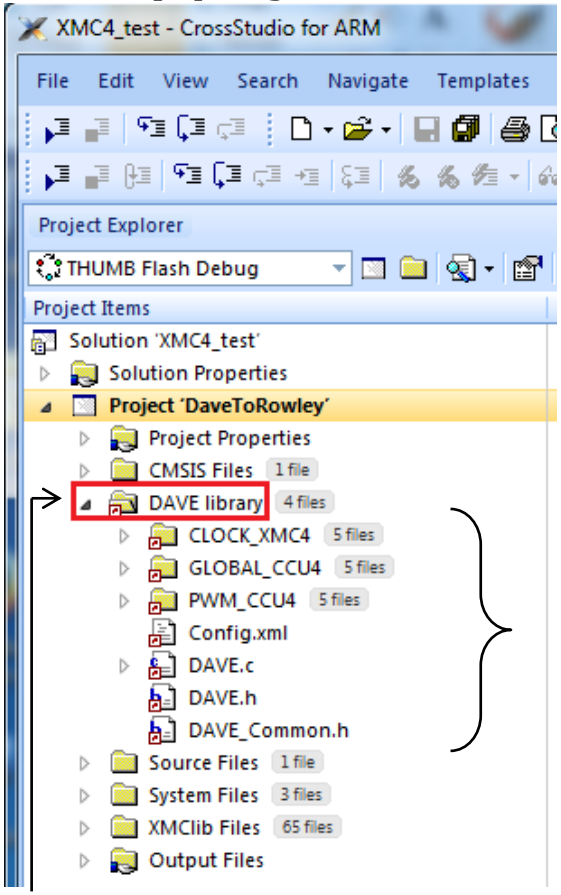
Agenda

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Purpose: Import the DAVE™ version 4 generated source files to Rowley

Rowley project outline:



DAVE™ source files

***Linked resource*: link to DAVE™ generated C sources and header files**

- DAVE™ version 4 is a free eclipse based development platform that can generate application libraries from DAVE™ Apps
- The generated library sources are included in a DAVE™ version 4 project
- Rowley provides a template project including **XMC™ Lib LLD** source files
- Rowley project uses **Dynamic folder option** to link the DAVE™ library source files and header files to the Rowley project
- The linked resource references only the generated sources and headers. It is expected that the user develops the user code afterwards in Rowley CrossWorks®
- Not the full DAVE™ version 4 project is ported. To port the full DAVE™ project the existing user code has to be manually referenced (linked)

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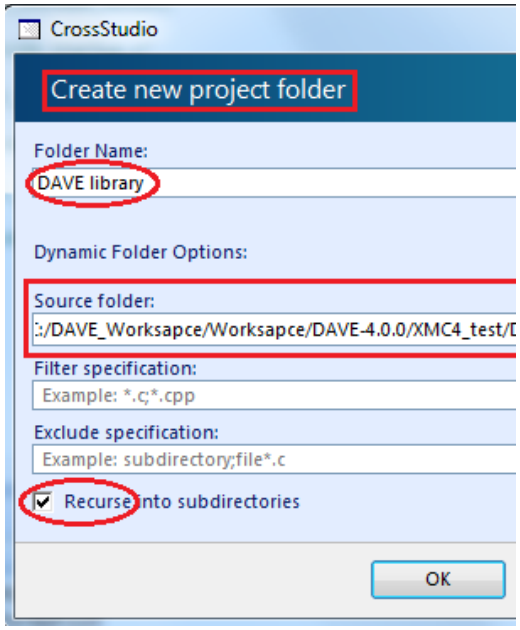
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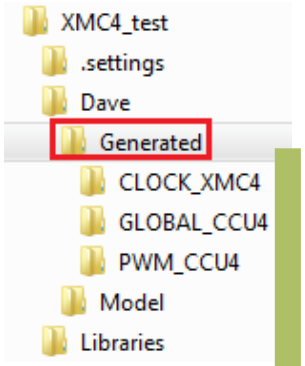
Concept

Create a new folder in Rowley project:

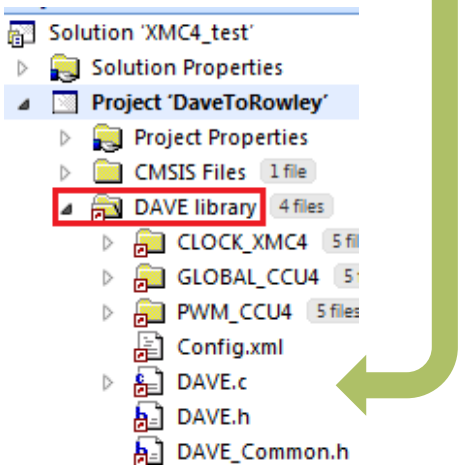


Link the new folder to DAVE™ library source folder

DAVE™ project:



linked



Respective project view in Rowley project

- Define a new Rowley project using template project that uses XMClib
- Create a new project folder with name "DAVE™ library" in the Rowley project
- Open **Dynamic Folder Options**, select **Source folder**
- Browse to DAVE™ project folder DAVE™\Generated\
- Select **Recurse into subdirectories**, then click **OK**
- In the Rowley project the linked DAVE™ library source will be shown

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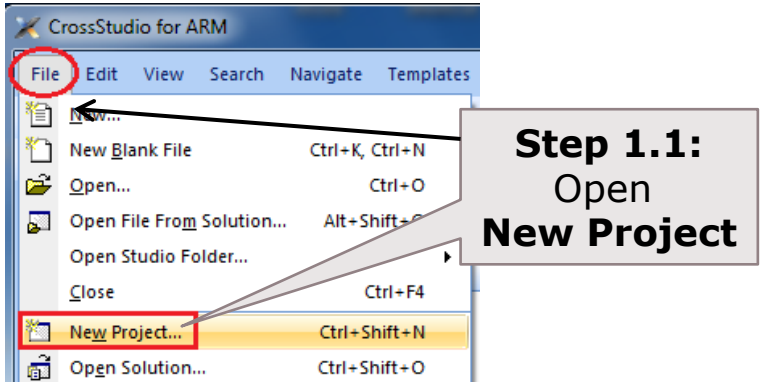
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Prerequisites to follow the tutorial

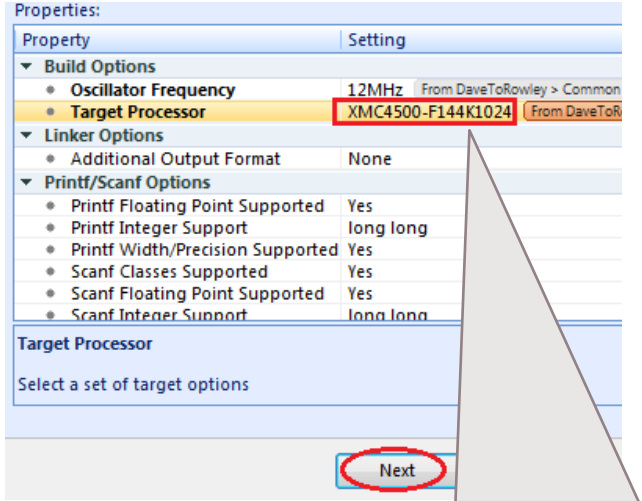
- Rowley CrossWorks® version 3.3.1 or higher
- Open the Rowley CrossWorks®
- Then, do the following step by step...

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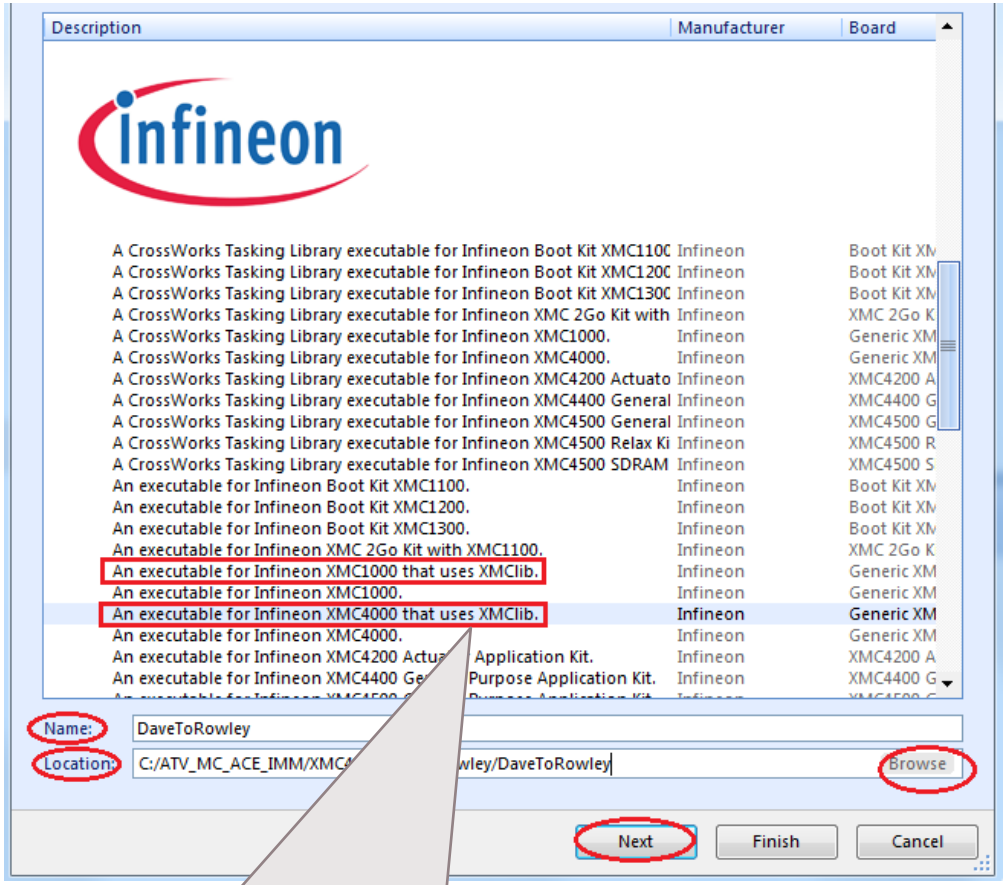
Step 1: Create a new Rowley project



Step 1.1: Open **New Project**



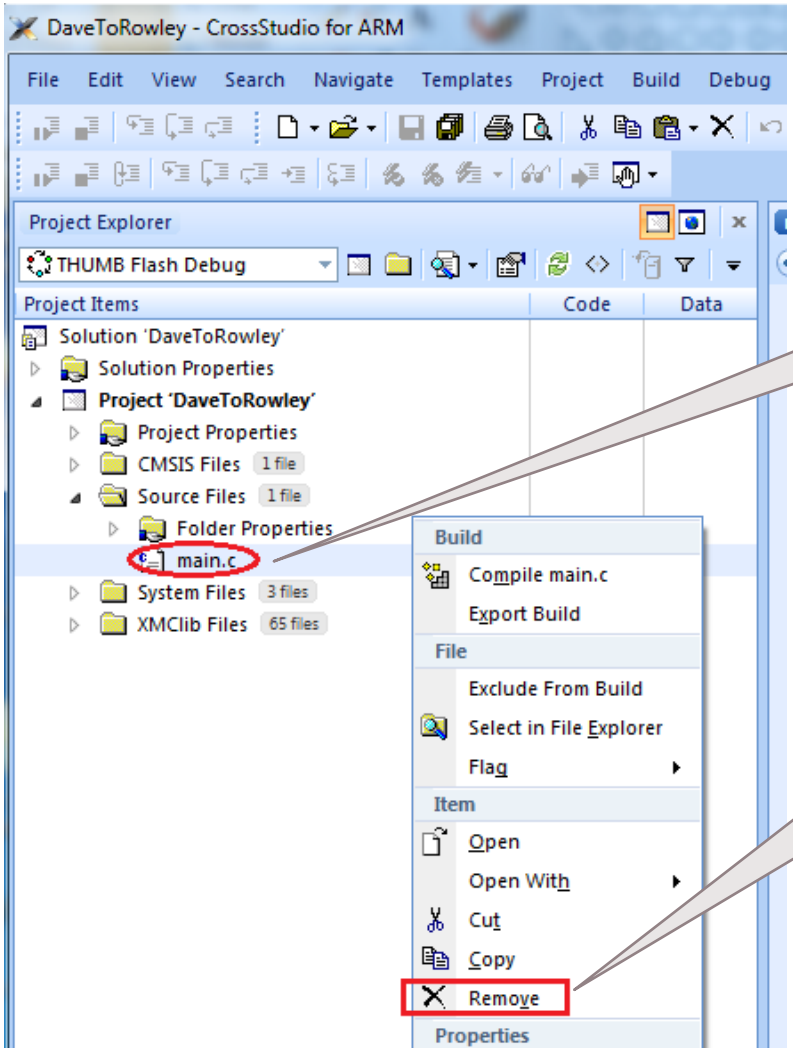
Step 1.3: Choose target devices (same target as used in the DAVE™ project), click **Next**…



Step 1.2: Choose Infineon *new project template* with XMClib dependent on device family, define project **Name** and **Location**

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Step 2: Remove main.c from defined project



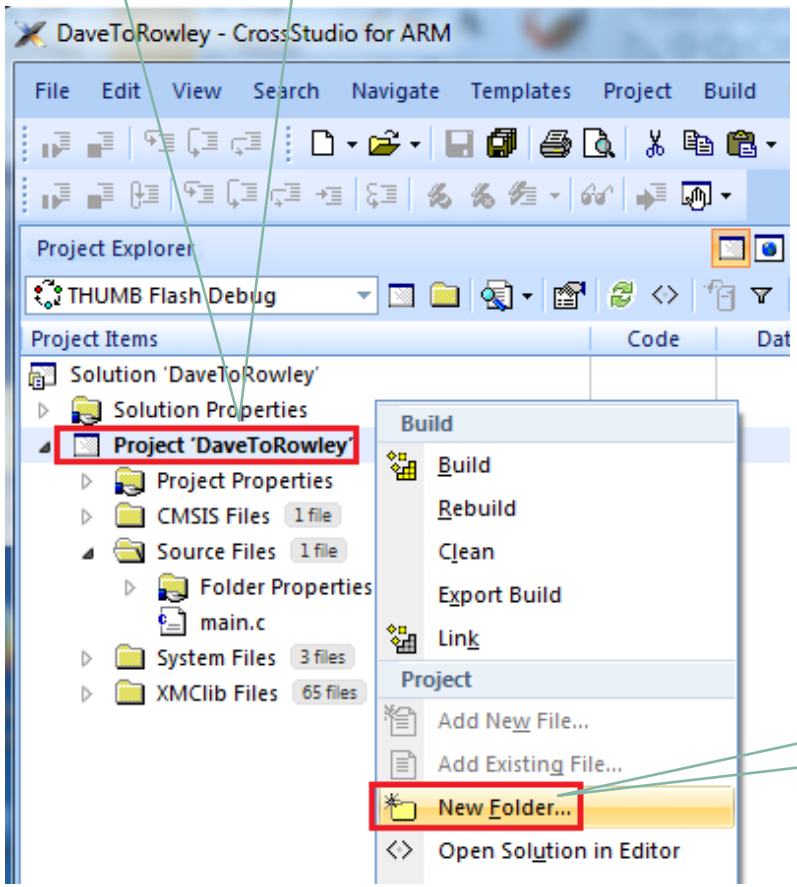
Step 2.1: Select **main.c** under **Source Files**, **click right mouse**

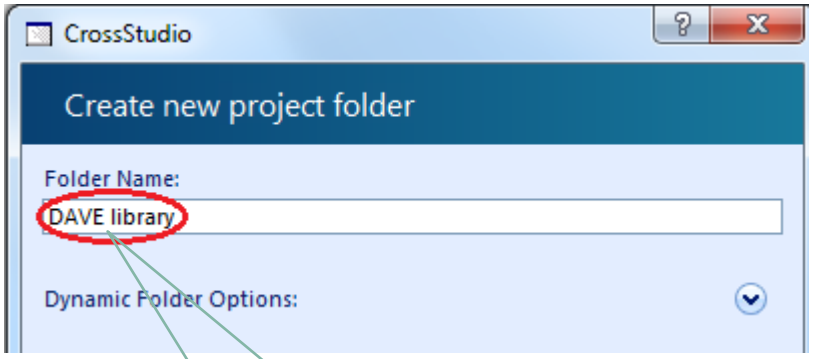
Step 2.2: Choose **Remove**

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Step 3: Define a new folder: DAVE™ library

Step 3.1:
Activate the project field, click right mouse





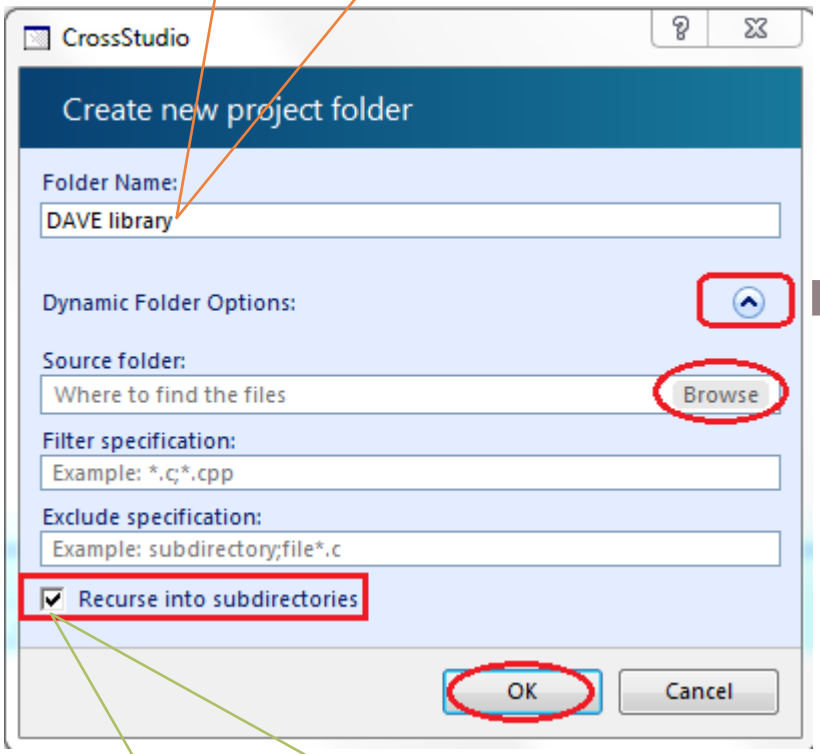
Step 3.3:
Define **Folder Name** as **"DAVE™ library"**

Step 3.2:
Select **New Folder**

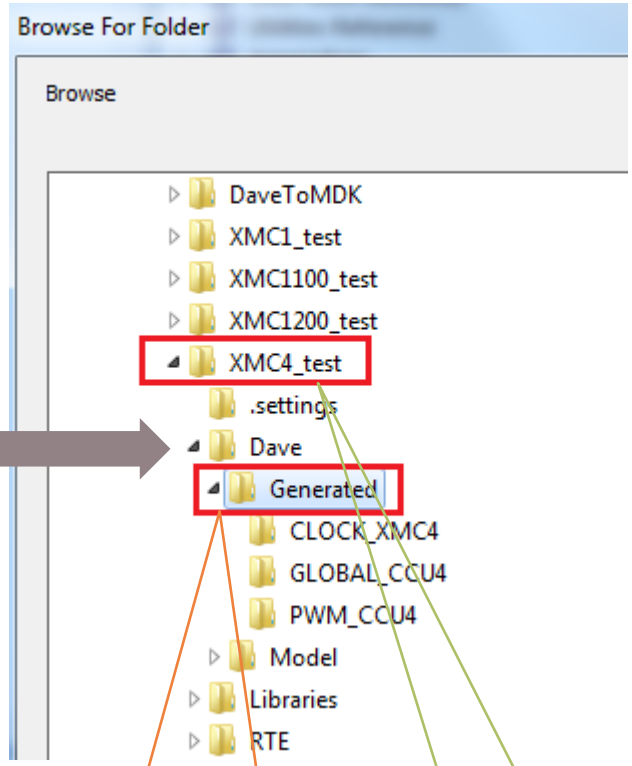
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Step 4: Link DAVE™ source codes into DAVE™ library

Step 4.1:
Open **Dynamic Folder Options**



Step 4.2:
Select **Recurse into subdirectories**



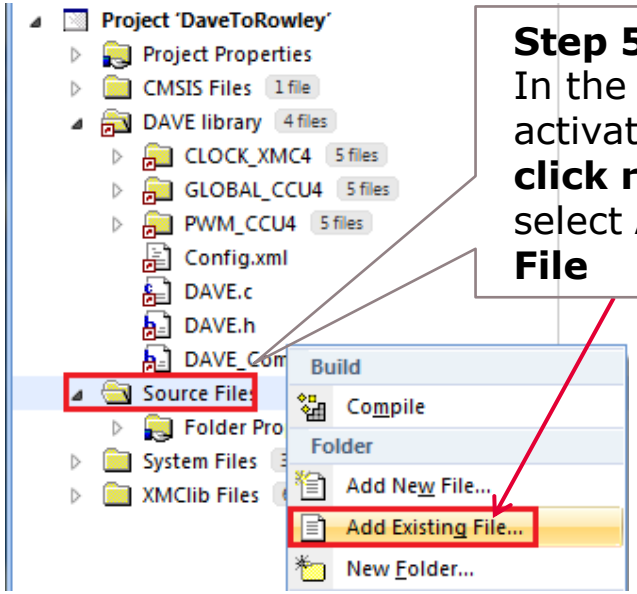
Step 4.3:
Browse to DAVE™ project folder .../Dave™/Generated

DAVE™ project folder

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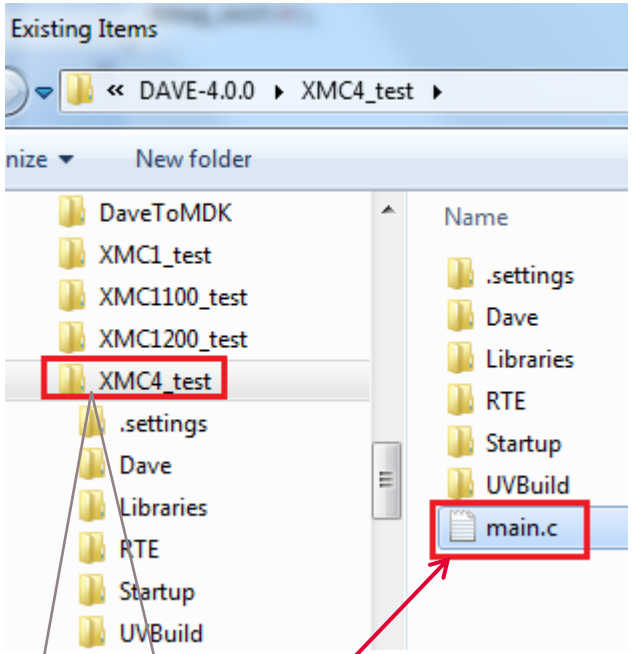
Step 5: Link main.c as needed

Rowley project folder:



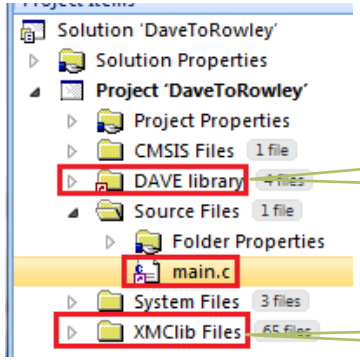
Step 5.1:
In the project field, activate **Source File**, **click right mouse**, select **Add Existing File**

DAVE™ project folder:



Step 5.2:
Browse to **DAVE™ project folder**, select ***main.c***

Rowley project view after DAVE™ importing

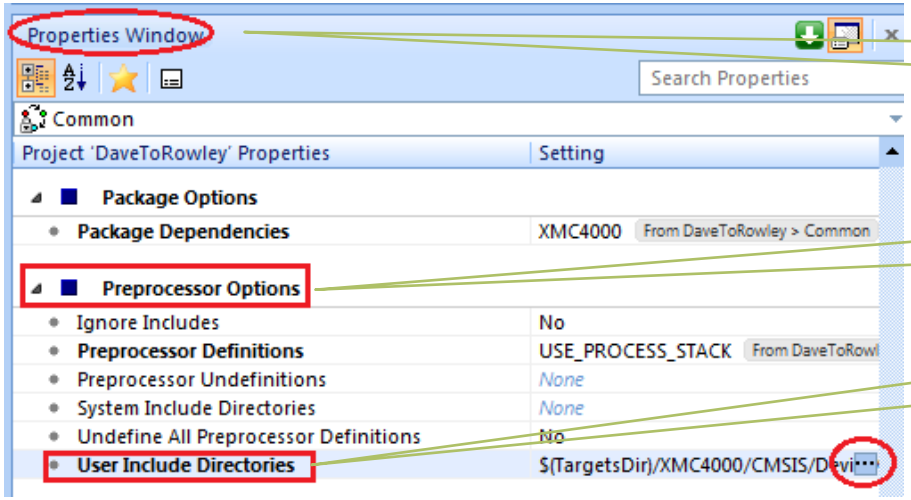


Linked DAVE™ library

LLD library

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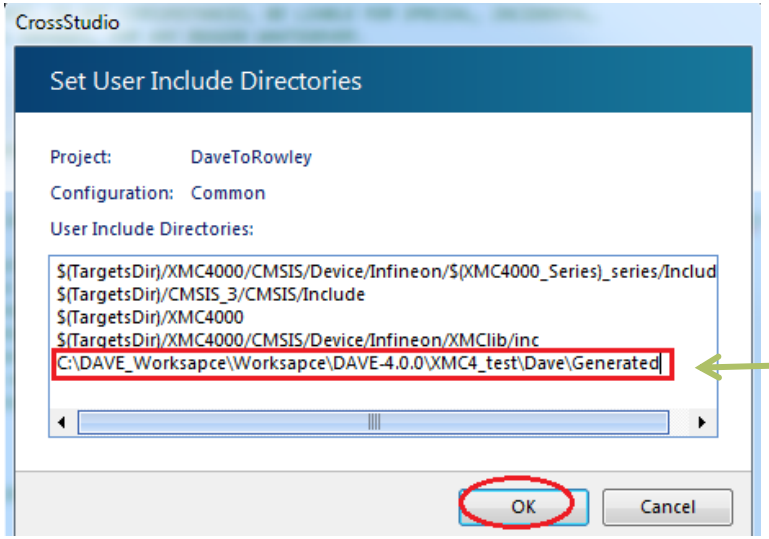
Step 6: Add DAVE™ include folder



Step 6.1:
Open **Properties Window**

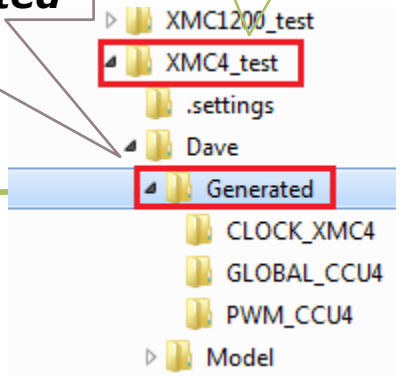
Step 6.2:
Go to **Preprocessor Options**

Step 6.3:
Open **User Include Directories**



Step 6.4:
Add **DAVE™ include file path:**
../DAVE™/Generated

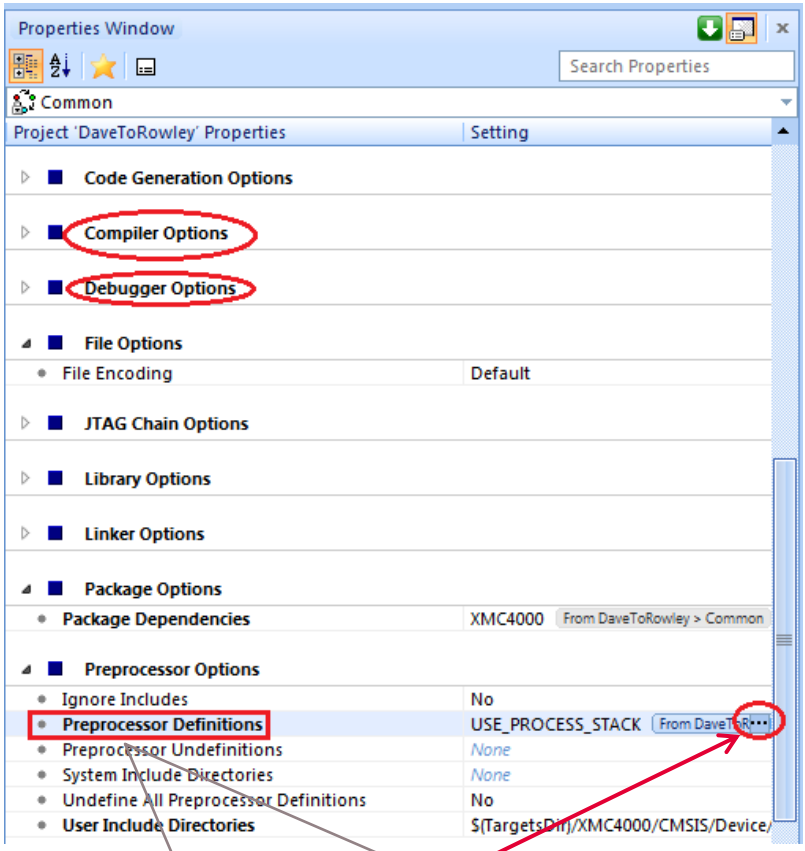
DAVE™ project folder



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Step 7: Tool settings

Rowley project Properties Window:

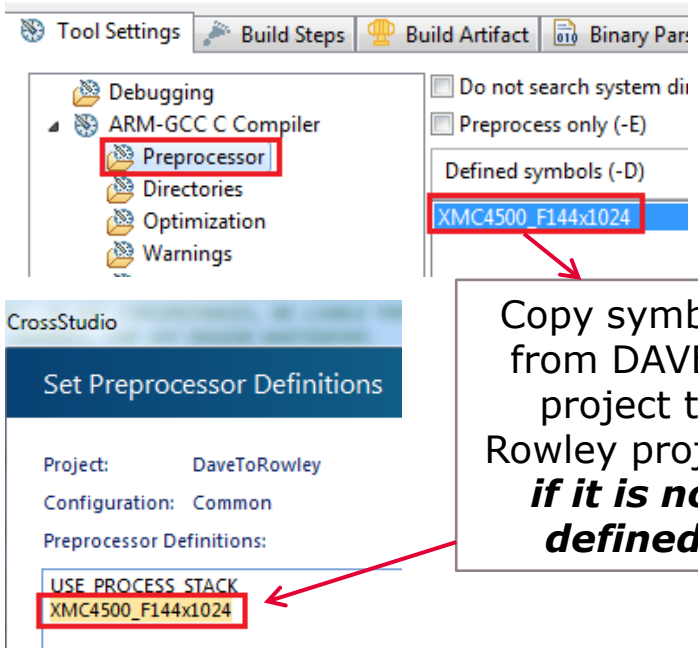


Step 7.1 Open **Preprocessor Definitions**, copy symbol from DAVE™ to Rowley project

Please note, other settings might need to be changed depending on the imported code and required optimizations:
Necessary changes:

1. **Compiler:** Optimization level, Symbols, definition FPU
2. **Linker:** Linker script file, Libraries needed

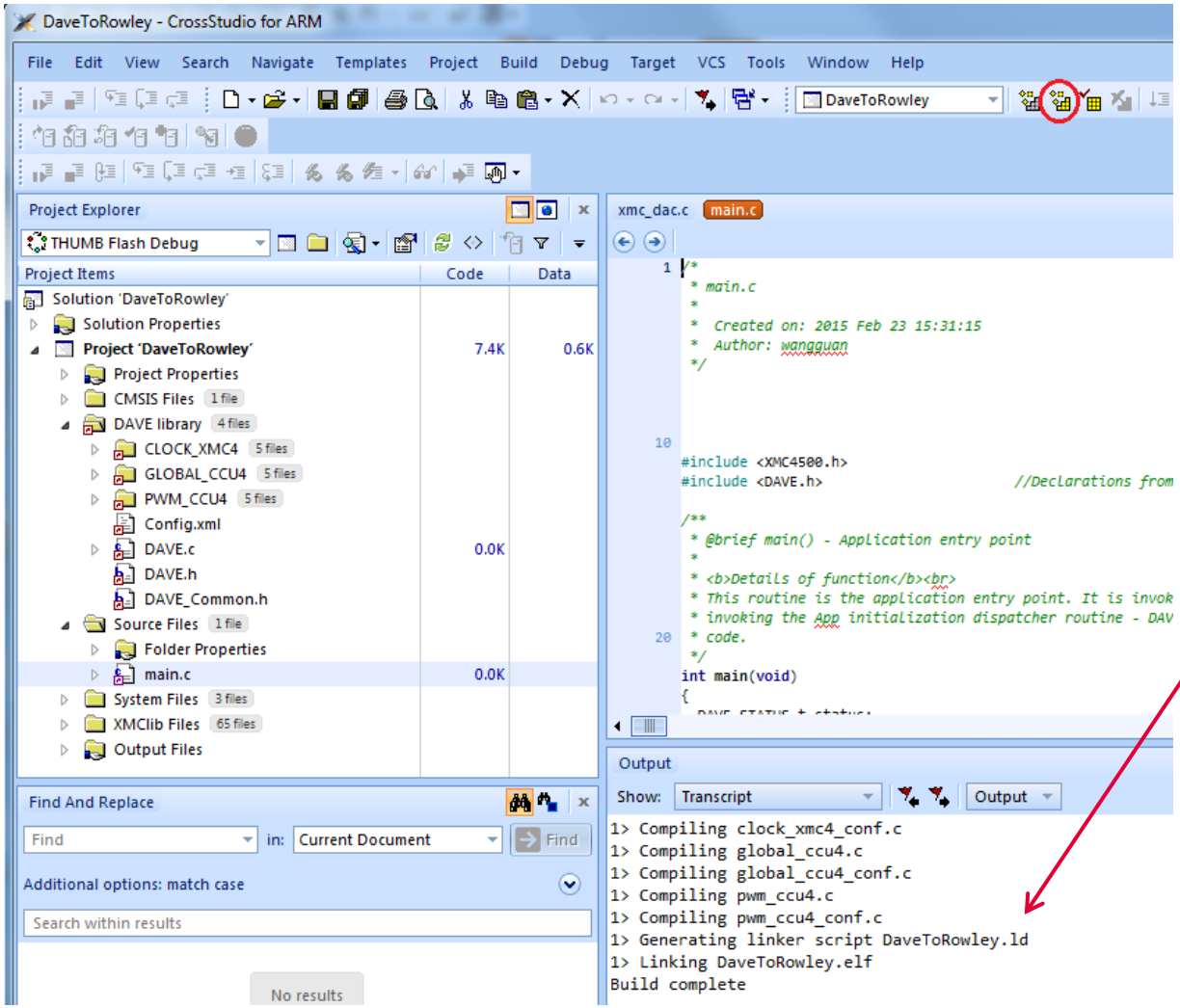
DAVE™ project:



Copy symbols from DAVE™ project to Rowley project, ***if it is not defined***.

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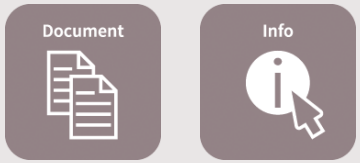
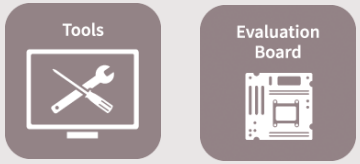
Step 8: Build the project



Build project

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Glossary abbreviations

› DAVE™	Free development IDE for XMC™
› LLD	Low Level Driver

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