Import DAVE™ version 4 generated library sources into Atollic TrueSTUDIO® for ARM®

XMC™ microcontrollers

July 2016

Agenda

1. Purpose and concept
2. Create a new Atollic project
3. Define new folder in DAVE™
4. Link DAVE™ folders
5. Add DAVE™ source and include folders
6. Tool settings and build the project

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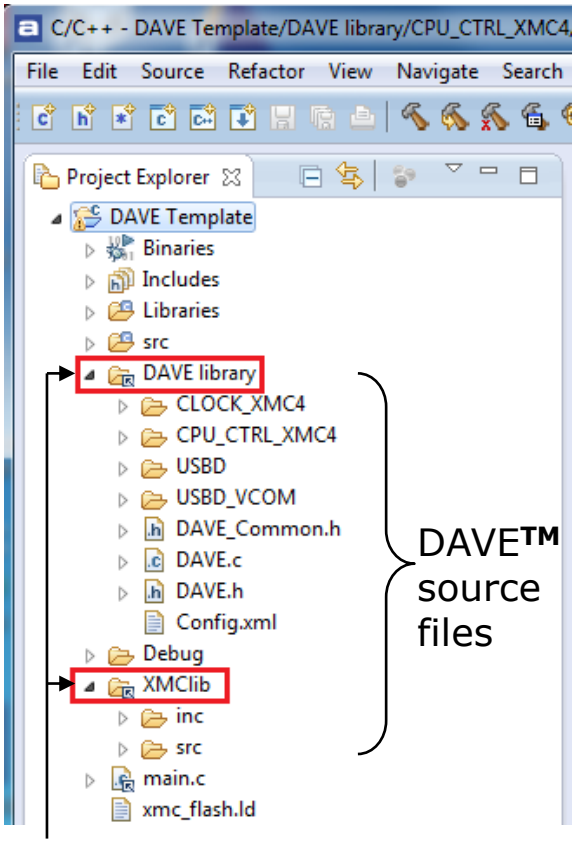
Purpose: Import DAVE™ version 4 generated source files to Atollic

Atollic project outline:

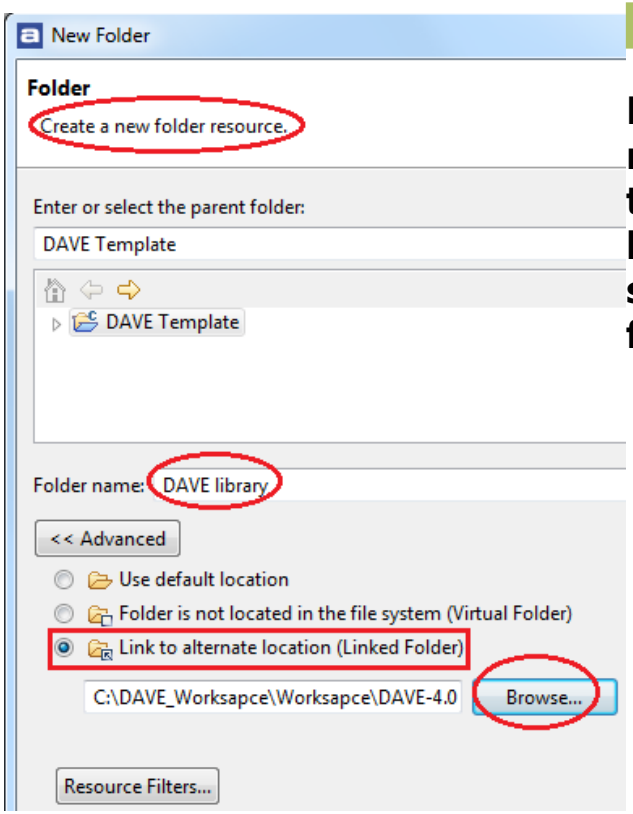


Linked resource: link to DAVE™ generated C sources, header files and XMClib

- 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
- Atollic TrueSTUDIO® (eclipse) project uses "linked resource" management to link the DAVE™ library source files and header files to the Atollic project
- The linked resource references only the generated sources, headers and **XMC Lib LLD**. It is expected that the user develops the user code afterwards in Atollic TrueSTUDIO®
- 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)

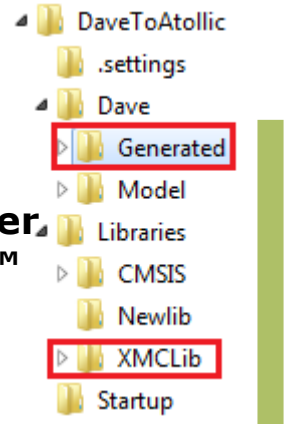
Concept

Define a new folder in Atollic project:

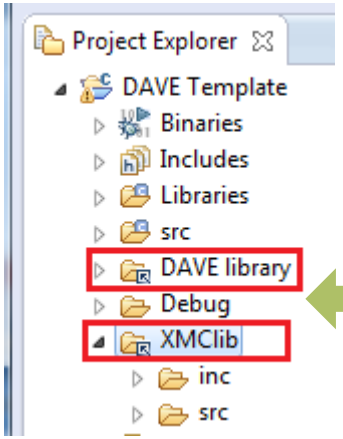


Link the new folder to DAVE™ library source folder

DAVE™ project:



linked



Respective project view in Atollic project

- Define a new Atollic project or open the existed Atollic project
- Open two **new** folders (DAVE™ library, XMClib) in the Atollic project, respectively
- Select "link to alternative location"
- Browse to DAVE™ v4 project folder ***DAVE™ \Generated*** and *Libraries\XMClib, respectively*
- Click "Finish"
- In the Atollic project the linked DAVE™ library source will be shown

Prerequisites to follow the tutorial

- Atollic TrueSTUDIO® version 5.2.0 or higher
- Open the Atollic TrueSTUDIO®
- Then, do the following step by step.....

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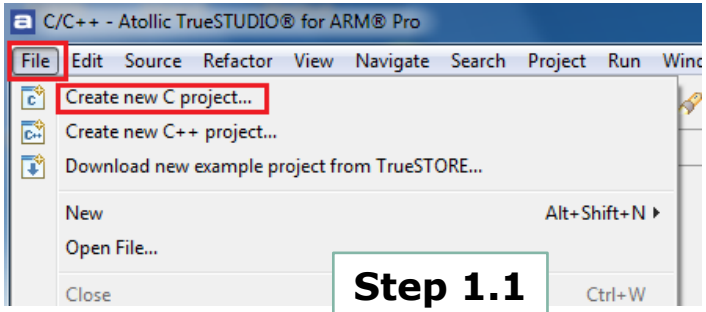
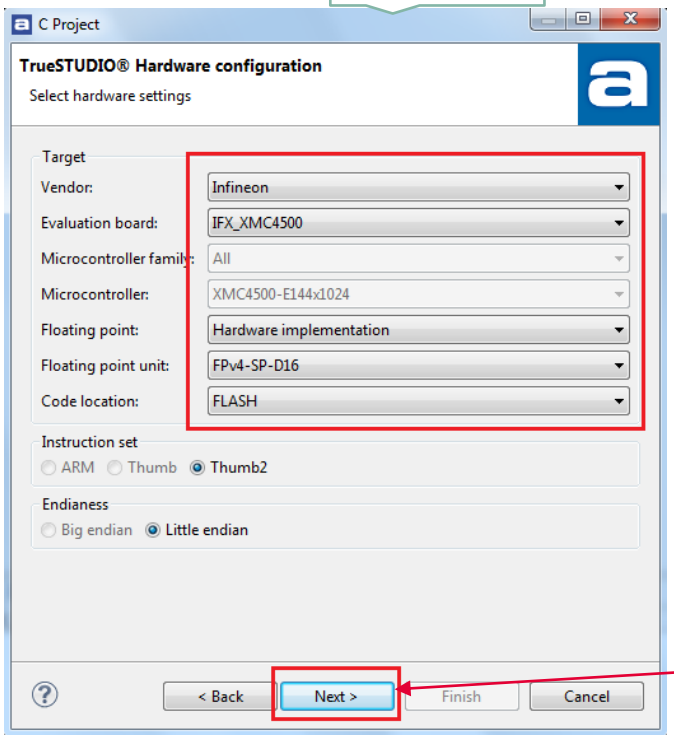
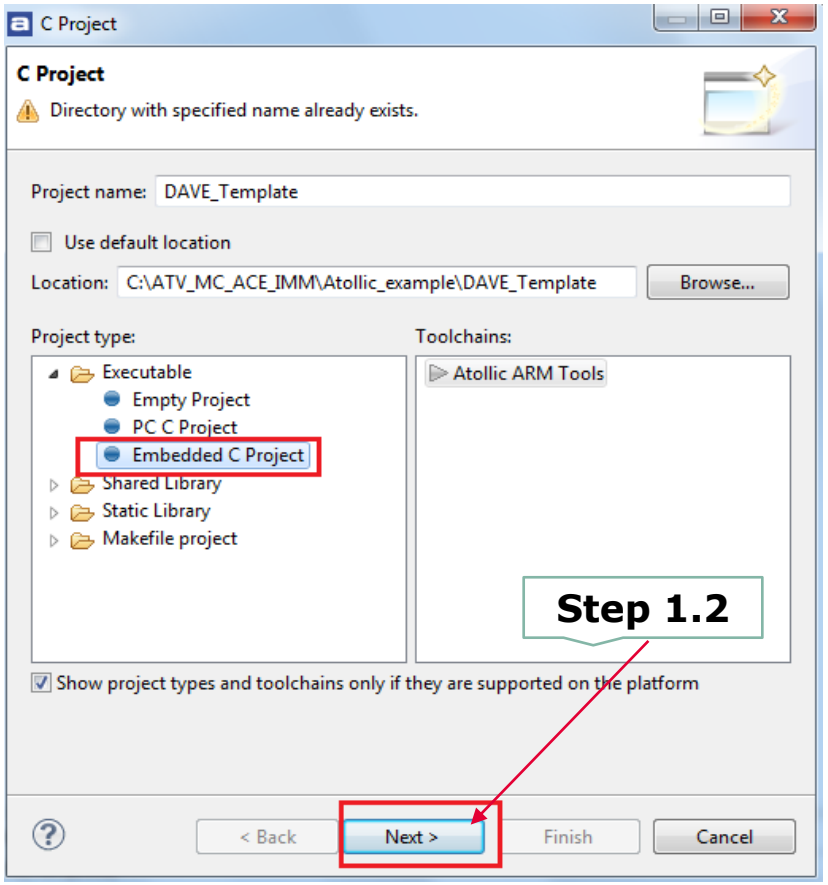
Step 1: Create a new Atollic project

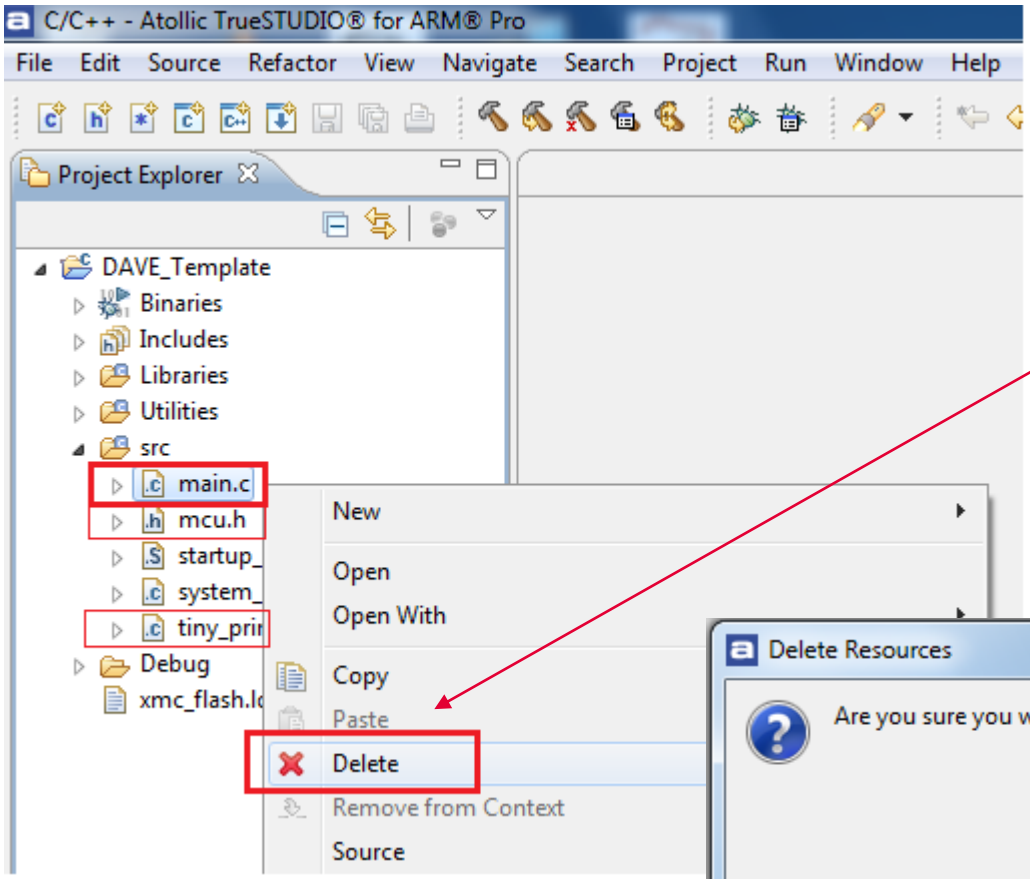






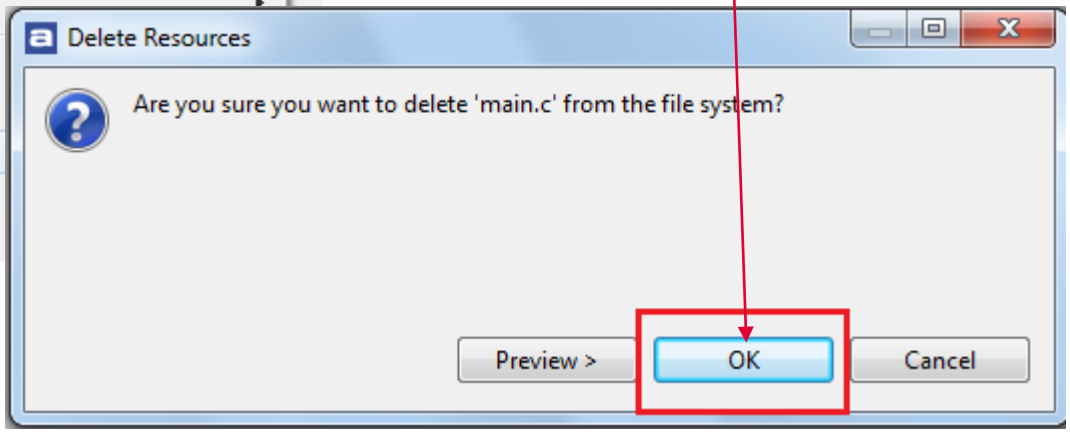
Step 1.3: choose target devices (same target as used in the DAVE™ project)

Step 2: Delete main.c from defined project



Step 2.1:
delete following files from defined project:

- **Main.c**
- **Mcu.h (**only in XMC4xxx project**)**
- **Tiny_printf.c**



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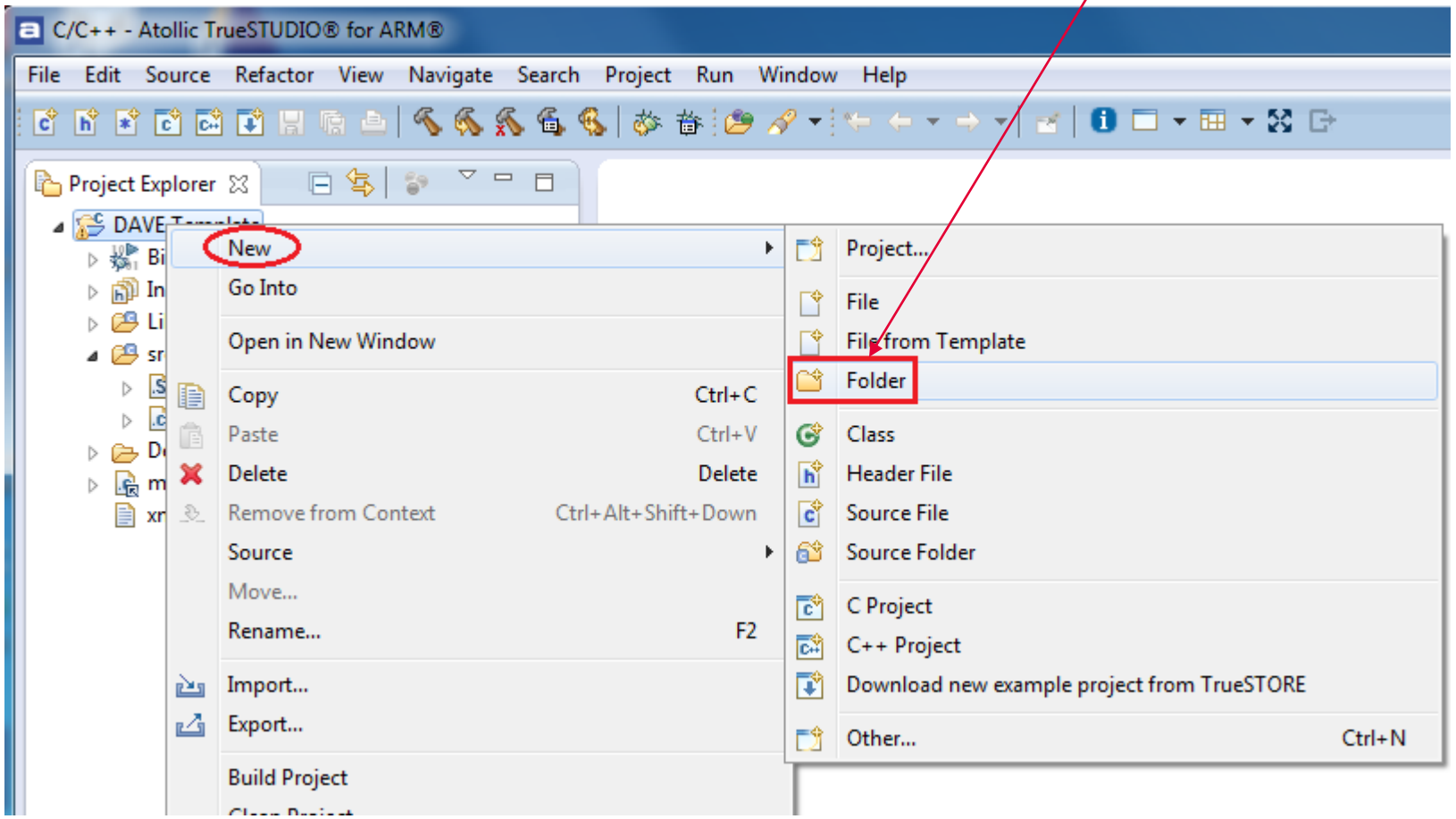
Step 3
Define new folders: DAVE™ library and XMClib

Step 3.1:
In the project field, click right mouse

Step 3.2:
Select New->Folder



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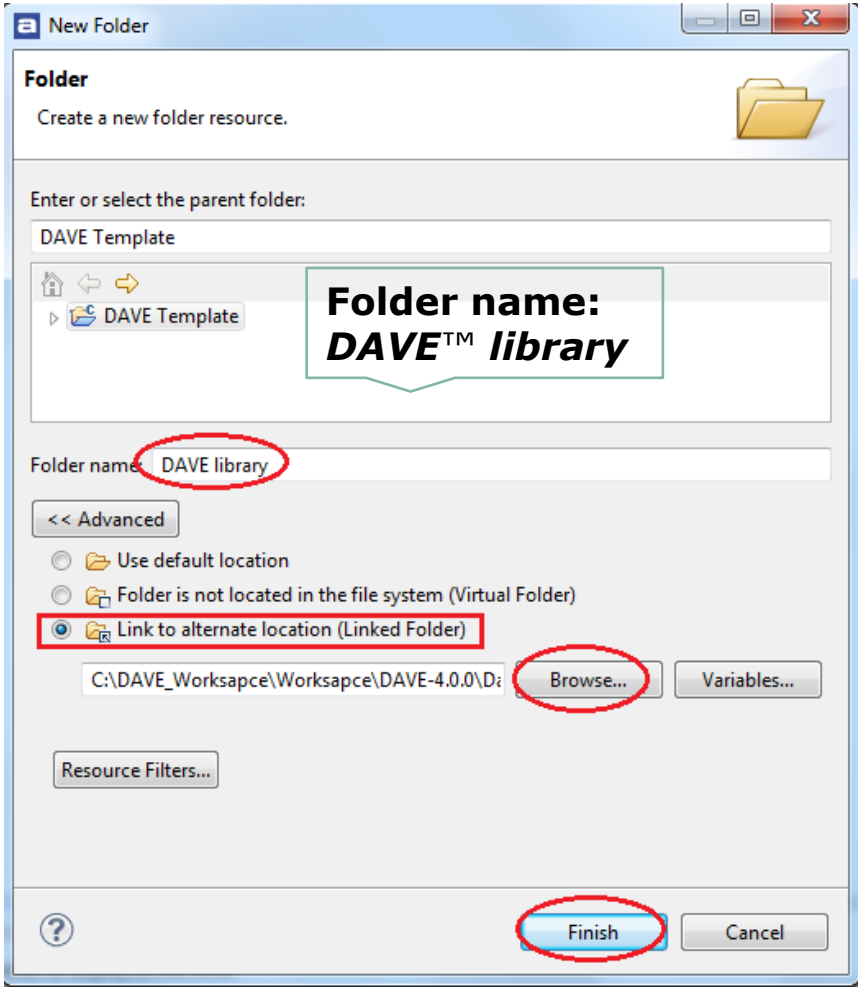
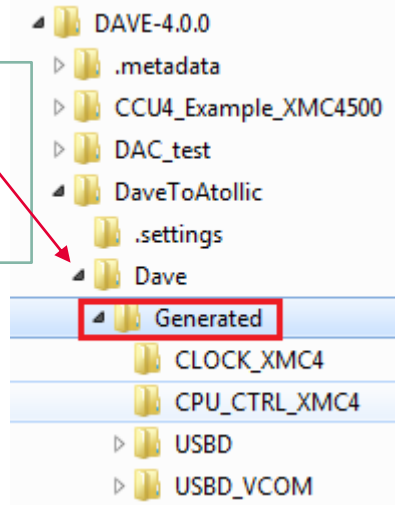
Step 4:
Link DAVE™ source codes into DAVE™ library



Folder name:
DAVE™ library

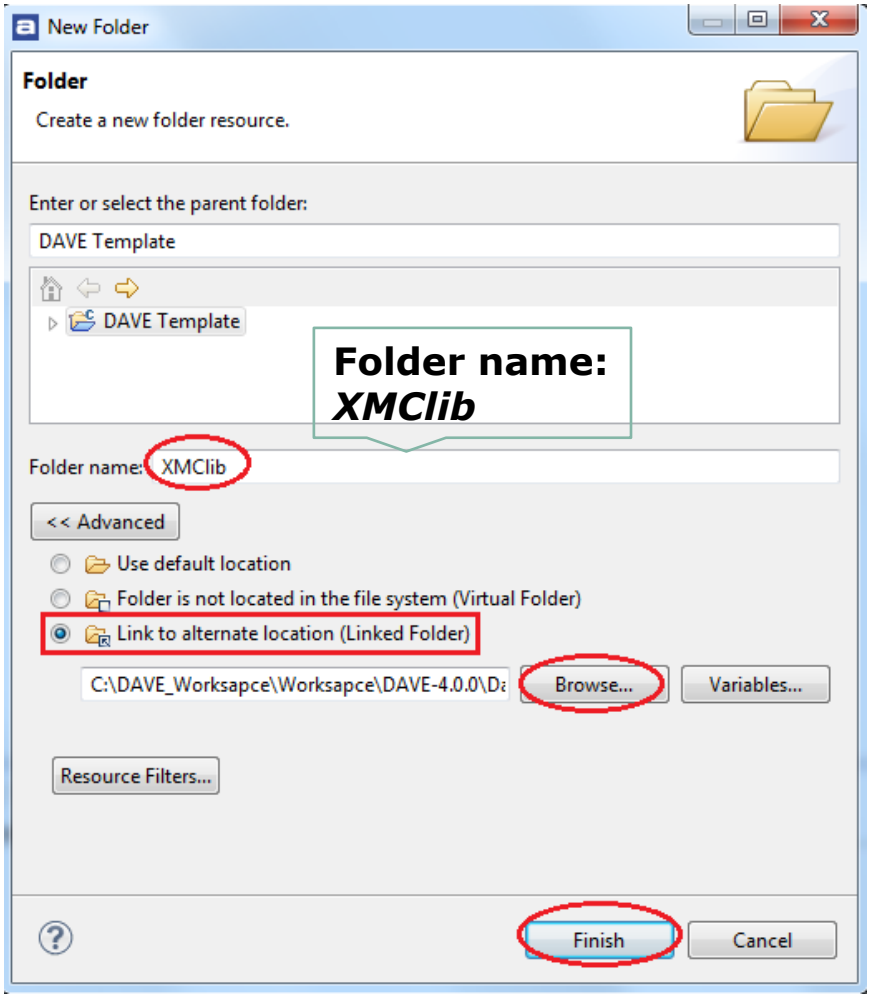
Step 4.1:
Browse to DAVE™ v4 project folder ../Dave™/Generated



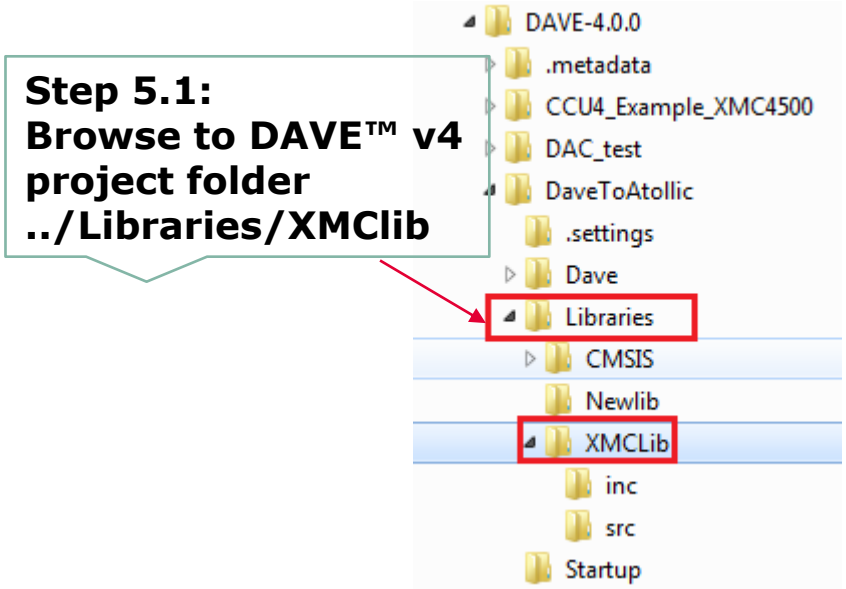
Step 4.2

DAVE™ v4 project folder

Step 5:
Link LLD library source codes into XMClib



Folder name:
XMClib

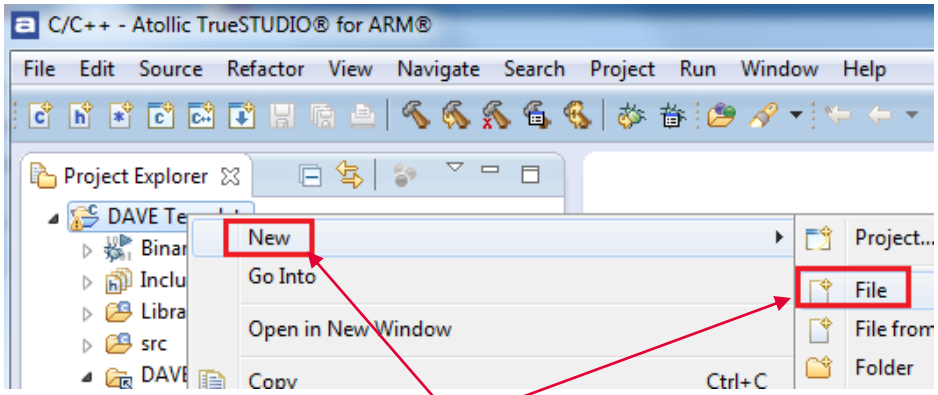


Step 5.1:
Browse to DAVE™ v4 project folder ../Libraries/XMClib

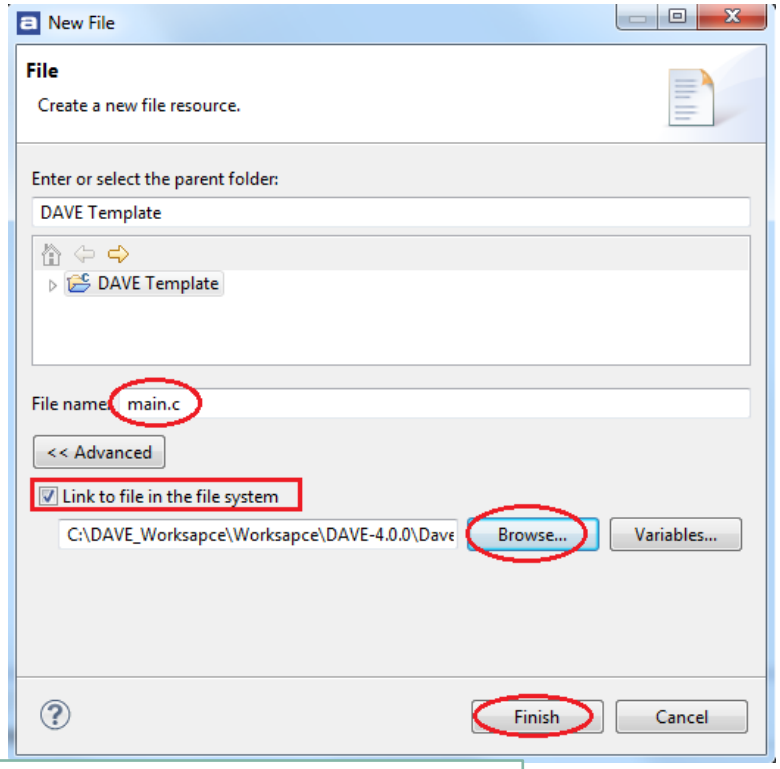
Step 5.2

DAVE™ v4 project folder

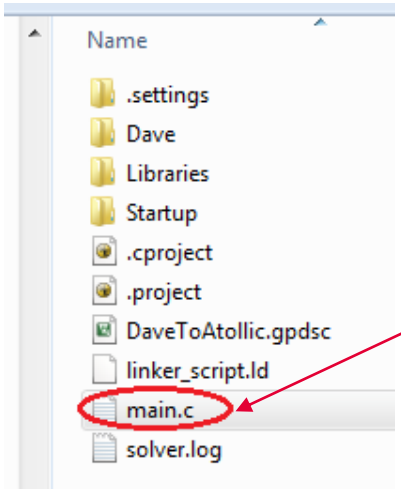
Step 6: Link main.c as needed



Step 6.1:
In the project field, click right mouse, select New->File



DAVE™ project folder



Step 6.2:
Browse to DAVE™ project folder, select *main.c*

Step 6.2

Or simply copy the main.c from the DAVE™ project to the Atollic project

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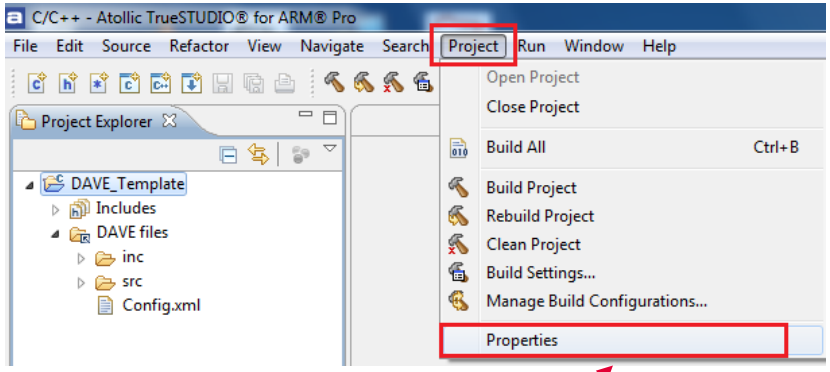
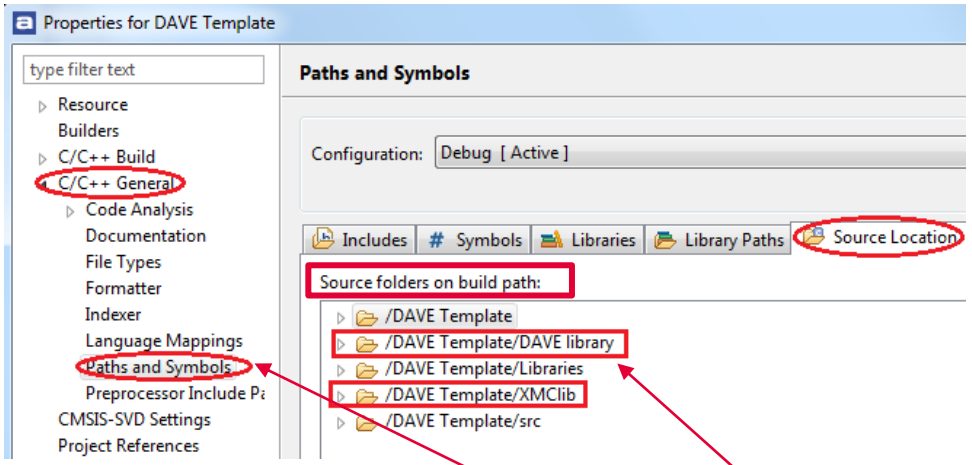
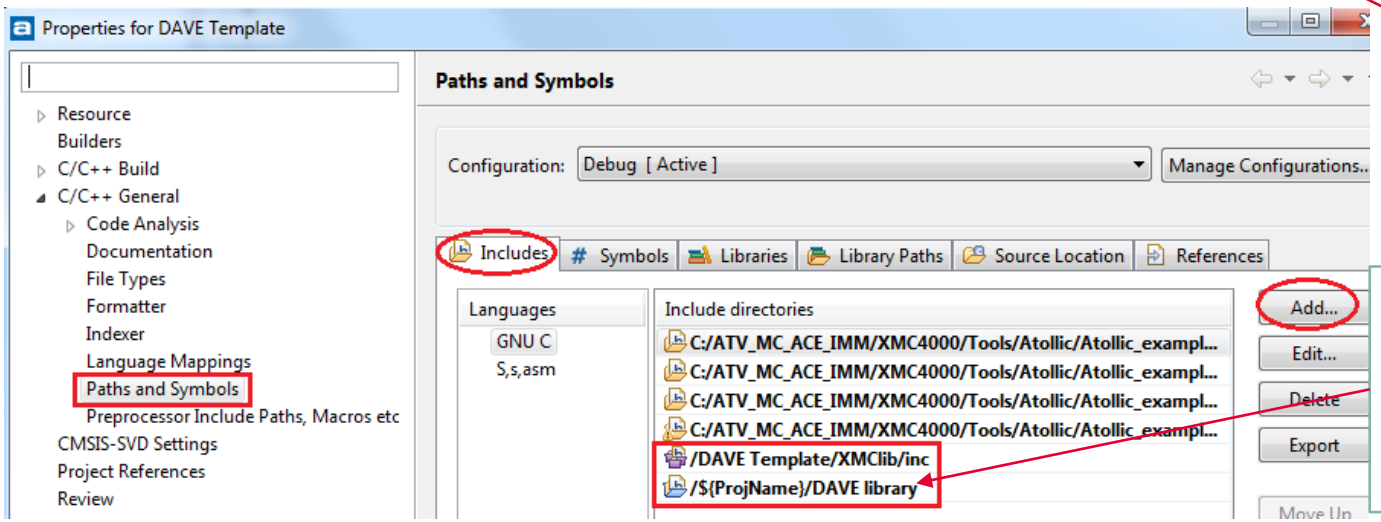
Step 7: Add DAVE™ source and include folders



Step 7.1: Open properties



Step 7.2:
Add source Paths ../DAVE™ library /DAVE™ Template



Step 7.3:
Add include file Paths:
../XMClib/inc/
../DAVE™ library/

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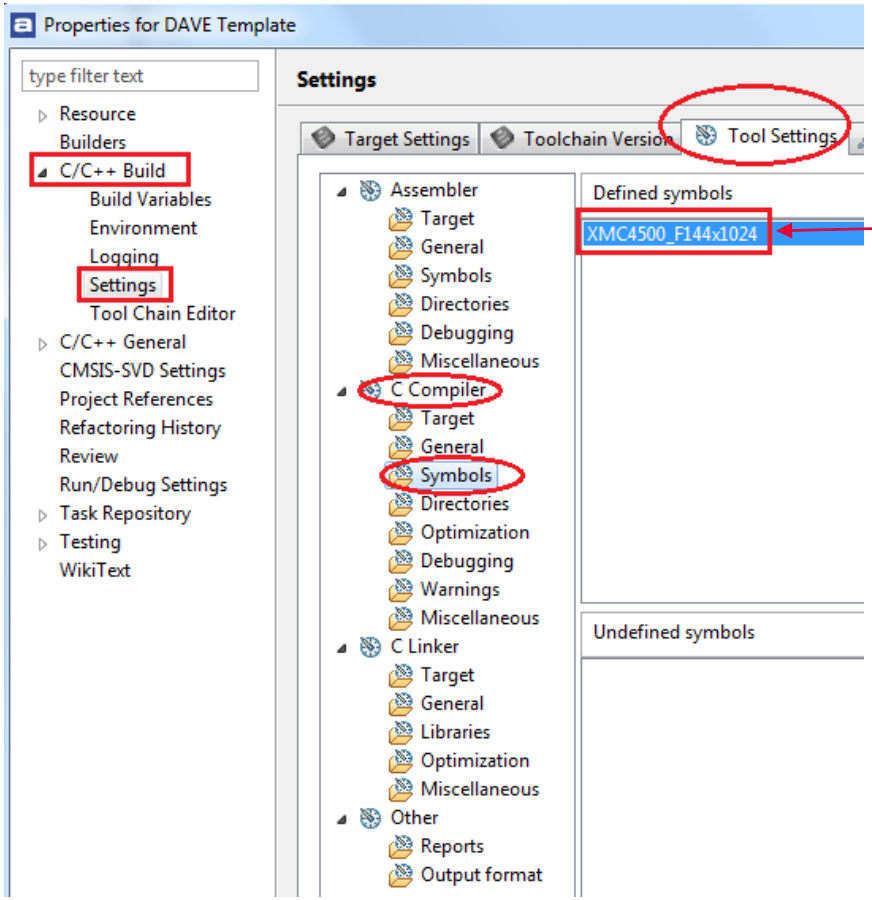
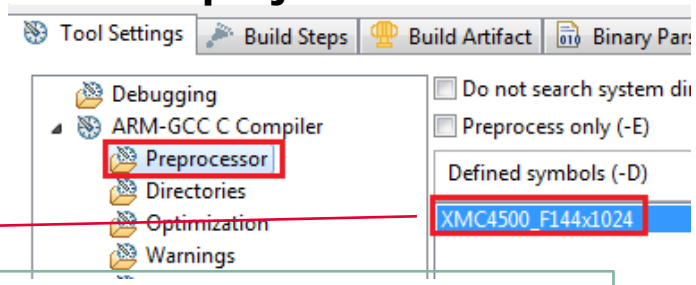
Step 8: Tool settings

Atollic project:



DAVE™ project:

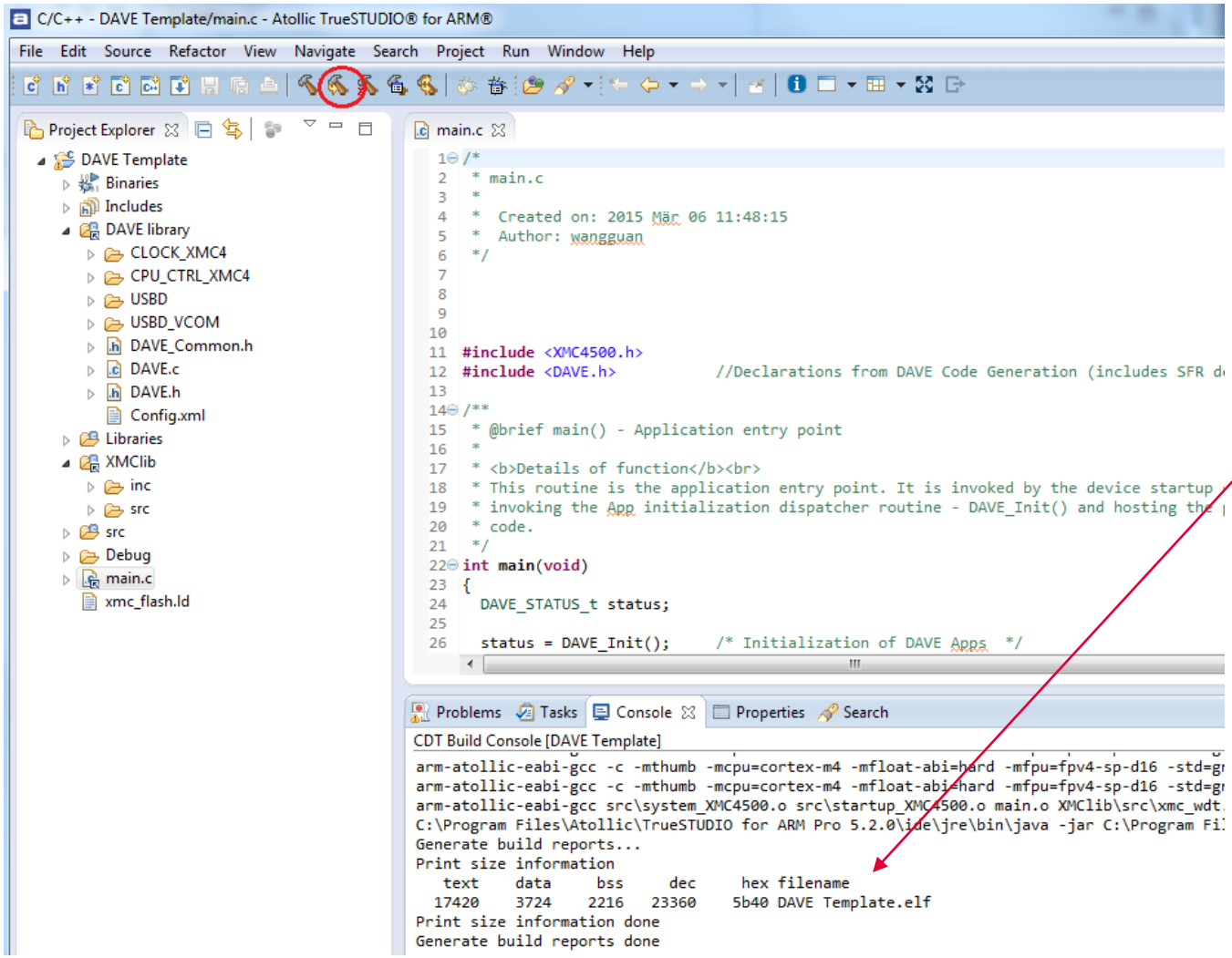


Copy symbols from DAVE™ project to Atollic project, *if it is not defined.*

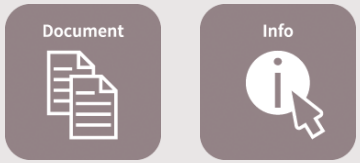
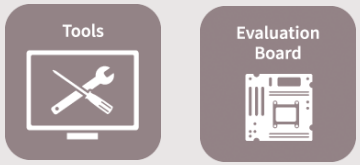
Please note, other settings might need be changed depending on the imported code and required optimizations.
Necessary changes:

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

Step 9: Build the project



Support material

Collaterals and Brochures 	› Product Briefs › Selection Guides › Application Brochures › Presentations › Press Releases, Ads	› www.infineon.com/XMC
Technical Material 	› Application Notes › Technical Articles › Simulation Models › Datasheets, MCDS Files › PCB Design Data	› www.infineon.com/XMC › Kits and Boards › DAVE™ › Software and Tool Ecosystem
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Glossary abbreviations

› DAVE™	Free development IDE for XMC™
› LLD	Low-Level Diver

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