Import DAVE™ version 4 generated library sources into IAR

XMC™ microcontrollers
July 2016

Agenda

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

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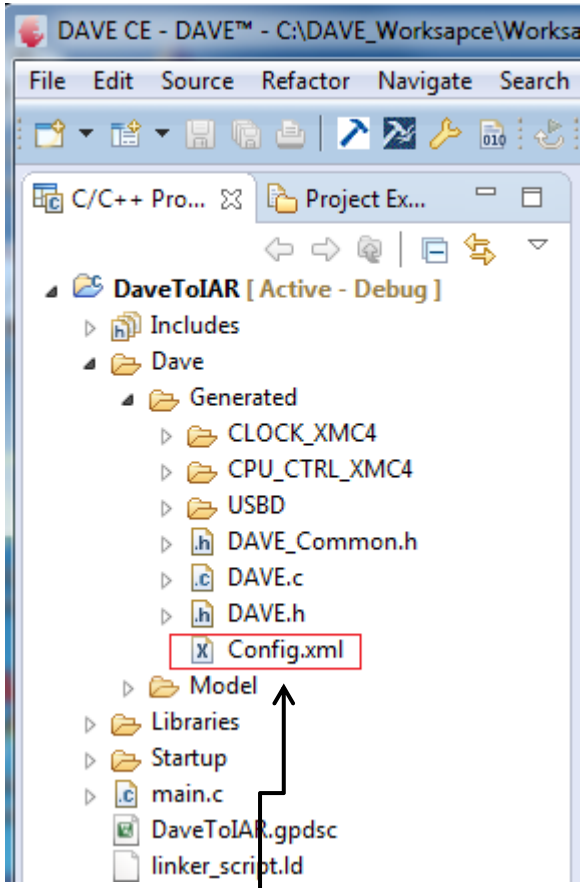
DAVE™ project



Config.xml file references only the generated 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
- DAVE™ can generate a Config.xml file that contains the path and names of all generated library sources (C source files and header files)
- IAR EWARM uses the information in Config.xml file to import the DAVE™ library sources and header files into IAR project
- The Config.xml file references only the generated sources and headers, It is expected that the user develops the user code afterwards in IAR Embedded Workbench for ARM®
- Not the full DAVE™ version 4 project is imported. To import the full DAVE™ project the existing user code has to be manually referenced

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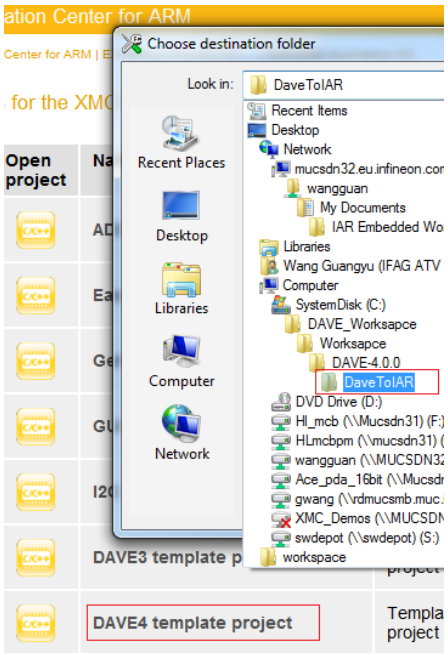
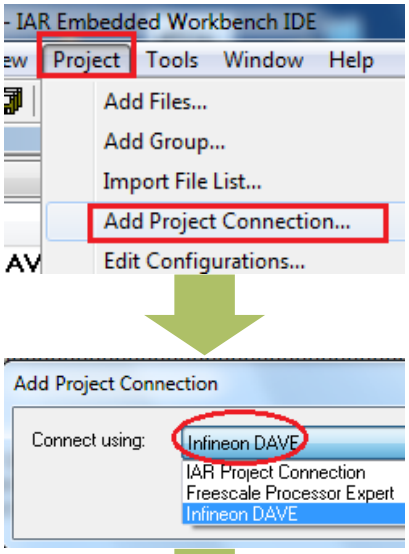
Concept

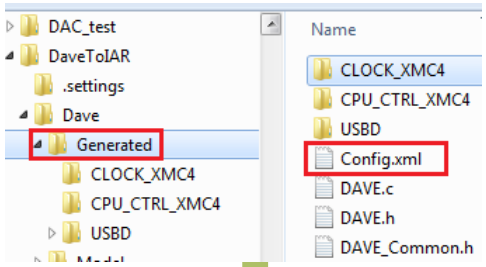
Open 'DAVE4 Template project' and save it in a selected folder:

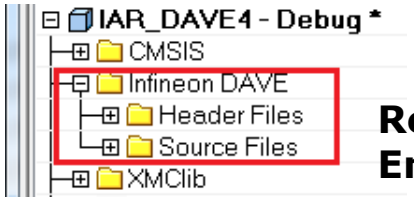


Add Infineon DAVE™ project connection



Go to config.xml file





Respective project view in IAR Embedded Workbench™ for ARM®

- In the Infineon examples there is a 'DAVE4 template project' for each device family
- In IAR Information Center, go to the Infineon examples, open 'DAVE4 template project' and save the template project under DAVE™ (eclipse) project folder
- In the template project add the project connection using Config.xml file
- If the template project is saved in the project folder of the DAVE™ (eclipse) project, build in DAVE™ folder will now create build error. This can be avoided excluding these files from build in the DAVE™ project

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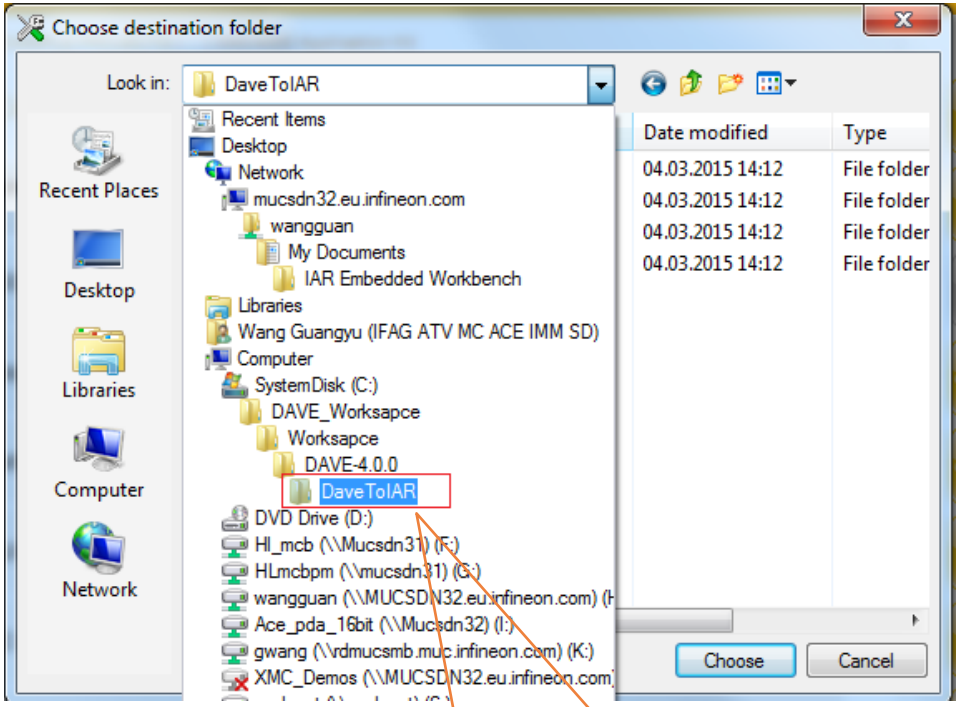
Prerequisites to follow the tutorial

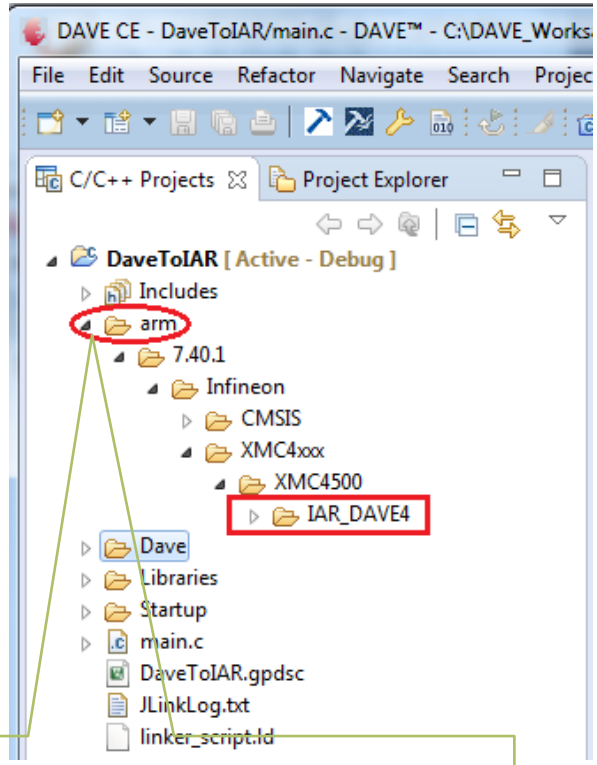
- IAR EWARM version 7.40.02 or higher
- Download the Infineon example projects in “IAR Information Center for ARM” in IAR EWARM
- **Open** the “Infineon Examples”
- **Go to**:
  - **For XMC4xxx**: XMC4xxx->XMC4xxx Application Kit
  - **For XMC1xxx**: XMC1xxx->XMC1xxx Boot Kit board
- Open “**DAVE4** template project”
- Then, do the following step by step...

Step 1: Save template project

- Save the template project into **any folder** (IAR ***v7.40.02*** or higher)
- **Note**: If a DAVE™ example project is used it has to be imported in DAVE™ and code has to regenerated before template project is saved (update of project path in config.xml file)

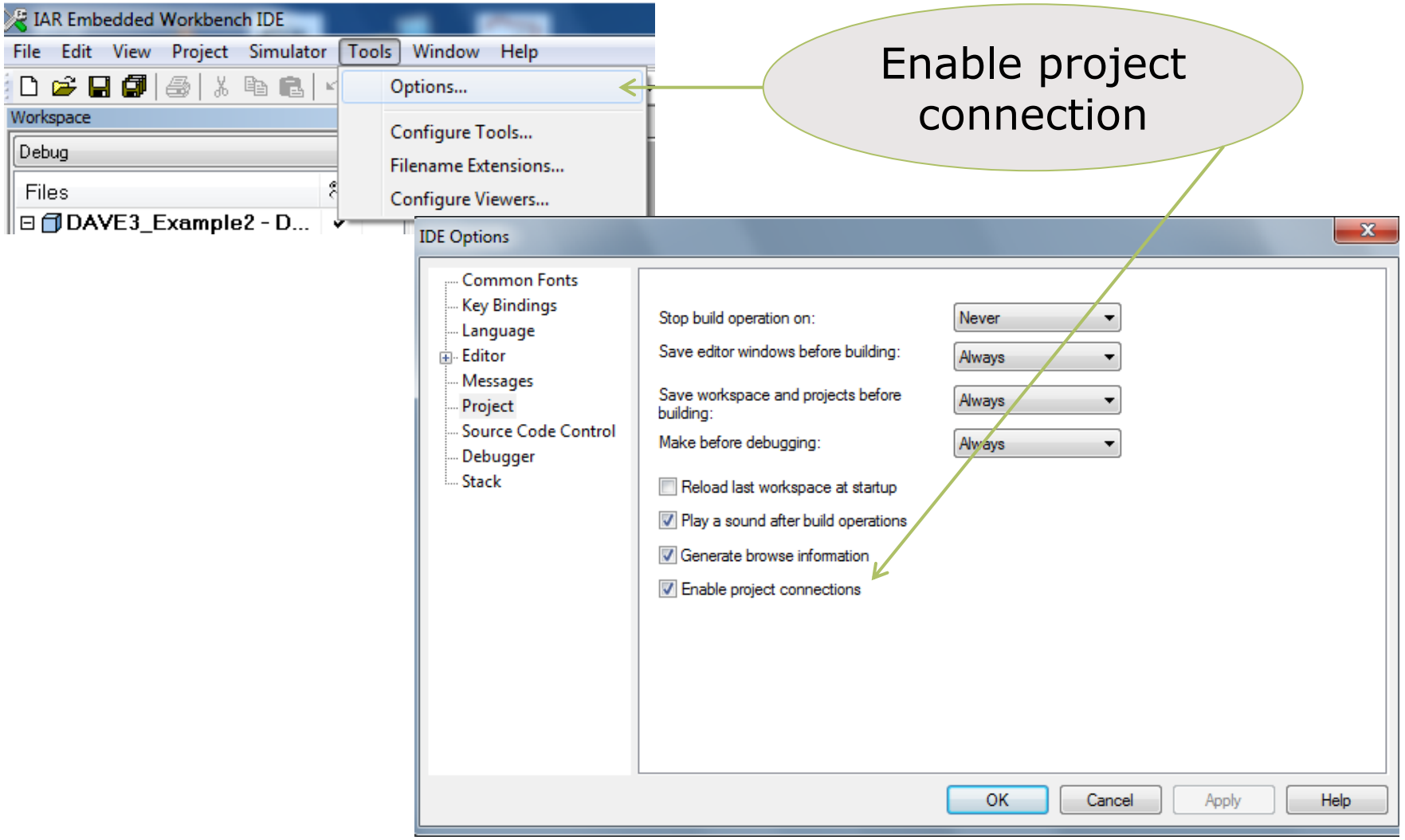


Destination folder: your selected folder

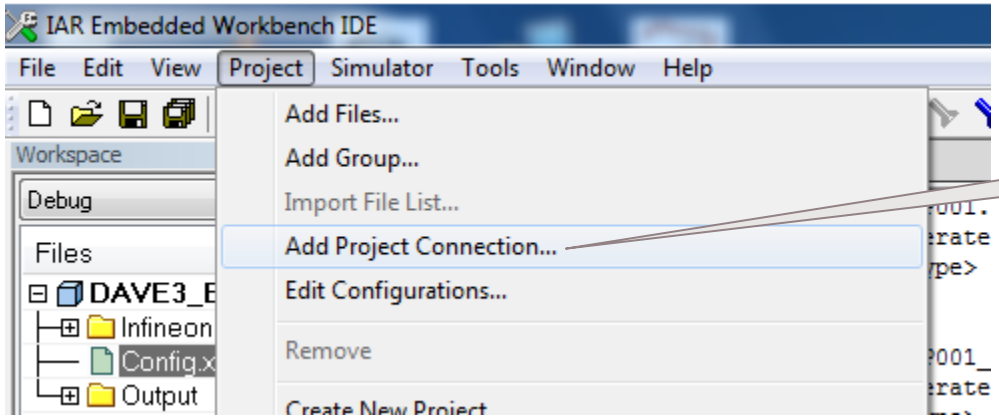


Here is the IAR template

Step 2: Enable project connection

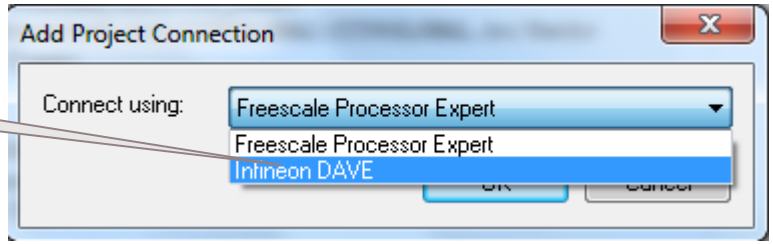


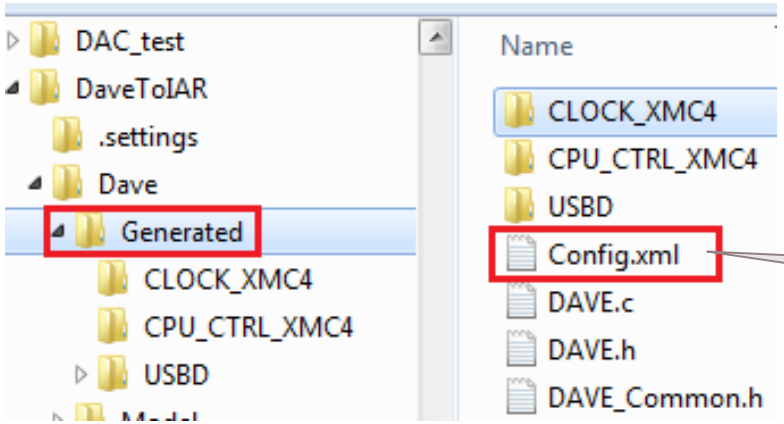
Step 3: Add project connection



Step 3.1: Add project connection

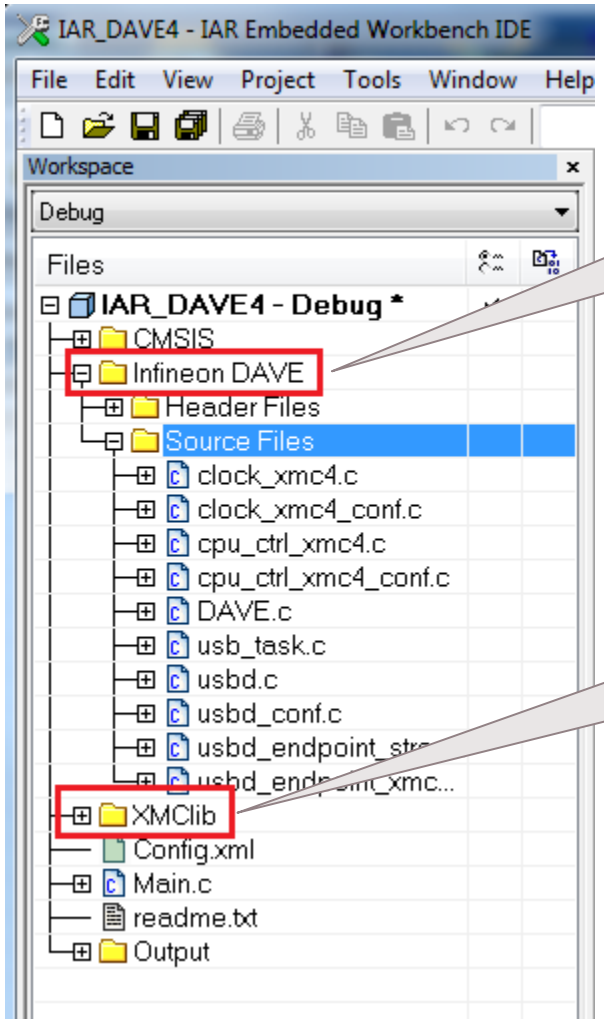
Step 3.2: Infineon DAVE™





Step 3.3:
Go to ..\Dave™\Generated\
Open Config.xml

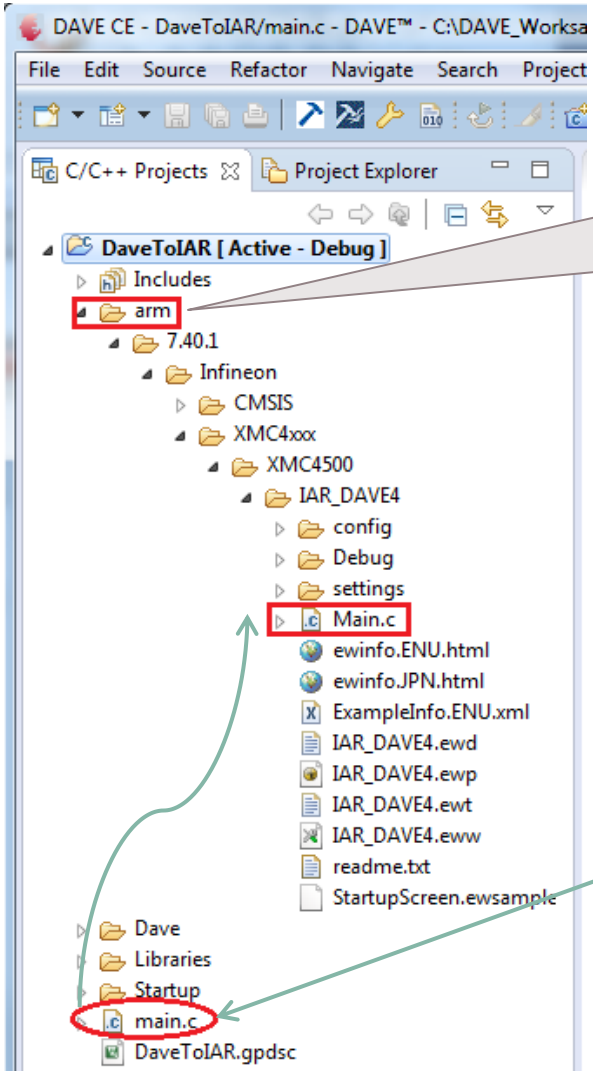
Step 4: Add project connection



After add project connection, all **DAVE™ version 4** source files and header files are imported into IAR project and displayed here

From **DAVE™ version 4** the LLD library XMClib is an integral part in DAVE™ project. The XMClib source codes are already in template project

Step 5: Replace main.c in template as needed

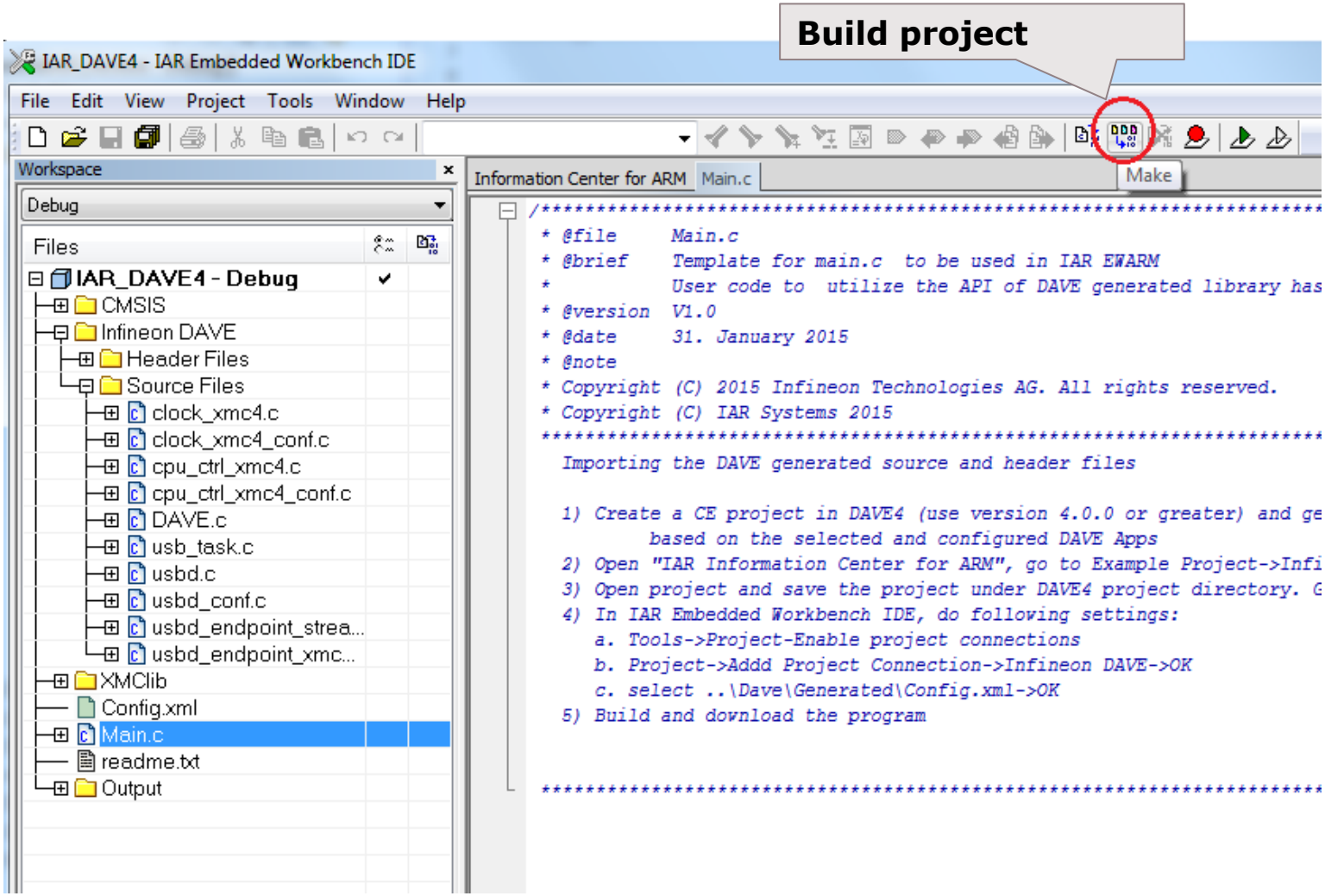


Note: DAVE™ template project in IAR contains a *main.c* file for test purposes. **If the *main.c* file of the DAVE™ project should be used in IAR**, then ***main.c*** file should be copied to IAR project to replace the exiting *main.c* in the IAR template project

Step 5.1:

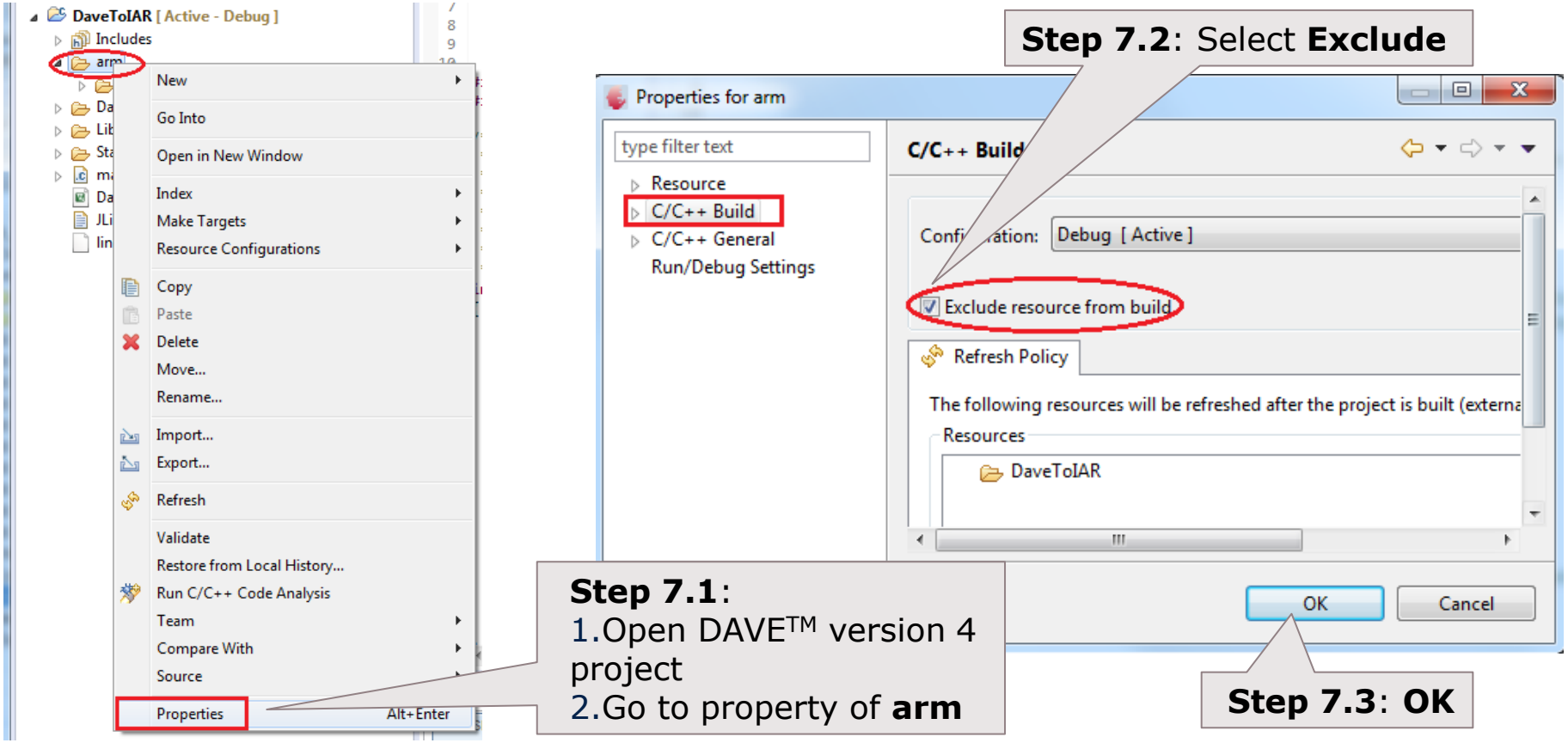
Copy the **main.c** in the DAVE™ application project into IAR template project to replace the *main.c* in the IAR template project, **if necessary**

Step 6: Build project



Step 7: Exclude IAR project folder from DAVE™ project

- If the IAR DAVE4 template project is saved under DAVE™ project, the **arm** folder must be excluded from DAVE™ build because of the CMSIS files for IAR
- It is only required if the generated code need to be rebuilt in DAVE™

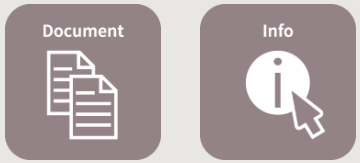
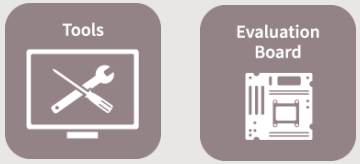


In case of DAVE™ code regeneration

Hint:

If the DAVE™ source codes are regenerated because of new or removed Apps in DAVE™ project, **Step 3** must be repeated in order to update the source code.

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
Videos 	› Technical Videos › Product Information Videos	› Infineon Media Center › XMC Mediathek
Contact 	› Forums › Product Support	› Infineon Forums › Technical Assistance Center (TAC)

Glossary abbreviations

- DAVE™ Free development IDE for XMC™
- EWARM Embedded Workbench™ for ARM®

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