

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

Agenda

1

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

2

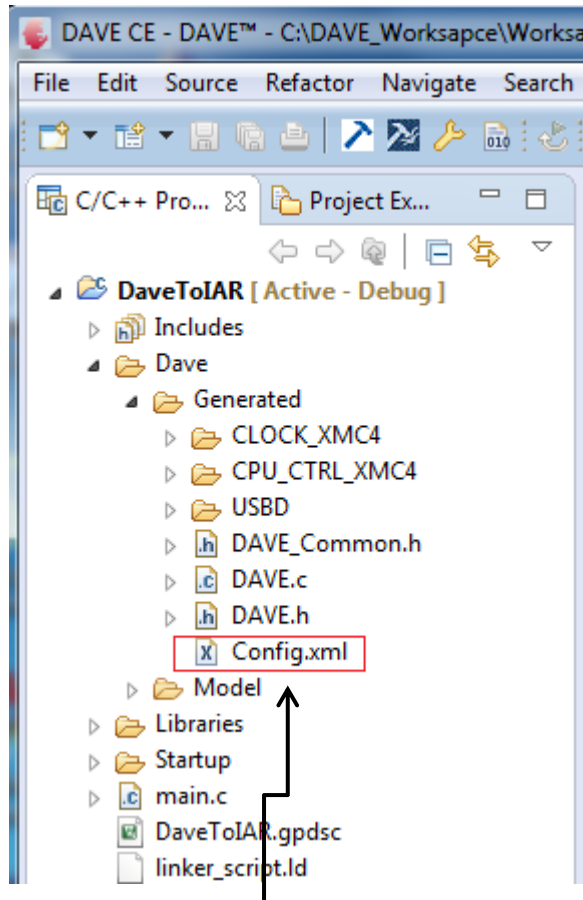
Concept

3

Prerequisites to follow the tutorial

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

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

Agenda

1

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

2

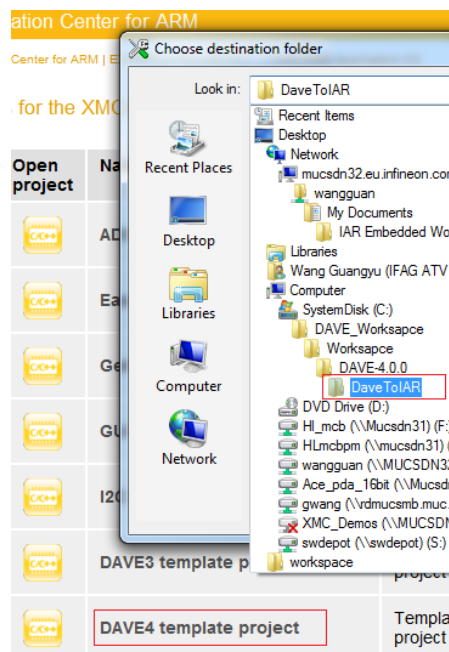
Concept

3

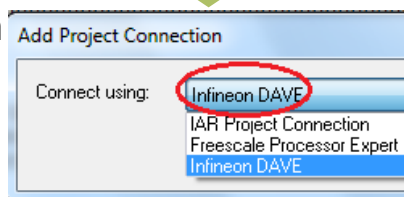
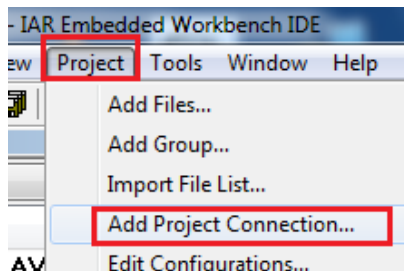
Prerequisites to follow the tutorial

Concept

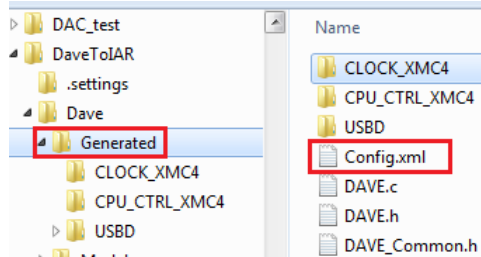
Open 'DAVE4 Template project' and save it in a selected folder:



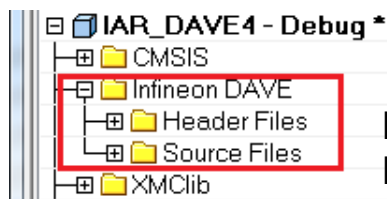
Add Infineon DAVE™ project connection



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

Agenda

1

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

2

Concept

3

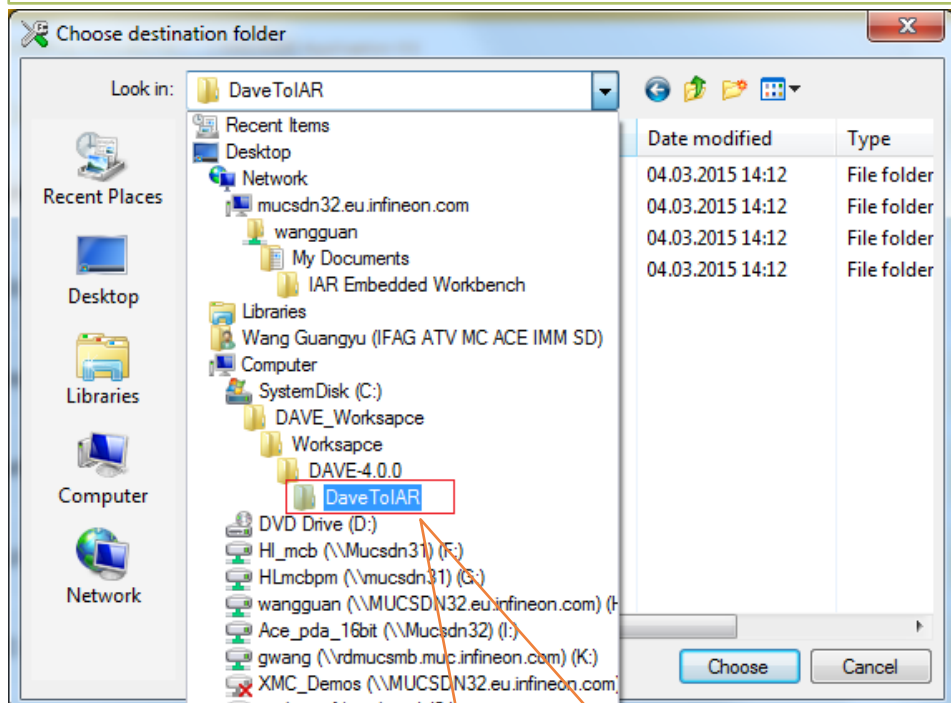
Prerequisites to follow the tutorial

Prerequisites to follow the tutorial

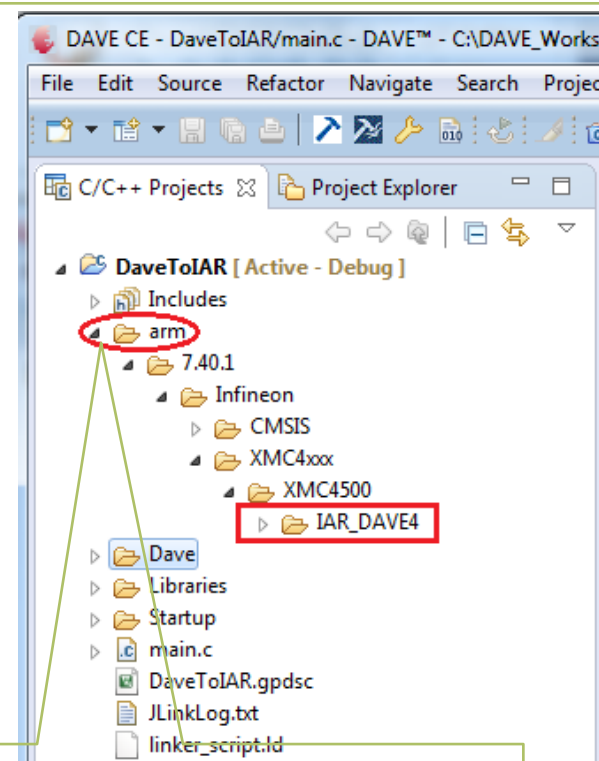
- › IAR EWARM version 7.40.02 or higher
- › Download the Infineon example projects in "IAR Information Center for ARM" in IAR EWARM
- › **Open** the "Infineon Examples"
- › **Go to:**
 - **For XMC4xxx:** XMC4xxx->XMC4xxx Application Kit
 - **For XMC1xxx:** XMC1xxx->XMC1xxx Boot Kit board
- › Open "**DAVE4** 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 be regenerated before template project is saved (update of project path in config.xml file)

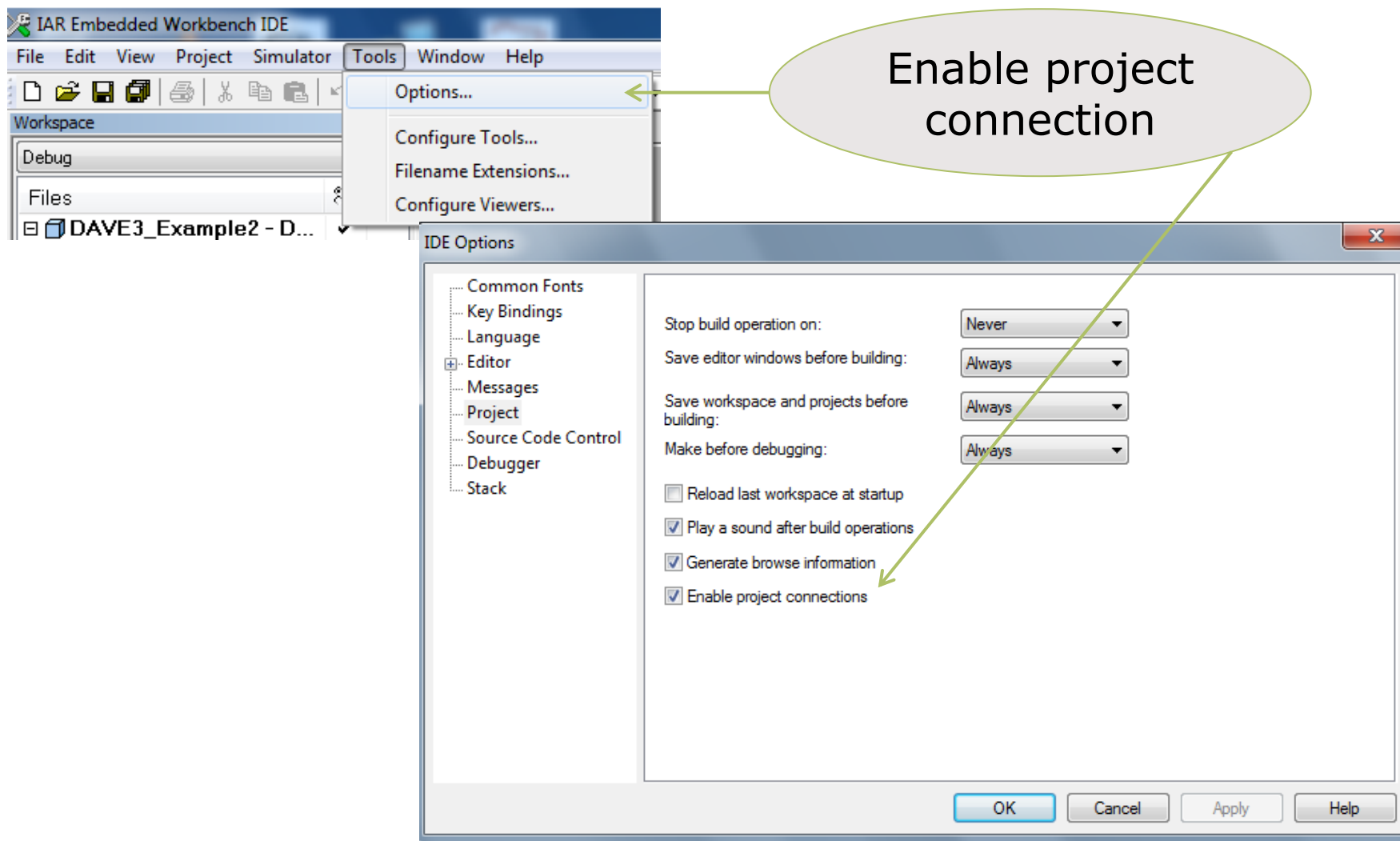


Destination folder: your selected folder

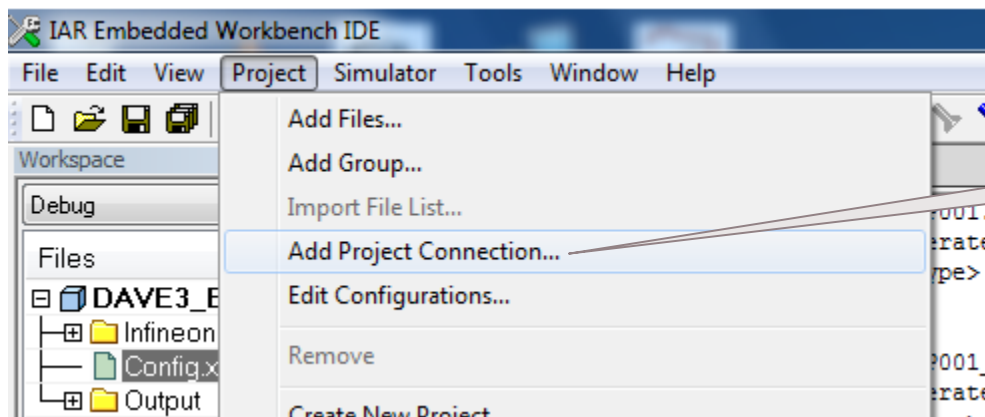


Here is the IAR template

Step 2: Enable project connection

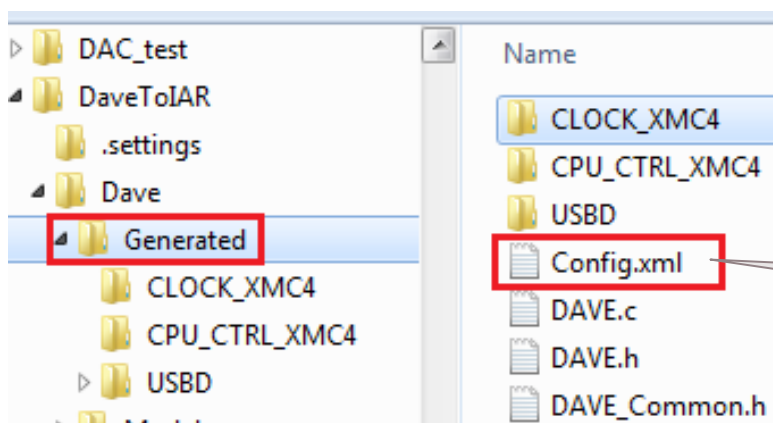
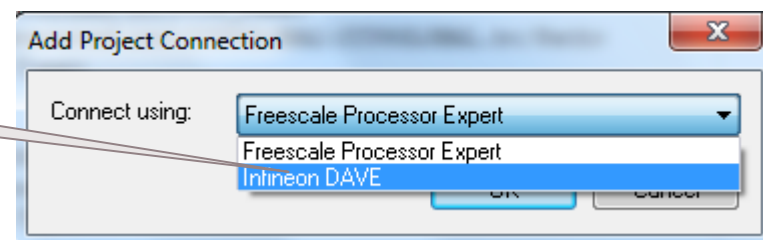


Step 3: Add project connection



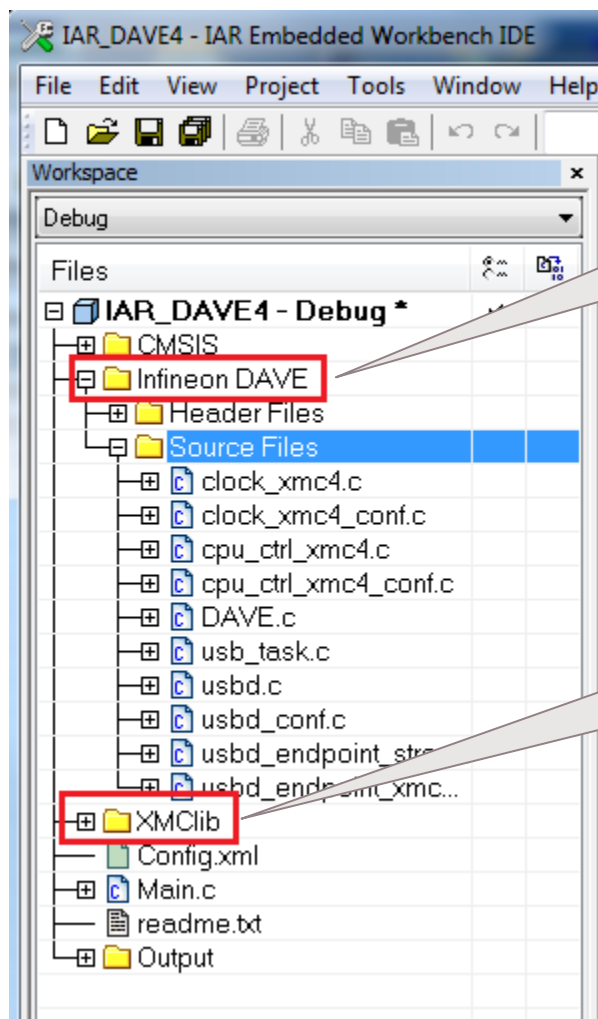
Step 3.1: Add project connection

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

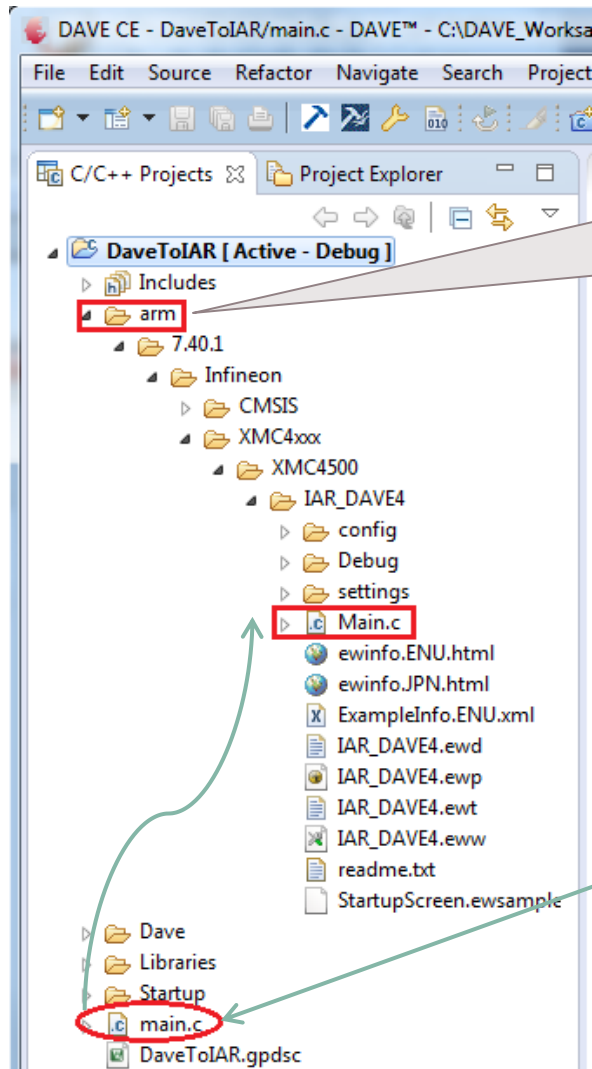
From **DAVE™ version 4** the LLD library XMClib is an integral part in DAVE™ project. The XMClib source codes are already in template project

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

Build project

The screenshot shows the IAR Embedded Workbench IDE interface. The toolbar at the top contains various icons, with the 'Make' icon (represented by a blue square with a white 'M') circled in red. A callout box labeled 'Build project' points to this icon. The workspace on the left displays a project tree for 'IAR_DAVE4 - Debug', with 'Main.c' selected. The Information Center for ARM on the right shows the content of 'Main.c', which includes metadata and instructions for building the project.

```

*****
* @file      Main.c
* @brief     Template for main.c to be used in IAR EWARM
*           User code to utilize the API of DAVE generated library has
* @version   V1.0
* @date      31. January 2015
* @note
* Copyright (C) 2015 Infineon Technologies AG. All rights reserved.
* Copyright (C) IAR Systems 2015
*****
Importing the DAVE generated source and header files

1) Create a CE project in DAVE4 (use version 4.0.0 or greater) and ge
   based on the selected and configured DAVE Apps
2) Open "IAR Information Center for ARM", go to Example Project->Infi
3) Open project and save the project under DAVE4 project directory. G
4) In IAR Embedded Workbench IDE, do following settings:
   a. Tools->Project-Enable project connections
   b. Project->Addd Project Connection->Infineon DAVE->OK
   c. select ..\Dave\Generated\Config.xml->OK
5) Build and download the program
*****

```

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™

Step 7.1:
1. Open DAVE™ version 4 project
2. Go to property of **arm**

Step 7.2: Select Exclude

Step 7.3: OK

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®

Disclaimer

The information given in this training materials is given as a hint for the implementation of the Infineon Technologies component only and shall not be regarded as any description or warranty of a certain functionality, condition or quality of the Infineon Technologies component.

Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind (including without limitation warranties of non-infringement of intellectual property rights of any third party) with respect to any and all information given in this training material.



Part of your life. Part of tomorrow.

