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:

- 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).

Linked resource: link to DAVE™ generated C sources, header files and XMClib
Define a new folder 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

Respective project view in Atollic project
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 1.1: Create a new Atollic project.

Step 1.2: Choose the target devices (same target as used in the DAVE™ 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 

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

Folder name: 
DAVE™ library 

Step 4.2: 
DAVE™ v4 project folder
Step 5:
Link LLD library source codes into XMClib

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

Folder name:
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

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

\texttt{./DAVE™ library} /\texttt{DAVE™ Template}

Step 7.3: Add include file Paths:

\texttt{./XMClib/inc/}
\texttt{./DAVE™ library/}
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6. Tool settings and build the project
Step 8: Tool settings

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

Copy symbols from DAVE™ project to Atollic project, if it is not defined.
Step 9: Build the project

Build project
# Support material

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- [www.infineon.com/XMC](http://www.infineon.com/XMC)
- [www.infineon.com/XMC](http://www.infineon.com/XMC) - Kits and Boards<br>- [DAVE™](http://www.infineon.com/XMC) - Software and Tool Ecosystem
- [Infineon Media Center](http://www.infineon.com/XMC) - XMC Mediathek
- [Infineon Forums](http://www.infineon.com/XMC) - Technical Assistance Center (TAC)
Glossary abbreviations

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