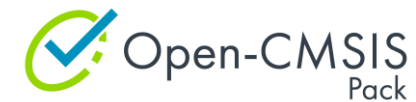


Open-CMSIS-Pack

Technical Project Meeting 2023-01-10

This meeting is recorded !



HAPPY NEW YEAR!

Welcome back.

We are looking forward to new exciting developments.



Agenda

- Welcome
- Priorities (revisit)
- Roadmap for H1 2023
- Linker Script File
- For Review
- File Category mapping
- Wrap Up

Priorities (slide from Nov 2022)

- Complete compiler agnostic work-flows
 - **settings for warnings, optimization, debug**
 - analyze gaps (i.e lib selection, enum/wchar sizes), impacts to generic packs such as Event Recorder
 - Create clear guidelines for compiler agnostic packs (C Startup code, Linker Script generation)
- **Complete *.cbuild.yml generation - [status](#)**
- Close the gaps for multi-core and TrustZone csolution-based projects
 - [Output file control \(binary, etc.\)](#)
 - Define how sub-projects are combined (dependency)
 - Post-Build steps with image signing
- Extend cbuild tool orchestration (i.e. install missing packs, convert csolution + context) - (DSGECO-146)
- **Complete clayer work based on `connections:` descriptions – [working on issues](#)**
- **Resource management and linker script generation ([review proposal](#))**
- **Conclude on “generators” integration - [#637](#)**
- Work on the aspects of Flash programming and Debug
- Use *.cbuild.yml files as feedback lock file (input file to csolution)
- Change cbuildgen process from using *.CPRJ to *.cbuild.yml

Please review and provide feedback in the next TM

Roadmap H1'2023 – CMSIS-Toolbox 2.0

CMSIS-Toolbox 2.0: Beta-Status: May 2023, Release: July 2023

- CMSIS-Toolbox 2.0 should provide all relevant features for integration into VS Code
 - Is there anything missing?

Process to get to CMSIS-Toolbox 2.0: label [cmsis-toolbox 2](#)

- Review “Proposals” + ToDo in [Manual](#) – some of it might be already implemented
- Review Issues on [devtools](#) and [Open-CMSIS-Pack-Spec](#)
- Agree on feasible implementation timeline (until 15. Feb 2023)

Define what is Out of scope (todo later in 2023) – label: [cmsis-toolbox future](#)

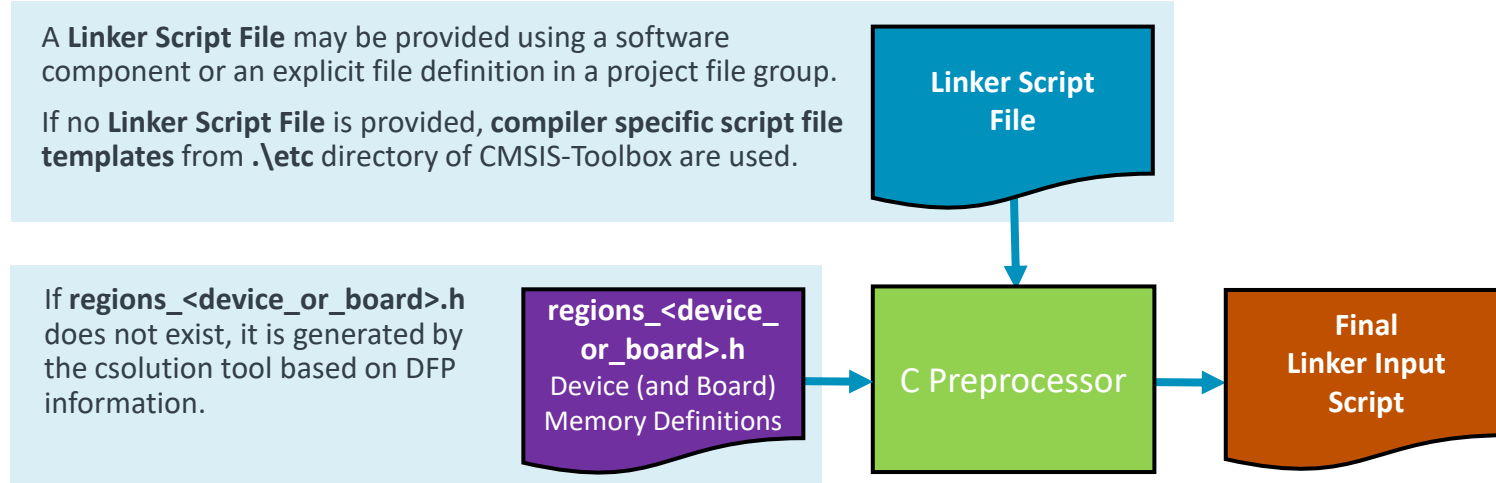
- CMSIS-Zone integration and resource management proposal

Linker Script File (Toolchain independent) – ask for feedback #655

[https://github.com/Open-CMSIS-Pack/devtools/blob/main/tools/projmgr/docs/Manual/Linker%20Script%20File%20\(Proposal\).md](https://github.com/Open-CMSIS-Pack/devtools/blob/main/tools/projmgr/docs/Manual/Linker%20Script%20File%20(Proposal).md)

Multiple ways to supply linker script files:

- Using `file:` notation under `groups:` or as part of software component (extensions .sct, .scf and .ld)
- New: User provided specified with `linker:` node, with option to use a *.h header file that is toolchain agnostic
- Auto-generated: when no script is provided (this might be implemented in a later step)



Initial Proposal for CMSIS-Toolbox 2.0:

- Implement `linker:` node with workflow for C Preprocessor step with user-defined `regions_<device_or_board>.h`
- Stretch goal: auto-generate linker script and `regions_<device_or_board>.h` (tbd exact workflow)

For Review (New)

- csolution command to list config files require updating (PLM) [#651](#)
- Feedback for generated CMakeLists.txt [#649](#) [#648](#)
- [csolution] [#450](#) is now specified as [`context-map:`](#)
- [csolution] `defines` are used by all build tools [#607](#) (Holt, NXP)
- [spec] Specifying files and include paths [#175](#)/[#176](#) → [#186](#)
- [csolution] any feedback on [#618](#)

File category mapping [#175](#)/[#176](#)

category (#28)	category	language	scope	supported
source sourceAsm sourceC sourceCpp linkerScript	source	(extension) ASM C CPP Link	N/A	yes yes yes yes yes
header headerAsm headerC headerCpp N/A headerLd	header	<u>all</u> ASM C CPP C-CPP Link	<u>visible</u> hidden	yes no no no no no
include includeAsm includeC includeCpp N/A included	include	<u>all</u> ASM C CPP C-CPP Link	<u>public</u> private	yes no no no no

- New Change Request for Specification: [#186](#)

Wrap Up

Actions for all:

- Review “Proposals” + ToDo in [Manual](#)
- Review Issues in [devtools](#) and [Open-CMSIS-Pack-Spec](#)
 - Label: cmsis-toolbox 2 vs. future
- Agree on feasible implementation timeline (until 15. Feb 2023)
- Other review “asks” before finally closing issues:
 - Anything still open for “Discussion Done” items.
 - Please help to resolve tickets with label: [question](#)
- Next Open-CMSIS-Pack meeting: 17th Jan. 2023 @ 16:00 CET (15:00 UK)

Thank you

