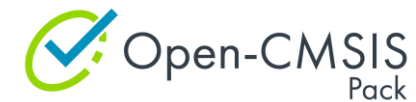


# Open-CMSIS-Pack

Technical Project Meeting 2023-01-17

This meeting is recorded !



# Agenda

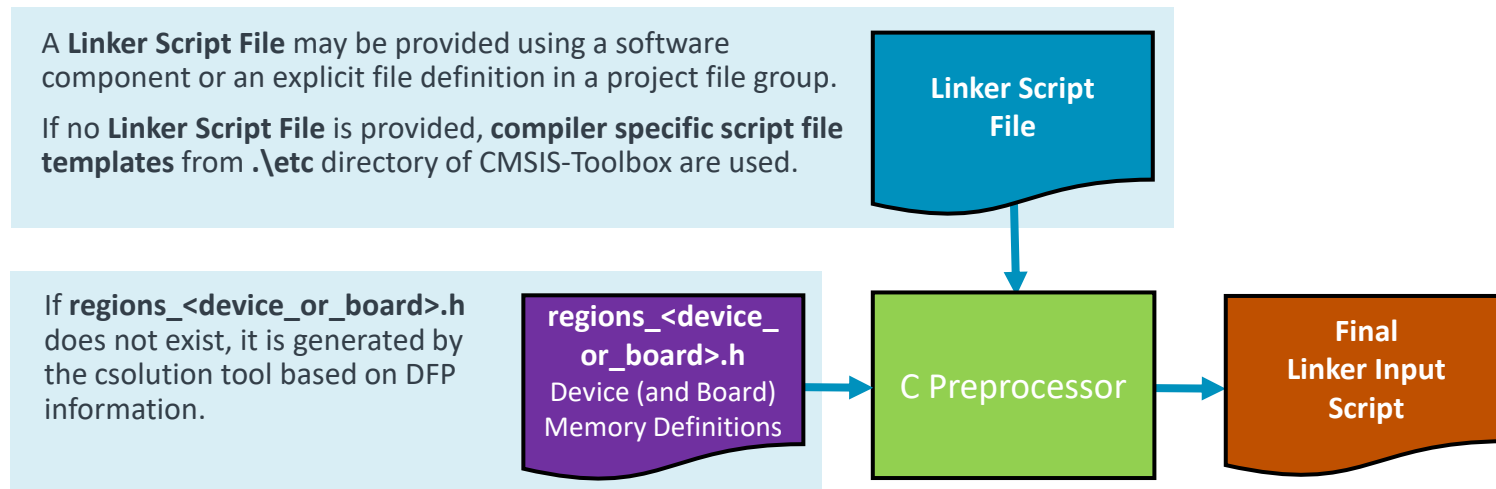
- Welcome
- Feedback Linker Scripts
- C Startup Code
- For Review
- Wrap Up

# 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)

# C Startup Code

- Compiler agnostic
- Reset Handler C function
- Interrupt Vector Table as C array (to be generated from SVD files by [SVDConv](#))

## Limitations/Issues:

- Stack usage in Reset Handler
- Coprocessor usage before cp interface initialization
- Requires Compiler support, e.g., attributes

# For Review (specification)

- [spec] How to describe boards with many revisions [easier]? [#188](#)
- [spec] Add `clang` to CompilerEnumType of \*.PDSC format [#184](#)
- [spec] Add condition attributes Hvendor and Hname [#182](#)
- [spec] Add `side` attribute to board image and allow more [#181](#)
- [spec] Add `taxonomy` for `Hclass`, `Hgroup` [#173](#)
- [spec] `mountedDevice` not required for daughter board [#174](#)
- [spec] Specifying files and include paths [#186](#)
- [spec] keep \*.pdsc file in software repository [#190](#)

Requesting Decision Committee Meeting (Bill)

# For Review (csolution)

- [csolution] Are we able to “link” multiple cprojects in a build process? [#662](#)
- [csolution] `defines` are used by all build tools [#607](#) (Holt, NXP)
  - Proposal is to only add define-asm and add-path-asm
- [csolution] \*.genlayer.yml to specify dependencies on components [#637](#)
- [csolution] package requirements not taken into account [#659](#)
- [csolution] add component property to copy files into project tree [#658](#)
  - Reject: agreed to use packs in project tree instead
- [csolution] Consistent information in generated files (\*.h) [#652](#)
- [csolution] Define Workflow with CubeMX Generator [#626](#)
- [csolution] How to add a compiler toolchain to CMSIS-Toolbox [#493](#)
  - Action for Tarek and Daniel to review documentation before we close

# Wrap Up

## Actions for all:

- Review “Proposals” + ToDo in [Manual](#)
- Review Issues in [devtools](#) and [Open-CMSIS-Pack-Spec](#)
  - Label: cmsis-toolbox 2 vs. cmsis-toolbox 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: 24th Jan. 2023 @ 16:00 CET (15:00 UK)

Thank you

