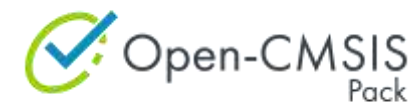


Open-CMSIS-Pack

Technical Project Meeting 2022-03-01

This meeting is recorded !



Agenda

- Welcome
- Updates from past week
- CPRJ extensions
- CMSIS Project Manager
 - Generator-Support
- Version ranges
- NXP's differences in data description
- Wrap Up

Updates from past week

- [projmgr] Open door to vendor specific data addon - YAML validation against multiple JSON schemas ([#83](#))
PR [#162](#), PR [#163](#)
 - [projmgr] [buildmgr] Open door to more compilers ([#120](#))
 - [csolution] why so many separators in the spec? ([#165](#))
 - CMSIS-Toolbox release 0.9.1 - csolution changelog:
 - Add Access Sequences handling
 - Integrate automatic schema check when parsing yml files.
 - Add device discovering from board settings, allowing to specify a board instead of a device.
 - Add generator support commands: `list generators` and run `--generator <id>`.
 - Extend `list` commands to accept a solution context as input parameter for optimized results.
 - Bugfixes: add Pname for multicore devices and add API's pack when generating CPRJs, schemas refinements.
- Feedback?

CPRJ extensions

The CPRJ format shall be extended to cope with several add-ons introduced within the csolution concept:

- Description of inter-context dependencies. All related CPRJs and their inter-dependencies should lead to the generation of a top-level CMakeLists.txt file. To keep the separation of concerns between **Project Manager** and **Build Manager** this should be described in the intermediate format.
- Compiler options abstractions
- Defines and Includes at group/file level

Proposal: MCPRJ = Multi CPRJ collection - GH Issue: [#171](#), PR schemas proposal: [#170](#)

```
<mcprj ...>
  <contexts>
    <context>
      <path>./parentProject.buildType+targetType.cprj</path>
    </context>
    <context>
      <path>./project.buildType+targetType.cprj</path>
      <depends>parentProject.buildType+targetType</depends>
    </context>
  </contexts>
</mcprj>
```

CMSIS Project Manager – prioritized ToDo list

1. Review of CMSIS-Toolbox by partners with feedback on potential issues (ongoing)
 - Discuss - Get rid of project name usage as much as possible [issue #81](#)
2. PLM of config files (proposal is included in specification)
 - Specify a preferred 3-way merge utility? E.g. <https://git-scm.com/docs/git-merge-file> ([issues #104](#))
3. Multiple Component Instances ([issues #76](#))
4. RTE directory structure finalize (proposal is included in specification) ([issues #77](#))
5. Local copy of packs (ST requirement) – duplicate of #6?
6. Handling of packs (CMSIS-Pack-Root, Repositories, Local packs, etc.) ([issues #85](#))
 - Finalize definition cdefault.yml
7. CMSIS-Zone integration (resource management) ([issue #87](#))
 - support templating languages and use it with generators ([issue #78](#))
8. Execution Groups (or perhaps better execution phases) ([issue #88](#))
9. Generator support / extensions ([issue #20](#))
- NEW** 10. Linker Scatter file handling
11. Layer interface definitions
12. Board conditions
13. Layers distributed in packs
14. Vendor specific additions (ST requirement) [devtools #83](#)
15. Multiple devices defined by a board

Review version range for consistency

Current way in PDSC files

@1.2.3 larger or equal

@1.2.3:1.2.3 strictly equal (fixed version)

@1.2.3:1.3.0- any version in the range from 1.2.3 till 1.2.99

- 1) It is more flexible
- 2) it is already used in pack pdsc and cprj files
- 3) RTE library already have code to parse and evaluate the ranges

New specification in CSolution:

- component: ARM::CMSIS:CORE # CMSIS Core component from vendor ARM (any version)
- component: ARM::CMSIS:CORE@5.5.0 # CMSIS Core component from vendor ARM (with version 5.5.0)
- component: ARM::CMSIS:CORE@>=5.5.0 # CMSIS Core component from vendor ARM (with version 5.5.0 or higher)
 - // could stop with version 6.0.0

Wrap Up

- Can we close Issues
 - <https://github.com/Open-CMSIS-Pack/Open-CMSIS-Pack-Spec/labels/Discussion%20Done>
- Reminder: CMSIS Annual Update Webinar
 - March 15th, 2022 @ 16.30 CET (15:30 UK)
 - Please confirm your attendance in advance by email to cmsis@arm.com.
 - No Open-CMSIS-Pack Technical Meeting!
- Action all:
 - Provide review feedback
 - Suggest topics for next week's agenda
- Next Open-CMSIS-Pack meeting: 8th March 2022 @ 16:00 CET (15:00 UK)

Thank you

