

Open-CMSIS-Pack

Technical Project Meeting 2021-10-26

This meeting is recorded !



Agenda

- CMSIS-Pack documentation
- Component Syntax (YAML, messages)
- Search path for packs / pack filter options
- Other Topics
- Wrap Up

CMSIS-Pack documentation

- Repository:
 - <https://github.com/Open-CMSIS-Pack/Open-CMSIS-Pack>
 - Doxygen documentation
- GitHub pages:
 - <https://open-cmsis-pack.github.io/Open-CMSIS-Pack/>
- Action:
 - start adding agreed extensions to CMSIS-Pack specification

Component Syntax

- Cvendor::Cclass[&Cbundle]:Cgroup[:Csub][&Cvariant][@CversionMin[:CversionMax]]
- Fully specified:

vendor	::	class	&	bundle	:	group	:	sub	&	variant	@	version
ARM	::	CMSIS			:	CORE					@	5.5.0
ARM	::	CMSIS			:	RTOS2	:	Keil RTX5	&	Source	@	5.5.3
Keil	::	USB	&	MDK-Pro	:	CORE			&	Release	@	6.15.1
Keil	::	USB	&	MDK-Pro	:	Device	:	HID	&	Release	@	6.15.1

- ARM::CMSIS:CORE@5.5.0
 - ARM::CMSIS:RTOS2:Keil RTX5&Source@5.5.3
 - Keil::USB&MDK-Pro:CORE&Release@6.15.1
 - Keil::USB&MDK-Pro:Device:HID&Release@6.15.1
- Alternative delimiters ?

Component Syntax (cont'd)

- Partially specified:

vendor	::	class	&	bundle	:	group	:	sub	&	variant	@	Min version	:	Max version
ARM	::	CMSIS			:	CORE					@	5.0.0	:	6.0.0
*	::	Device			:	Startup			&	C Startup	@	*		
Keil	::	USB	&	MDK*	:	CORE			&	~				
						DSP								

- ARM::CMSIS:CORE@5.0.0:6.0.0 (version range)
 - *::Device:Startup&C Startup@* (any vendor, any version)
 - Keil::USB&MDK*:CORE&~ (any bundle start 'MDK', variant not specified)
 - DSP (matches e.g.: ARM::CMSIS:DSP:Source@1.8.0)
- If an item is not specified, any value matches.
- '~' empty string required.
- If an item is specified as "*", any value matches
 - support additional wildcards, '?', [ahi]

Search path for packs / pack filter option

- Current Approach:
 - Environment variable “CMSIS_PACK_ROOT”
 - Specify pack folder at the command line
 - Single reference point
 - Project independentpack root/
 - .Local/local-repository.pidx
 - <vendorA>/...
- Extension:
 - Add optional Project/Solution specific file
 - Adding packs located in workspace (relative path)
 - Filtering packs
 - Include: vendor / packname / version

Other Topics

- Multi-Context Terminology & Concepts ([#33](#))
 - NXP feedback – complexity -> can we simplify ?
- Template Engines ([#32](#))
 - Conclude GAP analysis (Feature: evaluation language)
 - Comparison of template example (ease and scalability)
- Lockfile versus CPRJ file variant
- ...

Wrap Up

- Arm contributes 'PackChk' by next week
- integrate cpackget in CMSIS-Build / buildmgr (Charles, Daniel)
- 'projmgr' prototyping (Daniel)

- Action all: suggest agenda points ahead of the next meeting
- Action all: provide review feedback and progress issues

- Next Open-CMSIS-Pack meeting: 02. Nov. 2021 @ 16:00 (15:00 UK)

Thank you

