Open-CMSIS-Pack

Technical Project Meeting 2023-05-09

This meeting is recorded !

Agenda

- Welcome

- Boards

- Gaps to close for 2.0

- Wrap Up

Boards:

- Open-CMSIS-Pack Specification Change Board

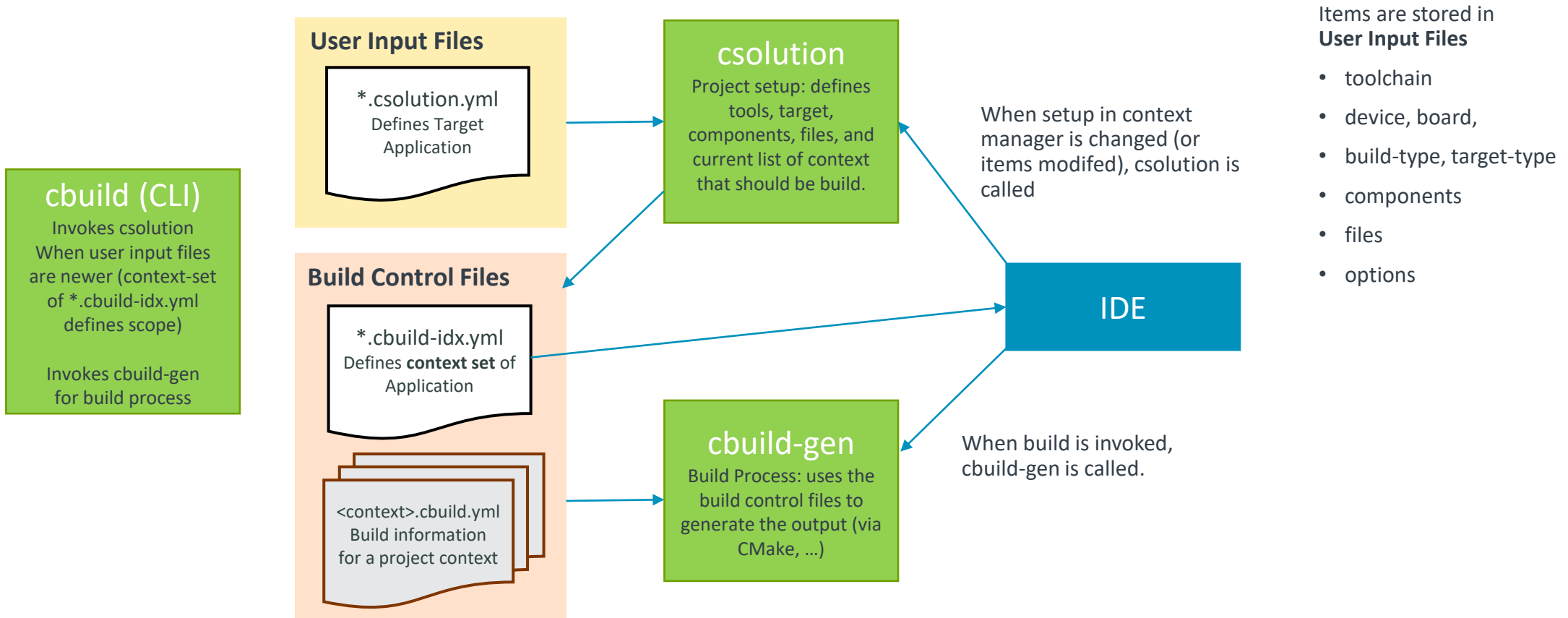- CMSIS-Toolbox 2.0 Project Board

Gaps to Close for CMSIS-Toolbox 2.0

- Harmonize command-line options (breaking change) #822
- Introduce `context-set` #896 (see also next slide)
- --context option should have more flexibility #854 + #823 + #824
- How to determine output binary file path #778
- Rework output: and output-type node #895
- cbuild directory control, output-dirs: #830
- Implement generator-dir: and $GeneratorId$ #880
- Implement proposal for Access Sequences #894
- Change define: - test=1 to - test: 1 #843
- Add cdefault.yaml to CMSIS-Toolbox ./etc directory #841, #893
- Fix Linker Script Management issues #901
- Remove `fpu` and `endian` (from documentation) #879

Multi-Project Build Process: IDE and CLI

Introduce `context-set`: defines the selected context for application

csolution command-line defines context-set:

csolution convert HelloWorld.csolution.yml --context HelloWorld_cm0plus.Debug+FRDM-K32L3A6 --context HelloWorld_cm4.Release+FRDM-K32L3A6

cbuild (CLI)
Invokes csolution
When user input files
are newer (context-set
of *.cbuild-idx.yml
defines scope)

Invokes cbuild-gen
for build process

User Input Files

*.csolution.yml
Defines Target
Application

csolution
Project setup: defines
tools, target,
components, files, and
current list of context
that should be build.

Build Control Files

*.cbuild-idx.yml
Defines **context set** of
Application

<context>.cbuild.yml
Build information
for a project context

cbuild-gen
Build Process: uses the
build control files to
generate the output (via
CMake, …)

IDE

When setup in context
manager is changed (or
items modifed), csolution is
called

When build is invoked,
cbuild-gen is called.

Items are stored in
User Input Files

- toolchain
- device, board,
- build-type, target-type
- components
- files
- options

Gaps to Close for CMSIS-Toolbox 2.0

What other gaps need to be closed ?

- What are requirements for RTE directory configuration? #898
- [csolution] remove build artifacts in ./out directory #855
- [csolution] Add command dedicated for solution configuration #727
- Lock-file process (ST?)

Wrap Up

Instances of meeting with focus on software pack's content topics

- Bi-weekly (every two weeks) pack content topics:
  - **16. May:** CI test process for validation of reference applications
- No meeting planned for May 23rd 2023
- Meeting with CMSIS-Toolbox focus on May 30th 2023

CMSIS-Toolbox:

- 1.7.0 blocking bug fixes targeted May 4th 2023
- 2.0.0-dev1 mid of May
- 2.0.0 release June 2023

Next Open-CMSIS-Pack meeting: 16th May 2023 @ 16:00 CET (15:00 UK)

- About: CI test process for validation of reference applications

Linaro

Thank you