

MCU Driver HAL and CI working group

24th June 2021

Note: This is a **PUBLIC** meeting recorded as usual

Advanced draft



Agenda

- MCU-Driver-HAL, update
- MCU-Driver-HAL, adding new boards
- CI and Tests, update
- CI environment repository
- MCU-Driver-HAL maintenance
- Plans for upcoming weeks

Status of MCU-Driver-HAL, update

- MCU-Driver-HAL v0.1.0 has been released publicly
 - <https://github.com/MCU-Driver-HAL/MCU-Driver-HAL>
- MCU-Driver-ST v0.1.0 has been released publicly as first driver implementation
 - <https://github.com/MCU-Driver-HAL/MCU-Driver-ST>

Status of MCU-Driver-HAL, update

Peripheral	API, docs	Examples	Tests
AnalogIn/Out	Y	-	HAL-30
CAN	Y	-	n/a
CRC	Y	-	HAL-23
GPIO/Port	Y	Y	Arm
I2C	Y	-	HAL-29
ITM	Y	-	n/a
Internal Flash	Y	Y	HAL-22
MPU	Y	-	HAL-25
PWM	Y	-	HAL-28
QSPI	Y	-	HAL-24

Peripheral	API, docs	Examples	Tests
OSPI	Y	-	Arm
Reset	Y	-	Arm
RTC	Y	-	HAL-26
Serial	Y	Y	Y (Echo)
SPI	Y	Y	Arm
Ticker	Y	Y	Arm
LPTicker	Y	-	Arm
TRNG	Y	Y	HAL-20
Watchdog	Y	-	HAL-27

MCU-Driver-HAL, adding new boards

- Boards already supported in Mbed OS
 - Can be added to your MCU-Driver-<SIP> repository “easily”
 - Requires updating “CmakeList.txt” files and moving source code to corresponding folders
- New boards
 - Please follow the porting guide
<https://github.com/MCU-Driver-HAL/MCU-Driver-HAL/blob/main/docs/porting/PORTING.md>
- See relevant resources:
 - <https://github.com/MCU-Driver-HAL/MCU-Driver-HAL/blob/main/docs/porting/cmake.md>
 - Use [MCU-Driver-ST](#) repository as guidance for creating a structure of your repository
- Please report any documentation issue you may see by raising a Github ticket
 - <https://github.com/MCU-Driver-HAL/MCU-Driver-HAL/issues>

CI and Tests, update

Design Documents for Review:

- Test Environment Management (Docker)
 - <https://github.com/ARMmbed/shadowfax-architecture/pull/208>
 - Comments addressed, ready for merge
 - The implementation repository is in <https://github.com/MCU-Driver-HAL/MCU-Driver-HAL-CI-ENV>
- CI architecture overview and CI MVP design
 - <https://github.com/ARMmbed/shadowfax-architecture/pull/222>
 - Open for further review

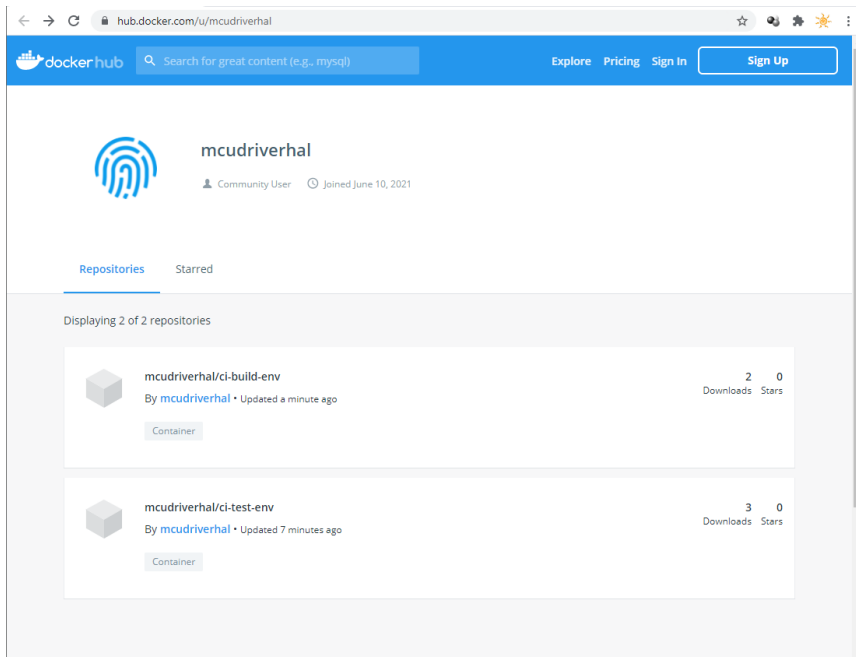
CI environment repository

- CI environment repository is public:

- <https://github.com/MCU-Driver-HAL/MCU-Driver-HAL-CI-ENV>
- Contains Dockerfiles for the environments

- CI environment docker hub registry:

- <https://hub.docker.com/u/mcudriverhal>
- Docker images are ready to be used in GHA
- Start enabling GHA CI from next week
 - License check
 - Coding Style check
 - Doxygen build
 - Gcc Arm examples compile



MCU-Driver-HAL maintenance

- We are planning to propose & introduce processes over the coming weeks:
 - Next week: Pull Request Process proposal covering:
 - Pull request template
 - Define list of reviewers for each partner, Code owners, Review reminders
 - Approvals
 - PR Checks / CI policy
 - GitHub merge method
 - Issue template & triaging
 - Organisation admins
 - Release process

Summary of plans for upcoming weeks

Week	Topics / Tasks
21wk25 (today)	MCU-Driver-HAL / ST v0.1.0 release
	Continue to enable Greentea tests in MCU-Driver HAL
	Adding new boards
	CI environment repositories
	MCU-Driver-HAL maintenance
21wk26	Continue to enable Greentea tests in MCU-Driver HAL
	Start enabling Github Actions
	Present Pull Request Process proposal
21wk27	MCU-Driver-HAL implementation of Corstone-300
21wk28	
21wk29	

Next call: Thursday 1st July June

Thank you

