

MCU Driver HAL and CI working group

10th June 2021

Note: Meeting recorded as usual

Advanced draft



Agenda

- Project overview
- Update on MCU-Driver-HAL repo
- Updates on CI and Test
- Plans for upcoming weeks

Project overview

- Code stored in GitHub under <https://github.com/MCU-Driver-HAL>
 - All repositories will be public from the start
 - GitHub discussions are used as the main means of technical discussions
 - Currently <https://github.com/ARMmbed/shadowfax-architecture/discussions>
 - Should move to MCU-Driver-HAL repo when ready
 - Do all partners agree to move existing discussions to MCU-Driver-HAL?
 - GitHub issues to report defects
- Project uses:
 - Linaro JIRA to capture all work items (Requirements, Epics, Stories etc.)
 - Public from the start
 - Linaro mailing lists:
 - mcu-driver-hal-dev@op-lists.linaro.org
 - mcu-driver-hal-ci-dev@op-lists.linaro.org

Status of MCU-Driver-HAL

- HAL API (.h) as starting point (v0.1)
- HAL API Doxygen documentation
- Porting guide
- Examples
 - Serial, SPI, GPIO, Timer, Flash, TRNG
- Greentea tests
 - Echo (Serial) test
- Driver implementation based on ST Disco L475 board

Status of MCU-Driver-HAL

Peripheral	API, docs	Examples	Tests
Serial	Y	Y	WIP
SPI	Y	Y	-
GPIO / Port	Y	Y	-
Timer	Y	Y	-
TRNG	Y	Y	-
Internal Flash	Y	Y	-
AnalogIn/Out	Y	-	-
I2C	Y	-	-

Peripheral	API, docs	Examples	Tests
CAN	Y	-	-
CRC	Y	-	-
ITM	Y	-	-
MPU	Y	-	-
QSPI	Y	-	-
OSPI	Y	-	-
RTC	Y	-	-
Watchdog	Y	-	-

Next tasks on MCU-Driver-HAL

- Clean up documentation and porting guide
- Update HAL API Doxygen documentation
- Transfer MCU-Driver-HAL repository to the <https://github.com/MCU-Driver-HAL> org
 - Expected in upcoming week
- Greentea tests
 - Continue to validate and enable more Greentea tests, including usage of FPGA CI test shield
- Make a release as version v0.1
 - Include release notes and known issues

Updates on CI and Test

- New ADR: Use GitHub Action replace Jenkins for CI Scheduler
 - <https://github.com/ARMmbed/shadowfax-architecture/pull/221>

Design Documents for Review:

- Test Environment Management (Docker)
 - <https://github.com/ARMmbed/shadowfax-architecture/pull/208>
- CI architecture overview and CI MVP design
 - <https://github.com/ARMmbed/shadowfax-architecture/pull/222>

Plans for upcoming weeks

Week	Topics / Tasks	Owner	Comments
21wk23 (today)	Project overview	Arm/Linaro	
	Update on MCU-Driver-HAL status	Arm	
	Updates on CI and Test	Arm	
21wk24	MCU-Driver-HAL demo, Arm	Arm	
	First release of MCU-Driver-HAL v0.1	Arm	
	Evolving Mbed HAL Serial to use the vtable model	Arm	
	Update Greentea tests in MCU-Driver HAL	Arm	
	Test Environment (docker) repositories deployment	Arm	
21wk25	Start MCU-Driver-HAL implementation of Corstone-300	Arm	
	Github Actions run compilation CI jobs on MCU-Driver-HAL repos	Arm	
21wk26	Analysis of removing Mbed assumptions	Arm	

Next call: Thursday 17th June

Thank you

