

Testing WG Live Minutes

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ON-GOING GOAL: nomenclature of test suites and test cases

Thursday 5/19 2022

Attendee:

- Alexey Brodtkin(Synopsys)
- Aaron Massey(Google)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- David Leach(NXP)
- Enjia Mai(intel)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Lixin Guo(Intel)
- Jocelyn Li (Intel)
- Jereme Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
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- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
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- Qi Chervl(T-Mobile)
- Rob Woolley(Wind River)
- Ruffer Dennis(T-Mobile)
- Steven Wang-Li(Intel)
- Stephanos Ioannidis(Nodie)
- Rattanakone Raam(T-Mobile)
- Yerabolu Spoorthy Priya(Intel)

1. PR talk

a) False negative issue

<https://github.com/zephyrproject-rtos/zephyr/pull/45943> merged

<https://github.com/zephyrproject-rtos/zephyr/issues/45802> need also check this one

b) Code scan path

<https://github.com/zephyrproject-rtos/zephyr/pull/45759>

c) cmsis_dsp parse issue, dropped cmsis_dsp cases need skipped as temporary solution

<https://github.com/zephyrproject-rtos/zephyr/pull/45832>

d) discard handling

<https://github.com/zephyrproject-rtos/zephyr/pull/45684>

2. Round table

Google introduce a bus emulator to connect with qemu to enhance the testcases, and to run driver test against.

https://github.com/zephyrproject-rtos/zephyr/blob/131c089aaf4190b658a4e510e52618cc6161522a/sys/emul/emul_bmi160.c

<https://github.com/zephyrproject-rtos/zephyr/blob/131c089aaf4190b658a4e510e52618cc6161522a/tests/drivers/sensor/accel/src/main.c>

Thursday 5/26 2022

Attendee:

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- Rattanakone Raam(T-Mobile)
- Yerabolu Spoorthy Priya(Intel)
- Aaron Massey (Google)

1. Need check this PR:

<https://github.com/zephyrproject-rtos/zephyr/pull/45797>

2. PR talk, there are many strange failure cases in twister_report.xml

<https://github.com/zephyrproject-rtos/zephyr/pull/45684/files>

Thursday 5/12 2022

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- PR talks

<https://github.com/zephyrproject-rtos/zephyr/pull/44094>

<https://github.com/zephyrproject-rtos/zephyr/pull/44976>

- Follow up “with what tested and put the summary to the public”
 1. The test suite can get consistent results, and we test on important coverage(modules, drivers, platform). How to get coverage improved.

Current situation:

- The test suites are based on API coverage, with additional user scenario + API parameter enhancement.
- We only have line/branch coverage analysis with x86 platforms.

2. Reporting(Grafana) and how we do reporting. Test plan and test cases manager. Find a way to take all the results, align on TMS.

Current situation:

- We use test_result repo and allow any one from community to upload their results. Question: Do we need encourage PR owner to provide a test result link in their board testing result for given PR?
- We provide a Grafana web site with statistic report on test result. (maybe we need feedback on what need add)
- Zephyr does not have TMS system so far(which is mainly for historic result comparison), to utilize a TMS system we need below:
 - 1) Test cases id and name shall be mapped consistently, change test name will confuse the test result report over history.
 - 2) Test case mapped with test suite and test plan shall be provide API to update, as well as test result.
 - 3) Any one can generate test report without limitation.

3. Need to create a process to upload test results(json format) for a certain PR on actual HW. (mainly ensure the test is consistent w/wo this PR), select the proper test suites. Also need to isolate real board testing with qemu/cmock way.

Current situation:

- We have setup a flow based on test_result, which anyone can upload their test result for given commit. Question: do we need provide a PR result, which does not check the version? Also report github ticket based on upload test result? The scripts is ready.
- Maintainer.yml help to get more precise cases in PR-CI
- Do we need to create more cases on cmock way? which means we need urge API owner to provide test with mocked.

Thursday 5/5 2022

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1. <https://github.com/zephyrproject-rtos/zephyr/pull/44094>
Basically no issue remains, and anas need rebase.
2. Twister v2 can start with pMaciej's personal repo
3. What tested and put the summary to the public.
 - a. The test suite can get consistent results, and we test on important coverage(modules, drivers, platform). How to get coverage improved.
 - b. Reporting(Grafana) and how we do reporting. Test plan and test cases manager. Find a way to take all the results, align on TMS.

- c. Need to create a process to upload test results(json format) for a certain PR on actual HW. (mainly ensure the test is consistent w/wo this PR), select the proper test suites. Also need to isolate real board testing with qemu/cmocck way.

Thursday 4/28 2022

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1. Coverage tools discussion

a. CTC++ (9.2.0) by Testwell

b. Seeking gdb server compatible solution non-intrusive debugger support

2. Twister updates

Move to zephyr-rtos main repo?

Github kanban system for twister-v2

3. Review

<https://github.com/zephyrproject-rtos/zephyr/pull/44094>

Thursday 4/21 2022

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1. Round table check.

- <https://github.com/zephyrproject-rtos/zephyr/issues/44539>
- Possible to split build / flash / run

2. V2.7.2-RC1 status updates.

3. Code coverage process information gathering.

- a) Background: I get some query from Safety working group on code coverage process and howtos, want to sync current information.

Only has —coverage for kernel on qemu and x86 platform

Thursday 4/14 2022

Attendee:

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1. 9600 baud rate issue with twister in T-Mobil platform

- a. Not all cases failure
- b. Small set can work
- c. Ruffer Dennis will provide a quarantine list

2. Need add `-disable_testsuite_name_verification` for platforms with suite check issue

Thursday 4/7 2022

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1. Feedback for <https://github.com/PerMac/TwisterV2>

There is one PR from my side

<https://github.com/PerMac/TwisterV2/pull/1>

- After first summary demo on google, Maceij will start to split tasks for community to work on
- Need developer's guide document
- Twister interface with zephyr project shall be separated and clarified
 - Eugeny Paltsev prefer keep twister in code base with zephyr
- Also need consider the test structure organization for twister v2

2. Twister with suite name issue

<https://github.com/zephyrproject-rtos/zephyr/issues/44539#issuecomment-1090106223>

<https://github.com/zephyrproject-rtos/zephyr/issues/44438>

3. Round table

Thursday 3/31 2022

Attendee:

- Alexey Brodtkin(Synopsys)
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1. Pytest for twister v2 proposal

Maciej presentation from Nordic

Code base

<https://github.com/PerMac/TwisterV2>

<https://docs.pytest.org/en/6.2.x/example/nonpython.html>

<https://pytest-xdist.readthedocs.io/en/latest/>

Using discord to communicate issues and requirements

Thursday 3/24 2022

Attendee:

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1. Git hub issue tracking, WIP -> formal PR quickly

<https://github.com/zephyrproject-rtos/zephyr/pull/44094>

Thursday 3/17 2022

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- Yerabolu Spoorthy Priya(Intel)

Agenda for this weekly meeting:

- Round table discussion.
- 1. Integration platform discussion.
 - a. Is it a minimal set of tests that we want to test against? So ensure those cases are not skipped. Anas will review the module settings.
<https://github.com/zephyrproject-rtos/zephyr/pull/36433>
- Demo of pytest usage in twister V2
 - Schedule in 2 weeks later
- Follow up on actions of test scenario naming convention.
 - PR is in progress

Thursday 3/10 2022

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1. Round table discussion

- How to enable coverage settings into testcases
 - Anas proposes to check the zephyr settings for coverage instead of adding more memory.
 - Dennis suggests thinking about a tools solution on coverage data.
- PR 42482 discussion
 - Checking testsuite name instead of only checking the TEST PASS condition.
- Twister V2 progress introduction.(Maciej)
 - Need a prototype for pytest based solution

2. Follow up on actions of test scenario naming convention issues. - no time

3. Discord testing channel alignment. - no time

1) I create [#failure case discussion](#), [#ztest features](#), [#twister related discussion](#)

Thursday 3/03 2022

Attendee:

- Alexey Brodtkin(Synopsys)
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1. Test scenario naming issues.

test scenarios naming convention discussion present by Maciej. Following discussion in mail list.

2. Follow up on CI test case enhancement.

<https://github.com/zephyrproject-rtos/zephyr/pull/42662>

[More test plan enhancement is on hold to avoid risks and reduce ci build time](#)

[My need highlight this topic to enhance CI coverage, and maybe use MAINTAINER.yml to keep track with test and code features](#)

Thursday 2/24 2022

Attendee:

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1. Round table for discussion

2. Follow up on CI test case enhancement.

<https://github.com/zephyrproject-rtos/zephyr/pull/42662>

[My need highlight this topic to enhance CI coverage. and maybe use MAINTAINER.yml to keep track with test and code features](#)

3. Configure item and its active build mapping

<https://github.com/zephyrproject-rtos/zephyr/discussions/42663>

Thursday 2/17 2022

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1. Round table for discussion

Twister v2.0 with pwtest PoC created

<https://github.com/zephyrproject-rtos/zephyr/issues/42458>

2. Follow up on CI test case enhancement.

<https://github.com/zephyrproject-rtos/zephyr/pull/42662>

3. Configure item and its active build mapping

<https://github.com/zephyrproject-rtos/zephyr/discussions/42663>

Thursday 2/10 2022

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1. Round table for discussion

Create PR to add timeout in twister options. -> Yerabolu

Coverage documentation: 80% is a guideline not mandated.

2. Twister v2.0 introduction.

<https://github.com/zephyrproject-rtos/zephyr/issues/42458>

Whether to use pytest as a new test framework? Need demo how we build & run hello world / kernel test

3. Follow up on CI test case enhancement.

https://github.com/zephyrproject-rtos/zephyr/runs/5135471962?check_suite_focus=true

4. Configure item and its active build mapping

<https://github.com/zephyrproject-rtos/zephyr/discussions/42663>

Thursday 1/17 2022

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- twister: add option to create shorter build paths

<https://github.com/zephyrproject-rtos/zephyr/pull/41930#issuecomment-1022308709>

- Coverage enhancement

<https://github.com/zephyrproject-rtos/zephyr/issues/41388>

Please join discussion in this issue linked above

- v3.0.0-RC1 testing status

Hake will propose a catch CI solution to quick and more precising testing

- Follow up on twister re-architecture

Maciej will propose next week

- Round table discussion.

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1. According to the poll, we need to finalize the week day for weekly meetings. See attachment.
 - a) The best time is Thursday 7:AM – 8:AM(UTC) (UTC-09:00) Pacific Time (US & Canada).

Thursday 1/10 2022

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeniy Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Gołyźniak(Nordic)
- Qi-Chervl(T-Mobile)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)
- Mai-Enjia(intel)
- Rattanakone Raam(T-Mobile)

1. Test working group meeting time discussion:

a)

<https://forms.office.com/Pages/ResponsePage.aspx?id=06FuaCu8b0ypLNmcXDAWNVeAPWZYcSFDnGzJNA2BXq1UN1RSR1JXM1IOVEFXUVhGEEExM0xMN0FWUj4u>

b) According to the poll, most people prefer to postpone this meeting 1 hour later.

Will ask Brett to send out an official poll for the meeting time. -> Hake

2. Automatically zip big test report file discussion.

a) We had some test reports with big failure log, can we add a mechanism to support zip xml files?

No need for now, but need think about it

No size issue, keep the raw data as possible

3. Follow up on twister re-architecture

<https://github.com/zephyrproject-rtos/zephyr/issues/39358>

-> Maciej will create a github ticket to start gathering requirements.

4. Round table discussion

Monday 12/06 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artem Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Golyźniak(Nordic)
- Qi-Chervl(T-Mobile)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)
- Mai Enjia(intel)
- Rattanakone Raam(T Mobile)

1. Q & A on release and testing process for new comer(T-Mobile)

- Pool for better meeting time → Hake

2. Automerge test result when check pass.

https://github.com/zephyrproject-rtos/test_results/pull/636

3. Discussion on twister v2 requirements/changes

4. Twister fixing PR review.

<https://github.com/zephyrproject-rtos/zephyr/pull/41094>

5. Round table

Monday 12/06 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artem Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Golyźniak(Nordic)
- Qi Chervl(T-Mobile)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

1. Twister change request: export cases for platform

<https://github.com/zephyrproject-rtos/zephyr/issues/40917>

2. Call for Twister refactoring.

3. Round table discussion.

Monday 11/22 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Golyźniak(Nordic)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

Skip this weekly meeting as few people join

Monday 11/22 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artem Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
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- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Golyźniak(Nordic)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

1. New twister architecture design discussion

- a. <https://github.com/zephyrproject-rtos/zephyr/issues/39358>

Generate tool-chain information in test plan

Monday 11/15 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Piotr Golyźniak(Nordic)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

1. Test approach introduction from Nordic Piotr

Monday 11/07 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

Goals for next year:

<u>Topic</u>	<u>owner</u>	<u>Comments</u>
Make mainline releases every 4 months that satisfy well-defined quality criteria.	Release Team, Testing WG	Expand quality criteria to each working group. 1. Need to define a high level release test criteria <proposal ?>
Test release candidates on hardware and consolidate results in a common location.	Testing WG	Improve release process on hardware results for better interaction with community Redesign twister for clear flow
Document development maturity of boards and subsystems to distinguish between experimental and mature support.	Release Team, Testing WG	<ul style="list-style-type: none">■ https://github.com/zephyrproject-rtos/zephyr/discussions/35872■ Board classification

Monday 11/1 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artem Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Matthew Holenko (Antmicro)
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- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

Goals for next year:

<u>Topic</u>	<u>owner</u>	<u>Comments</u>
Make mainline releases every 4 months that satisfy well-defined quality criteria.	Release Team, Testing WG	Expand quality criteria to working group.
Test release candidates on hardware and consolidate results in a common location.	Testing WG	Improve release process on hardware results for better interaction with community
Document development maturity of boards and subsystems to distinguish between experimental	Release Team, Testing WG	■ https://github.com/zephyrproject-rtos/zephyr/discussions/35872

and mature support.		
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Monday 10/25 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)

1. Test working group process for Release/TSM decision make discussion.

- Define reference platforms list, as release gating
 - Define a platform list first with hardware testing
 - Define reference platform criteria and focus, then select platforms, and contact window(person).
 - <https://github.com/zephyrproject-rtos/zephyr/discussions/35872>
 - <https://github.com/zephyrproject-rtos/zephyr/issues/31462>
 - Define testing platform list to have good coverage. (feature coverage)
- Generate a report 1 day before the release meeting.
- Strict guideline on test cases / test report
 - PR process(result publishing)
 - Release process(result publishing)

2. Twister enhancement discussion on options order

<https://github.com/zephyrproject-rtos/zephyr/projects/34>

- 1.a.Filtering feature in twister e.g. skipping cases

1.b.full twister plan vs report

Monday 10/11 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)

1. Discussion on mcu-boot testing support

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#issuecomment-928308546>

Move the stage build to west, so that twister only call `west build --multi config_file`

And can use `west export-build` to show the config files exported

And use `west flash --multi image-A@address,image-B@address'/config_file` to do multi-image flash

2. Twister enhancement discussion on options order

<https://github.com/zephyrproject-rtos/zephyr/pull/38656>

https://github.com/zephyrproject-rtos/zephyr/pull/38656#discussion_r722392434

3. Create a process for twister and testing related features

Road map, refactoring discussion, etc.,

Monday 10/04 2021

Canceled

Monday 09/27 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artem Panfilov(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jerome Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

1. Renode introductions

Live demo from renode on latest status with zephyr supporting will demo on zephyr show

2. Twister update pull request help to review.

<https://github.com/zephyrproject-rtos/zephyr/pull/38656>

3. V2.7.0-RC3 schedule updates.

4. Board testing PR

Enable more members to review

5. Mcu boot enhancement

6. Round table discussion

Monday 09/20 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Artern Panfilov(Synopsys)
- ~~Danny (Oticon)~~
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- ~~Jereme Bettis(Google)~~
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- ~~Matthew Holenko (Antmicro)~~
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- ~~Piotr Zierhoffer (Antmicro)~~
- ~~Rob Woolley(Wind River)~~
- ~~Steven Wang Li(Intel)~~

1. Twist revisit discussion and proposal in first step.

<https://github.com/zephyrproject-rtos/zephyr/discussions/38140>

<https://github.com/zephyrproject-rtos/zephyr/pull/38656>

2. Round table discussion

Monday 09/13 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Jereme Bettis(Google)
- Jinru wang(Synopsys)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Matthew Holenko (Antmicro)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Piotr Zierhoffer (Antmicro)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)

1. PULL request updates:

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#issuecomment-903732151> (Maciej)

- 1) Users may need to understand twister, which maybe too complex.
- 2) Use a meta-data(west like config) to build and run
 - a) So that no twister is needed and do command's list in west yml.

Long term solution how to?

Build can use existing build multi-image, do not put into twister, move multi-image build to `west build`, and create a standalone tool to build and sign image.

How to run multiple images? New feature add to twister

2. Discussion test related:

<https://github.com/zephyrproject-rtos/zephyr/discussions/38140>

3. Release 2.7-RC1 board testing status briefing.

1. No big issues.
2. Only NXP has one ethernet phy issue.

4. Round table discussion

Slack is not using any more, Zephyr is sitching to Discord. Below is the invitaion:

<https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fchat.zephyrproject.org%2F&data=04%7C01%7Cderek.snell%40nxp.com%7C773080400cc24d88f23508d96f01a0eb%7C686ea1d3bc2b4c6fa92cd99c5c301635%7C0%7C0%7C637662875046849996%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Ikk1haWwiLCJXVCI6Mn0%3D%7C1000&data=08QmA1vXDtqviPj5SEI53Ej3jlN4IkEia5yX6UelSs%3D&reserved=0>

Monday 09/06 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)
- Jereme Bettis(Google)
- Jinru wang(Synopsys)
- Matthew Holenko (Antmicro)

1. PULL request updates:

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#issuecomment-903732151> (Maciej)

<https://github.com/zephyrproject-rtos/zephyr/pull/38102>

2. Discussion test related:

<https://github.com/zephyrproject-rtos/zephyr/discussions/38140>

<https://github.com/zephyrproject-rtos/zephyr/discussions/38274>

3. Round table discussion

Monday 08/30 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordie)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)
- Jereme Bettis(Google)
- Jinru wang(Synopsys)

1. A kernel API update fails driver.

d92d1f162af3ba24963f1026fc0a304f1a44d1f3 fails build for usb case.

error: section of 'kheap_ep_buf_pool' conflicts with previous declaration

```
5042 |     kheap_##name[MAX(bytes, Z_HEAP_MIN_SIZE)]; \
```

```
|     ^~~~~~
```

/home/shared/disk/zephyr_project/zephyr_test/zephyr/drivers/usb/device/usb_dc_mcu.c:71:11:

note: in expansion of macro 'K_HEAP_DEFINE'

```
71 | __nocache K_HEAP_DEFINE(ep_buf_pool, 1024 * EP_BUF_NUMOF_BLOCKS);
```

```
|     ^~~~~~
```

[78/107] Building C object zephyr/kernel/CMakeFiles/kernel.dir/init.c.obj

2. Round table discussion

Monday 08/23 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)

- Nashif Anas(Intel)
- Paul Fagerburg(Google)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)
- Jereme Bettis(Google)

1. Rob shares his proposal on CI/CD framework.

2. Follow up discussion in TWG can be put here

https://github.com/zephyrproject-rtos/test_results/discussions/464

3. Round table discussion

https://docs.google.com/presentation/d/16bEoAkSEPKRm_XXnij4YJLBbkmrhjb42/edit?rtopof=true&sd=true

Monday 08/16 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)
- Jereme Bettis(Google)

Monday 08/09 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Woolley(Wind River)
- Steven Wang-Li(Intel)
- Jereme Bettis(Google)

1. Summary of test status.

Maybe we need consider to have a common CI system(Jenkins would be the candidate)

2. Xml junit and json format for more test information containers.

3. Import twister to identify the issue when board is not flash correctly, it will report same result of latest flashed application. <Maciej will create an github issue for this>

Monday 08/02 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Woolley(Wind River)
- Steven Wang Li(Intel)
- ~~Jereme Bettis(Google)~~

1. Posix board testing.

- a. Native posix can only be built by zephyr toolchain, but this is not a default option?
Can we make this native posix not depend on Zephyr toolchain?
<Maciej will create PR to enhance this>
- b. Optimize the CI running. Re-run only the failed jobs. <keep to run all jobs>

Monday 7/26 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)
- Jerome Bettis(Google)

This weekly meeting agenda.

1. Current PR discussion

a)

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#pullrequestreview-699295276>

b) <https://github.com/zephyrproject-rtos/zephyr/pull/37164#event-5061719567>

c)

<https://github.com/zephyrproject-rtos/zephyr/pull/37137#pullrequestreview-714438807>

2. Round table discussion.

Monday July, 19 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)
- Jereme Bettis(Google)

This weekly meeting agenda.

1. Current PR discussion

a)

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#pullrequestreview-699295276>

- Need

1. Support HEX format and erase flash

2. Round table discussion.

Monday July, 12 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang-Li(Intel)

This weekly meeting agenda.

1. Corrupt PR discussion

- a) https://github.com/zephyrproject-rtos/test_results/issues/404

___Need add one argument to select Error or not

b)

<https://github.com/zephyrproject-rtos/zephyr/pull/36729#pullrequestreview-699295276>

_Hake will try on NXP platforms and Steven will try with reel board

2. Round table discussion.

Monday July, 5 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)

1. Scripts to check failure cases in CI report and create github issue. (10 minutes)

https://github.com/zephyrproject-rtos/test_results/pull/384

1. Submit to test-result repo first
2. Remove version in title, and maybe platform name

2. Mcu-boot review

<https://github.com/zephyrproject-rtos/zephyr/pull/36729>

Anas wants to have a framework for such implementation.

3. Foot print summary

- a. Integarte with Jenkins **influxDbPublisher** plugin

```
script {
```

```
    echo test_arm_fpu_interrupt_ignore_faults_arch_interrupt_no_optimizations_result
    myCustomMeasurementFields = ['results_info' : ['board_name': 'frdm_k64f',
'app_name': 'arch.interrupt.no_optimizations', 'result':
test_arm_fpu_interrupt_ignore_faults_arch_interrupt_no_optimizations_result, 'version':
'zephyr-v2.6.0-560-ga6cc3f1838']]
    mycustomDataMapTags = ['results_info' : ['board_name': 'frdm_k64f', 'app_name':
'arch.interrupt.no_optimizations', 'result':
```

```
test_arm_fpu_interrupt_ignore_faults_arch_interrupt_no_optimizations_result, 'version':  
'zephyr-v2.6.0-560-ga6cc3f1838']  
  influxDbPublisher(selectedTarget: 'influxdb', customDataMap:  
myCustomMeasurementFields, customDataMapTags: mycustomDataMapTags)  
}
```

Monday June, 28 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)

Monday June, 21 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)

1. Scripts to check failure cases in CI report and create github issue. (10 minutes)

https://github.com/zephyrproject-rtos/test_results/pull/384

4. Submit to test-result repo first
5. Remove version in title, and maybe platform name

2. Summer student program from Nordic

- a. Visualize data
- b. Feature and memory/code foot print analysis and visualization
- c. Footprint visualization in zephyr

<https://stats.zephyrproject.org/testing/d/SSxr5P6Gk/footprint-tracking>

<https://addyosmani.com/blog/visualize-data-structures-vscode/>

<https://github.com/zephyrproject-rtos/zephyr/pull/35968>

Monday June, 14 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang Li(Intel)

1. Scripts to check failure cases in CI report and create github issue. (10 minutes)

https://github.com/zephyrproject-rtos/test_results/pull/384

- Need confirm with Anas on whether we can have a accessible repo to report issues and manually transfer to zephyr-rtos/zephyr
- Limitations are listed in the script header.

2. Round table

Monday June, 7 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeny Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Meng-xianglin(Intel)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Rob Wooley(Wind River)
- Steven Wang-Li(Intel)

- Zephyr summit topic discussion

Agenda:

1. Chen Peng1 - Twister a powerful test runner, half hour?
 2. Maciej - On target testing with twister
 3. - Function and safety testing
- others:
 1. MCU boot testing is already enabled in CI for build purposes. Still working on the board testing integration with twister for more mcuboot testing

Monday May, 31 2021

Attendee:

- Alexey Brodtkin(Synopsys)
- Danny (Oticon)
- Eugeniy Paltsev(Synopsys)
- Hake Huang (NXP)
- Jocelyn Li (Intel)
- Maciej Perkowski (Nordic)
- Nashif Anas(Intel)
- Paul Fagerburg(google)
- Steven Wang Li(Intel)
- Meng-xianglin(Intel)

- Zephyr summit topic discussion

<https://github.com/zephyrproject-rtos/zephyr/wiki/2021-Zephyr-Developer-Summit>

- Maciej/Anas twister usage
- Maciej will send out discussion from github discussion.
- [TBD]Cloud testing process, board testing report publishing
- [TBD]Benchmarks/footprint/performances
- [TBD/Rob] memory benchmark introduction.

How to use twister and its docker image for developers.

Last week items follow up:

1. Nfs issue?
 - a) Is it related to zephyr tool-chain or all gcc tool-chain? Still in debugging
2. How to support multiply SDK releases?

Round table:

Monday May, 24 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Danny (Oticon), Alexey Brodtkin(Synopsys).Steven Wang Li(Intel),

Follow up last weekly meeting

- Mcuboot can be ROM?
[TBD]
- Multi-branch checking in parallel.
Nfs related issues, tool-chains are located in nfs mount folder. > 1G networking connection.
 1. Try less instances then this issue is gone even with nfs mounted for tool-chains.
[hake will send guide on how to use native gcc instead of zephyr gcc]
[steven will try on fine tune the nfs settings]
 2. Move the tool-chain to local directory works fine.
- <https://github.com/zephyrproject-rtos/zephyr/issues/34571>
____ Looks like exception chars in console.
To report as `unstable` when a case needs to run several times to pass.

General topics:

- V.2.6.0 board testing discussion.
Any common pending issues found in this release?
- Zephyr summit topic discussion

<https://github.com/zephyrproject-rtos/zephyr/wiki/2021-Zephyr-Developer-Summit>

- Maciej/Anas twister usage
 - Maciej will send out discussion from github discussion.

- [TBD]Cloud testing process, board testing report publishing
 - [TBD]Benchmarks/footprint/performances
 - [TBD/Rob] memory benchmark introduction.
- Round table discussion
 1. tool -chain working group, how to support multiple SDK.
[Alex raises this issue in github.](#)
 2. LTS2 compatible.

Monday May, 17 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Steven Wang Li(Intel), Danny (Oticon), Paul Fagerburg(google), Alexey Brodtkin(Synopsys), Meng xianglin(Intel),

1. V.2.6.0-rc1 board testing discussion.

- a) Some parallel run failure with jlink debugger license pop window found in NXP side.

-> Nordic also has such issues when connecting 3+ boards.

-> let me try to use dll/.a first. If not, we may ask help for community support

- b) Flash error in some imxrt10xx boards. (add --erase option in `west flash` for some platform, applications?)

-> mcuboot in twister support is in progress, likely such application layer control will be added. <Maciej>, and steps options. Still in progress. Please also consider the TFM requirement.

https://docs.zephyrproject.org/2.5.0/samples/tfm_integration/tfm_integration.html

Mcuboot can be ROM? <Maciej will ask the boot team>

- c) hardware map [Maciej] Buggy hw map

<https://github.com/zephyrproject-rtos/zephyr/issues/35341>

2. Zephyr summit topic discussion

<https://github.com/zephyrproject-rtos/zephyr/wiki/2021-Zephyr-Developer-Summit>

Last weekly meeting follow ups

1. [Maciej/Anas](#) twister usage
2. [TBD] Cloud testing process, board testing report publishing
3. [TBD] Benchmarks/footprint/performances
4. [TBD/Rob] memory benchmark introduction.

3. Round table discussion

1. Multi-branch checking in parallel.
 - a. Some issues found with twister for one server solution.

- i. Twister need to have log output.
- ii. Twister to have benchmark testing.

False positive issues when run with twister

<https://github.com/zephyrproject-rtos/zephyr/issues/34571>

Monday May, 10 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google), Alexey Brodtkin(Synopsys), Meng xianglin(Intel),

1. V2.6.0-rc1 testing contents:
40c25b931daea67692f0e23b8bdd55eb9411ad2f
<https://github.com/zephyrproject-rtos/zephyr/pull/33211>
Nanopb samples need some dependency package to install.(nanopb-compiler)

Please submit release test report to folder “v2.6.0-rc1”

2. Gptp ask for help
<https://github.com/zephyrproject-rtos/zephyr/issues/33747>
3. Zephyr summit
<https://github.com/zephyrproject-rtos/zephyr/wiki/2021-Zephyr-Developer-Summit>

Need define topics for the Testing Mini-Conference:

1. [Maciej/Anas](#) twister usage

this was my abstract:

> Abstract: The twister framework is constantly evolving to better serve

> the testing needs of Zephyr-based projects. During my presentation, I

> will bring the developers up to date with the current state of testing

> with Twister. I will present a short introduction on how to use
> Twister for on- target tests and will show how to use some new or less
> common features of the framework (e.g. quarantine). Validation of
> Zephyr performance on real hardware becomes an important part of QA.
> Contributors' reports allow us to have a wider test scope of actual hardware running Zephyr applications.
> Therefore, during the presentation, I will also guide the contributors
> through the process of on-target results publishing.

2. [TBD]Cloud testing process, board testing report publishing
3. [TBD]Benchmarks/footprint/performances
4. [Maciej] <https://github.com/zephyrproject-rtos/zephyr/issues/35341>
5. [TBD/Rob] memory benchmark introduction.
 - a. <https://docs.google.com/document/d/1bnQLJKVhgl3zkk3MsSXun8onEsA8z1Rf5ohdbCHASmU/edit#heading=h.sagljmbg8db3>

Please register <https://forms.gle/umRgx98MyEumLW6>

Monday April, 26 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google), Alexey Brodtkin(Synopsys), Meng xianglin(Intel),

1. [Rob Woolley] [Zephyr Memory Footprint](#) meeting agenda (separate meeting from the Testing WG)
2. Round-table discussion
 - a. PRs being accepted without thorough review
 - i. [PR 33227](#)
 - ii. Run the code with verbose/extra verbose
 - iii. Make changes to the code to make the test fail, to ensure the test covers what we think it does
 - b. Test marked as failed in the output, but in the log it looks like it passed.
 - i. [Issue 34571](#)
 - ii. Parallel builds going on when this fails.
 - c. [Run your Github actions locally](#)

Monday April, 19 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google), Alexey Brodtkin(Synopsys), Meng xianglin(Intel),

1. Test plan discussion: (Hake/all 20 minutes, continue with last week's introduction)

Need to split benchmark requirements to:

1. Conformance / performance / stress / reliabilities
 2. Rob with the benchmark working group will work with applications on footprint and benchmarks
2. Maciej will make an introduction on twister usage for coming events.

Monday April, 12 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google), Alexey Brodtkin(Synopsys), Meng xianglin(Intel),

1. Test plan discussion: (Hake/all 20 minutes, continue with last week's introduction)

Question: How to analyze the foot-print data efficiently. (AI -> Rob)

Question: need to propose the areas that need to be benchmarked. (AI -> Hake)

2. PR discussion.

<https://github.com/zephyrproject-rtos/zephyr/pull/33227>

3. platform_allow or platform_integrate

Monday April, 5 2021

Attendee: Hake Huang (NXP), Nashif Anas(Intel), Rob Woolley (Wind River), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google)

1. Test_allow and test_integration discussion. (Maciej 10 minutes)

<https://github.com/zephyrproject-rtos/zephyr/pull/33980>

2. Test plan discussion: (Hake/all 10 minutes)

Please check attached PPT for more details

AI: Rob will study how to present foot-print data in Grafana.

AI: double check with TSC(Maureen) on benchmark working group.

3. Low power / performance introduction. (Rob 20 minutes)

Need to propose the applications under test and boards to test.(AI)

<https://github.com/zephyrproject-rtos/zephyr/discussions/33779>

How to define user cases?

	applications	Boards to support	how to links
Foot print			https://github.com/zephyrproject-rtos/zephyr/wiki/%5BHOW-TO%5D-Generate-a-binary-footprint-for-a-basic-Zephyr-application
Performance			https://github.com/zephyrproject-rtos/zephyr/wiki/%5BHOW-TO%5D-Generate-benchmarks-metrics

Low power			
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4. Round table. (10 minutes)

Monday Mar, 29 2021

Attendee: Hake Huang (NXP), Nashif Anas(Intel), Rob Woolley (Wind River), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google)

1. Quarantine feature PR follow up, (10 minutes Maciej), update in PR

<https://github.com/zephyrproject-rtos/zephyr/pull/33287>

2. Test plan discussion: (all 10 minutes)

AI follow ups: any board testing requirements? <hake: make draft plan proposal>

3. Coverage plan: (Steven 10 minutes)

Steven share the command line in Inel

Twister -p qemu_x86 --coverage -T tests/kernel -T tests/libs

Anas will create CI report for gcov report.

4. Low power / performance introduction. (Rob 20 minutes)

Need to propose the applications under test and boards to test.(AI)

<https://github.com/zephyrproject-rtos/zephyr/discussions/33779>

	applications	Boards to support	how to links
Foot print			https://github.com/zephyrproject-rtos/ze

			phyr/wiki/%5BHOW-TO%5D-Generate-a-binary-footprint-for-a-basic-Zephyr-application
Performance			https://github.com/zephyrproject-rtos/zephyr/wiki/%5BHOW-TO%5D-Generate-benchmarks-metrics
Low power			

5. Round table. (10 minutes)

Monday Mar, 22 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Rob Woolley (Wind River), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsys), Danny (Oticon), Paul Fagerburg(google)

1. Quarantine feature PR follow up, (10 minutes Maciej)

<https://github.com/zephyrproject-rtos/zephyr/pull/33287>

2. Test plan discussion: (all 30 minutes)

a) One proposal is to use the board list in _-> OK

<https://github.com/zephyrproject-rtos/zephyr/wiki/Board-Testing-Introduction>

contact with ST(erwan) he will analyse and feedback later/

Synopsis? Keep as is? Will update the board list this week.

- b) We need inputs for what special features in LTS testing scope (To be continued next week)

Listed in LTS published in Its mail list.

<https://docs.google.com/presentation/d/1ucJeyadvA9JSu0i6J3R7xcqbYkHKvZp0Nusaa9s3jU4/edit?usp=sharing>

AI: all checking any special testing needed for LTS for board testing.

- c) Coverage plan:

Coverage for kernel code, kernel parts Steven will double check internally. (QEMU X86 only), Steven will share the command line for qemu and board testing with coverage.

User case coverage for others(defined in applications)

3. Round table

Rob will share his works on low power/ performance/ footprint to mail list, and we will discuss a detailed plan next week.

Monday Mar, 15 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Rob Woolley (Wind River), Steven Wang Li(Intel), Eugeniy Paltsev(Synopsis)

1. Quarantine feature added, (10 minutes Maciej)

<https://github.com/zephyrproject-rtos/zephyr/pull/33287>

1. Need to explain why cases are in quarantine list, maybe add a comment with link to github issue would be a solution.
2. Need to document the quarantine yaml schema.

3. Maybe we can use this quarantine list file as input for a checking test plan. Such as all the excluded cases can be checked whether runnable or not.
4. Quarantine cases may not be reported as skipped. should be a special <quarantine message="" type=""> currently it is <skipped message="quarantine" type="skip">

2. Test plan discussion: (all 30 minutes)

Inputs:

1. We need to decide which platforms to test.
 - a) One proposal is to use the board list in -> OK
<https://github.com/zephyrproject-rtos/zephyr/wiki/Board-Testing-Introduction>
2. We need inputs for what special features in LTS testing scope (To be continued next week)

If no special requirements, we will only use existing test applications.

3. Coverage plan:
 - a) Coverage for kernel code?
 - b) User case coverage for others(defined in applications)

3. Round table.

Last week follow up

1. Demo of GUI result display and follow up. (Anas 20 minutes)
<https://stats.zephyrproject.org/testing/d/e45X5lyMz/test-results?orgId=1>
 - a. Anas will open source the script to process data
 - b. Anas will grant user access to team
2. LTS release items discussion.(30 mintues)

Proposal from Anas in TSC team:

<https://docs.google.com/presentation/d/1ucJeyadvA9JSu0i6J3R7xcqbYkHKvZp0Nusaa9s3jU4/edit?usp=sharing>

Test plan

<https://github.com/zephyrproject-rtos/zephyr/discussions/32749>

Define testing architectures/boards/

Proposal a draft version of test plan/coverage plan (Hake / All)

3. round table discussion. (All)

Monday Mar, 8 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Rob Woolley (Wind River)

1. Demo of GUI result display and follow up. (Anas 20 minutes)

<https://stats.zephyrproject.org/testing/d/e45X5lyMz/test-results?orgId=1>

- c. Anas will open source the script to process data
- d. Anas will grant user access to team

2. LTS release items discussion.(30 mintues)

Proposal from Anas in TSC team:

<https://docs.google.com/presentation/d/1ucJeyadvA9JSu0i6J3R7xcqbYkHKvZp0Nusaa9s3jU4/edit?usp=sharing>

Test plan

<https://github.com/zephyrproject-rtos/zephyr/discussions/32749>

Define testing architectures/boards/

Proposal a draft version of test plan/coverage plan (Hake / All)

3. round table discussion. (All)

Monday Mar, 1 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg, Rob Woolley (Wind River)

1. Demo of GUI result display. (Anas 20 minutes)

2. nomenclature of test suites and test cases discussion. (Maciej 20 minutes)

any detailed examples in one discussion?

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Please review the PR and give comments so that we can start working out the document.

<https://github.com/zephyrproject-rtos/zephyr/pull/31999>

3. round table discussion. (All)

a. the test report enhancement discussion.

i. Test plan in test report and how community users can help.

Create a test plan discussion(Hake)

<https://github.com/zephyrproject-rtos/zephyr/discussions/32749>

- ii. Proposal to release the test result report to general audiences.
- iii. Add qume boards footprint data

Monday Feb, 22 2021

Attendee: Hake Huang (NXP), Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg, Rob Woolley (Wind River)

1. Zephyr v2.5.0 tagged.
2. nomenclature of test suites and test cases discussion. (Maciej 30 minutes)

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Move to next week,

Note:

Testsuite -> test application in zephyr
Test cases + configuration + scenarios

3. round table discussion. (All)
 - 3.1 Shadowfax is prompting west and twister as CI tools
 - 3.2 what we should do for v2.6.0 LTS
Pipeline the test -> bug fix process
 - 3.3 Anas will present a new test report output next week

Monday Feb, 15 2021

Attendee: Hake Huang (NXP), Nashif Anas(Intel)

We cancel this meeting due to few people attending.

1. Zephyr v2.5.0 tagged.
 1. Call for review the release document at:
https://github.com/zephyrproject-rtos/test_results/pull/154
2. nomenclature of test suites and test cases discussion. (Maciej 15 minutes)

any detailed examples for below discussion?

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>
3. round table discussion. (All)

Monday Feb, 8 2021

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jocelyn Li (Intel)
Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg, Rob Woolley (Wind River)

1. **V2.5.0 test release document review. (Hake/ All 15 minutes)**

https://github.com/zephyrproject-rtos/test_results/pull/154

Add link to the code base of footprint test(SHA) -> done

Add footprint steps in to appendix-> done

Please upload v2.5.0-rc3 board testing report.

2. **nomenclature of test suites and test cases discussion, a short sync. (Maciej 15 minutes)**

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Maciej will take AI and create PR for this -> follow up

AI: Create Feedback to test report documents. [Hake/All in mail thread]

1. Test identifier required? If we move cases around to different folders.
 2. What is testsuite what is test plan
 3. Use several real test cases as example
3. **call for a proposal on a test result visualization solution.**

https://github.com/zephyrproject-rtos/test_results/discussions/190

AI: Please have a look

https://github.com/zephyrproject-rtos/test_results/pull/204

4. Round table discussion. (30 minutes)

<https://github.com/zephyrproject-rtos/zephyr/pull/29427> please help to review

<https://github.com/zephyrproject-rtos/zephyr/pull/29427/files> we need more reviewer/maintainer for twister scripts, let continue thinking about how to make it more maintainable.

Monday Feb, 1 2021

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jocelyn Li (Intel) Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg, , Rob Woolley (Wind River)

1. V2.5.0 test release document review. (Hake/ All 15 minutes)

https://github.com/zephyrproject-rtos/test_results/pull/154

pending items: added platform testing status?

Add link to the code base of footprint test(SHA).

Add footprint steps in to appendix

2. nomenclature of test suites and test cases discussion, a short sync. (Maciej 15 minutes)

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Maceij will take AI and create PR for this

3. call for proposal on test result visualization solution

https://github.com/zephyrproject-rtos/test_results/discussions/190

4. Round table discussion. (30 minutes)

<https://github.com/zephyrproject-rtos/zephyr/pull/29427> please help to review

<https://github.com/zephyrproject-rtos/zephyr/pull/29427/files> we need more reviewer/maintainer for twister scripts, let continue thinking about how to make it more maintainable.

Monday Jan, 25 2021

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jocelyn Li (Intel) Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg, , Rob Woolley (Wind River)

1. **v2.5.0-RC1 tagged.**
2. **Discussion on the** nomenclature of test suites and test cases. (15 minutes / Maciej/ All)

<https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Note: need consider none-ztest based test cases naming.

AI: we need to vote whether to change the naming as Maciej proposed.

3. Bug analysis on

https://testing.zephyrproject.org/daily_tests/zephyr-v2.4.0-3224-gc77ae15c9967/report/index.html (10 minutes)

NXP:

- can driver testing has one issue. (in analysis)

<https://github.com/zephyrproject-rtos/zephyr/issues/31555>

- counter issue fixed.
- Some board upstable issues found in kernel / libraries-libc testing retesting is ongoing(FRDM_KW41z, mimxrt1060_evk).

4. Test result data visualization discussion. (20 minutes/ All)

Need more time to think -> (All create a discussion Hake)

Easy to use and identify the result with filters.

5. Release document comments

https://github.com/zephyrproject-rtos/test_results/pull/154 (reminds)

6. Round table discussion. (15 minutes / All)

NXP: any testing data on I2S?

Intel: Steven proposes new coding styles comments with test cases.

Windriver new members: Rob needs some information on performance and footprint.

Monday Jan, 18 2021

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jocelyn Li (Intel) Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg,

3. Release document review. (pending to next week.

https://github.com/zephyrproject-rtos/test_results/pull/154

4. <https://github.com/zephyrproject-rtos/zephyr/discussions/31090>

Discussion on the nomenclature of test suites and test cases

Note: need consider none-ztest based test cases naming.

All: we need to vote whether to change the naming as Maciej proposed.

5. V2.5.0, Please start to submit test results based on the weekly release tag.

All: Please submit your boards result as possible.

We will do bug triage based on this weekly report for v2.5.0

6. **We need to propose a data structure / how we visualize the data in the coming two weeks.**

Monday Jan, 11 2021

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jocelyn Li (Intel) Maciej Perkowski (Nordic), Nashif Anas(Intel), Paul Fagerburg,

1. Hake request to integrate pytest-allure with twister. How can pytest be integrated with twister to upload testing results into allure? (AR: Hake, Maciej)
2. Maciej suggests the <https://www.h5py.org/> tools to create tables

Monday December, 14 2020

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jingru Wang (Synopsys), Maciej Perkowski (Nordic), Li Jocelyn(Intel), Nashif Anas(Intel), Alexander Salas Bstidas, Paul Fagerburg,

1. [Hake]Please upload a weekly resting result into github, so that testing result of all boards can be shown. AR -> Steven, check why the testing result Intel uploaded does not show in the weekly report.
2. [Maciej]Sanitycheck script is changed
<https://github.com/zephyrproject-rtos/zephyr/pull/30500> Using: **twister**
3. [Anas] Release document: Don't use .docx format. We need to make sure that it can be exposed as html. AR -> Hake change the format to Mark-down format. RSC.
4. to have schema for database to use so that Can allure create tables freely? Aligned with twister naming convention. AI: analyze the allure pre-request, any volunteer?

Monday December, 7 2020

Attendee: Hake Huang (NXP), Maksim Masalski (Intel), Jocelyn Li (Intel), Alexey Brodtkin(Synopsys), Wang Steven (Intel), Jingru Wang (Synopsys), Maciej Perkowski (Nordic)

1. [AR Hake] Github actions add https://github.com/zephyrproject-rtos/test_results/pull/148
2. Intel will upload daily (after infrastructure setup, weekly is fine too), Nordic will upload daily, Synopsys will upload weekly.
3. [AR Steven, Hake, Alexey, Jingru and others] Please review Release Summary Report.
4. [Maciej] Continuing work under Release Summary Report.
5. [Maciej] Suggested sanitycheck update proposal
<https://github.com/zephyrproject-rtos/zephyr/issues/30395>
6. [Maciej] Unity test framework which is integrated with a CMock (idea proposed by Carlos to be discussed during Testing WG Meeting).
7. **[AR] Create a repo to store Docker image in Github, to let everyone test Allure.**
<http://allure.qatools.ru/>

I found that Allure has examples for that

<https://github.com/allure-examples/allure-examples>

Monday November, 30 2020

Attendee: Hake Huang (NXP), Maksim Masalski (Intel), Alexander Salas Bastidas, Anas Nashif (Intel), Alexey Brodtkin(Synopsys)

1. [Hake] Weekly testing status update. Do we need plan a regular bug scrum meeting?
2. [Maksim] Coverage reports show whether code is covered from user vs. supervisor mode. Can that be automated or need to be manually audited?
-Solved.
3. Allure discussion.

[Hake] First use Allure.

[Anas] Allure, no objection. But that is not a production version. Test with multiple files, load with many data. Create a Docker image and setup it, so everyone can test it.

[Alexander] No opinion.

[Alexey] Maintain Allure will take resources. Who will maintain it and keep it running?

[Maksim] Allure. [AR] Create a repo to store Docker image in Github, to let everyone test Allure.

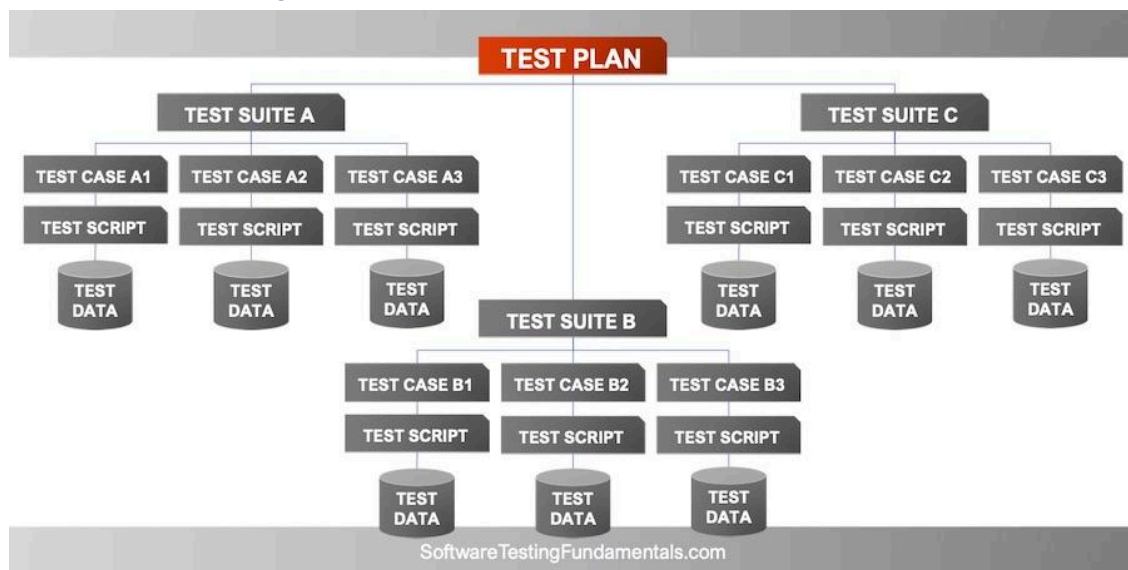
Monday November, 24 2020

1. Weekly testing status update. Solved. Tags are not automated yet.
2. https://github.com/zephyrproject-rtos/test_results/pull/148 Code review,
3. Be aligned with a Testing Terminology. TestRail definition of the test suite and test case <https://www.gurock.com/testrail/videos/suites-test-cases>

Use that terminology like in TestRail.

Review fundamental terminology of the testing.

<https://softwaretestingfundamentals.com/test-plan/>



Think about naming. Develop a naming convention and agree on that. Related to <https://github.com/zephyrproject-rtos/zephyr/issues/30100#event-4013779249>

Share your ideas here:

4. Allure Test Report Framework. First make a decision on Test plan, Test suite structure. Define requirements for the Test Report Framework.

Share your requirement here:

Monday November, 16 2020

1. Call for start weekly testing This weekly tag will be created on Monday night US time.
2. https://github.com/zephyrproject-rtos/test_results/issues/142 Check test results script development
3. <https://github.com/zephyrproject-rtos/zephyr/wiki/Board-Testing-Introduction> All board maintainers fill that file with their boards.
4. Test manager system survey and typical process discussion. (Maksim, 15 minutes)
 - a. [Allure working experience](#) (Maksim will move it to Google)
5. SKIPPED definition
6. [Anas]Tool to take xml file into SQL database.

Note[Maksim] After that we can use any tool to make visualization (power bi, google charts, even excel, and so on)

Monday November, 9 2020

Attendee: Hake Huang (NXP), Maksim Masalski (Intel), Jingru Wang (Synopsys), Maciej Perkowski (Nordic)

1. [Maciej] Create Google document "Appendix" [AR Maksim]
2. Try Allure for Zephyr results [AR Maksim. Done, sent report about Allure Framework to the testing WG members]
3. Monday evening US time chosen for testing
4. [Anas] Too many boilerplate in the Release Summary Report. Think about using RST to generate data in tables.
5. [Maciej] Figure out use some scripting.
6. Remove not related to TESTING information from the Summary Report.

Monday November, 2 2020

Attendee: Hake Huang (NXP), Maksim Masalski (Intel), Jingru Wang (Synopsys)

1. Each sample should be runnable in sanitycheck, ask developers to do that, or mark them as not runnable in sanitycheck. We have many samples, that can be runnable in sanitycheck, but just due to wrong sample.yaml settings, it is impossible to run them in it out of the box without additional sample.yaml modifications.
2. Light discussion about Allure, continue next time.

Monday October 26, 2020

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Maksim Masalski (Intel), Jingru Wang (Synopsys), Anas Nashif (Intel), Paul Fagerburg(Google)

1. [Anas] **Ownership of the boards**. Define maintainers and their boards. Make uploading of the results on the stable basis. **ASAP. Firstly, make an agreement with companies about reference boards**. First, maintainers run tests and identify what is going on, and file the reports(raise issue if necessary). Nominate your boards.
2. [Anas] Test same commits(to be aligned with what commit to test), create cadence for the results uploading.
3. [Anas] Script version manager was created to [Manage versions to be tested](https://github.com/zephyrproject-rtos/test_results/blob/master/scripts/version_mgr.py)
4. [Anas] Content of the results must be verified. **Do not deal with a junk results! If the setup was not correct, and you sent results, it is wrong. Verify then upload using scripts like that https://github.com/zephyrproject-rtos/test_results/pull/68 or manually**
5. [Anas] After all that improvements merging can be even automated.
6. [Anas] Figure out the way how to display the data. Reading in xml impossible. Database?
7. [AR Maksim] Review Allure Allure <http://allure.qatools.ru/> ? Does Allure work for us? Does it give us what we want? Don't think about legal issues now. Serf the Internet for a better tool, if it has. We can host on Amazon that tool.
8. **To conclude the meeting and plan future actions:**
 - **Agree on json**
 - **Make sure not upload junk**
 - **Visualizing the data (like Allure).**

Monday October 19, 2020

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), Maciej Perkowski (Nordic), Maksim Masalski (Intel), Jingru Wang (Synopsys), sist@demant.com

1. Boards farm. Ask TSC about that. Reply: It won't happen soon, too expensive and unreliable.
2. QA team and Testing team. Zephyr has many fields that should be improved in the future on the QA side.
3. Rethink our approach to the tests development. When a developer creates a test, code maintainer and Testing WG members have to verify that test was created correctly.
4. Every new feature should have a test for it.
5. Doxygen tags add to the tests and generate full documentation of the tests description.
6. Discuss overall Test Plan <https://github.com/zephyrproject-rtos/qm/tree/master/doc/plans>
<https://github.com/zephyrproject-rtos/qm>
7. Following quality standards is helpful
8. Release Summary Report. Static pieces

Monday October 12, 2020

Attendee: Hake Huang (NXP), Alexey Brodtkin(Synopsys), , Paul Fagerburg(Google), Maciej Perkowski (Nordic), Maksim Masalski (Intel) Jingru Wang (Synopsys)

Discussion of the Report continued.

Monday September 28, 2020

Attendee: Hake Huang (NXP), Alexey Brodtkin(SYNPS), Simon (demant.com), Paul Fagerburg(Google), Maciej Perkowski (Nordic), Maksim Masalski (Intel)

1. [AR] Maciej will assign to GH issue related to adding environmental properties to the xml reports (github.com/zephyrproject-rtos/zephyr/issues/28113)
2. We have concerns about the standards for issues counting during the releases. The gh filters are currently not reliable (-milestone works only for the last attribute). According to the filters there was 1 high priority issue that was released.
3. [AR] Hake will ask Anas/Maureen about creating a wiki page for on-target tests (device testing) which could contain useful information, e.g. what command should be called

4. [AR] All, please think about what functionality we would like to have in the test results analysis software/scripts. E.g warning about introduced regression (switch from pass to fail), plots with trends/stats. Then we will look for a proper tool. We agreed that it is better to look for an existing, open source software than reinventing the wheel. However, we will see how adaptable to our needs it will be.

Several members (Maciej, Paul and Hake) were/are using test plans based on Jenkins, which has plugins for test analysis (e.g. <https://plugins.jenkins.io/test-results-analyzer/>). Jenkins itself seems to be an overkill but maybe the plugin can be adapted?

5. We talked about the Release Quality Report. Maciej agreed to take the role of the main editor responsible for the overall report. Maciej also presented a section that can be used as an example of the style we want to achieve (Sec. 1.4 Release readiness) and he will provide comments for the other sections.

NOTE: please try to read the report imagining you are one of the stakeholders interested in Zephyr RTOS and have no internal knowledge of testers. If you think something is not clear, let us know.

Monday September 28, 2020

Attendee: Hake Huang (NXP), , Alexey Brodtkin(SYNPS), Maksim Masalski (Intel), Simon (demant.com), Main Enjia (Intel), Jingru Wang(Synopsys), Paul Fagerburg(Google), Erwan Gouriou

1. Add for the each paragraph explanation.
2. Use scientific approach to write document. Use standard naming conventions for tables, figures and pictures. If table used, then its name should be mentioned in text.
3. Help Hake with the Test summary table.
4. Performance metrics add better description, well-written text, add explanation about each board and add explanation about data values. Why up_squared takes so many RAM and ROM?Table update, one board per architecture Cortex M0, M3 and etc. Use that link to update RAM and ROM report https://github.com/hakehuang/zephyr_app_scm/wiki/Footprint-Summary
Mentioned west version to run -t option
5. Create table of sections responsibilities.

Monday September 21st, 2020

Attendee: Hake Huang (NXP), , Alexey Brodtkin(SYNPS), Maksim Masalski (Intel), Simon (demant.com), Main Enjia (Intel), Jingru Wang(Synopsys), Paul Fagerburg(Google), Erwan Gouriou

1. Adding of the new platforms to the Zephyr, how it should be controlled? Should we have any Test coverage criteria? If test coverage is less than a specified threshold platform will not be added to the Zephyr.
2. Testcase.yaml in #26946 (footprint test) add README to describe how that test is connected with the Testing WG.
3. Ask Anas why PRs not got merged. Done.
4. AR Maksim Coordinate with Anas

<https://github.com/zephyrproject-rtos/zephyr/issues/28113>

Receive his feedback

Monday September 14th, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Maksim Masalski (Intel), Jocelyn Li (Intel), Maciej Perkowski (Nordic),

1. [AR] Jingru Add Coverity data into Release Summary
2. Discussed Release 2.4 Summary Report information filled by members of the Testing Workgroup
3. Problem with filtering of the issues. Maureen can help, I think, because she is leading Bug triage and Release readiness meeting every week.
4. [AR] Maciej and Maksim Create Bug Burndown chart using Maciej's script

Monday September 7th, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Erwan Gouriou, Maksim Masalski (Intel)

1. Discussed responsibilities of each member of the Testing Workgroup to fill Release 2.4 Summary Report with the testing information.

Monday August 31, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Maksim Masalski (Intel), Jocelyn Li (Intel)

1. Source file folder should be prepared
2. Document uploading of test results and preparation steps.
3. How to sync Zephyr repo with versions.json file? Each company should explain their approach using versions.json. At least Intel should provide overview for the basic steps. Then each developer can review and give a feedback.
4. Suggestion from Alexey: Put test configuration into xml file, (platform name and zephyr revision). Add PR script that checks xml file? PR validation may implement automatic

filtering right before the PR creation, check versions of the xml file in it? What is standard for failed xml results file? 50 failed tests, 100?

Tool for validation .xml results files? Now it is made by Anas manually as I understand.

5. Submission result PR check like zephyrbot. It should check .xml results in user's PR and give a review if they are valid to be merged. Add that issue to Anas.
6. Should we think about all users now? Or just develop stable system for board manufacturers and then move with developers who want to submit results on volunteering basis?
7. Alexey will think about creating PR validation. Main Zephyr repo when we add those missing fields in xml file, processing data on test results repository. **[AR] Alexey will create an issue about that.**

Monday August 24, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Maksim Masalski(Intel), Maciej Perkowski (Nordic), Jocelyn (Intel).

GOAL: We are developing Release Summary Report with all necessary information which is valuable for developers. As was mentioned before, for the first time (~3 month) we can have report generation manually. The main idea now is to have report with all important and **necessary** information. After all things settled down, we can think about its automation!

Everyone please add your ideas to the existing report demo page

<https://docs.google.com/document/d/1y7mtAhmvi5z1ohazNgXFEXdFg6RO-J38QsFA7twPPW8/edit?pli=1#>

1. Note: Users should not be upload html files, only results into results directory in xml format into test_results repository. Please filter your files before you upload them, no any bogus data.
2. BT Host Test Coverage evaluation. No any brokers. Raise questions to TSC. Hake will write email to Maureen.
3. Add for each new item rough test plan, and provide coverage.
4. Benchmarks do not publish, but follow the trend and track it. Maybe you can read about that standard if it is applicable for us <https://www.eembc.org/>
5. Jocelyn suggested to have a page, which educates people about benchmarks. That is marketing field, we have benchmarks for developers use, so developers can run them manually and compare data with other RTOS data to make a decision.

Monday August 17, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Maksim Masalski(Intel), Maciej Perkowski (Nordic)

1. Maciej presented a release readiness Python script. Script is intended to check release status and give an answer about release readiness. It uses Github API and takes information from Github filters about numbers of opened issues. Output of the script looks like this:
“There are 9 open issues with high priority. Max allowed: 0
“There are 36 open issues with medium priority. Max allowed: 20
“There are 191 open issues with low priority. Max allowed: 150
Release not ready!”
2. Think about storage for KPI results for QEMU. Maybe add page here
<https://testing.zephyrproject.org/> (UPD: According to Anas comment, we will not publish KPI results for QEMU)
3. <https://market.aliyun.com/aliyunocrnew> Analyze information.

Monday August 10, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Maksim Masalski(Intel), Maciej Perkowski (Nordic), Anas Nashif (Intel)

1. During PowerBI presentation by Maksim, Maciej asked question: What problem PowerBI solves? What data is necessary to demonstrate in a visualization way?
Anas replied, that it is possible to use Github and its filters to find High, Medium, Low issues. Using that filters we can track Github on daily basis. Github query language to make a search results.
2. Using Semi-manual way create charts for the next release and see how it looks like.
3. Necessary to have report which can be easily maintainable, straightforward.
4. Report should show trends, bugs and etc to predict and react, solve problems in advance to make it possible to finish release. If trends are going down, report could help to accumulate resources and solve issues fast to make release ready.
5. Think about how to automate report generating process.
6. Progress weekly data add to the report.
7. Next week we can have initial report. AR **[Everyone need to take section and update it for the next week]** Link
<https://docs.google.com/document/d/1y7mtAhmvl5z1ohazNgXFEXdFg6RO-J38QsFA7twPPW8/edit#>
8. **[AR Maksim]** Follow up PR #68 comments.

Add documentation update: Workflow and verification steps:

- 8.1. Add description how we run tests using sanitycheck to generate test results. Use the same filters. Everyone will follow the same steps before uploading that tests.
- 8.2. Verify that test results are same. If someone goes wrong in setup, don't publish that results with too many errors e.g. with 100% failure, and so on. Results with infrastructure problems shouldn't be published.
- 8.3. Decide who is uploadinbg which results. Each company responsible for their boards. If Hake publishes his boards data, don't duplicate him. **[AR Make an agreement with companies]**
- 8.4. If skipped, add explanation why skipped. So everyone can see why tests were skipped.
9. Functional Safety WG, ask them for details about coverage plan. Add it to our summary. Start tracking that data, and their reports, most work in FuSa made by Intel. Hake is looking for status what we can do and what is the Zephyr status for now. -Start review test coverage firstly, replied Anas. Next meeting we can talk about that and define a scope.
10. Maciej had question about PR #27396. Seems a bug
<https://github.com/zephyrproject-rtos/zephyr/issues/27396>

Monday August 3, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodkin(SYNPS), Maksim Masalski(Intel), Maciej Perkowski (Nordic)

1. Could we run any specific test suite separately for ARM, x86, or ARC?
2. [AR Maksim] Explore PowerBI for Summary report and read Github information.

Monday July 27, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNOPSIS), Alexey Brodkin(SYNOPSIS), Anas Nashif (Intel), Maksim Masalski(Intel), Maciej Perkowski (Nordic)

1. Split report into two. Create one version with overall results, call it Summary report. Second version should be more detailed for developers, call it Detailed report. Detailed report and Summary report.

Maciej suggested to add it, according to comments from his leaders.

[AR Next week] Maksim will create his understanding what metrics should be in each report, according to the Hake's and Maciej's metrics suggested in previous meetings.

<https://docs.google.com/document/d/1y7mtAhmvl5z1ohazNgXFEXdFg6RO-J38QsFA7twPPW8/edit#>

2. How many critical errors can be accepted in a release? 0, 1, 10?
Maciej suggested to define it. Hake replied that it is better to discuss with TSC.
Anas replied that we should be based on the issues, not a number of the failed tests.
Tests are just tools to find issues. Only issues are real indicator for the release quality metrics. Because number of the failed tests doesn't mean real status quality of the release.
Maciej asked: "Can we can connect tests results with the issues?" Summarize failed test cases and find out issues. Maybe we need one more meeting about that. Create a meeting a few days after RC1, right before RC2.
Criteria could be based on unresolved issues, by severity. Anas replied that that we have it already.
3. Code coverage. Do we have any standard? 100%, 90%? Necessary to define it.
Coverity issues, Add to report, but with the understanding that most of the Coverity issues are in the test cases, not in the kernel. So it will be better to filter them.

Monday July 20, 2020

Attendee: Hake Huang (NXP), Jingru Wang(SYNPS), Alexey Brodtkin(SYNPS), Chen Peng (Intel), Hao Xu(Intel), Anas Nashif (Intel)

Anas answers the three questions of Maksim

1. Is Github Storage free or not? After Intel started to upload test results, each .xml file can have quite a big size, so please discuss how much storage we have on Github to store .xml test results. **Hao, 10 minutes (according to github document it is 1G limitation for repo)**

We should not be concerned with the storage limit. There is no limit really, why will anyone be uploading a 1G file? If your test results are in GB, then there is something really wrong with the results. Do you have examples of such large files being pushed?

2. I have one issue, which I want to ask Anas. My script can push test results to my Github repository, but to create a PR from my repository test_results to the upstream test_results repository, I have to manually go to Github and submit a Pull request. Unfortunately Github doesn't support auto PR submission into another repository. Next explanation is written there <https://developer.github.com/v3/pulls/#create-a-pull-request> "You cannot submit a pull request to one repository that requests a merge to a base of another repository." Can I push a new branch to the upstream repository directly? Only that way is possible to create PR automatically. Hao 20 minutes (need discuss a solid solution)

Not sure what you mean here, there should not be a problem creating PRs automatically. See <https://pygithub.readthedocs.io/en/latest/examples/PullRequest.html>

This works just fine, I just tried it. See this https://github.com/zephyrproject-rtos/test_results/pull/51, it was created automatically from my fork.

3. To use my script which I introduced above, necessary for each company to have the same .xml file names for the test results. Necessary to make an agreement about .xml Sanitycheck test results file names. **Hao 20 mintues (need hao to introduce the code logic)**

This was already mentioned somewhere else, the file names are should not be random, otherwise the scripts wont be able to find them. So, right now it is expected to have the board name as the only thing in the file name, so <board name>.xml.

Discuss on draft release quality metrics

https://drive.google.com/file/d/1DiH1IA4184GhNlt6vHJk7N8vU_q3SmKG/view?usp=sharing

Comments added to the doc already

Monday July 6, 2020

Attendee: Hake Huang (NXP), Maksim Masalski (Intel), Maciej Perkowski (Nordic), Jingru Wang, Alexey Brodtkin

Further discussion of the Zephyr Release Quality Summary.

1. Maciej added new slides into presentation
<https://docs.google.com/presentation/d/1VgjiSUQ87cJp1Teely6bcUf5JKkKciLAqyYvgzWiMWM/edit?usp=sharing>
2. Hake updated his presentation
https://docs.google.com/presentation/d/1g7i4wD9pnAT1PckjYN-JpPk0Y_tuY3TIMIAoxwAMwx4/edit?usp=sharing
3. Next week many members have vacation
4. After 2 weeks we need prepare a summary of all suggestions about Zephyr Release Quality Summary.

Monday June 29, 2020

Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Maciej Perkowski (Nordic), Jingru Wang (Synopsys), Alexey Brodtkin (Synopsys), Chen Peng (Intel),

1. Release Quality Summary
<https://docs.google.com/presentation/d/1VgjiSUQ87cJp1Teely6bcUf5JKkKciLAqyYvgzWiMWM/edit?usp=sharing> looking forward for your input and comments
2. [AR] Anas should find an assignee for that issue
<https://github.com/zephyrproject-rtos/zephyr/issues/26443>
3. Suggestion from Hake Huang <https://github.com/ARMmbed/greentea> New test framework
4. [AR Maksim] Testcase.yaml #26946 Add Readme file

Monday June 22, 2020

Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Jingru Wang, Alexey Brodtkin

1. Hake's presentation
<https://docs.google.com/presentation/d/1w92D564Tt70aQBuJ2lQjg4Db6yeW5F6wIH0gOSnQdlo/edit?usp=sharing>
2. For each release necessary to provide quality certification.

Monday June 15, 2020

1. Should we back up everything from TestRail or not?

Anas said: We have two options, one we create a backup, and see how useful it is. Download back up and store it somewhere. Second variante remove all accounts and keep only one user, still have access to the TestRail, it will cost definitely much less. No need to worry about exporting and parsing that data. Someone need to write script and download that data in a form that supports our platform. If option will not work, just move with option two.

Hake agrees with option 2.

[AR] Anas will talk to Maureen about that options.

2. Hake raised a question about quality criteria in Zephyr release. Anas said that right now a lot of quality release criteria happens at the Release meeting. It should be done by this

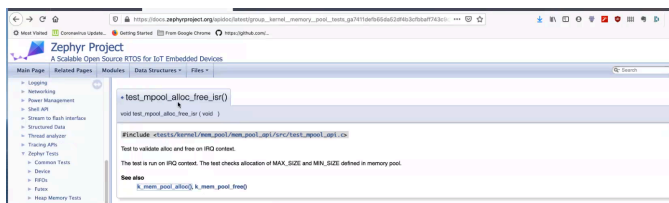
group Testing WG, test results, statuses of the bugs and etc. must be discussed there instead of the Release meeting.

3. Prepare our own version of the quality report and share with it next week. Come for the proposal for the TSC.
4. Sanitycheck reporting:
 - a. Maciej proposed to start using a json file for reporting in parallel to an already existing JUnit report. Json allows us to customize the report directly to our needs and be able to add missing attributes when needed. Other formats like NUnit or JUnit might be too strict for us as for example NUnit supports only: Passed, Failed, Inconclusive or Skipped results. We can come up with our own xml based report (“ZUnit”) format in the end, but for now it seems the most reasonable to start using json and to start adding attributes we would like to have (zephyr version used etc.).
 - b. Maciej proposed to also fill the verdicts for prefiltered tests with SKIP (for now, later on we would use a status we agree on). This is motivated by the fact that “in principle the empty spaces in the html report should correspond in “99%” to the tests being prefiltered”. However, buggy tests can lack the result and therefore produce an empty space as well. By adding SKIP for prefiltered tests we will be able to pinpoint the buggy tests not producing viable result in the report. This change won't introduce any extra naming convention. All yellow fields (skipped) will mean that the test was not executed due to being filtered out by sanitycheck (either during prefiltering or filtering after the test was built).

Monday June 8, 2020

Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Christian Funes, Anas Nashif (Intel)

1. Anas suggested to link https://testing.zephyrproject.org/daily_tests/v2.3.0-rc2/report/index.html with the test documentation webpage <https://docs.zephyrproject.org/apidoc/latest/index.html>



2. First decide should we use Testrail or not. Not made. If there is any added value given by TestRail?

Vote: Do you prefer to continue investigating into reporting with testrail or investigate in customized html report (option testrail or custom)?

1. Maciej -Nordic 0(Both solutions are ok)
2. Alexey -Synopsys TestRail not important, our custom solution can be more vendor neutral. -1(Not to use testrail)
3. Hake NXP -1(Not to use testrail)
4. Maksim Intel -1(Not to use testrail)

Jocelyn's (Intel) comment: Use both while we are investigating and building a stable own custom testing platform to store our results.

Verdict: 3 votes to change TestRail, 1 vote neutral.

[AR Maksim] To ask Support TestRail how to transfer results from the TestRail.

Monday June 1, 2020

Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Christian Funes, Anas Nashif (Intel)

Welcome new member Christian Funes!

1. Anas comment: Run sanitycheck for samples too.
2. TestRail uploading script update. Download whole TestSuite batch, check it locally, make changes, and upload whole suite. Current TestRail script shouldn't work like it is working now, because it takes to much time.
3. **[AR Hake, Maksim, Maciej, Anas]** Create a report what we would to see for daily tests, summary. Then evaluate TestRail functionality and other systems to make a decision. If it is good enough, we must make decision keep or change.
4. **Test types defined below:**
 - PASSED
 - FAILED
 - ERROR
 - WARNING
 - UNTESTED
 - IGNORED
 - MISSED

Last weeks opens:

[Hake] Linaro LAVA team has plans to support MCU, and I report to Gala that we are using sanitycheck scripts and west, and we hope that LAVA can be implemented based on sanity check and west, still waiting for Gala's reply. Any comments?

Monday May 25, 2020

Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Xu Hao (Intel), Alexey Brodtkin (Synopsys)

- [AR Hake] Hake said, that need a volunteer who will contact with LAVA support and ask them about help with integration of West, and support MCU in LAVA. **[Hake contacted LAVA]**
- Testrail optimization
- [AR Maksim] Check with Testrail test report customization especially for people without license. Problem is that no every community user would like to pay. **[UPD Maksim sent email to TestRail support, wait for the reply]**

Monday May 18, 2020

Attendee: Anas Nashif (Intel), Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Xu Hao (Intel), Alexey Brodtkin (Synopsys)

1. Think about data format, Nunit/Junit.
2. Try to upload to CI system github your .xml board report and test process of uploading results.
3. Test names discussion. [AR] Maciej please write down your suggestion and send email to the Testing WG list.
 - Missed, Not executed, Ignored 3 types for Skipped tag suggested Maciej.
 - Broken rename to Error.
 - Unstable please change description what is unstable.

Monday May 11, 2020

Attendee: Anas Nashif (Intel), Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Xu Hao (Intel), Carles Cufi

1. Anas proposed to use Nunit for test reports. It is better results format then Junit.
https://testing.zephyrproject.org/daily_tests/zephyr-v2.2.0-2533-gdbbf834605/report/index.html

Maybe that view can replace TestRail, we should think about that. Think how to unify data for Nunit test.

https://testing.zephyrproject.org/daily_tests/index.html

<https://github.com/nunit/docs/wiki/Test-Result-XML-Format>

Everyone please take a look and test Nunit for test reports.

2. Allure test. Beautiful graphs and data demonstration. Come up with ideas of other similar solutions for Zephyr.

3. We should think what value will bring us a report, and people who is viewing that report. Come up with ideas.

4. For 2.3 release start test new CI system process.

5. **[AR]** For the next meeting come with test statuses and how to define them. What is Skipped, what is Error, What is Failed. What means Skipped? Skipped name is very confusing. Maybe add new words for tests like Missing and etc. Refer to the Nunit table like that

https://testing.zephyrproject.org/daily_tests/index.html

For the test code names refer to elinux.org/Test_Result_Codes

Later we will make an agreement with that and will use one standard names. Come up with ideas.

6. **[AR]** Speed for TestRail test result upload is very slow. Think how to modify script to upload test results taking just seconds, not hours. Maybe contact Support and ask them about our issue. Come up with ideas. **[UPD Maksim Contacted support, received reply, sent reply to all Testing WG members]**

7. **[AR Anas]** will think how to integrate results of other people into our system.

8. Try to replace Test Rail, think about how to replace it. Come up with ideas.

Monday April 27, 2020

Attendee: Anas Nashif (Intel), Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Xu Hao (Intel), Simon (Oticon)

Anas introduced his system solution for part1 / 2 implemented. The version file can be access at https://testing.zephyrproject.org/daily_tests/versions.json

A trial result repo is https://github.com/hakehuang/zephyr_ci_repo

[AR] Review scripts timing uploading new test cases and test results to TestRail. Assignee Hao. Uploading of the new test cases and test results to TestRail should be as fast as possible. Less then 1 hour at least.

Monday April 20, 2020

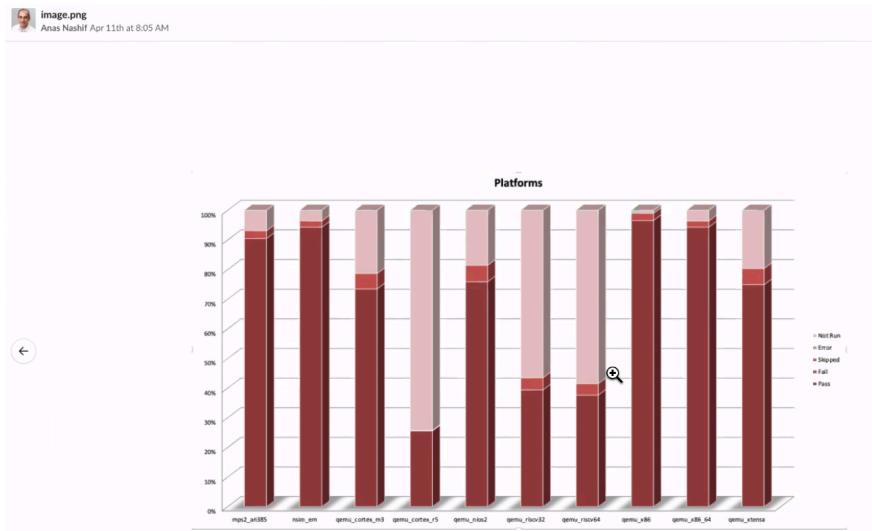
Attendee: Hake Huang (NXP), Jocelyn Li (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Maciej Perkowski (Nordic), Alexey Brodtkin (Synopsys), Xu Hao (Intel)

- How we can create a test report accessed by community?
- Cooperate with infrastructure guys from Zephyr Working Group, and create an MVP (draft prototype-demo) of testing proposal, to test CI scripts. Hao will prepare a schedule.
- Enhance AutoPTS stack tests and certify our Zephyr supported boards. Found many issues to port in our platforms. No one responded for several weeks from AutoPTS. If there is no support, better to drop it, and move with another solution.
- Nordic has a plan to support test reports for Nordic boards on Zephyr. It can be next week topic maybe.
- Hao's proposal next week topic.
- Expect Anas to share his idea next week topic.
- [AR] Hake please receive reply from Anas.
- Everybody can use <https://zephyrproject.slack.com/> Slack channel to discuss some ideas with the Zephyr Community.

Monday April 13, 2020

Attendee: Hake Huang (NXP), Anas Nashif (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Jocelyn Li (Intel), Alexey Brodtkin (Synopsys)

- Anas is looking for a way to generate the best test reports about platforms. He suggested on Slack that way.



<https://github.com/zephyrproject-rtos/infrastructure/issues/216>

- Alexey asked about the final proposal of the system to the TSC.
- Hake will ask Andrew Laperie about auto-pts <https://github.com/intel/auto-pts>
- Alexey found out a problem with a Sanitycheck. Sanitycheck doesn't realize that we can't execute simulator binary. If simulator not found, it should tell an error, not a silent execution. AR Anas will take a look

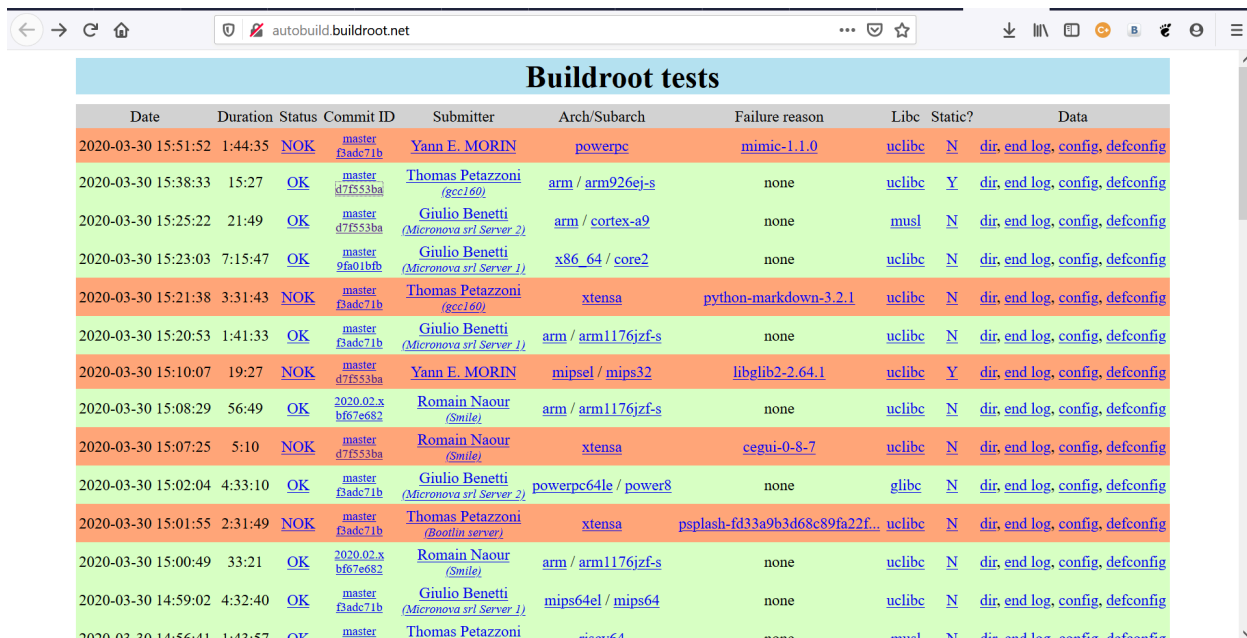
Next week agenda:

1. We will talk about results from TSC.
2. Issue from Alexey about Sanitycheck error messages.
3. Hake Huang conversation progress with Andrew Laperie about auto-pts.

Monday March 30, 2020

Attendee: Xu Hao (Intel), Maksim Masalski (Intel), Chen Peng (Intel), Jocelyn (Intel), Alexey Brodtkin (Synopsys), Peter Zierhoffer (Antmicro)


- Zephyr CI Testing Implementation Proposal presented by Xu Hao and further discussion.
- According to the comments it is important to see what features failed, and in fast way to fix them if we are talking about TestRail usage. It is not necessary to have beautiful graphics like in TestRail, the more important is to have full information about tested features.
- **[AR]Who can access TestRail account for Zephyr? It is important to have access to the TestRail for the Zephyr community software developers.**
- Alexey Brodtkin asks how test cases can be updated and be in sync with a kernel? Alexey mentioned that, because necessary to make test cases to be sync with the kernel, some test cases may be obsolete if API will be changed and etc.
- Sanitycheck works well noticed by Alexey Brodtkin. How to reproduce standard type results output? Need to have a reference tool, commit which was used.
- Alexey presented his example of buildroot tests system how tests are stored and how they can be reproduced with metadata inside of each test (commit id, person who started test, status and etc.) He suggests to make the same system like that <http://autobuild.buildroot.net/>



Date	Duration	Status	Commit ID	Submitter	Arch/Subarch	Failure reason	Libc	Static?	Data
2020-03-30 15:51:52	1:44:35	NOK	master f3adc71b	Yann E. MORIN	powerpc	mimic-1.1.0	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:38:33	15:27	OK	master d7f553ba	Thomas Petazzoni <i>(gcc160)</i>	arm / arm926ej-s	none	uclibc	Y	dir , end log , config , defconfig
2020-03-30 15:25:22	21:49	OK	master d7f553ba	Giulio Benetti <i>(Miconova srl Server 2)</i>	arm / cortex-a9	none	musl	N	dir , end log , config , defconfig
2020-03-30 15:23:03	7:15:47	OK	master 9fa01bf8	Giulio Benetti <i>(Miconova srl Server 1)</i>	x86_64 / core2	none	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:21:38	3:31:43	NOK	master f3adc71b	Thomas Petazzoni <i>(gcc160)</i>	xtensa	python-markdown-3.2.1	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:20:53	1:41:33	OK	master f3adc71b	Giulio Benetti <i>(Miconova srl Server 1)</i>	arm / arm1176jzf-s	none	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:10:07	19:27	NOK	master d7f553ba	Yann E. MORIN	mipsel / mips32	libglib2-2.64.1	uclibc	Y	dir , end log , config , defconfig
2020-03-30 15:08:29	56:49	OK	2020.02.x bf67e682	Romain Naour <i>(Smile)</i>	arm / arm1176jzf-s	none	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:07:25	5:10	NOK	master d7f553ba	Romain Naour <i>(Smile)</i>	xtensa	cegui-0-8-7	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:02:04	4:33:10	OK	master f3adc71b	Giulio Benetti <i>(Miconova srl Server 2)</i>	powerpc64le / power8	none	glibc	N	dir , end log , config , defconfig
2020-03-30 15:01:55	2:31:49	NOK	master f3adc71b	Thomas Petazzoni <i>(Bootlin server)</i>	xtensa	psplash-fd33a9b3d68c89fa22f...	uclibc	N	dir , end log , config , defconfig
2020-03-30 15:00:49	33:21	OK	2020.02.x bf67e682	Romain Naour <i>(Smile)</i>	arm / arm1176jzf-s	none	uclibc	N	dir , end log , config , defconfig
2020-03-30 14:59:02	4:32:40	OK	master f3adc71b	Giulio Benetti <i>(Miconova srl Server 1)</i>	mips64el / mips64	none	uclibc	N	dir , end log , config , defconfig
2020-03-30 14:56:41	1:43:57	OK	master	Thomas Petazzoni	risev64	none	musl	N	dir , end log , config , defconfig

Unfortunately for Zephyr we doesn't have open system like that for a community developers. Zephyr Daily Test Report is based on the Intel server and can't be accessed from outside of the Intel network.

Zephyr Daily Test Report for github branch:'master' -- 2020-03-26

 ztest2@zbot1.intel.com
 To: EC FW Dev; FMOS DevOps; FMOS Validation; FMOS PRC Extended; FMOS PRC

Config 2: ACRN + Zephyr as Guest

Zephyr SDK Version : zephyr-sdk-0.11.1

Zephyr Branch : github master <https://github.com/zephyrproject-rtos/zephyr>

Zephyr Commit ID : fb1e7a563c

ACRN Branch : v1.5 <https://github.com/projectacrn/acrn-hypervisor>

ACRN Commit ID : 6c554faab3

Platform	Error	Failures	Skipped	Passed	Total	Pass Rate	Test Log	Platform Report
acrn	30	10	28	642	682	94.13%	sanity-out.tar	HTML Report TestRail Report

Please refer the bug summary info:

Branch	Bug ID	Priority	Assignee	Description
master	22625	medium	alexanderwachter	tests/subsys/canbus/isotp/conformance failed on frdm_k64f board.
master	22622	low	pabigot, mnkp	tests/drivers/gpio/gpio_basic_api failed on multiple ARM platforms
master	20595	low	joannissg, mm387561, KangjianX	tests/arch/arm/arm_thread_swap failed on frdm_k64f board.
master	18728	low	stephanosio, pizi-nordic	tests/subsys/logging/log_core failed on sam_e70 board.
master	23414	undecided	unassigned	tests/benchmarks/timing_info failed on mec15xxevb_assy6853 board.
master	23474	undecided	jfischer-phytec-iot	tests/subsys/usb/device failed on reel_board.
master	23475	undecided	unassigned	tests/kernel/gen_isr_table failed on iotdk board.
master	23476	undecided	unassigned	tests/kernel/interrupt failed on iotdk board.

[AR] Necessary to find a way to share master branch results with the community developers of the Zephyr project.

Monday March 23, 2020

Attendee: Hake(NXP), Hao(Intel), Maksim(Intel), Peng(Intel), Jocelyn(Intel), Anas(Intel)

- Zephyr CI Testing Implementation Proposal Power Point Presentation by Xu Hao and Hake Huang. Hao is responsible for Part 2 and Part 3 of the project. Modify according to the comments of Anas.
- New test workflow is available there

<https://drive.google.com/file/d/12ZjpLvriqXTtcWJtsHythZLyMi4b38YU/view?usp=sharing>

Monday March 16, 2020

Attendee: Simon(Oticon), Hake(NXP), Hao(Intel), Maksim(Intel), Peng(Intel), Jocelyn(Intel), Anas(Intel)

- Zephyr CI Testing proposal further discussion Hao with Anas, main idea <https://github.com/xuhao8210/CIResultRepo-/blob/master/script/upload.sh>
- Comment for Hao from Anas that don't use the main project. Create a separate project-sandbox for testing and test everything there.
- Hao suggests that every company and every user use the same testcases to run test and upload test result to the TestRail like

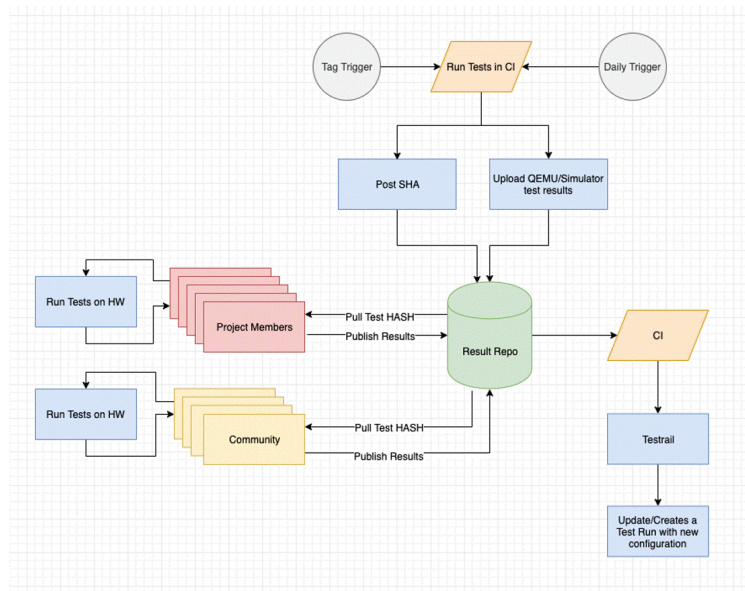
<https://github.com/xuhao8210/CIResultRepo-/tree/master/TestCase>

- Any tests uploaded to the TestRail they should be part of Zephyr tree. We can't add third party test cases to the TestRail.
- Anas gave link about Hake's CI post functions issue on Github <https://github.com/zephyrproject-rtos/infrastructure/issues/216>
- Hake work with Hao to send mail to the Morine.
- Maksim to be host of the meeting in the future.

Monday Feb 10, 2020

Attendee: Simon(Oticon), Hake(NXP), Hao(Intel), Maksim(Intel), Peng(Intel), Jocelyn(Intel)

- Zephyr CI Testing proposal further discussion, main idea and diagram listed below
 - Automatic cloud build based on QEMU, this shall be organized with the same framework as zephyr developing CI(currently shippable but likely GH actions)
 - Result Repo to store sanity check compatible result and daily test hash number
 - QM script to scan result repo and upload all daily report to test rails



- Why this CI Testing proposal is beneficial
 - Enable different HW variants(from different Zephyr users) testing and publish the testing results to community
 - Improve code quality
- Simon: Sanity-check has not been enabled in Oticon due to system complexity. Simon will give high level presentation about testing activities in Oticon
- ARs
 - Hake to send out Agenda to testing group mailing list every week before Testing WG meeting
 - Hao to work on presentation slides for part 2&3

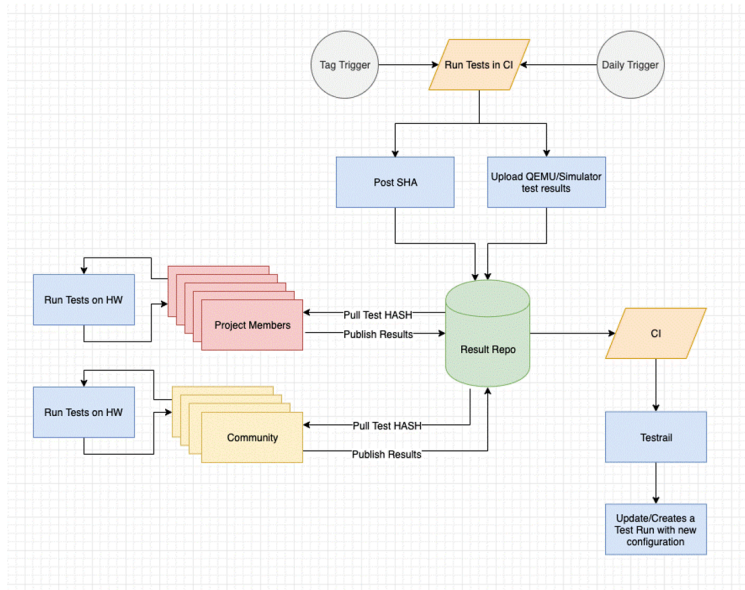
- Hake to invite Anas and Kuma to next week's meeting(confirm the time)

Monday Feb 10, 2020

Attendees: Simon, Jocelyn, Intel staff, Hake

Topics discussed today -

- Introduce the Zephyr CI process diagram to members.



1. Some Q & A:
 - a. Only test those cases available from zephyr mainline.
 - b. Testing is daily based on a given SHA number.
 - c. Using QM script to upload results to testrails and community will maintain it and improve performance.

AI:

1. Joceln's team will propose an implementation for the core team parts next week.

Monday August 12, 2019

Attendees: Jennifer, Hake

Topics discussed today -

- Email sent out 8/5/2019 to mailing list regarding: [testing-wg] ideas on interaction with other working group for more exposure on testing staff supporting
- Need a liaison/representative to another WG, suggest API Developer WG (suggest Jen)
- Need to capture the shared challenges and improvements needed to the CI and testing environment
- Need to encourage more participation and discussion of testing. All developers and WGs have testing environments, so we can discuss shared testing challenges.
- How to get more community engagement from developers (especially industry contributors actively working on testing and CI)?
- Something else to consider - is this a friendly timeslot for getting strong attendance? If we intend on US participation, 8am Mondays can be difficult to accommodate

Monday August 5, 2019

Attendees: Hake, Maureen

In today's working group meeting, Maureen raises the question on how to be more exposure to other team on testing staff. And Piotr proposes that we can start interactive with other working group so that we get more involved. Here are some ideas on this:

1. Can we select one / two working group to work with first, and by their roadmap to build up our supporting plan?
2. Send test guys to their working group and try to build up the QA process in supporting design/release work.
3. I know current CI is quite powerful and how could we improve it?

Monday July 1st, 2019

Attendees: Anas, Hake, Simon, Peter

-

Monday June 17, 2019

Attendees: Thea Aldrich, Anas Nashif, Hake Huang

Monday, June 3, 2019

Attendees: Anas Nashif, Thea Aldrich, Hake Huang, Peter Zierhoffer,

Opens

- [Peter] PTP Testing. Have started renode as a service setup. It is not publically available. Regularly testing and looking to identify approaches to getting results delivered to community. Testrail is desired location for outputs (afaik).
 - Looking for TestRail tips and approaches.
 - [Anas] Prior to discussing TestRail it would be helpful to see the results. Including how the tests are run, results, etc.
 - [Peter] Running muluinode in Renode. Testing if packets are sent, if they match configuration, verify if Zephyr is in proper state. Peter will send an email to testing group mailing list with details...sanity checks.
 - [Anas] Is there a location where we can look at the results in raw form?
 - [Peter] Yes but unable to do so during the meeting. Format is custom but they are willing to modify for us.
 - [Anas] Structured data format should be sufficient. Test suite needs to be defined in TestRail. You likely already have this. Define tests, add to test suite, identify configurations then upload. Once the project has seen the results and how the raw test report comes out of the framework, we can add test to TestRail and upload on a regular basis with rest api supported by TestRail.
 - [Peter] Once this is done and the group has a chance to look at the raw data the tests can be run on a regular basis automatically. It will be part of the complete

test run. Goal is to test every push that comes into Zephyr Master. - Currently do not run on every commit but have a Git puller that runs on every PR.

- [Anas] That could likely be part of CI. For TestRail, to get data at the same level of the other tests we run, would likely need daily or weekly cadence. This would allow us to get results for other components of the system in addition to PTP. It will be easier to determine specifics once we have seen the data. Ideal state would be weekly tests on the same test suite.
- [Peter] Did not try to add to SanityCheck due to multi node capabilities.
- [Hake] Sent test report for r1.14 for NXP board testing. Requests comments and has corrected identified issues. Would like to know if report can be uploaded.
 - [Anas] Limited coverage was identified.
 - [Hake] Has enabled all tests available for board. Please inform if anyone has found a missing tests. Complied every possible application in Zephyr and runs automatically. If failure is unreasonable a ticket is added to GitHub.
 - [Hake] For the last release, every test case has been parsed. If there are any failures, the current solution is to skip the tests. For example. USB cases do not run. When a test was skipped, they were added to a list and local comments were added. In the future would like to add an explanation for why specific test cases were skipped.
 - [Anas] We would like this to be part of one report. Safest thing is to have all results in one report. Otherwise inconsistencies can occur. Based on looking at the files things look reasonable. Need to create a tag people can run against and figure out how to coordinate uploading.
 - [Hake] This is a release report and need to speak more about how to add automation.
 - [Anas] This is still not finalized but will be one of the nest initiatives. Will fit in with larger testing suite.
 - [Hake] Will address documentation of skipped test cases and share.
- [Peter] Is there any update on the rescheduling of the meeting to accommodate more international community.
 - [Anas] Likely to move a few hours earlier but this will be at a later date.

Monday May 20, 2019

Canceled

Monday, May 13, 2019

Attendees:

Opens:

- Hake Huang, Thea Aldrich

Monday, May 6, 2019

Attendees: Anas, Peter, Simon, Ioannis

- Anas: We still need a WG chair. All participants need to check whether they can dedicate some time for this activity as WG.
- Peter: We need a roadmap or a goal.
- Anas points to the results of the TSC F2F meeting.
- **AI Anas**: Document how to use --device-testing for testing boards and make the test mandatory for new boards.

Monday, April 29, 2019

- [Insert link to Renode 'release']
- F2F discussions last week. Spoke about crowd testing efforts. One major goal is to enable standardized testing (testing the same thing). Some feedback that tags were not the best approach for identifying targets. Proposed solution is the creation of an automatically created commit which can be checked out. Results need to go to the same place. Location for all test results will be testrail.
 - See Bluetooth and networking for example. Sanitycheck, etc as well. Need to start moving and consolidating all components based on this model.
 - New boards will need to submit sanitycheck results.
- Groups needs to refine specific approach: Spoke about using Docker image that could be used for running the standardized test. Likely needs enhancement.
- Effort will take a lot of work to manage but this will help the larger effort to increase the reproducibility of Zephyr.
- [Kumar] Some discussion about West and an RFQ for a board farm (lab) - longer term plans.

- Enabling West as a service.
- [Hake] Will send out 1.14 results. Will provide bi-weekly (every two weeks) tests. Can provide service (via PR) for all NXP boards.
-

Monday April 15, 2019

No meeting today.]

Monday, April 8, 2019

- Simon: PTT and Testing:
 - Babblesim supports multiple devices
 - Nordic
 - Oticon devices
 - Got positive response re PTT (PC Test Tool)
 - Host layer tests
 - Host <-> controller tests
 - 200 tests from the spec
 - Idea is to upstream the tests to get more contributions
 - Now allowed to share the spec but should be ok with generic naming and without referring directly to the spec
 - Fast execution: (200+ compliance tests in approx. 1 minute)
 - PTT is in the process of being open-sourced.
 - EN-13485:2016 for medical devices is the standard being followed
- Peter:
 - Released TSN tests
 - Support for E70
 - Will be released this week
 -

Monday, April 1, 2019

- Continuation of discussion last week regarding TSC F2F. Explored ways testing results can be shared across the project. Please see notes in TSC meeting doc for full details on proposed way to crowdsource efforts.
 - https://docs.google.com/document/d/1Qti_6mFPkctk9v2vnbz-IMe0ZZO2FJEpX72FaNnEfpE/edit#heading=h.9hlre723kszb
- Hake sent follow up to mailing list as promised.
- [Andy] SanityCheck overview by Foundries.io.
 - <https://ci.foundries.io/projects/zephyr/builds/5593>

- <https://github.com/foundriesio/ci-scripts/tree/master/zephyr>
- <https://github.com/zephyrproject-rtos/zephyr/pull/11851>
- Polls on GitHub every 90 seconds. Has different runs set for every build. First few do sanitycheck. Then a couple sample apps, sanity test nrf52 is bare metal (running on hardware) testing.
 - 1 server with 1 BLE Nano 2
 - <https://ci.foundries.io/projects/zephyr/builds/5593/sanity-test-nrf52/artifacts/console.log>
- Working to get consistent results.
- Link to JobServe project <https://github.com/foundriesio/jobserv>
 - <https://github.com/foundriesio/ci-scripts/blob/master/zephyr/archive.py>
 - High availability. Easy for everyone to connect too.
 - Note: in this set up building is decoupled with testing.
- What level of automation will be ideally implemented?
 - Still under consideration and discussion.
- [Peter] Suggested switching to the mailing list for specific questions. Mailing list is preferred over Slack.

Monday, March 25, 2019

Opens:

- Anas: We will consider moving meeting 2 or more hours earlier to accommodate more participation.
- Anas: We would like to consider a transformation or overhaul in the way we think about testing and how we approach in general. Put everything on the table and share ideas etc.
- What is tested and outputs.
 - General: Available universally, sustainable with clear roles and responsibilities, automated (as much as possible), would be good if accessible to community contributors.
 - Anas: Limited (gives a general OK) and expanded scope (more coverage, more hardware tests) options for PR's. Could consider selective or on demand hardware tests.
 - Consider using label to identify on demand expanded scope testing.
 - Need to identify hardware 'owners' who would be responsible for running tests on hardware.
 - Need to define what and how results are posted.
 - Based on results PR would be merged.
 - Longer term, dig into Hake's idea re interfaces.h
- Piotr: Suggested looking at the following items: Long running tests, sample testing, infrastructure and runners of tests.

- Hake: Presented the Jenkin's interface he is using for testing. Is open source.
 - Hake will send more information to the mailing list and include links so everyone can look into it in more depth.
- Piotr: Will submit bug for more discussion on failure in SanityCheck.

Monday, March 18th 2019

Opens:

- Peter:
 - STM32F2 Support. Working on model improvements to pass sanitycheck tests
 - PTP testing done with Robot/Renode (Sam E70)
- Hake:
 - Internal testing for RC2
 -

Monday, March 4th 2019

Opens:

- Robot Framework:

Monday, Feb 18th 2019

No meeting.

Monday, Feb 11th 2019

Attendees: Anas, Svein, Peter, Simon

Opens:

- CI image with renode to be released after feature freeze
- Simon will share more info about PTT when available.

Monday, January 28th 2019

Attendees: Hake, Peter, Anas, Simon

Opens:

Minutes:

- Renode support in CI still WIP
- Hake still discussing the test out format with Maureen
- Test ID Management:
 - In CI detect test ID changes and make them visible to reviewers
- Simon: started a setup similar to TCF
 - Use Qemu to test endianness
 - Start qemu in both modes
 - Simon to check if this code can be submitted
- Peter will provide examples of using Robot framework with Renode.
 - Later this can be abstracted with other simulation environments.
- Simon: PTT (based on Babelsim)
 - Plan is to open-source it
 - Currently deployed internally for CI checks before it is submitted.
 -

Monday, January 21st 2019

Attendees: Hake, Peter, Svein, Thea

Opens:

- Test ID Management
- Renode tests update
-

Minutes:

- Next steps for renode testing:
 - Need to integrate renode in ci docker image:
 - <https://github.com/zephyrproject-rtos/ci-dockerfiles>
 - Test in the zephyr tree with the new tag
 - Hifive1:
 - 3 tests failing
 - Passing in qemu and failing in renode: kernel.common
- Test IDs:
 - Now we have:
 - Net.websocket.v4_send_rcv_1
 - Freeze testsuite for a specific version
 - Change upload scripts to support new test cases and report unmaintainerd/renamed test cases.
 - Need to be able to go back in history and maintain old test cases

-

Monday, January 7th 2019

Attendees: Peter Zierhoffer, Anas, Hake, Simon

Opens:

- Peter Z. - Renode status update
- PR for test reports to support plugins

Minutes:

- Submitted a new renode sanitycheck integration PR that handles closing connection on failure.
- Boards to be supported:
 - Hifive1 - WIP
 - MiV - Done
 - Working on STM32F4 Disco (stm32f4_disco)
- Integration into Zephyr Docker Image:
<https://github.com/zephyrproject-rtos/docker-image>
- Later to be integrated into <https://github.com/zephyrproject-rtos/ci-dockerfiles>
- AI: Anas to review PR from Hake

Monday, December 10th 2018 - Testing WG call

Attendees: Peter Zierhoffer, Hake Huang, Svein Aga, Simon,

Opens:

- Peter Z. - Renode testing status update
 - Peter will push an updated PR and handle termination of renode process in renode itself.
 - Peter will join the meeting going forward to replace Michael

-

Minutes:

Monday, December 3rd 2018 - Testing WG call

Attendees:

Szymon Janc, Hake, Svein, Simon, Sathish

Opens:

Minutes:

- AutoPTS Estimations:
 - Maintenance: approx. 74 Hours/Month
 - Maintaining Bot
 - Running AutoPTS
 - Extending AutoPTS (for example Mesh support)
 - This also includes bug/regression fixing
 - Include BLE stack and Mesh
 - Includes bugs fixes in AutoPTS itself
 - Per upgrade: approx 52 Hours/Month
- Current PTS version support: 7.3
-

Monday, November 26th 2018 - Testing WG call

Attendees:

Szymon Janc, Alberto Escolar-Piedras, Grzegorz, Hake, Johan, Ruslan, Svein

Opens:

Andrei: Auto-PTS overview
Auto-PTS in Zephyr, next steps

Minutes:

Presentation of AutoPTS
Overview of AutoPTS bot

NB: PTS requires dedicated BT dongle and Windows

Where do we run AutoPTS bot? -> Needs to be located in some QA lab, where people can plug/unplug the USB dongle etc.

Maintainers of autoPTS: Currently Ruslan and Ted from Intel, proposing CodeCoup as well.

AR Szymon: CodeCoup will check how much resources required for the maintenance of the autoPTS/Zephyr and running the bot

AR Andrei and Ruslan: Enable Test WG members to be reviewers (Hake, Svein).

AR Andrei: Bring to TSC a question on whether we need to keep the bot running at the Zephyr master periodically

PTS Auto Slides:

<https://drive.google.com/open?id=0B5NybbZNGEEdSXhudFlqc3E1RV9SWUhiRjc3ak41UUZiaEJV>

AR Anas: Enable Hake to create test cases in testrail.io

AR Hake: Next week will propose a solution for a process utilizing testrail.io

Monday, November 19th 2018 - Next Testing WG call

Attendees:

Anas Nashif, Hake, Simon, Michael, Svein, Erwan, Inaky, Andrei, Peter Z.

Opens:

- Michael: Renode testing status?
 - a. <https://github.com/zephyrproject-rtos/zephyr/pull/11503>
 - b. AI Anas: Being able to run a board with different/multiple simulations (currently for FE310/HiFive1 it's QEMU but Renode can also do it).
 - c. AI Anas: Public qm docs to docs.zephyrproject.org.
 - d.
- Inaky: Inaky to demo tcf interaction
- Svein: Intro into PTS and architecture overview
 - a. AI Andrei: To provide overview
- Svein: Test plan next steps

- Hake:
 - a. Will testing working group own all the samples and tests? If not how could we category them? Currently we just take the available cases as is.
 - b. If we define a new test suite, I have concern whether we have enough resources to develop them. Pre my experiences, a dedicated and efficient team is required, can we afford?
 - c. I am not quite familiar with Zephyr development process, @Nashif, Anas can you help to explain the current process?
 - d. As Svein proposed, there are some equivalents for higher level requirements, system requirements/design, unit/component requirement/design in zephyr development, but I just can't find them, I know some of them a list in the issues on github, but this is typical scrum process. IMHO, the difference of scrum process and V-model is the timing, in v-modelling, everything is defined well before execution, but in scrum those are likely to change always. So the questions is whether we have enough resource to closely follow the developers.
- Hake:
 - a. Add testing WG stakeholders to testcase reviews
 - b.

Minutes:

-

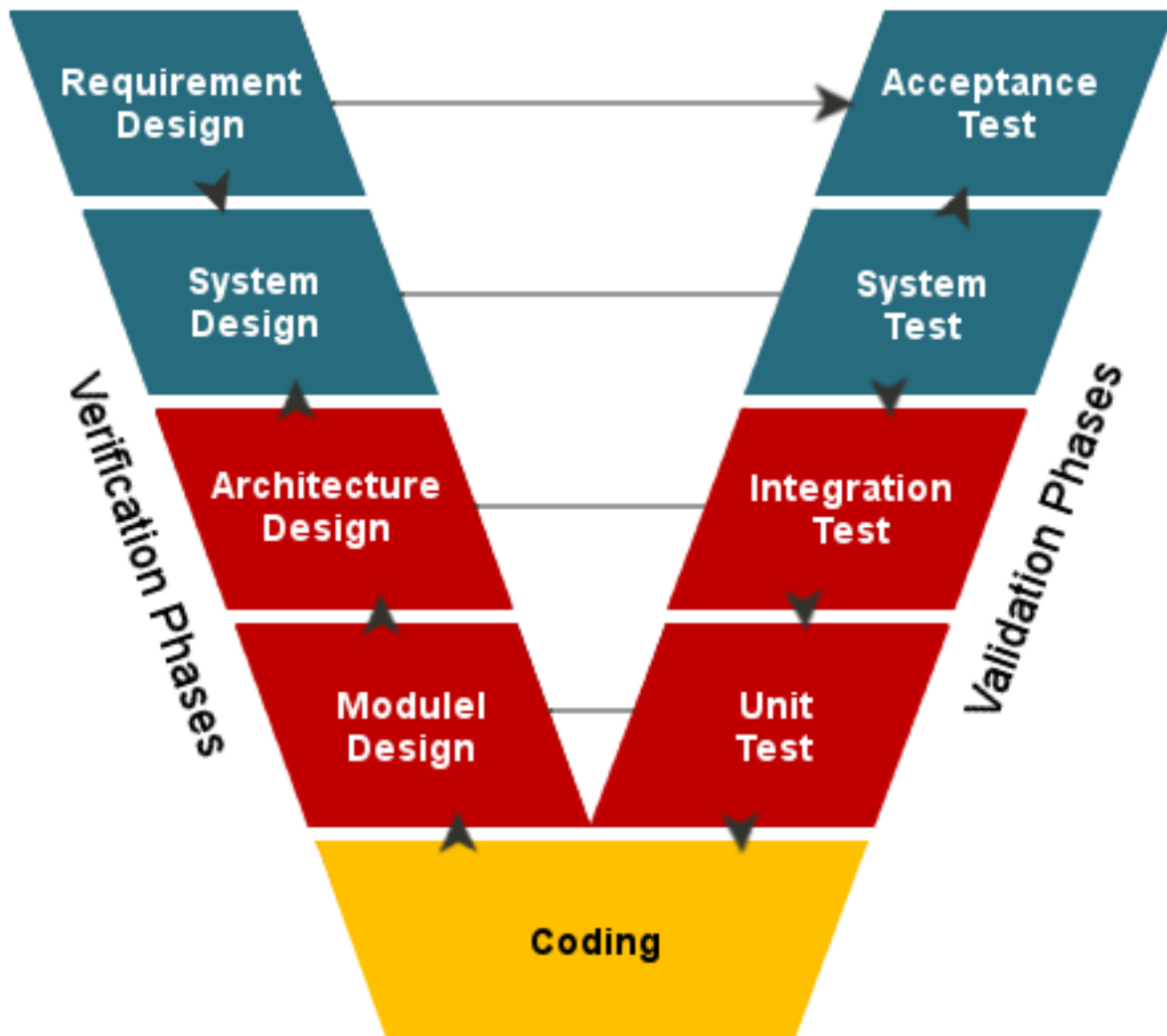
Monday, October 15th 2018

Attendees: Anas Hake, Simon, Svein, Michael

Opens:

- Hake:
 - need for a well defined process
- Project started with sanitycheck, a test runner that executes tests in Qemu and simulators, and mostly tests building
- Ztest is used for kernel and subsystem tests. (Is Ztest the right approach/solution)
- In CI we tests in Qemu and simulators (ARC nSim, renode, ...)
- Using internal Intel infra to run on hardware using TCF
- Short term plan:
 - Merge both pending PRs for test plans and then combine them into one test plan based on IEEE template.
 - Anas to merge
 - Hake to combine both documents into 1 plan
 - Anas to publish testrail upload script with
 - TCF plugin
 - Sanitycheck plugin
 - TBD: Bluetooth PTS

- TBD: Networking tests from Maxwell Pro
- AI TBD Triaging Process (Anas to find owner)
- Type of tests:
 - Acceptance tests (Examples, use cases, ...)
 - Conformance Tests
 - For example POSIX
 - Standards/RFCs
 - APIs
 - Platform Support/Compatibility
 - System tests (for subsystem)
 - Functional
 - Non-Functional
 - Integration Tests
 - Unit tests (for C files)
 - PnP



Monday, September 17th 2018

Attendees: Anas, Hake, Alberto, Vikash, Simon, Inaky, Svein

Opens:

- Hake: Test strategy, we need to dedicate some time to test plans and test documentation.
- Testing WG mailing list: <https://lists.zephyrproject.org/g/testing-wg>
- Sanitycheck:
 - Unit
 - System

- Integration Testing
- Subsystems
 - Bluetooth: Acceptance Testing (PTS)
 - Networking Maxwell Pro: Conformance Testing
- ISTQB:
 - Test Policy
 - Test Strategy
 - Master test plan, implementation for a given subsystem
- WG Chair, no volunteers yet, Anas to continue chairing for the time being.

Agenda:

- Inaky: Quick overview of TCF, detailed presentation to follow.
 - See TCF project: <https://github.com/intel/tcf>
-

Monday, September 10th 2018

Attendees: Anas, Hake, Alberto, Svein, Michael, Andrei, Vikash, Ulf

Opens:

- None

Agenda:

- Michael: renode/robot overview (slides: https://docs.google.com/presentation/d/1Z98qjWOS85OmXrFH0Kw7sGAojfyXYcbz1jIMmnTzaTg/edit#slide=id.g2283961e79_0_462)
- Which renode HW is supported by Zephyr?
 - AI Michael: provide a list.
 - Basic SAM E70 Xplained support
 - Many STM32 platforms (relatively easy to support more)
 - SiFive HiFive1
 - EFM32 (no radio for now)
 - Intel Quark

AI Follow Up:

- AI Anas: How test identifiers have been defined.

Topics for future meetings:

- Inaky: TCF overview

Monday, August 27th 2018

Opens:

- Please send a note if you can't join the meeting
- [Test Platforms](#)

Agenda:

- TCF was open-sourced: see <https://github.com/intel/tcf>
- Svein: Ztest status and future of unit testing
- Lots of issues being reported
- by TCF, see <https://zephyrproject.testrail.io/index.php?/plans/view/961>

Topics for future meetings:

- Michael: renode/robot overview
- Inaky: TCF overview

Monday, August 20th 2018

Attendees: Anas Nashif, Thea Aldrich, Alberto Piedras, Hake Huang, Vikash Kumar, Michael Gielda,

Opens:

- AI Michael: Discuss renode/robot in 2 weeks (Michael to present)
- AI Anas: How test identifiers have been defined.

Agenda:

- Define Default Test Platforms:
 - Platforms need to be fully supported
 - Platform need to have good feature coverage (MPU, Sensors, Power Management, Debugging, ...)
 - It should be easy to connect to test frameworks (TCF, Lava, sanitycheck)
 - AI:
 - AI Hake: Provide list of NXP platforms
 - AI Vikash: Provide list of Intel platforms
 - Intel_s1000, quark_se_c1000_devboard, Altera-Max10
 - AI Svein: Provide list of Nordic platforms
 - AI Ruud: Provide list of Synopsys platforms
 - AI Erwan: STMicro
 - AI Michael Rosen: for TI
 - AI Nate: for SiFive

- Get familiar with TestRail
 - AI Everyone: login to testrail and play with it. Provide feedback and ideas how to use it with Zephyr.
- Define Triaging Process
 - After test runs are imported into testrail, collaborate on identifying bugs and report them to GH issues. Each platform is owned by a member who is responsible for the triaging/retesting and moving things forward.
- Provide based scripts to upload results to TestRail (AI Anas: provide script)
 - Support uploading junit based test results into testrail
 - Create a Sandbox project for testing and experimentation
- Define process for uploading results to TestRail Via a Git Repo where XML files are stored and uploaded all at once.
 - Run tests on a special tag or commit
 - Create a test run for the tag
 - Upload results by owners
 - Create process and define how to share output of testing results per tag/release.
- Create Test Documentation following industry standards
 - Test Plans
 - Test Reports
 - Need owner

Kickoff Meeting

https://docs.google.com/presentation/d/1RkYEPEom8q2jZpX_-3AjtaQ_v-NiyPrJDzTAy3VVJjk/e/dit#slide=id.g3e5a50c63e_0_25

Goals:

- Work toward 1.14 (LTS)
- Define a project-wide testing and validation process and strategy
- Define “supported” platforms
- Increase hardware test coverage on “supported” platforms
- Add more scenario and driver tests
- Establish a bug triage process
- Create Test Documentation following industry standards
 - Test Plans
 - Test Reports
 - ...

- Improve Code Coverage (gcov)

Process:

- Self Driven
- Participation:
 - At least one member from each participating org
 - A WG Chair/Rep is needed to drive the group activities
- The WG reports to the TSC Progress on activities
- Share reports and issues
- Define cadence and scope for testing

Current Status

- Zephyr has tests for most subsystems
 - Kernel
 - Networking
 - Bluetooth (PTS)
 - Other subsystems

Next Steps:

- Define Test Platforms
- Get familiar with TestRail
- Define Triaging Process
- Provide based scripts to upload results to TestRail (Anas)
- Define process for uploading results to TestRail Via a Git Repo where XML files are stored and uploaded all at once.