



DTVKit Technical Steering Committee - 25th April 2018

Present: [KW] Karl Wood (DTVKit), [PE] Phil Evans (DTVKit), [AF] Andrew Frost (Harman), [HC] Harriet Clarke (OBS), [CA] Chris Aldworth (OBS), [SF] Steve Ford (OBS)

Phone: [JN] Jason Nash (OBS), [AS] Adam Sturtridge (OBS)

Next Meeting: October 2018

Items

1. Actions from the previous meeting

a. **DTVKit Github is migrating to teams of moderators and teams of companies. Currently, anyone can accept a pull request.**

- i. DTVKit now have separate teams for each company. Moderators are the only people who can write to repositories, and teams can only read.
- ii. Please note that we have found a minor issue with this - If you have a fork of a repository, you will no longer be able to push to this fork, unless you are a member of the company where the forked repository is stored. If this is an issue, please get in touch with the appropriate company, and ask to be added as a user of their team.

Action Closed

b. **Individual access to Github should be reviewed to prevent unauthorized users accessing the code.**

- i. DTVKit have allowed company accounts up until now. This is now not permitted. Individual accounts need to be used, and regularly checked to ensure the individual has not left the member company. A forum post has been added to ensure all members are aware of this

Action: PE to get in touch with Voxtok to find out what their ideas for support are regarding HBBTV and what they have planned for HBBTV in the future.

c. **Moderators/Moderation**

- i. [PE] Discussion surrounding whether HBBTV 1.5 is becoming less relevant. It is not a long term problem that we do not have a moderator for HBBTV 1.5, as the take up of 1.5 is going to shortly disappear. PE does not think it is necessary for finding another moderator for HBBTV imminently.
- ii. Steve Ford (OBS) is currently the only moderator for HBBTV, but

considering he is the only one currently making changes, he is happy to also be the only moderator.

Action: Closed due to only seeing the work for HBBTV reducing over time.

d. DTVKit Guidelines for upstreaming large changes/contributions

- i. It can take a moderator weeks to check any large changes on Github, however it would be very difficult to break down a large chunk of code into sections, as you need to wait until the platform layer is ready until you can do anything with it.
- ii. JN - Depending on the quality of the code, it would be up to the members to take it, use it, and fix it.
- iii. PE - if the code is not in a fit state to be moderated, it should be rejected until it can be easily moderated.
- iv. CA - Should the company providing the platform code provide evidence it has gone through testing?
- v. SF - We need to determine what would be done on a case-by-case basis.
- vi. OBS have a test harness which allows to test the platform code through unit testing.

Action: OBS to review their test framework, and decide whether they would be happy to share their unit tests with DTVKit.

e. Roadmap - Android support for DTVKit

- i. Forum post called "New Features" has been added

Action Closed

f. Test Suites and Compliance

- i. A forum area for DTVKit Testing has been added
- ii. HC and CA from OBS spoke to STB-Tester and had a demo of their portal application. STB-Tester seems to be the way forward for testing the application side of DTVKit.
- iii. PE - We need a firm understanding about what we need from a testing perspective, and what is owned by OBS/DTVKit. What is going to be released into DTVKit? We need a policy about how we are going to handle testing.

Action: Arrange a sub-group meeting for those involved in testing. Need to determine what companies want from testing, and if DTVKit need to budget for testing.

g. DTVKit Platform Layer Ownership

- i. PE and SF had a discussion about this before the meeting.
- ii. The conclusion is that in terms of a snapshot release of the platform code, then DTVKit would own it. This would then be put into a separate repository on Github. If someone wants to change it, then they can. DTVKit would only one that one snapshot.
- iii. Agreed that there would be separate repositories on Github for each of the platform layers.

Action Closed

h. Budget Discussion

- i. PE put through the budget to the Governing Board in December 2017.

Action Closed

i. Harman Media Engine Proposal

- i. A forum post was created, but has not had any response to yet.

Action Closed

j. Mantis Github

- i. There is a generic account called DTV-Kit. There was some confusion surrounding what this was, however it has been discovered that this is the account that owns the organisation on Github, DTVKit.

Action Closed

k. Roadmap

- i. OBS have made Android available to DTVKit
- ii. JN created a discussion on the forum regarding Android in DTVKit

Action Closed

l. Mantis

- i. OBS are still looking into notification support on Mantis

Action: Still Open

2. Android

- a. OBS have integrated Android onto the DVBCore Engine in DTVKit. This includes an extraction of the PC layer which uses Binder to talk to DVBCore. It can channel change, zap, and includes EPG and Info. It has been released as source code to DTVKit. It is currently within a private repository on Github, however if a member wants access to it, they only need to request it.
- b. The Android repository will soon become public to DTVKit members, once the code has been cleaned up.
- c. This repository will be moderated in the same way as the other repositories are for DTVKit.
- d. DTVKit want to be able to test against Android P when it becomes available

Action: Proposal to appoint moderators for Android. Discuss this with Andrew Frost (Harman) and Joshua House (OBS) to see if they would be happy to be assigned as moderators.

3. CI+ ECP

- a. OBS have done a reference implementation of CI+ ECP. They have taken it as far as they can, however without a willing contributor of a hardware platform, it is difficult to test. Most of it is run on a standard processor.
- b. It has a trusted execution environment for ECP
- c. It has been proven on the desktop, using standard emulation for TEE.
- d. Available tests have been run for CI+ behaviours. However, it is hard to verify without hardware.

4. HbbTV 2.0.0 Voxtok

- a. Voxtok have not joined the discussion

Action: PE from DTVKit to speak to Joel from Voxtok regard HBBTV 2.0 support

5. OBS DTVKit test streams

- a. Making progress on these. Some streams have been created, however the stb-tester scripts which will provide the tests are yet to be created.
- b. OBS have spoken to Inview who have said they are happy to test the streams, once they are ready. They will test them on their test harness
- c. DTVKit and OBS need to put timescales on when the test streams should be complete by, and what would be required from them.
- d. Discussion surrounding whether there will be some basic and some premium tests available to the DTVKit members.

6. Raspberry Pi's in DTVKit

- a. There has been a separate meeting regarding this. Please see minutes on the DTVKit Forum

7. Mail Lists

- a. These do not get used anymore

8. Forum

- a. Use the DTVKit forum for any relevant comments

Action: DTVKit to look into a weekly mail to all subscribers, for any changes on the forum

9. Mantis/Github

- a. No comments

10. Roadmap

- a. Roadmap includes Android, ECP, Media Framework, Test streams and the Hilsilicon porting layer, which should be delivered next month.
- b. We now have four new members: Hisilicon, Inview, Freesat and RTE, plus in deep discussion with Montage and LNT Technologies
- c. We have maintained 100% membership this year

11. Test Suites

- a. No comments

12. Next Release Schedule

- a. September 2018

13. Mantis Tickets

- a. CA to close test tickets
- b. Mantis-148 - Close for now
- c. Mantis-247 - Keep open. HBBTV fixes still need to be pushed. Can be closed once pushed.

- d.** Mantis-316 - AS to review ticket and close if possible. If action is required, let JN know
- e.** Mantis-502 - AS to review
- f.** Mantis-435 - Keep open. Needs time to implement
- g.** Mantis-686 - Nearly complete. There is a more recent ticket which breaks this down into smaller chunks, and this will be pushed soon.
- h.** Mantis-537 - There is a limitation on the desktop build. AS to push a fix for this. Leave open until the fix is made.
- i.** Mantis-501 - This is still an open ticket, and needs to be looked into when someone has the timescale for it.
- j.** Mantis-592 - Assign this to SF. Look into closing the ticket when HBBTV is fixed
- k.** Mantis-295 - Keep open and assign to SF
- l.** Mantis-264 - AS to close
- m.** Mantis-273 - This is part of the Freesat work and has not been pushed yet. Close once pushed.
- n.** Mantis-508 - SF has a fix for this, not yet pushed. Close once pushed.
- o.** Mantis-442 - There is a fix for this, which has not yet been pushed.

14. AOB

- a.** Next meeting date: October 2018