Automating Freeview Play device certification

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How it all started

- **Test automation** idea – born in **July 2014**
- No test automation tools available – had to **build it ourselves**
- Initial 2 concepts failed – **3rd attempt was a success using self-built hardware**
- Suitest **publicly** presented in **May 2015** and later that year at the HbbTV Symposium
In the mean time

- Massively improved and **increased feature set** – **device management**, platform support Tizen, webOS, Android TV, Apple TV, Xbox One, Roku etc.

- Working with **Digital UK since 2016** – test automation for **Freeview Play (FVP) apps**

- **Idea** for a new use case - **automated** manufacturer **self-certification** of devices for FVP apps
What does certification mean for manufacturers?

- **50+ device certifications** in Europe alone
- **Certification effort** example for one manufacturer per year – **up to 4 months** using 3 to 4 people for **full UK certification** of 1-2 platforms (LG releases 3-4 platforms per year).
- **2-3 test cycles** including bug fixing for each content **player**
- Freeview Play and BBC certifications – highly **complex** and **time-consuming**
How is FVP player certification done today?

- **Digital UK** – provides spreadsheets with test scenarios that must pass

- **Content provider (CP) player tests** - Freeview Explore, CBS, CBS - Horror Bites, UKTV Play, STV Player, All 4, ITV hub and Channel 5

- Manufactures – execute **tests manually**, check results visually, manual result collection

- Bugs found by testing – bug fixing process, **re-testing manually**

- Test scenarios **passed** – spreadsheets are sent to **Digital UK**

- **15-20** manufacturers – currently manually self-certifying
How can FVP player certification be automated?

- Digital UK - shares tests with manufacturers via Suitest
- Manufacturer - pairs device with his Suitest account
- Manufacturer – executes the self-certification process with the shared tests
- Manufacturer - receives the results of each test cycle within minutes
- Cherry on top – reuse tests for firmware updates
What is the labour saving?

Manual testing:
- 8-10 h
- \( \times 2-3 \) test cycles
- \( \times 1-2 \) platforms
- \( \times 8 \) content players
- 128-480 h

Automated testing:
- 1-2 h
- \( \times 2-3 \) test cycles
- \( \times 1-2 \) platforms
- \( \times 8 \) content players
- 16-96 h
Summary

- Suitest becomes a platform for application based certification
- Up to 75% labour saving
- Simplification of the certification process
THANK YOU
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