Automated testing frameworks for embedded devices

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Definition

Testing framework elements. Modified from [1].
Why?

- Testing vs other methods
- Need for framework?
- Need to automate the framework?
Test suite generation

- Many of studies
- but still more work needed [2]?
- and maybe not even worth it [3]?
GUI testing

- Record/playback
- Scripting type
- Screen capture
SUT and its environment

1. Real environment
2. Inputs and outputs
3. Inserting testing modules

- Additional equipment?
Test runner

- Scheduling
- Sending of the commands
- Configuration
- Platforms
Test reports

- Not much research
- Need to automate? Santiago et. al [3] and Bansal et al. [5]
- Format: HTML/XML
Conclusions

• Simple in theory, yet complex
• Embedded vs PC
• Coverage of the resent research
Sources


Extra: How this is related to thesis?