

# Issues and comments on current regression tests from the survey

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# Test suite structure and architecture

- Difficult to setup the test  
(too many paths to be setup, applying to other switches is difficult)
- Only 4 ports are tested and is a fixed (hard coded) value.  
“start port” is also fixed.
- Receiving stray packets causes failure.
- Less modularity (datapath and controlpath are tightly coupled)
- Affect many parts when the spec has changed  
(Need to modify many similar functions on libraries)
- Current framework doesn't expect controller connection breakage, or having multiple controllers.
- [comment] Want to have higher level API and easier mechanism to write a test case  
(e.g. generate a packet with parametric description, prepare libraries for common tasks).

# User interface

- Error messages are not so helpful.
- No debug mode
- Incoming/outgoing packets are not logged.  
Not easy to debug when a test was unsuccessful
- Testing item is rigid.  
Can't specify intended tests (One test only, previously-failed tests only, ...).
- Doesn't have an option to exit the test when a test case is failed
- Some tests take long (>1 min.).  
While testing, you never know if it got stuck or still testing.

# Test contents

- Under 30% coverage
- Almost no deep test
- Almost no irregular condition tests
- [comment]Nice to have protocol conformance tests

# Coding

- Too much repetitive / similar code.
- The abstraction is difficult to extend.  
Test modification affects multiple parts in libraries.
- To run a similar task, some tests use libraries and others use their own scripts.
- Some functions have many similar arguments.
- Code tracing (with back and forth libraries and scripts) is very hard.
- [comment]Python is much more common and can expect more external contribution with it.
- [comment]Standard testing framework allows us to concentrate on tests and small supporting libraries.