



Linaro Test Suites example usage

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Linaro Test Suites - refactoring

- Possibility to execute outside of LAVA
- Test scripts detached from LAVA test definitions
- Produce LAVA friendly text 'result.txt' file
- Move LAVA-specific steps to test definition file
- Local 'test-runner' script
 - Supports single tests
 - Supports test plans
- Migration completed for non-android, android is still in progress
- <https://git.linaro.org/qa/test-definitions.git>



Writing New Test Case

[automated/doc/test-writing-guidelines.rst](#)

- Test script should be self-contained

- Install dependencies and config test env.
- Run test, collect and parse test output
- Save test result to text file 'result.txt' in the following format

```
test-case-id pass/fail/skip
```

```
test-case-id pass/fail/skip measurement
```

```
test-case-id pass/fail/skip measurement units
```

- Test definition file

- Used for test run in LAVA or with local test-runner
- Define test parms that can be overwrite from LAVA or local test-runner
- Run LAVA-specific steps
 - Upload test attachment to [Artifactorial](#) when needed.
 - Send the results in 'result.txt' to LAVA

- Android

- Run tests over adb

Test Case Examples

[root/automated/android/cts/cts.yaml](#)

[root/automated/android/cts/cts.sh](#)

[root/automated/linux/lemp/lemp.sh](#)

Local execution (automated tests)

- Running single automated test with test script
- Running single automated test with 'test-runner'
 - Dependencies
 - Environment preparation
- Running an automated test plan with 'test-runner'

[automated/README](#)

- Install python pexpect and yaml module

- Setup env

```
# . ./automated/bin/setenv.sh
```

- Run single test

```
# test-runner -d automated/linux/smoke/smoke.yaml
```

- Run through test plan

```
# test-runner -p plans/linux-example.yaml
```



Local execution (manual tests)

- Manual tests should be executed only using test plan
- Execution happens on the host, not on the Device Under Test
 - Install python pexpect and yaml module
 - Setup env

```
# . ./automated/bin/setenv.sh
```
 - Run single test

```
# test-runner -d manual/generic/linux/reboot.yaml
```
 - Run through test plan (choose only manual)

```
# test-runner -p plans/linux-example.yaml -k manual
```
- Use internal shell for execution:

```
> help
```

```
Documented commands (type help <topic>):
```

```
=====
```

EOF	description	fail	next	quit	start
current	expected	help	pass	skip	steps



Case study - ERP 16.12 testing

- Executing tests
 - Automated
 - Manual
- Collecting environment information
 - Firmware version
 - Kernel version
 - Compiler version
 - Distro version
 - List of installed packages
 - Tests versions
- Inspecting test results
 - Check for missing results
 - Check for duplicated results
- Requirement coverage
 - Check if all tests were executed
 - Remove possible duplication in results
- Preparing reports



The Next Steps

- Migrate the rest Android test cases
- Migrate test jobs to LAVA V2 (depends on the availability of V2 devices)
- test-plan: align the scheme with LAVA V2 job definition
- test-runner: support test run via ssh
 - More control to the device, such as reboot between tests
 - Make it easier to use on OE-based builds
 - Reduce resource overhead
- Rename test-definitions.git to linaro-test-suites.git (?)





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Questions?



Thank You

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