



Canonical Driver Test Suite



What is Canonical Driver Test Suite?

- Custom tools for delivering a set of tests to OEMs, ODMs, and IHVs for use on prototype hardware and drivers.
- Flexible GUI based testing framework.
- Easily extensible set of test cases.
- Resources for getting started and continuing support.

Why a Driver Test Suite?

- Expanding existing partnerships with OEMs, ODMs, and IHVs.
- Providing Canonical requirements on IHV driver development as early as possible.



How have we implemented Driver Testing?

- Leveraging existing tools (Checkbox, Plainbox).
- Customized interface to provide users with a more interactive test environment.
- Enhancing existing test suites to more completely cover existing and future requirements.

The screenshot shows the 'Run Manager' window of the Canonical Driver Test Suite. It features a table with the following columns: Test Case Name, Status, Elapsed Time, Re-run, and Console Output. The test cases and their results are as follows:

Test Case Name	Status	Elapsed Time	Re-run	Console Output
touchpad/horizontal	✓	00:02	✕ ✓	☰
touchpad/multitouch-rightclick	✕	00:03	✕ ✓	☰
touchpad/multitouch-manual	→	00:00	✕ ✓	☰
touchpad/singletouch-automated	→	00:00	✕ ✓	☰
touchpad/multitouch-vertical	✓	00:01	✕ ✓	☰
touchpad/vertical	✕	00:01	✕ ✓	☰
touchpad/basic	✓	00:02	✕ ✓	☰
touchpad/multitouch-horizontal	→	00:02	✕ ✓	☰

At the bottom of the window, there is a progress bar labeled 'Completed (00:34)' showing 100% completion. Below the progress bar are three buttons: 'Exit', 'Re-run', and 'Results'.



How can CDTS help me?

- Discover driver defects early in the development process
- Easily detect missing features that would prevent your driver from being certified under Ubuntu
- Early alignment with certified hardware requirements
- Track your progress toward Ubuntu compatibility as you develop your driver

What is the value of CDTS?

- Access to Canonical requirements for IHV driver development as early as possible.
- Reducing the effort required to enable systems:
 - Ability to quickly check the status of features by simply running a set of tests (no need to dive in tons of docs)
 - Vendors can benefit from additional test coverage by adding CDTS test scripts to their internal regression test suite
 - Automated regression testing
- Reducing occurrences of "Ship Blocker" level events due to driver updates or incompatibilities.

Who should be using the Driver Test Suite?



- IHVs
 - New hardware components and their associated drivers for systems that will pre-install Ubuntu.
 - Driver updates for hardware already in the field
- ODMs
 - Ensure the hardware you have selected for new product lines is fully Ubuntu compatible.
 - Assess the level of support for new components received from IHVs
 - Confirm driver updates do not affect the functionality of systems already shipped
- OEMs
 - Evaluate new hardware designs destined for Ubuntu pre-install.
 - Test upcoming LTS releases on pre-release hardware



Supported Components

- Available in current version
 - Graphics
 - Wireless
 - Ethernet
 - Firmware
 - Touch
 - Audio
 - USB
 - Media Cards
 - Webcam
 - WWAN
 - System Integration



Where do I start?

Where do I get the tools?

- The toolset and all associated documentation is available to all [Technical Partner Program](#) members from certification.canonical.com using your standard login. For additional information on becoming a member of the TPP, please see the link at the end of this document.

Where do I submit results of my testing?

- Once your test run is completed, you can save the final result report to your disk. Your Canonical Account Representative can then review the results with you and provide you next steps in troubleshooting any issues.

Links



- Learn more about the Technical Partner Program Guide
 - https://assets.ubuntu.com/sites/ubuntu/latest/u/files/section/partners/Technical_Partner_Programme_v2.pdf
- Join the Technical Partner Program:
 - <http://www.ubuntu.com/partners/contact-us>
- Certification Site Home Page
 - <https://certification.canonical.com/>