

Greenlight - Manufacturing Test Application

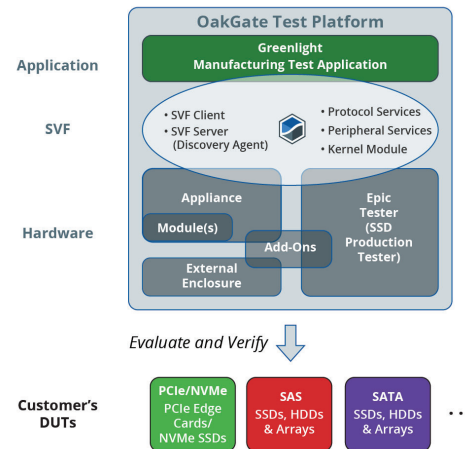
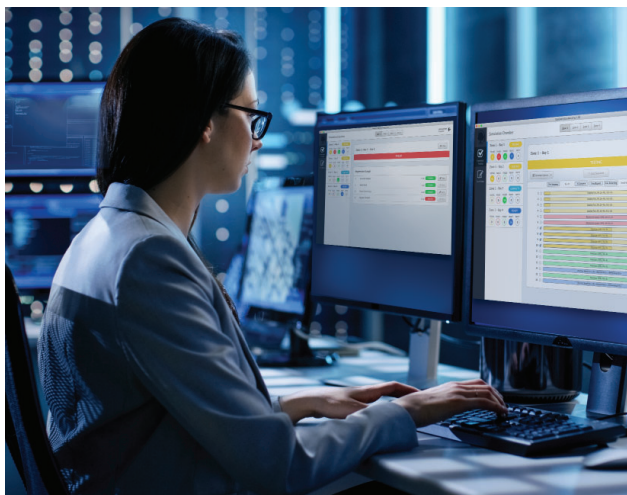
"The most efficient way to test the reliability and stability of SSDs in a production environment"

Greenlight is an advanced manufacturing test software that brings the power of the OakGate test platform to the world of manufacturing through an innovative, efficient, powerful, and easy-to-use test application for storage devices under test (DUTs), such as solid state drives (SSDs). Greenlight runs on top of OakGate's Storage Validation Framework (SVF) engine, the most advanced storage testing software, allowing the DUTs to be fully evaluated and verified. The SVF interfaces to OakGate appliances, as well as to several popular SSD production testers, such as the OakGate Epic Testers.

Intuitive Application Interface

Designed from the beginning to be simple to use, yet advanced in its capabilities – the user interface is ideal for the production floor, as well as for development and field failure analysis.

- User interface designed for ease of use
- Optimized views for operators and engineers
- Test-board-centric views, where the interface directly reflects the physical test board layout, helping operators maintain accuracy when populating, testing and removing good/failed boards from the system



Powerful Manufacturing Engine

Planned expressly for manufacturing environments, where the need for simultaneous testing across hundreds of devices is paramount and each device needs to behave atomically without affecting other devices, a new manufacturing engine was crafted. It provides each DUT with its own thread of execution, and independent access to the underlying test framework.

- Run independent tests across hundreds of test sites simultaneously
- Control every aspect of the renowned SVF to fully evaluate and test the device

Operator and Engineer Modes

To maintain simplicity on the production floor an operator mode is designed specifically for operators, where only the main controls and status information are displayed for test execution. This mode provides the operator ease-of-use, efficiency, and less room for errors.

For development engineers, additional controls are available in engineer mode, giving them access to the full capabilities of the application for test creation, execution, and debug.

Software Development Kit (SDK)

Greenlight is accompanied by a SDK, which gives manufacturing test developers the building blocks for complete control over the entire testing process.

- Complexities of the underlying test hardware specifics have been abstracted away, allowing for complete platform independence.
- Clean, robust, easy to use set of APIs that is portable across numerous different hardware configurations and environments.
- Provides complete access to the entire SVF engine.

Consistent Across Storage Protocols

The vast majority of the SDK APIs are consistent across all storage protocols. Therefore, many tests can be written for one protocol, and run “as-is” using another protocol without any changes or thought about protocol differences.

Tests that need specific protocol support can still be created in a manner that runs seamlessly across any protocol by using run-time checks to determine the DUT’s capabilities.



Portability Between Hardware Vendors and Between Design and Production Environments

Greenlight abstracts out the complexities of interfacing directly with each unique hardware platform, thus granting the customer the flexibility to switch hardware platforms as needed. Tests written and executed using one hardware platform executes seamlessly against another.

In addition to being portable between various production hardware environments, Greenlight is also portable to non-production hardware environments.

That is, customers are free to create tests in the development lab using an OakGate desktop appliance, and then use those exact tests on the production-testing floor. When failures occur, the failing tests can be brought back to the lab for analysis to the root cause.