

TERADYNE

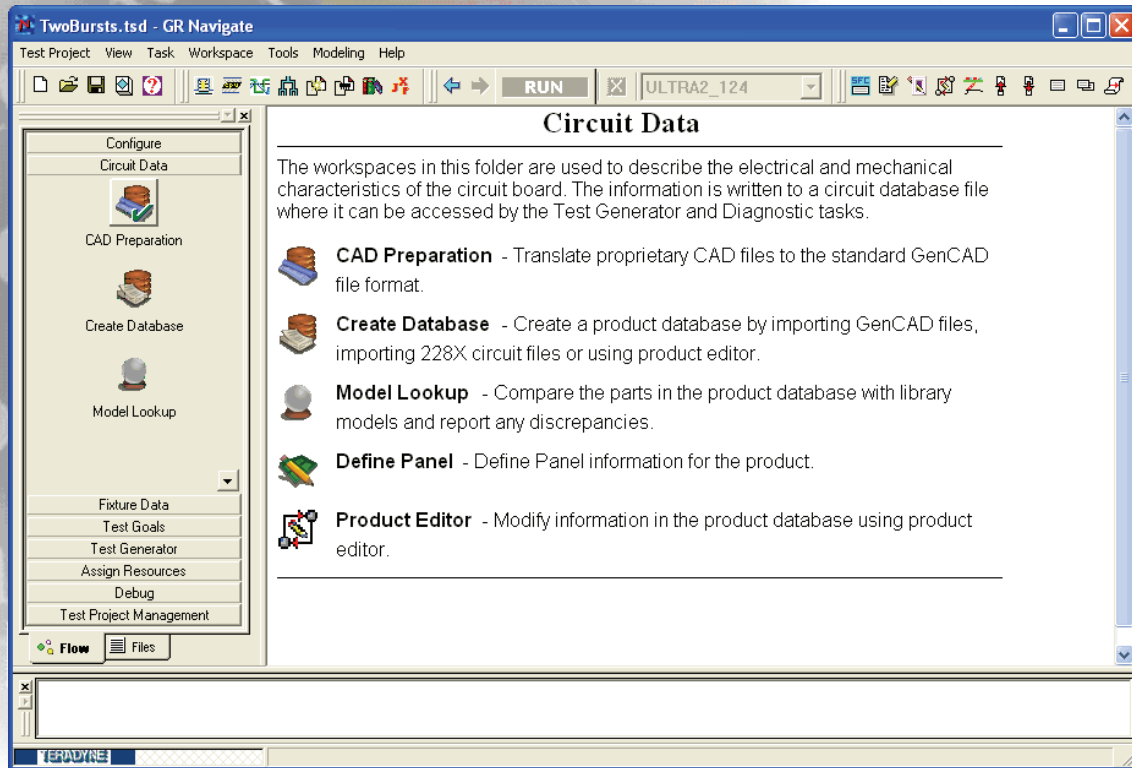
BECAUSE TESTING MATTERS

TestStation™ Navigate™ Software



Integrated Software
Development
Environment

TERADYNE



Key Features

- Integrated software development environment for TestStation test programs
- Supports popular Windows operating system
- Comprehensive online help, tutorials, and electronic books
- Integrated D2B Alchemist software for performing CAD preparation activities
- Built-in project management features for archiving, restoring, copying, releasing, and viewing test projects
- Simple browser-like user interface
- Customizable sidebar allows selection of a test project flow or a test project file view
- Built-in test work flows for specific development activities (new, import, ECO, panel, and model development)
- Built-in test project history tracks workspace activities
- Ability to directly import key GR228X legacy files into the Navigate™ test project
- Visual icons indicate which workspaces have been run and if there were any errors or warnings
- Built-in runtime simulator software allows users to perform test program debug activities on offline development PCs
- Ability to export Navigate data in GR228X file format to run on testers configured with previous versions of GR228X software

Product Overview

TestStation Navigate is the software platform for Teradyne TestStation hardware test platforms. It provides a powerful, easy-to-use, environment for developing and debugging board test programs. It uses the latest software technologies, like Windows object oriented databases, and a browser-like user interface to help programmers reduce the amount of time it takes to develop high quality test programs.

Key Benefits

Customers will benefit from the following features and capabilities of the Navigate software:

D2B Alchemist CAD Preparation

Teradyne's D2B Alchemist product is CAD preparation software that is integrated inside of Navigate. It has the following powerful customer benefits:

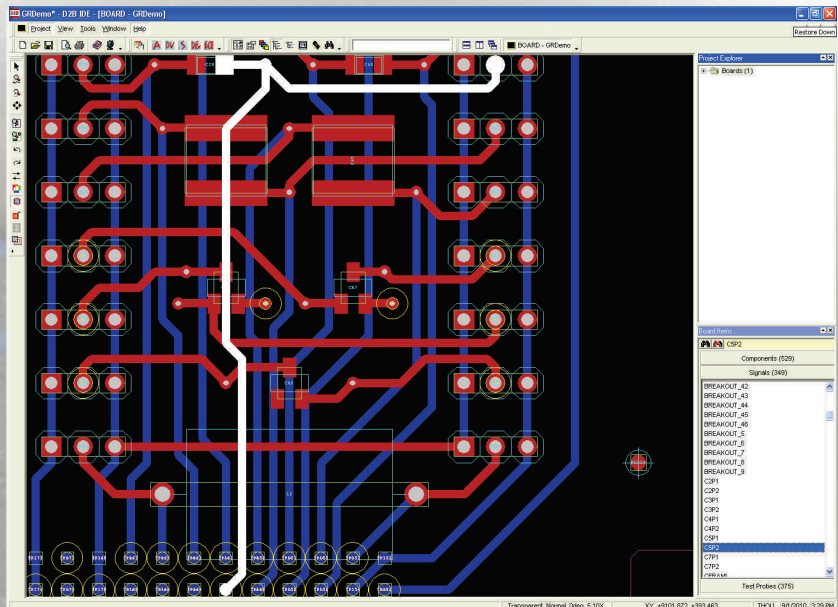
- Much simpler to learn and use than other CAD preparation software tools
- CAD translation software - CAD translations for different CAD design systems
- SmartBOM software wizard automates entry of data in Bill Of Materials files
- Fast and accurate probe placement solutions (ten to hundreds times faster than previous software)
- Automatic data correction software ensures data will not violate machine specifications

- Tester and machine outputs for all Teradyne in-circuit test equipment and software products
- Automatic generation of test fixture output files
- Fully compliant with GenCAM standard
- Provides a full-feature board and schematic viewer

Support for UltraPin and UltraPinII

The Navigate software supports the UltraPin and UltraPinII Driver/Sensor technology. The UltraPin and UltraPinII technology has advanced features. These features include:

- Revolutionary new backdrive analysis and control features that monitor and report voltage and current activity on the D/S pins
- Greater voltage accuracy for testing low voltage components provided by TestStation's SafeTest™ Protection Technology
- 26 programmable logic levels
- Greater short term backdrive capability



D2B Alchemist Window

Program Development User Interfaces

The Navigate software has an integrated development environment for performing test program generation and debug. The user interface was designed to show the user the steps in the development process and to provide visual indicators of the test project status. Benefits of the new development environment include:

- Faster learning curve for new users
- Visual indicators that show steps in the test development process
- Less reliance on file names and file formats
- Built-in test project management features
- Configurable development windows based on user preferences
- Visual icons and history database show test project status

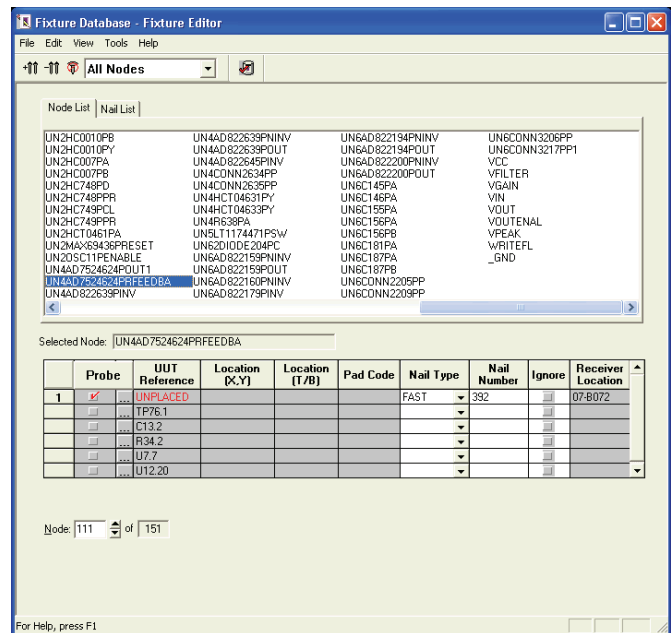
Comprehensive Product and Fixture Databases

The Navigate software stores all product and fixture design information associated with the board under test in object oriented databases. Information in these databases can be viewed and modified using powerful product and fixture editors. The product editor is a graphical spreadsheet editor and collection of software tools that allow you to create, view, and modify information in the Navigate product database. The fixture editor provides a spreadsheet view of the fixture information associated with each node in the fixture database. It can be used to view probe locations, nail information, and fixture status.

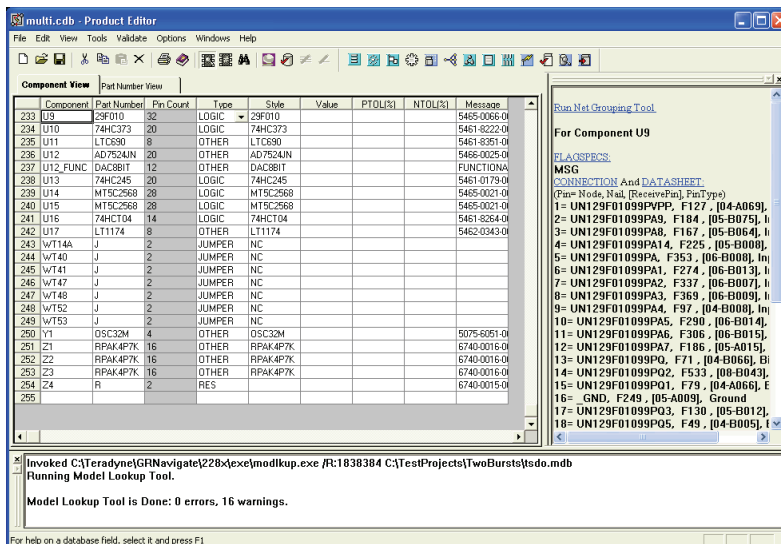
Automatic Test Generation Software

The Navigate test generators can automatically generate test programs in minutes. Developers have the choice of many test techniques:

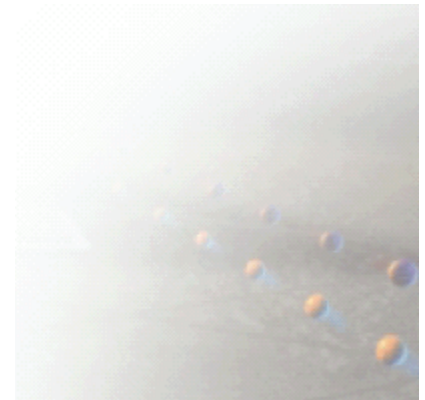
- Analog shorts and opens techniques
- Analog component measurements
- Unpowered, vectorless test techniques
- Digital power-up vector testing
- Mixed signal testing
- Boundary Scan tests
- PLD and FLASH programming

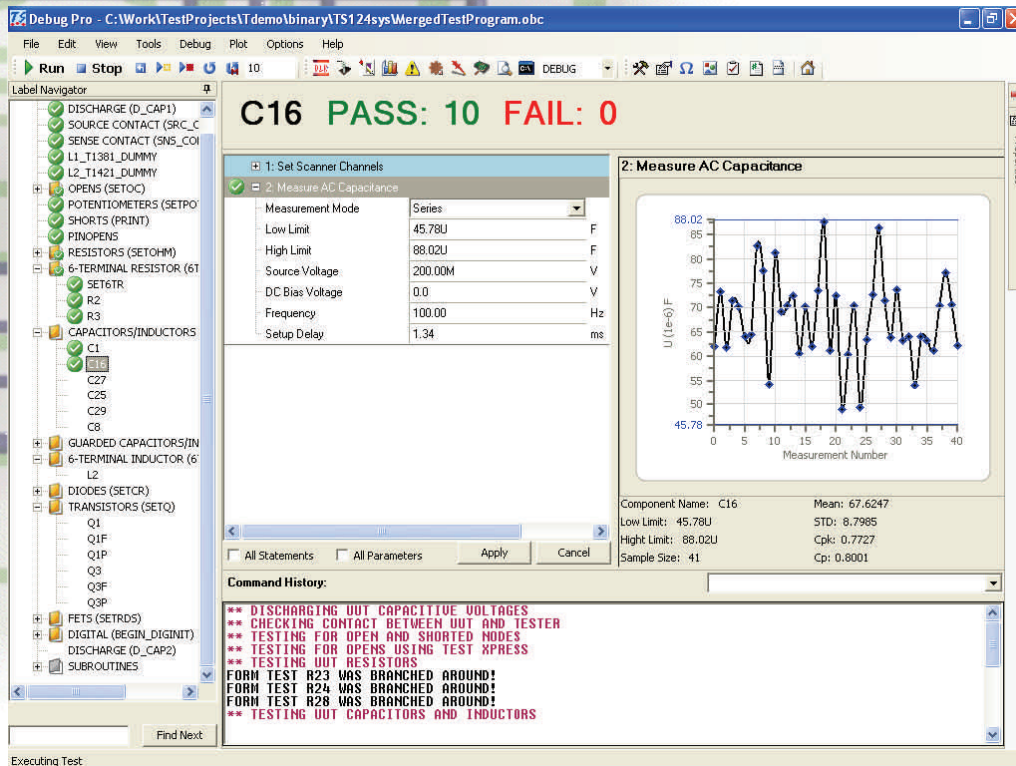


Fixture Editor



Product Editor



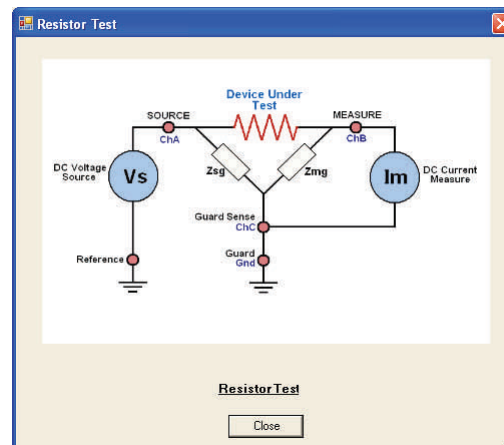


New TS Debug Pro Window

TestStation Debug Pro is Teradyne's new user-friendly window for debugging, developing and qualifying in-circuit test programs. Its graphical interface incorporates the latest software technologies to provide simple and intuitive access to TestStation's powerful features and debug environment. TS Debug Pro features:

- A **Label Navigator** that graphically displays all the tests in the program. Common component tests for resistors, capacitors, inductors, and others are conveniently grouped in folders. Status icons are used to clearly indicate the Pass/Fail status of each test. Operators can select individual tests to debug by clicking on them or by using built-in search capability.
- A **Statement Editor** displays all of the parameters available for selected tests and allows operators to easily select and modify those parameters using a mouse or simple keystrokes. The display can be further simplified to display only test parameters that the operator typically changes during debug activities.
- **Component and Property Information** windows display helpful information about board components, values, tolerances, pins, nets, and nails.
- A **Guard Editor** window shows test instrument connections and circuit interconnections associated with the device under test. Operators easily add and remove test guard points using the mouse.

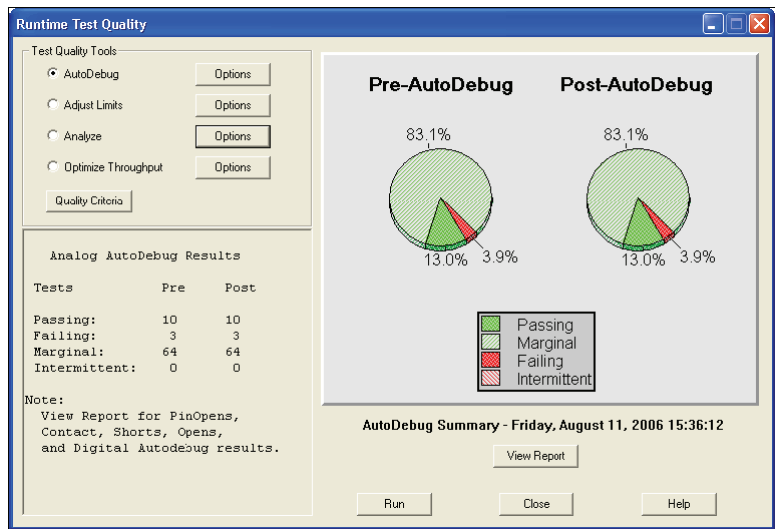
- A **Charting Tool** displays measurement results using run or histogram charts and reports test statistics like Mean, Std Deviation, Cp, and Cpk. Operators can view the charts to quickly determine the reliability of the test measurements.
- Customizable **Tool Bar** that provides access to powerful debug tools like board and schematic viewers, data collection charts, vectorless test programming, and test quality tools.
- An optional **Untranslator Window** allows long-time experienced users to continue performing debug activities using the familiar commands and keystrokes of the traditional Runtime debug environment.



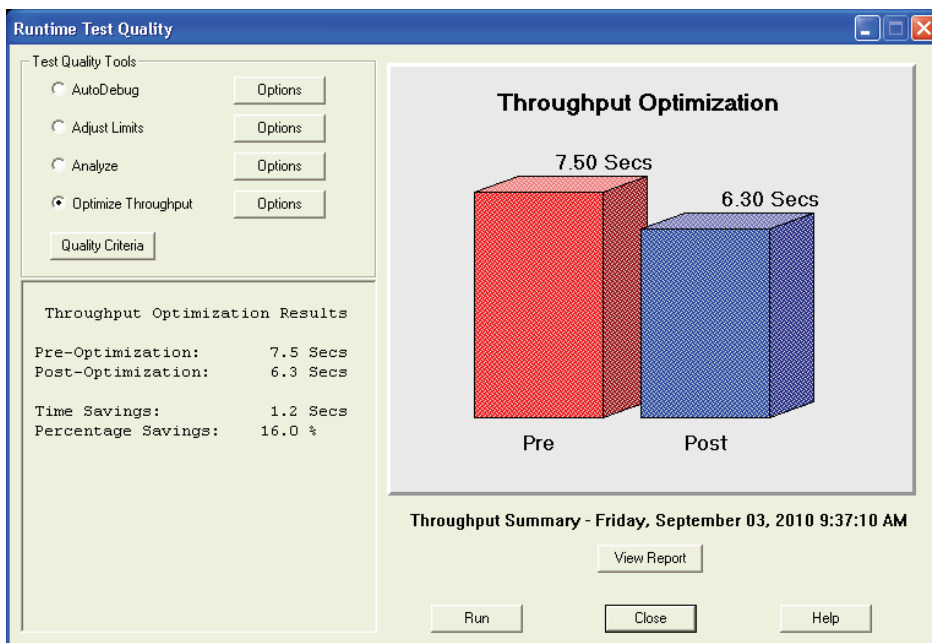
TestStation Test Quality Software

TS Debug Pro and Runtime System software have Test Quality features that can be used to automatically debug passing and failing component tests. This feature reduces the amount of time required by the test developer to debug their test programs and will produce test programs that have more accurate and reliable test measurements.

The Test Quality software analyzes measurements on a known good board and automatically debugs those measurements that fail to meet user-specified criteria for process capability (CP) and proximity to expected value. The Test Quality Autodebug options allow the software to adjust limits to meet specified reliability and accuracy goals.



Runtime Test Quality Tools

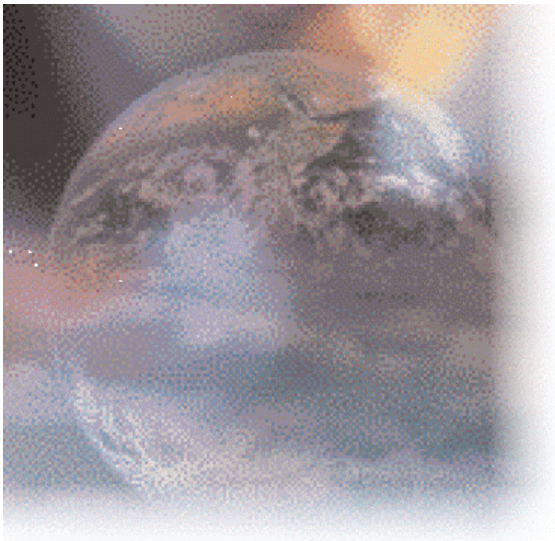


Throughput Optimizer

TestStation Throughput Optimizer

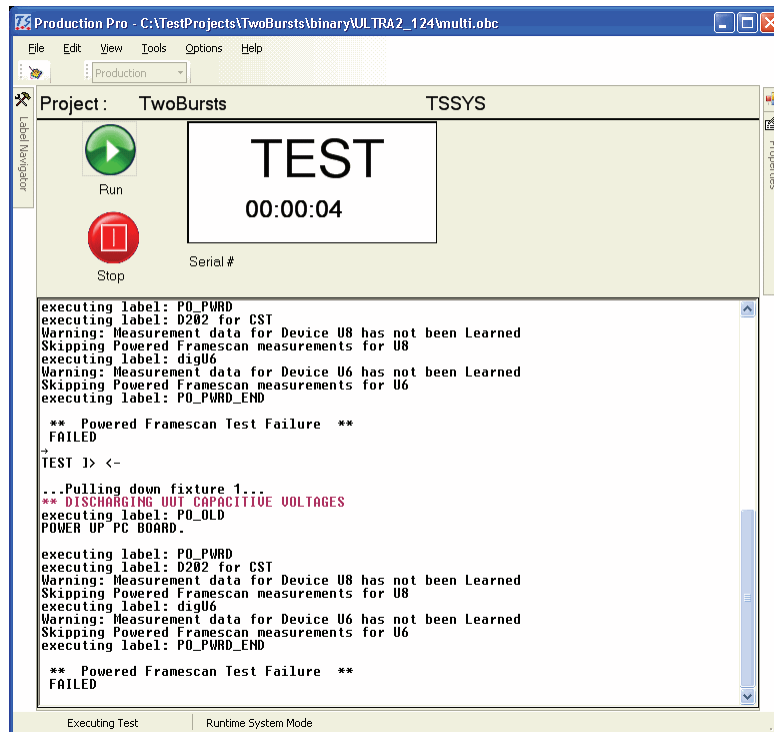
The Runtime Test Quality software has an optimizer feature that automatically analyzes a test program and makes changes that will optimize the program for maximum test throughput. This feature reduces test time and helps high volume manufacturers test more products.

The optimizer feature analyzes a passing board test program and adjusts instrument sample counts, settling times, delay values, auto-range settings, and test algorithms to achieve optimum test throughput. The software analyzes the affect adjustments have on the test measurements and automatically rejects optimization changes that negatively affect measurement accuracy and stability.



New TS Production Pro Window

TestStation Production Pro runs production tests. The new window is similar to the simple and intuitive design of the TestStation Debug Pro window. TS Production Pro provides production test operators with a modern interactive environment for accessing all the powerful production test capabilities of the TestStation test systems.



TS Production Pro Window

Teradyne serves the electronic industry across the full design, build, and service product life cycle. We enable our customers to build knowledge across their enterprises and put it all to work.

Worldwide Network of Service and Support

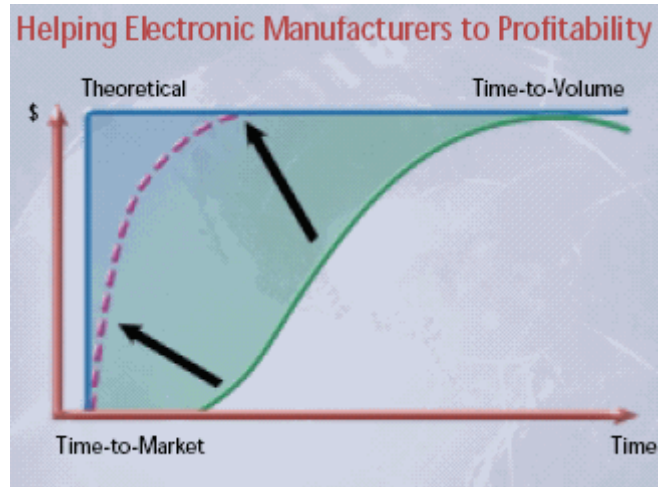
A dedicated, worldwide network of customer service and support professionals support every Teradyne product. With regional support and training centers located around the world, Teradyne offers local support and continuous training for all its customers. A full spectrum of services and customer support programs extends beyond the expiration of your original warranty.



Designed to Benefit the Electronics Manufacturer

Teradyne's Navigate software was designed to benefit Electronic Manufacturers in the following ways;

- The intuitive software environment allows users to become productive faster
- Shortened test program development time
- Shortened test program debug time
- Increased test program measurement reliability
- Increased test throughput
- Measurement data captured and made available across the enterprise



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