

EnGeniusTEST[®]

Test Automation Platform

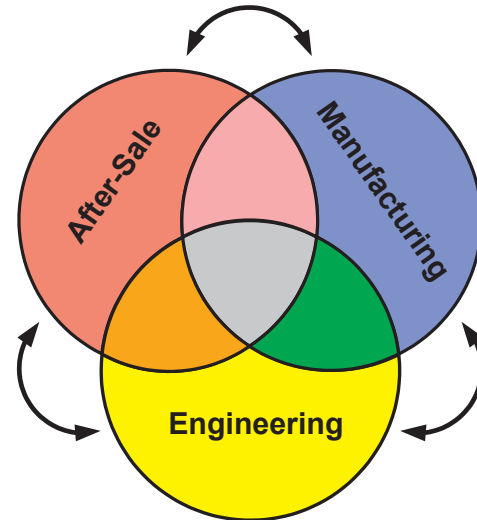
*Versatile Tool Suite
Promotes Rapid Development
and Deployment of Tests
for Modules/Systems*

Up until now, the process of designing tests and simulations for modules/systems involved many months of strategic planning and testing by teams of highly skilled engineers and software developers. EnGeniusTEST has altered that process. You can now quickly, easily, and cost-effectively translate your ideas into a working specification.

The EnGeniusTEST tool suite lets you simplify a complex process. EnGenius's software allows you to develop an executable specification to test a module's existing functionality. You can then run the spec, debug it, and modify it to suit your needs, while sitting at your workstation. It even lets you create simulations of modules that don't currently exist.

With EnGeniusTEST the possibilities for simulating, testing, validating, and diagnosing a system/module are virtually limitless. EnGenius's software enables you to easily explore variations of specifications, tests, and simulations as well as to rapidly modify tests and configurations.

EnGeniusTEST is a versatile tool suite that can be used during the entire lifecycle of a product: from development through manufacturing to customer service. In addition, the EnGenius TEST tool suite is scaleable: the same tool set can be adapted to a wide range of systems, from the simple to the complex.



Components

- Authoring
- Test Sequencing
- Runtime System
- Data Monitor
- Data Viewer

Applications

- Module development
- Module simulation
- Product validation
- Manufacturing test
- Diagnostics

Benefits

- Saves time
- Creates executable specification
- Scaleable
- Supports all makes, all models
- Integrated product suite
- Life-cycle reusability

EnGeniusTEST Author

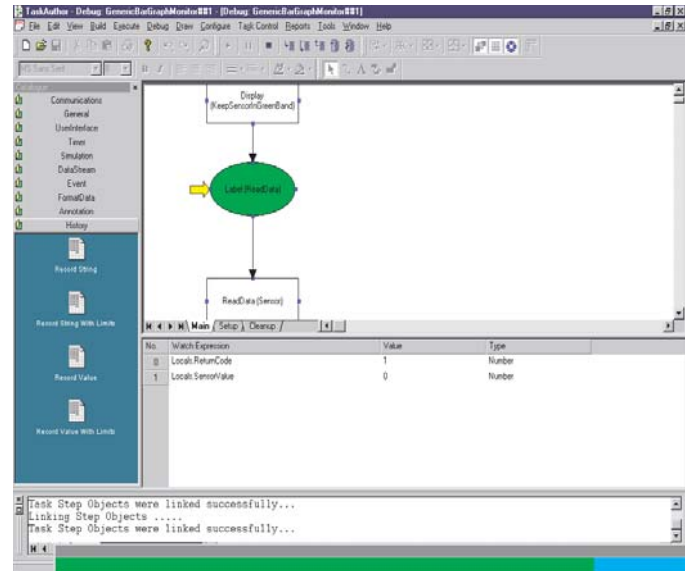
EnGeniusTEST Author allows the test engineer to develop an executable test specification using an intuitive graphical development environment.

Tests are defined using standard flowchart symbols and several catalogs of pre-defined operations. Once the test has been defined, the engineer can configure the test parameters and execute/debug the test.

EnGeniusTEST Author provides a powerful debug environment that allows the developer to set breakpoints, single-step, view/set variable/constants, and view test I/O.

Features

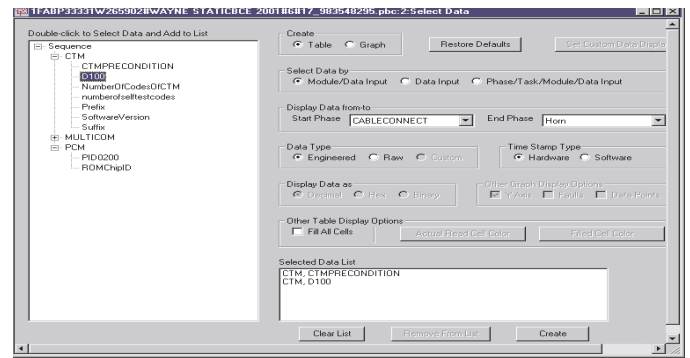
- Easily creates test flow charts using a drag and drop graphical user interface
- Provides catalogs of test components such as data acquisition, network interface, and operator display
- Supports local and global variables and constants
- Allows data to be passed to and from a test and its components
- Supports test execution within the tool environment, including breakpoints and single step operation
- Integrates with the user-friendly configuration module by providing default configuration parameters



- Allows tests to call previously defined tests
- Includes the runtime components that provide data acquisition, vehicle network connectivity, and the operator interface
- Places the test under configuration management within the EnGeniusTEST environment
- Includes the following standard catalogs:
 - Communications, e.g., Vehicle, Analog I/O
 - User Interface/Operator Display
 - Flowcharting Operations
 - Data Collection
 - Fault Reporting
 - History Logging

EnGeniusTEST DataViewer

EnGeniusTEST DataViewer is the most powerful validation/debug tool in the development toolset. This tool uses the data captured by the runtime system to replay the task sequence. The playback tool insures that captured network activity, data acquisition, and user input are viewed in the same sequence in which they were captured. The tool allows the powerful breakpoint and single-step features of the authoring and sequence tools to be applied to a test sequence without compromising the real-time execution of the sequence.



Features

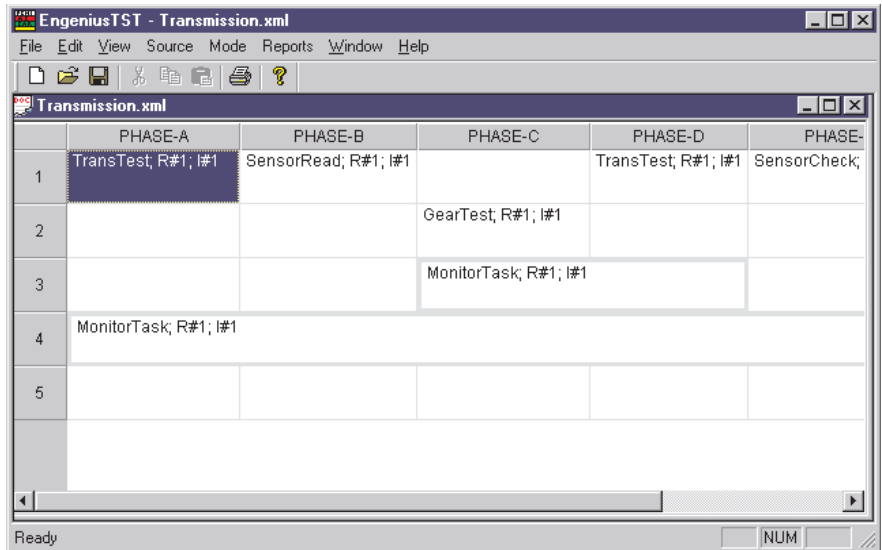
- Individually steps through test sequence and data elements
- Graphically displays collected data
- Displays all parameters

EnGeniusTEST Sequencer

EnGeniusTEST Sequencer allows the test engineer to define the execution sequence of individual tests. Tests and sequences can be copied from previously defined sequences, allowing reuse and rapid configuration by leveraging previous work. Final test configuration is provided through a common interface that allows for the configuration of operator prompts, limits, and data sources. In addition, the execution sequence and configuration can be modified based on a Bill of Materials with the addition of the configuration rule engine.

Features

- Easily creates a testing sequence by ordering the execution of several previously defined tests using a drag and drop graphical user interface
- Allows configuration of individual tests within a sequence
- Places the test sequence under configuration management within the EnGeniusTEST environment
- Allows reuse of previously defined test sequences

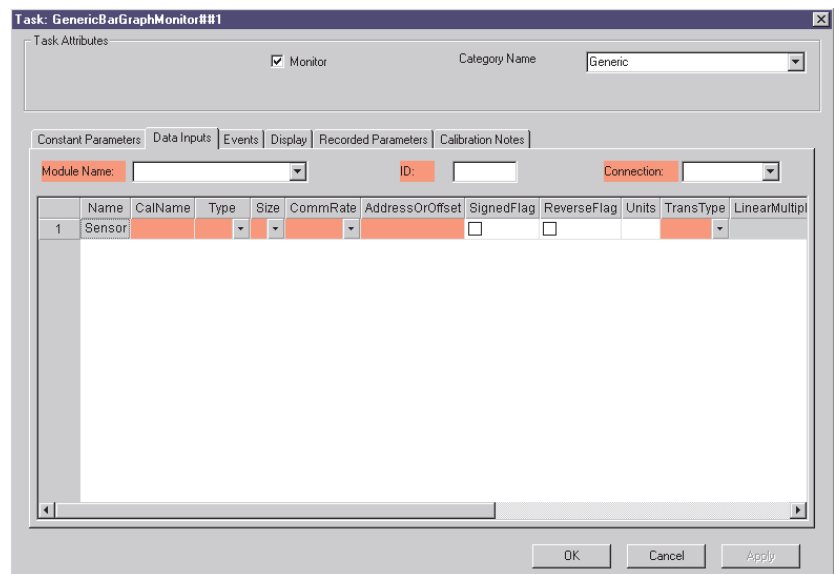


Test Configuration

The configuration subsystem supports both the test authoring and sequencing tools. A consistent interface allows the test engineer to define data source/destination and set test parameters to reflect the configuration of the unit under test.

Features

- Allows the user to easily configure:
 - Vehicle network interfaces
 - Data acquisition
 - Display elements
 - Fault modes
 - Test limits



EnGeniusTEST DataMonitor

EnGeniusTEST DataMonitor provides the test developer with a powerful validation/debug tool that allows the user to monitor vehicle network messages that pass between the test system and the module, subsystem, or vehicle under test.

Features

- Monitors link data in real time
- Time stamps messages
- Captures message traffic to a file
- Provides raw data or decoded views

Web Enabled

All major components of EnGeniusTEST are web enabled. This allows for all systems to be easily accessed, monitored, and configured via an intranet.

Web Reports

- Allows for quick and easy viewing of failure mode and test results
- Provides the ability to display pre-defined and ad-hoc queries on test results

Web Monitoring

- Provides real time display of the runtime system
- Notifies system administrators of runtime system and operating system degradation so preventative steps may be taken

Web Interrogation of Database

- Provides the ability to display pre-defined and ad-hoc queries on the database

EnGeniusTEST Runtime

The runtime system is a modular testing system that provides parallel diagnostic execution in a real time environment. The system executes the tests created with the authoring, sequence, and configuration tools.

Features

- Fast diagnostic engine
- Test-result reporting
- User-display interface
- On-line monitoring of the testing process
- Parallel test execution

Technologically Advanced

- COM
- D-COM
- XML
- Fully web-enabled
- Displays test results
- Reports database content
- Monitors diagnostic engine execution
- Is database independent
- Allows use of any ODBC compliant database
- Easily integrates with other test system