

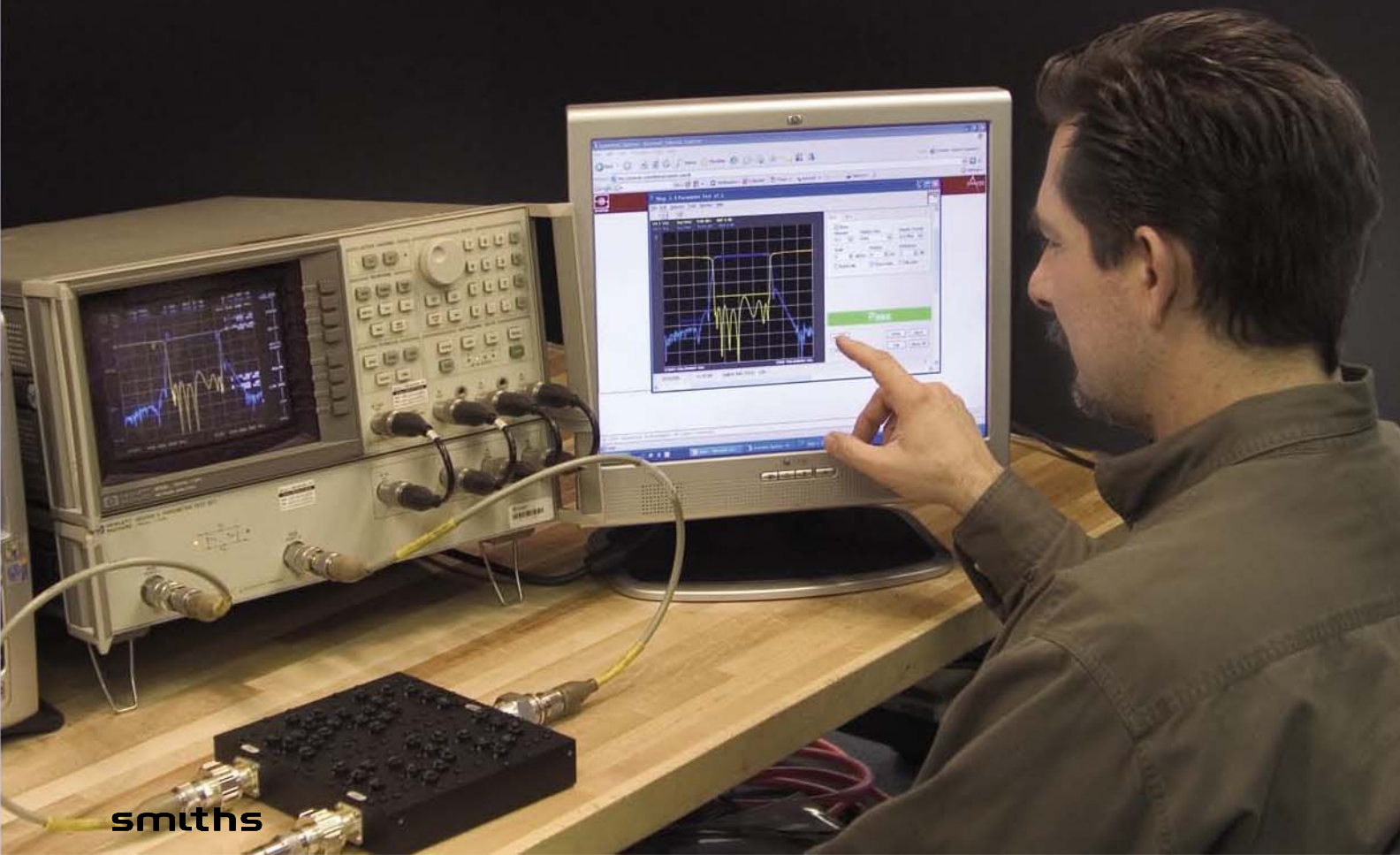


Automated Test & Data Management

MEASURE

EVALUATE

IMPROVE





Companies large and small are implementing modern manufacturing practices, such as lean manufacturing and Six Sigma, to improve their competitiveness. Lean manufacturing aims to reduce waste and streamline the manufacturing process in order to cut costs and shorten product lead times. Six Sigma looks to reduce variations with the net affect being improved product quality through reduced defects.

Spartan Automated Test and Data Management contributes to these goals through:

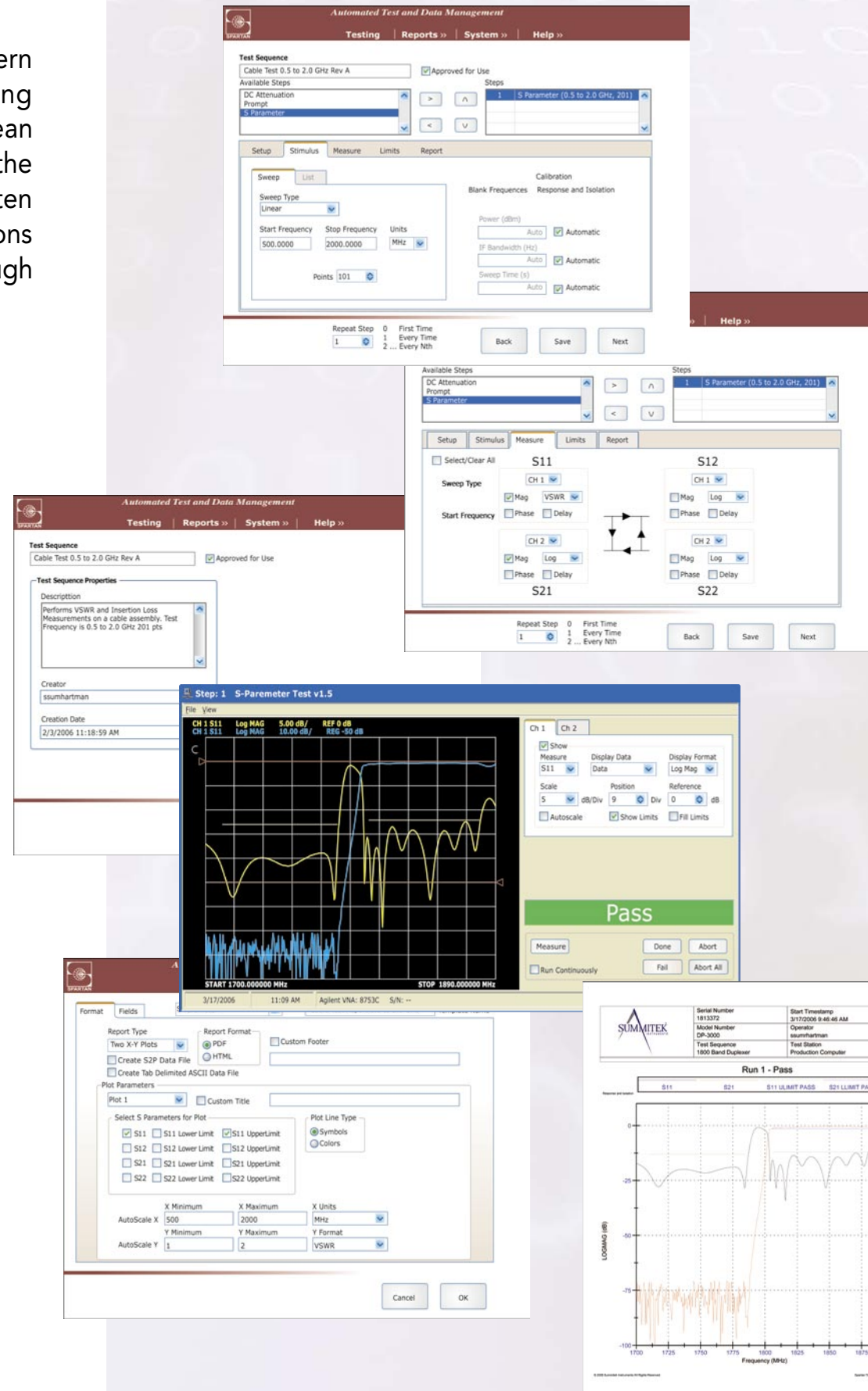
- Streamlining of the test process
- Lowering the skill level required to perform tests without compromising data integrity
- Consistency in test methods and performance measures
- Mining the data to improve product design and manufacturing processes
- Efficient utilization of existing assets

Spartan adds value to key functions within the organization:

- **Engineering** – determine the cost drivers in the design and improve manufacturability
- **Manufacturing** – streamline the test process and increase effective use of your resources
- **Quality Assurance** – configuration control assures that all testing adheres to the approved procedures and acceptance criteria
- **Operations** – collect and analyze key performance metrics to identify problems and improve processes
- **Sales & Marketing** – use data results to differentiate your products and lead the market

And to vital business partners external to the organization:

- **Customers** – faster lead times and more favorable pricing
- **Suppliers** – better forecasts help them to plan
- **Shareholders** – increased value in their investment



Automated Test and Lean Manufacturing

Effective implementation of test automation is essential in reducing inefficiencies, inconsistencies and waste.

Benefits of Spartan Test:

- Nearly hands off testing reduces time, cost, and errors
- Configuration Control for test procedures, acceptance criteria and output formats
- Create test scenarios once and share them with production sites worldwide for consistent, accurate results
- Improved test processes and efficiency
- Interactive mode for engineering analysis
- Efficient use of test instruments increases their utility
- Robust test software for worry free operation

Test Data Management

A test data management system provides the means to extract valuable information from your test data, which can be used to improve product quality and manufacturing processes.

Benefits of Spartan Data Management:

- Identify emerging manufacturing problems
- Characterize parts within and between production lots and sort according to quality of performance
- Determine first pass yields
- Perform trend analysis
- Improve product design and manufacturability
- Evaluate opportunities to put forward better specifications

Spartan Test and Data Management Functions

Test Sequence Designer is used to create test scenarios. These test scenarios can be a single measurement or multi-step tests that include user prompts and different types of tests. The test scenarios are stored in a database that is accessible by any authorized user anywhere in the world. This facilitates configuration control of test procedures and acceptance criteria.

Test Sequencer executes the test sequence. Test sequences are stored in a searchable database and recalled at the time of the test. This automatically sets up the test instrument(s), acquires the data, evaluates the performance, outputs test reports, and archives the data for future use.

Spartan has been designed for test speed and efficiency without sacrificing data quality. The Test Sequencer can be run in a simplified mode (QuickMode) for high volume production testing requiring minimal skill test personnel, or in a mode where visual feedback and greater operator interaction is available.

Test Report Generator is used to define and create data output. These reports can be generated in real time as a part of the test sequence and/or created from archived data. A wide array of test report formats is available depending upon the data type being presented.

Data Queries are provided by the Spartan Test Data Management System. This information offers a powerful and flexible front end for filtering data using any variable used in defining the part tested (for example: model number, serial numbers, manufacturing instruction number, connector type, frequency, pass/fail status). The result of the query can then be manipulated to yield information for a variety of purposes. This might include statistical analysis, trend analysis and first pass yield.

Tests Supported

Spartan currently supports the measurement and evaluation of the following tests. This list will continue to grow as requirements are identified.

Please check with Summitek if your test is not currently listed.

- S-Parameters
- DC Attenuation
- Passive Intermodulation

Instruments/Hardware Supported

Spartan uses the instruments you already own and gives them added value. The list of supported instruments is increasing, so if you don't see your test instrument listed below, please contact us.

- HP 872x
- HP 8753
- Agilent ENA
- HP 34401 Digital Multi-meter
- Sea-Level Relay Card

Experience Spartan

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