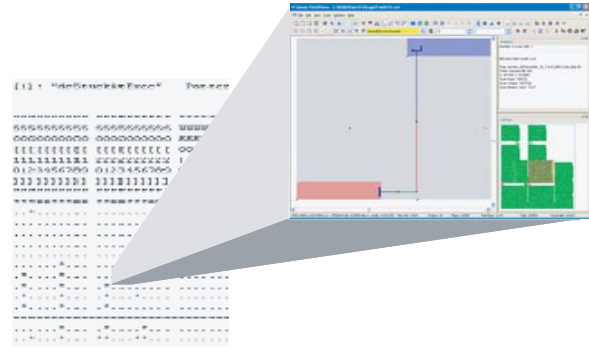


▶ **Inovys FaultInsyte™**
Interactive debug analysis

FaultInsyte is an interactive, engineering debug and analysis suite providing more efficient debug of new devices and accelerated time to volume production.



FaultInsyte is our award-winning, interactive test engineering debug and analysis suite, designed specifically for debug, characterization and failure analysis of complex SOC devices with advanced structural test. FaultInsyte works in conjunction with the Inovys Personal Ocelot™ and Ocelot ZFP™ tester platforms or with other tester platforms equipped with our Inovys FaultLocator™ pre-analysis module.

Identify and Diagnose Faults in SOC Devices Faster

FaultInsyte provides a comprehensive suite of tools that enable complete characterization of DC stuck-at patterns and AC transition delay and path delay patterns. Patented algorithms allow analysis of difficult faults as blocked chains, Vdd-min problems and small delay defects using interactive algorithms that localize the fault while the device is still in the socket. This automated process can localize logic, chain and speed faults in real-time, providing the statistically valid data required to solve problems quickly. This capability allows the analyst to zero in on the right problem in the noisy environment that can exist during new product introduction and provides multiple examples of the fault for signature analysis or failure analysis. Customers typically save weeks to months in the launch of a new device.

In-Socket Fault Localization

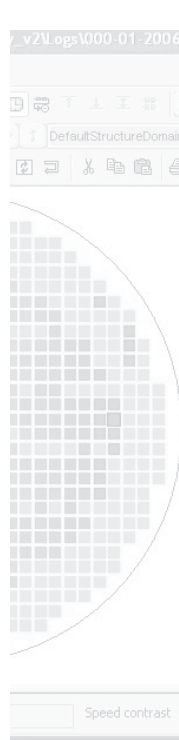
Our ability to execute native STIL patterns and our award winning ease of use mean that DFT engineers, product engineers and FA engineers are able to create test programs, test parts and solve problems in record time without assistance from dedicated test engineers.

This also eliminates the iterative nature of the debug and characterization process allowing a single expert to use proprietary fault targeted approaches to localize the issue in a single session.

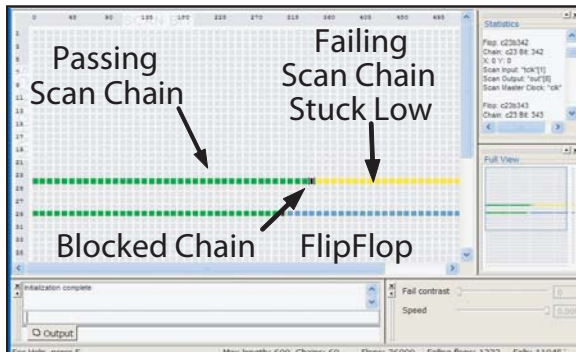
Key Benefits:

- > Efficiently identify previously invisible yield loss mechanisms
- > Isolate and physically locate electrical faults in logic, chains and clock trees faster
- > Characterize logic speed behind every scan flop
- > Easy to use tool to provide yield feedback to process and design.
- > High accuracy for the lab

- ▶
- > Award-winning, comprehensive suite of easy to use debug tools
 - > Proprietary, fault-targeted solutions for logic problems, chain problems and timing problems
 - > Structural, hierarchical and physical layout analysis and visualization capabilities



Accelerated Time to Volume Production through Proprietary Fault Targeted Approaches



Analysis and Visualization of Test Data

FaultInsyte provides a layout centric analysis and visualization platform that displays faults and groups of faults in 3 important views. Faults are displayed as a structural view showing the faults in a simple row/column format where each row represents a scan chain and each column represents the bit position in that chain. This view provides the analyst with a logic bitmap view of faults in SOC devices enabling the type of analysis traditionally limited to memory devices. Faults are also displayed in a hierarchical view showing logic blocks and the design hierarchy. This enables the analyst to focus on specific elements of the design for debug, characterization or failure analysis, enabling parallel efforts on multiple issues without interference. Finally, the faults are displayed in a physical view showing the physical location of the defect on the die. This capability includes our unique "splat" level view showing specific net trace paths from the failing observation point. This capability enables fast localization of the root cause physical defects, such as: stuck-at defects; timing faults in scan chains; logic; and clock trees. The result is significantly faster time to problem diagnosis.

Links to Other Tools

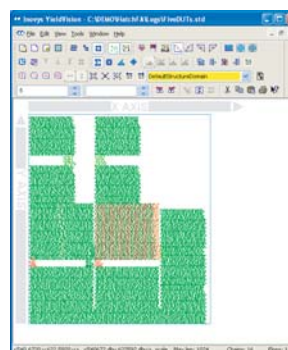
FaultInsyte offers a seamless links to ATPG fault simulation tools from Cadence, Magma, Mentor and Synopsys allowing the analyst the ability to pull data into FaultInsyte for additional analysis.

Statistical Analysis Tools

One of the most powerful aspects of FaultInsyte is the ability to analyze groups of faults to provide statistically valid conclusions. FaultInsyte allows the analyst to localize and view all of the faults in a part or in a group of parts allowing improved understanding of the underlying mechanisms. Whether you are choosing the right part out of the handful of parts selected for failure analysis or tracing a systematic issue in the midst of unrelated random defects, FaultInsyte provides the ability to focus on the problem. Our comprehensive visualization and analysis toolbox provides unsurpassed performance in logic bitmap analysis.

FaultInsyte provides proprietary fault targeted approaches to localize the issue while the part is still in the socket to more efficiently debug new devices and accelerate time to volume production.

Intuitive analysis tools >



SPECIFICATIONS

Import and View Structural Test Data

- > Structural View: By scan-chain structure
- > Hierarchal View: By design architecture
- > Physical View: By physical layout (wafer or die level)
- > Histogram View: Sort by speed

Link to Physical Layout Database

- > Provides defect to layout overlay
- > Trace functions (Fan in, fan out)
- > Generate IP protected trace picture (i.e. Splat)

Track & Filter by Multiple Fail Variables

- > Structural Test: Scan chains, bits in chain, scan patterns, pattern set, etc.
- > Manufacturing: Program rev, lot ID, wafer ID, facility, XY coordinate, etc.
- > Pattern Content: execs, bursts, specs, test IDs, etc.

Powerful GUI for Visual Variables

- > Zoom to any level of detail within View
- > Adjust color thresholds to filter failures by numerical intensity
- > Intuitive displays show complete design data on any hierarchy or bit cell

Interfaces with Leading Tools, Including:

- > Mentor Graphics FastScan™
- > Synopsys TetraMAX™
- > Cadence Encounter™
- > Magma Talus™



Inovys DfX Solutions
6940 Koll Center Parkway
Pleasanton, CA 94566
(925) 660-1700 main
(925) 660-1800 fax

www.inovys.com