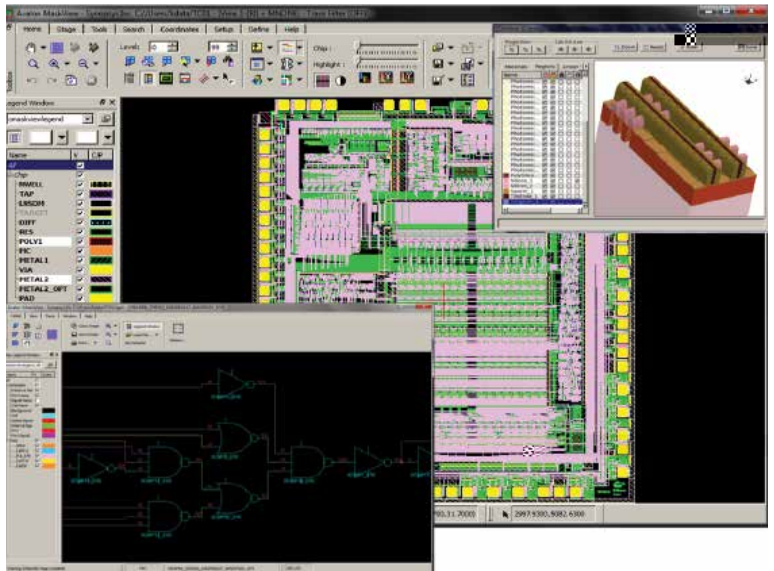




Overview

Avalon software system is the next-generation CAD navigation standard for failure





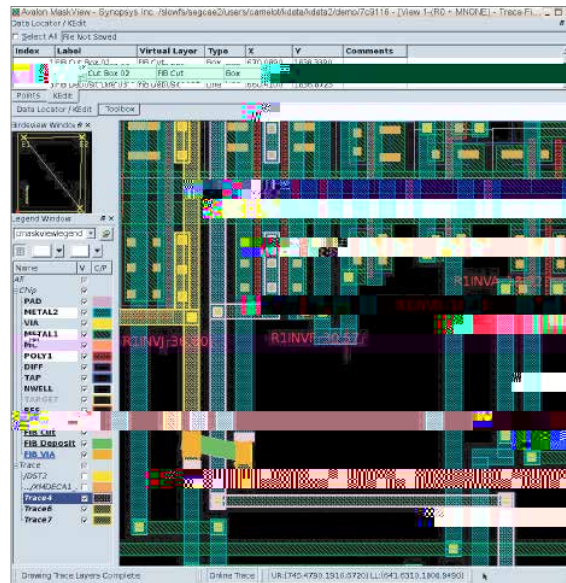


Figure 4: K-Edit allows collaboration between design, fab and lab

I-Schem (Interactive Schematic) creates a schematic from a netlist in a net-oriented format allowing forward and backward tracking to locate a fault. Features like Add Driver or Add Input Cone allow for quick analysis and verification of diagnostic results in scan chains.

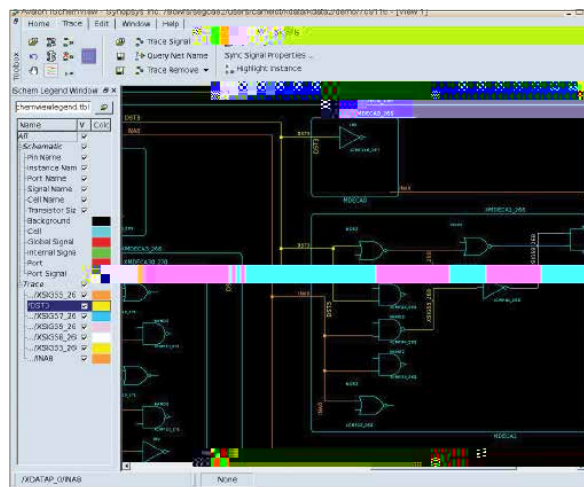


Figure 5: I-Schem creates a schematic from a netlist

K-Bitmap allows equipment CAD navigation when analyzing memory chips by identifying the physical location of failing memory cells. It eliminates tedious screen counting by converting the logical addresses, or row and column coordinates, to the physical location.

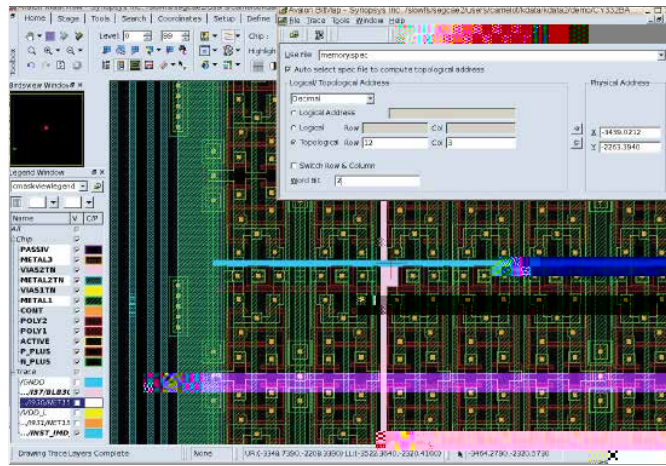


Figure 6: K-Bitmap identifies the physical location of bit addresses in memory devices

3D Small-Area Analysis provides a three-dimensional cross-section capability to FA engineers, enabling faster localization of circuit failures to accelerate IC manufacturing yield improvement.

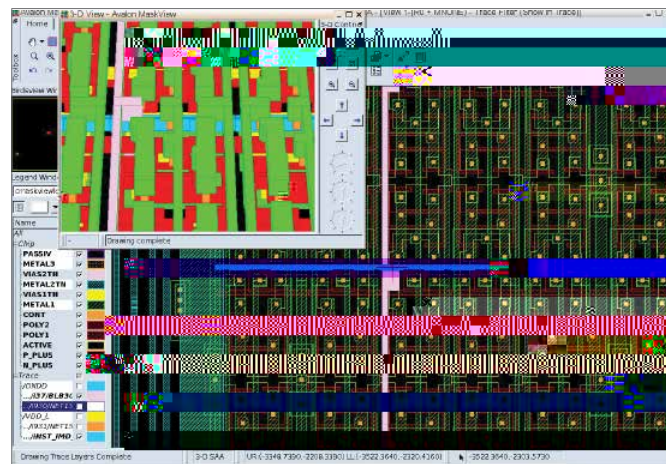


Figure 7: 3D Small-Area Analysis enables faster localization of circuit failures

User-Defined Online Search (UDOS) allows users to search a small area of a die for unique polygon features, repeated features or lack of features. Applications include, but are not limited to, FIB-able regions, repeaters, pattern fidelity and lithographic applications.

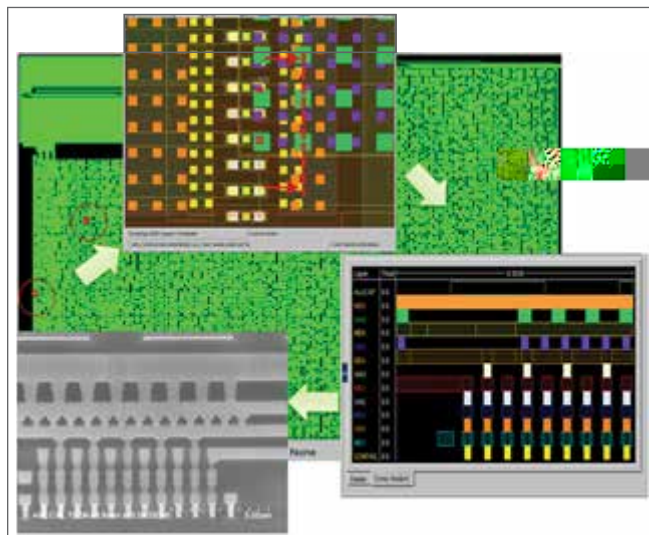


Figure 9: User-Defined Online Search (UDOS) finds easy-to-access traces

Passive Voltage Contrast Checker (PVC) quickly and accurately validates the integrity of a circuit's conductivity and provides detailed information for identifying suspect faults at via or metal traces

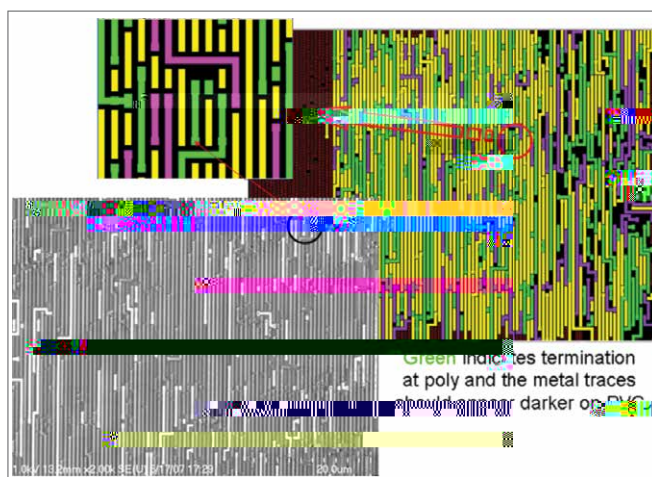


Figure 10: Passive Voltage Contrast (PVC) Checker identifies suspect vias or metal traces

Electronic Virtual Layer marks objects to represent net connectivity during a FIB deposit or cut using KEdit. The online trace will simulate the new connectivity to the virtual layer. PVC checker could be used on this virtual layer to simulate the crack or short.

Check Adjacent Nets allows logical analysis of nets. This command line tool finds the adjacent nets which are within user-specified threshold distance to find shorts.

