SysNav

CAD Navigation for printed circuit boards, multi-chip modules, and stacked die applications

Overview

SysNav™ is a layout visualizing and signal tracing CAD navigation software solution for printed circuit board (PCB), multi-chip module and stacked die applications. It extends Synopsys Camelot™ die-level failure analysis capabilities to the packaging industry. SysNav is the only commercially available tool able to integrate multiple, interactive IC and PCB circuit debugging and online tracing with CAD navigation capabilities. SysNav allows rapid signal traces on dies, stacked dies, multi-chip module and PCBs. Fab teams can now trace a signal from chip to board, back to chip and then quickly navigate failure analysis tools to X, Y locations to determine the root cause of the fault.

Benefits

- SysNav displays board-level layout data while Camelot's MaskView™ displays chip- or die-level layout data
- SysNav and MaskView allow interactive tracing or highlighting of the electrical connectivity
- SysNav and MaskView have similar GUIs for easy adoption
- SysNav provides many of Camelot's board-level failure analysis capabilities, including 2D cross section and 3D view of selected small area
- Bookmark locations on package using Kedit and locate die information on board using datalocator
- Perform Image overlay
- Import net name info from Pin list file (ASCII File) and IPC 356D file
- Convert package data using GUI based application, KDBBuilder
- Interface with FEI V Ion, FEI V-Ion Plasma FIB and other equipment
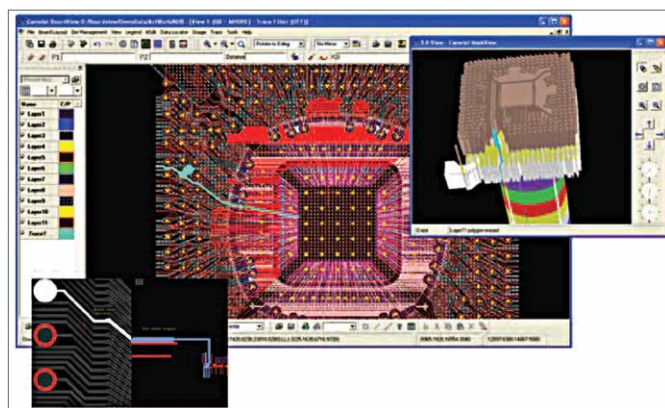- Supports industry standard Gerber RS 274X format

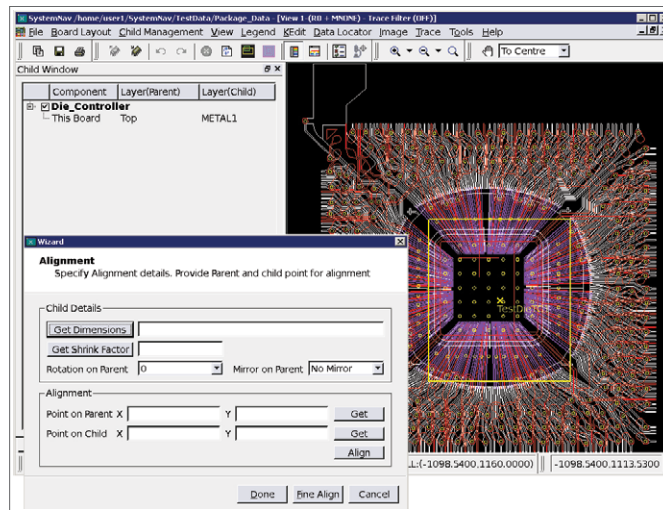Figure 1: View of Packaged die and electrical trace within SysNav Window and 3D Cross Section View

Figure 2: SysNav supports and guides placement of single and multiple die data

How It's Used

- Launch SysNav using the board-level layout data

- Align the die on the board. The GUI will guide the placement

- To cross-map, select the board-level signal from SysNav or die-level signal from MaskView

- Use same method to navigate equipment drivers as with MaskView

SYNOPSYS®
Silicon to Software™