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Simulator Analyzes Signals and Noise in Packages and on P.C. Boards

Ansoft's SIwave allows a designer to examine the effects of physical layout on signals and noise in IC packages, module and printed circuit boards

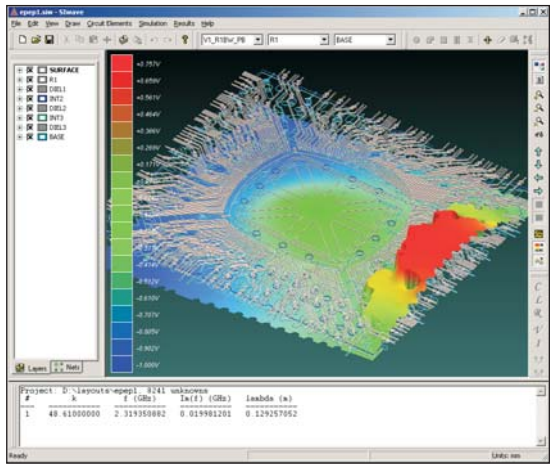
Ansoft Corporation announces the immediate availability of SIwave™ v2. SIwave, a full-wave electromagnetic field simulator, analyzes signal- and power-integrity effects in high-performance printed circuit boards (PCBs) and integrated circuit (IC) packages.

SIwave's proprietary full-wave, finite-element technique allows designers to characterize simultaneous switching noise (SSN), intersymbol interference, power and ground bounce, resonances, reflections and coupling between traces and power/ground planes. Engineers are now able to model entire PCBs and package structures using an analysis engine to generate both frequency- and time-domain results.

To capture physical layout, SIwave is fully integrated to layout tools such as Cadence Allegro and APD and Synopsys Encore. This integration adds significant value to existing EDA tools by enabling the accurate simulation and design of complex PCBs and IC packages consisting of multiple, arbitrarily shaped power and ground layers and any number of vias and signal traces.

Specific features and enhancements to SIwave v2 include:

- Power Plane Impedance
- Signal Net Analysis (including coupled transmission lines)
- Resonant Mode Analysis
- SPICE Export
- Robust meshing
- Automated Geometry Cleanup



Ansoft offers SIwave™ v2, a full-wave EM tool for detailed signal and power integrity analysis.

- Unlimited undo and redo
- Interpolating fast frequency sweep
- Decoupling capacitor model library with over 1200 components
- Frequency-dependent model for dielectric materials
- Interfaces to:
  Cadence Allegro®
  Cadence Advanced Package Designer (APD)
  Zuken CR-5000
  Synopsys Encore IC Package Designer
  Mentor Board Station®
  Mentor Expedition

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HFeLink 303