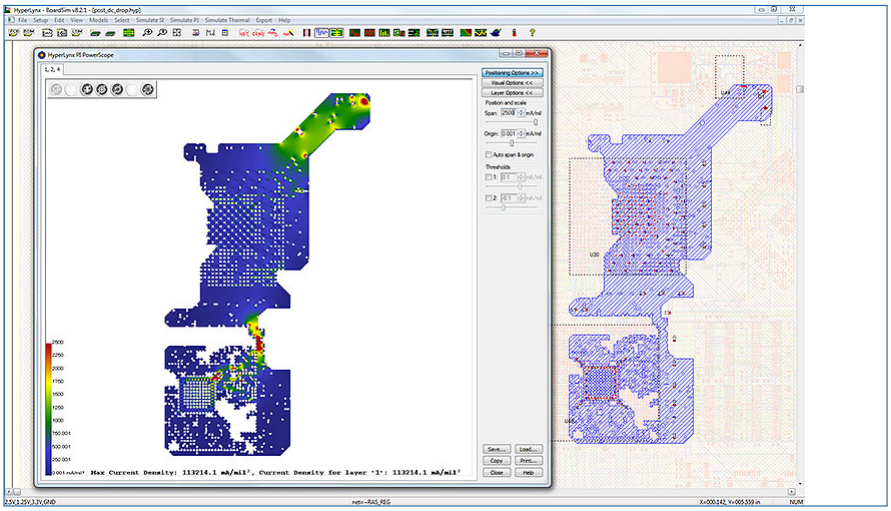
HyperLynx DC Drop PE

DATASHEET



Quickly analyze voltage drop of power supply rails due to copper losses.

Overview

HyperLynx® DC Drop PE was especially created for engineers who use non-Mentor Graphics PCB design tools and need a powerful tool to tackle voltage drop issues quickly and intuitively.

Power integrity is becoming a major challenge in electronic product design. Modern ICs, digital and analog alike, require multiple supply voltages to operate. Simultaneously, supply voltages are decreasing and current draw is increasing. Reduced operating margin means new designs are less tolerant of voltage losses in the power delivery network (PDN). Find out whether your PDN is sufficient for proper operation with HyperLynx DC Drop PE.

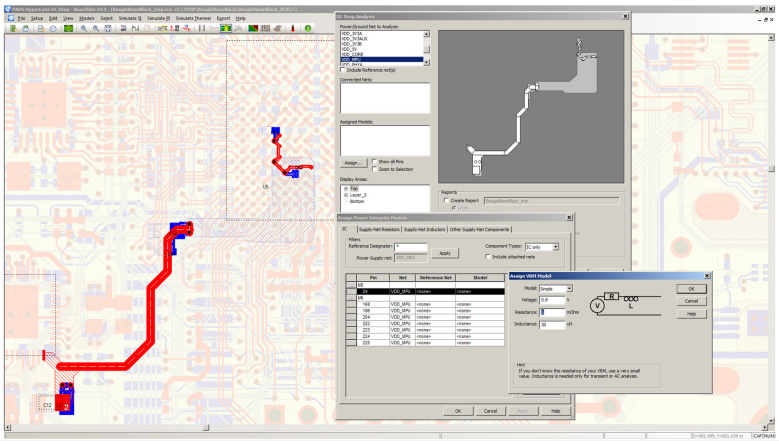
HyperLynx DC Drop PE seamlessly supports Altium Designer, OrCAD, Allegro, and CADSTAR layout files. Hardware engineers, PCB designers, and signal integrity specialists alike use HyperLynx DC Drop PE to get simulation results within seconds, without weeks of software training. Catching PDN issues early in your product creation process helps you reduce prototype spins, get your products to market faster, and increase device reliability.

MAJOR BENEFITS:

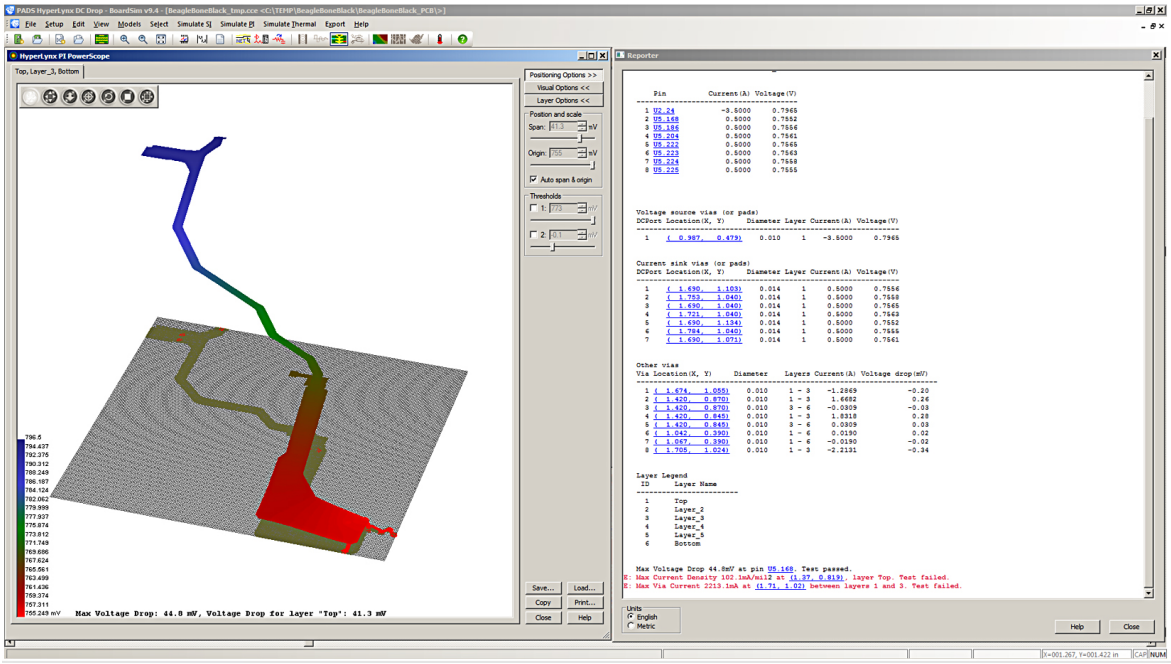
- Easy to use
- Quickly analyzes voltage drop of power supply rails due to copper losses found in power plane shapes, power traces, and neck-downs in dense layouts
- Interactive and batch-mode simulation capability
- Allows easy exploration of different conductor materials and trace thicknesses
- Identifies areas of excessive current density
- Supports Altium Designer, OrCAD, Allegro, and CADSTAR

Interactive Simulation Results

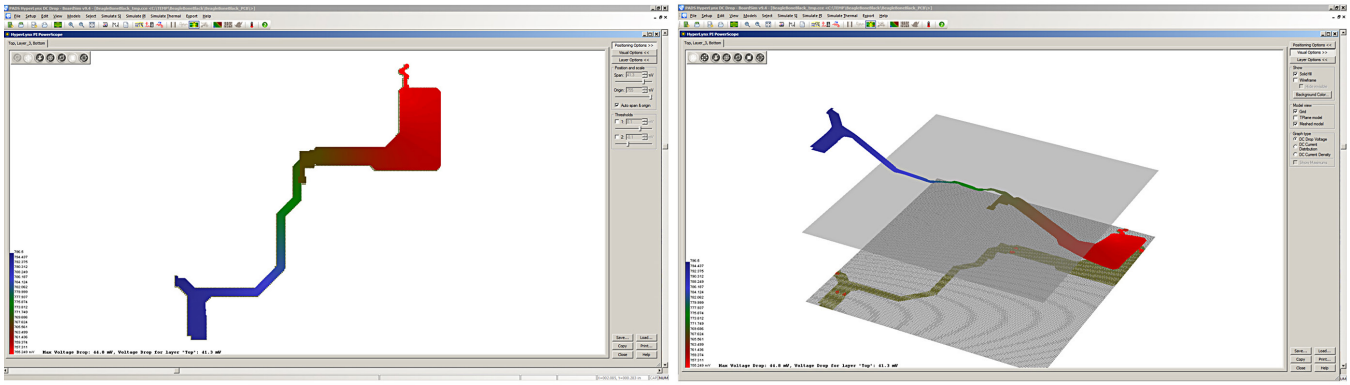
Interactive DC Drop simulation is easy to use, with simple dialogs that let you simulate your designs quickly. Select a net of interest, assign sink/source values, and obtain simulation results. In addition to the graphical results, you also get a report of all the voltages and currents at all the different pins and vias of your PDN. Each result/violation is hyperlinked to highlight relevant components or pins/vias. In addition to showing voltage loss, the interactive viewer can also show areas of extreme current density.



Interactive simulation makes it a snap to enter and obtain results.



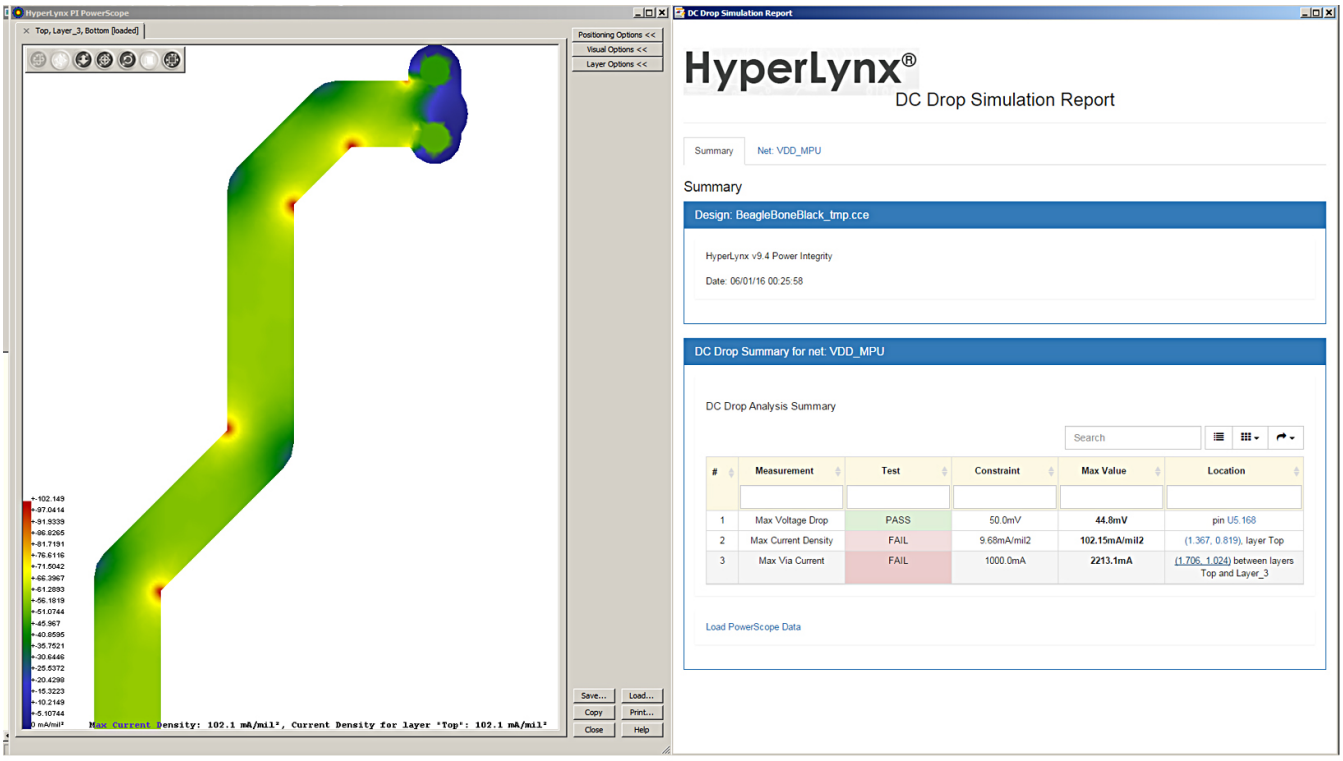
Graphical results are provided alongside a detailed results window.



Graphical simulation results are available in 2D (left) and 3D (right). When reviewing simulation results in 3D, you can add threshold planes to intuitively visualize sections of your PDN that are above/below a target.

Batch-Mode Simulation

Batch-mode simulation lets engineers run DC drop checks simultaneously on any number of power supply lines across an entire board. Any model information set up during interactive simulation is retained, while batch-mode dialogs provide the ability to key in data for all supplies in one dialog entry. A detailed HTML-based report provides clickable links to view violations, and a summary of the nets at a glance.



HTML-based report for batch-mode simulation provides detailed data per net as well as filtering and the capability to export data into CSV or XLS formats.

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