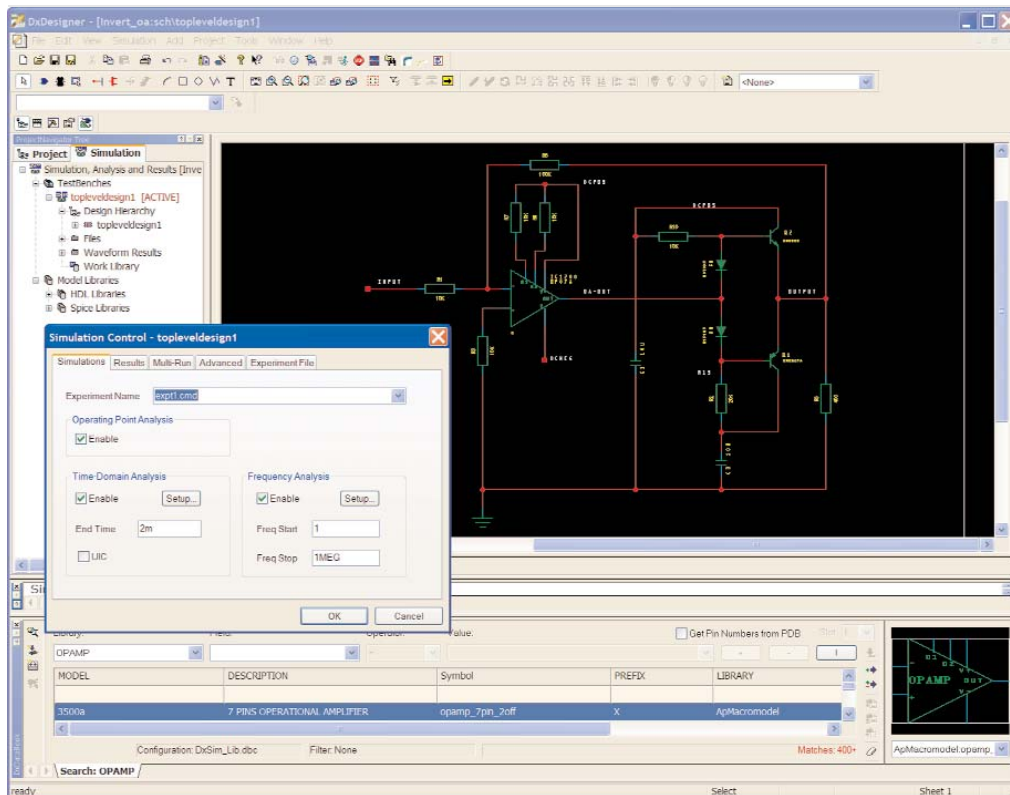


# HyperLynx Analog



*HyperLynx Analog provides a complete simulation environment integrated into the PCB design flow; HyperLynx Analog allows the user to prepare all aspects of simulation for both basic and complex analysis while seamlessly driving the printed circuit board process.*

## Major product features

- Integrates with DxDesigner for board level simulation with single entry point for PCB schematic capture and simulation
- Easy to use simulation process coupled with drag 'n' drop symbol generation from models removes barriers to simulation
- Sophisticated environment supporting hierarchical design methodologies, multi-sheet schematics
- Standard DC, frequency and time domain analysis extended to statistical Monte Carlo and worst case analysis to ensure design quality and manufacturability
- A series of advanced analyses such as *stress* and *sensitivity* enable the designer to simulate all aspects of the circuit operating environment.
- Comprehensive and interactive waveform post-processing functions with a wide range of display formats
- Includes 6,500 proven models and external vendor libraries enabling access to more than 30,000 models
- PSpice model compliance

## A Single Design Environment

HyperLynx Analog, integrated with DxDesigner™, is a board level simulation analysis and verification environment which provides a common schematic editor for both simulation and PCB design entry.

Building on the capabilities of proven DxDesigner schematic capture technology, HyperLynx Analog provides a smooth flow from design definition all the way through set-up, simulation and analysis. By using libraries that support both processes there is no need to re-enter the schematic, thus significantly shortening the overall development cycle and reducing opportunities for error.

## Easy-to-Use Environment

During the design phase engineers need the ability to continuously evaluate the circuit, whether due to value changes to discrete components or the inclusion of a new device. During this process the engineer must have access to a variety of capabilities to aid the process. In this easy-to-use environment the analog engineer will find:

**Walk-through simulation** - The engineer is guided through the simulation process by the simple, data centric toolbar.

**Drag 'n' Drop** - The drag 'n' drop feature allows the designer to quickly try new devices. Once a model has been downloaded, they can simply select the model file in the browser and drag it into the schematic. HyperLynx Analog then automatically creates a fully functional symbol ready for simulation. Once the designer has completed the what-if stage, they can then add it to the library if required.

**Model Editing** - From within the HyperLynx Analog environment the designer can easily edit using the syntax sensitive text editor. To edit a model, the user simply selects a symbol in the schematic and pushes it into the model, or by selecting the model in the library browser.

**Project Browser** - The HyperLynx Analog environment also includes a well structured design data storage area with quick access through the project browser. The designer can easily view or edit all aspects of the design, such as the testbench simulation setup, models, included files and results.

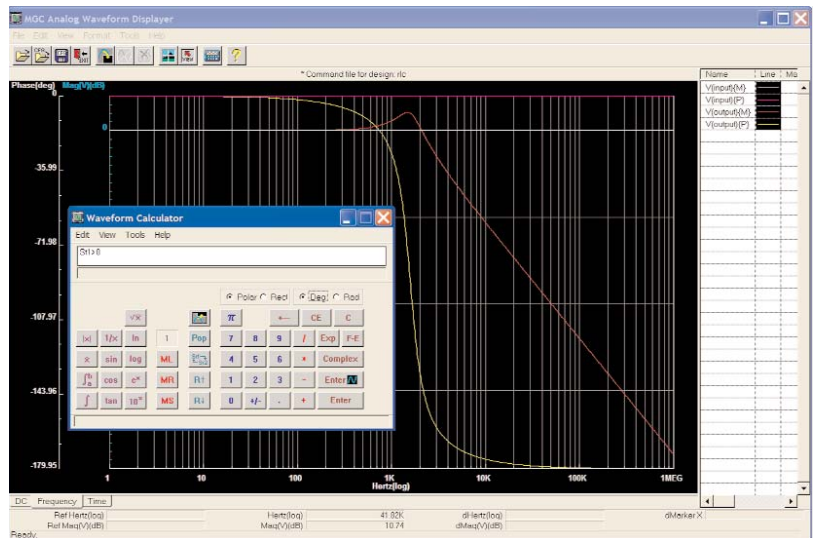
## Complete Modeling Solution

HyperLynx Analog provides a library comprising 6500 proven models. The model types range from Opamps through to BJTs. Also by maintaining SPICE standards, HyperLynx Analog lets designers import device vendor models, thereby effectively expanding their simulation environment. The vast majority of vendor models, supplied freely over the Internet, are either PSpice models or are in PSpice format and HyperLynx Analog provides an easy method to leverage this source of models.

## Advanced Design Analysis

HyperLynx Analog gives designers the ability to analyze and output the simulation data most useful to their design process. Analog Waveform Display brings them flexible viewing of single or multiple waveforms, including multi-graphing options, such as Logic Analyzer mode. Designers

Visit our website at [www.mentor.com/pads](http://www.mentor.com/pads)



*The intuitive Waveform Viewer allow the designer to explore all aspects of the simulation results.*

can label and add text to any graph for documentation or plotting. Multiple markers can be added to the display and positioned for data analysis.

The Waveform Calculator mathematically manipulates waveforms to predict circuit performance and future designs. Any waveform can be exported to a number of outside tools through comma-separated-value (CSV) data format. Reports can also be exported to an ASCII file using CSV format.

## Improving Design Quality and Manufacturability

The simulation capabilities in HyperLynx Analog allow the designer to test circuit functionality through standard DC, AC and transient analyses. With greater emphasis on reducing scrap and manufacturing costs, designs need to have the proper tolerances. As the design process progresses they can use the advanced analyses within HyperLynx Analog to determine design marginality and circuit sensitivity to component value changes.

Thus adequate range components are selected so that designs function properly across several manufacturing runs. Analysis, such as statistical Monte Carlo, enable designers to identify components that most affect circuit performance and predict likely design yields by considering tolerance variations across components. They'll also balance costs of components that have tight tolerances against the impact on circuit and manufacturing performance.

Copyright © 2007 Mentor Graphics Corporation. Mentor Graphics and PADS are registered trademarks and DxDesigner is a trademark of Mentor Graphics Corporation. All other trademarks mentioned in this document are trademarks of their respective owners.

Corporate Headquarters  
Mentor Graphics Corporation  
8005 SW Boeckman Road  
Wilsonville, OR 97070-7777  
Phone: 503.685.7000  
Fax: 503.685.1204

Systems Design Division  
Mentor Graphics Corporation  
1811 Pike Road  
Longmont, CO 80501  
Phone: 720.494.1000  
Sales: 888.482.3322  
Email: [pads\\_info@mentor.com](mailto:pads_info@mentor.com)

