

Saber® Sketch

Powerful Schematic Capture

Overview

Saber Sketch is a design creation, editing and simulation environment.

Saber Sketch enables you to quickly create schematics that encompass all aspects of your design including analog, digital and multi-domain systems (for example, mechatronic devices such as hydraulics and motors). Because Saber Sketch shares the same Windows-based user interface found across the entire suite of Saber tools, it is intuitively easy to learn, use, and reuse.

There are three distinct reasons Saber Sketch improves a design cycle:

1. Quick design entry
2. Complete integration with Saber mixed-signal simulation and waveform analysis
3. Comprehensive documentation capability

- Create schematics that encompass all aspects of your design
 - analog, digital and multi-domain systems
- View signal(s) from any schematic node with design probes
- Simulate, display and analyze a design through tight integration with Saber simulation
- Document designs with comprehensive documentation capabilities

Quick Design Entry

Saber Sketch is a sketchpad for your design concepts. Quickly enter ideas and initiate a simulation directly from the menu bar. Place a design probe on a schematic node to view the results. Click on the probe to launch analysis viewing for powerful signal analysis. Saber creates design and analysis all in one environment.

Finding symbols using Saber's Parts Gallery is an easy way to create a design. This dialog box contains a powerful search engine that provides instant access to thousands of simulation models. The Parts Gallery helps you find relevant parts which you can select and place on the schematic. A direct link to the on-line documentation system explains how to use any part.

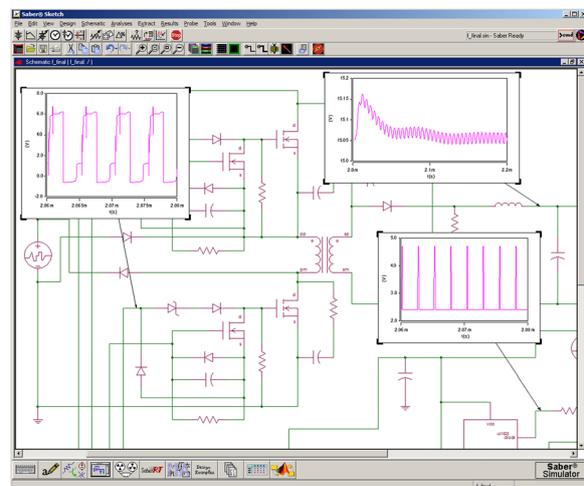


Figure 1: Saber allows very powerful design creation, simulation, and analysis capabilities.

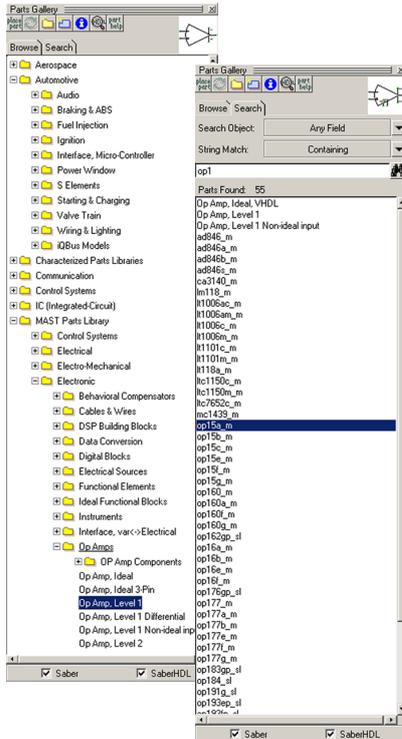


Figure 2: Find symbols quickly with the Parts Gallery.

When you need a special symbol, the integrated symbol editor saves time by creating or modifying symbols within the Saber Sketch environment. Once symbols have been placed and wired, the properties of each symbol can be defined right on the schematic, without opening a dialog box.

One-Button Access to Simulation

After design creation, the system can be simulated to check its operation under a variety of conditions. Saber Sketch is closely integrated with the Saber Simulator for simulation, and for viewing and analyzing the simulation results. Simply click on the Saber Sketch toolbar to launch the Saber Simulator. Minor modifications to the design (changing the value of a resistor or capacitor) does not require re-netlisting so simulation is fast and efficient.

This saves time by only generating a new netlist when needed and allows quick “what if” analysis. Saber Sketch and SaberScope offer bi-directional communication that allows:

- Cross probing - Selecting a node on a schematic and plotting the corresponding waveform
- Cross selection - Selecting a waveform selects the corresponding node on the schematic
- Back annotation - Display the DC values of every node on the schematic

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Documenting a Design

Saber Sketch makes it easy to document a design for test procedures, service documentation and manufacturing. Probes make schematics self-documenting by displaying signals anywhere on a schematic. A drawing toolset allows creation of custom annotation and graphics right on the schematic. Additionally, Saber Sketch offers automatic annotation of design information like sheet number and modification date to ensure consistency in designs.

Saber Sketch can be integrated into PCB design environments from Zuken, Mentor Graphics, and Cadence.

Summary

Saber Sketch offers the ease and flexibility to quickly create mixed-signal and mixed technology designs. Since the Saber simulator is closely integrated with Saber Sketch, powerful simulation, waveform display, and analysis are a mouse click away. Documenting your design for test, manufacturing and service can be automatic with built-in features like DesignProbe.™

Platform Support

- Popular Unix
- Linux
- Windows

For more information about Synopsys products, support services or training, visit us on the web at www.synopsys.com/saber, contact your local sales representative or call 650.584.5000.