

## SCHEMATIC EDITOR and SCHEMATIC VIEWER



Gateway supports flat or hierarchical designs of any technology. Gateway readily accepts legacy designs from other schematic editors (PSPICE, OrCAD, Composer, etc.) through EDIF 200 standard. Gateway can be used by large design teams through global preferences and handles multiple designs and technologies with specific workspaces.

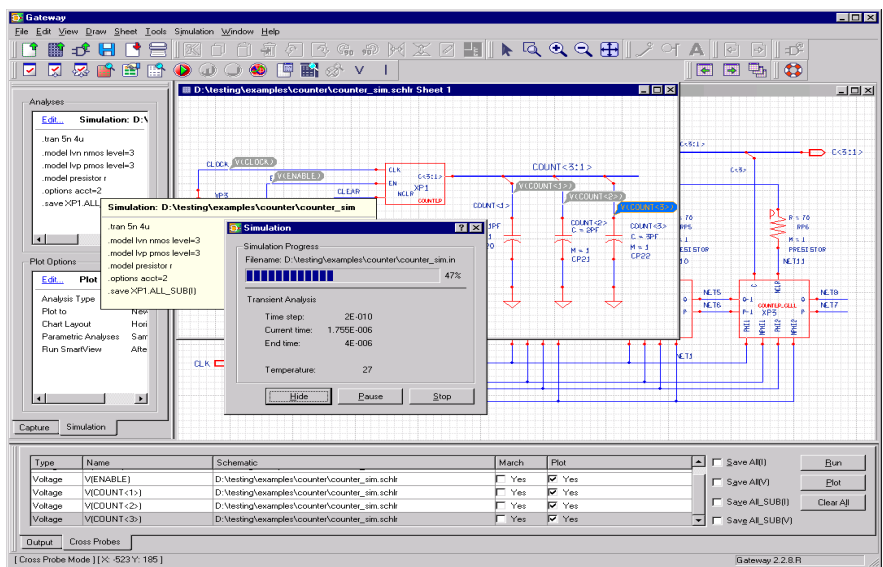
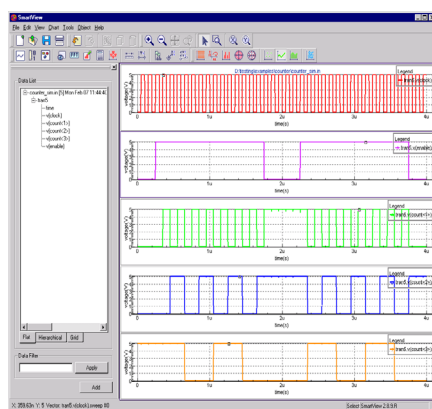


- **Powerful schematic capture and editor functionality to create and modify multi-view, multi-sheet, hierarchical IC designs**
- **GatewayViews is licensed at no cost for only viewing and navigating schematic designs**
- **Seamless integration with SmartSpice Circuit Simulator that creates an interactive design environment with behavioral models, cross-probing, waveform display, and analysis**
- **Create HSPICE compatible input decks**
- **Controls multi-user projects with shared work spaces for libraries of cells and symbols used by the design team**
- **Transition from other schematic capture tools via EDIF 200**
- **Create netlists for simulation, NDL and LVS from one schematic**
- **Silvaco's strong encryption is available to protect valuable customer and third party intellectual property**

## Full Functionality

- Easy to create symbols, subcircuits, subschematics, and Verilog-A models
- Comprehensive symbol creation and editing features for simulation, schematic-driven-layout, and LVS compatibility
- User-configurable keys for repetitive tasks and to emulate legacy capture tools
- Comprehensive search and replace to process porting, IP reuse, and interactive design
- Hierarchical capture for modular, reusable designs, libraries, and working with legacy circuits
- Powerful edit-in place functions with wires, busses, bus ripping, and bus merging
- Designer configurable rule checks show electrical drawing rule violations and illegal names
- Parameterized cells (Pcells) source design entry data for autogeneration of design-rule-connect layout components

Gateway provides a front-end to hierarchical design with cross-probing, marching waveforms, analysis options, and optimization.



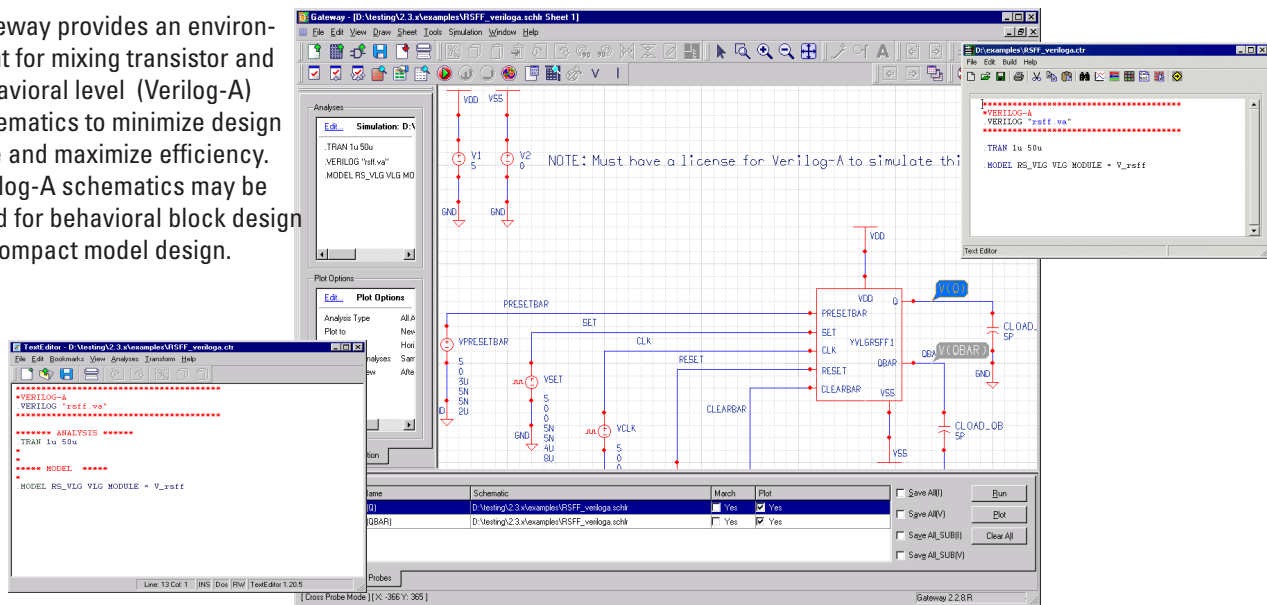
## Ease of Use and Adoption

- Easy to use for both new and experienced designers with intuitive left-to-right design approach, tool tips, and batch simulation control
- Easy to set up multi-user environment with libraries and import legacy data using EDIF
- Help functions and tool tips for new users
- Batch simulation options directly accessible from schematic
- Parameter minimum/maximum checking eliminates entry errors
- Supports wire to wire, wire to pin, wire by name, and implicit/global connections

## Integrated Custom IC Design Platform

- Front-to-back design automation solution for custom analog circuits
- Connects Silvaco behavioral modeling, schematic, circuit simulation layout, DRC, LVS, and parasitic extraction with proven feedback flows
- Integrated with SmartView Graphical Waveform Postprocessor for overlaid measurements of delays, slopes, overshoots, rise-time, and eye diagrams – complete with vector calculator
- Powerful cross-probing between schematic and post-processing provide real-time design feed back
- Call-backs evaluate expressions in real-time for design rules, tolerances, parametric calculation, and process skews
- DC bias display for currents and voltages throughout hierarchy

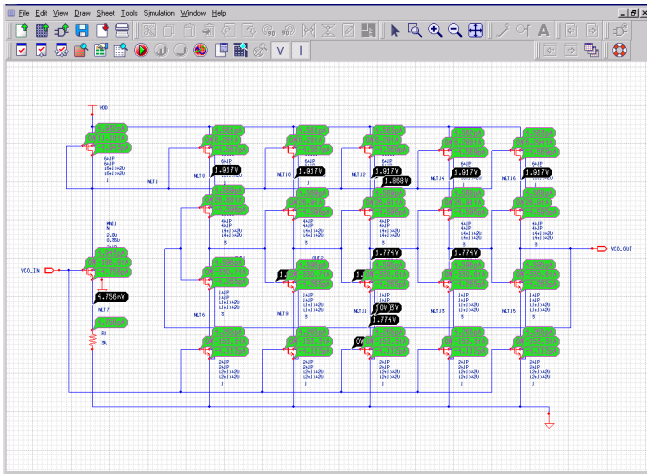
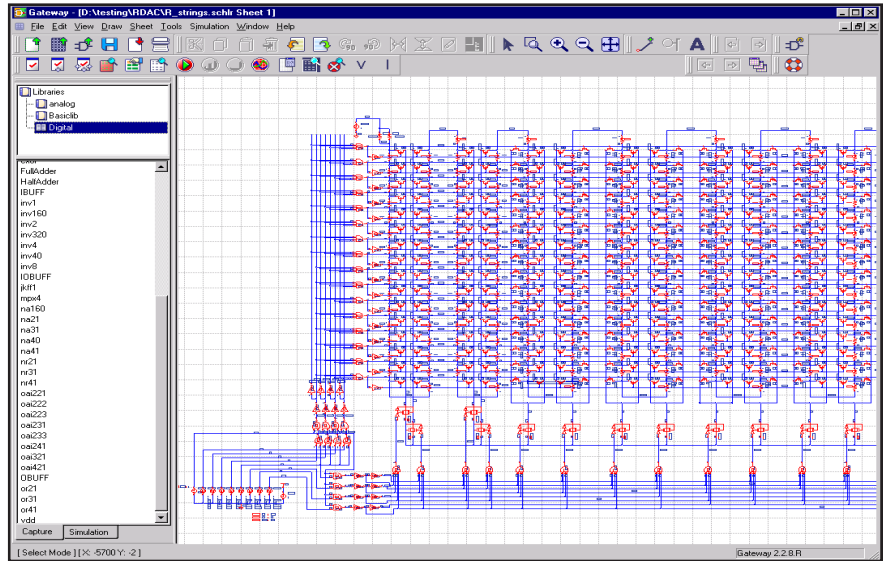
Gateway provides an environment for mixing transistor and behavioral level (Verilog-A) schematics to minimize design time and maximize efficiency. Verilog-A schematics may be used for behavioral block design or compact model design.



## Designer Productivity

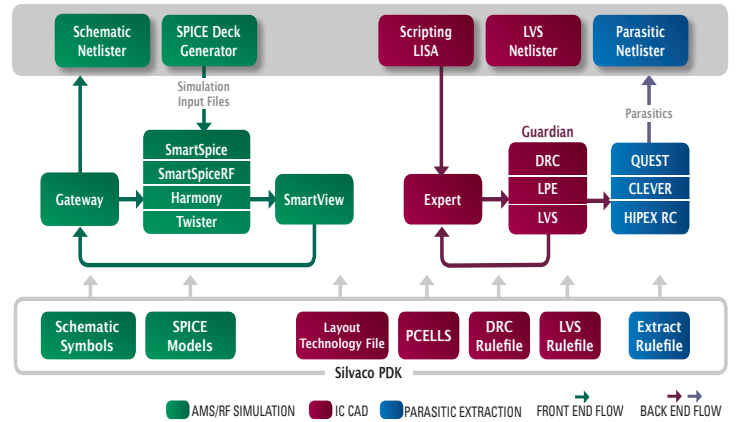
- Creates multiple views for layout, simulation, and LVS for design integrity and smooth tapeouts
- Spreadsheet data entry, netlist import, EDIF reader, and automatic symbol generation for easy re-use of legacy circuits
- Supports encrypted netlists behind symbols in design kits for IP distribution
- Marching waveforms allow real-time viewing of simulation results to check on long simulations
- Efficient control of the design flow between schematic, simulation, and analysis
- Highlights errors and zooms to schematic location/level for correction

Gateway applications include interactive IC design to build and port digital and analog blocks, standard cells, I/Os, and, as shown at the right, hierarchical memories.



DC bias for currents and voltages for Hierarchical and flat drawings.

### Silvaco PDK in Complete Custom IC Design Platform



Gateway in Complete Custom IC Design Platform

# SILVACO

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