Expert
Layout Editor

Expert is a high performance hierarchical IC layout editor with full editing features, large capacity and fast layout viewing. Expert provides high level of design assistance with Schematic Driven Layout and parameterized cells (Pcells).

Key Features

- Productive layout environment for analog, mixed-signal, RF, and digital layouts with integrated DRC/LVS/LPE and 3D based parasitic extraction

- Schematic Driven layout Improves TAT of custom layout design

- Offers powerful scripting capability

- Integrated with Calibre Interactive and Calibre RVE for physical verification using industry standard formats

- Expert Node Probing offers node highlighting for connectivity visualization. It highlights all layout objects electrically connected with the object you click

- Performs layout versus layout comparison (LVL)

Easy to Adopt and Use

- Customizable hotkeys, macros, and toolbars support layout designers' preferences

- Process Design Kits (PDKs) from foundries enable quick start-up of new design environments

- Informative, easily accessible online help for all menus and icons

- Linux and Windows availability enables wide deployment on economy workstations

- Simple installation process does not require consultants to set up environment

- Cross-platform floating license system available

- Drives wide selection of printers and plotters (HP, Gerber, Versatec) with multi-page tiling based on paper size

Productive Layout Environment

- Fast GDSII file loading, editing, and viewing of extremely large databases

- Rapid pan and zoom with multiple windows through multi-level hierarchy – with bookmarks for tracking

- DRC assist allows designer to enable checking of certain design rules during editing operations; errors can be displayed and interactively corrected

- Productive layout environment for analog, RF, microwave and digital circuits in CMOS, Bipolar, BiCMOS, SiGe, GaAs, InP and other unique processes

- Multi-window editing of full hierarchy with edit in place, grouping, search, and fast navigation with fewer mouse clicks

- Ideal for reticle creation and mask touch up

- Customizable hotkeys menu and command line for convenience of command invocation

- Integrated with Silvaco's verification suite Guardian (DRC/LVS/NET) and parasitic extraction tool Hipex

- Tightly integrated with Silvaco's field solver-based 3D RC extraction tool Clever

- Supports derived layers

- Command line input for all commands

- Supports edit-in-place, exploded view, and flattened data

- Data safety option maintains running log for undo
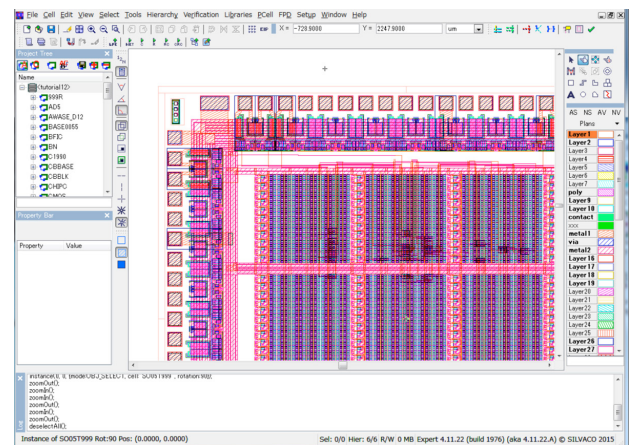
Fully customizable hotkeys, macros, toolbars, layers, colors, and stipples can be directly imported from Virtuoso to give layout designers familiar and productive working environment.
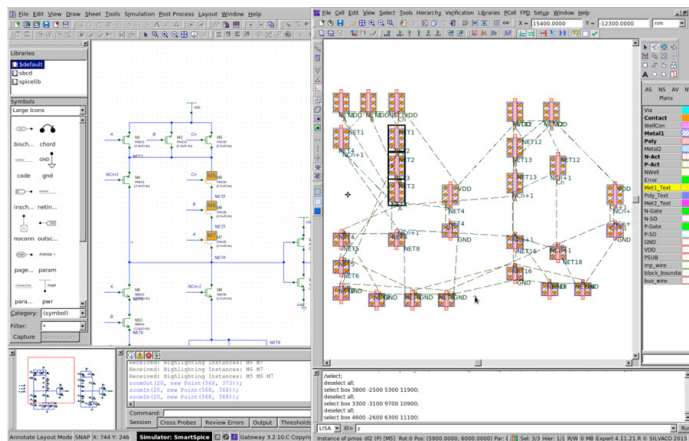
Interoperable with Popular Design Flows

- Directly reads Calibre and error reports for Result Viewing Environment (RVE)

- Technology file import from Virtuoso™ for layers, colors, stipples

- Supports all Industry standard design formats
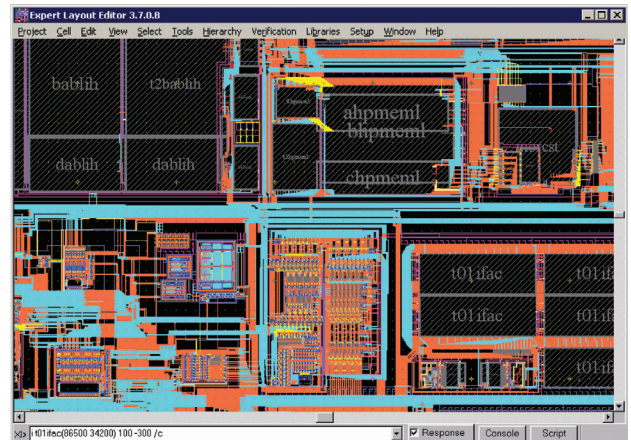
Powerful Layout Editor Functionality

- Schematic-driven layout and parameterized cells (Pcells)

- Check-in, check-out library manager enables designers to simultaneously work on the same project across a network

- Autoscaling and resize feature minimizes process migration efforts

- Schematic Driven Layout improves TAT for IC custom layout design, with cross-probing between Gateway schematic editor and Expert
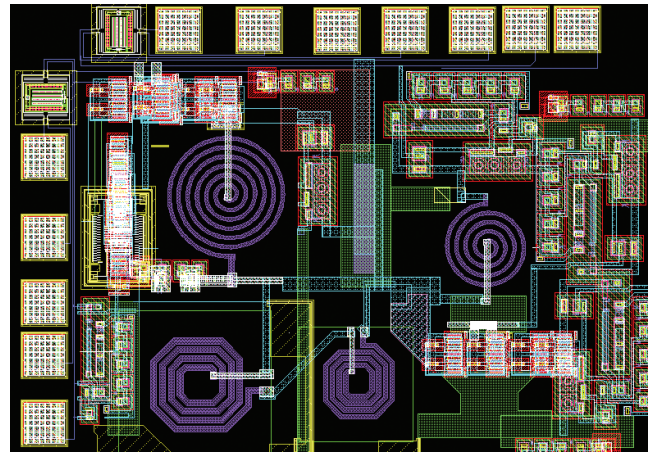
Versatile editor creates all-angle polygons for analog, RF, and microwave circuit elements, including inductors and power devices in CMOS, Bipolar, BiCMOS, SiGe, GaAs, SiC, InP, TFT, and other process technologies.

High Capacity: Expert loads large designs in excess of 10 Gigabytes in minutes – not hours. Enables fast panning and zooming of extremely large databases. Ideal for mask preparation and router touch up.

Expert's Schematic driven layout capability with cross-probing between schematic editor Gateway.

All-Angle Features

- Wires and devices at 90 degrees, 45 degrees, or any angle

- Any angle rulers for accurate measurement