SIEMENS Calibre® RVE™ for LVS Quick Reference

Software Version 2024.1

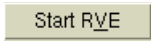
Documentation

Refer to the *Calibre RVE User's Manual*.

Application Launch

From a layout or schematic editor choose:
Start RVE from **Calibre, Tools**, or **Verification** menu.

From left panel of Calibre Interactive:



From the command line:

```
calibre -rve
calibre -rve -lvs path_to_SVDB [TOPCELL]
calibre -rve -perc path_to_SVDB [TOPCELL]
calibre -rve -perc path_to_DFMDB [TOPCELL]
calibre -rve -pex path_to_SVDB [TOPCELL]
```

Connecting to a Layout or Schematic Editor

- Connection to a layout or schematic editor is made automatically when you start Calibre RVE from the editor or from Calibre Interactive with an editor connected to the Calibre Interactive session.
- For instructions on making a manual connection to an editor, see the *Calibre RVE User's Manual*.

LVS Recommended Rule File Settings

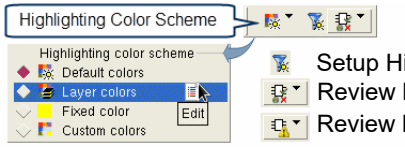
It is strongly recommended that your rule file include the following SVRF statements:

- SVDB File (any file name specified is fine):
  Mask SVDB Directory svdb QUERY SI
- For Short Isolation:
  LVS Isolate Shorts YES BY CELL BY LAYER CELL ALL
- For Design Fix Suggestions:
  LVS Report Option FX

Calibre PERC Results

View Calibre PERC results in Calibre RVE for PERC.
See *Calibre RVE for PERC Quick Reference* for more information.

LVS Toolbar



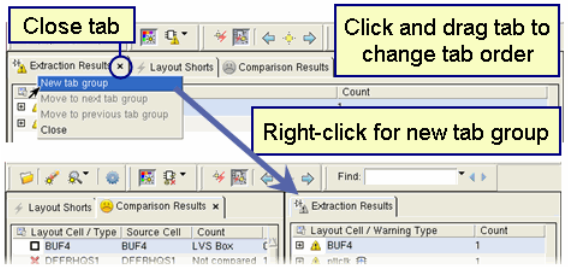
Setup Highlight Filters
Review by, Comparison Tab
Review by, Extraction Tab

Color Scheme:

Default colors — Cycles through the default set of highlight colors.
Layer colors — Uses a separate highlight color for each design layer.
Fixed color — Uses a single color for all highlights.
Custom colors — Cycles through a custom set of highlight colors.

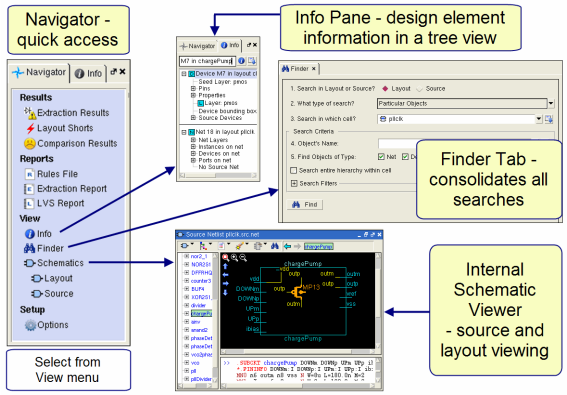
Tabbed Views

Results and reports are arranged in tabs. Right-click for a tab control menu.



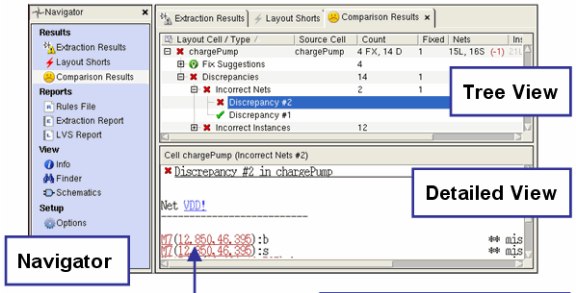
Tab groups make side by side comparison easier.

Navigation, Information, and Search



LVS Comparison Results

Tab icon indicates status: Clean or Error



Click to highlight in layout and schematic.

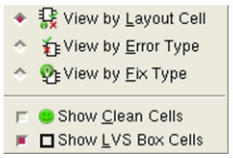
Red indicates an unmatched element.

LVS Comparison Icons
Discrepancies
Fix Suggestions
LVS Box
Clean cell

Top cell

Right-click a discrepancy to mark it as fixed

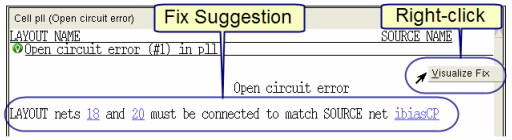
Sort results in tree view
View > Tree Options



Right-click in detailed view for context-sensitive menu

Fix Suggestions

Click a Fix Suggestion icon in the Tree View to bring up a suggestion for fixing common comparison errors in the detailed view. Right-click to view the suggestion.

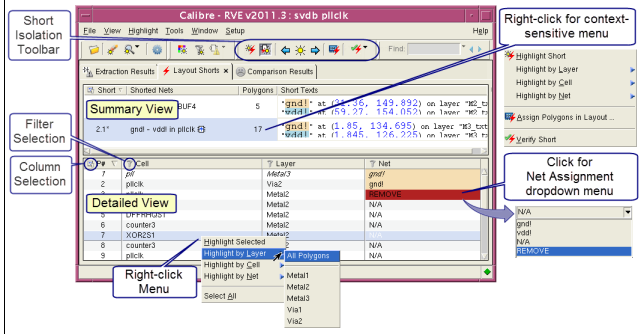


LVS Short Isolation

Specify short isolation in your rule file with this statement:

LVS Isolate Shorts YES BY CELL BY LAYER CELL ALL

Results are shown in the **Layout Shorts** tab.



Highlight Short

Highlight in Short Cell

Verify Short

Highlight in Top Cell

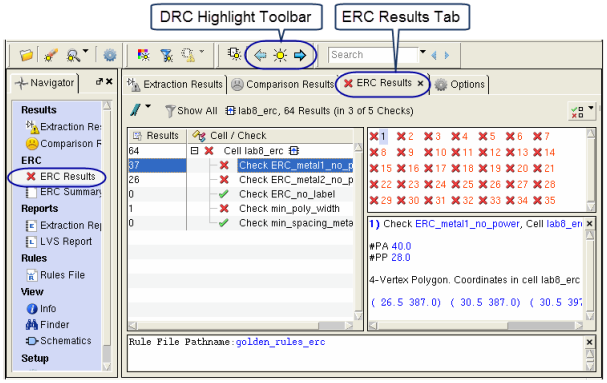
Use Layer Colors

Assign Polygons to Nets

Highlight Previous, Current, Next Polygon

ERC Results

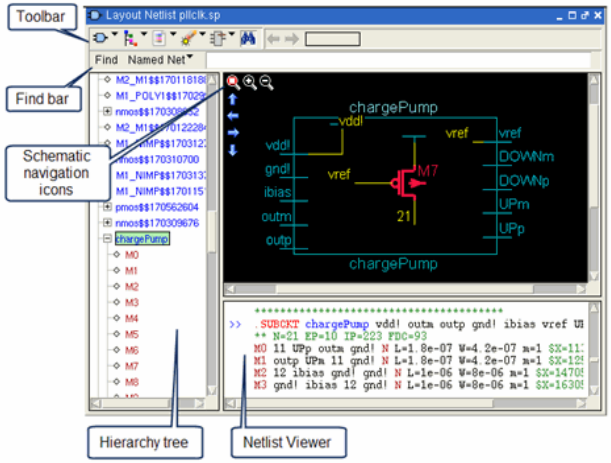
View ERC results within Calibre RVE for LVS. ERC results, if present, show up in the Navigator. The ERC results tab is in the DRC RVE results format.



Internal Schematic Viewing

The internal schematic viewer uses schematic rendering for both source and layout schematic viewing.

- Turn off automatic opening of the internal schematic viewer by disabling “Show netlist schematics on highlighting” on the **Setup > Options > Schematic Viewer** pane.
- See the **Setup > Options** tab for additional settings.



Schematic Navigation

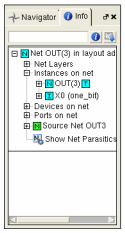
The following keyboard shortcuts and mouse actions are available in the Internal Schematic Viewer:

Keyboard Shortcuts	
Fit in window	Home
Pan	Arrow keys, Page up, Page down
Left Mouse Button Actions	
Highlight net or pin	Click on net or pin
Draw connected nets	Double-click on pin
Draw (expand) cell contents	Double-click on cell outline
Collapse cell	Double-click on outline of expanded cell
Right Mouse Button (RMB) Actions	
Highlight element	**RMB > Highlight**
Remove highlight	**RMB > Unhighlight**
Other context-sensitive actions	Click RMB on element

Calibre RVE for PEX and Net Parasitics

The **Parasitics** tab displays parasitic results in a table format.

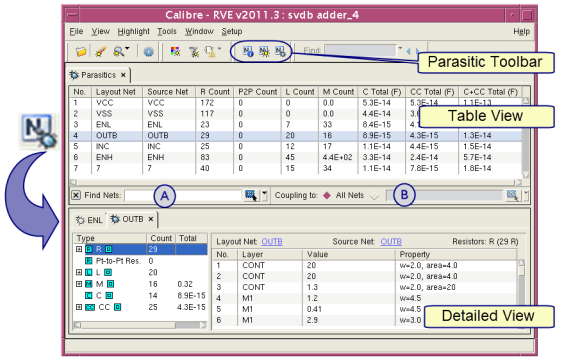
You can do the following in a PEX session:



Highlight nets in layout and source

Show net information hierarchically

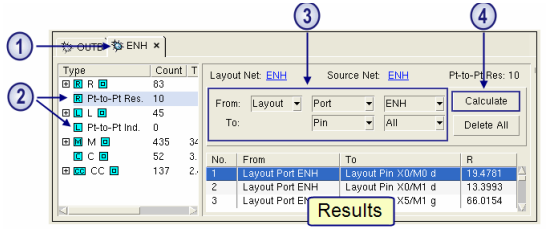
Show detailed parasitics using toolbar button or double-click (shown below)



A Search for nets

B Calculate coupling capacitance

- Export parasitic data to a file:
  File > Export Parasitics > Summary Table
- Calculate mutual inductance:
  Tools > Mutual Inductance
- Calculate Point-to-Point Resistance or Inductance



- Save point-to-point data:
  File > Export Parasitics > Pt-to-Pt Resistance
  File > Export Parasitics > Pt-to-Pt Inductance

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