

# Clarity RLC

## RLC Netlist Reduction



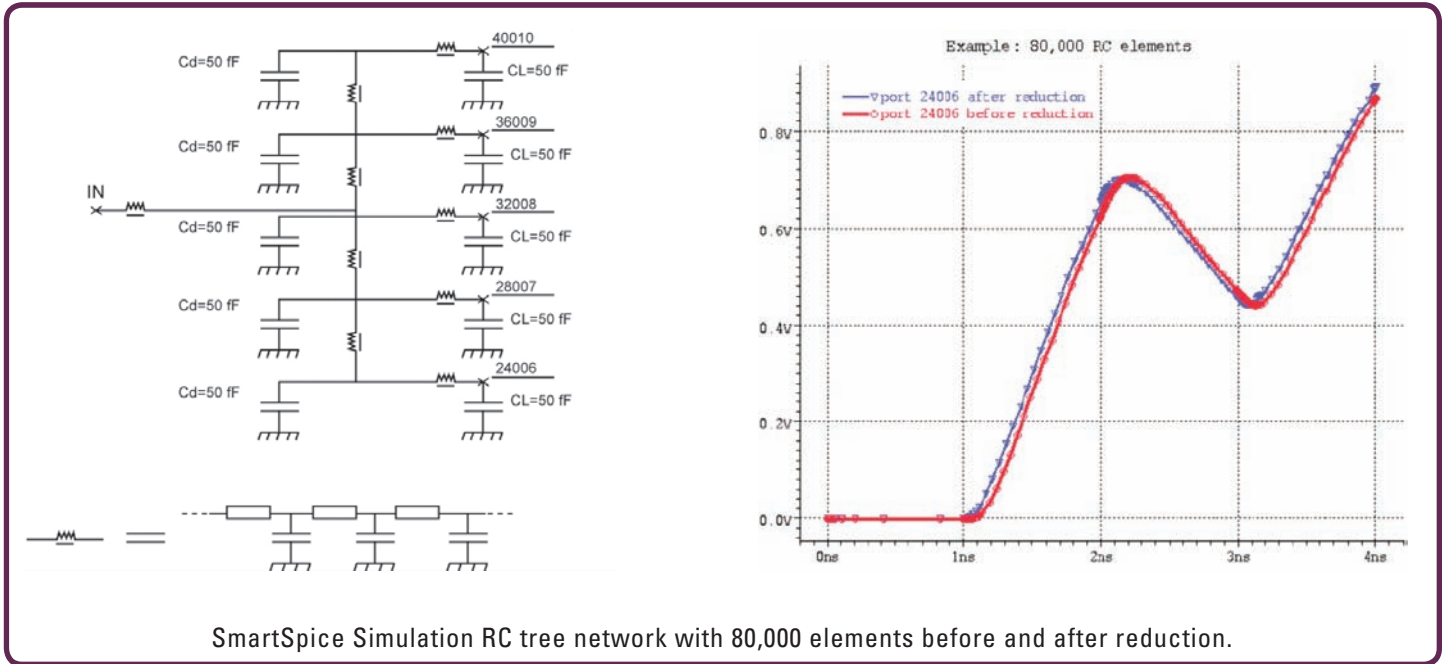
Clarity RLC is an efficient and accurate tool that performs reduction of linear parasitic RLC elements in extracted netlists. Tool is based on Scattering-Parameter-Based Macromodeling and Time Domain methods.

- Capable of handling the netlists with multimillion number of parasitic elements produced by major EDA parasitic extractors
- Significantly reduces runtime of post-layout and post-route simulations
- Performs filtering of dangling elements and elements with value less than a user specified threshold
- Performs parallel and series merging
- Performs the netlist reduction in linear time using Scattering-Parameter-Based Macromodeling method and switches between it and Time Domain Method depending on reduction index of netlist
- Analyses the interconnect models other than RC-trees, and therefore, coupling capacitors and resistor loops can be handled without loss of generality
- Supports SPICE, DSPF, or SPEF formats
- Silvaco's strong encryption is available to protect valuable customer and third party intellectual property

**SILVACO**

**Reduction  
Productivity,  
Easy to Adopt  
and Use**

- Preserves the accuracy with less than 3% error compared to SPICE simulations for original networks
- Reduces up to 95% parasitic elements of RLC network
- Custom scripts using Lisa Scripting Language for processing of selecting subcircuits, cells, and nets
- Comprehensive report about reduction process
- Available on Linux (64 bit) and Windows platforms



SmartSpice Simulation RC tree network with 80,000 elements before and after reduction.

## Clarity RLC Inputs/Outputs



# SILVACO

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