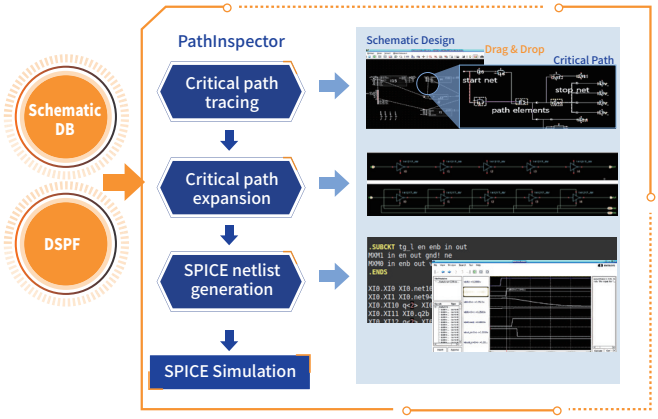
PathInspector

PRIMARIUS

TR-Level Critical Path Analyzer

Introduction

PathInspector is a TR-level critical path tracing and extraction solution which ensures the full-chip simulation accuracy with incredible speed performance. The most powerful feature of PathInspector is the industry-proven partial circuit extraction technology which enables users to extract and analyze partial SPICE netlist for the critical path, including coupling effect from DSPF. A user-friendly environment is also provided based on the graphical user interface since PathInspector can access the OpenAccess schematic database of a 3rd party tool.



Key Advantages

- Efficient critical path tracing for TR-level design
  - -Automatically generate partial circuit with parasitic elements
  - -Directly access OpenAccess schematic/netlist database
- Enables fast circuit simulation with high accuracy
- Interactive critical path analysis reduce design TAT
  - -Fix the critical path timing violation at early design stage
  - -Reduce verification TAT with PathInspector methodology
- Flexible design data interface (schematic or netlist)
- Flexible tool integration
  - -Interface with NanoSpice and other 3rd party circuit simulators
  - -Support SPICE netlist interface flow
- Loading effect aware circuit expansion
- Automatic side input assignment

Applications

- Memory Design
- Custom SoC Design

Specifications

- Direct schematic DB interface
- Flexible critical path definition
- Sub-circuit extraction for critical path
- Logical function extraction for primitive cell
- Flexible input data preparation (SPICE netlist and RC parasitic file)
- Automatic bias input for floating inputs assignment for accurate circuit simulation
- Fully verified 3rd party simulator I/F (NanoSpice, NanoWave)
- TR-level circuit path tracing and extraction
  - Interactive critical path tracing based on graphical user interface
  - Critical path extension with terminal rules
  - SPICE netlist generation including coupling effect from DSPF
- Graphical visualization
  - Schematic viewer and tracer for OpenAccess based schematic database from a 3rd party tool
  - Interactive cross-probing