

Catalyst DA

Verilog Netlist to SPICE Netlist Converter



Catalyst DA is a software program that translates a structural Verilog netlist into equivalent SPICE format netlist to be used for layout verification or SPICE simulation.

- **An automated solution for generating SPICE netlists from Verilog structural description**
- **Accepts IEEE 1364-2001 Verilog input files**
- **Capable of generating netlists in Calibre extended SPICE format as well as standard SPICE format**
- **Performs syntax and syntactical checking of Verilog source files**
- **Performs a partial translation of Verilog netlists even if some module definitions are not available**
- **Automatically creates and connects SPICE power and ground nets**
- **Capable of handling multi-million gate Verilog netlists**
- **Catalyst DA and Guardian LVS together deliver a complete layout verification solution**
- **Silvaco's strong encryption is available to protect valuable customer and third party intellectual property**

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Features

- Command options can be integrated into an option file for easy reuse and better project management
- Flexible power and ground net naming options
- Option to name primitive gates to resolve name conflicts
- User can add additional pins to a subcircuit definition

Input Example:

```
module top ();
supply1 PWR;
supply0 GND;
wire [0:1] w1;
wire a,b,c;
A inst1 ( 2'b10, w1 );
and inst2 ( a, b, c );
endmodule

module A ( in1, out1 );
input [0:1] in1;
output [0:1] out1;
endmodule
```

Output Example:

```
.SUBCKT top
Xinst1 PWR GND w1[0] w1[1] A
Xinst2 a b c and
.ENDS

.GLOBAL GND
.GLOBAL PWR

.SUBCKT A in1[0] in1[1] out1[0] out1[1]
.ENDS
```

Catalyst DA Inputs/Outputs



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Rev 042513_04