

4.4.14 Constant versus dynamic arguments

Some of the arguments to the analog operators described in this section and the events described in Section 6 expect dynamic expressions and others expect constant expressions. The dynamic expressions can be functions of circuit quantities and can change during an analysis. The constant expressions remain static throughout an analysis.

Issue #84a: delay to absdelay in table below

Table 4-21 summarizes the arguments of the analog operators defined in this section.

Table 4-21—Analog operator arguments

Operator	Constant expression arguments	Dynamic expression arguments
ddt	abstol	expr
idt	abstol	expr.ic,assert
idtmtd	abstol	expr.ic,module,offset
cross	expr_tol,time_tol	expr.dir
last_crossing		expr.dir
delay	maxdelay	expr.ta
absdelay	maxdelay	expr.td
transition		expr.td,rise_time,fall_time
slew		expr.max_pos_slew_rate,max_neg_slew_rate
zi_zp zi_zd zi_np zi_nd	zeros,poles,T,t0	expr,τ
lplace_zp lplace_zd lplace_np lplace_nd	poles,abtol,zero	expr
timer	time_tol	start_time,period
linexp		expr

If a dynamic expression is passed as an argument which expects a constant expression, the value of the dynamic expression at the start of the analysis defaults to the constant value of the argument. Any further change in value of that expression is ignored during the iterative analysis.