typical analysis types. Additional analysis names can also be used as necessary for specific implementations. (See Section 4.5.1 for further details.)

Table 6-1—Return Values for initial_step and final_step

Analysis[a]	**DCOP** OP	**Sweep**[b] d1 d2 dN	**TRAN** OP p1 pN	**AC** OP p1 pN	**NOISE** OP p1 pN
initial_step	1	1 0 0	1 0 0	1 0 0	1 0 0
initial_step("ac")	0	0 0 0	0 0 0	1 0 0	0 0 0
initial_step("noise")	0	0 0 0	0 0 0	0 0 0	1 0 0
initial_step("tran")	0	0 0 0	1 0 0	0 0 0	0 0 0
initial_step("dc")	1	1 0 0	0 0 0	0 0 0	0 0 0
initial_step(*unknown*)	0	0 0 0	0 0 0	0 0 0	0 0 0
final_step	1	0 0 1	0 0 1	0 0 1	0 0 1
final_step("ac")	0	0 0 0	0 0 0	0 0 1	0 0 0
final_step("noise")	0	0 0 0	0 0 0	0 0 0	0 0 1
final_step("tran")	0	0 0 0	0 0 1	0 0 0	0 0 0
final_step("dc")	1	0 0 1	0 0 0	0 0 0	0 0 0
final_step(*unknown*)	1	0 0 0	0 0 0	0 0 0	0 0 0

a. p*X* Table 6-1 designates frequency/time analysis point *X*, *X* = `1` to *N*; *OP* designates the Operating Point.

b. Sweep analysis refers to a DC analysis over a sweep of parameter values and an operating point analysis is performed for each DC point in the sweep.

Examples:

The following example measures the bit-error rate of a signal and prints the result at the end of the simulation.

```
module bitErrorRate (in, ref) ;
   input in, ref ;
   electrical in, ref ;
   parameter real period=1, thresh=0.5 ;
   integer bits, errors ;

   analog begin
      @(initial_step) begin
         bits = 0 ;
         errors = 0 ;
      end
```