

```

library ieee;

use ieee.std_logic_1164.all;

use ieee.std_logic_arith.all;

entity pract0 is port (
    a,b,ref : in std_logic_vector(2 downto 0);
    sel: in std_logic;
    dis: out std_logic_vector(6 downto 0));
    attribute pin_numbers of pract0 : entity is
        "a(0):2 a(1):3 a(2):4 b(0):5 b(1):6 b(2):7 ref(0):8 ref(1):9 ref(2):10 sel:11 ";
end pract0;

architecture apract0 of pract0 is
    signal aux,cod : std_logic_vector(2 downto 0);
    begin
        aux <= a when sel = '1' else b;
        process(aux,ref) begin
            if(aux<ref) then cod <= "100";
            elsif(aux>ref) then cod <= "001";
            else cod <= "010";
            end if;
        end process;
        process(cod) begin
            if(cod = "100") then dis <= "1111000"; --78
            elsif(cod = "001") then dis <= "1001110"; --4E
            elsif(cod = "010") then dis <= "1001000"; --48
            else dis <= "-----";
            end if;
        end process;
    end architecture;

```

Cuando a = ref:

Name	Value	Sti...	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	1600	
a	1	<...																	
b	1	<...																	
ref	1	<...																	
sel	0	<= 0																	
dis	48		X4E X4A X48																

Stimulators

Signals

Hotkeys

Predefined

Signals:

Name	Type
<input checked="" type="checkbox"/> a	<= 001
<input checked="" type="checkbox"/> b	<= 001
<input checked="" type="checkbox"/> ref	<= 001
<input checked="" type="checkbox"/> sel	<= 0

☐ Display paths

Apply

Stimulator type:

Value

Strength:

Override

Force value:

001

Close

Cuando a < ref:

Name	Value	Sti...	950	960	970	980	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	
a	0	<...	X0																
b	1	<...																	
ref	1	<...																	
sel	1	<= 1																	
dis	78																		

Stimulators

Signals

Hotkeys

Predefined

Signals:

Name	Type
<input checked="" type="checkbox"/> a	<= 000
<input checked="" type="checkbox"/> b	<= 001
<input checked="" type="checkbox"/> ref	<= 001
<input checked="" type="checkbox"/> sel	<= 1

☐ Display paths

Apply

Stimulator type:

Value

Strength:

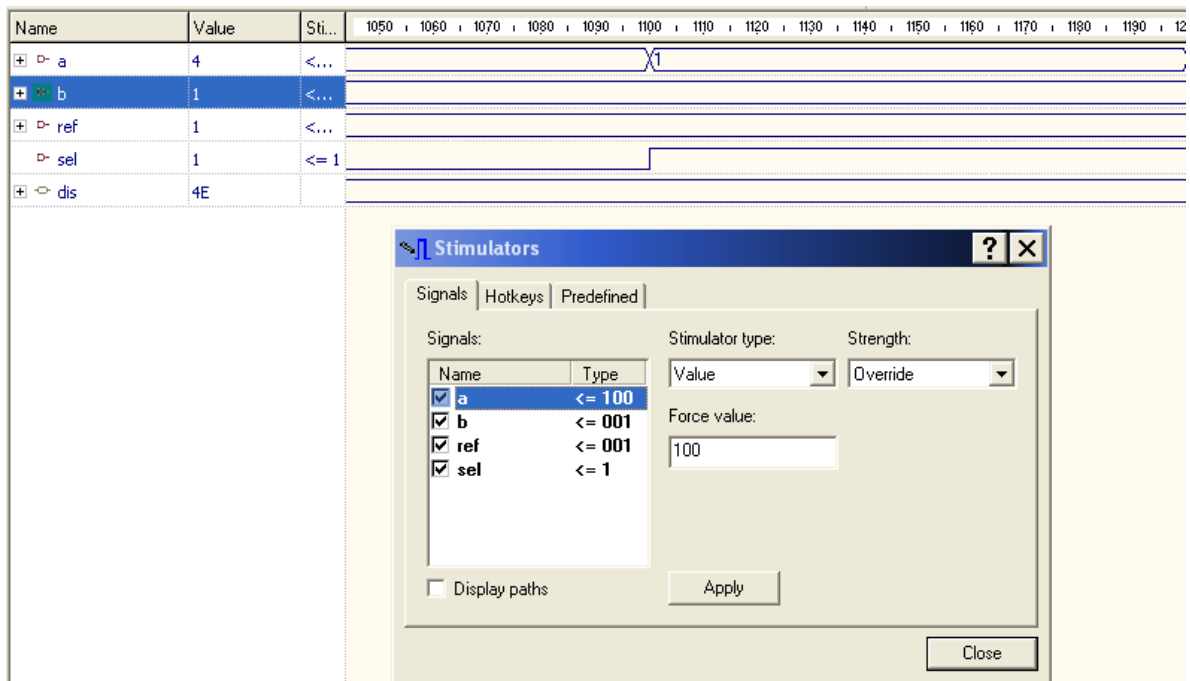
Override

Force value:

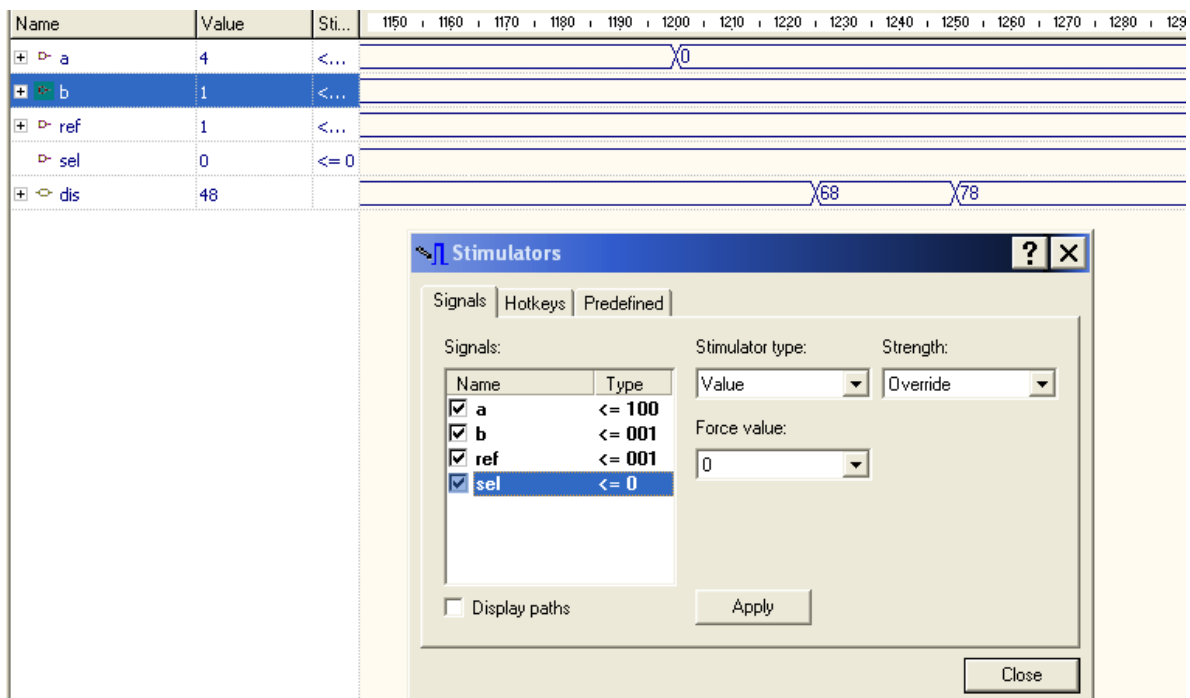
000

Close

Cuando a > ref:



Cuando b = ref:



Cuando  $b < \text{ref}$ :

Name	Value	Sti...	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390	1400
a	4	<...																
b	0	<...																
ref	1	<...																
sel	0	$\leq 0$																
dis	78																	

Stimulators

Signals

Hotkeys

Predefined

Signals:

Name	Type
<input checked="" type="checkbox"/> a	$\leq 100$
<input checked="" type="checkbox"/> b	$\leq 000$
<input checked="" type="checkbox"/> ref	$\leq 001$
<input checked="" type="checkbox"/> sel	$\leq 0$

Stimulator type:

Value

Strength:

Override

Force value:

000

☐ Display paths

Apply

Close

Cuando  $b > \text{ref}$ :

Name	Value	Sti...	1350	1360	1370	1380	1390	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500
a	4	<...																
b	2	<...																
ref	1	<...																
sel	0	$\leq 0$																
dis	4E																	

Stimulators

Signals

Hotkeys

Predefined

Signals:

Name	Type
<input checked="" type="checkbox"/> a	$\leq 100$
<input checked="" type="checkbox"/> b	$\leq 010$
<input checked="" type="checkbox"/> ref	$\leq 001$
<input checked="" type="checkbox"/> sel	$\leq 0$

Stimulator type:

Value

Strength:

Override

Force value:

010

☐ Display paths

Apply

Close