

delay_2.xce

Attributes

```
main_vars: x y
rparms: t_delay=1
```

Description

delay_2.xce is used to get an output y which is a delayed form of x . The real parameter t_delay specifies the amount of delay. If the input is a square wave from 0 to V_0 , then the output waveform resembles an RC circuit response and goes through $V_0/2$ at a time t_delay after the clock edge. This is illustrated in Fig. 1 for the circuit file shown below.

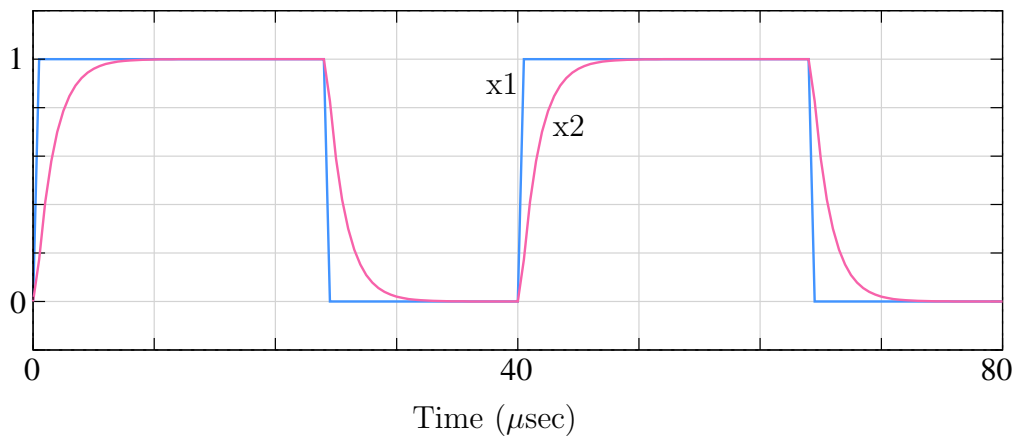


Figure 1: Waveforms obtained with delay_2.xce.

```

begin_circuit
    xelement name=clock1 type=clock_1 y=x1
+   frequency=25k duty_cycle=0.6
+   x_high=1 dt1=0.5u dt2=0.5u

    xelement type=delay_2 x=x1 y=x2 t_delay=1u

    outvar:
+   x1=xvar_of_x1
+   x2=xvar_of_x2
end_circuit

begin_solve
    solve_type=trns
    begin_output
        filename=delay_2.dat
        variables: x1 x2
    end_output
    method:
+   modified_euler=yes
+   t_start=0 t_end=80u delt_const_x=0.5u
end_solve

```

AC behaviour is not implemented.