

lag_2.xbe

Attributes

```
xbe name=lag_2 integrate=yes
# This is used to create a "lag".
# d_dt(y)=(1.0/tr)*(-y+x)
# tr is computed s.t., at t=t_delay, y=v_high/2 (assuming
# a step from 0 to v_high is applied)
#
Jacobian: constant
input_vars: x
output_vars: y
aux_vars:
iparms:
sparms:
rparms:
+ t_delay=1
+ k=1
stparms: y_st=0
igparms: y_ig=0
outparms: x y
```

Description

lag_2.xbe 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.

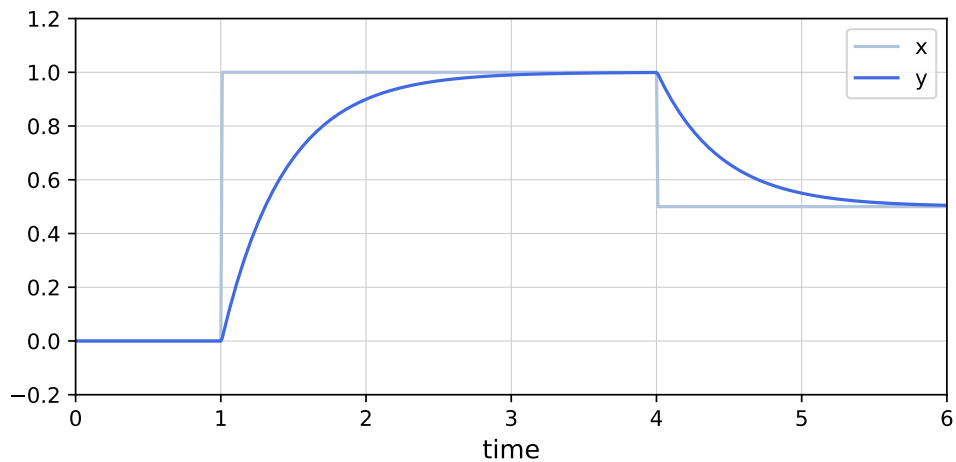


Figure 1: Waveforms obtained with lag_2.xbe, with $t_delay = 0.3$.