

# delay\_onestep\_1.xbe

## Attributes

```
xbe name=delay_onestep_1 evaluate=yes limit_tstep=yes save_history=yes allow_ssw=no
#
# delay by one time step; also limit time step
#
Jacobian: variable
input_vars: x
output_vars: y
aux_vars:
iparms:
sparms:
rparms:
+ x_high=1.0
+ dt=0.1u
+ x_last=0
+ x_cross=0
stparms:
igparms:
outparms: x y
```

## Description

delay\_onestep\_1.xbe is used to delay a signal by one simulation time step. In addition, it also limits the simulation time step as follows. The input  $x$  is assumed to be in the form of pulses (going from 0 to  $x_{high}$  and back). delay\_onestep\_1.xbe detects the low-to-high and high-to-low transitions in  $x$  and introduces additional time points ( $dt$  after the transition).

Apart from the time-step limiting feature, delay\_onestep\_1.xbe is similar to delay\_onestep.xbe.