

# sampler.xbe

## Attributes

```
xbe name=sampler evaluate=yes limit_tstep=yes save_history=yes allow_ssw=no
#
# sample and hold
#
Jacobian: variable
input_vars: x
output_vars: y
aux_vars:
iparms:
sparms:
rparms:
+ T=10u
+ t0=0
+ v_previous=0
+ dt=1u
+ epsl1=0
+ epsl2=0
stparms: y_st=0
igparms:
outparms: x y
```

## Description

sampler.xbe is used to sample a signal ( $x$ ) at uniform intervals. The parameters have the following meaning:

**T:** sampling interval.

**t0:** offset which determines the position of the first sample.

**dt:** dt is related to the resolution of the output  $y(t)$ . It should be small as compared to T.

$x$  and  $y$  are made available as output variables. Fig. 1 shows waveforms obtained with sampler.xbe.

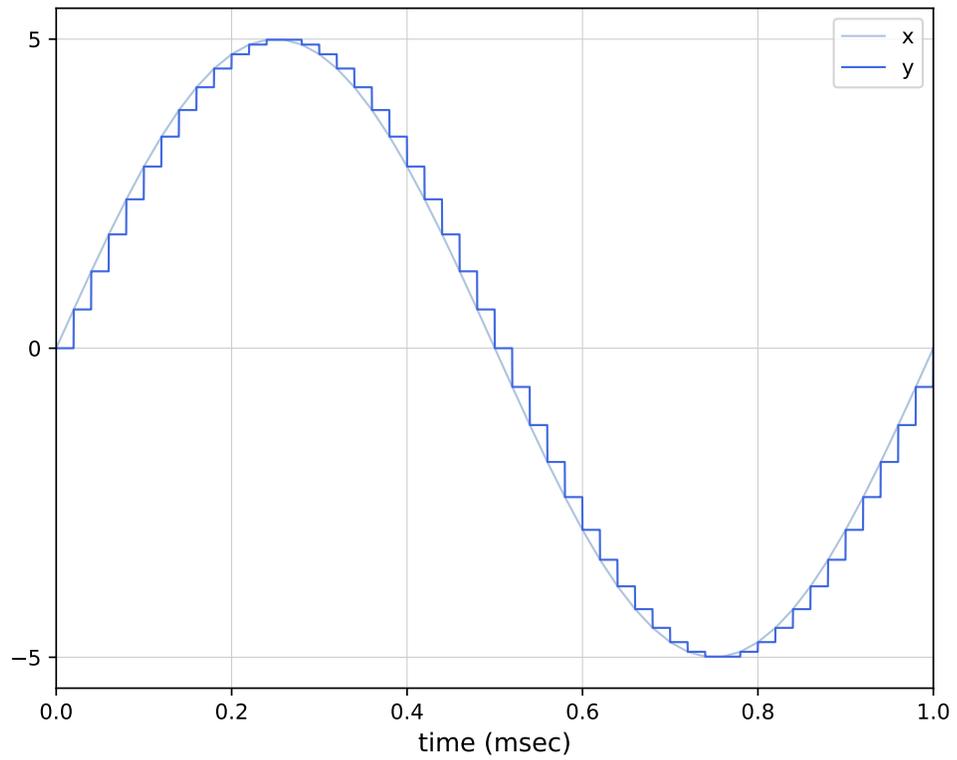


Figure 1: Waveforms obtained with `sampler.xbe`, with  $T = 0.02m$ ,  $t_0 = 0$ ,  $dt = 0.2u$ .