triangle_1.xbe

Attributes

```
xbe name=triangle_1 evaluate=yes limit_tstep=yes
# triangle source
Jacobian: constant
input_vars:
output_vars: y
aux_vars:
iparms:
sparms:
# L1 is the level at the beginning of the first interval
rparms:
+   T1=1
+   T2=1
+   L1=-1
+   L2=1
+   t0=0
+   T=0
+   slope1=0
+   slope2=0
+   epsl=0
stparms:
igparms:
outparms: y
```

Description

triangle_1.xbe is a triangle wave source with y as its output. The parameters have the following meaning:

T1: The first part of one period. y goes from L1 to L2 in this interval.

T2: The second part of one period. y goes from L2 to L1 in this interval.

t0: An "offset" time interval by which the waveform is shifted (to the right).

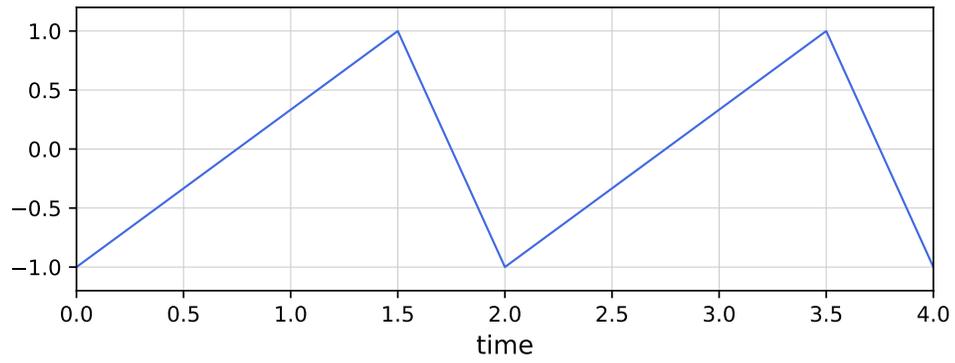The effect of the various paramters of triangle_1.xbe on $y(t)$ is shown in the following figures.

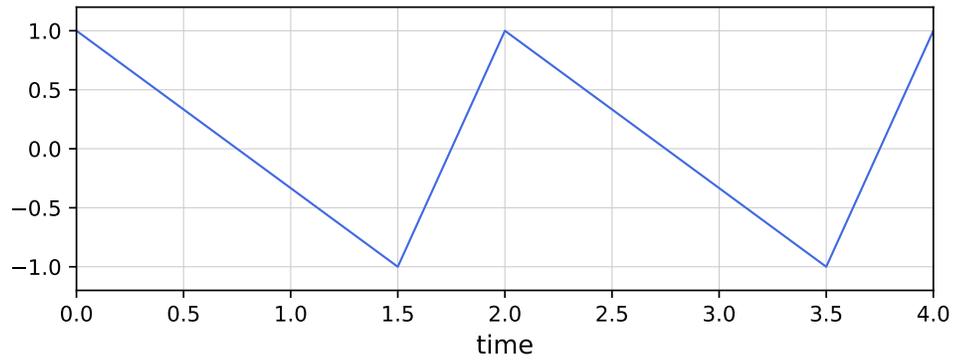Figure 1: $y(t)$ obtained with T1 = 1.5, T2 = 0.5, L1 = −1, L2 = 1, t0 = 0.

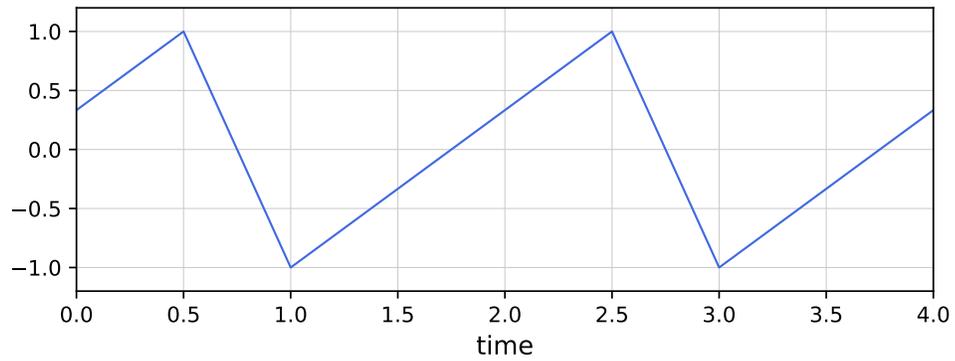Figure 2: $y(t)$ obtained with T1 = 1.5, T2 = 0.5, L1 = 1, L2 = −1, t0 = 0.

Figure 3: $y(t)$ obtained with T1 = 1.5, T2 = 0.5, L1 = −1, L2 = 1, t0 = 1.