

pwl20.xbe

Attributes

```
xbe name=pwl20 evaluate=yes limit_tstep=yes
# pwl20 source
Jacobian: constant
input_vars:
output_vars: y
aux_vars:
iparms: n=2
sparms:
rparms:
+ t1 =1 t2 =2 t3 =3 t4 =4 t5 =5
+ t6 =6 t7 =7 t8 =8 t9 =9 t10=10
+ t11=11 t12=12 t13=13 t14=14 t15=15
+ t16=16 t17=17 t18=18 t19=19 t20=20
+ v1 =1 v2 =2 v3 =3 v4 =4 v5 =5
+ v6 =6 v7 =7 v8 =8 v9 =9 v10=10
+ v11=11 v12=12 v13=13 v14=14 v15=15
+ v16=16 v17=17 v18=18 v19=19 v20=20
stparms:
igparms:
outparms: y
```

Description

pwl20.xbe is used to generate a piecewise linear waveform with up to 20 “break points”. The parameters have the following meaning:

n: Number of break points.

t1, t2, etc.: Time of break point 1, 2, etc.

v1, v2, etc.: Value of y at the corresponding break point. y is made constant (equal to v1) before t1. Also, y is made constant after the nth break point.

An example is shown in the following figure.

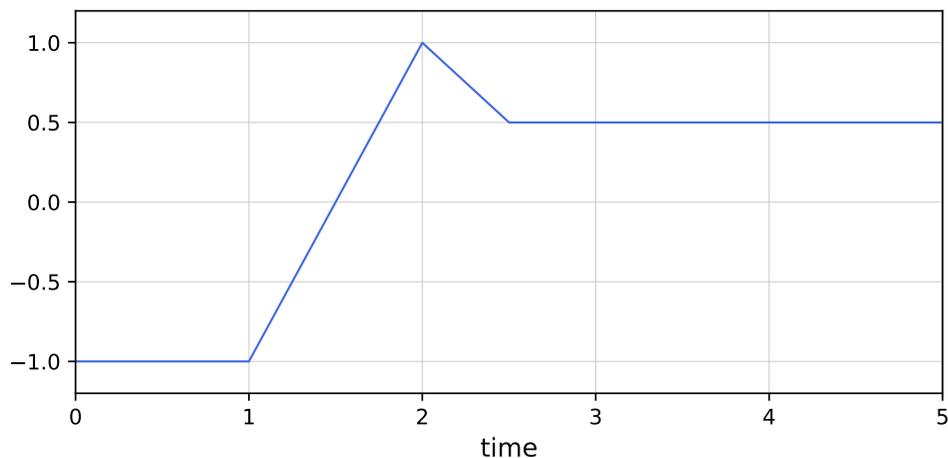


Figure 1: $y(t)$ obtained with $n = 3$, $t_1 = 1$, $t_2 = 2$, $t_3 = 2.5$, $v_1 = -1$, $v_2 = 1$, $v_3 = 0.5$.