intgrtr_reset.xce

Attributes

```
  main_vars: x y r
  rparms:
+   k1=1
+   x_high=1
+   k0=0
  igparms: y_ig=0
```

Description

`intgrtr_reset.xce` gives $y = k_1 \int x\,dt$. In addition, a facility is provided to *reset* the value of the output `y` to `k0`, by making `r` high, i.e., greater than $x_{\text{high}}/2$.

The start-up parameter `y_ig` provides the initial value for `y`.

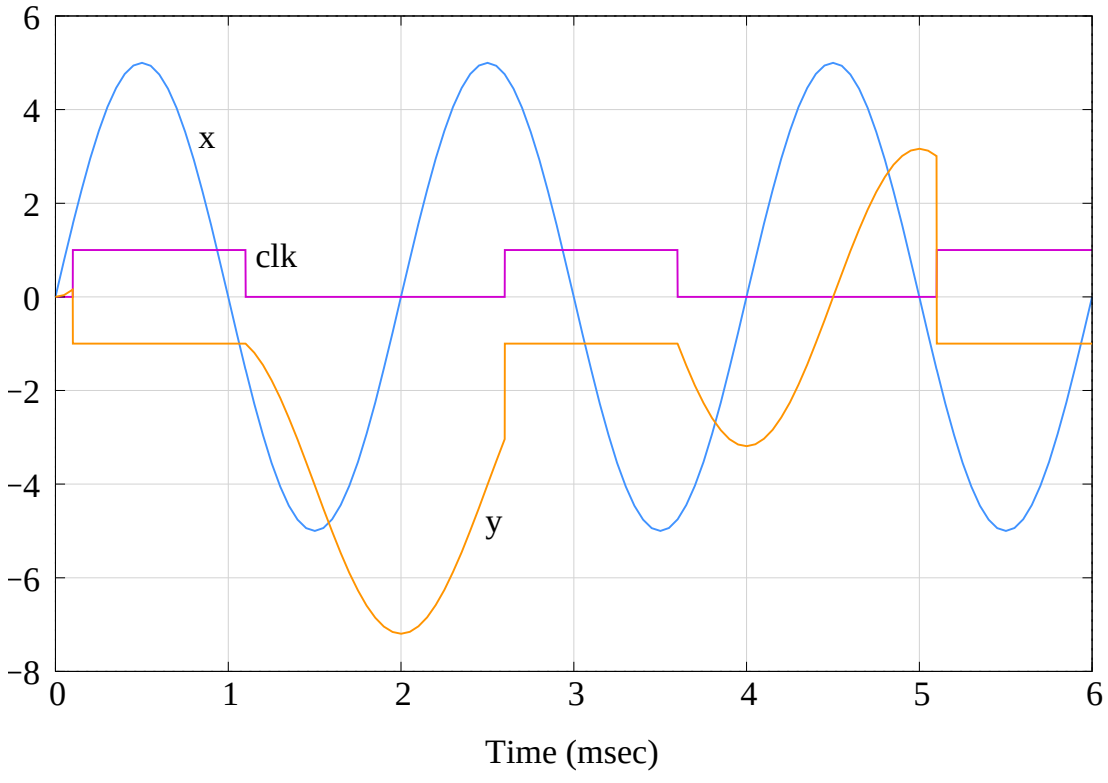

Figure 1: Waveforms obtained with `intgrtr_reset.xce`.

```
begin_circuit
   xelement name=src1 type=srcac a=5 f_hz=500 y=x
   xelement type=clock y=clk x_high=1
+     t1=1.0m t2=1.5m dt1=0.001m dt2=0.001m i0=1 t0=0.1m
   xelement type=intgrtr_reset x=x y=y r=clk
+     y_ig=0
+     k1=2000
+     x_high=1
+     k0=-1.0

   outvar:
+    x=xvar_of_x
+    y=xvar_of_y
+    clk=xvar_of_clk
end_circuit

begin_solve
   solve_type=trns
   begin_output
      filename=intgrtr_reset.dat
      variables: x y clk
   end_output

   method: modified_euler=yes
   method: itmax_trns=100000
+    t_start=0 t_end=6m delt_const_x=0.05m
+    n_wrtiterno=100
   method: delt_max_x=0.1m delt_min_x=0.01u
end_solve
```

AC behaviour is not implemented.