jkff.xbe

Attributes

```
xbe name=jkff evaluate=yes limit_tstep=yes save_history=yes allow_ssw=no
#
# JK flip-flop
#
Jacobian: variable
input_vars: clk j k
output_vars: q qbar
aux_vars:
iparms:
+   active_pos_edge=1
+   active_neg_edge=0
sparms:
rparms:
+   x_high=1
+   dt=0.1u
+   clk_prev=0
+   j_prev=0
+   k_prev=0
+   q_next=0
+   x_cross=0
stparms: q_st=0
igparms:
outparms: clk j k q
```

Description

  jkff.xbe is a JK flip-flop with inputs j, k, clk, and outputs q, qbar. The start-up parameter q_st gives the q value in start-up simulation. clk, j, k, q are made available as output variables. The parameters have the following meaning.

x_high: high level (in both input and output waveforms).

active_pos_edge: 1 for positive edge triggered operation, 0 otherwise.

active_neg_edge: 1 for negative edge triggered operation, 0 otherwise.

dt: time interval between active edge and change in flip-flop output. It should be smaller than the clock period, say by a factor of 50 or 100.