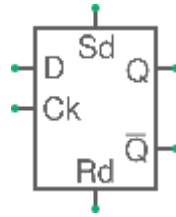


## dff\_neg.dce



### Attributes

```
mainnodes: clk j k sd rd q qbar
outvar: st0=dstate_of_ff0
rparms: dlyhl=5n dlylh=5n
stparms: state_sv=0 q_sv=0
```

### Description

`dff_neg.dce` is a negative edge-triggered D flip-flop. `clk`, `j`, `k`, `q`, `qbar` are the Clock,  $J$ ,  $K$ ,  $Q$ , and  $\overline{Q}$  nodes of the flip-flop, respectively. `sd` and `rd` are the direct set and reset inputs, respectively. The real parameters, `dlyhl` and `dlylh`, are the delays associated with high-to-low and low-to-high transitions at the output, respectively.

The start-up parameter `q_sv` decides the state of the flip-flop in start-up simulation.