

## cmpr\_simple\_2\_2.xbe

### Attributes

```
xbe name=cmpr_simple_2_2 evaluate=yes
# if x1 > x2, y1 = high, else low
# (reverse if flag_inverting=1)
# y2 = not(y1)
Jacobian: variable
input_vars: x1 x2
output_vars: y1 y2
aux_vars:
iparms: flag_invert=0
sparms:
rparms:
+ y_low=0
+ y_high=1
stparms:
igparms:
outparms: x1 x2 y1 y2
```

### Description

cmpr\_simple\_2\_2.xbe is a comparator with the following behaviour.

- (a) `flag_invert = 0`:  
    `y1 = y_high`    if `x1 > x2`,  
    `= y_low`        if `x1 < x2`.
- (b) `flag_invert = 1`:  
    `y1 = y_high`    if `x1 < x2`,  
    `= y_low`        if `x1 > x2`.

The other output `y2` is the complement of `y1`.

This element should be used only when the simulation time step is small enough to capture the output transitions with good resolution.