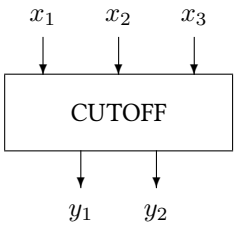
Block CUTOFF

The CUTOFF block limits a signal to a restricted interval.





Name	CUTOFF
Function	se0010
Inputs	3
Outputs	2
Parameters	0
Strings	0
Group	S

Inputs

1 Any signal x_1
2 Minimum value x_2 for output y_1
3 Maximum value x_3 for output y_1

Outputs

1 Restricted signal y_1, ie if $x_1 \in [x_2, x_3]$ then $y_1 = x_1$, else $y_1 = 0$,
2 Inverse restricted signal y_2, ie if $x_1 \in [x_2, x_3]$ then $y_2 = 0$, else $y_2 = x_1$,

Parameters

None

Strings

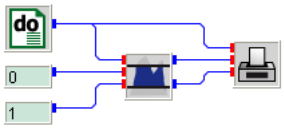
None

Description The output signals y_1 and y_2 are calculated from the inputs x_1, x_2 and x_3 according to

$$y_1 = \begin{cases} x_1 & \text{if } x_1 > x_2 \text{ and } x_1 < x_3 \\ 0 & \text{else} \end{cases}$$

$$y_2 = \begin{cases} 0 & \text{if } x_1 > x_2 \text{ and } x_1 < x_3 \\ x_1 & \text{else} \end{cases}$$

cutoff.vseit



A DO block varies a signal from -0.5 to 1.5 in small steps of 0.001. The CUTOFF block restricts this signal to an interval between zero and one as displayed by the PLOT block.

