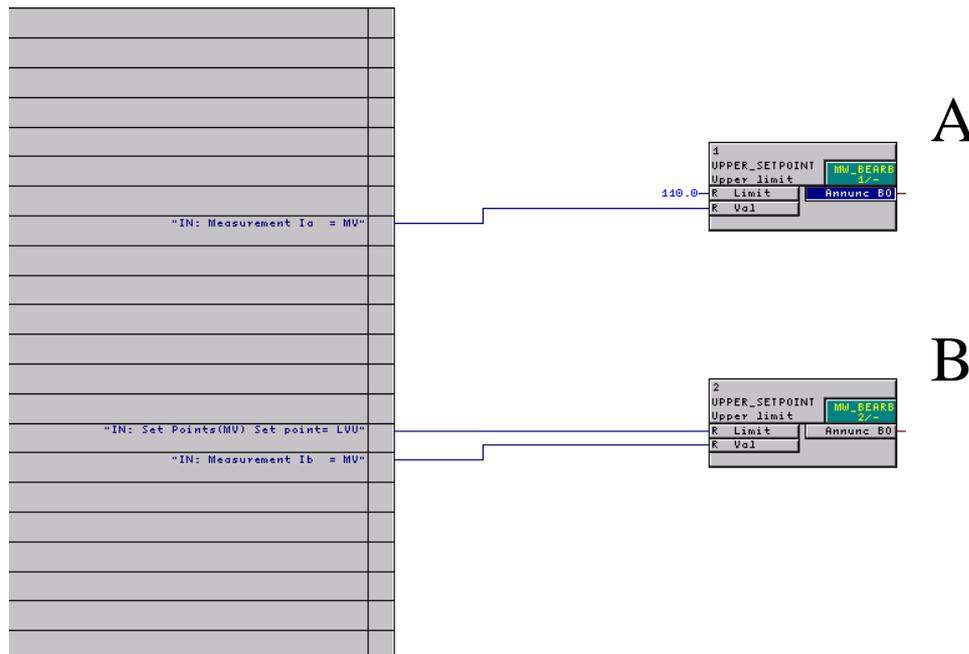


## Measurement value thresholds

CFC offers the possibility to supervise measurement values.

With the UPPER\_SETPOINT or LOWER\_SETPOINT gate the measurement values are supervised and signals will be released, if the measurement values exceed or fall below a defined threshold.



Picture 1: two UPPER\_SETPOINT gates with different possibilities to set

As soon as the measurement values are assigned in the input /output matrix to direction „Destination CFC“ they are available to connect with gates in the CFC chart.

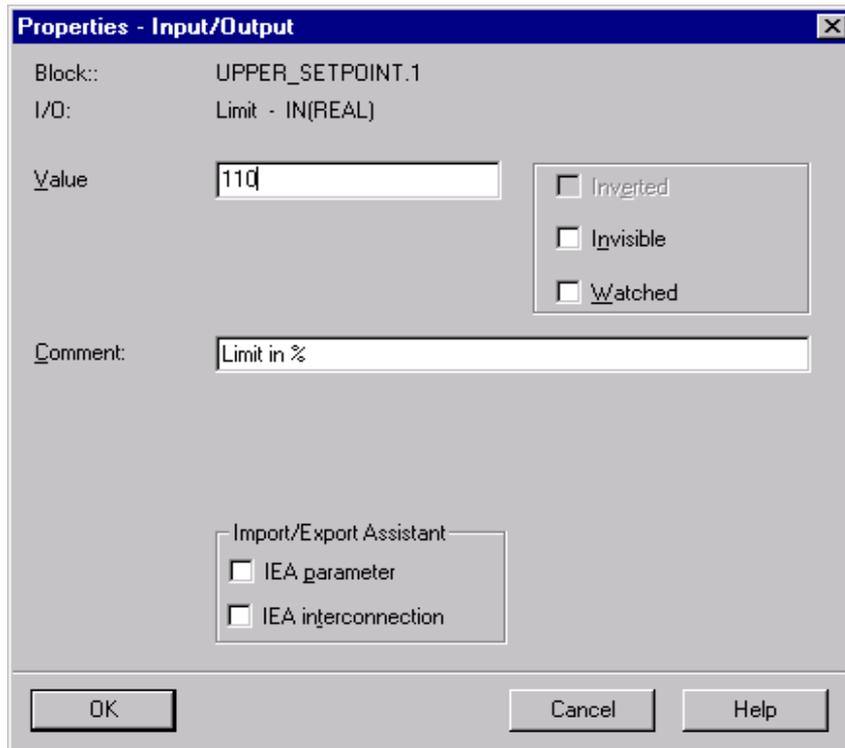
Besides the value of the measurement unit we also need for CFC the set parameter for the threshold. This can be done by two possibilities:

- A** Threshold value will be defined in the CFC chart by the used gate or
- B** Threshold value will be defined in the input/output matrix

### Solution for A.

E.g. in picture1 it is realised with the UPER\_SETPOINT gate for current IL1 (or Ia).

Click at the used gate on the „R LIMIT“ pin with the right mouse button. When you choose menu point *Object Properties* a new window will open (see picture 2). In the line „Value“ the threshold value can be defined.



Picture 2: the properties of the „R LIMIT“ input

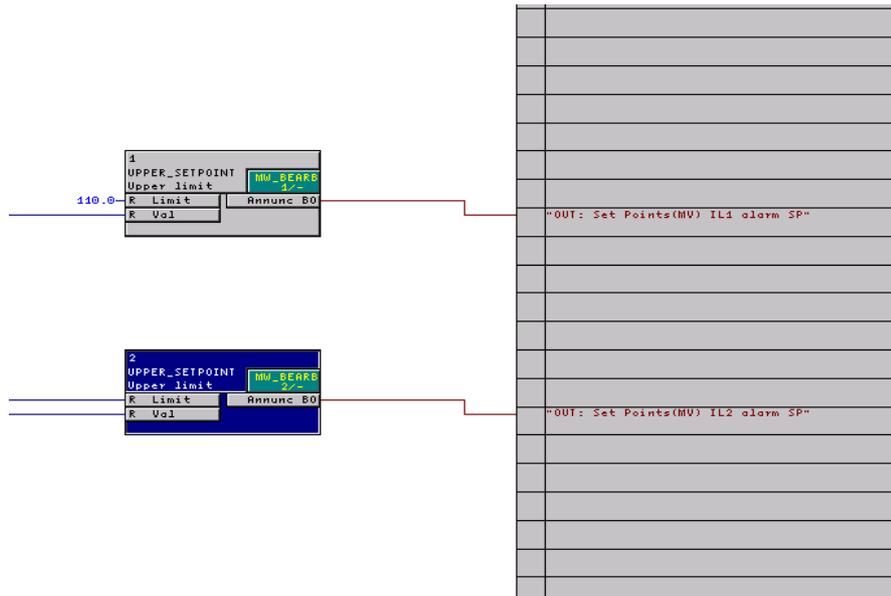
**Solution for B**

E.g. in picture1 it is realised with the UPER\_SETPOINT gate for current IL2 (or Ib). Here the setting for the threshold will be done inside the input/output matrix.

	Information		Source		Destination								
	No.	Display text:	L	Type	Bl	C	Measured value	Measured value window	S	C	Metered value window	B	
												C	D
Device, General													
P.System Data 1													
Osc. Fault Rec.													
P.System Data 2													
50/51 Overcur.													
67 Direct. O/C													
Measurment Superv													
Fault Locator													
Cntrl Authority													
Control Device													
Process Data													
Measurement						*		*	*	*			*
Demand meter									*	*			
Min/Max meter													
Set Points(MV)		I Admd>		LV				Set Points(MV)		X			
		I Bcmd>		LV				Set Points(MV)		X			
		I Ccmd>		LV				Set Points(MV)		X			
		I1 dcmd>		LV				Set Points(MV)		X			
		I Pdmd>		LV				Set Points(MV)		X			
		I Qdmd>		LV				Set Points(MV)		X			
		I Sdmd>		LV				Set Points(MV)		X			
		Press<		LVU				Set Points(MV)		X			
		Temp>		LVU				Set Points(MV)		X			
		37-1		LV				Set Points(MV)		X			
	I PF<		LV				Set Points(MV)		X				
	Set point=		LVU				Set Points(MV)		X				
Energy						*		*	*				
Statistic													
SetPoint(Stat)													

Picture 3: A new annunciation of type „LVU“ has to be inserted in the CFC chart





Picture 6: the alarm indications are released at the output of the UPPER\_SETPOINT gates

**Result:**

Solution A is easy to realise. You only need to change a value in CFC. For solution B you must first define a new annunciation in the input/output matrix. Solution B has an advantage in case you often change the threshold value. Then you need not to adjust and compile again the CFC chart. Only a change of the value inside the input/output matrix (and of course data save) is necessary.