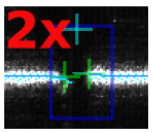
3 - S3a CALC Gap position Linear LINE

Description

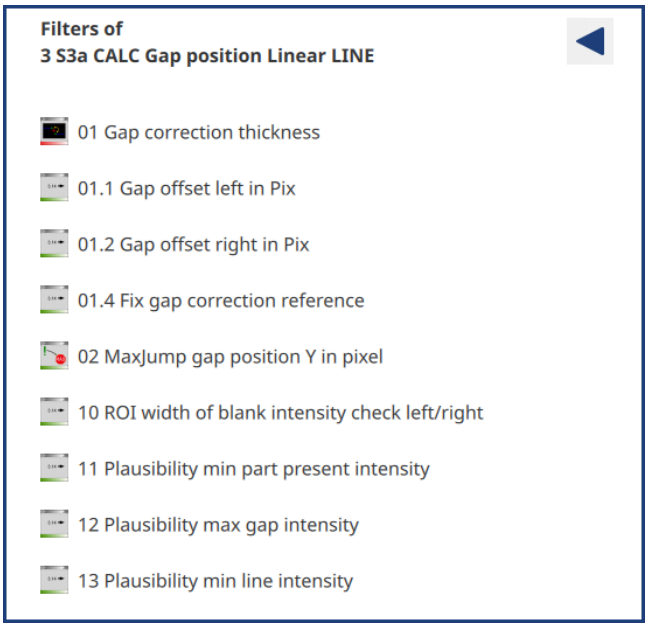
Calculates the **gap position** and the blank's **height difference** out from the chosen subgraph (S11 or S15 or S1a or S1b), supposing that the gap is vertically linear.

Icon



3 S3a CALC Gap position Linear LINE
Calculate gap position.

Parameters



Parameter	Comment
Weighting	Normally, the position of the gap is set to be in the middle of the measured gap (value "Weighting" = 50%). With a smaller percentage value the found position is set near the gap side defined as "Reference" in '01.4 Fix gap correction reference', with a bigger percentage value the found position is set near the gap side opposite to the side defined as "Reference" in '01.4 Fix gap correction reference'. Value 0% sets the position on the "reference" gap border, value 100% sets the position on the gap border opposite to the "reference". [Percent]

Parameter	Comment
Number	Moves the left found gap position inside the gap. [Pixel]

Parameter	Comment
Number	Moves the right found gap position inside the gap. [Pixel]

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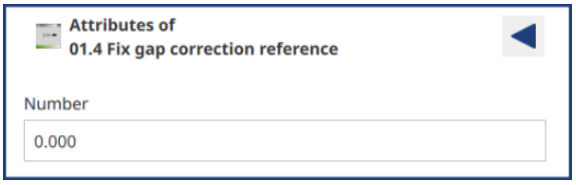
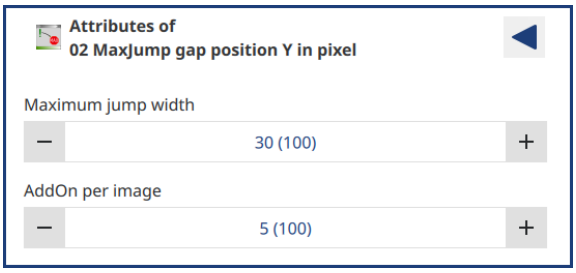
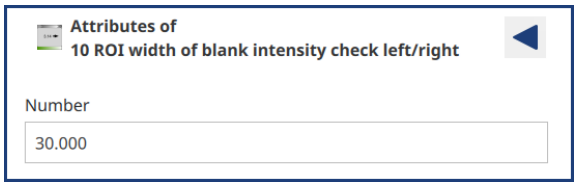


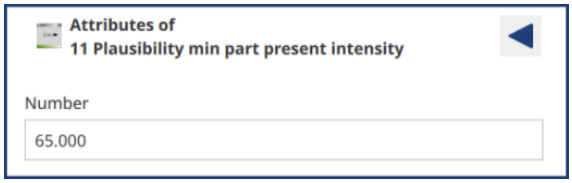
Parameter	Comment
Number	Set the reference side for "Weighting" in '01 Gap correction thickness': 0 = Use the **thicker blank** as reference side. If both have same thickness, use the left side as reference. 1 = Set the left side fix as reference side.



Parameter	Comment
Maximum jump width	Horizontal range around the "expected position" where the gap must be found. The *expected position* is the found gap position of the before image. If the new gap position value is more than "Maximum jump width" away from the expected position, the value of "expected position" is used as output. [Pixel]
AddOn per image	If the new gap position value is more than "Maximum jump width" away from the "expected position", the value of "Maximum jump width" is increased by "AddOn per image". If the new gap position value is inside the actual range of "Maximum jump width", the value for "Maximum jump width" is reset to the given value in "Maximum jump width". [Pixel]



Parameter	Comment
Number	The number of pixels in direction to the gap, starting at the left/right border of the laser line ROI, serving for calculating the left/right side reference brightness. [Pixel]



Parameter	Comment
Number	Minimum mean intensity value for 'part present' check left and right. [Greylevel]

Parameter	Comment
Number	Maximum allowed intensity value for the gap. [Greylevel]

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Parameter	Comment
Number	Minimum intensity value for 'line present' check left and right on the laser line ROI border. [Greylevel]

- **Measured values for plotter**

558	0 / 1	Plausibility Intensity error
573	0 … 255	Intensity Line left
574	0 … 255	Intensity Line right
575	0 … 255	Intensity Part left
576	0 … 255	Intensity Part right
577	0 … 255	Intensity Gap
581	-xxx .. +xxx	TCP_x
582	-xxx .. +xxx	TCP_y
583	0 .. xxx	HWROI_x
584	0 .. xxx	HWROI_y

- **Subgraphs interface**

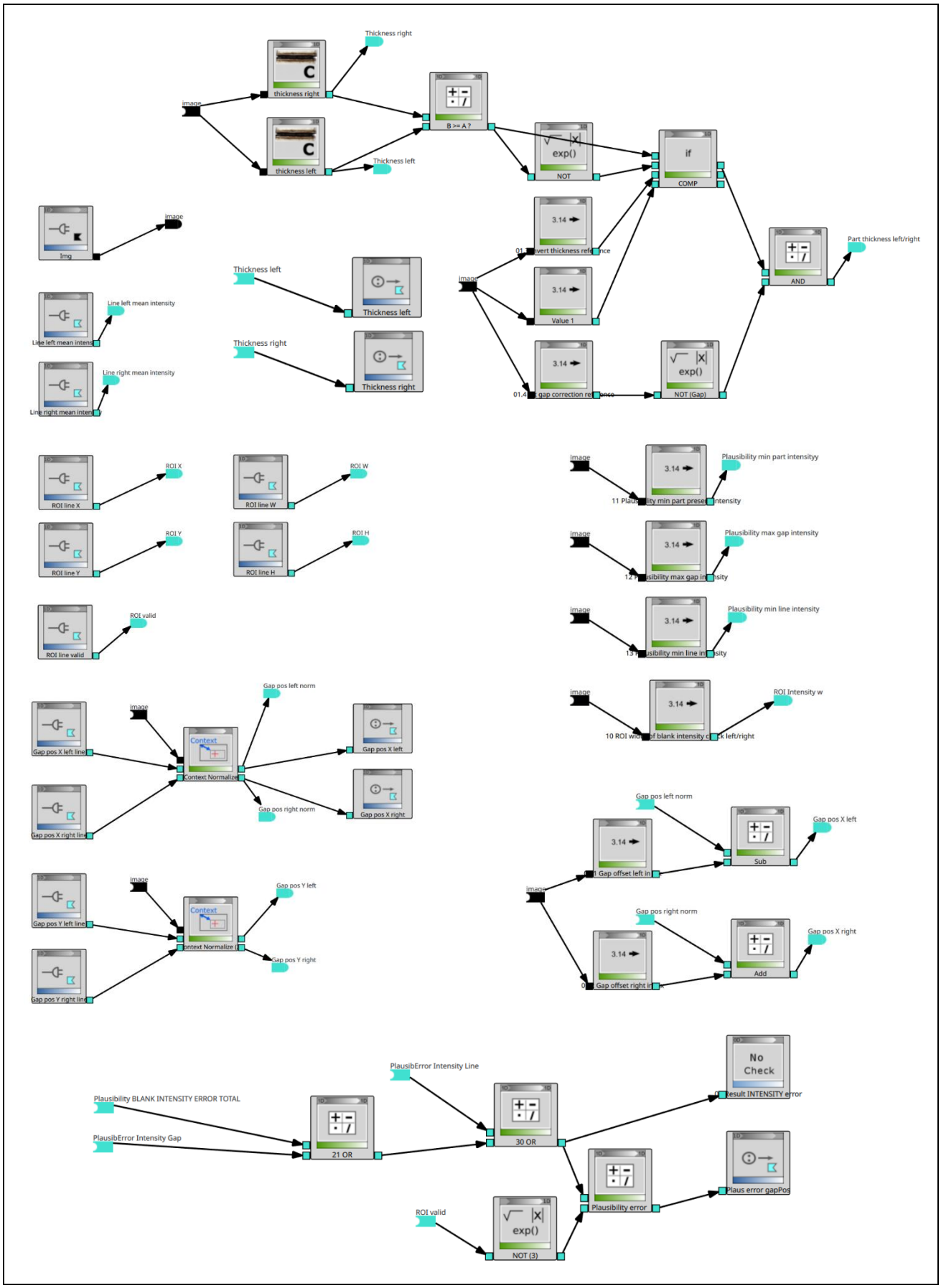
IN bridges

image	Img
value	Line left / right mean intensity
	ROI line X / Y
	ROI line W / H
	Gap pos X left / right
	Gap pos Y left / right

OUT bridges

value	Gap pos X left / right
	Gap pos X / Y corr
	Intensity ROI left / right
	Intensity ROI gap
	Plaus error gap
	Ypos cam mm
	Zpos cam mm
	Thickness left / right

Graph block diagram



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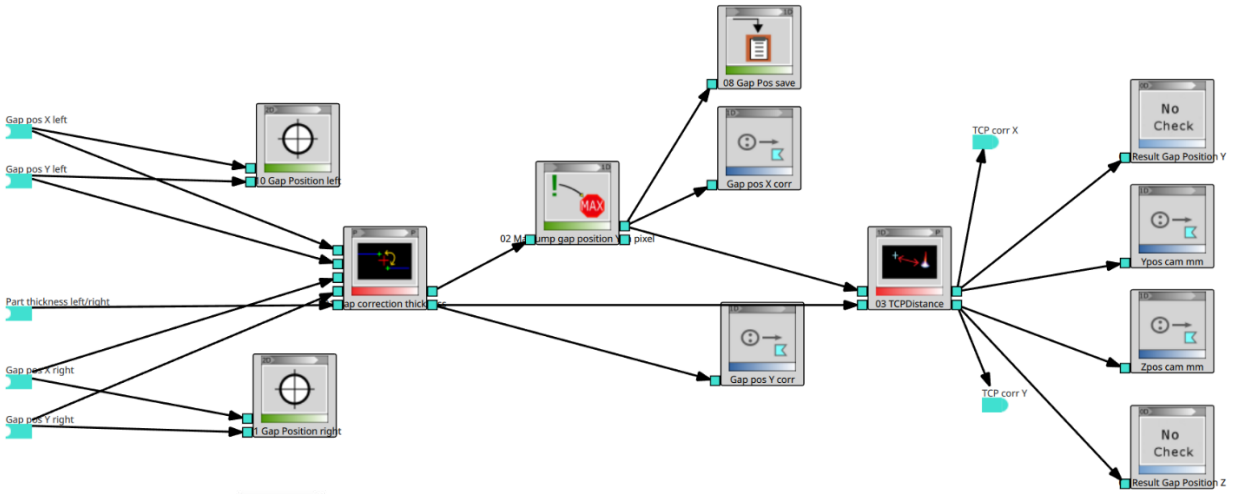
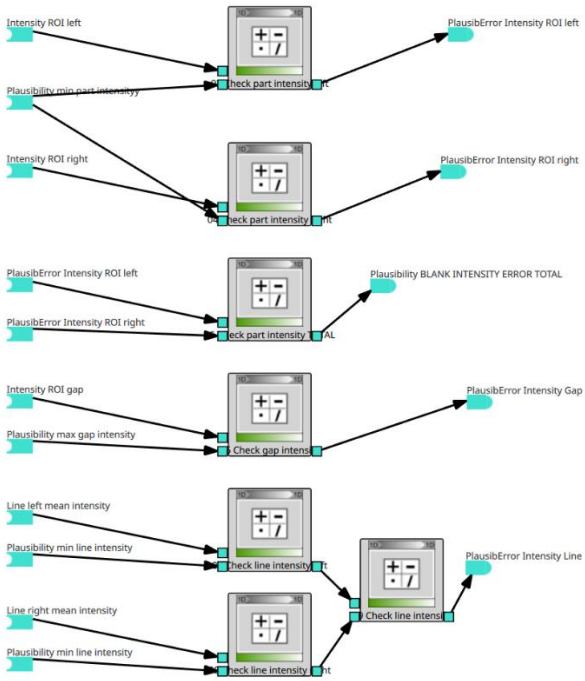
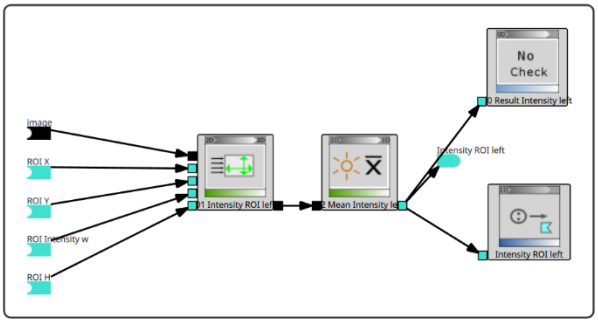
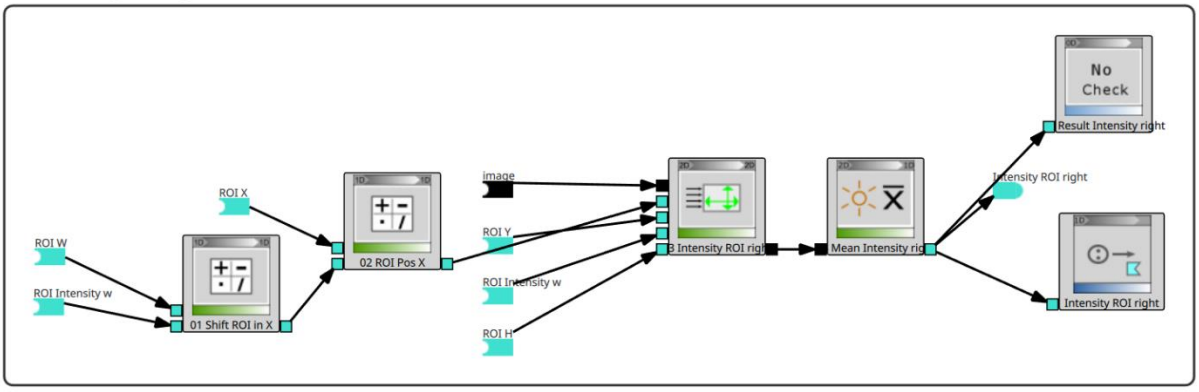




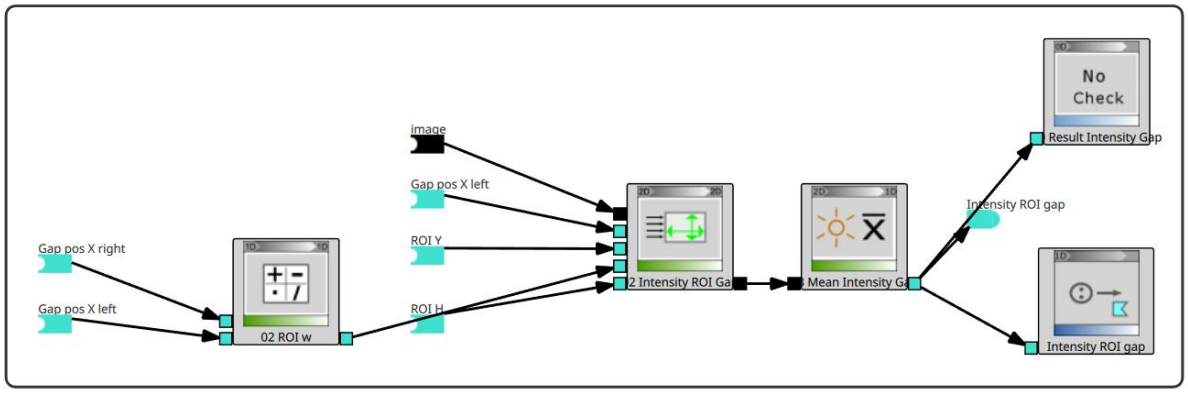
G50 Intensity ROI left red



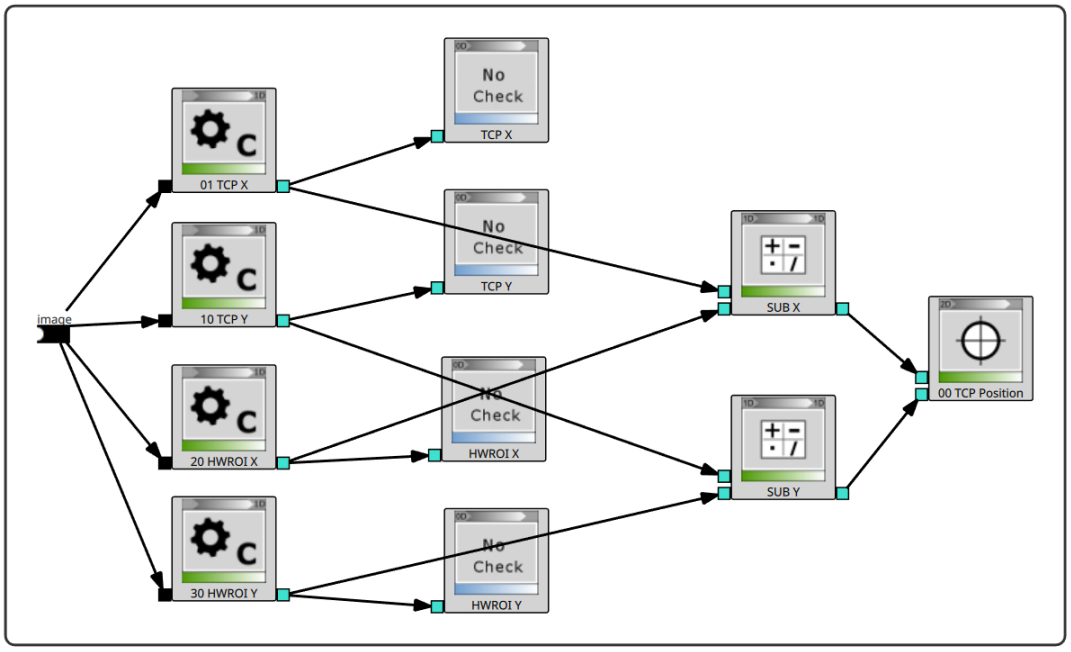
G51 Intensity ROI right red



G52 Intensity ROI Gap



G70 TCP Position



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