

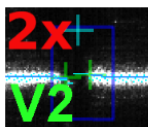


3 - S3a CALC Gap position Linear LINE V2

■ 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. A special small ROI around the found gap area is used to check the remaining intensity inside the gap.

■ Icon



3 S3a CALC Gap position Linear LINE V2

Calculate gap position.

■ Parameters

Filter Groups of 3 S3a CALC Gap position Linear LINE ...



G52 Intensity ROI Gap

Not grouped

G52 Intensity ROI Gap

Filters of
G52 Intensity ROI Gap



00 ROI Offset Y




02 Intensity ROI Gap



91 Plausibility min. ROI Width




92 Plausibility min. ROI Height



Attributes of
 00 ROI Offset Y

Number

Parameter	Comment
Number	Vertical offset of the special ROI for gap calculations from the upper border of the laser line ROI. [Pixel]




Attributes of
 02 Intensity ROI Gap

Verbosity level

None


Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.



Attributes of
 91 Plausibility min. ROI Width

Number

Parameter	Comment
Number	Minimum width of the special ROI for gap calculations. [Greylevel]



Attributes of
 92 Plausibility min. ROI Height

Number

Parameter	Comment
Number	Minimum height of the special ROI for gap calculations. [Greylevel]



Not grouped

Filters of
Not grouped

01 Gap correction thickness
 01.1 Gap offset left in Pix
 01.2 Gap offset right in Pix
 01.4 Fix gap correction reference
 02 MaxJump gap position Y in pixel
 10 ROI width of blank intensity check left/right
 11 Plausibility min part present intensity
 12 Plausibility max gap intensity
 13 Plausibility min line intensity

Attributes of
01 Gap correction thickness

Weighting Percent

Parameter	Comment
Weighting	<p>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'.</p> <p>Value 0% sets the position on the "reference" gap border, value 100% sets the position on the gap border opposite to the "reference".</p> <p>[Percent]</p>

Attributes of
01.1 Gap offset left in Pix



Number

Parameter	Comment
Number	<p>Moves the left found gap position inside the gap.</p> <p>[Pixel]</p>


Attributes of
01.2 Gap offset right in Pix




Number

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


Attributes of
01.4 Fix gap correction reference


Number

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.




Attributes of
02 MaxJump gap position Y in pixel


Maximum jump width

AddOn per image

Parameter	Comment
Maximum jump width	Horizontal range around the "expected position" where the gap must be found. The <i>expected position</i> 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]




Attributes of
10 ROI width of blank intensity check left/right


Number

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]


Attributes of
11 Plausibility min part present intensity




Number

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


Attributes of
12 Plausibility max gap intensity


Number

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


Attributes of
13 Plausibility min line intensity


Number

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

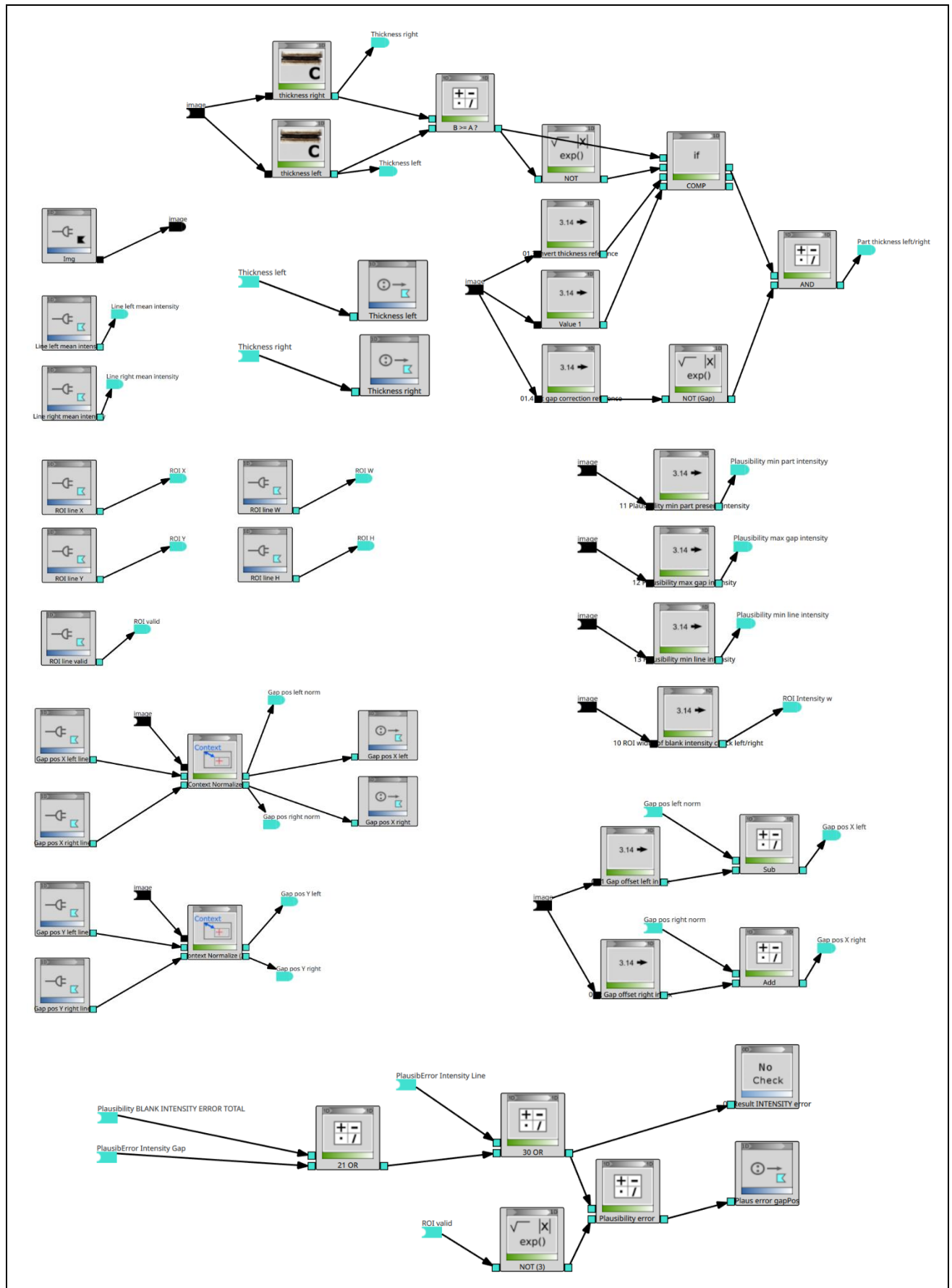
IN bridges

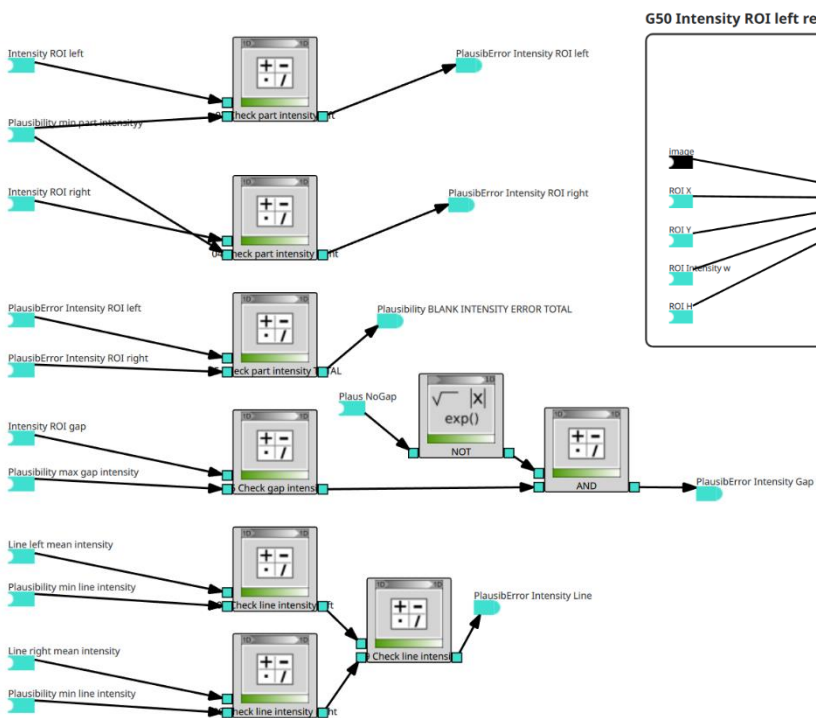
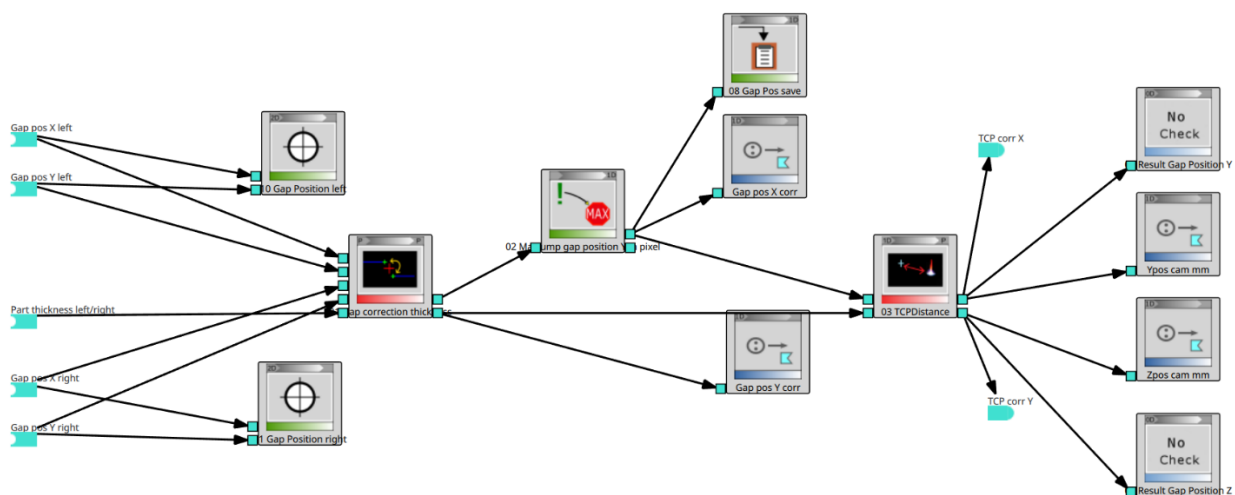
OUT bridges

 image	Img	 value	Gap pos X left / right
 value	Line left / right mean intensity		Gap pos X / Y corr
	ROI line X / Y		Intensity ROI left / right
	ROI line W / H		Intensity ROI gap
	Gap pos X left / right		Plaus error gap
	Gap pos Y left / right		Ypos cam mm
			Zpos cam mm
			Thickness left / right

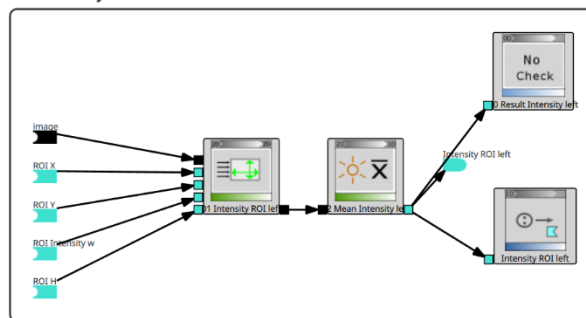


■ Graph block diagram

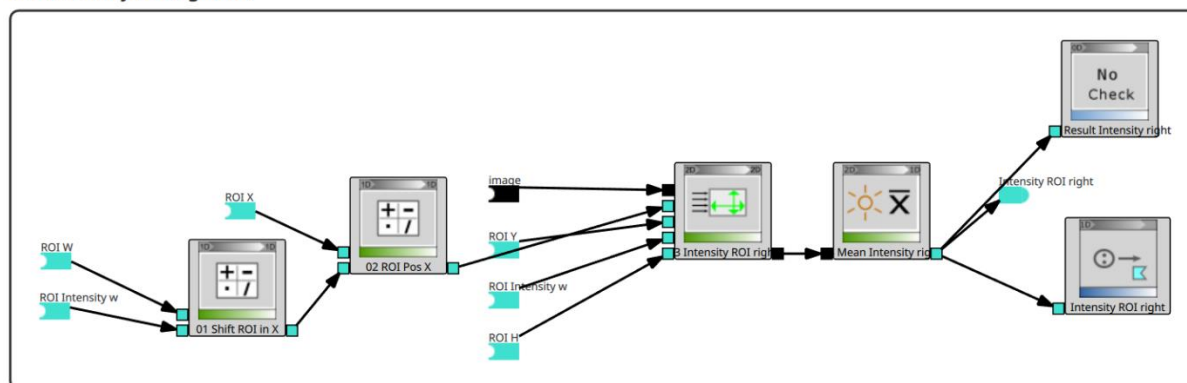




G50 Intensity ROI left red

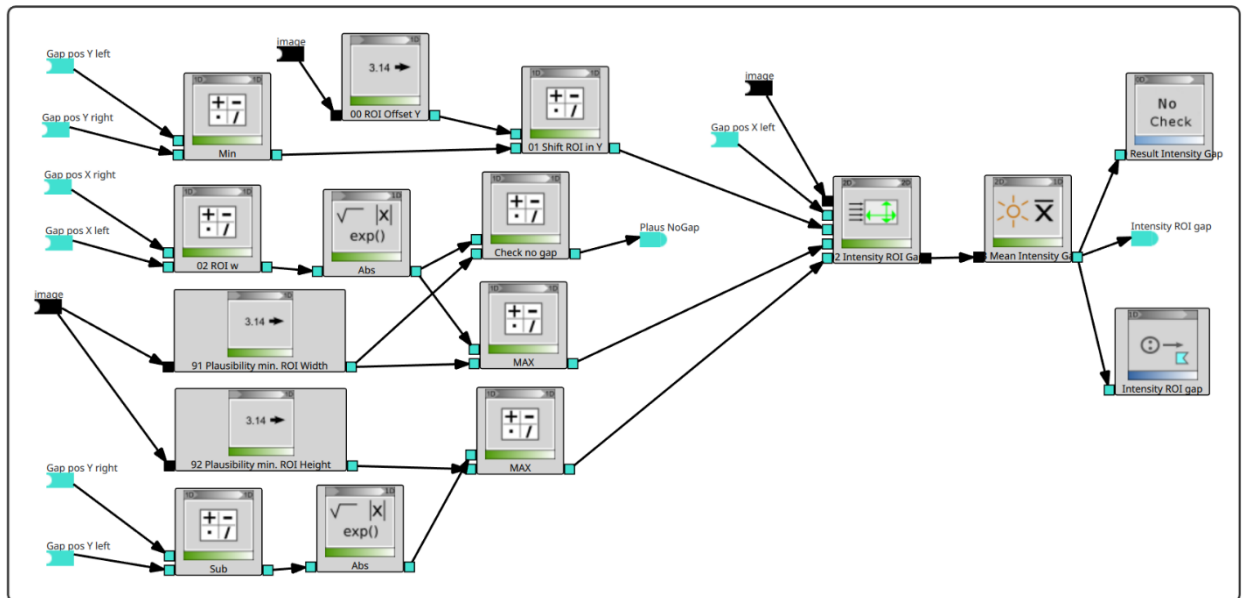


G51 Intensity ROI right red





G52 Intensity ROI Gap



G70 TCP Position

