



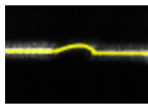
## 5 - S11 SEARCH Line tracking

### ■ Description

Search seam borders left and right.

Beginning at the starting point on the left ROI rim we search pixel by pixel the next laser line point to the right side.

### ■ Icon




5 S11 SEARCH Line tracking


Search seam borders left and right

### ■ Parameters

Filters of  
5 S11 SEARCH Line tracking



 02 Line Tracking

 03 Close Gaps

Attributes of

02 Line Tracking

Verbosity level

None

Tracking Threshold

—

200

+

mean x

—

4 (3)

+

search area y

—

10 (20)

+

mean area y

—

3

+

pixel

Resolution X

—

1

+

pixel

Resolution Y

—

1

+

Maximum Gap Width

—

9 (30)

+

Maximum Number of Gaps

—

5 (17)

+

Maximum height jump

—

4 (20)

+

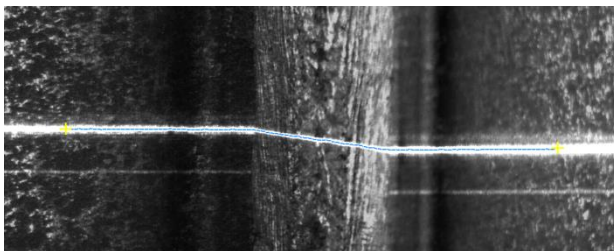
Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Tracking Threshold	If the filtered grey level of the laser line tracking is below that value the search stops and tries to find the next point above the threshold with the "03 Close Gaps" function. [Greylevel]
mean x	Number of pixels in X direction, used for averaging the brightness in order to define the next point of the laser line. [Pixel]
search area y	This parameter defines the maximum limits for the search area in Y direction, used for searching the next tracking point. [Pixel]
mean area y	Number of pixels in Y direction, over which the "Average brightness in X direction" is averaged, in order to define the next laser line point. [Pixel]
Resolution X	Resolution of the averaging range. Only every n-th pixel (n= resolution in X direction) is evaluated. [Pixel]



Resolution Y	Resolution for the averaging range. Only every n-th pixel (n= resolution in Y direction) is evaluated. This value must be selected to be lower than the "Search range in Y". [Pixel]
Maximum Gap Width	Maximum allowed width of a laser line interruption. If the number of side by side laying pixels, having a lower grey scale value than the "Tracking threshold", exceeds this parameter figure, the line interrupts counter figure is raised by 1. [Pixel]
Maximum Number of Gaps	Maximum number of laser line interrupts: If the number of line interrupts per laser line becomes higher than this parameter, the line search is stopped and a line interrupt warning is released.
Maximum height jump	Maximum interrupt in Y direction: If the height jump of the laser line exceeds this parameter, the line search is stopped. [Pixel]

#### Verbosity example:

The blue line shows the found laser line. The two yellow crosses show the left and right side start positions for the laser line tracking.



**Attributes of 03 Close Gaps**

Verbosity level  
 None

Minimal segment length in X direction. NPixel  
 — 5 +

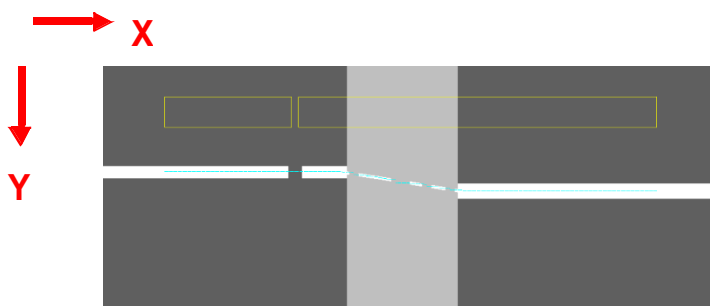
Max. jump Y NPixel  
 — 10 (15) +

Maximal interpolation length NPixel  
 — 20 (100) +

Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Minimal segment length in X direction	Number of min. found connected laser line points to search for a next point over a gap. [Pixel]
Max. jump Y	Max. search range in vertical direction for a next point over a gap. [Pixel]
Maximal interpolation length	Max. allowed search range in horizontal direction for a next point over a gap. [Pixel]

### Verbosity example:

The blue line shows the laser line tracking. The yellow rectangles mark the correct found laser line parts. Gaps between the yellow rectangles mark position and width of a gap in the laser line tracking, that was passed over.





## ■ Measured values for plotter

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## ■ Subgraphs interface

### IN bridges

<b>image</b>	ROI line	<b>Line</b>	Line
		<b>value</b>	Line intensity

### OUT bridges

## ■ Graph block diagram

