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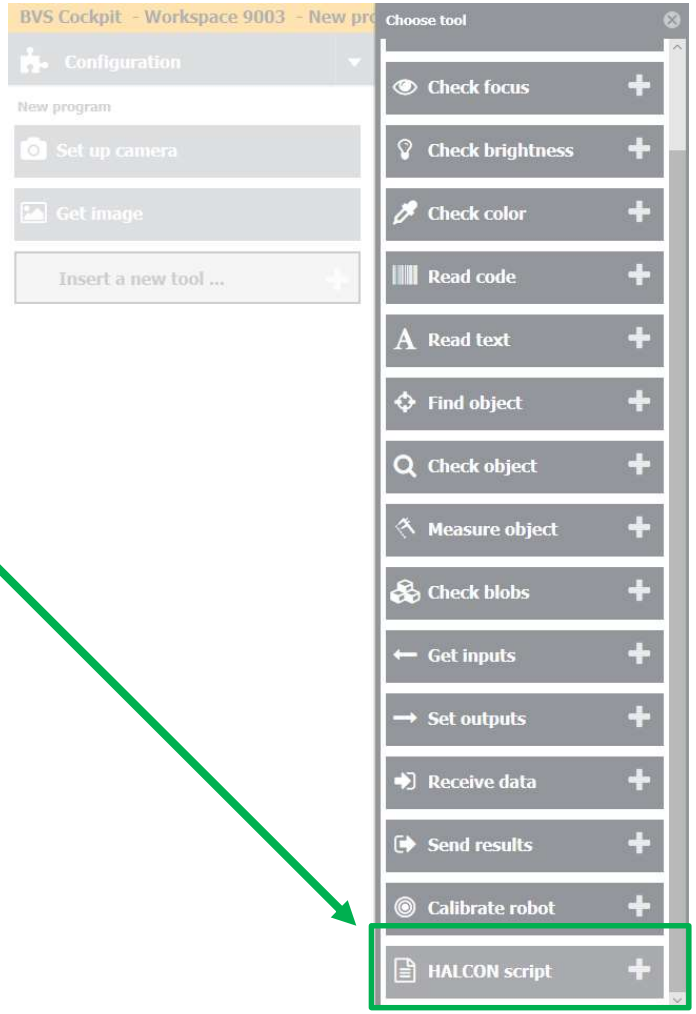
Step-by-Step Guide

Fit Line or Circle

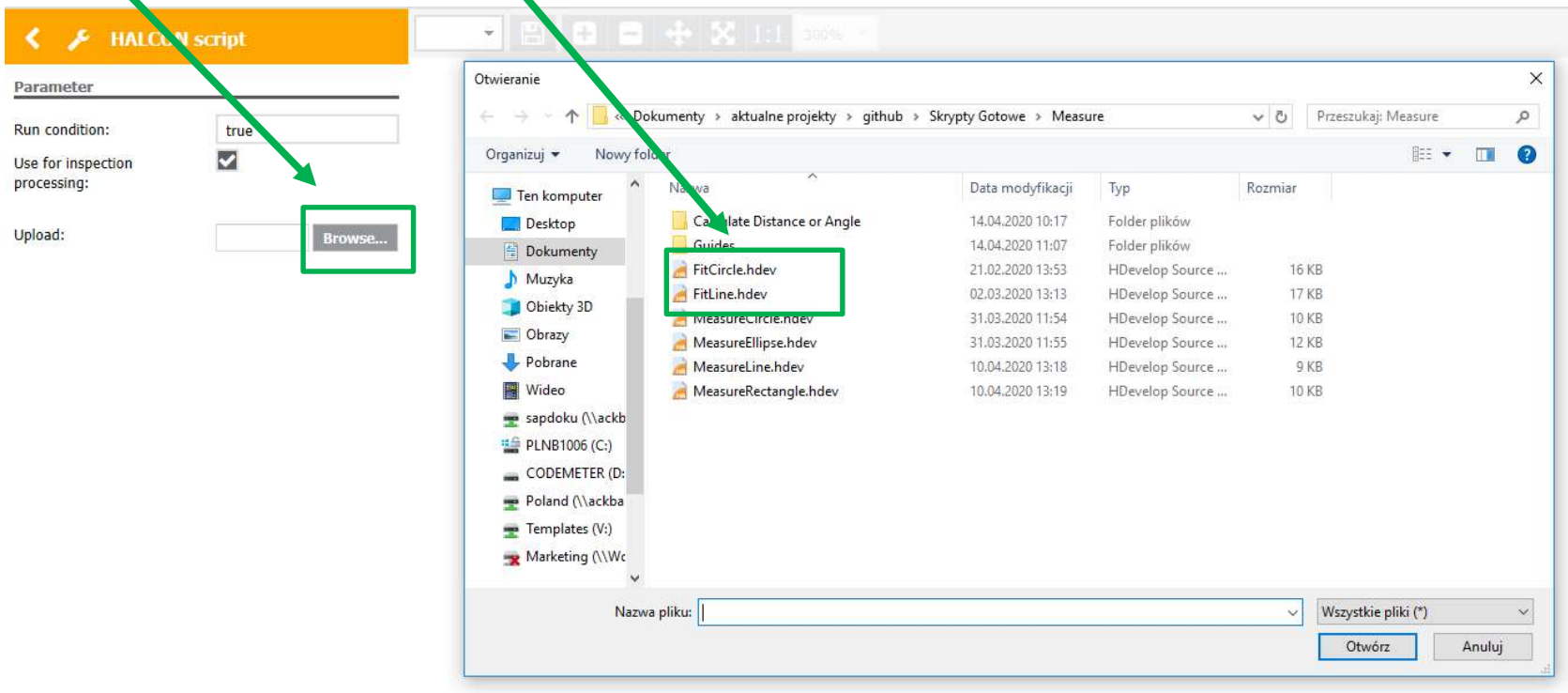
Step 1

Add new tool – Halcon Script – in your inspection program.



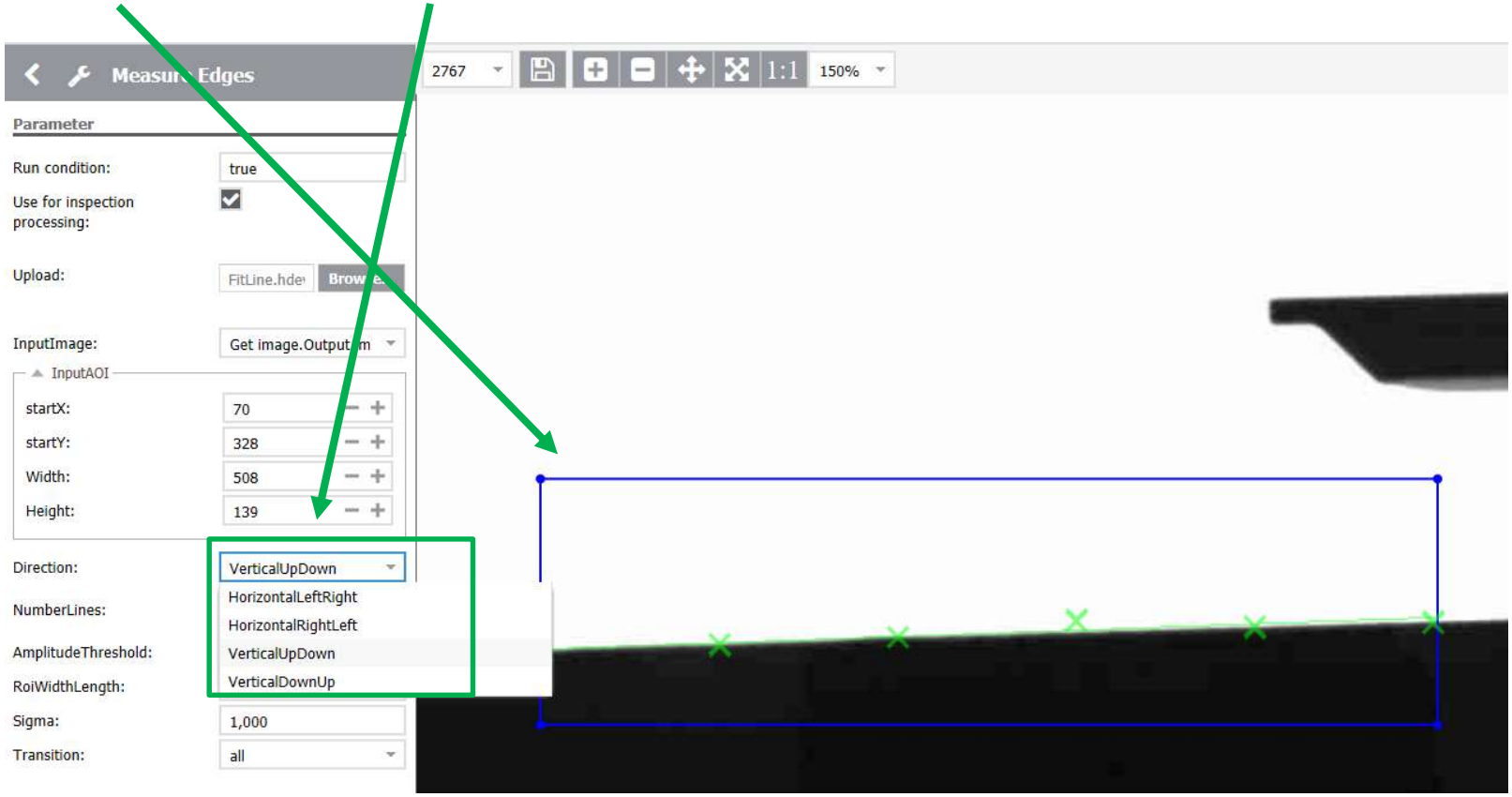
Step 2

Click „Browse” and choose „FitLine.hdev” or „FitCircle.hdev” file.



Step 3

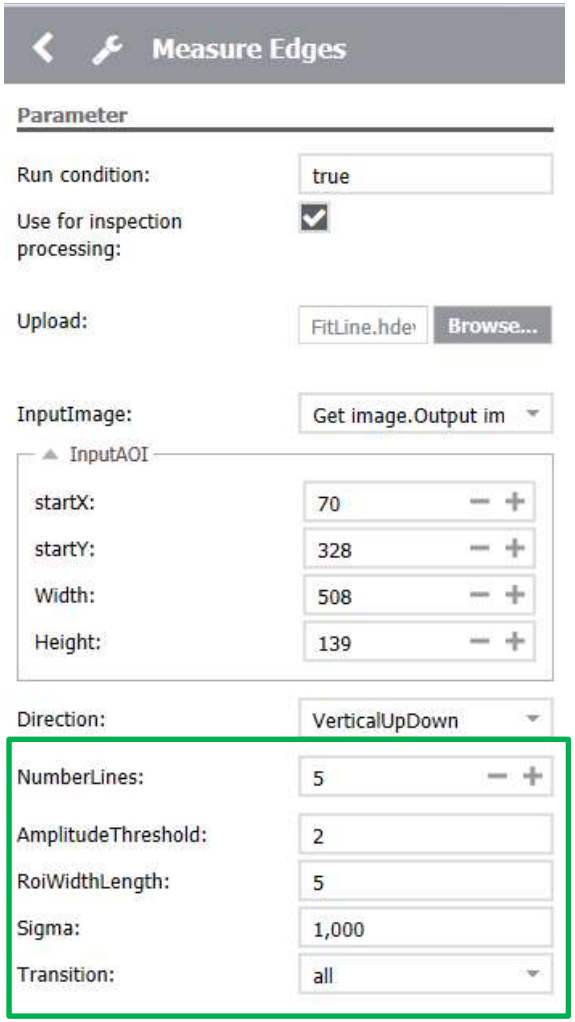
Set the AOI and choose the direction of the edge founding lines.



Step 4

Adjust edge parameters:

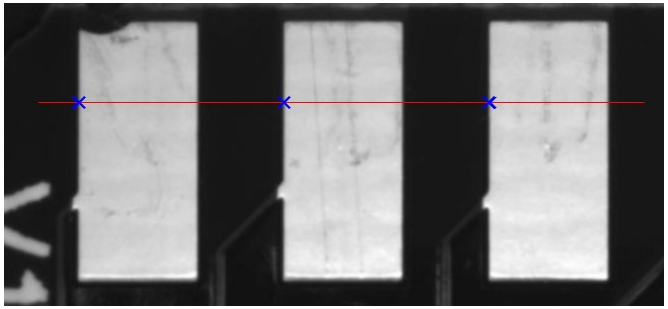
a) NumberLines – number of edge founding lines
b) AmplitudeThreshold – minimum edge contrast
c) RoidWidthLength – length of the line perpendicular to the generated edge founding line
d) Sigma – smoothing

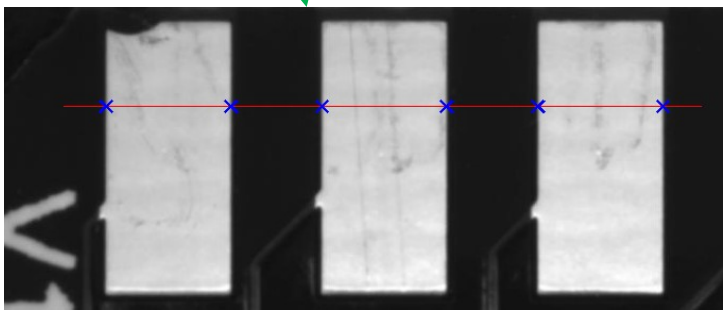


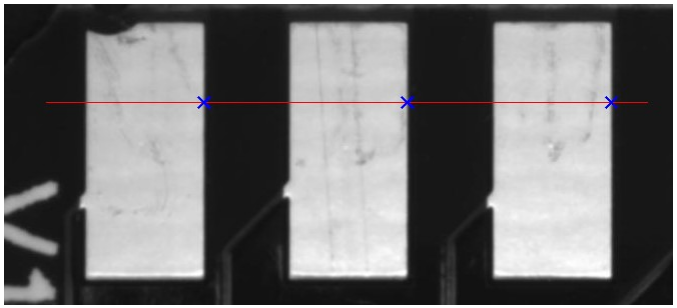
Step 5

You can also specify the edge Transition:

a) Positive – only edges with polarity from dark to light will be found
b) Negative – only edges with polarity from light to dark will be found
c) All – edges with both polarity will be found







Step 6

Found edges will be displayed as Crosses on the image.
Fited Line will be displayed in RegionLines output variable (as line on the image).

Available output parameters:

a) RowBegin – row coordinate of line's start point
b) ColBegin – column coordinate of line's start point
c) RowEnd – row coordinate of line's end point
d) ColEnd – column coordinate of line's end point
e) MiddlePointRow – row coordinate of line's middle point
f) MiddlePointColumn – column coordinate of line's middle point

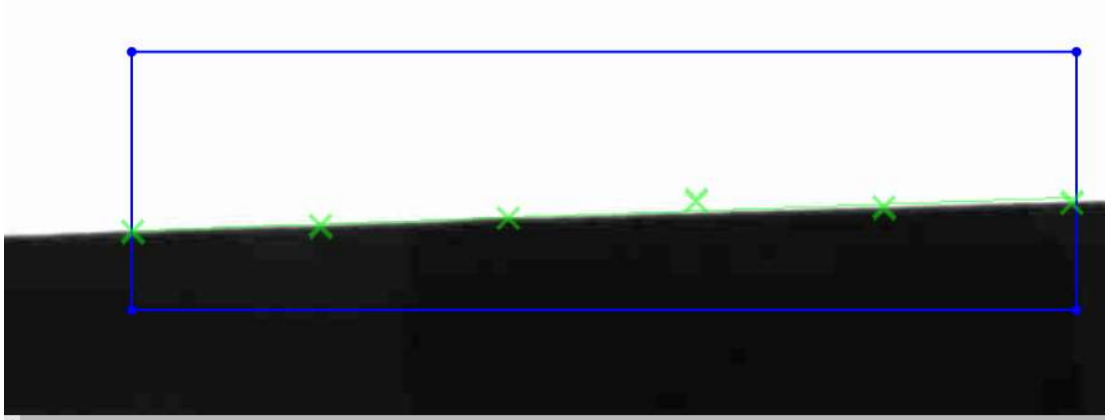


Image Resolution: 1280 x 1024

Results - Measure Edges

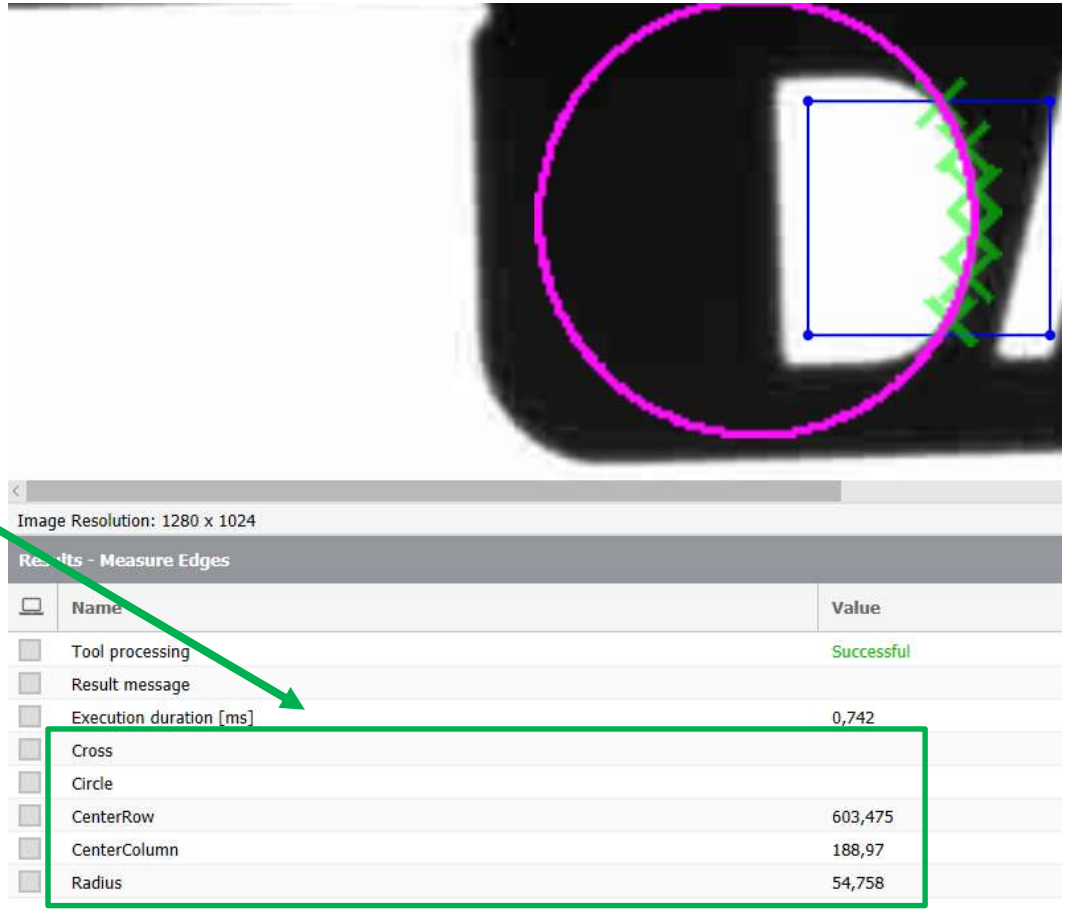
Name	Value
Tool processing	Successful
Result message	
Execution duration [ms]	0,61
Cross	
RegionLines	
RowBegin	423,504
ColBegin	69,974
RowEnd	406,444
ColEnd	574,927
MiddlePointRow	414,974
MiddlePointColumn	322,45

Step 7

Found edges will be displayed as Crosses on the image.
Fited Circle will displayed in Circle output variable (as circle on the image).

Available output parameters:

a) CenterRow – row coordinate of circle's center point
b) CenterColumn – column coordinate of circle's center point
c) Radius – circle radius



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