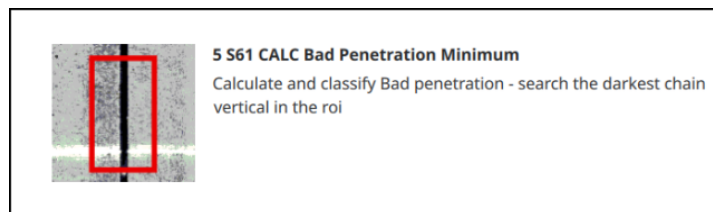


5 - S61 CALC Bad Penetration Minimum

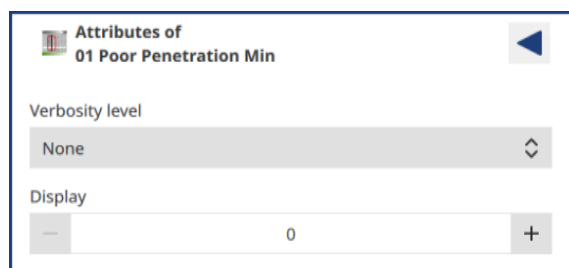
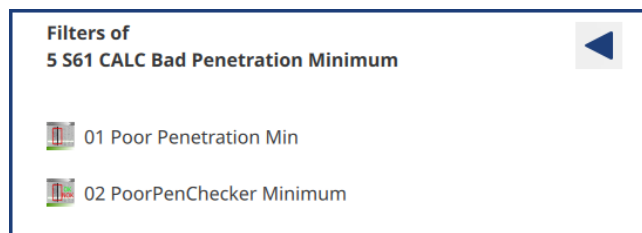
■ Description

Calculate and classify "bad penetration" - search for a dark vertical stripe in the ROI (Region Of Interest).

■ Icon



■ Parameters

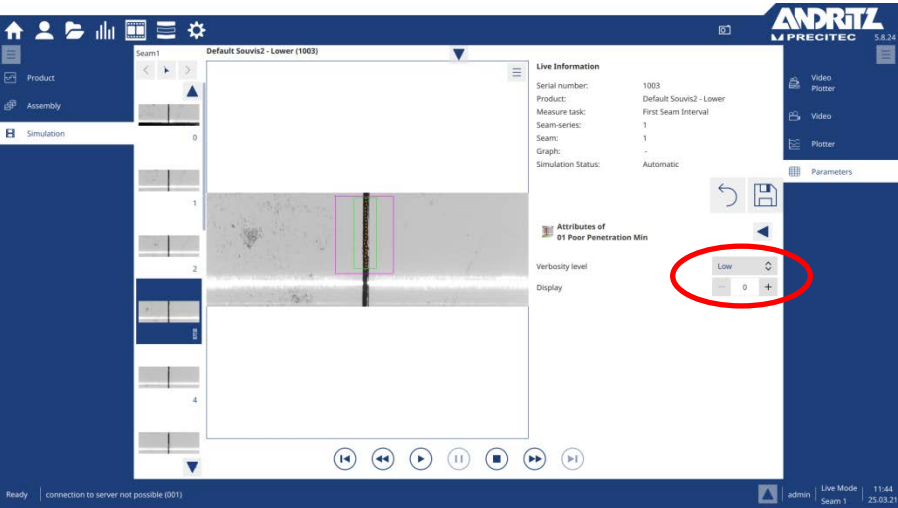


Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.

Display	Additional overlays (when "Verbosity level" is "Low" or bigger): 0 No overlay 12 Red squares marks the found intensity minimas in the ROI 16 Green dots mark the left side, red dots mark the right side of the found "Bad Penetration"
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Verbosity example:

If the "Verbosity level" value is "Low" or bigger, the found intensity minimum parts inside the ROI are displayed. A green bounding box marks where the "Bad penetration" is found.



With "Verbosity level" value = "Low" or bigger, and "Display" = 12





With "**Verbosity level**" value = "Low" or bigger, and "**Display**" = 16



Attributes of 02 PoorPenChecker Minimum

Verbosity level
None

Min. Length
50

Min. Width
3 Pixel

Max. Width
20 Pixel

Min. Gradient
25

Max. gap greyval
100

Min. Greyval Ratio
18 1/10

Max. Std. Deviation
60

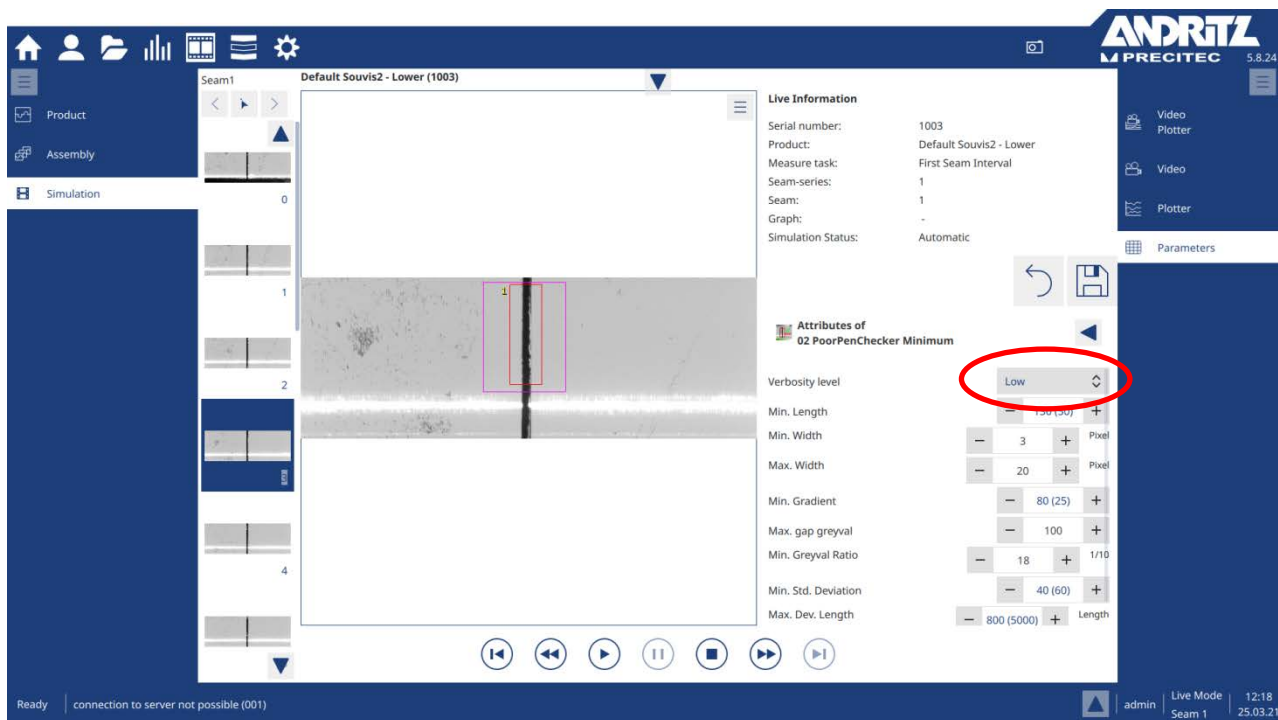
Max. Dev. Length
5'000 Length

Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Min. Length	The minimum length and the minimum/maximum width give the geometry of a bad penetration to be detected. [Pixel]
Min. Width	The minimum length and the minimum /maximum width give the geometry of a bad penetration to be detected. [Pixel]

Max. Width	The minimum length and the minimum/ maximum width give the geometry of a bad penetration to be detected. [Pixel]
Min. Gradient	The gradient gives the value what minimum intensity difference has to be reached to be a possible bad penetration. If this value is not reached, the gradient on the left and on the right side of the gap is not clear enough for a real bad penetration. [Greylevel]
Max. gap greyval	The parameter value gap greyval has not to be reached for a bad penetration. A bigger value implies that it's not a real gap. [Greylevel]
Min. Greyval Ratio	The parameter min ratio (= intensity gap / intensity blank) expects that in a gap the intensity is clearly lower than outside on the blank. [1 / 10 th]
Max. Std. Deviation	The Standard deviation of the positions from the left and right gradient maximas should be small for a bad penetration. If the positions jump left and right the standard deviation is getting big and therefore the probability for a real bad penetration is getting small. [Pixel]
Max. Dev. Length	With the "Developed length" the way through the left and right gradient positions is measured. For that the distances from one gradient point to the next are calculated. If the points are all one over the other the length of the way is getting short. But if they jump from left to right the distance is getting long. The parameter gives the maximum sum for both sides. For a bad penetration this sum has not to be exceeded.

Verbosity example:

If the "**Verbosity level**" value is "*Low*" or *bigger*, a red bounding box marks where a "Bad penetration" was found.

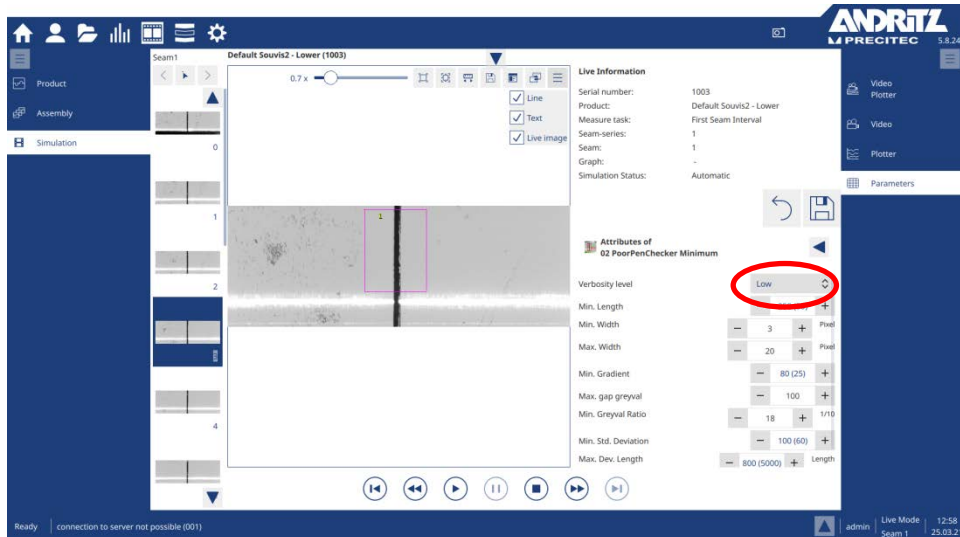




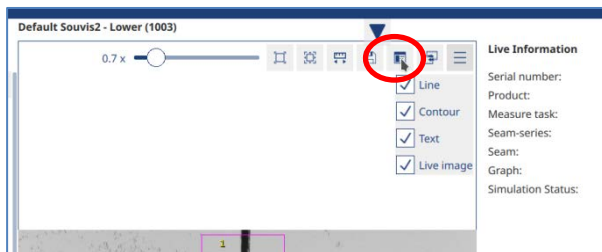
■ Parameter Check

The actual parameter setting can be checked with the "Infobox".

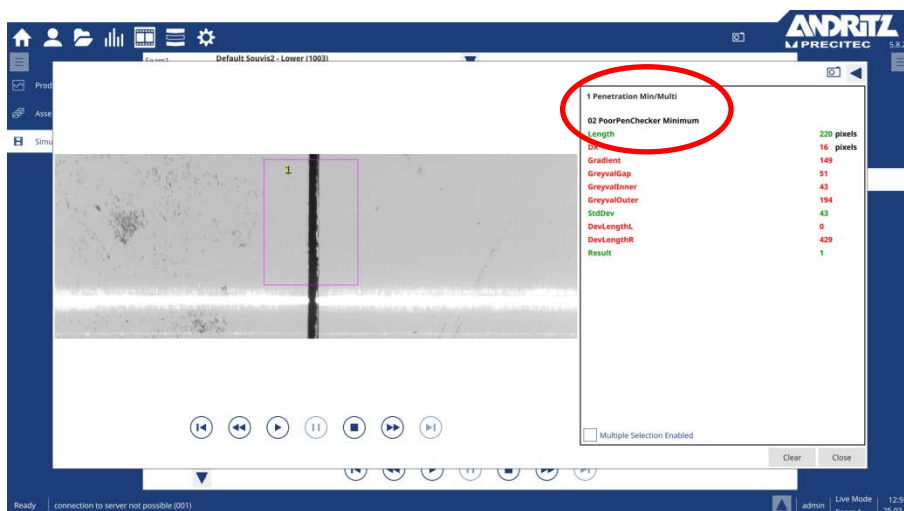
Set "Verbosity level" of "02 PoorPenChecker Minimum" to "Low" or bigger.



Click on the "Infobox" symbol.



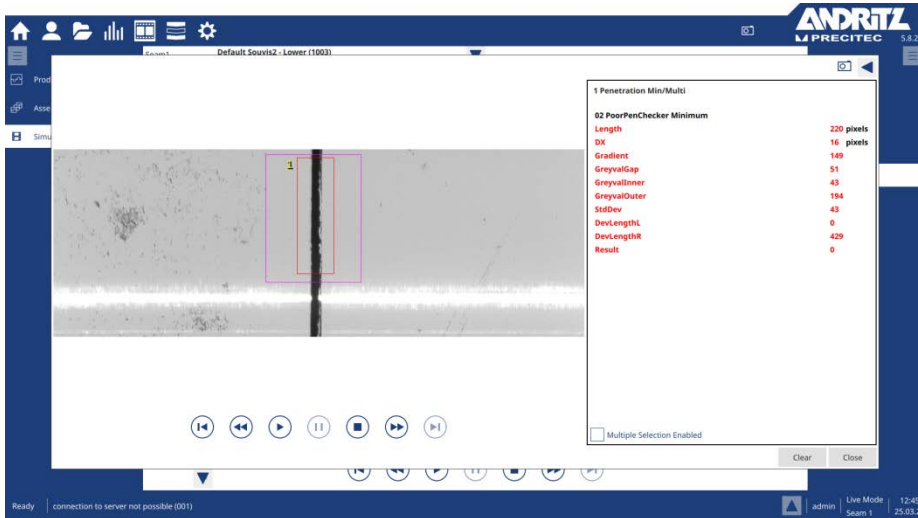
The actual data from the "Bad penetration" detection are visible.



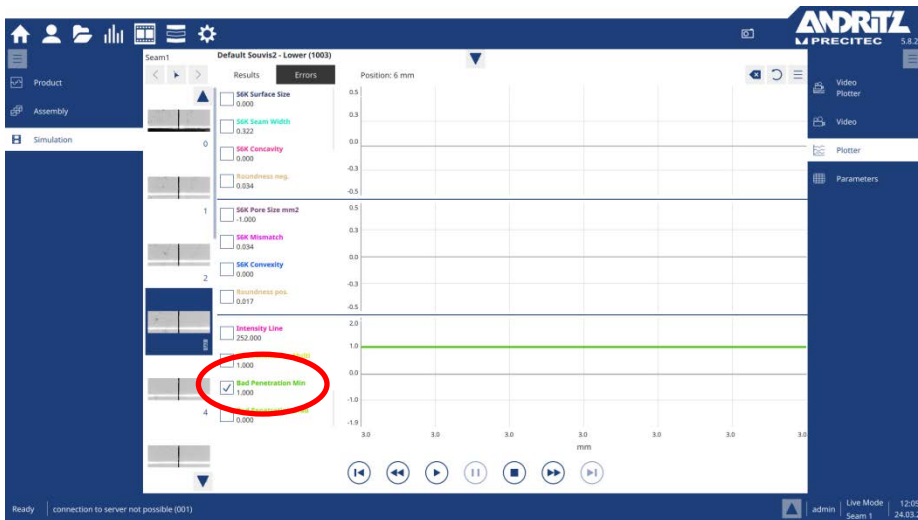
Green values: The actual value declares that it's NO bad penetration

Red values: The actual value declares that it's a possible bad penetration

Only if **all values are red** then it's declared as a real "Bad penetration" case!



It's also visible in the Plotter section, value = 1.







■ Measured values for plotter

724		Bad Penetration Minimum
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■ Subgraphs interface

IN bridges

OUT bridges

 image	ROI penMinimum		
 value	ROI grey valid		

■ Graph block diagram

