





# Profile Intersect Intersect

## Purpose

The tool finds a specific intersection point between a line and the input profile data.

## Inputs

Inputs		
Profile Input	Replay/Profile...✓	
Anchor X	✓	
Anchor Z	✓	
Line	FeatureLineCr...✓	

Name	Description
Input	The profile (uniform or point cloud) that the tool will apply measurements to.
Anchor X Anchor Z	Lets you choose the X or Z measurement of another tool to use as a positional anchor for this tool.
Line	The reference line

## Parameters

Parameters

Region

X

0.238

Z

2.187

Width (X)

35.969

Height (Z)

16.433

Y Angle

0.000

Transform Matrix

1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0...

Intersect Method

Simple

Count Direction

Left To Right

Count Index

1

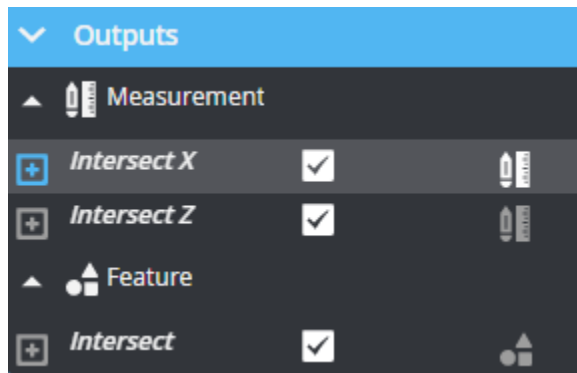
External ID

ProfileLineIntersect-1

Name	Description
Region	The region to which the tool's measurements will apply.
Intersect Method	<p>Two modes are available:</p> <ul style="list-style-type: none"> <li>Simple - Adjacent points along the X direction form line segments. Along the count direction, determine which <b>{Count Index}</b>th line segment intersects with the input line.</li> <li>Hysteresis- Along the count direction, first search if there is a point (Temp Point) whose distance to the input line is less than the parameter <b>Hysteresis Low</b>. If so, continue to search if there is a point whose distance to the input line is larger than the parameter <b>Hysteresis High</b>. If both points exist, then Temp Point is what we look for.</li> </ul>
Count Direction	Indicates along which direction the tool searches for the intersection

Count Index	Show up when Simple is chosen for Intersect Method
Hysteresis Low/High	Show up when Hysteresis is chosen for Intersect Method

## Outputs



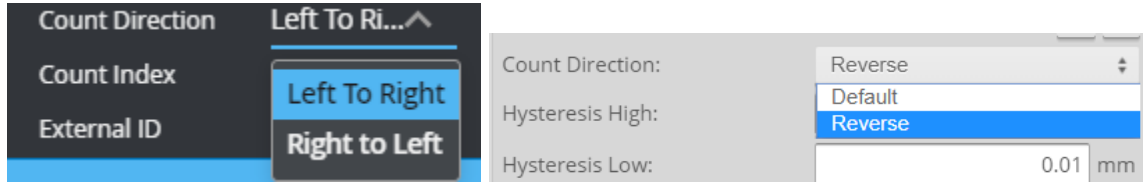
Type	Name	Description
Measurement	Intersect X	X position of the intersection
Measurement	Intersect Z	Z position of the intersection
Feature	Intersect	The intersect line of plane-plane mode

## Major Revisions

### Gocator Classic to GoPXL

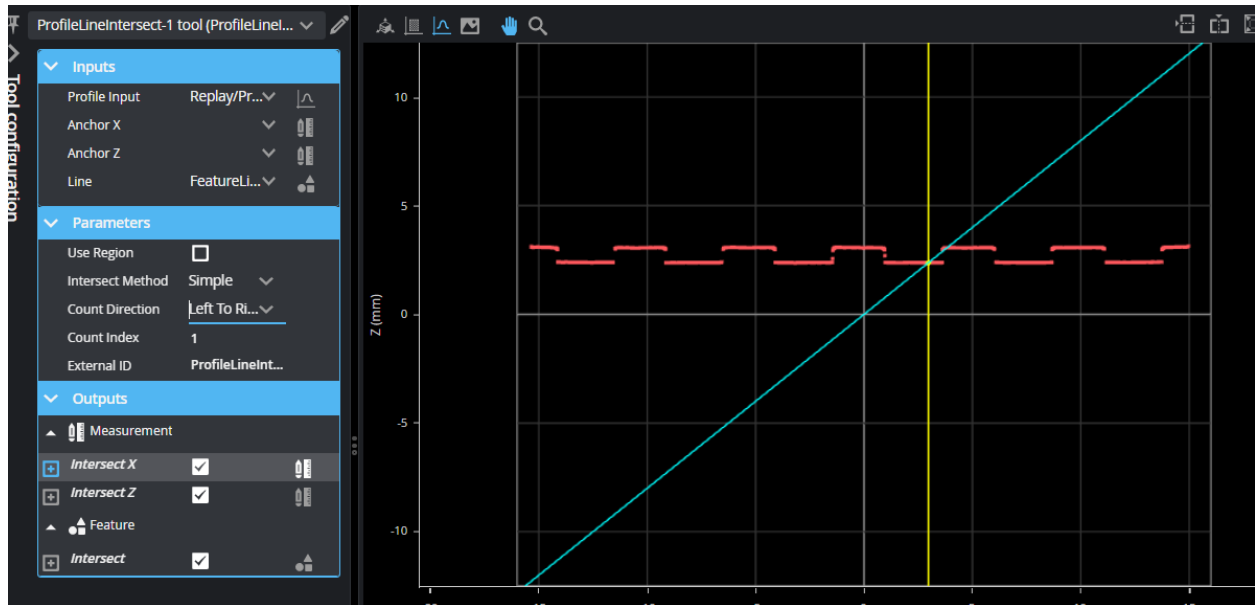
1. Move the "Region" parameter right above of "Intersect Method"

- Rename options of the parameter “Count Direction” to “Left to Right” and “Right to Left”. As comparison, Classic uses “Default” and “Reverse”



- Rename the parameter “Index” to “Count Index”. Set its lower limit to 1 while Classic doesn’t have such a limit.

## Application Examples



## Algorithm Details

Include or link reports explaining the methodology used by the tool.