

Surface Position Advanced Tool User Manual

1. General introduction

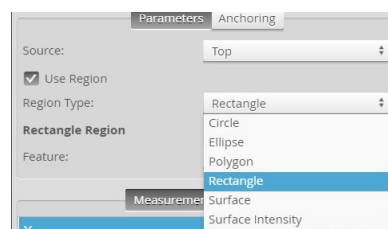
Same to the legacy tool Surface Position, the advanced version reports the X, Y, or Z position of a part. The feature type must be specified and is one of the following: Average (the mean X, Y, and Z of the data points), Median (median X, Y, and Z of the data points), Centroid (the centroid of the data considered as a volume with respect to the $z = 0$ plane), Min X, Max X, Min Y, Max Y, Min Z, or Max Z.

Compared to the legacy tool supporting only rectangular region type, the advanced version supports multiple flexible region types including

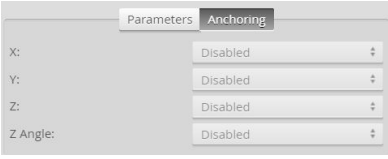
- Rectangle
- Polygon
- Circle
- Ellipse
- Surface Mask from a secondary source
- Intensity Mask from a secondary source

2. Parameters

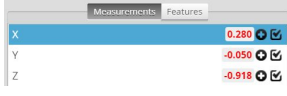
Source	The sensor, or combination of sensors, that provides data for the tool's measurements.
Use Region	When unchecked, all valid points will be involved to find the point feature. Otherwise, only valid points in the region will the measurements apply to
Region Type	<ul style="list-style-type: none"> • Rectangle • Polygon • Circle • Ellipse • Surface • Surface Intensity
Feature	<p>The feature the tool uses for its measurements. One of the following:</p> <ul style="list-style-type: none"> • Average • Median • Centroid • Max X • Min X • Max Y • Min Y • Max Z • Min Z



3. Anchor

X,Y, or Z	Lets you choose the X, Y, or Z measurement of another tool to use as a positional anchor for this tool.	
Z angle	Lets you choose the Z Angle measurement of another tool to use as an angle anchor for this tool.	

4. Measurements and Features

Measurements	X	Determines the X position of the selected feature type	
	Y	Determines the Y position of the selected feature type.	
	Z	Determines the Z position of the selected feature type.	
Features	Point	The returned position.	