

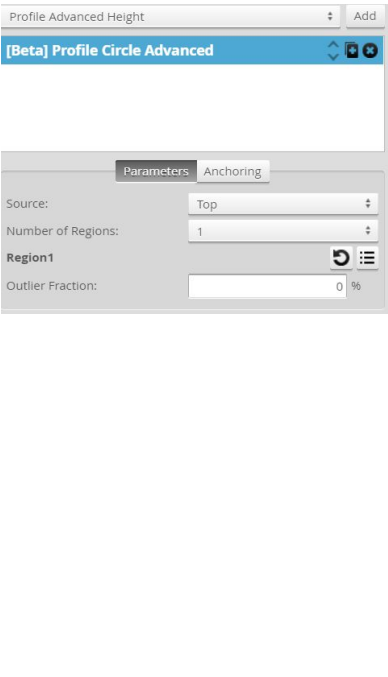
Profile Circle Advanced Tool User Manual

1. General introduction

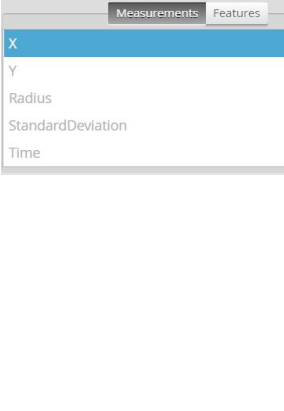
Fit a circle using least square method based on chosen points under Uniform Profile scan mode. The tool supports removing outliers iteratively and fit the final circle using remaining points.

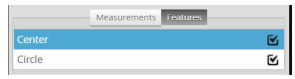
2. Parameters

This is an example form to explain parameters, which is extracted from Mai's report.

Number of Regions	Up to 16 regions can be configured to choose points to fit the circle. If 0 (Use all profile) is selected, then all points in the current frame will be used to fit the circle.	
Outlier Fraction	Range from 0% to 100%. Suppose m points have been chosen from regions, if this parameter is not equal to 0, then Outlier Fraction * m points will be considered noises and be removed iteratively. The remaining (1-Outlier Fraction) * m points in CYAN color will be used to fit the final circle.	

3. Measurements and Features

Measurements	X	X coordinate of the circle center	
	Y	Y coordinate of the circle center	
	Radius	Radius of the circle in mm	
	StandardDeviation	Standard deviation for points involved in fitting circle from the	

		center point	
	Time	Running time for the tool in ms	
Features	Center	The center point of the final circle	
	Circle	The final circle	

4. Application Example

