Test Report

Object: Test of evaluation software for 2D geometrical elements - CurveAnalyzer ver. 1.2 (Curve Library Ver.2.23)
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Summary : The accuracy of the evaluation software was verified by comparing the results obtained from the software CurveAnalyzer with reference results obtained by the QUINDOS software (PTB certified), using the Gauss "method of least squares"

Scope : The test was restricted to element circle represented by four sets of points, having a different angular extension, different position and diameter and different number of points. The data sets derive from real measurements.

Procedure: The data of the elements were supplied to both CurveAnalyzer and QUINDOS as data memorized in computer files. The calculated parameters of the circles are:

- Square sum of calculated deviations
- X and Y position
- Diameter
- Minimum and maximum deviation
- Form error

The results obtained are shown in the following table:

Segment Length	Points	S/w	Dev. (Sq. Sum)	X	Y	Diameter	Min	Max	Form (Max-Min)
360 deg	190	CA	0.151229	0.99765	0.99557	60.30662	-0.04984	0.05393	0.10376
		Quindos	0.151229	0.99765	0.99557	60.30662	-0.04984	0.05393	0.10376
180 deg	37	CA	0.001262	-14.48306	-40.82217	1.07124	-0.01183	0.01540	0.02723
		Quindos	0.001262	-14.48306	-40.82217	1.07124	-0.01183	0.01540	0.02723
90 deg	84	CA	0.002044	-16.99026	-39.84935	5.77940	-0.00891	0.01259	0.02151
		Quindos	0.002044	-16.99026	-39.84935	5.77940	-0.00891	0.01259	0.02151
5 deg	36	CA	9.4811E-06	26.87035	40.91997	25.01974	-0.00096	0.00140	0.00236
		Quindos	9.4522E-06	26.87035	40.91997	25.01974	-0.00096	0.00140	0.00236

Results

All results obtained with the CurveAnalyzer software derived from the the QUINDOS calculations by less than 1.0E-7 mm. According to the PTB criteria, CurveAnalyzer would be defined as "software placed in the class of smallest deviations".

Alpignano, 22.06.2007   Test executed by : Mavrov A.

Note: All data used for the test are available on http://ams3d.astrei.com, area Downlad/Documentation/CurveAnalyzer/Test_data