What's New In SA

One of the advantages of SpatialAnalyzer is that development occurs at a brisk pace. New feature requests, bug fixes, and changes are implemented quickly, giving you the opportunity to start taking advantage of newly implemented features in a very short period of time.

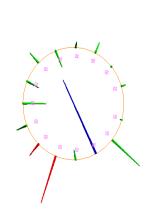
2015.07.28

Relationship Enhancements

Auto Vectors

Users may now activate auto vectors to display the deviation of individual measurements to their fit geometry. The abbreviation *AVF* refers to *Auto Vector Fit*.

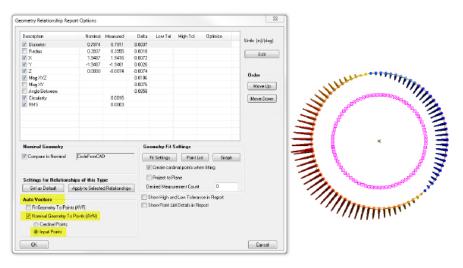
Description	Nominal	Measured	Delta	Low Tol	High Tol	Optimize	Links Collidar	
Diameter	1.5000	1.5012	0.0012				Units: (in)/(deg)	
🔲 Radius	0.7500	0.7506	0.0006				Edit	
✓ X	-1.5000	-1.4971	0.0029	-0.0010	0.0010		EUK	
V Y	1.5000	1.4998	-0.0002		0.0010			
Z	0.5000	0.4978	-0.0022				Order	
Mag XYZ			0.0037				Ulder	
MagXY			0.0029				Move Up	
Angle Between			179.9084					
Circularity		0.0022					Move Down	
RMS		0.0008						
Nominal Geometry Compare to Nominal	Big Hole		- 6	eometry Fit S Fit Settings	Gettings Point L	ist Graph	_	
,				Create card				
Settings for Relationsh	ips of this Ty	pe	(Project to P	lane			
Set as Default Apply to Selected Relationships				Desired Measurement Count 0				
Auto Vectors				Show High and Low Tolerance in Report				
V Fit Geometry To Point:	(AVF)			Show Point Li:	st Details in Ri	eport		
Nominal Geometry To	Points (AVN)							
Cardinal Points								
 Input Points 								



Auto vectors may also be activated to display the deviation between cardinal points of the measured feature to the nominal:

Description	Nominal	Measured	Deta	Low Tol	High Tol	Dpfinize		and the state of the
Diameter	6,0000	5.9664	0.0336				Units: (in //(deg)	44 M 10 M
Redus	3.0000	2.9832	-0.0168				Edit	A 4 4 4
Length	21.6250	20.0224	-1.6826				LOK	1 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
DiginX	0.0000	-0.0060	0.0000					A 10 1 10 10 10 10 10 10 10 10 10 10 10 1
Dingin Y	0.0000	0.0064	0.0064					a 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Drigin Z	0.7500	1.9855	1.2395				Order	A 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Mag KYZ			1.2365				Move Up	14 M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Ristram Y	90,0000	89.5312	0.0688					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
By Irain Z	0.0000	0.0093	0.0093				MoveDown	A 44
Re Iron X	0.0000	82.2970	82.2970					- + + + + + + + + + + + + + + + + + + +
🗸 Angle Between			0.0694					and the second se
Mutual Perp. Dist.			0.0061					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Cylindricity		0.0405						
RMS		0.0067						and the stand
Nominal Geometry			Ge	onetry Fit 1	Settings			1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Compare to Nominal CylinderFromD4D				Fit Settings	PointL	ist Braph		A A A A A A A A A A A A A A A A A A A
			V	Create card	inal points wh	en filling		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Settings for Relation	ships of this Ty	pe						· · · · · · · · · · · · · · · · · · ·
Set as Default Apply to Selected Relationships				Detired Measurement Count 0				
Auto Vectors					d Low Toleran			5 M 4
Fil Geometry To Point	nts (AVE)		5	show Point Li	st Details in R	eport		
V Nominal Geometry T								
	or on a low of							
Eardinal Points								
Input Pointe								

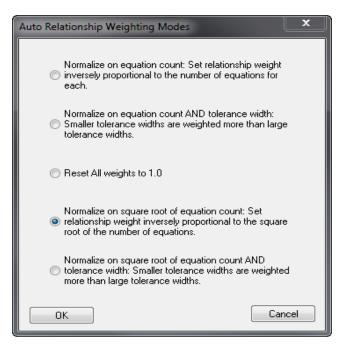
or between input points (compensated measurements) to the nominal geometry:



The abbreviation AVN refers to Auto Vector Nominal.

Normalize Weighting Options

Two new relationship weighting options have been added for relationship fitting. They use the inverse of the *square root(N)* where *N* equals the number of equations for relationship fit computation.



Average Point

Capability has been added to rename the average point and collect multiple average points in the same group.

The Apply to Selected Relationship option in the Average Point Relationship **Properties** dialog has been added.

Added Sweep + Move operation support in both the *Copy* and *Move* modes to preserve the same average point group/target name as it was defined in the source relationship.

Leica Automation Interface Driver

Added a Measure button for *TMAC* mode. This will send a measurement (at the probe tip center, if one is attached) to SA.

The Record button for the AT960 in the AIC will send the reflector center location for a subsequent beam reset command from MP.

New Measurement Plan Commands

Utility Operations

 Get Screen Resolution. Returns screen left, top, width and height for specified display.

Construction Operations

 Rename Item. Allows user to rename/relocate a callout view, chart, dimension, event, picture, relationship, SA Doc, SA Report, SA Report Template, scale bar and a table.

Instrument Operations (PCMM)

• **Configure and Measure.** The logic for this command as it pertains to arms is now identical to that of laser trackers. Please see the SA Readme file for more information.