

Our partner New River Kinematics continuously develops and enhances SA to further meet customer needs and goals. With this newsletter, we inform you about the latest software customizations.



New SpatialAnalyzer Version: SA 2013.10.02

Tracker Instrument Toolbar

This release has a newly-developed interface for efficient measurement with laser trackers - the Instrument Toolbar.

This new interface is greatly simplified for more streamlined interaction with laser trackers. Less-common detailed settings have been stripped away, leaving just the essential elements of day-to-day measurement, particularly suited to measurement using the Inspection tab of the SA toolkit. It can be used for single point, stable point, spatial scan, tooling ball, and 4 additional user-defined measurement modes. You will likely find that this new streamlined interface covers a large proportion of your measurement needs, unless finer control is desired (in which case the traditional tracker interface can be used).

To access this new toolbar, click the **Switch to Instrument Toolbar** button in the laser tracker interface. For much more on the new tracker instrument toolbar, refer to “Measuring with Laser Trackers” in the SA User Manual.

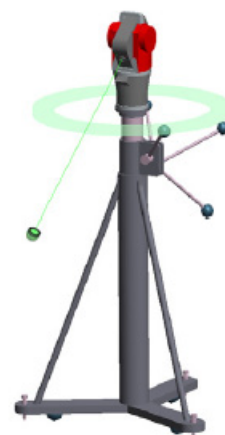


Tracker Instrument Toolbar

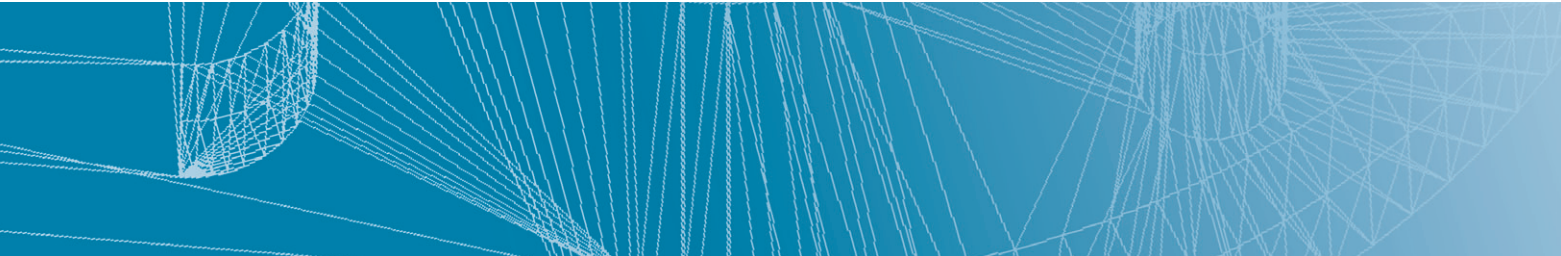
Instrument Connection Indicator

Connected instruments are now clearly indicated in the graphical view by a new Instrument Connection Indicator, a translucent green ring that hovers around the base of the instrument.

The display and size of this indicator can be controlled in the **User Options > Display** tab.



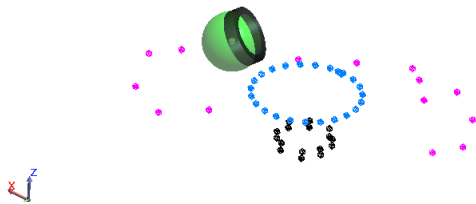
Instrument Connection Indicator



Head-Up Display

The graphical view is now equipped with a head-up display (HUD) that includes feature name (if trapping to a feature), number of total points measured (if applicable), target name, measured coordinates, and RMS (if applicable). The HUD's font, color, transparency, size, and dwell time (how long it persists before clearing from the screen) are all adjustable.

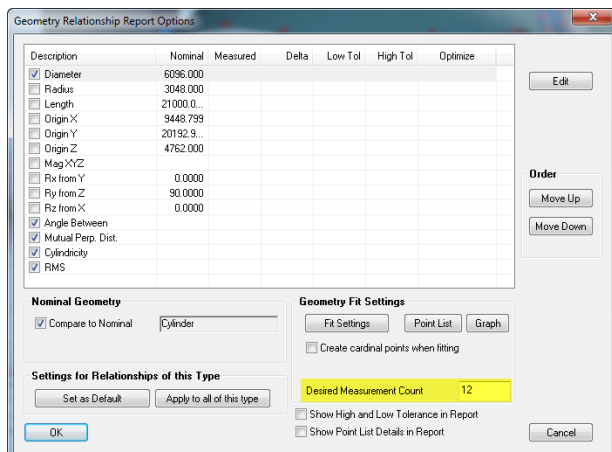
> Top Bore Face RMS: 0.0019
 [2 of 6]
 X = 85.9560
 Y = 129.4121
 Z = -13.3793



Head-Up Display

Measurement Count

For measurement trapping (both to relationships and GD&T Datums and Feature Checks) you can now prescribe a specific number of points to be measured for a feature, and measurement trapping will automatically advance to the next feature when all measurements have been received. The current count is also displayed in the HUD.

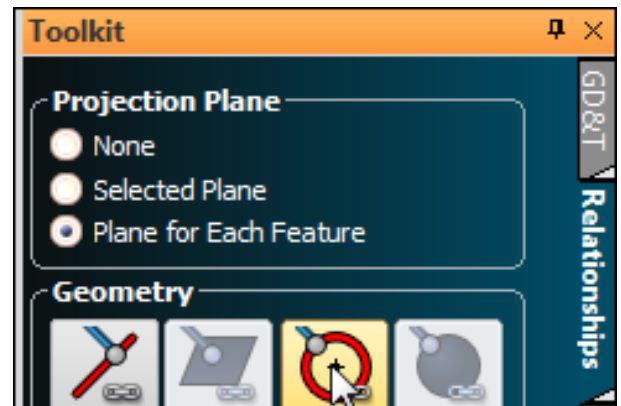


Display Measurement Count

You can also set the default number of points to be used for different feature types on the **User Options > Analysis** tab. Use 0 to indicate that you do not want a prescribed limit on the number of points.

SA Toolkit Feature Projection Planes

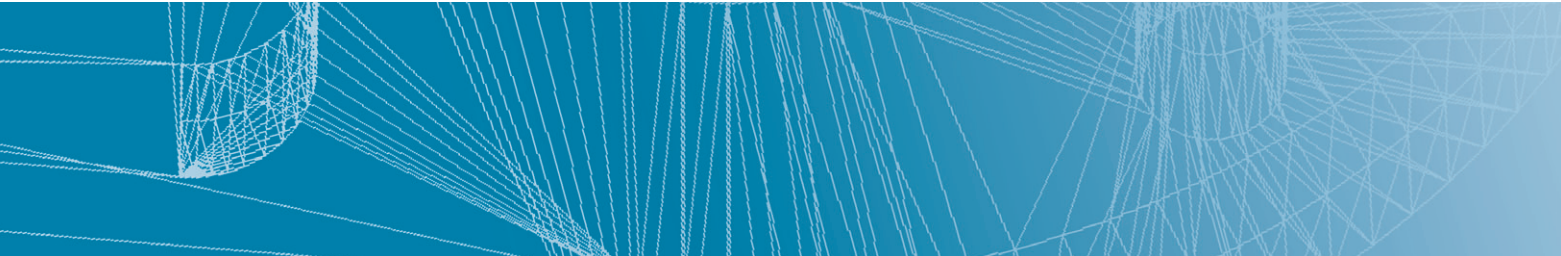
The projection plane options have been improved in the Relationships tab of the SA Toolkit for projection planes.



SA Toolkit Feature Projection Planes

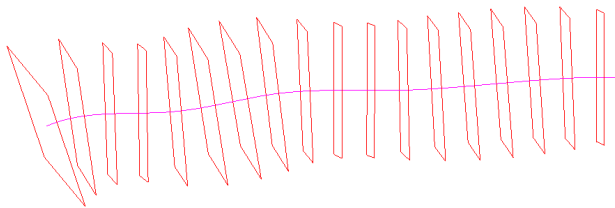
There are now three options:

- None: Does not use a projection plane for the feature
- Selected Plane: Identical to the “Selected Plane” checkbox of previous versions. You choose a specific plane which will be used as a projection plane
- Plane for Each Feature: When selected, each additional feature added to the inspection routine will also have a projection plane feature added, so that you first measure the projection plane, then the feature to project to it.



Layout Planes on a Curve

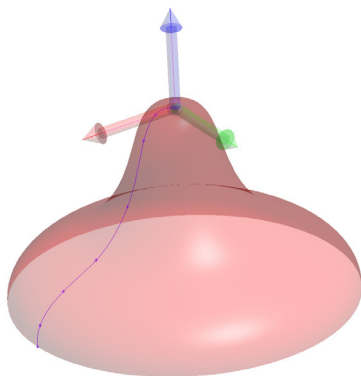
A new command **Construct > Planes > Layout on a Curve Spaced at a Distance** has been added to lay planes along a B-Spline spaced at a specified interval. The planes will be oriented perpendicular to the curve.



Layout planes on a curve

Revolved Surfaces

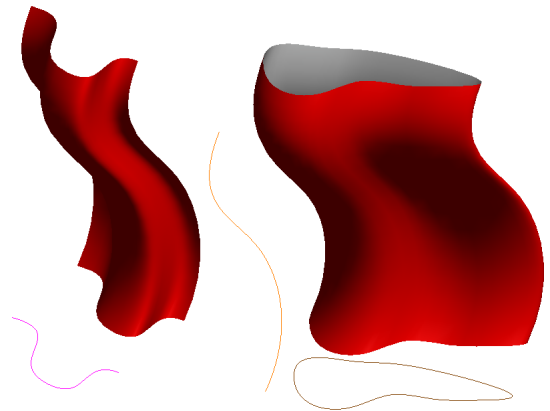
You can now create a revolved surface by revolving a B-Spline about an object's axis using **Construct > Surfaces > From B-Spline Rotated about an Object**. Select the B-Spline, the object, and then choose the axis about which to rotate, and the revolved surface will be created.



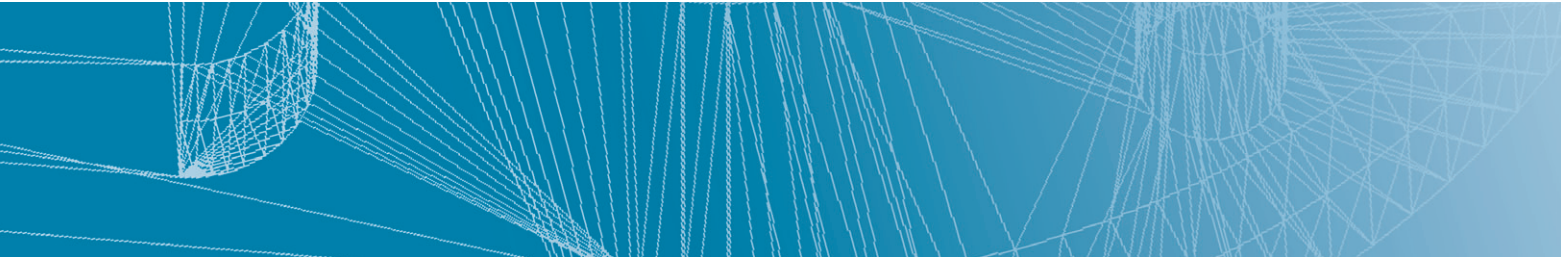
Revolved Surface

Swept Surfaces

Swept surfaces can now be created using the new **Construct > Surfaces > From B-Spline Swept along another B-Spline** command. Chose a B-Spline for the profile (can be open or closed), a B-Spline for the sweep path (can be open or closed), and indicate whether the sweep should be performed using pure translation (no rotation) or whether the profile spline should be permitted to rotate through the sweep.

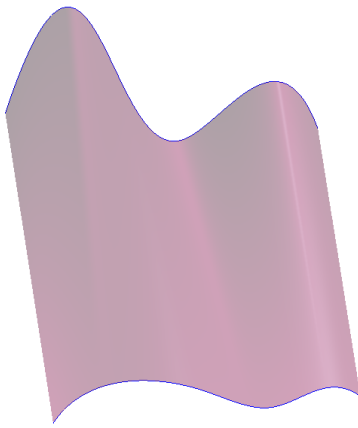


Swept surfaces



Surfaces From B-Splines or Point Groups

Using **Construct > Surfaces > From B-Splines** or **Construct > Surfaces > From Point Groups**, surfaces can now be created from as little as two B-Splines or point groups, where previously four were required.



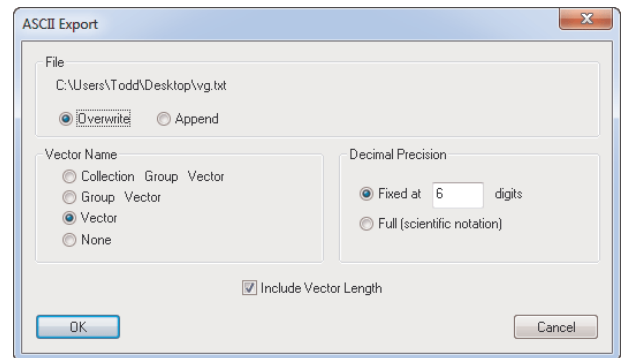
Surface from Point Groups

Vector Group Export

Settings for finer control over vector group exporting have been added to the **File > Export > Vector Group** command.

With these new options, you can:

- > Overwrite or append to an existing file
- > Specify the vector name format
- > Control decimal precision
- > Optionally include the length of the vector in the output



Display Vector Group Export

DOWNLOAD THE LATEST SpatialAnalyzer VERSION

Please note: You download the actual full version of SpatialAnalyzer, but you can use only the full functionality if you have an actual software license key. In other cases you can only work with the SA Viewer.



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