

One of the very significant 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 new or requested features in a very short time.



## New SpatialAnalyzer Version: SA 2013.08.02

### Expanded File Import/Export Support

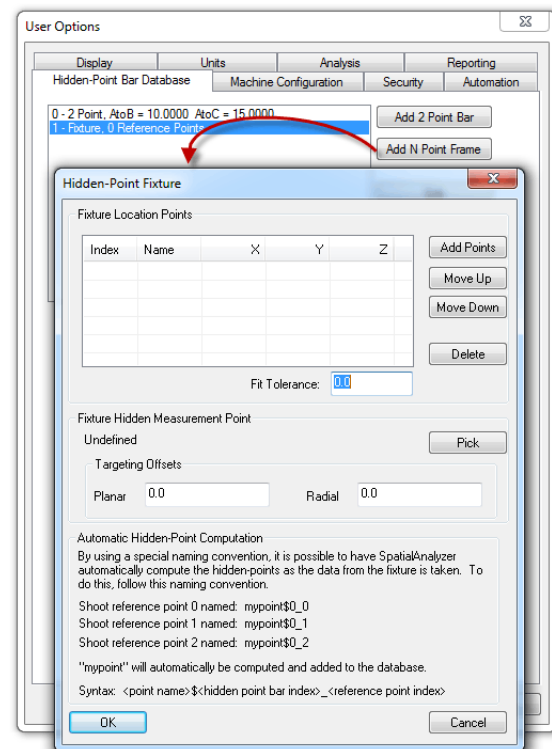
The command **File>Export>Other>Surface Wireframe Curve File(s) (.crv)** has been added. This command writes a wireframe representation of selected surfaces to a text file containing 6 comma-separated values defining two endpoints of a line in Cartesian coordinates: Ax, Ay, Az, Bx, By, Bz. The command **File>Import>Custom Formats>Leica ADF (.adf)** has been added to support the import of Leica ADF files.

Direct CAD Access import support has been added for the following file formats:

- > ACIS v23 (.SAT, .SAB)
- > Autodesk Inventor 2014
- > CATIA V5-6R2013 (R23)
- > Adobe 3D PDF (.PRC)
- > Rhinoceros (.3DM)
- > Siemens NX 8.5

### Hidden Point Fixtures

In the **User Options>Hidden Point-Bar Database** tab, you can now define a hidden point fixture. This allows you to use three or more points to define another point on a fixture. Also, hidden points now support target offsets for the computed point.



To use this new feature, first measure all points on the fixture and construct the hidden point manually. Then, in the **Hidden Point-Bar Database** tab, click to add an **N Point** frame. Add the points defining the fixture's orientation, then choose to pick the hidden point, and enter offsets for the hidden point if desired.

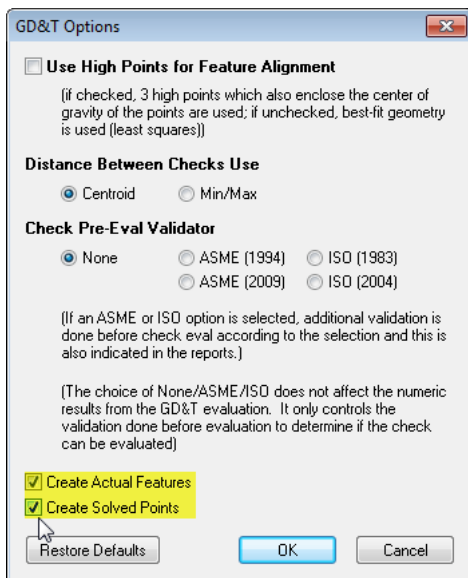


## Remove Measurements By Instrument

The command **Analysis>Measurement Simulations>Remove Measurements By Instrument** will remove all measurements associated with a specific instrument, leaving non-measured points behind.

## GD&T Actual Features & Solved Points

The GD&T Options dialog has two new options: **Create Actual Features** and **Create Solved Points**.

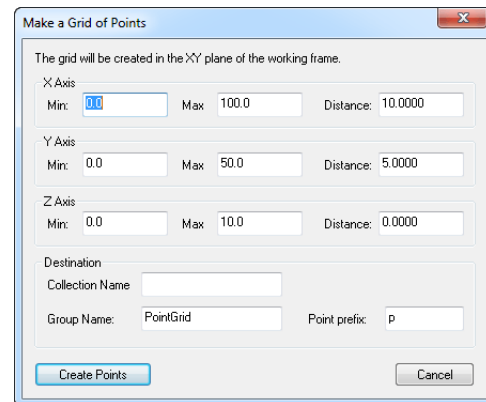


- > **Create Actual Features.** Creates actual measured geometric features for GD&T checks. For instance, if performing a flatness check, the plane representing the orientation of the plane used for the flatness check is created. This allows you to query your measured points to this plane to determine high and low points, for instance.
- > **Create Solved Points.** This creates the center points used for true position analysis when determining if a feature is out of tolerance.

## Grid By Distance

In addition to the existing command to lay out points on a grid based on a count (which has been renamed to **Construct>Point(s)>Layout>Grid by Count**), a new command has been added to lay points out on a grid based on a spacing (**Construct>Point(s)>Layout>Grid by Distance**).

This command maintains the specified spacing, laying off points inside the specified boundary.



## XML Import

The XML import and export format has been published for the benefit of all users. For more information, refer to “Importing XML Files” in the chapter “Working With Files”.

## Reporting Improvements

### New Tag

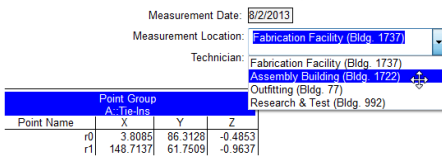
A new system tag has been added, <<Filename Short>>, which lists the current filename without the full path.

### Borderless Tables

Borderless tables can now be created in reports by right-clicking a cell and selecting **Cell Options>Disable All Cell Borders**. Select **Cell Options>Enable All Cell Borders** to re-enable them.

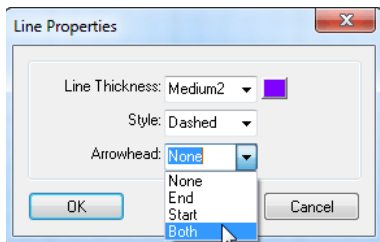
### Fields

A new ComboBox widget is now available within reports. Combo boxes allow you to present a drop down list to a user in a report. The list items may be populated from report tags or static text. Simply right-click in the field, select **Cell Options>Make ComboBox**.



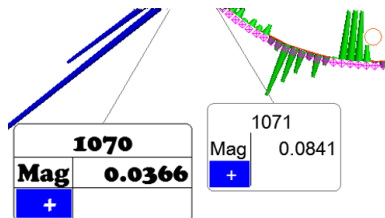
### Arrowhead Ends

Line arrowheads can now be added to just the start, just the end, or both ends of a line.



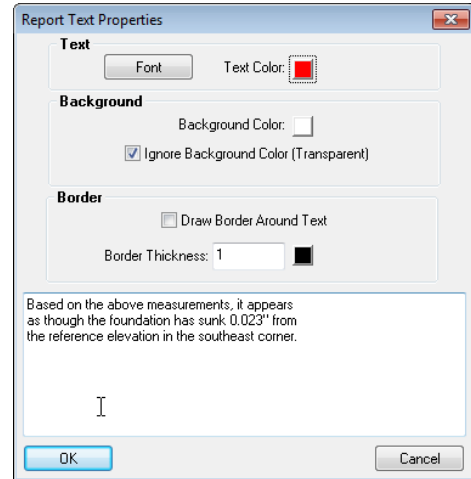
### Callout Styling

Individual callouts can now have their own leader/border thickness/color and fonts. To modify an individual callout's settings, right-click the callout and select **Callout Styling**.



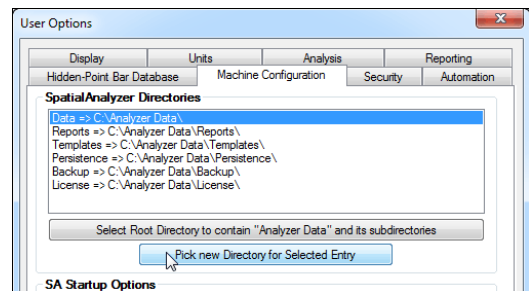
### Text Properties

The properties of a text block now contain controls for font, background color, text color, border color, and thickness:



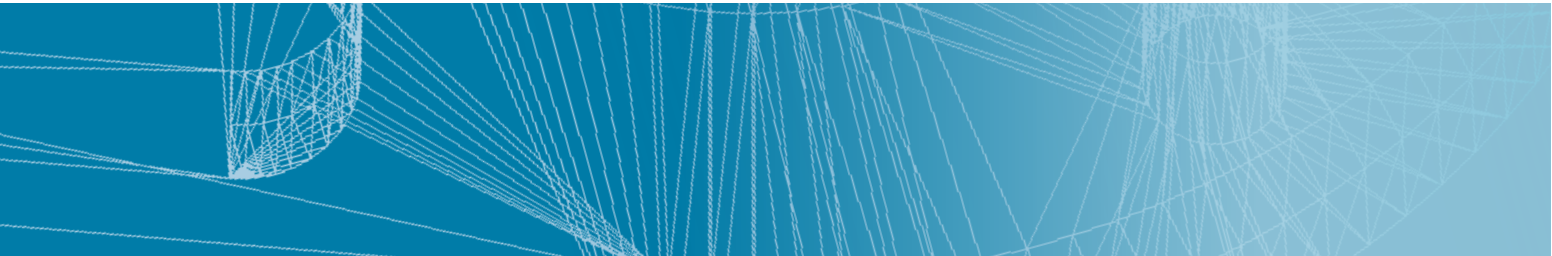
### SpatialAnalyzer Directories

The **User Options>Machine Configuration** tab now allows you to select specific directories for each of the standard SA directories, avoiding the need to edit the registry to make such changes.



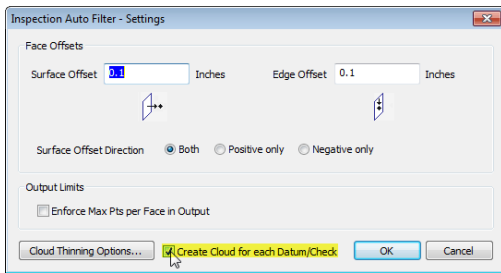
### Callout Snapping

Callouts with leader lines can now be constrained along 45 degree angle increments. Simply hold down the **Shift** key while dragging a callout with a leader line to snap the callout and its leader line.



### Feature Inspection Auto Filter Cloud Organization

The **GD&T>Feature Inspection Auto Filter** command has a new **Create Cloud for each Datum/Check** option which will create a separate point cloud for each datum or feature check. Keep in mind that this may create multiple copies of a given cloud point, since one point may be associated with multiple datums or feature checks.



### New Interface: API Axxis 7-100 7-DOF Probe Arm

A new interface has been added for the API Axxis 7-100 7-DOF probe arm. This arm runs under the API Baces interface, similar to the 6-100 arm. It supports the new style 7-100 arms with the probe only (no scanner) attached.



### New Interface: Leica AT4xx

This interface has been added to support the Leica AT402. The AT4xx designation is for support of future models. Note that the AT401 can be run via this interface, but the initial AT401 interface and instrument model in SA are preserved for continuity.

### New Interface: OmniTrak 2

A new interface has been added for the API OmniTrak 2 laser tracker.



This interface uses the API Device Interface, and has as of yet been untested with hardware.

### New Interface: Assembly Guidance Laser Guide Projector

A new interface has been added for the Assembly Guidance Laser Guide projector.



This interface supports creating calibration (registration) files from SA. Simply select **Instrument>Laser Projector>Alignment**. You will be prompted to select the projector and the group of points you will use to align the projector. In the interface, the UI will be displayed to guide you through driving the projector to each point in sequence with the mouse. Once you have driven to all the points, the projector will register and a file with the registration targets will be created. You may use this file to register the projector with a single click after the one-time manual drive, so long as the projector is not moved.

This interface supports projections from SA or from pre-created files. You are able to project objects from SA by selecting **Instrument>Laser Projector>Project Objects**. The selected object will be projected and a file will be created using the name of the first object. You have the capability to set the interface to add objects to an existing projection file, or to create a new file with each new projection. This way, you may create your own database of projection files simply by writing them to a common folder on your hard drive.

Once you have created a projection database, you can use the **Previous, Current, and Next** buttons in the interface to run through a given folder of projection files. You must install LASERGUIDESDK\_3\_03\_11.exe (or later) before running the interface. This may be downloaded from the NRK FTP site: **ftp://ftp.kinematics.com/pub/SA/Install/Driver%20Downloads/AssemblyGuidance%20LaserProjector/**.

This FTP location also has batch files which need to be executed to register the projector DLL in the SA install.

### MP Automation

Indentation in the MP editor can now be controlled using **Tab** and **Shift+Tab**. Select one or more lines, then press these keystrokes to add or remove indentation, respectively.

### Support and Training

VMT is still your qualified partner for sales, training and support of SpatialAnalyzer Software in German-speaking countries.

A reliable and efficient partnership exists between VMT and NRK since nearly 10 years. Our companies organize and presents commonly several events and fairs, like the CONTROL in Stuttgart. VMT, as successful partner in Europe, provides since several years a working place for a NRK application engineer. After Scott Sandwith has returned back to USA last year we are happy to introduce Zach Rogers as his follower. If you didn't get to know him, you have a chance at our next SA user meeting, the "Projektdialog SA 2013" in November at Nordenham.

### 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.



Click [here](#) to download the latest SpatialAnalyzer Version...