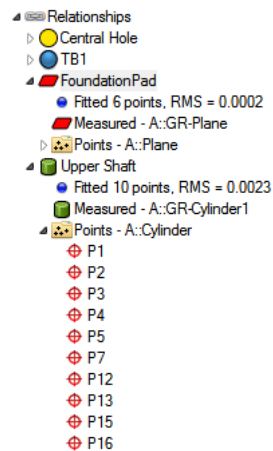


What's New in SA

SA 2014.04.15

Relationship Links

As a convenience, points or objects associated with a relationship are now displayed in the tree under the relationship:



This allows you to identify the associated entities quickly, and to access the properties of the associated objects directly under the relationship.

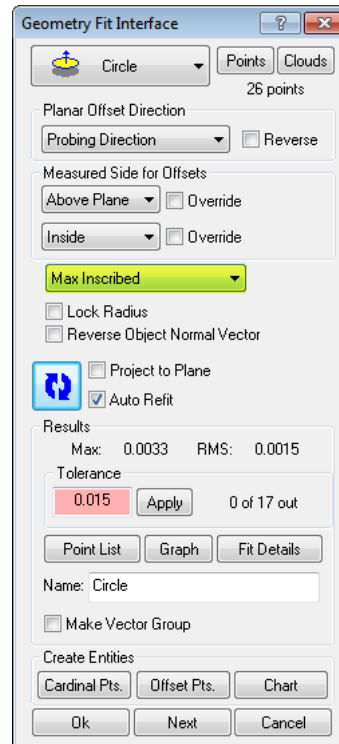
Relationships also list the points included in the relationship directly, as well as any cardinal points created by the relationship or projection planes used by the relationship. The geometry relationship icon now matches the object type being fitted as well.

You can interact with these tree entries just as you would elsewhere in the tree.

This capability is currently supported for Point to Point, Point to Object, Frame to Frame, Object to Object Direction, Geometry, and Average Point relationships.

Max Inscribed/Min Circumscribed Circle Fits

You can now create Maximum Inscribed and Minimum Circumscribed circle fits in the geometry fit, tracker, and geometry relationship interfaces:



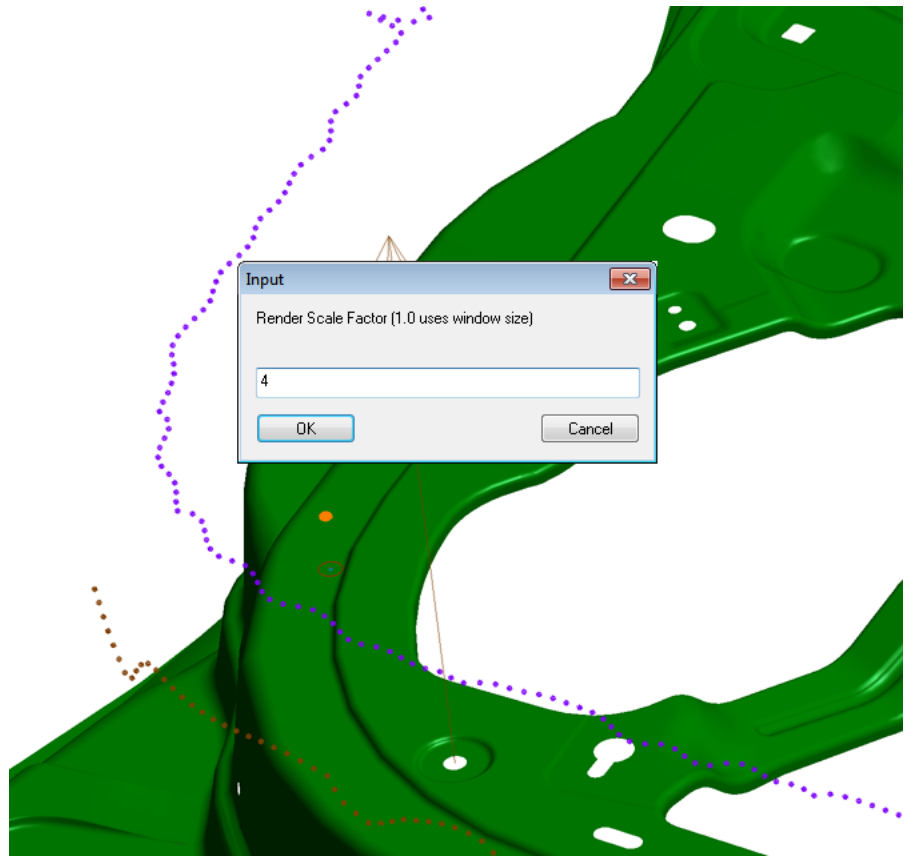
(For geometry relationships, the setting is found by clicking the [Fit Settings](#) button). These options will yield the largest circle that fits inside the available data, or the smallest circle that will encompass the available data, respectively.

Note that these fit algorithms are sensitive to coverage—to avoid a fit error, try to ensure you have at least 180 degrees of circle coverage.

The fit mode (least squares, maximum inscribed, or minimum circumscribed) is recorded in the fit event and reported by the relationship as well.

High Resolution Graphic Export

When saving the graphical view to a file via **File > Capture Graphics > To File (BMP/JPG/PNG/GIF/TIFF)**, you can now specify a render scale factor, enabling high resolution image exports of anything in the graphical view. When prompted, enter the desired scale factor. A value of **2.0**, for example, will render an image that is twice the resolution of the graphical view.



LAP CAD-Pro Laser Projector: New Interface

A new interface has been added for the LAP CAD-Pro Laser Projector.



This interface supports creating alignment (calibration) files from SA.

To align the projector, select **Instrument > Laser Projector > Alignment** from the menus. After selecting the instrument and alignment points, a dialog will guide you through driving the projector to each point in

sequence with the mouse.

Once you've driven to all the points, the projector will calibrate and a file with the alignment target positions and galvo angles will be created.

You can use this file to register the projector with a single click after the one time manual drive, as long as the projector is not moved.

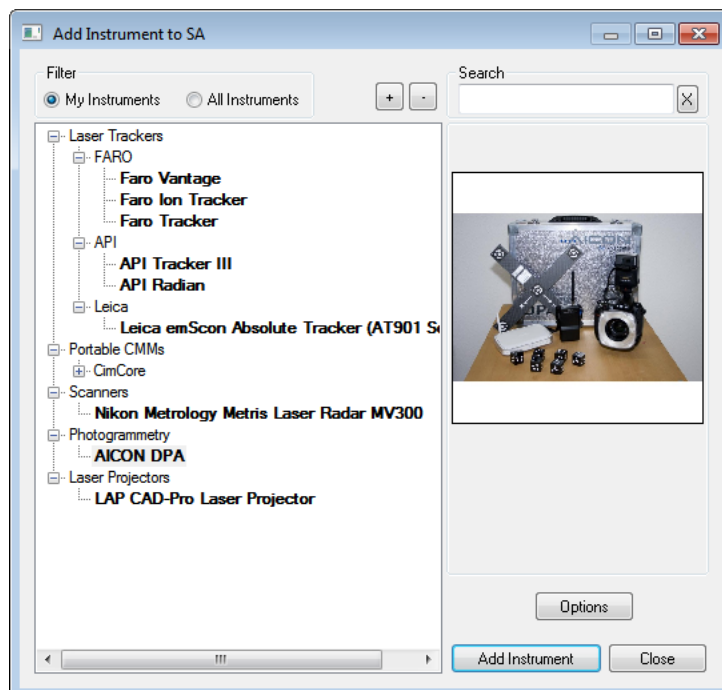
To project objects, select **Instrument > Laser Projector > Project Objects**. Select the objects to project. SA will project the objects and create a projection file using the name of the first object.

Once you have created multiple projections, you can switch among them using the **Previous**, **Current**, and **Next** buttons in the instrument interface.

Measurement Plan support has been added to control the current projection as well. Refer to the "Instrument Operational Check" command in the [MP Command Reference](#).

AICON DPA: New Interface

An instrument interface has been introduced to support the AICON DPA system.

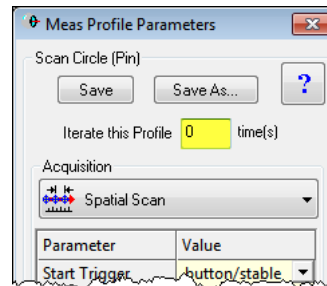


This interface supports the import of points from the DPA system.

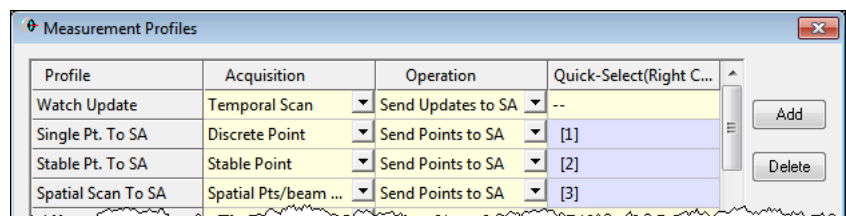
Laser Tracker Interface Enhancements

- You can now iterate measurement profiles indefinitely (until you abort the profile) by setting the *Iterate This Profile* option

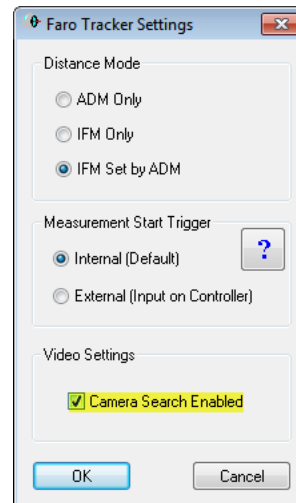
to 0 iterations:



- Clicking on a measurement profile name in the **Measurement Profiles** dialog (below) will copy the name to the clipboard, for easy use in Measurement Plan commands:



- You can now enable or disable use of a Faro tracker's camera during a search operation. This is independent of whether the camera is used for catching the beam outside of a search operation. To toggle this setting, click the gear icon ⚙ in the tracker interface, then click the **Faro** button. In the **Faro Tracker Settings** dialog, toggle the **Camera Search Enabled** option:



New Measurement Plan Commands

- **Get Instrument Model.** Retrieves the name of the specified instrument.
- **Create Point to Point Dimension.** Creates a dimension between two points.

- **Create Point to Object Dimension.** Creates a dimension between a point and an object.
- **Create Object to Object Dimension.** Creates a dimension between two objects.
- **Create Diameter Dimension.** Creates a diametrical dimension for a circle, sphere, or cylinder.
- **Create Radius Dimension.** Creates a radial dimension for a circle, sphere, or cylinder.
- **Set OPC DA Tag Value Double.** Creates or overwrites a double value in the OPC server's address space with the specified tag.
- **Get OPC DA Tag Value Double.** Retrieves the double value associated with the specified tag from the OPC server's address space.
- **Set OPC DA Tag Value Integer.** Creates or overwrites an integer value in the OPC server's address space.
- **Get OPC DA Tag Value Integer.** Retrieves the integer value associated with the specified tag from the OPC server's address space.

The "Instrument Operational Check" command has a number of new commands for instrument control, ranging from Innovo teach and measure controls to LAP CAD-Pro projector control.

The "Dock Instrument Interface" command now also supports the Sokkia Net1 and Leica total station interfaces, and the Leica Automation Interface.

For more information, refer to the [MP Command Reference](#).

OPC Data Server

SA now has the capability of acting as an OPC Data Access server for broadcasting real-time data to other applications or hardware devices. OPC stands for "Open Platform Communications" (originally "OLE for Process Control") and is a specification establishing standards for communication of real-time plant data between control devices and software from different manufacturers.

The server can also be accessed via Measurement Plans. For more information, refer to "The OPC Interface" in the SA User Manual.

What's New In SA

You can now access the What's New document (this document) directly from SA using [Help>What's New in SA](#).

For additional fixes and improvements, refer to the SA Readme file.