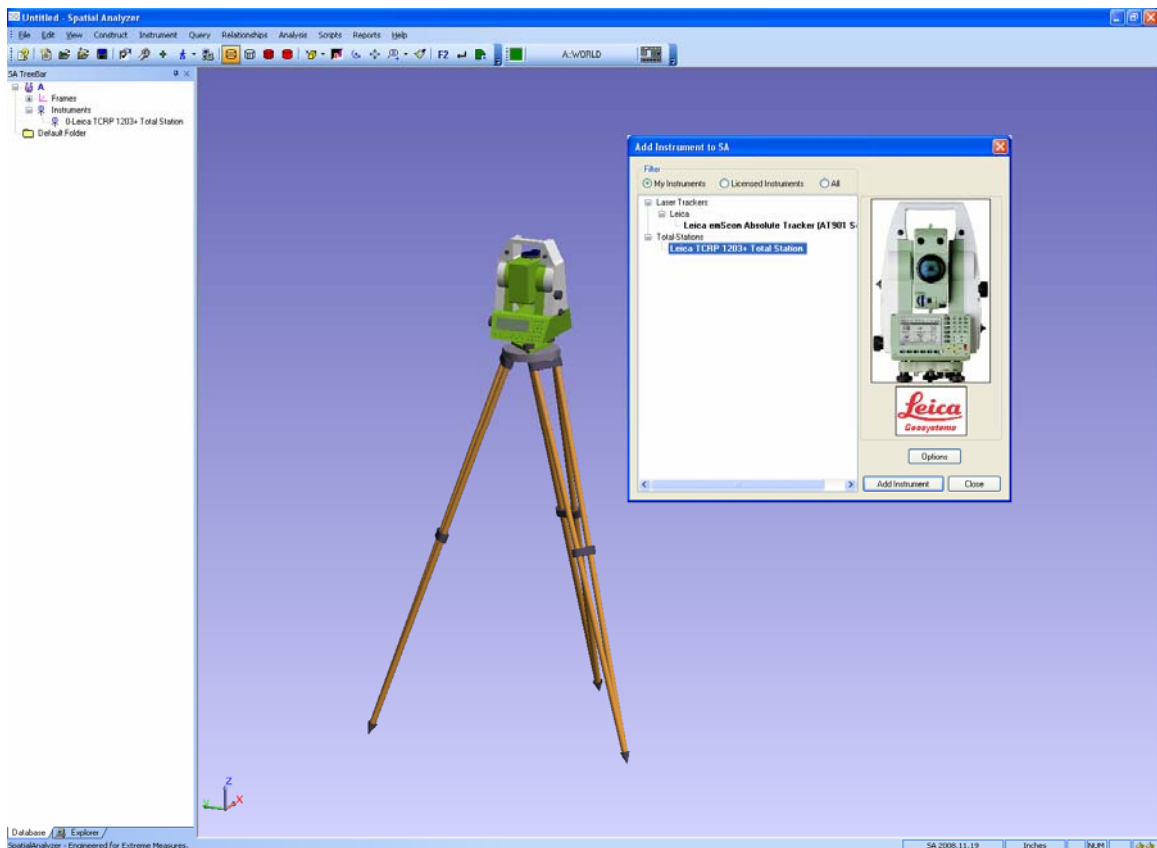# Quick Start Guide

Leica 1203+ in Spatial Analyzer

Overview

Spatial Analyzer (SA) interfaces with the Leica 1203+ through the Theodolite Manager via a Bluetooth or RS232C (Serial Port) connection. This quick start guide will cover the operation of the Leica 1203+ inside of Spatial Analyzer.

Establishing Bluetooth Connection on PC

- Use Bluetooth wizard installed on PC to create a new connection. Be sure the Leica 1203+ is powered on.
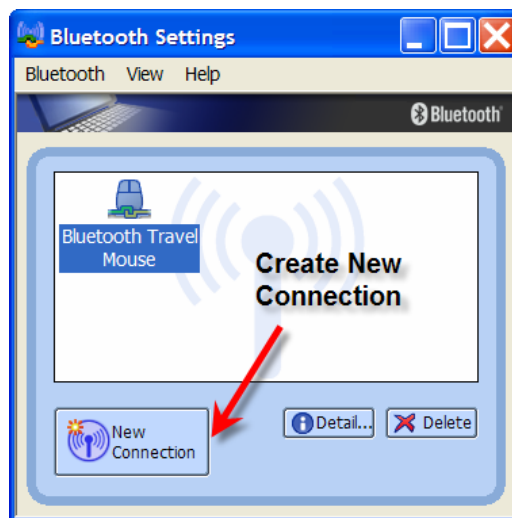

- The Bluetooth wizard will search for the device.

- The Bluetooth manager will complete the connection and display the COM number being used. Remember this number as it is needed inside of SA to establish connection. If prompted for a password just use "0000"
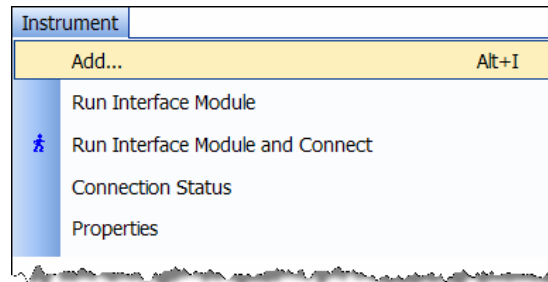
- Now the Leica 1203+ is a recognizable connection for Bluetooth. Each time the Leica 1203+ is powered the user must enter the Bluetooth manager and activate the connection.
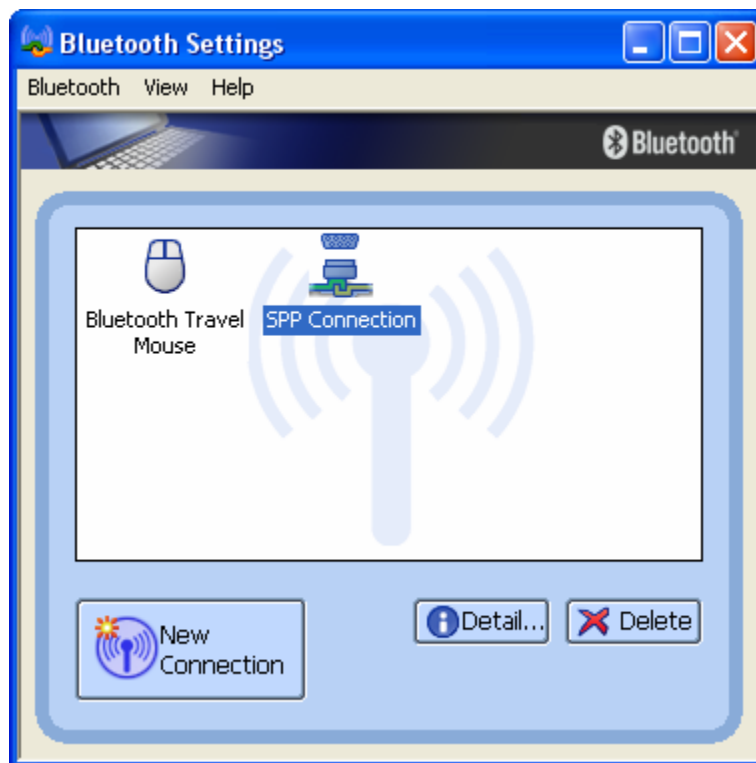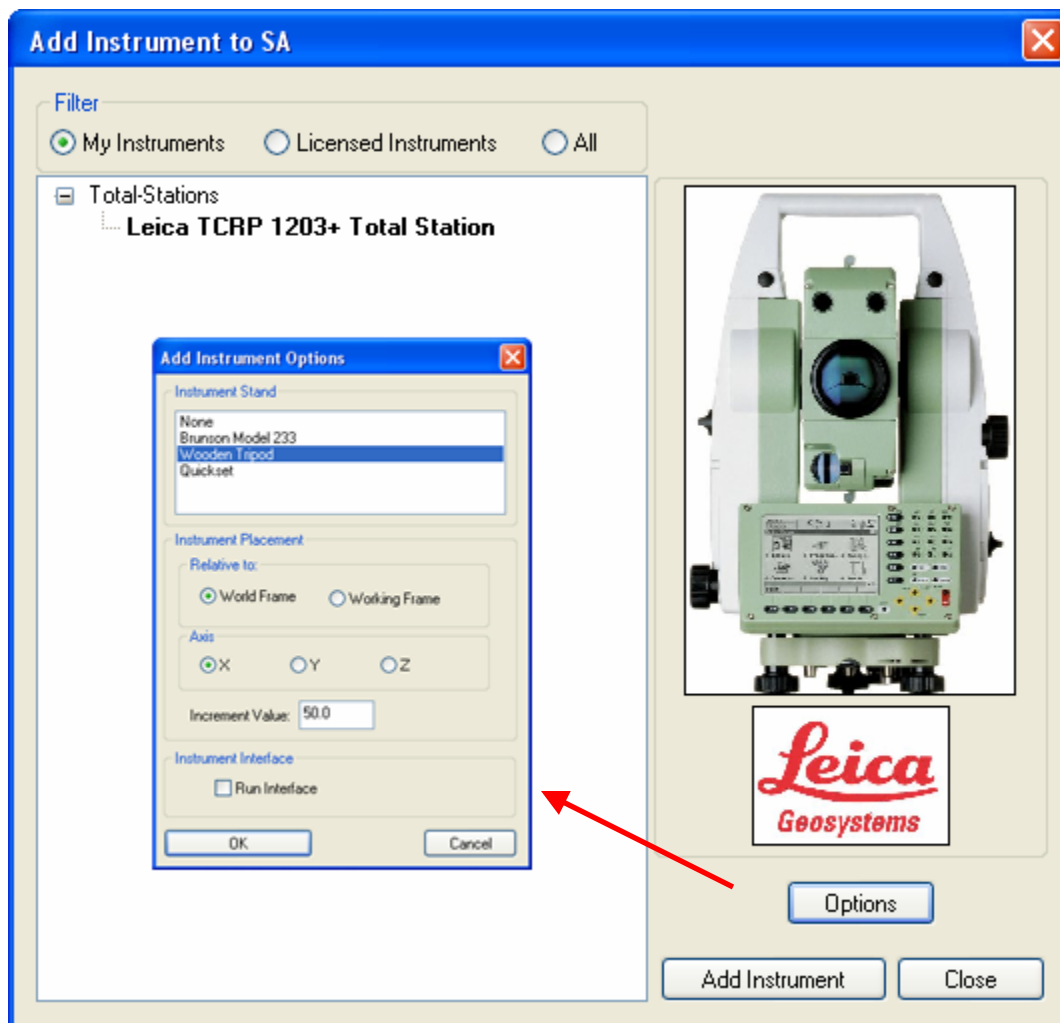
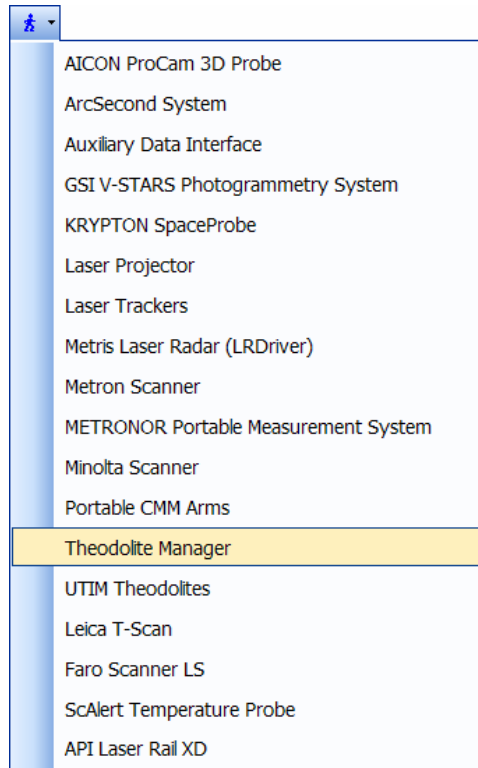# Running the Leica 1203+ in Spatial Analyzer
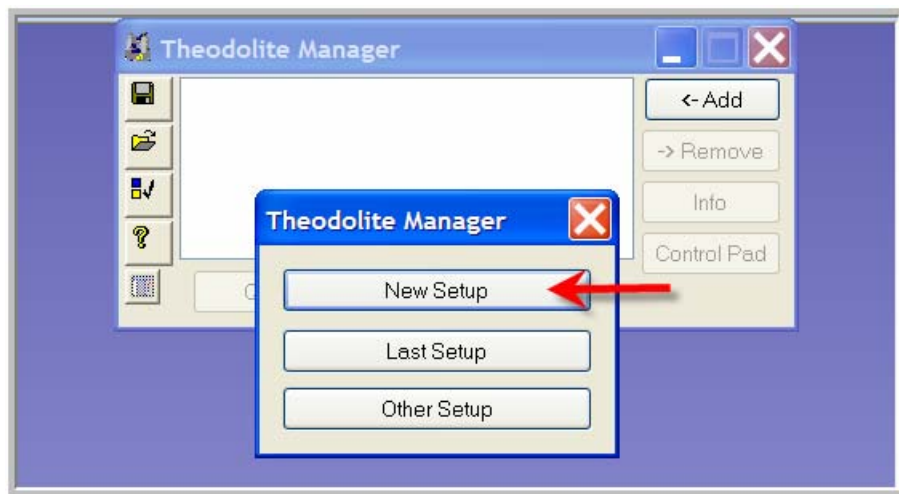
- Add the Leica 1203+

- Select the Lecia 1203+ and pick instrument options.

- Run the Theodolite Manager and select new setup

- Select New Setup and then Add.

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- Select the instrument type and the Comm Port. This port was displayed in the Bluetooth manager during the creation of the connection. Then select the instrument in the available Spatial Analyzer list. Once connected the Leica 1203+ interface will display.
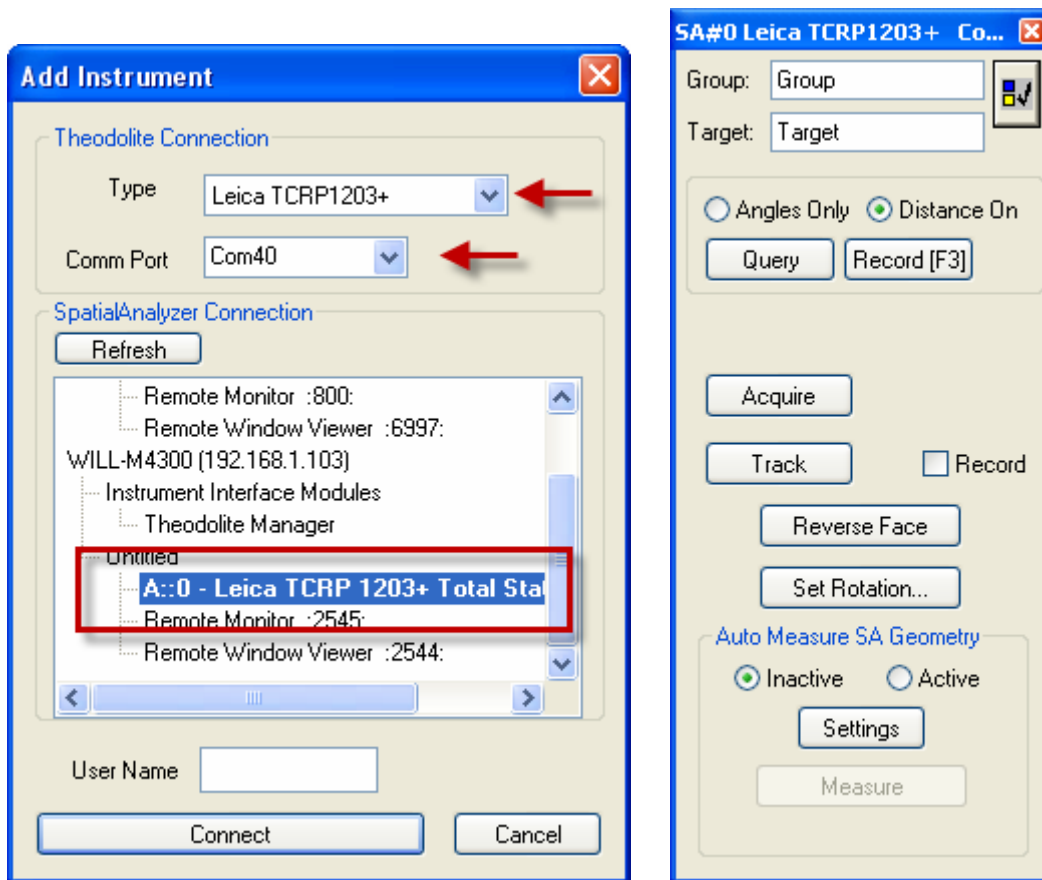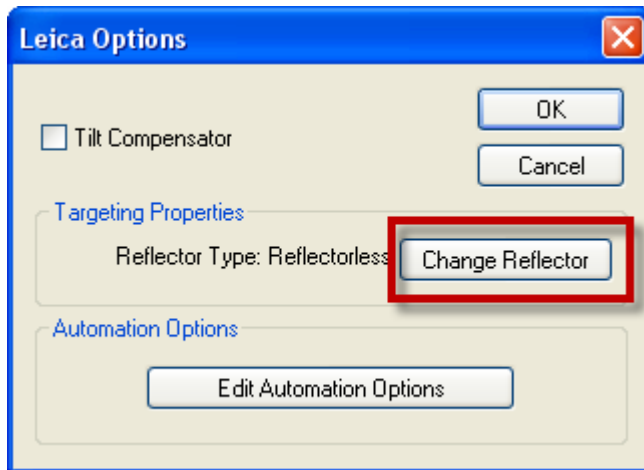

- The following topics will be covered:

    o Selecting a Reflector
    o Single Point Measurement
    o Perimeter Scanning
    o Target Tracking
    o Auto Measure Points
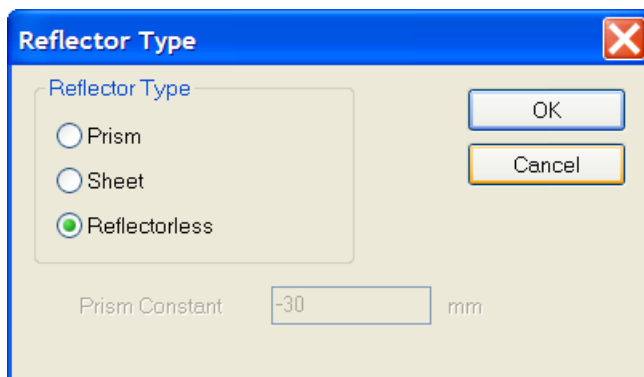
Selecting Target Reflector

- Select the options button in the interface
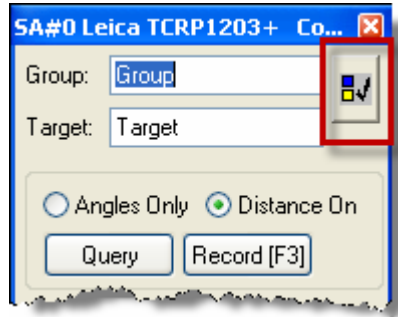
- Select the "Change Reflector" button.
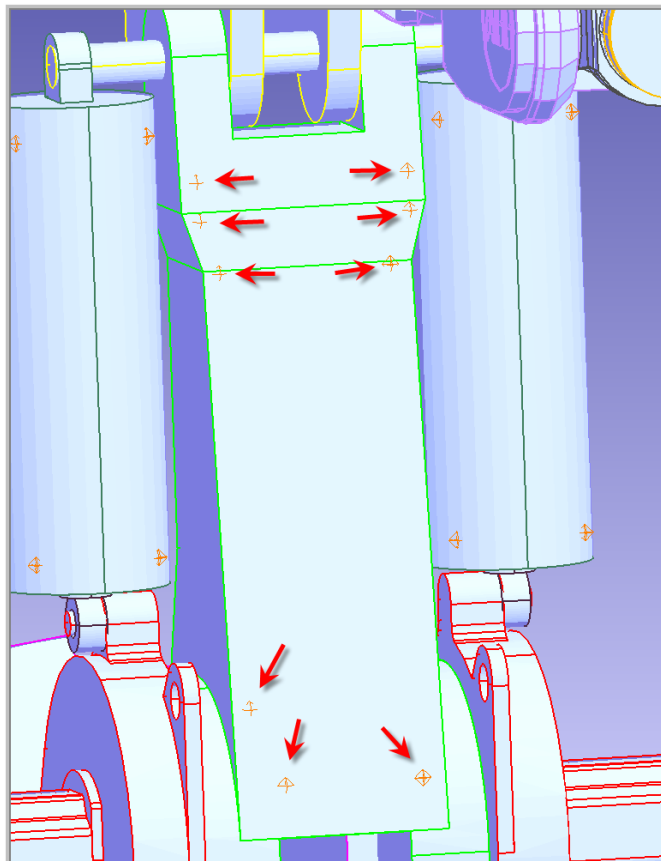

- Select desired reflector type

Single Point Measurement

- Specify Group and Target Name

- Sight Target

- Select Query or Record (F3) in the interface. Query will force the instrument to calculate a measurement. Record (F3) will send the measurement to SA.
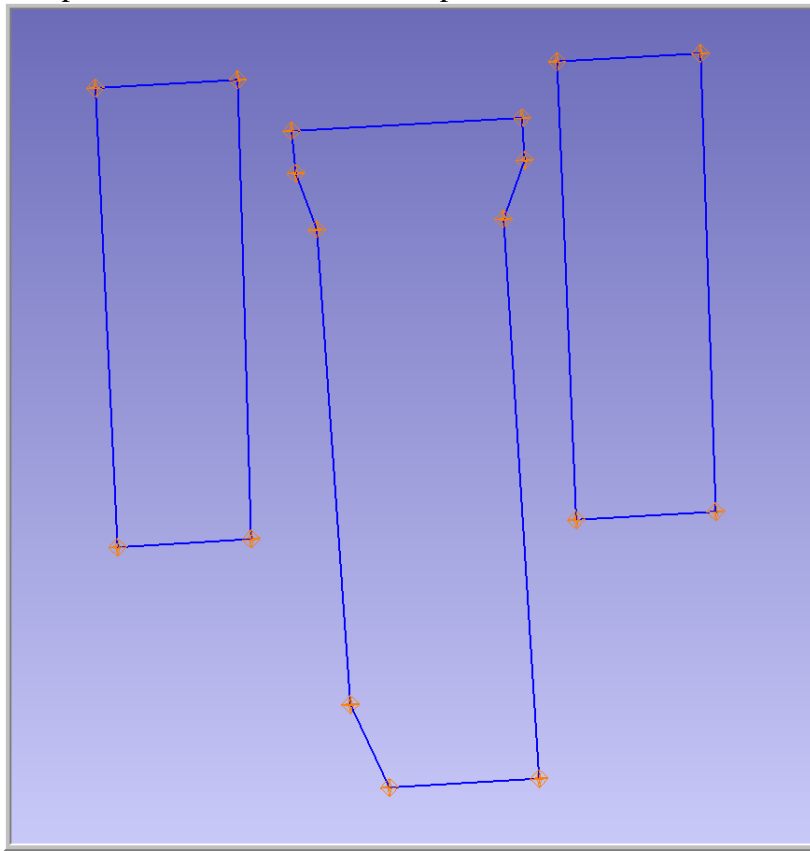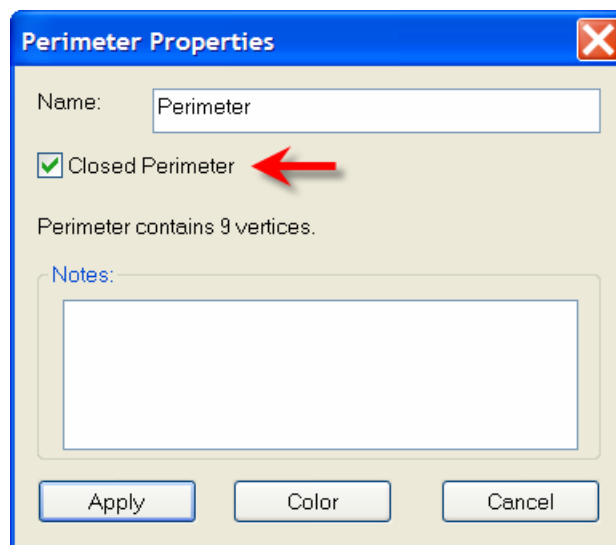

Perimeter Scanning
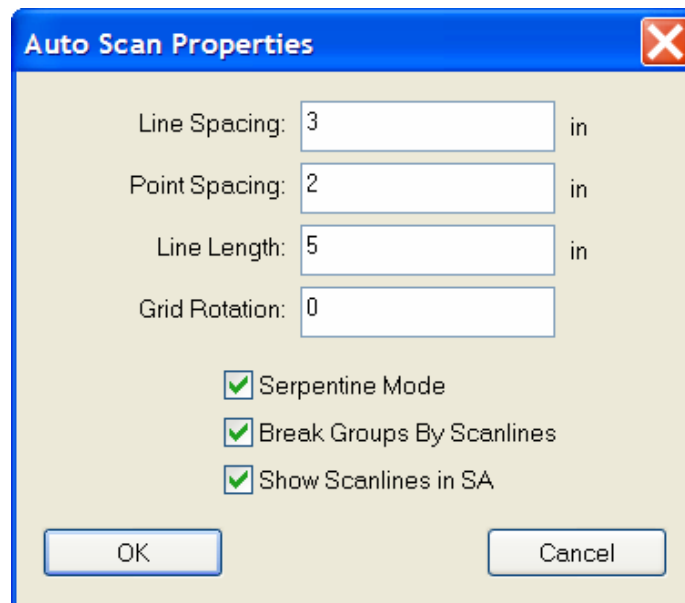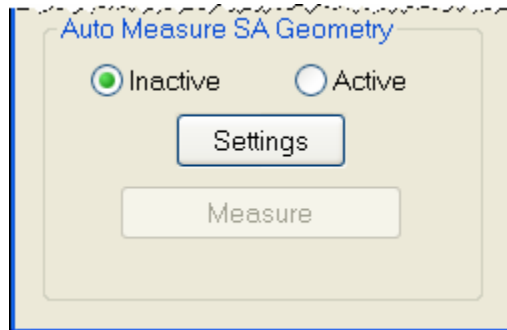
- Measure points defining the area to scan.

- Construct a perimeter from the measured point in SA under Construct>>Perimeter

- Two types of perimeters exist in SA, open and closed. A single perimeter can be changed from open to closed in the perimeter properties dialog.

- Set the scan properties for the appropriate perimeter. If the perimeter is closed the scan will be bounded by the perimeter. If it is open, the scan lines will be perpendicular to the perimeter.

Auto Measure SA Geometry

⦿ Inactive ◯ Active

Settings

Measure

Auto Scan Properties

Line Spacing: 3 in

Point Spacing: 2 in

Line Length: 5 in

Grid Rotation: 0

☑ Serpentine Mode
☑ Break Groups By Scanlines
☑ Show Scanlines in SA

OK   Cancel

- The user can specify the distance between scan lines and points per scan line. In addition the user can also specify line length for open perimeters. The orientation of the lines to the perimeter can be controlled by the Grid Rotation field.

- To measure a Perimeter, first select Active in the user interface and then select a perimeter from the Treeview in SA. Once the perimeter is selected, select the measure button.
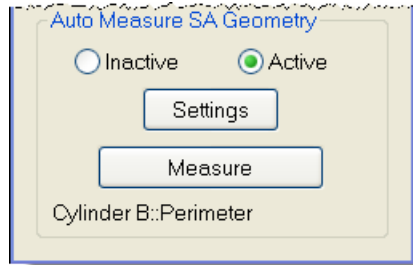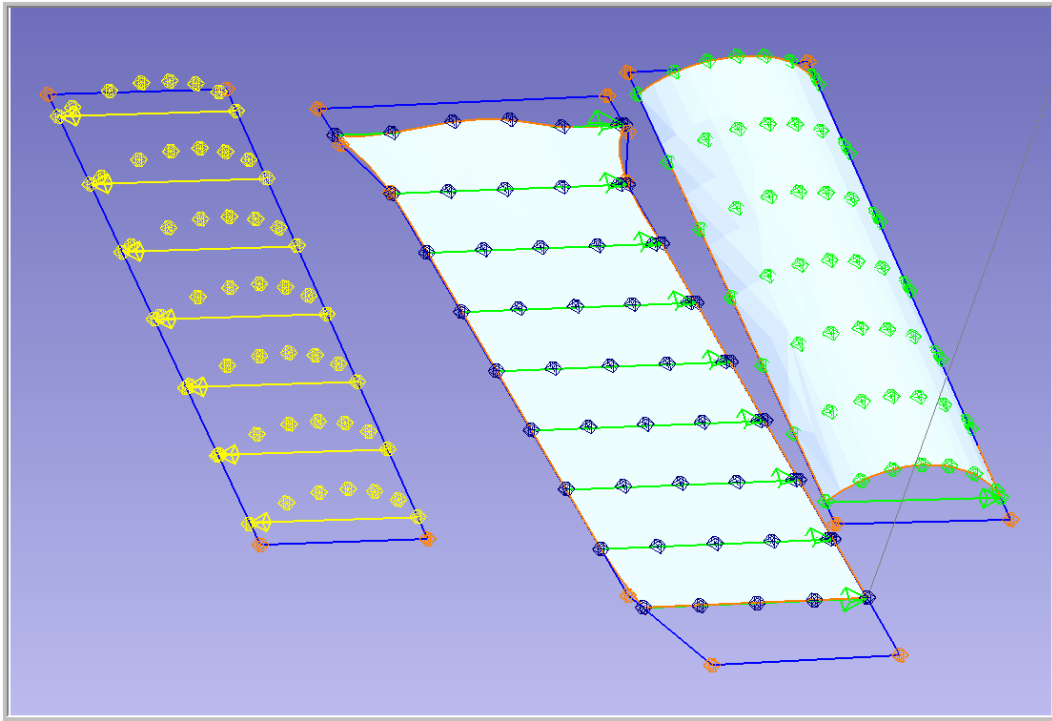

- The scan will start and lines will be constructed (if option was checked). Points will be spaced per user setting. A point will always be measured at the beginning and end of each line.
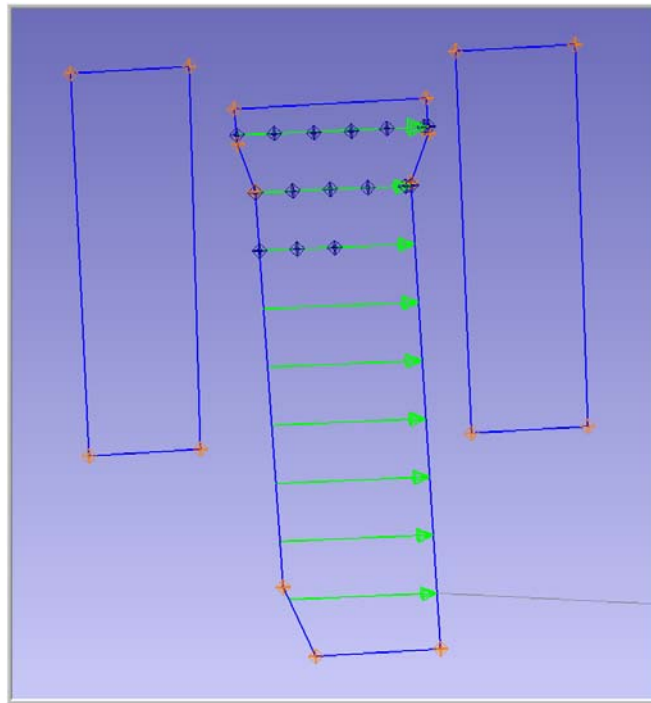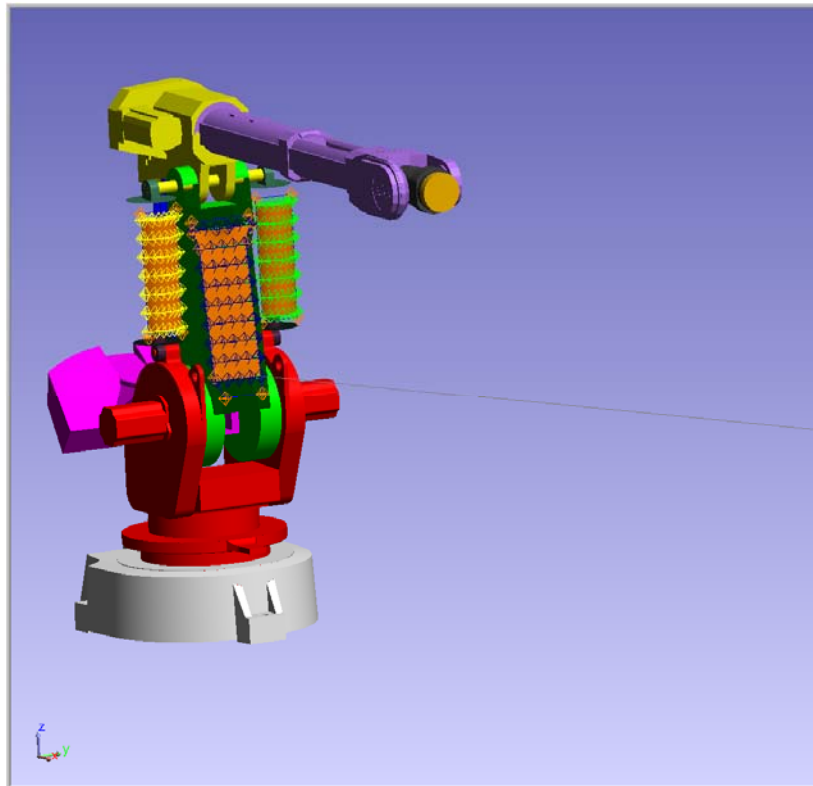

- To stop a scan, press the cancel button in the progress dialog.
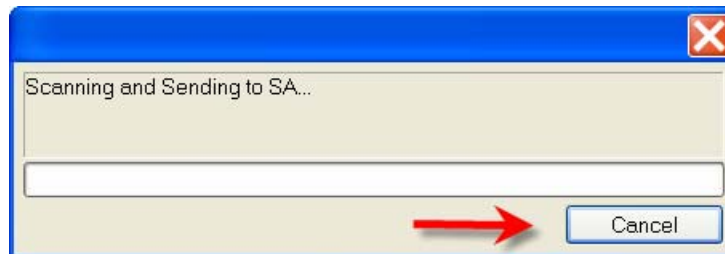
- This functionality can be used to scan surfaces with shape as well.
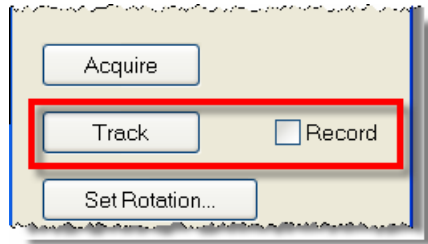

- Final Scan in part position

Target Tracking

- The Leica 1203+ is capable of tracking a prism target.

- Simply select track and start moving the prism. The Leica 1203+ will track the prism. If the record option is check, measurements will be sent to SA while the prism is being moved.

Auto Measure

- The Leica 1203+ can also be used in the SA command Auto Measure. This command will drive the instrument to points in a group and allow a measurement to be recorded.

- To perform the Auto Measure, select from the following menu.
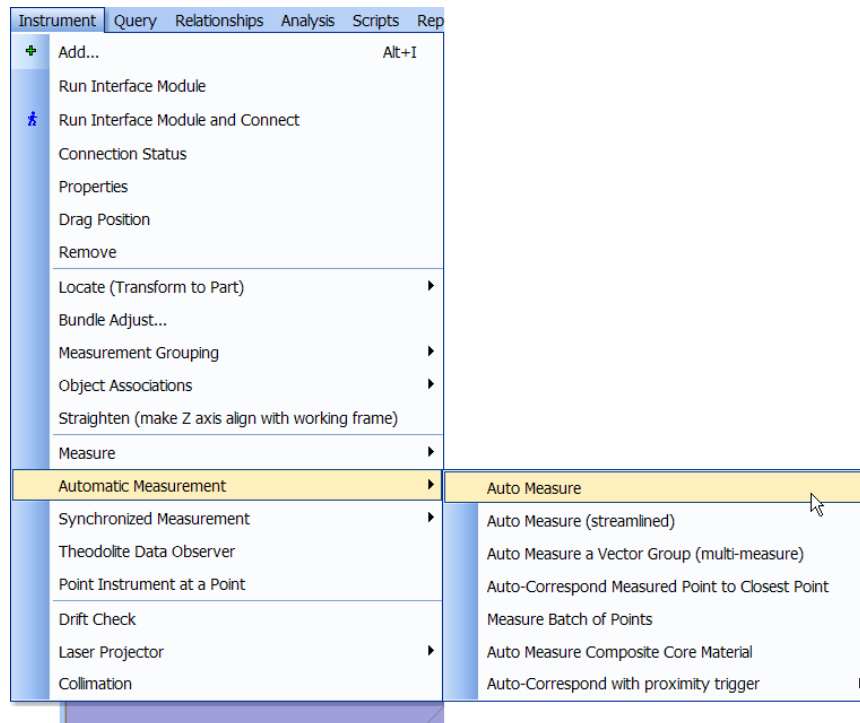
- Select the group to measure and the following dialog will appear.
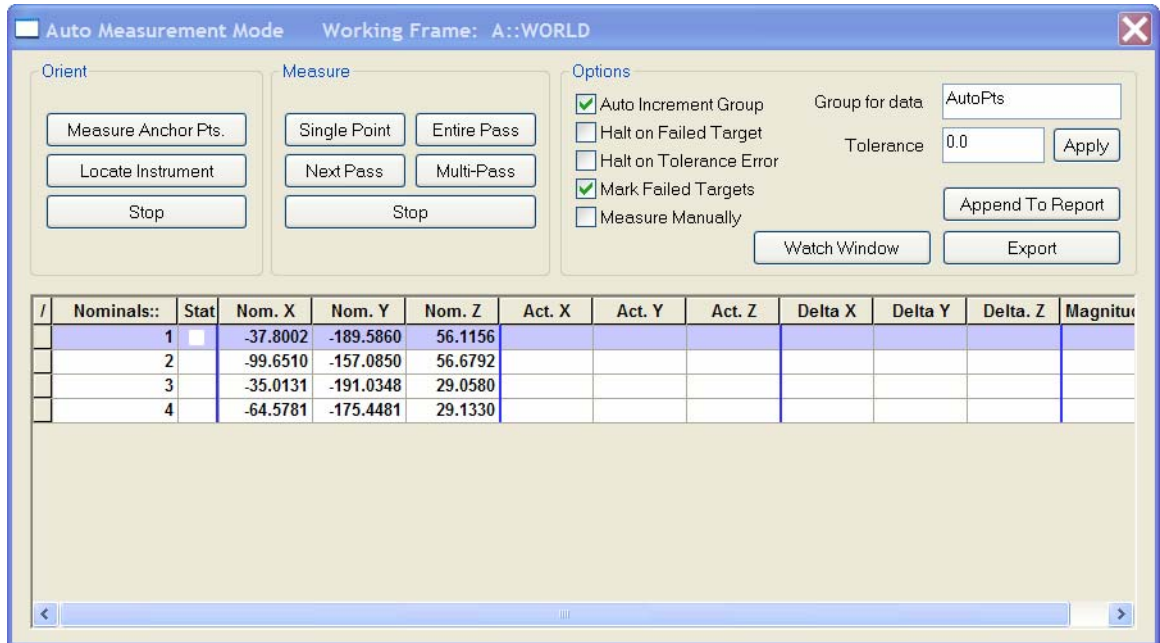
- This will allow for a single point to be measured or an entire pass be performed. Choose Entire Pass and the instrument will drive to the first point.

- Sight the target and press Record (F3) in the instrument interface.

- Once the measurement is recorded the instrument will drive to the next point.

- A completed Auto Measure