

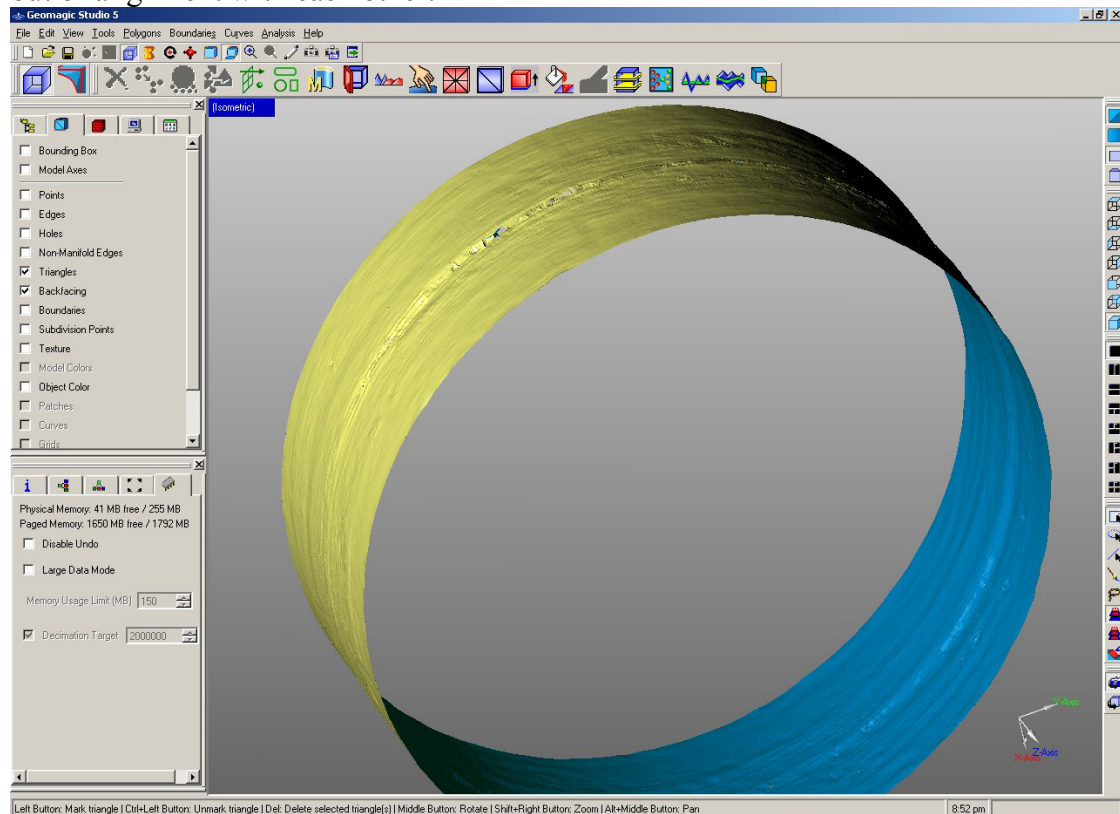
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## OMC introduces scanning capability for profiler range

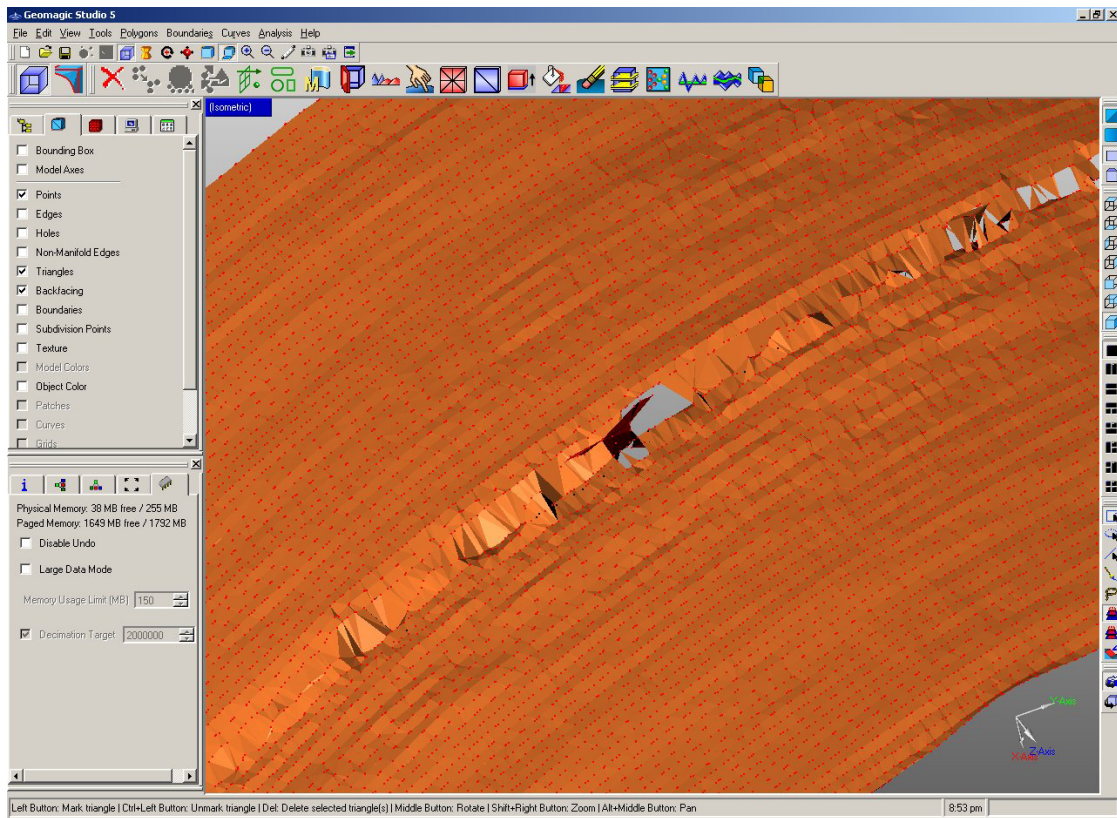
*The OMC profiler is often used to measure cross-sections of pipes and other structures. It need not stop there, the system is a highly capable scanning tool that can be used to create maps of surfaces to detect: pitting, corrosion, cavitation, wear, gouging, dents, buckles, corrugations, weld shape and many other features. Two modes of operation are typically used.*

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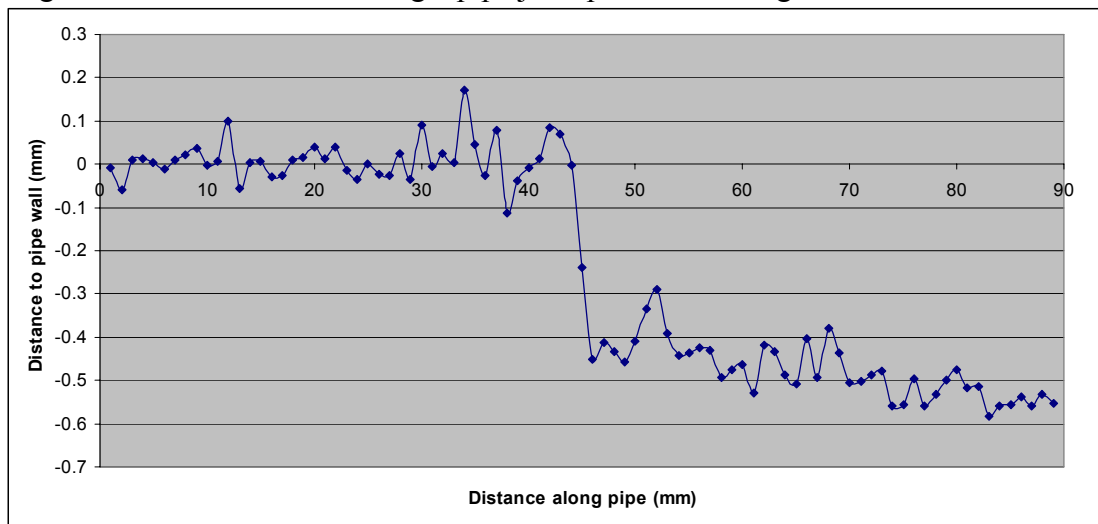
**Mode 1. Multiple cross-sections.** In this scheme the profiling tool or the object being measured is moved with a profile being taken at each location. The distance the head moves provides the Z component which is added to the X, Y for each profile. The resulting information is the loaded into a visualization and analysis package such as Raindrop Geomagic. The following figure illustrates the software interface and the results of collecting 90 profiles at a 1.0 mm longitudinal spacing of two pipes that are out of alignment with each other.



The following figure illustrates a small section of the whole profile showing where the measurements points are (red dots) that were used to build up the 3-D map.



**Mode 2. Longitudinal sections.** In this mode the profiler head is set to a specific angle and the profiler body is moved while distance measurement data is collected. Repeated collection of longitudinal sections allows features along the length of a pipe to be measured such as welds, corrugations or dents. The next figure illustrates a single set of measurements along a pipe joint prior to welding.



The step gap size is approximately 0.5 mm. The measurements were taken using a 50 mm range sensor that has a nominal accuracy of about 0.1 mm for cooperative surfaces.