

# Automated CMM Measurement Process Planning Becoming a Reality

METROSAGE teams with industry experts to demonstrate Automated Measurement Process Planning Solution

Kansas City, MO, Elk Creek, VA, and Volcano, CA – Jan. 15, 2008 – Object Workshops, Inc. Honeywell FM&T and METROSAGE LLC have combined their technical knowledge and experience to create a next generation solution for automated measurement process planning. Industry needs for improved and automated measurement planning processes and the requirement for certified-correct measurement programs with lower cost and short time-to-measure, prompted this team of experts to pool their talents and develop this pioneering solution.

"Today the primary reoccurring cost of quality for dimensional metrology is associated with the generation of CMM part programs" says Curtis Brown, Principal Engineer of Honeywell FM&T and President of the Board of the <u>Dimensional Metrology Standards Consortium</u> (DMSC). "This process introduces a multitude of complexities, consumes our company's processing time budget, propagates and contributes to design errors, and is encumbered by entrenched primitive programming techniques. The industry has been seeking a major productivity breakthrough as promised by computer-aided design, but nobody has been able to produce this level of quality efficiency until now."

At the DMSC's Measurement Process Planning Committee meeting, the team demonstrated the ability to automatically generate a validated measurement plan from a toleranced CAD model and to translate the resulting plan into a specified part program format (i.e. DMIS). The measurement plan included information such as CMM movements, data point locations, CMM and sensor selections and work piece placement, generating results initially in a generic format. That format was then converted into an appropriate DME format. All of this work, normally taking a metrologist hours or days, was completed within 10 minutes.

"This system leverages decades of industry and government best practices and innovative research in measurement uncertainty. It applies the complexities of GD&T to manufactured parts, creating robust, meaningful inspection programs. The result is improved real world inspection planning," noted Dietmar May, President of Object Workshops and developer of the original specification for the DMIS Part 2 ANSI Standard. "Integrated with the most advanced DMIS implementation, this system supplies quality DMIS export/import and introduces the potential for bare CAD model-to-CMM execution. These unique capabilities will enable engineers to slash both time and costs traditionally associated with inspection planning, while affording overall improvements in total manufacturing quality for their company."

"We are excited about the level of interest in automation of the measurement planning process" commented Jon Baldwin, Managing Director of METROSAGE. "While our combined expertise in GD&T, metrology, modeling and simulation and DMIS allowed us to quickly grasp the need for improvements to the process, the





feedback from the attendees reinforced the urgent need to develop this next generation metrology tool."

Additional partners are being sought to assist with product definition and accelerate time-to-market. For further information about the Automated Measurement Planning effort, contact Jon Baldwin at <a href="mailto:imbaldwin@metrosage.com">imbaldwin@metrosage.com</a>.

### **About METROSAGE**

METROSAGE LLC is a leading provider of inspection analysis and simulation software and services for factory applications. METROSAGE delivers automated simulation solutions focused on the improvement of quality and predictability in the manufacturing process. Improving ROI through optimized inspection planning and validation, METROSAGE applies advanced science and technology in an easy to use package to dramatically improve the effectiveness of quality assurance. For the latest news and information visit the company's Web site (http://www.metrosage.com) or call +1 415-336-2244.

## **About Object Workshops**

Object Workshops is a leader in DMIS generation and execution software tools, providing development toolkits and services to measurement inspection OEMs and software developers. The company developed the original specifications for the DMIS Part 2 ANSI standard, and has been heavily involved in the DMIS standardization process through membership with the DMIS Standards Committee (DSC).

## **About Honeywell FM&T**

Honeywell FM&T manages and operates the Kansas City Plant and is a government-owned engineering design and electronic manufacturing service provider supporting government agencies, national laboratories, universities, and U.S. industry, with its primary mission to supply high-tech manufactured goods to the Department of Energy's National Nuclear Security Administration defense systems.

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