

## Advanced Metrology Systems

### New Automation Software Reduces Tool Delivery And Support Costs

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Dr. Christopher Moore  
CEO

Advanced Metrology Systems

Like many equipment companies, AMS was devoting more and more software resources to satisfy various fab automation requirements. The company needed a new way to produce a reliable factory-automation solution for its metrology platforms that would allow it to concentrate on its core business—metrology. This drain on resources, along with the accelerated delivery of a new product, meant that an automation partner was urgently needed.

AMS chose PEER Group to integrate an enhanced version of its popular PEER Tool Orchestrator (PTO™) backbone into the AMS metrology platform. PEER Group established a close working partnership with AMS and developed a quick-response plan with emphasis on developing simple, yet powerful, user interfaces for fab operators and automation engineers. Close collaboration among the end user, tool vendor, and automation supplier has resulted in PTO now supporting over 16 tool types and multiple platforms in Tier 1 fabs worldwide.

In a six-week period—from November 2004 to January 2005—PEER Group developed the entire solution, including a robust cleanout process that safely removes any wafers left after abnormal termination, as well as a configurable SEMI E95-compliant GUI for local tool control.

Today PTO completely manages the wafer—from its arrival at the load port to delivery at the door of the tool process chamber and back out again, and serves as the automation backbone of the entire tool. Now AMS modules plug into the backbone to allow quicker integration and multiple technology support. What’s more, a tool can often be configured for a new fab in less than a day and will frequently gain fab acceptance on the very first test.

“We chose PEER Group because, of all the automation vendors, they actually listened to what we had to say,” said Chris Moore, CEO of AMS. “With PTO, all of the tools have the same code base that is configured to each fab’s automation specifications. This lowers our delivery and support costs. More importantly, our customers are delighted with the robust PTO solution and automation engineers say it’s one of the best 300mm automation solutions they have used. Working with PEER Group is like working with an extension of our own development groups. When there’s a crisis, everyone pulls together and gets the job done on time. They have continued their partnership with us and provide excellent long-term support.”

AMS has since gone on to replace its automation software with PTO on a second metrology tool. PTO continues to pass automation tests, allowing the company’s development groups to concentrate on building world-class metrology technology while PEER Group focuses on automation.

### About Advanced Metrology Systems

Advanced Metrology Systems LLC (AMS) manufactures high-throughput, non-contact, on-line metrology equipment to Tier 1 fabs. Its highly automated tools measure complex structures on wafers, analyze the data, and provide this data to the factory host. These tools support Advanced Process Control (APC) including automated measurement feedforward to the process equipment. Typically, multiple tools are installed on any one fab line and the ease of operation and uptime of systems are paramount.

### About PEER Group

PEER Group provides leading-edge factory automation software solutions and consulting services to advanced manufacturers and OEMs in the semiconductor, electronics, life sciences and automotive industries. Many of the world’s best manufacturing companies turn to PEER Group to solve their most challenging equipment automation, data management and custom application development problems. PEER Group partners with leading software and automation companies to assure the most efficient delivery of highly functional, reliable and scalable solutions. Learn more about PEER Group at [www.peergroup.com](http://www.peergroup.com).

The PEER Group Inc.  
72 Victoria St. S., Suite 400  
Kitchener, ON Canada  
N2G 4Y9

Phone: +1 519-749-9554  
Email: [sales@peergroup.com](mailto:sales@peergroup.com)  
[www.peergroup.com](http://www.peergroup.com)

Advanced Metrology Systems  
12 Michigan Dr.  
Natick, MA USA  
01760

Phone: 1-866-367-8334  
Email: [info\\_ams@advancedmetrologysystems.com](mailto:info_ams@advancedmetrologysystems.com)  
[www.advancedmetrologysystems.com](http://www.advancedmetrologysystems.com)

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