

ULVAC Technologies

New Tool Platform Fully Automated In Less Than Six Weeks

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Wayne Anderson
President and CEO
ULVAC Technologies, Inc.

A successful supplier of specialty resist strip equipment, ULVAC Technologies, Inc. developed a new tool that was poised to capture significant market share in the mainstream resist strip market. During beta release testing, the Enviro Optima resist strip system was receiving positive customer interest for its processing results. One customer requested a fully automated production tool with optimized throughput deliverable in four months. This necessitated additional software engineering development to be included in an already aggressive schedule.

In order to achieve the optimized throughput requirements in conjunction with full factory automation, a significant redesign to the EFEM automation software was required. Faced with a tight schedule, ULVAC turned to PEER Group.

Built-in functionality enables fast configuration

“PEER Group worked closely with our engineers to deliver a quality automation software solution that met all of our requirements,” said Paul Diamond, Director of Systems Engineering at ULVAC Technologies, Inc. “With the ship date only three weeks away, we were very impressed to see the EFEM transport wafers on the first day of final hardware-software integration, and then operating at better than 90% of the specification within 24 hours.”

PEER Group used its newly released EFEM automation software application, PEER Tool Orchestrator (PTO™), as the core software application. PTO contains off-the-shelf interfaces to most commercial EFEM hardware components, as well as a SEMI-compliant user interface, recipe manager, and host connectivity (Asyst’s industry-leading ConX300™ and EIB™ for Interface A). Most importantly, PTO has accumulated the automation implementations for many fabs worldwide. This enabled PEER Group to quickly configure PTO to the specific fab automation specifications of ULVAC’s customer.

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Software drives throughput increase

At the same time, PEER Group adjusted PTO to maximize the efficiency of the new EFEM’s wafer transport engine. This helped ULVAC meet its customer’s throughput requirements. With the assistance of an Enviro Optima simulator, the entire PTO configuration was completed in just four weeks at PEER Group headquarters. When the Enviro Optima hardware became available, PEER Group engineers traveled to ULVAC for final integration and testing. The entire PTO implementation was completed in about six weeks of engineering time, which is far less than industry norms.

“We consider PEER Group to be a key supplier who was instrumental in helping us develop the highest throughput resist stripper on the market today,” said Wayne Anderson, President and CEO of ULVAC Technologies, Inc. “Once delivered to the customer site, the Enviro Optima installation, start-up, and host connection were smooth and on schedule. The software continues to operate well after significant run time. We’re now considering expanding the use of this PTO software solution across the entire 300mm Enviro product family.”

About ULVAC

ULVAC Technologies is the US subsidiary of the Japan-based ULVAC, Inc., an international company that designs, manufactures, and markets equipment and materials for various industrial applications of vacuum technology. It is a leading global supplier of production systems, instrumentation, pumps and vacuum components used in several markets:

- flat panel display
- semiconductor
- disk/magnetic media
- industrial manufacturing

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.

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