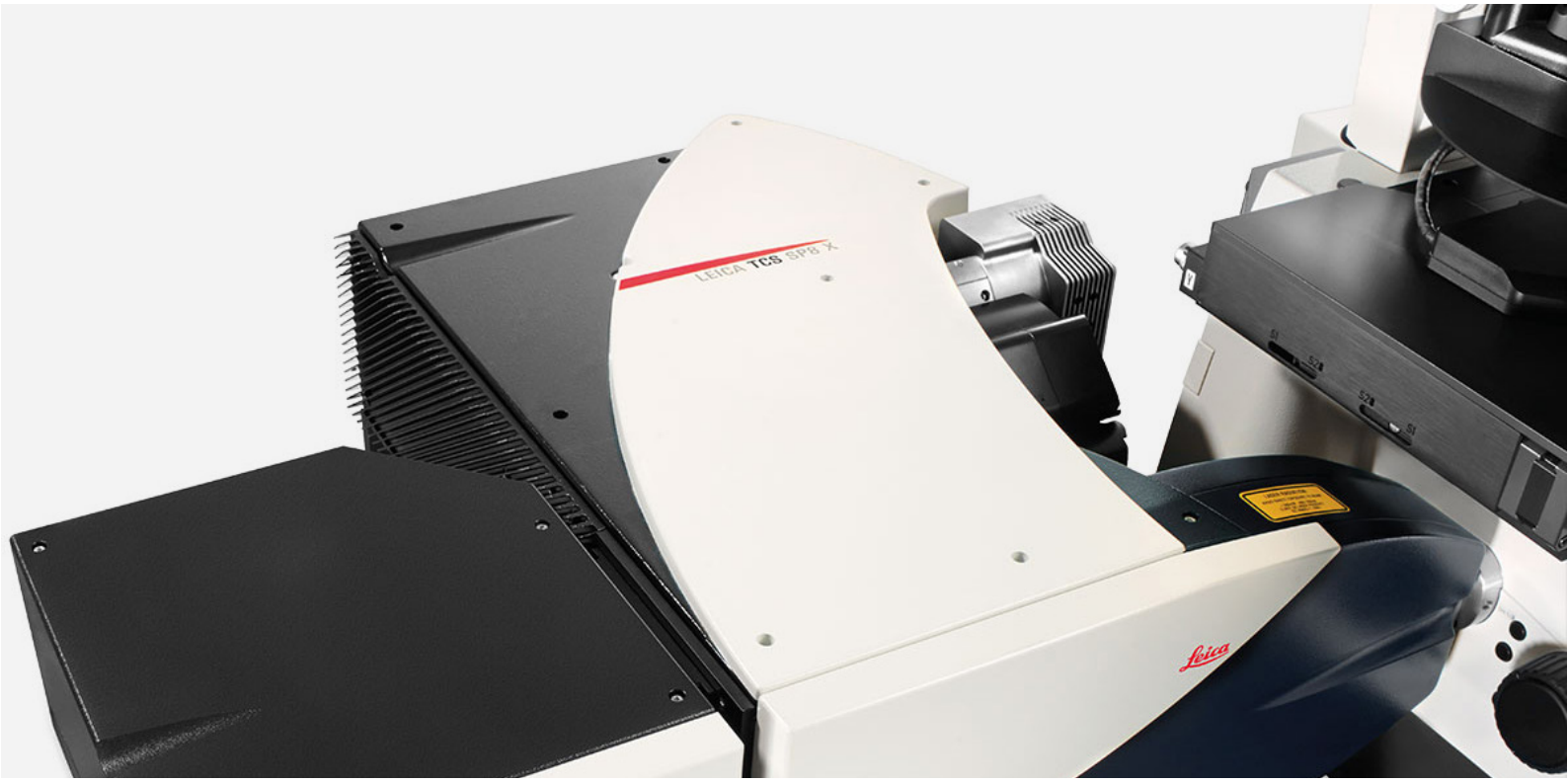
Case Study



Reducing Unscheduled Downtime and Customer Efficiency

Leica Microsystems

Leica Microsystems, Inc. is a world leader in microscopes and scientific instruments. The company manufactures a broad range of products for numerous applications that require microscopic imaging, measurement, and analysis.

The company also offers system solutions for life science, including biotechnology and medicine, research and development of raw materials, and industrial quality assurance. Leica Microsystems brings histopathology labs and researchers the most comprehensive product portfolio. The range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab.

The challenge

Leica Microsystems attributes its success to providing innovative products and superior customer service. To extend its leadership position, the company began exploring a more proactive service approach for its line of confocal microscopes and tissue processors.

The Leica Microsystems project team began searching for a global software that would allow for the shift from a reactive to proactive service company. Their initiative focused on downtime avoidance and the prediction of potential problems across the globe, targeting issue prevention. As a result, customers would not only benefit from minimal product downtime, but from faster service and increased productivity. To obtain approval and funding for the initiative, the team would need to prove to management that this service strategy shift would result in optimized instrument uptime and reduced costs of service.

The solution

After quickly dismissing the idea of building a smart solution internally, the Leica Microsystems project team evaluated several vendors, hiring a third-party research firm to conduct a benchmark study. "There were many players in the market, but price and performance were the key drivers during our evaluation," explained Frank Bunge, Director of Technical Services Europe at Leica Microsystems. "PTC®Axeda® software came out on top in all categories and provided the professional support that we needed—that is very important for us."

Leica Microsystems chose PTC Axeda software to remotely monitor and support its TCS confocal microscopes and ASP300 S tissue processor equipment. With PTC Axeda software, Leica Microsystems has the ability to control software releases and upgrades to systems, enabling the company to test and approve any software updates when necessary. As a result, the company can meet its established verification and validation processes for regulated environments.

"We wanted a model where we could focus on users and our equipment, and PTC Axeda software provided us with the agents and the applications," Bunge said. "Our experience with the software has been quite positive. In the event that something goes wrong, we get immediate feedback and quality support."

Registered users log into the Leica RemoteCare™ site to view the devices in the regions for which they are responsible. Using PTC Axeda software, users can compare current parameters with the products' specifications, including hardware and calibration changes, software and PC system status, laser errors/uptime, galvanometer settings, critical temperatures, and cooling system health. Critical events become predictable with the information provided.

"With Leica RemoteCare, we now monitor the performance of our tissue processors," Bunge explained. "As soon as the temperature is out of range, an alarm and email are sent to both the customer and to Leica. The customer then makes the necessary adjustments before a specimen is potentially lost. That is a major benefit of the system."

The company also monitors cleaning sequences. If systems need to be cleaned, the customer is alerted so that they don't lose specimens. They also use RemoteCare to adjust the microscope prior to any issues in situations where power is diminishing, ensuring uninterrupted research.

The Leica Microsystems project team has enabled a number of RemoteCare customer successes in a short timeframe. For example, a research institution in Germany was experiencing system crashes of its Leica Microsystems microscopes during long-term experiments. With RemoteCare, Leica Service could diagnose the problems by examining saved error logs. Using this information, it was discovered that the memory sizes at the time of the crash fell below 500 MB. From here, instead of dispatching an engineer onsite to replace what would appear to be a defective detector board, a service representative could remotely diagnose and resolve the issue. As a result, diagnosis and repair took one hour instead of three days of downtime and the potential unnecessary use of spare parts.

Another customer success took place at a U.S. based university. When Leica Service received an error message explaining a failing tissue processor program, the service representative contacted the customer who was unaware that a failure had even occurred. After further inspection, the customer removed debris under the seal, restoring the original state of the tissue processor. As a result of this proactive service call, the university avoided potential system downtime and protected their specimen from damage.

"Each department within Leica Microsystems benefits from RemoteCare, so this is not just a service product," Bunge emphasized. "For example, R&D benefits from obtaining more information from the field on the reliability and use of our products. The sales department is convinced that RemoteCare will help them win more deals since service is now a competitive differentiator with even better product reliability."

RemoteCare is available to all customers with Silver and Gold service contracts at no cost and benefits can also be received by customers with equipment under warranty or those with extended Bronze service contracts.

Bunge reports that RemoteCare has customers realizing more value from their service contracts: "As soon as customers realize the benefits of RemoteCare, there is a higher probability that they will continue with their service contracts."

When paired with PTC Axeda, RemoteCare's safety features also aid in customer adoption and implementation. By Leica educating their customers on RemoteCare, they understand that it does not allow Leica Microsystems to access any customer or hospital data. The only access Leica will have is to the system information outlined to the customer.

RemoteCare is promoted by sales as a standard feature for microscopes and tissue processors. In conversations with customers, benefits of RemoteCare are discussed, and once a customer is ready for implementation, a service technician installs PTC Axeda software on the computer of the microscope or tissue processor and provides training to all necessary teams.

With roughly 300 systems connected, the company plans to increase that number to 1,000 microscopes and tissue processors by the end of 2009, with a long-term goal of 5,000 connected by 2012 .

"Smart services will become standard for almost every piece of Leica equipment, especially high-end and medium products," said Bunge.

The results

Leica Microsystems has realized substantial benefits from its RemoteCare program, meeting its goals of optimizing instrument uptime by reducing unscheduled downtime by 40 percent and reducing service costs by cutting field service visits by 33 percent. They have reduced 50 onsite visits in the first half of 2009 with an expected 400 visits saved at the end of 2009. That translates into a savings of more than $500,000 U.S. dollars.

The company has fixed 30 percent of detected problems remotely on connected systems and improved time to repair fulfillment from 75 to 87 percent. Additional benefits include the maintenance of flat staffing levels over time, the improvement of service productivity by 5 percent, and optimization of spare parts inventory.

As a medical device manufacturer, Leica Microsystems must maintain FDA compliance, validating their biosystem products and each process on the tissue processor. "PTC Axeda software has helped us to maintain FDA compliance," Bunge explained. "With a required two validations per year, the ability to control the software releases with PTC Axeda software aligns perfectly with our validation process."

With the growing adoption and success of RemoteCare, Leica Microsystems will add virtual remote service centers in Europe and the United States. These centers will support the field service teams for issues that require immediate attention. In all other cases, the company will dispatch service engineers nearest to the regions they support. That way they can minimize travel time when resolving issues that must be addressed onsite, such as replacing a faulty part.

"Our customers want a personal relationship with our service engineers," Bunge concluded. "This is important to our business as 60-70 percent of calls still require an onsite visit, so we will ensure that this relationship is preserved as we establish the virtual centers."

> Our RemoteCare service is unique on the market. RemoteCare enhances the reliability of our systems and therefore the satisfaction of our customers."
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> Frank Bunge, Director of Technical Service Europe, Leica Microsystems

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