

# Ricoh Replicates Agility Across Operations with Apriso

For decades, Ricoh has been widely recognized as a major office appliance manufacturer, with a substantial presence within the digital copier, laser printer and electronic device markets. Today, the manufacturer’s growth opportunities are actively focused in the electronic device markets, including PC interfaces, image processor, JPEG2000 digital and CMOS analog technology systems.

With this expansion, it was necessary to establish a semiconductor wafer testing process within their electronic device production line. Most importantly, Ricoh recognized the need for streamlined production with real-time visibility, capable of responding to frequently shifting market, demand and supply chain conditions.

## Apriso Selected for Adaptability, Visibility

Ricoh chose the Apriso solution as its new operations execution system to establish and maintain business processes spanning their production, logistics, quality, maintenance and employee tracking systems. Apriso was also installed to improve supply chain operations, extending visibility and control to third party suppliers. Based on the system’s flexibility and ease of deployment across multiple production and supplier facilities, Apriso has been an ideal fit for Ricoh, which has now achieved better visibility to operations while maximizing production capacity.

With its intuitive web-based interface, Apriso makes it easy to create business processes spread across operations and their supply chain, with the visibility to easily update and manage these processes as often as needed. For Ricoh, this design has virtually ‘future-proofed’ their business processes, ensuring sufficient agility across operations to support their expansion into this highly dynamic marketplace.

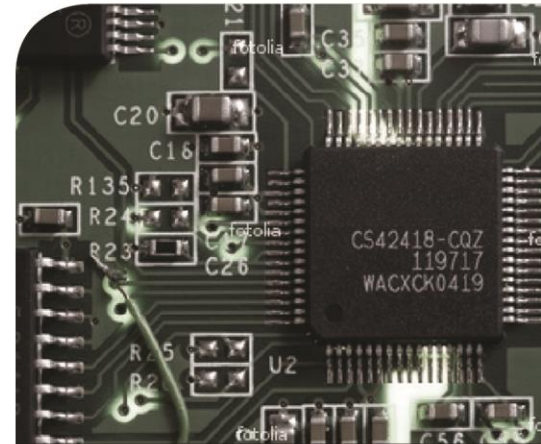
## Leveraging a Services Oriented Architecture (SOA)

As Ricoh began their Apriso implementation, the need for a Services Oriented Architecture (SOA) became abundantly clear. Operations processes are now centrally managed through web-based user interfaces, enabling remote applications monitoring while adhering to strict corporate security policies. Data and processes have been built from a unified data model, so are easily shared across departments. Visibility into third party supply chain processes is now easily supported. Each of these functionalities has been made possible by constructing and managing business processes (BPM) with an IT infrastructure built on SOA, an integral design component of the Apriso solution.

## The Need for Enterprise-wide Real-time Data

Apriso has enabled real-time visibility of work-in-process (WIP) at warehouse, subcontractor and supplier locations for better WIP management. Benefits include:

- Increased reaction time, if WIP falls behind plan at any process or location
- Improved flexibility, to better manage processes and plan maintenance
- Fewer resources, from ease of monitoring production and warehouse process to collaborating and synchronizing data with existing systems



## Benefits Achieved

- Real-time data on lot progress
- Efficient data integration with existing systems
- Reduced system maintenance
- Greater visibility, helping to better manage subcontractors

"Apriso was the right choice for many reasons," said Akira Matsushima, Senior Specialist, Electronic Devices Company, Ricoh Company, Ltd. "It has provided visibility across many sites and subcontractors, greatly streamlining management. Apriso allows us to assemble services in different ways across many locations, letting us implement varying production processes with diverse functionality. Maintenance is easy. And, with its Services Oriented Architecture, we can easily integrate Apriso with our existing IT infrastructure and new locations as we grow."

## Surprisingly Swift Implementation

Once Apriso was selected, the race was on to bring the system live. The first step was to define systems requirements and business rules. Existing business processes within their Apriso solution were used to address standard processes, saving time and resources. This approach was amazingly effective. Even given the rigorous testing phases, the entire system was operational in just five months.

The new system has been an enormous success. "Ricoh managers now have real-time data at their finger tips, readily able to view WIP, even at a subcontractor's plant," said Mr. Matsushima. "Apriso interfaces seamlessly with existing headquarters systems, so operational data is easily available for executive review. Production managers have discovered how easy it is to update and manage processes within Apriso, contributing to improved performance, reduced maintenance disruptions and greater overall flexibility."

## Ambitious Plans for the Future

As much as Ricoh has already accomplished with Apriso, it's only the beginning. "We have plans in the immediate future to expand our Apriso solution to use it for everything from shipping to assembly operations. Because of the increased capabilities Apriso has given us, we're considering ways to develop our own wafer testing line," said Mr. Matsushima.

"Our Apriso implementation represents a major advancement toward our ultimate goal: to combine management of our wafer testing processing operations with that of the company's primary power supply product lines," he continued. "Apriso has been such a success that we look forward to using it enterprise-wide. One day, we hope it will help us manage all manufacturing activities, particularly our core products, including analog devices based on power-supply technology and digital devices used for image processing."

## About Dassault Systèmes & DELMIA

Dassault Systèmes, the **3DEXPERIENCE** Company, serves 170,000 customers across 140 countries, providing virtual universes for sustainable innovation. Dassault Systèmes' DELMIA brand offers products that connect the virtual and real worlds. As part of DELMIA, the Apriso product portfolio helps manufacturers transform their global operations to achieve and sustain operational excellence. Learn more at [apriso.com](http://apriso.com).

*"Ricoh managers now have real-time data at their finger tips, readily able to view WIP, even at a subcontractor's plant ... production managers have discovered how easy it is to update and manage processes within FlexNet, contributing to improved performance, reduced maintenance disruptions and greater overall flexibility."*

Akira Matsushima  
Senior Specialist,  
Electronic Devices  
Company,  
Ricoh Company, Ltd.

