

Trixell Streamlines Operations with Apriso

Increasing demand for Trixell's digital radiology detectors necessitated an overhaul in production processes and automation capabilities. Orders for Trixell's digital radiology devices had increased 25 fold from 2001, with a production cycletime of 45 days per device. To meet this demand, Trixell built a new plant in southeast France with expanded capacity, new machinery and an upgraded system for supporting improved adaptability and a real-time approach to operations execution.

Trixell, a joint venture between Thales (51%), Philips Medical Systems (24.5%) and Siemens Medical Solutions (24.5%), needed a robust, dynamic manufacturing system capable of seamlessly integrating operations while at the same time convey production data into their SAP ERP application, providing the corporate office with real-time visibility to production data.

Apriso was selected to establish a collaborative operations execution system to link plant operations spanning multiple functions and locations to enterprise applications, while supporting 24/7 availability. Apriso includes 110+ pre-configured integration points to SAP ERP, helping to minimize the time and complexity required for integration.

The Importance of Quality, Traceability & Compliance

One of the challenges Trixell faced was how to increase production and improve adaptability – without impacting quality. Maintaining quality is critical yet can be challenging due to the complexity of the production process, expectations of end users as well as the length of time to build a digital radiology detector.

Initially, it was believed that SAP ERP could be used for both quality management and execution; however, the increasing amount of data was not well suited for management within ERP. Since Apriso is proven to provide operations execution spanning multiple production processes, it made sense to use Apriso as the execution component of Trixell's quality program, while managing the quality program through ERP, resulting in a digital quality record of each device.

Extensive Integration of Operations Processes

Apriso was implemented by CapGemini, a global systems integration partner with extensive experience implementing Apriso solutions. By mid- to late-2006 the configuration design was approved; by February 2007 first tests were performed; and by April 2007 the entire system was live and operational.



Benefits Achieved

- Integrated manufacturing operations across production, quality and maintenance processes automated data collection requirements for regulatory compliance
- Converted manual, paper-based production process into a highly scalable, paperless solution that provides increased production volume, higher quality and improved traceability across the entire production cycle
- Leveraged BPM framework included in the Apriso FlexNet platform to improve overall operations performance
- Extensive data collection now automatically performed as part of the production for each device, which is now stored for ten years in an electronic format

The following processes show some of the collaboration now achieved across operations, helping to streamline and automate operations performance, in real-time:

- **Production control:** each detector has a unique digital manufacturing record, ensuring production stages are followed and details conform with SAP nomenclature
- **Quality:** batch files created and uploaded to SAP; include the results of the tests performed, raw materials used, etc., contributes to regulatory compliance initiatives
- **Traceability of components and processes:** an evaporation manufacturing process consists of depositing a chemical on the aluminum substrate, a process which must be tracked by batch of compound (the CSI) and by tools used to configure each detector
- **Machine performance:** equipment specifications are captured and stored, including stops, breakdowns, maintenance actions and adjustments are all recorded
- **After-sales repair and service:** future repair requests are evaluated against this data to best determine if part, or entire device, replacement is needed

Benefits Achieved

By leveraging the business process management (BPM) framework that is embedded within every Apriso application, overall operations performance has been improved. Processes are now easily created, replicated and updated, enabling a highly adaptive production line with greater volume and product complexity. Manual, paper-based processes have been replaced with a digital production history, saving 80-100 sheets of paper per each device, or over half a million sheets of paper annually, further expanding Trixell's positive impact on the environment.

To meet regulatory requirements, extensive data collection is now automatically part of the production for each device, and is stored for 10 years. Using an electronic format simplifies searching for data, which helps improve Trixell's post-production processes. As occasional repair or warranty work is performed, problem diagnosis is greatly facilitated with a digital 'as-built' record by product, helping to cost effectively and quickly support their end users, providing enhanced customer satisfaction and lower support costs.

Next Steps

Further integration projects under consideration include direct interfaces to equipment on the shop floor. Initial pilot projects are now underway to support continued performance improvements by leveraging automatic reading of bar codes to collect and analyze detailed equipment performance and maintenance metrics.

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"Our expectations have been exceeded with the deployment of Apriso FlexNet, continuing our commitment to improve customer responsiveness while providing easier access to production data."

Jean Philippe Pierre
IT Project Manager,
Trixell

