

Case Study

Johnson Controls Inc.

Johnson Controls uses Cardiff's LiquidOffice to streamline business processes. With Cardiff, Johnson Controls reduces the average processing time of online purchase requisition forms from eight days to three, while shortening the cycle for approvals and receipt of goods.

Johnson Controls Inc. is a global market leader in automotive systems and building facilities management and control. Its sales for 2002 totaled £20.1 billion. Founded in 1885, the company has headquarters in Milwaukee, Wisconsin, with manufacturing plants on five continents.

At their Burton upon Trent site in England, Johnson Controls manufactures automotive systems for the nearby Toyota assembly plant at Burnaston.

The Challenge

The company's traditional purchase requisition process, which is vital to meeting its manufacturing goals, used a three-part carbonless paper form. With 200 requisitions per month, it was taking too long—between 7 and 8.5 days, on average—to process each form. This lag resulted in delays in ordering and receiving vital goods. In some instances, employees were forced to go around the system in order to obtain what they needed. Goods ordered without requisitions could not be tracked, and there was the potential to use unapproved suppliers.

"We needed an automated system that would reduce the completion and processing time, improve controls, and provide tracking information," explained Anthony Cartwright, IT project coordinator at Johnson Controls. "We also wanted to set up a way to measure performance for each department and identify bottlenecks as well as maintain an archive of data and forms."



The Solution

The solution was implemented by Cardiff certified reseller Coordinatis (formerly O2 Consulting) Limited, using Cardiff® LiquidOffice™. O2 provides automation and productivity consulting in document management, workflow and customized software solutions. Nick Marsh, Managing Director of Coordinatis, commented: "We recommended (Cardiff) LiquidOffice because it offered Johnson Controls a powerful solution that provided a quick return on investment and the scalability to meet Johnson Controls' immediate and future requirements."

Cartwright and his staff concurred. "What attracted us to LiquidOffice was its complete scalability," he explained. "We needed a software platform that would enable us to easily automate other areas using eForms as business requirements dictate."

LiquidOffice is a complete eForms management software system that allows organizations to design, route, track, approve and sign electronic forms online via a standard Web-browser. Its open-standards architecture uses PDF and HTML formats that enable manufacturing organisations such as Johnson Controls to seamlessly integrate LiquidOffice with existing IT infrastructure and back office quality management control systems.

LiquidOffice has enabled employees at Johnson Controls to use Internet technology to complete and track purchase requisitions at every stage in the procurement process. With O2 Consulting's help,

Customer at a Glance

Johnson Controls Inc.
Industry: Manufacturing
Application: Automated process
Challenge: Improve efficiency by automating the purchase requisition process
Solution: Cardiff LiquidOffice
Partner: Coordinatis Limited
Results:
<ul style="list-style-type: none"> Automated form filling reduced the fields that must be manually completed from 25 to 7. Reduced processing time of purchase requisitions from 8 to 3 days, on average. Eliminated loss of paper documents, enabled tracking across the process. Ensured that proper procedures are followed. ROI expected in less than one year. patient outcomes based on analysis of extracted data

"In terms of ROI, we expect LiquidOffice to pay for itself in less than one year."

—Anthony Cartwright, Johnson Controls

Johnson Controls designed an online form that looked like the existing paper form but which used database lookups, automatic calculations and other automated es to reduce the number of fields that a user has to complete. The fields on the form are validated by LiquidOffice to eliminate omissions and mistakes. The process also supports export of all form data to Excel, Access and other reporting systems for measuring performance.

“In addition, (Coordinatis) helped us automate the processing of the forms through a predetermined set of stages while still providing for flexibility,” Cartwright observed. “They embedded online form instructions and tips, so that users would know what they had to enter. In addition, initiators are alerted when items have arrived. They automatically receive an email that LiquidOffice generates once the Goods In department processes the shipment.”

With LiquidOffice, Johnson Controls is able to completely automate the approvals part of the process, which flows from Line Manager to Plant Manager and finally to Plant Controller. Each person can sign and approve a requisition with the click of a button. Following approval by the Plant Controller, the Purchasing Department creates a Purchase Order for the requisition and enters the PO Number onto the requisition form. From there, it gets time stamped and routed to the Awaiting Delivery Queue.

When the ordered goods are delivered, a member of the Goods In department locates the Purchase Requisition form relating to that delivery in the Awaiting Delivery Queue. When the employee opens the form and checks the Order Completed Check box, an email is automatically sent to the originator alerting them that the shipment has arrived. The form is then used by Finance to check against the supplier’s invoice.

In the future, LiquidOffice will connect directly to Johnson Controls’ Meridio Document Management System, which will hold all Purchase Requisitions and many other documents used within the plant. This will allow secure, centralised storage of documents as well as fast, easy retrieval when document viewing is required.

The Benefits of Cardiff

Instead of completing 25 fields on the Purchase Requisition form, employees now only have to fill in seven. By automating field completion and adding workflow automation, Johnson Controls is able to meet its objectives and reduce the costs associated with manual, paper-based procedures.

Cartwright explained: “With LiquidOffice, our employees can fill in purchase requisitions online, send them through for electronic approval and track them throughout the whole process to delivery. We also plan to integrate the system with our back office applications, further eliminating the errors associated with manual paper processes.”

He continued: “In terms of ROI, we expect LiquidOffice to pay for itself in less than one year. The next stage in this process is to migrate all of our internal form-based processes, such as timesheets, holiday request forms and expense reports into LiquidOffice, further driving efficiencies and cost reductions.”

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