COMPANY OF THE YEAR

MANUFACTURING
TECHNOLOGY INSIGHTS   TOP 10

DIGITAL
SHOP FLOOR
SOLUTIONS PROVIDERS - 2023

Rockware Corp

From Chaos to Clarity: Navigating Industry 4.0 with Ease

Standing as a pivotal force within the contemporary manufacturing landscape, Rockware Corp is driving the prevailing trend known as Industry 4.0. The firm acts as a change catalyst, equipping enterprises across various industries, including automotive, food and beverage, and plastics, with database-driven software products that are purpose-engineered to serve multifaceted purposes - from ensuring meticulous quality control to facilitating real-time production and process monitoring.
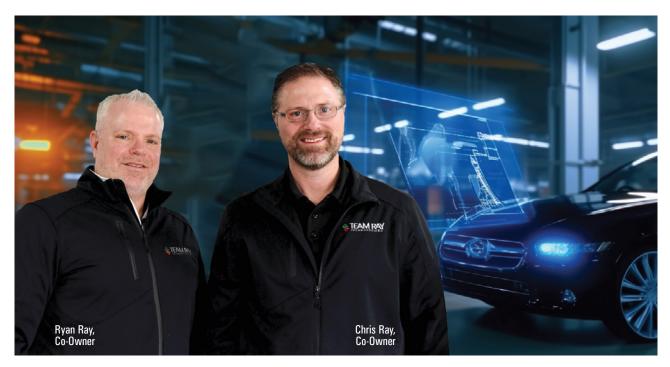
Beyond these fundamental functions, Rockware Corp's solutions have earned widespread acclaim for forging a vital link between the shop floor and ERP systems. They feature intelligent automation that empowers agile real-time responsiveness, combined with a profound capacity for in-depth analytics. However, the company's influence extends further than its technological solutions. Rockware Corp leverages its expertise to also provide process optimization consulting services, guiding businesses toward achieving excellence on the shop floor.

"We truly understand manufacturing – it is our passion and runs in our veins. Our confidence is what lets people know: when things go wrong, we are here to make them right," says Ryan Ray, co-owner of Rockware Corp.

The firm adeptly maneuvers the complex terrain of machine communication with its cross-trained, multi-skilled team, resolving potential gaps that may arise during the integration of its software products and services. This ensures that clients consistently attain their manufacturing project objectives.

A Closer Look at Rockware Corp's Shop Floor Software

Rockware Corp's suite of products is poised to transform how industries manage shop floor operations. At the forefront of its product lineup is the intelligent manufacturing machine (IMM), a shop floor management platform that offers overall equipment effectiveness (OEE), manufacturing execution system (MES), and ANDON system capabilities. Manufacturers can harness

IMM's extensive array of dashboards, reports, and modules, tailoring them to suit their unique production environments and preferences.

Diving deeper into the firm's ecosystem, the central intelligent tracking (CIT), an add-on product that plugs into IMM, emerges as a state-of-the-art 'Track and Trace' solution. Marked by high-level precision and traceability, CIT includes error-proofing mechanisms, machine interlocking features, binning capabilities, and comprehensive audit trails. Notably, the system provides a birth certificate report detailing the relationships between various elements or components in a product, including their production and assembly histories. The inclusion of station-specific data logs and process data graphing tools further establishes CIT's importance in enhancing quality control methods. CIT differentiates itself from the competition by combining the functionality of a Track and Track system with a shop floor management system with the standard offering including OEE, MES, and Andon capabilities.

To empower operators with intuitive tools, Rockware Corp has introduced the operator entry interface (OEI). OEI connects the operator directly to IMM/CIT systems. This user-friendly platform improves the human-machine interaction (HMI) experience, facilitating zone-based defect entry, downtime code input, and seamless interaction with quality documents. Integrated production dashboards provide the operator with the real-time performance of their station or machine. OEI's design simplifies complex processes, ensuring operators contribute effectively to maintaining production quality.

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Critical to operational success on the shop floor is the ability to swiftly identify anomalies and disruptions. Rockware Corp's automated alert system (eMsg) ensures that designated subscribers receive texts or emails for various preconfigured calls and key performance indicator (KPI) violations. This proactive approach enables management to take swift action, minimizing downtime and optimizing production.

Complementing this proactive stance is the automated reporting system (eRpt), designed to streamline reporting processes regarding production metrics, quality control data, equipment performance, inventory levels, and more.

The system automatically generates Excel and PDF reports, ensuring subscribers receive periodic text messages or emails with attachments. By simplifying and automating the reporting workflow, eRpt liberates valuable human resources for more strategic tasks.

Acknowledging the diverse technological landscape, Rockware Corp has developed the import and export third-party data (ePort) service. This integration powerhouse facilitates the seamless communication between Rockware's suite and enterprise resource planning (ERP) systems, enabling manufacturers to tap into the full potential of data-driven decision-making.

Rounding off the suite is the overhead paging (OHP) application, which brings cutting-edge technology to manual and automated communication. OHP leverages text-to-speech capabilities, enabling the delivery of messages via overhead paging systems.

Connecting the Future of Manufacturing

Rockware Corp's suite of Rockbox® products represents an amalgamation of embedded technology and innovative software solutions. This lineup encapsulates a range of offerings, all unified by the core principle of seamless integration between computers, machine programmable logic controllers (PLC), and devices.

Ryan Ray,
Co-Owner

Chris Ray,
Co-Owner

At the forefront of this lineup is Eazy-BUS, a platform designed for comprehensive testing and logging of devices linked to embedded vehicle networks. Its ease of setup and compatibility with local control systems make it a reliable choice for integrators seeking streamlined data integration.

The input series (I16, I32, I64, and I128) offers centralized data collection solutions for non-OPC-compliant machines. Available in various sizes, these solutions enable data aggregation and analysis while catering to diverse machine setups.

The lineup also includes decentralized solutions like remote input-output (RIO), which utilizes remote input and output modules to facilitate data collection and communication with devices like RFID scanners, contributing to streamlining the interlocking of machines. The decentralized input-output (DIO) solution employs mini-PLCs for data collection, sending outputs to interlock machines.

A linchpin in the suite is OPC2DB, a middleware application that enables seamless two-way communication between machines and databases. It interacts with IO, RIO, DIO, and other OPC-compliant

controllers, bridging the gap between data collection and control commands.

A Transformational Partnership

Rockware Corp's ability to dedicatedly engineer transformations in manufacturing through cutting-edge solutions has enabled it to partner with numerous clients. In one such case, the firm showcased its expertise in optimizing manufacturing processes by resolving critical operational challenges at a client's plant in Alabama. Drawing on their experience, Rockware Corp's experts embarked on a comprehensive assessment, closely engaging with operators across all shifts to gain an accurate understanding of the issues.

Identifying technical glitches and operational inefficiencies, Rockware Corp swiftly rectified issues that had stymied the plant for months. A key challenge was an enigmatic German monorail system that halted production. The firm recommended a Rockware system for better visibility and machine monitoring, boosting daily cycles by up to 40 percent in six months. This collaboration not only improved efficiency but also rejuvenated employee morale, transforming the troubled plant into a coordinated, high-performing entity.

In the dynamic landscape of Industry 4.0, Rockware Corp. does not merely provide software; it is a strategic partner that navigates the crossroads of innovation and operational complexities.

In a world where manufacturing excellence is paramount, Rockware Corp stands as a beacon of innovation and commitment, offering user-friendly solutions fortified with cutting-edge security measures. With its forward-thinking approach, the firm is not only dedicated to meeting today's manufacturing challenges but is actively shaping tomorrow's solutions, exploring the potential of Artificial Intelligence (A.I.) and Augmented Reality (A.R.). Backed by affordable and steadfast support, Rockware Corp ensures that success on the shop floor is not just a goal but an enduring journey. 🔴