North American Candy

Food & Beverage

8 North American Sites
Specified as Standard for All New Assets
4 Year Program Duration
2 Deployment Waves

Downtime and Performance with Schneider Wonderware MES

Customer Objectives

North American-Wide Standard
Dissimilar Equipment Types
Multiple Sites, Varying Automation
Multiple Consumers of the Data

Performance Improvement
Reduced Time-to-Rate After Changeovers
Higher Average Performance Rate
Real-Time Feedback to Operators

Continuous Improvement Enablement
Downtime Data with Context to Support Root Cause Analysis
Platform Architecture to Support On-going Evolution of MES

Solutions and Products

Wonderware MES Performance
Wonderware ArchestrA System Platform
Wonderware Enterprise Integrator
Wonderware MES Operations

Functionality

SAP-MES Integration
Automatic Downtime Event Capture
Automatic Downtime Reason Code Capture
OMAC PackML
Web-Based Dashboard and Reporting
Production Order Management

Callisto Integration
TECHNOLOGY MADE EASY AND EFFECTIVE
**Background**

Our customer is the North American candy division of a global food producer, and a long-standing client of Callisto’s. Demand for the company’s products was increasing rapidly, and with the highly seasonal nature of sales volumes, production capacities were being stretched to the limit in season. Strategies involving increased inventory levels or additional production capacity were considered, but involved significant costs. Instead, the company decided to focus on maximizing performance from existing assets.

**Callisto Engagement**

Our customer had started an internal effort to develop a specification for a common downtime solution, however, different philosophies and technology perspectives made it difficult to achieve consensus across the plants and between different organizational groups. Callisto proposed to implement a pilot system based on a standardized approach to downtime and OEE that had been developed in conjunction with Schneider Wonderware. The objective of the pilot was to demonstrate that this standardized solution would meet the business requirements of the different interested parties (operations, engineering, maintenance), and could form the basis of a common solution for the division.

**Prototype and Proof of Concept**

The first project was a prototype deployment of Wonderware’s out-of-the-box solution to the division’s largest site. The solution was installed “as-is”, in order to assess any gaps between the customer’s requirements and the functionality included in the base solution. Based on identified gaps between the installed functionality and customer needs, Callisto developed extensions to the base solution and incorporated them into the production version of the solution.

As part of the prototype, the customer engaged Callisto’s consulting group for an assessment of their current changeover practices, with the objective to determine what opportunities existed to improve changeover performance and how the new downtime solution could be used to help realize the opportunities. As a result of this engagement additional enhancements were made to the solution to provide more granular data related to the different aspects of the overall changeover process.

A proof of concept using the enhanced solution was trialed for a period of four months. Upon successful completion of the trial period, the enhanced solution was adopted by the customer’s central engineering team as the standard downtime & performance solution for the division, including being part of the specification for all new production assets.

**Downtime & Performance Rollout**

Once the solution was adopted as a corporate standard, a program was implemented to roll the solution out to the remaining 6 sites in the division.

A key objective from the start of the project was to develop a solution where work done at previous sites
could be leveraged at subsequent sites to reduce project costs, timeline, and risks. The project team used object templates and strategic sequencing of the deployments to the different plants so that the deployment to each plant further built out the base solution. This approach drastically reduced the amount of new work to be done at each subsequent plant.

These project savings objectives were realized, as shown by data from the rollout:

For the 2nd site there was a 25% reduction in cost per asset to deploy the downtime system, and a 50% reduction in on-site commissioning time

For the 3rd site there was a 55% reduction in cost per asset to deploy, and a 65% reduction in on-site time

Subsequent sites have shown project performance at or better than the 3rd site

WIP Tracking & Inventory Management Pilot

Around the time the downtime system had been deployed to all the existing plants, our customer constructed a new facility. In a parallel consulting effort, Callisto had been working with our customer’s operations, engineering and SAP groups to resolve production issues related to material cost variances. As a result of our investigations, the customer decided to replace their legacy MES with the current Schneider Wonderware MES offering as part of the new plant build. The MES for the new plant included the downtime & performance functionality deployed to the existing plants, and integrated in new order, material, scrap and re-work functionality, resulting in a single overall MES solution.

The new integrated MES was deployed to the new plant as the plant was being constructed, in order to support commissioning and production ramp-up.

Future Program Phases

Planning is currently underway to retrofit the 7 older plants with the new MES solution during 2016.

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