

Mennel Milling

Mennel Milling completes a time-sensitive ERP migration to Microsoft Dynamics 365



INTRODUCTION

Faced with a rigid deadline of just seven months, enVista's Microsoft experts were able to successfully complete an enterprise resource planning (ERP) system migration to Microsoft Dynamics 365 and integrate production machines as well as various existing proprietary and third-party systems for a bakery mix plant newly acquired by Mennel Milling Company ("Mennel").

BACKGROUND

Mennel is a family-owned company, founded over 130 years ago. Mennel handles nearly six million pounds of flour production every day. Its operations involve flour mills, grain elevators, whole kernel popcorn and bakery mix production, trucking companies, a truck repair garage and maintenance and warehousing services. Since 2013, Mennel has invested in new strategic ventures, including acquisitions, which have changed the way it does business.

CHALLENGE

Mennel acquired a new bakery mix and packaging facility ("acquired facility") from one of its key customers, requiring the acquired facility's team to discontinue the use of its legacy SAP enterprise resource planning system and enterprise asset management system from Maximo (maintenance management and MRO).

The challenge was two-fold for Mennel. First, the acquired facility needed to migrate from mature implementations of SAP and Maximo to Microsoft Dynamics 365 for Finance and Operations on Microsoft's Azure cloud platform within

seven months. Mennel also had to integrate the acquired facility's production machines using shop floor data collection (primarily via Wonderware) and various existing proprietary and third-party systems with the new solution, including a warehouse management system (Red Prairie WMS), an extensive in-house food quality system and an electronic data interchange (EDI) solution.

The acquired facility was also a cost center for one of Mennel's large food products customers. When Mennel's customer sold the facility to Mennel, the terms of the acquisition were that the bakery mix facility would now be a "toll processor," where that prior parent-company would pay for subcontracting the mixing manufacturing processes. In due time, Mennel would expand the business to sell bakery mixes as finished product to new customers. The acquired facility's staff had been using its former owner's software offerings:

- SAP for Business Management and Supply Chain Planning
- Red Prairie for Tier 1 Warehouse Management
- Wonderware and PRSMA, with a custom software tying these systems to the existing manufacturing equipment
- A mature implementation of Maximo for enterprise asset management
- A custom solution for Quality and Laboratory Information Management that included a sophisticated bag and pallet-level Quality Release workbench

The acquired facility's staff also relied heavily on manual systems, such as spreadsheets, which required a frustrating amount of dual entry.

The acquired facility, under the terms of the acquisition contract, had seven months to find alternatives to all these systems, except for some limited access to the Advanced Planning Optimization engine in its instance of SAP.

The consequences of not meeting this compressed timeline would result in a significant, negative financial and operational impact for Mennel.

SOLUTION

Mennel selected enVista to aid in its EPR migration because enVista is a Microsoft Gold Certified Partner with unmatched supply chain consulting, process improvement and technical/functional expertise for a broad array of platform solutions and business productivity applications and collaboration tools and because enVista has a proven history of smooth, efficient implementations.

Mennel partnered with enVista to implement Dynamics 365 for Finance and Operations as the core of a new ERP solution. enVista partnered with Dynaway (an independent software vendor with a focus on providing Enterprise Asset Management solutions for the Microsoft Dynamics platform) to provide an Enterprise Asset Management system, which seamlessly integrated with Dynamics 365. Dynaway has since been acquired by Microsoft for inclusion in Dynamics 365 for Finance and Operations. To ensure that all safety and quality requirements were met in optimal fashion in the appropriate systems and further support the client, enVista brought in Stone Technologies, a systems integration firm that is an expert with Wonderware and specializes in manufacturing operations management.

A vital part of the implementation involved migrating and extending the client's existing Wonderware SCADA platform and replacing proprietary quality, recipe, and lab systems with Wonderware MES (Manufacturing Efficiency System). Working with Stone Technologies, enVista focused on meeting the deadlines for the company's set go-live date, while at the same time establishing a platform to allow the acquired facility to optimize both production and operation activities in the future.

All systems were successfully replaced within the seven-month period. The solution footprint included:

- Dynamics 365 for Finance and Operations, including Dynaway's enterprise asset management system, Advanced (mobile) Warehouse, and Process Manufacturing were implemented to replace existing systems provided by SAP, Red Prairie and Maximo.
- Wonderware, in collaboration with Stone Technologies, was reproduced under a new license, expanding into Wonderware's Facility Performance and Quality modules.
- Significant EDI work was accomplished to tie all inbound, manufacturing and outbound with SAP.
- EDI interfaces were added between Dynamics 365 for Operations and Wonderware.
- A new Workbench for Positive Quality Release of Bags and Pallets completely inside of Dynamics 365 for Operations, which leveraged the base Batch Attribute capabilities was written using what enVista termed "cascading holds."

The EDI integrations leveraged enVista's proprietary offering "enHanced Integration Framework (EIF)," readying expanded operations to support a multitude of third-party systems. EIF was designed to solve integration

implementation issues between Dynamics and external systems. EIF provides the flexibility to configure, execute and manage custom integrations and has the capability to facilitate error processing and exception handling.

In the middle of the implementation, a 3PL was contracted by Mennel to handle shipping most of Mennel's product. Temporary EDI between SAP and the 3PL was introduced quickly with enVista's help so as not to interrupt operations; that EDI solution was subsequently replaced at go-live with an EDI solution from enVista. This three-way interfacing between Mennel's large food products customer and toll bakery mix processor, who, in turn, interfaced to its 3PL, was accomplished in record time, thanks to using enVista's EIF.

Throughout the project there was no loss of capability and, in fact, there were significant gains, especially pertaining to user productivity, system integration, and cost reduction.

RESULTS

All legacy systems were replaced in seven months, and the Wonderware footprint was enlarged during that time. During the implementation period, a new outside 3PL was unexpectedly added to the equation and was also able to be interfaced in this timeframe without interfering with the original project. There was no loss of functionality. In fact, distinct improvements were made to the warehouse management and quality system capabilities, where significant manual efforts were eliminated.



Additionally, aside from Wonderware, all systems that were previously on-premise solutions are now fully in the cloud, enabling greater scalability as needs evolve, which reduced overhead expenses.

Through the compressed implementation of Microsoft Dynamics, enVista enabled Mennel to:

- Optimize production and operation activities for future growth
- Focus on exploring additional process improvement opportunities
- Integrate and automate back-office processes

In summary, the business operations of Mennel went from seven systems and an over-reliance on manual intervention to two systems, Microsoft Dynamics 365 for Operations (with Dynaway built in and an enVista-written embedded Positive Release Workbench) and Wonderware (Data capture with new Quality/Lab Management and Machine Performance Management) in an astounding seven months while maintaining integration with existing manufacturing equipment and a brand new 3PL.



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