





## Overview:

Founded in 1992, Custom Profile began with one employee and one extrusion machine in a simple 3,000 square foot facility. Today, Custom Profile boasts 150-plus employees, 13 extrusion lines, comprehensive secondary operations, a finishing department and two manufacturing plants (Grand Rapids, Michigan and Juarez, Mexico) that run 24 hours a day. Custom Profile provides specialized extruded plastic products to the appliance, furniture, point of purchase and marine industries with an emphasis on design support, quality assurance and in-house tooling.



Custom Profile, a profile extruder based in Grand Rapids, Michigan, has a notable company motto: It strives every day for zero product defects and 100 percent on-time delivery. With only three late customer shipments in a single year, Custom Profile is pretty darn close, boasting a current benchmark of 99.99+ percent ontime delivery and zero shipping errors from incorrect quantity or item selection for three consecutive years! But it was not always that way. Custom Profile's journey to excellence began when they started searching for a new manufacturing Enterprise Resource Planning (ERP) software system.

## **CHALLENGES**

#### Four's a Crowd

Custom Profile was in growth mode. They had recently moved into a newly constructed building, and the company was continuing to expand and hire new employees. But as its extrusion business naturally developed, it became painfully clear that Custom Profile's enterprise software was failing to support its basic needs.

If three's a company and four's a crowd, then Custom Profile was certainly feeling mobbed trying to run a competitive business through four different software systems. A combination of homemade software, Access™ databases, QuickBooks™ and Excel™ spreadsheets was resulting in several system crashes a day and costly data entry errors from duplicate information entry into both Access and QuickBooks.

Additionally, customer service was struggling as sales orders took a costly amount of time to produce due to a lack of easy access to accurate production data, plus shipping was cumbersome, delayed or inaccurate. In short, the pieced-together legacy systems did not support the basic needs of a growing business.

Custom Profile's top requirements in a new system included highly configurable modules that could manage increased business transaction volume, detailed and easily configurable manufacturing Bills of Materials (BOMs) specific to the profile extrusion process and a business management system that provided an integrated platform with the infrastructure to support continued growth.

Custom Profile used the ERP comparison tool, Soft Select, from Engleman Associates, to establish its critical business requirements and did extensive market research within the manufacturing industry. After an intense evaluation process, Custom Profile selected EnterpriselQ from DELMIAworks (IQMS) because it provided structure for perpetual inventory and BOMs, it provided instant access to data required to meet customer requests for information and requirements and because it had knowledgeable employees who were willing and able to support Custom Profile's efforts.

#### **Return on Investment**

- Saved time and prevented errors with simple connections in all steps of the process, from packing slips to invoicing
- Improved inventory control and tracking with engineering change order flexibility
- Simplified budgeting and capacity planning with forecasting tools
- Enhanced warehouse management with advanced tracking capabilities
- · Streamlined shipping and inventory visibility
- Eliminated manual record keeping tasks
- Removed redundant data entry and the unavoidable mistakes inherent in patchwork systems

"EnterpriselQ is a single source solution that could be leveraged, both current and ongoing, to meet our critical business requirements," said Richard Sweers, director of operations at Custom Profile.

Having made a selection, Custom Profile wasted no time getting started and fully implemented all of EnterpriselQ's business critical modules in five short months on time and under budget.

#### **SOLUTION**

### **Critical Core ERP System Improvements**

Nearly immediately, Custom Profile gained the ability to service customer requirements during the initial contact with a much higher degree of accuracy. A common practice for most manufacturers during a sales call is to gather the details of a job, such as quantity and date needed, and respond back (sometimes days) later with an accurate ship date. But with the EnterpriselQ system's robust and accurate Capable to Promise functionality embedded in the core software, Custom Profile has instant visibility to materials and capacity, allowing representatives to give a rapid response during the initial contact, rather than at a later time, as business critical information can be quickly and easily accessed.

Also included in the EnterpriseIQ ERP core is a state-ofthe-art scheduling and material requirements planning (MRP) system. With the click of a button, companies can automatically update their manufacturing schedules based on work center, labor and tooling capacity, create work orders from industry-specific BOMs, check on hand inventory, generate purchase orders based on MRP, and create detailed production reports, all driven by sales demand. Custom Profile automatically updates its schedule a minimum of six times a day in less than seven minutes, resulting in real-time, optimally scheduled orders with no wasted production time or materials. Sweers describes the scheduling system as "greased lightning" and with DELMIAworks' lean, accurate planning tools,

80 percent of Custom Profile's shipments are based on a four day or less lead time.

"EnterpriseIQ is a feature-rich, constantly evolving ERP system that handles critical multi-plant processes and eliminates multiple points of data entry and the associated errors," said Sweers.

A cornucopia of reporting tools for tracking historical production performance also comes within the EnterpriseIQ ERP core. After only three short months of using the system, Custom Profile employees were able to focus on set up and scrap reduction projects and decrease raw material stock outs to their production work centers based on EnterpriseIQ provided date. As an employee-driven continuous improvement objective, production scrap was reduced by more than 55 percent over a four year period, with annual savings in excess of \$100,000. Recently, Custom Profile has improved at a slower rate as minor tweaking of the process continues and through historical reporting, employees ensure that the company doesn't backslide.

## Moving Beyond the Core ERP

In addition to the EnterpriselQ core ERP system, Custom Profile installed DELMIAworks' Electronic Data Interchange (EDI) solution. Unlike other ERP systems that require bolted-on thirdparty programs in order to obtain increased functionality, the EnterpriselQ system is comprehensive, requiring no cumbersome interfaces or expensive customization to access the necessary programs.

With the ability to now automatically and seamlessly translate incoming orders directly into EnterpriselQ with EDI, as well as generate outgoing files and advanced shipping notices (ASNs), order entry time and data entry errors have been significantly reduced. Inbound and outbound EDI saves Custom Profile an estimated \$35,000 annually in data entry time. EDI also has allowed Custom Profile to carry out their company goal of a rapid response from quoting to delivery of product: They run EDI several times in the morning and then assemble and ship products the same day.

Custom Profile also decided to implement EnterpriselQ's robust warehouse management system (WMS). By equipping personnel with hand-held scanners and labeling inventory items accurately with barcodes, Custom Profile has virtually eliminated shipping errors. They reduced labor required to ship product by one person, resulting in an increased on time delivery rate of 99.99+ percent and zero shipping errors due to incorrect shipped items or quantities for three consecutive years.

Finally, Custom Profile invested in DELMIAworks' RealTime™ Production Monitoring system to track work center production on some of its machines as it occurs in real time. By directly communicating with its machines,

Custom Profile receives immediate details on all aspects of production and takes control of the plant floor with improved visibility, accuracy and accountability. To supplement its customer service efforts, Custom Profile has set up its system to deliver exception reports in real time so it can respond to customers in a timely manner

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- Brian CAVANAGH, Director of Operations

when requests or requirements fall outside the typical business process or cycle.

#### **RESULTS**

#### **Continuous Improvement and Best Practices**

Today, Custom Profile can fully see how its entire business is connected, from new program launch through order entry to product shipment. In fact, Custom Profile employees can't envision where the business would be without EnterpriseIQ. Employees utilize the ERP system as a rallying point to clean up business processes, and they hold each other accountable to follow the company wide systems and procedures that have been established.

"I frequently remark that there are two or three ways to accomplish a task or objective utilizing EnterpriselQ, and our responsibility is to select the method that works best for our current systems and processes," said Sweers.

Continuous improvement never ends at Custom Profile. Learning and growth with the EnterpriselQ software is an ongoing process, and Custom Profile integrates new EnterpriselQ functionality often, complete with improving their knowledge and application of the ERP system as a tool in their business processes. Concurrently,

Custom Profile incorporates new functionality typically recommended by the DELMIAworks user community and maintains frequent software updates.

Encouraged by the longevity of the system compared to the industry average (some clients have been with DELMIAworks for more than 20 years), Custom Profile expects continued company growth and expansion in the coming years and is confident that EnterpriselQ from DELMIAworks will grow with them.

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#### Americas

Dassault Systèmes 175 Wyman Street Waltham, Massachusetts 02451-1223 USA

#### Europe/Middle East/Africa

Dassault Systèmes 10, rue Marcel Dassault CS 40501 78946 Vélizy-Villacoublay Cedex France

#### Asia-Pacific

Dassault Systèmes K.K. ThinkPark Tower 2-1-1 Osaki, Shinagawa-ku, Tokyo 141-6020 Japan

