



Overview

Country or Region: Melrose Park, Illinois

Industry: Consumer Packaged Goods

Business Situation

Alberto-Culver sought to implement a global formula and packaging product specification system, reduce raw material costs, and do more with fewer resources.

Solution

As a technology partner, OSIsoft was willing to understand the company and work together to meet Alberto-Culver's needs. Alberto-Culver believed that OSIsoft could provide a truly global, web-based packaging and formula based specification system.

Benefits

- Faster time to market for new product developments
- Significant reduction in raw material costs
- Improved employee efficiency
- Unified data provides 'One Version of the Truth'
- Global raw material code reconciliation
- Global product development collaboration
- Highly efficient supplier bid package generation
- Electronic approvals on new packaging and formulation developments
- Site visibility to new product innovations

Alberto-Culver benefits from global product collaboration using OSIsoft's ProcessPoint; faster time to market for less money

"Alberto-Culver estimates that cycle time to complete bid packages have been cut by 50 percent, helping its Purchasing Organization to realize savings six to eight weeks sooner. That saves the company an estimated \$1.5 million on global bids that have been generating over \$10 million in annualized savings."

Curt Funke, Divisional Vice President of Global Purchasing and Packaging, Alberto-Culver Company

One of the new developments in the process industries is the application of web-enabled product data management (PDM) principles, a technology that in the past has dominated the discrete side of manufacturing. At Alberto-Culver, a leading international manufacturer of consumer goods, the OSIsoft® ProcessPoint™ solution has been successfully in place since October of 2002. The goals of the initiative included faster time to market, improved definition of quality requirements and a significant reduction in raw material costs. Using ProcessPoint, the company is applying web enabled PDM to achieve global access to packaging specs, bills of materials, palletizing data, ingredient specs, formulas and batching instructions and global conformance to standards at 14 plants worldwide.

Alberto-Culver Company is a medium-sized consumer packaged goods (CPG) company that manufactures hair and skin care products, food products, and household products. Its global brands include such well known names as Alberto VO5, St. Ives, Tresemme, Mrs. Dash, and Soft and Beautiful. Annual corporate revenue is approximately \$2.5 billion, with consumer products sold worldwide in more than 120 countries. There are four major design centers in Melrose Park, Illinois; Chatsworth, California; the United Kingdom, and Sweden, with 14 plants worldwide. The company is structured in such a way that each design center supports regional new product activities while managing the current base line products, with separate groups for chemistry, engineering, and packaging development. The chemists, for example, design the formulation to meet the marketing goals of the product, whether it's to achieve healthy-looking skin, or an attractive hairstyle. The packaging group is responsible for designing the elements of packaging the product, such as the packaging structures, packaging materials, and the dispensing systems to enhance the application of the product.

The company's theme is "One World, One Team," and they pride themselves on being a global consumer products company. In recent years, Alberto-Culver has reorganized and restructured its business units to be truly global in how they approach and conduct business, so that they can deliver the level of responsiveness, service, and customer satisfaction that their global trading partners, such as WalMart, Ahold, Target, and Walgreens, expect and demand.

Consumer packaged goods challenges

The culture of Alberto-Culver has always been to seek ways in which technology can improve and enhance their business practices. According to the Vice President of Worldwide Information Technology, Rich Paulsen, the company has traditionally been able "to realize significant business benefits from our specifications management practices in the U.S." The company implemented ProcessPoint with the expectation that the solution would allow Alberto-Culver "to extend those benefits to (its) other worldwide business units and facilitate global standardization of specifications."

Alberto-Culver desired a global standard with a rich interface and the benefits of a web-based solution, without a huge IT burden. Originally, the company had a Windows-based spec system at their headquarters, but found it an increasing challenge to keep all the various design centers integrated with current packaging and formulation information. They started to realize the need to network their North American operations and tie all of their global operations together with one global specification system. The need was supported by a fast-growing business that required additional capacity to source production internally from remote manufacturing sites. They wanted a full product specification system that would include formulas, batching instructions, chemicals specifications, as well as packaging bills of materials, palletizing warehouse data, and all of the packaging information from each of the locations that had capabilities to produce their new product initiatives.

The Winspex system that was previously in place was not web-enabled, and the vendor at the time was not willing to invest in formula development and batching instructions. Alberto-Culver wanted to implement a tool that not only accomplished what Winspex did, but that also delivered more functionality.

As the company continued to grow, they ran into interruptions and problems. Packaging engineers had to stop what they were doing so they could send specifications out to a plant in Dallas, Toronto, Puerto Rico, or Chatsworth, CA. This process slowed progress down considerably because communication was by email, fax, or overnight mail. Users could not see what each plant was doing or their specifications. Information was occasionally lost or misplaced, and would have to be re-sent. The quality assurance department process involved creating so-called "redbooks" that packaged all the specifications about how to make a product and its individual components and properties. Pulling the books together took a long time because they were very thick and unwieldy and had to be individually mailed to the various plants.

In the CPG industry in particular, there are only small windows of time to get new products into stores. Manufacturers have to accommodate planogram schedules with new retailers during which they can sell product. Often, the marketing department heavily uses the front end of the product development cycle to research and decide what should be targeted. Once that decision is made, manufacturing typically does not have much turnaround time and is often challenged with a situation where, for example, there may be only eight weeks to build and launch quantities for a national or regional new product introduction. This often requires multiple plants at different locations to support the launch, and all the plants need the specifications immediately.

With these challenges in mind, Alberto-Culver formed a core team of six people to investigate possible web-enabled solutions that would work for several functions across the company—from R&D to packaging—and deliver the accuracy and accessibility they needed.



Research and evaluation

According to Packaging Engineer Ethan Fraley, it was essential that the solution be a platform that both R&D and packaging could access, was easy to navigate, was very user friendly, and could easily guide a user from a bill of material to a packaging component. Specifications needed to be routed to the appropriate person for approval, regardless of location, so it had to be site-specific. A way to modify and track version changes was also required.

The team conducted some research and quickly concluded that of the few available solutions on the market ProcessPoint would deliver the information and tools to meet the company's needs. By working with OSIsoft and helping to further develop the product for a consumer packaged goods application, the Alberto-Culver team felt new ground could be forged together and a global specification standard platform would be created.

Implementation and training

Alberto-Culver and OSIsoft worked together to develop a project timeline that would ensure agreement up front about the dynamics and attributes of the system, and that the testing and training would be properly rolled out to each design center. The project was complex in that it involved identifying the best and worst of the previous system used for specifications, and had to accommodate the input and unique needs of multiple global design centers.

The project was formally launched with a kickoff meeting, where the change management process, project milestones, and tracking mechanisms were identified. The Microsoft component of the new approach included SQL and Exchange. Each design center had an opportunity to review their template layouts. Time was spent at several locations, including Melrose Park, the UK, Sweden, Canada, California, Puerto Rico, and Mexico, among others, to review and document the workflow involved in individual formulations and manufacturing instructions.

The OSIsoft development team built an interface to the existing PRISM ERP system, which allowed sensitive formula and batching instructions to automatically be uploaded without re-keying data entry, eliminating potential errors. Data formats for the batching instructions and formulas were established. The critical data from Winspex was exported and tested. Security requirements were defined and approved to ensure the appropriate users had the right level of access and permissions for their functions. These are just a few of the tasks that were pulled together to provide a global standard at Alberto-Culver.

To roll out training, Alberto-Culver approached the project in phases. They started with the packaging engineers, whom they considered to be the core user group. Two of the lead team members, Ethan Fraley and Nickie Cipicchio, had the ProcessPoint client installed on their desktops, and then trained the packaging engineers, who used the system for some time and then provided their feedback. Once that was up and running, it was introduced to other groups. Users were trained based on their need for the system, i.e. whether they would be creating specs or simply viewing them. The majority of employees at Melrose Park HQ that needed to be on the system were trained first, and then it was rolled out to plant-specific locations. More than 300 people have been trained so far at a total of four plants, with five remaining plants to undergo training this year. The balance of the locations will be addressed next year.

How ProcessPoint works for Alberto-Culver

There are four components to ProcessPoint: the server, which acts as a central repository; the client, which is used to access and configure the data and can be downloaded from the Web; the template editor, which enables data to be displayed for different users as they see fit; and the administration tool, which is used to configure the server.

The design centers at Alberto-Culver can now share formulations, ingredients, and packaging specifications. For example, the UK center can use one of the Melrose Park specifications and vice versa. However, the design center that developed the specification for a formula or a packaging instruction owns it and maintains it. Design centers can copy a formula down to a plant variant, enabling the plant to view the formula, and obtain the information on the material requirements and the process used to make it. The synchronization of information on specifications reduces the likelihood of multiple part numbers being assigned to the same material in different design centers. It has also enabled the teams assigned to global part numbering to consolidate specifications, reduce part numbers, and establish global parent part numbers through collaboration of efforts between the design centers.

Users now have automatically updated information. Only certain users have access to specific information, and once data is approved, it is locked down so that it can't be changed without special permission. This enables multiple locations to come up to production at the same time and to be in queue with each other because they have the real-time access to the information in the specs to define the products.

The global information that can now be accessed is varied, and represents the critical steps in CPG manufacturing:

Bill of Material (BOM) to produce a tank of a shampoo, conditioner, or lotion

BOM to package the formulas into individual bottles (formula, bottle, cap, label)

BOM to package the bottles into a box of 12 (bottles, corrugated box, sealing tape)

BOM to put the box of shampoo, conditioner, or lotion, onto a pallet (boxes of product, pallet, stretch wrap, barcode label)

Procedure is the sequence of the steps to process a product. These are modeled using the ISA S88.01 specification for general recipes

Documents give additional information, such as Material Safety Data Sheets, corrugated print specs, artwork files, CAD drawings, or display instructions

Product variants provide information about different chemical synthesis paths or recipes that vary slightly

Attributes describe material properties and nutritional values

No matter what their role, users can search the database for similar products. The search criteria may be by name, description, or by the properties of the product. Once an appropriate product has been located, it can be duplicated and specifications can be changed to suit the needs of the new product; it can then be routed for approval. This creates a general specification or recipe. The general recipe can also be duplicated to a site recipe, representing how the product is manufactured at a specific manufacturing site. The information is then moved to an ERP system. In the case of Alberto-Culver, the information is fed into their PRISM ERP system.

When a formulation is approved, it creates records describing the formulation and batching instructions to be fed into PRISM. ProcessPoint can trigger communication to external systems when certain important events occur, such as when a formulation or packaging/chemical specification is approved. This provides notification to the appropriate buyer in Purchasing and scheduler in Planning that the new material is approved and ready for ordering. The Windows information is formatted into a model that the IBM AS/400-based PRISM system can use. ProcessPoint also has the ability to integrate with other ERP systems.

Servers and security

All ProcessPoint data is stored on an SQL server behind the firewall in one central location at corporate headquarters and leverages SSL (Secure Socket Layer) for encryption. Users may download the ProcessPoint client from the Web, although Alberto-Culver chose to have their IT department assist with installations. The security model built into ProcessPoint enables companies to create organization units and separate users by department. Within those organization units, task-specific views are created that enable them to segment data and determine which categories of data will be accessible by which functions. For example, operators can view only approved specs, not ones in development, and the view is read-only. Design engineers may view the formulas but not change the raw materials, and so on.

ProcessPoint benefits the company and user alike

"Alberto-Culver has reduced its cost of goods by one percent since the project began in the late 1990s, which amounts to \$4 million savings. A large part of that savings is attributed to a new way of producing and distributing its bid packages", says Funke. "We ask all our sites regularly for product specifications to go into regional or global supplier bid packages. We used to enter each item into a spreadsheet and attach individual product specifications on disk and in three-ring binders. Each supplier had to flip through the hard copies to make sure they could meet our specifications. With the new system, the information is available and searchable electronically, which enables suppliers to turn around bids much more quickly. It's estimated that the company saves three-to-four weeks per bid package on cycle time alone, which amounts to a nearly \$1.5 million savings since the project began."

The corporate benefits that Alberto-Culver has achieved using ProcessPoint are long reaching. Some of those benefits include:

- Inventory consolidation and management
- Regulatory compliance
- Global part number assignment capability
- Reliability
- Reduced IT maintenance
- Scheduling and purchasing (asset utilization and optimization)
- Production reporting
- CPG-centric model

In addition to the corporate benefits, there are various specific features or aspects of ProcessPoint that the packaging engineers and R&D engineers have found particularly helpful, including:

- 'What if' scenarios** – to anticipate results based on certain changes to formulas and packaging specifications
- Audit trails** – this capability shows all the changes to the item, and links to the actual change
- Scalability** – the system can be scaled from one site to multiple sites
- Calculations** – with ProcessPoint, calculations can be automated

Templates – data can be provided in a consistent, structured format (universal attribute names instead of cryptic shorthand or abbreviations)

Document in-basket – users can see if there are specs of notification

Ability to work offline – convenient for the users who travel frequently

'Where used or referenced by' capability – enables a user to see where a component is used in multiple BOMS and displays

Business unit security – allows visibility to users within a business unit to see their information and restricts them when needed from seeing information in other business units

Search features – strong search criteria allow engineers and chemists to build and save sophisticated material or product searches

Secure email – all email communication is contained within the ProcessPoint system through Secure Socket Layer encryption standard, so the information is kept secure

Unit conversion – information can be converted and displayed in metric or American units, such as a corrugated spec

The Product Lifecycle Management system enables Alberto-Culver to tie all of its data together now with the benefits of individual access to the users who need it; at the level and detail needed, regardless of location. It ties the product data into the front end of catalog management for the Uniform Code Council (UCC). This promotes a Global Trade Item Number compliance as a way to enable retail companies and their supply chain partners to keep accurate track of how much has been sold to whom, and when and where the transaction took place. The ProcessPoint system also ties all of the raw materials that are purchased globally by Alberto-Culver together into e-sourcing software for bid packages. Template designs in certain commodities allow for line item attributes to be pulled from the product data management (PDM) system and then be uploaded into spreadsheets for regional or global category bid packages.

Having availability of moving specifications through the e-sourcing system allows Alberto-Culver to get specs on materials out to suppliers quickly. ProcessPoint is serving as the foundation for building integration going forward into other businesses and development applications.

The speed with which electronic bids can now be submitted on the Internet enhances results significantly. Previously it required 4-8 weeks to obtain the specs from multiple site locations; now the information can be obtained instantaneously. The system has also saved the company approximately 20 percent on resource time to communicate information to other facilities. In other words, 20 percent of the time it used to take to pull information and send it to other locations is now freed up for other activities. In the first six months of using ProcessPoint, Alberto-Culver is running at their highest volume of new product introductions and special pack promotions.

Conclusion

Alberto-Culver and OSIsoft continue to work cooperatively to leverage their combined strengths in the CPG industry and web-enabled PDM. Alberto-Culver has achieved accelerated delivery of product innovations to market, a common platform for multiple sites to exchange up-to-the minute information about formulations and packaging specifications, and significant savings on raw material costs through consolidation and e-sourcing bid capabilities. Alberto-Culver is now further implementing ProcessPoint to enable partner contract manufacturers to view specifications using OSIsoft portal technologies as part of its "One World, One Team" philosophy.