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Challenges in the apparel, footwear and accessories industry

It has been a tough two years for apparel, footwear and accessories (AFA) manufacturers and retailers. As consumers feel the pain of the recession, they don’t shop as much, and when they do, they look for lower cost and high value, hence the rapid growth of private label products. As a result, manufacturers and retailers need to be more efficient in terms of the time it takes them to develop products and get a new style into the hands of a customer at the moment when that trend is hottest. So, they need to collaborate efficiently with vendors, and be smart about how much inventory and material they purchase before a season. And when a recession hits, retailers don’t necessarily cut back across the board on technology. Technologies such as PLM that manage portfolios of products, unify data and keep costs under control remain in demand.

The development process in the world of retail is complex and demanding with trends changing rapidly across seasons, and the need for rapid sourcing, lab dips, sampling and performance testing; not to mention the need for designers, merchandise planners, product management and vendors to communicate quickly and efficiently. This communication is best enabled through a unified PLM platform with a single data model.

The challenge of bringing new products to market quickly and on time is not unique to any particular market. But what is unique in the AFA market is that this development process needs to happen across multiple seasons: spring, summer, back to school, holidays – even event specific holidays such as Mother’s Day or Father’s Day. And the trend is for retailers to segment their seasons even further. It has become imperative to keep up with the dynamic market trends and changing needs of fickle consumers and change product assortments to meet customer demand. So, it is critical to have a unified set of data that the global team has access to, whether they are in management, design, merchandising, technical design, sourcing, manufacturing or supply.
Managing complexities

Recent research by Apparel Magazine and Gartner on the AFA market (“Decision support meets value chain orchestration”) proves manufacturers and retailers both struggle with managing the complex development process in fast fashion. They need to be able to manage multiple stakeholders’ calendars at the style, fabric, color or trim level, while at the same time plan out the proper assortment of styles at the right time of year and manage material commitments and supplier relationships. Many manufacturers and retailers view PLM as a system that can help manage these complexities, and achieve the goal of on trend, on time, every time.

The research once again showed that calendar management, line planning, collaborative design and PDM are still primary challenges for AFA brand owners and private label retailers. In particular, PDM (also known as integrated specification management in the industry) and BOM (bill of material) management (or tech packs) have risen in importance in this year’s survey. This is why they continue to look to PLM – which at its core excels at bringing together disparate pieces of information for the global team – as the platform to enable iterative innovation.

PLM efforts and adoption status

![Graph showing PLM functions and adoption status.](image)

Source: Gartner Research and Apparel Magazine, “PLM for Apparel 2011”
These challenges arise due to the complex nature of the apparel and retail value chain, and the industry’s rapid time-to-market demands. In short, there are multiple calendars throughout your worldwide value chain at the style, fabric, color, wash and vendor level that need to be connected to determine dependencies and whether the ultimate goal of the in-store date is on track.

Much of this complexity arises because of the multiple designers, merchandisers and sourcing managers working on different aspects of the production process. Designers work on trend development and storyboards, materials managers work on fabric and trim development and color lab dip tracking, technical designers work on specification development and fit sample tracking, and sourcing manages suppliers, conducts reverse auctions and helps ensure product quality. Simply put, there are many tasks and milestones and approvals that need to take place among a global product development team, across multiple processes – all of which need to roll up into a single calendar view. And these tasks, milestones and approvals need to be embedded throughout the line planning, development and sourcing process, and available for viewing and action on any device, anywhere – whether on a laptop in the office, or a smart phone in the airport.

Another driver of this need for dynamic global calendar management (vs. a static high level view of activities, resources and status at the style level) is that most of the manufacturing of apparel and footwear takes place off-shore, much of it in China and other Asia-Pacific countries. Indeed in the past 10-15 years, much of the world’s apparel development is now sourced overseas. In the U.S., for example in 1997, more than 40 percent of apparel manufacturing still took place onshore; fast forward to 2008 and that fell to 3 percent.

This increase in global production drives the need for tightly integrating sourcing and development. Brand owners, whether national brands or private labels, need to be able to collaborate closely with their vendors so they can share tech packs in a web based environment. This helps to communicate designers’ intent, and in some cases get feedback from those vendors on how to improve a particular design or assortment of products. Meanwhile vendors, much like the manufacturer’s internal design and development team, have their own set of tasks and milestones they need to hit, in compliance with the manufacturer specifications and product launch dates. Management must have visibility into how their vendors are performing, so they can bring the best product to market at the right time.

Another critical challenge is that no one expects to pay full price for an apparel product anymore. The recent recession is not the only reason for this.
Consumers have learned there will always be discounts, sales and coupons. There are also plenty of competitors, including Internet shopping sites, which enable consumers to find the best price possible. So, apparel manufacturers and retailers need to be really smart about where they source from, who they source from, what they source and how rapidly and efficiently their development team works. Consider the chart below from the U.S. Department of Labor on the steady decline of apparel and footwear prices. (It should be noted that footwear prices have gone up a little in the past two years in segments such as sport sandals and running sneakers.)

![Cumulative change in consumer prices - 1998-2008](chart.png)


Given this low spending trend (and corresponding expectation for discounting), it’s no surprise that vertically integrated, branded and private label retailers have dramatically streamlined their operations over the past two years to squeeze every last bit of margin out of sales. They have become more strategic in the material purchases and commitments they make with their vendors, and now leverage sales and operations planning information to more accurately predict sales levels for the coming season. They have focused on simplifying and unifying the apparel, footwear and accessory development process by integrating material information and specifications, calendars and line plans. These steps have logically led many apparel and footwear manufacturers to adopt PLM as the system to manage their development process.
Why PLM for apparel, footwear and accessories?

When apparel and footwear manufacturers and retailers first looked at PLM as a platform for new product development and launch, as with many other industries, their primary need was to centrally manage their product data. Very quickly, however, these companies realized that managing data was just one part of PLM – really the first step on the way to achieving rapid time-to-market and time-to-value. They began to ask PLM providers if they could support multiple, global calendars, integrated through flexible workflow to line plans by brand, style or target audience. They began to ask if PLM could help manage and make historical information about styles, sizes, colors, trends and suppliers actionable so that future assortments of products could better meet customer needs at the right time. They began to ask if the front end of innovation and storyboarding could be integrated with the development process. They began to ask if a tech pack could be easily shared with vendors in a PLM system to improve communication and collaboration.

Fast forward to today and PLM systems must support the product development process in each of these areas, with all information (calendars, line plans, cost, material, vendors) unified for the global team – in a way that is easy to use and quickly adopted. This includes a user interface that looks and feels like an extension of Microsoft Office, and a platform that is built on a services oriented architecture and can connect with other enterprise systems such as ERP (enterprise resource planning), SCM (supply chain management) or CRM (customer relationship management). They need software that works with new devices such as the tablet computers, as well as a variety of commercial CAD systems.
Siemens PLM Software vision for apparel, footwear and accessories

Siemens PLM Software’s vision for AFA product development (and PLM in general) has always been very aligned with this mature, value chain centric view of product development. Managing product, process and resource data effectively is the first step, but it must be made actionable to the right people on the development team at the right time. This includes managing customer needs, managing global calendars, developing product portfolios or line plans, sourcing material or collaborating with the global development team and vendors.

AFA manufacturers have arguably the most mature view of PLM of any industry. Because of their need to bring new, interesting, stylish products to market quickly, at the right time (“on trend, on time” as we say), their view, much like Siemens PLM Software’s, is all about how to make smart decisions during the development process across their value chain. The days when this could be confined within a small workgroup or the internal development team are over.

“Decision support” in this market needs to be enabled by a unified system that integrates global calendar management, line planning, materials management, supplier relationship management and multi-dimensional costing tied together with great workflow. This is the only way world class value chain collaboration and rapid innovation can occur season after season.

Sourcing in particular is a hot button – it simply must be easily integrated with product development, if for nothing else than to share a tech pack with vendors in a web based environment. The reality is that AFA manufacturers have known for years that sourcing must be integrated with product development, but most still don’t do this well. The latest Gartner report on this topic, “Forging PLM’s Next Frontier: The Sourcing Connection,” validates this: by noting that “Apparel companies know that tighter integration between sourcing and PLM is needed; just 5 percent rate themselves as having optimally integrated business processes supporting PLM and sourcing.”

“So when you look to the future of PLM in the AFA market, the focus will be on tighter integration of the product lifecycle with sourcing and supplier management and sourcing.”

Siemens PLM Software believes that PLM in the AFA market will evolve in the coming years to support the following areas that are of great importance to each retailer’s success:

**Integrated product portfolio management (PPM)**
Product analytics and reporting have always been a part of many PLM systems, but apparel and footwear manufacturers are looking for the next level. This includes integration of line planning and reporting with product portfolio management. The connection of ideation, business and financial data in with the product portfolio and line plan will enable retailers to make even smarter decisions as they go through their innovation and planning process.
NPDL (new product development and launch) intelligence  This goes hand in hand with integrating in with PPM, and also ERP, SCM and even POS (point of sale) data from the retail store. AFA manufacturers need to be as smart as possible at keeping up with trends, developing product assortments and line plans and working with vendors. Rich analytics and on demand reporting enable them to attain this goal.

Environmental compliance  Sustainable design, production, delivery, and consumption is a focus for many consumers and manufacturers these days – but what about in the retail industry? Aside from many of the outdoor retailers such as Patagonia, Timberland, REI and others, designing “green” shirts, pants, footwear and jackets has not really been a focus. Not because retailers don’t have this mindset, but that during the recession they have been focused on improving product development efficiencies vs. eco-friendly design, sourcing and production (which may be more costly). This potentially higher cost means higher prices, which consumers understandably have little appetite. The outdoor industry has proven that despite higher prices, sustainably made products are important to customers, recession or no recession. In fact, the outdoor segment of the industry grew at 14 percent last year.

Mobility  AFA manufacturers using many PLM systems today can sign off on tasks and view calendars and line plans on their smart phones. The next step in mobility, as with many industries, is tablet integration, such as with the iPad. Hence the reason Siemens PLM Software recently announced Teamcenter Mobility.
Siemens PLM Software answers for apparel, footwear and accessories

In order to meet today’s challenges, AFA manufacturers need to work in a PLM environment that provides a single data model, an intuitive user interface and configurable workflow capabilities. Siemens PLM Software delivers this foundation, enabling better line planning and calendar management, more effective sourcing and rapid collaboration across your entire value chain. Ultimately, a unified PLM foundation enables apparel manufacturers and retailers to secure a lasting advantage in the battle to be on-trend, on-time, every time.

Siemens PLM Software has the industry’s best calendar management, line planning, and materials management functionality, all of which are critical in the world of fast fashion. Unifying this functionality together with great workflow, on a single data model in a services oriented architecture, makes the development process much easier for AFA manufacturers and retailers. How? The multiple seasons, massive numbers of specifications, and disparately located designers, merchandisers and vendors in the apparel world mandate the need for a platform that brings all the pieces together. With this in place, collaboration is more effective and decisions can be made quickly and efficiently on new styles, material commitments, resources, launch dates, supplier performance, seasonal planning and design.

Teamcenter® software for Softlines, Hardlines and Footwear provides a number of key benefits to apparel and footwear manufacturers and retailers:

- Easy trend capture and concept management = better meeting customer needs
- Global, multi-faceted line planning, calendar management and materials management
- Superb workflow connecting design, planning and supply chain in a Microsoft Office-like environment
- Costing integrated with line planning
- Multi-dimensional costing – size, color, size, shoe width, country, factory (fully landed costs)
- Rapid innovation through improved development process efficiency and better decision support.

These capabilities are enhanced through the architecture of Teamcenter: a single data model built in an SOA. If you think about where PLM can go in the apparel, footwear and retail market, this architecture also provides manufacturers and retailers an opportunity to connect their development process to external sources of information – whether POS data to adjust product assortments mid-season, or information from social networks to improve the front end of innovation.
Conclusion

Siemens PLM Software provides a best-in-class, unified platform that accelerates and dramatically improves product and process innovation for the AFA industry, as well as hardlines manufacturers around the world. Our solution is built on a unified architecture and a single data model, with industry best practice workflow connecting calendar management, line planning, materials management and sourcing. These capabilities meet the challenges retailers face every day in the market, including determining the right trends, optimizing costing, global collaboration with design, merchandising, and suppliers and delivering them at the right time, on time – all the time.

For more information on Teamcenter for AFA, please attend our webinar with analyst firm IDC and Apparel Magazine – you can register at this link.
About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with 6.7 million licensed seats and more than 69,500 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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