

Topic:
PLM

PLM in the Fashion Industry

The relationship between CAD/CAM seat numbers and the number of employees per site.

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The dynamically changing business environment in the fashion industry pushes apparel producers to implement new concepts in order to maintain growth and sustain market share. With the development of the globalisation process - where production is being shifted to lower-cost regions such as Asia - and with geographical borders becoming less important, the fashion industry is getting even more fiercely competitive and tense.

***iCAD* took a closer look at this sector,
and how it is dealing with the future-proofing process**

The growing fast-fashion market challenges the apparel manufacturers as they have to cope with rapidly changing customer preferences in various parts of the world, provide a high quality standard of goods and services, stay technologically up-to-date, keep reasonable prices and above all achieve the core purpose of a business – *be profitable*.



However, although the movement of production into low-cost regions might be a temporary solution to maintain profits without slashing margins, capable local resources offering quality and smooth collaboration cheaply are becoming scarce.

Therefore, the traditional way of production outsourcing - where apparel manufacturers are mainly attracted by low labour cost while compromising other important factors in a production process such as quality or flexibility - needs improvement. A product lifecycle management (PLM) concept offers automation and greater collaboration regardless of geographical location.



Need for a new solution

Increasing pressure in a highly competitive fashion environment - where new items are being introduced as often as weekly – yields a requirement for greater visibility into product development, global sourcing, and a quickly expanding marketplace. Apparel manufacturers need to ensure an efficient interaction and collaboration between teams dealing with merchandising, design and supply, as well as customers during the entire development process in real-time.

Product lifecycle management (PLM) is an intelligent solution that helps apparel manufacturers to manage crucial operations and to optimise geographically dispersed processes throughout the value chain in a growing fast-fashion market. In other words, PLM manages a product from conceptualisation to delivery.



Buyers from all over the world demand customised apparel delivered in a short-time, which makes a PLM solution implemented in the fashion industry different from PLM solutions used in other industries. In addition, the apparel manufacturers are fraught with demands for shorter lead times, faster product development and faster turnaround of merchandise.

In order to fully exploit the advantages of a PLM concept, the software solutions need to ensure smooth integration with other CAD design systems. PLM software needs to be able to streamline the entire sourcing processes, connect and involve all departments, including design, merchandising, planning, production and procurement.

Moreover, PLM enables easy collaboration among offices, buying agents, suppliers and importers. The pursuit of improving integration between CAD design systems and PLM solutions is not only seen in the fashion industry, but also in other sectors such as automotive and furniture.

Specific PLM Solutions for the Fashion Industry

The apparel and flexible material industry with its dynamic nature provides great opportunity for implementing a PLM solution. Nowadays, there exist many vendors who are offering such solutions for the fashion industry; however, there are four main developers who pioneered the concept in the fashion industry: Gerber Technology, Lectra, PTC and Dassault Systèmes.

Apparel companies are working to further integrate PLM solutions with fashion design and CAD solutions to drive the benefits deeper into the supply chain and increase transparency.



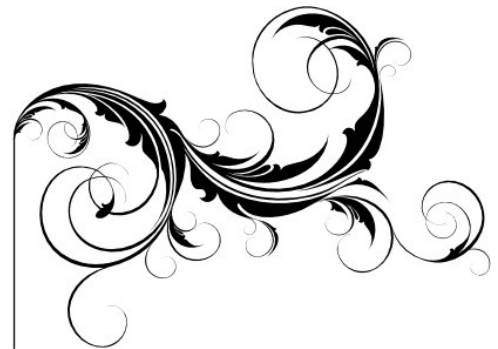
Many companies that have successfully integrated PLM solutions into their enterprises are now working to connect those to sourcing and logistics applications for a more seamless flow of information into and beyond the production stages.

FlexPLM – PTC

PTC's PLM solution for the fashion industry is FlexPLM. It offers an enterprise-level solution addressing the need for effective collaborative product development. The FlexPLM solution is designed to solve the unique, complex issues facing the retail, footwear & apparel industry by bringing design and development teams together with a set of tools that can be easily configured to the customer's specific needs.

Among others it contains features for:

- seasonal calendar management
- concept management
- line planning
- product data management
- BOM and colour management
- material management and testing
- vendor management and collaboration
- automated workflow
- scalable and secure web-centric infrastructure.



Apparel Accelerator - Dassault Systèmes

Dassault Systèmes, within its ENOVIA brand, developed Apparel Accelerator software, a PLM solution for apparel design companies. Apparel Accelerator has been optimized based on ENOVIA's track record of helping fashion product design companies solve the strategic challenges of increasing global competition, shrinking product lifecycles and reacting to ever-changing seasonal consumer demands.

Features include:

- bill-of-material management
- colour/colour palette management
- customer choice management
- measurement chart management
- grade rules management
- construction libraries
- graphical product timelines
- materials management
- sample management
- specification package generation
- product costing
- image management
- supplier relationship management
- specification package generation
- seasonal product calendar (line plans)
- workflow management
- artwork, sketch and design drawing management
- automatic notifications and user-defined task
- escalation and subscription control.



Fashion PLM – Lectra

Lectra is positioned within the fashion market with their PLM solution, Fashion PLM being specifically designed for this sector, and currently implemented by 12 customers. This is a collaborative solution that allows companies to reduce delays and costs associated with the conception of products, in a context of permanently renewing collections.



The Fashion PLM solution comprises specialised integrated applications for line planning, design, pattern design and prototyping, product development, sourcing, workflow management and management dashboard. The design applications enable the conception of trend boards, fabric and textile motifs, models and silhouettes for simulation, and the visual presentation of collections plans and product lines by theme.

FLM - Gerber Technology

Gerber Technology developed a specific software solution for the apparel industry – Fashion Lifecycle Management (FLM). FLM allows for information created at the very start of the design process to flow through the PLM system without the need for re-entry, and with the ability for all users to tap into the same source from any location. The FLM suite combines the power of WebPDM, the industry's leading product data management solution, with a robust, scalable, enterprisewide workflow engine and collaboration tools.

Gerber's latest FLM Workflow version 8.8 introduced in June 2008 offers new tools for enhanced visibility into supply chain planning, product development, design, sourcing and execution. It is 100% web-based and contains new and improved features such as home page, workplace menu, built-in reporting tool, real-time visibility tool, self-reporting capabilities, and what-if scenario date calculator among others, which particularly address the needs of the fashion industry.



Current and Future Trends

The fast-fashion industry has always represented great opportunities for courageous entrepreneurs who have been willing to invest in new technologies and solutions. The critical role of advanced technology in today's global sourcing persuades the fashion and apparel manufacturers to look at helping designers to create information in a digital format.



The recent trend indicates a major uptake in the adoption of PLM software, which proves that the fashion market now understands that to “go global” it needs a technology infrastructure for product development. The positive margin performances confirm that apparel manufacturers using PLM solutions are capable of growing profitably while still remaining close to the customers.

However, in order for PLM to be fully developed and adopted within the fashion industry, not only do the vendors need to develop a suitable PLM solution for large enterprises, but they also have to address the needs of small and medium businesses (SMB). SMBs are facing the same issues as larger enterprises due to globalisation and are highly focused on having a competitive advantage. In addition, SMBs often fall in the supply chain of other enterprises forcing them to adopt the PLM concept.

Addressing the needs of SMBs may bring about the shift from customised PLM solutions sold to large enterprises incurring large margins to standardised PLM solutions where the revenues are achieved by mass volumes. Other constraints might stem from the lack of human resources required for having the right PLM implementation. Therefore, the PLM vendors will

need to make the powerful solutions easier to understand, simpler to deploy, and more affordable by providing the right tools for the right people when they need them.



Ongoing globalisation gives apparel companies a chance to expand into new global markets. However, it brings about challenges such as centralisation and efficient collaboration among the individual elements throughout the production process. Global product development is the key to growth and profitability and more and more apparel manufacturers are realising that in order to achieve this they need to implement PLM.

The biggest challenge that apparel manufacturers are currently facing is the full integration of fashion specific software - including 3D, CAD, fashion design solutions and simulation - with PLM solutions throughout the entire developing process as the typical fashion product lifecycle requires data entry by several different departments within the company as well as several different suppliers and manufacturers.



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