

## Introduction of PDM software (Part 1)

# Success comes with careful planning

In the fashion industry, new products are constantly being developed. New collections must reach the customer faster and faster. A decreasing number of companies run their own production sites and more and more work is outsourced to third parties. In order for businesses to remain competitive, product development must work smoothly. Rapid information flow to external designers, pattern agencies and production plants is part of what determines a company's success. These tasks can be managed with the help of a product data management program (PDM program).

It is the task of PDM to manage and control all the data, information and documents generated throughout the company in the development of products. With the use of a PDM solution, all the product information is collected into a unified system, e.g. design sketches, measurement charts, bill of material, sales information, comments on prototypes, catalogue photos etc. With the help of the software, the completion of the various tasks in the development process can also be controlled.

The introduction of PDM is a major investment for a firm both in terms of money and labour. If a PDM project is carefully planned and organised, the software can enormously improve a company's competitiveness. If the project is not successful, it can result in long-term damage to a business. A sound concept and careful plan-

ning during the introduction are therefore extremely important.

How should a company proceed to ensure the success of a PDM implementation? It is helpful to split the project into several phases: the analysis, the definition of requirements, the selection and decision, and finally the implementation. The most important questions and tasks for each project phase are summarised in the checklist below.

### Analysis and definition of requirements

The initial project phase serves to determine the goals of the project. It is important to define the boundary conditions: Is there a fixed timetable? What budget is available? What precisely should be achieved? The aim of a PDM implementation – the improvement

in efficiency and reduction of development costs – is self-evident, whereas the route to a solution is neither obvious nor known in advance. The requirements for the PDM system should therefore be determined step by step.

To start with, the company's current processes in product development should be documented and analysed objectively. Only then the potential areas of improvement can be identified. This step is a prerequisite for later implementation of an optimised development and production process. All departments that will later work with the software should be involved in this analysis process.

After an analysis of the company's present state the next step is to define the PDM requirements. The implementation of the concept depends to a certain degree on the PDM program chosen. The goals

and a general direction can be established in this study. For example, one needs to decide how tasks will be divided between the PDM and enterprise resource planning (ERP) software. As a rule of thumb the PDM system remains in charge up to the point at which a collection is completely finalised and thereafter the data should be maintained in the ERP system. Since there is often no precise date for this handover, it is vital to address the question of the interface between the two programs. Also, a rough timetable for the introduction should be arranged. Technical requirements such as specific hardware or preferred formats for data exchange should also be an element of a PDM concept.

### Decision process

At the next stage, the complete list of suppliers can be narrowed to those that meet the requirements with their system. Which systems are to be considered should be judged on the basis of the intended goals. A list of requirements to be addressed by the suppliers, technical and organisational details, an estimate of costs or price quotations are information that can now be obtained. The more precise the questions and therefore the answers, the better the systems can be compared. A

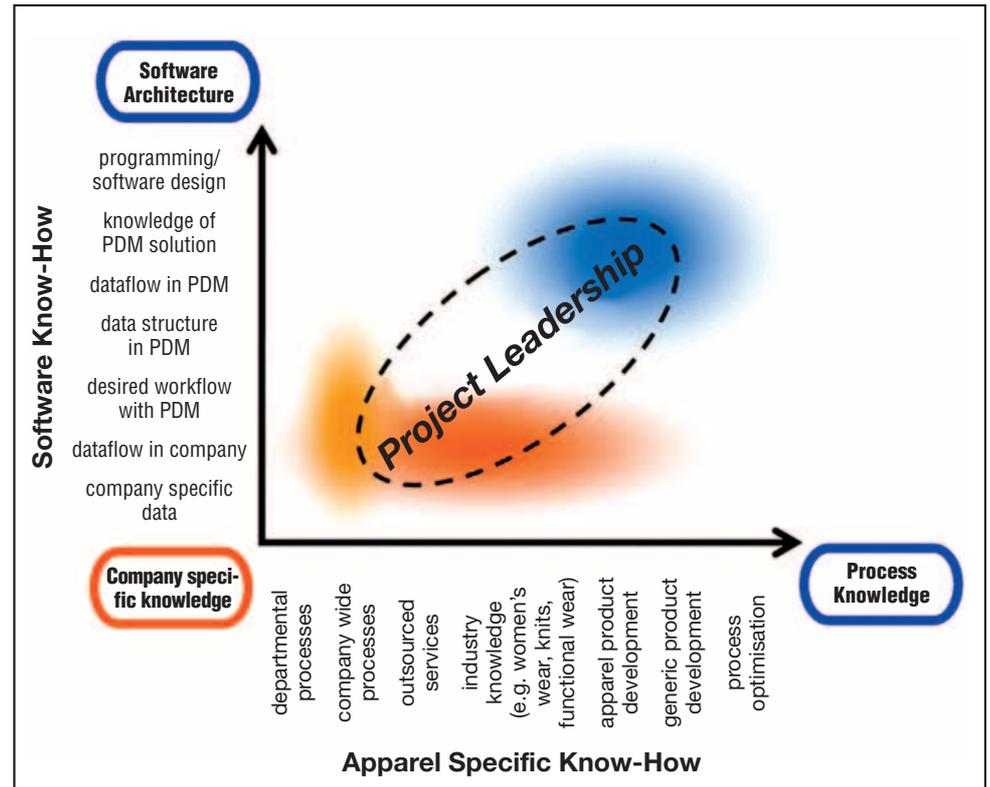


Diagram: Margot Schubert

weighting scheme for the various criteria can be used to decide which suppliers to consider for a narrower selection and a product presentation.

The company should prepare itself for the presentation of the programs by the software suppliers. Providing information on company procedures and data, such as design sketches, allows the software vendors to align their presentation to the specific situation of the company. With the use of familiar data and terms, the PDM buyer gains a better understanding of how his requirements are met in each program. Unlike standardised sales presentations, the various programs are also easier to compare. Every company should establish its own criteria for evaluation. If for example a company has a very precise idea of how its processes should be reflected in the PDM program, then a program that is

**The implementation of PDM requires expertise in various fields: the project leaders are the bridge between the knowledge available in the company (orange) and the know-how of the PDM supplier (shown in blue)**

individually tailored to these requirements will be suitable. On the other hand, firms that want a standard solution that can be quickly implemented will apply other assessment criteria. As the interests of various departments in the company have to be taken into account, it is often not easy to identify a clear favourite. In order to be sure to make the right choice in such an important decision, some companies test the best candidate(s) in a pilot phase.

### Implementation

Once a program is selected, a contract has to be drawn up which describes deliverables and deadlines as accurate as possible. The more customised the PDM solution, the more carefully the contract should be formulated in order to avoid later conflicts. These often arise from different expectations of the two

parties where the terms of the contract leave room for interpretation. The goals and the corresponding time table of each implementation stage must be realistic. For instance it makes sense to integrate the members of a buying agency in the Far East via PDM only after the system runs smoothly at the headquarters. It is therefore advisable to introduce PDM in separate phases with precisely defined milestones.

## Project management

A PDM project consists of many tasks. If several departments are to work with the PDM program, it is sensible to build a project team. This team is made up of at least one member from each department and one IT representative. The more employees and departments are involved and the more complex the organisational structure of a company, the more likely it is that the project responsibility will be shared by several people. A major factor for the success of the introduction of PDM is the competence of the team. It is the team's responsibility to prepare each project stage and to ensure its timely implementation.

The project leader has a special role. The ideal project leader should have knowledge of the

Checklist for the introduction of a PDM program constraints:	
<b>Constraints:</b>	<ul style="list-style-type: none"> <li>- Clarify the time constraints</li> <li>- Budget costs</li> <li>- Identify goals</li> </ul>
<b>Project team:</b>	<ul style="list-style-type: none"> <li>- Build internal team with members of each department and technical staff</li> <li>- Seek external help</li> <li>- Establish responsibilities</li> <li>- Ensure availability of time</li> </ul>
<b>Analysis:</b>	<ul style="list-style-type: none"> <li>- Analyse the current processes:                             <ul style="list-style-type: none"> <li>- Work flow</li> <li>- Special requirements</li> <li>- Weaknesses</li> <li>- Opportunities for improvement</li> <li>- Existing hard and software</li> </ul> </li> <li>- Interfaces with existing systems</li> <li>- Take into account the company's strategy for the future</li> </ul>
<b>System selection:</b>	<ul style="list-style-type: none"> <li>- Formulate functional requirements</li> <li>- Check for possibilities to standardise processes</li> <li>- Narrow down potential suppliers</li> <li>- Assess program demonstrations</li> <li>- Possibly carry out pilot projects</li> <li>- Formulate and agree on goals with supplier</li> <li>- Fix contract terms</li> </ul>
<b>Implementation:</b>	<ul style="list-style-type: none"> <li>- Plan step by step introduction</li> <li>- Implement realistic timetable and resource planning</li> </ul>

specifics of the company and the sector, IT knowledge, the ability to think in abstract terms and experience with IT projects (see chart). A further condition for successful project leadership is that enough time is allocated to the project. For this reason, companies often use external help to support the PDM project. Such help is offered by independent consulting firms. A PDM project is usually carried out in a company in parallel with the operational business. It is important to have realistic expectations for the time required of team members, for example for project meetings, training and test phases. The amount of time required for the introduction varies substantially for different programs. The implementation of standard software needs less time and work input from staff than a program that is fully customised to the organisations' requirements.

Every manager must be aware of

how important the motivation of employees and later users is to the success of the PDM project. All those involved should therefore know the value of the PDM program. Understandable fears that often come with rationalisation must be allayed. Investing enough time and effort in the definition of requirements and the choice of the «right» program will provide the best conditions for a successful introduction of the PDM system.

*Margot Schubert*

### Part 2

The second article of the series «Introduction of PDM software» with the title «PDM solutions and the headache of making a choice» will appear in **textilenetwork**, edition 1/2-2005.

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