

Specially for the roll or merely off the peg?

Andreas Becker

The classic all-rounder or preferably a sector-specific software package: anyone looking for a suitable Standard ERP (Enterprise Resource Planning) System reaches this very crossroads sooner or later. The example of Swiss company, Perlen Papier AG, in the roll-producing industry shows where the important differences lie.

“Nearly all the big names in the ERP market have a business management background, but are weaker in the production-support functions — however, we earn our money primarily in the production shops“, stresses Jürgen Stokowy, who has been at Perlen Papier AG (PEPA) for some 15 years and is now the company’s logistics manager. “The mechanical engineering systems have been dominant on the PPS side for some considerable time, though. These involve putting something together more or less from different modules and individual components. We, on the other hand, have a recipe, manufacturing paper in a four-shift Operation and thus also put something together. However, when everything is finished, we drop it again like a flower vase: the drum is made according to the customer’s requirements and dismantled into a large number of individual rollers.“

Making one out of two

In 1997, the Perlen Group, based in the Canton of Lucerne — the company is named after the idyllic location of the



PEPA – a view from the air.

company’s head office — decided to purchase a sector-specific ERP software package. The home-spun applications used up to that time were replaced by PP_mate, the sector solution for the roll-based industry from Meinikat Informationssysteme. Its special feature is that both PEPA, a manufacturer of magazine and newspaper printing papers, and the affiliated company, Perlen Converting AG (PECO), specialising in the processing of foils for medically and technically demanding areas of application, have been working with one and the same software package ever since; the different parameterization of the two customers alone enables the mapping of the processes, which are so fundamentally different in many aspects.

“In principle, we start where the processes for paper production end“, explains Rene Kuhn, Informatics Manager at PECO. “We process foils in a three-shift Operation by putting some of them through coating machines

several times. Mapping the individual roller movements is itself a very complex requirement, which only exists in this form in foil processing.“

The devil in the detail

And with that he also finds himself right in the middle of the discussion surrounding the specifics of the sector and how these can be mapped in an optimum way while also being economical. One of the main challenges in multiple processing is to carry out the ‘volatile interim stages‘ without changing the product identification so as to avoid making the volume infinitely larger; the same applies to the production notes, which PP mate solves by means of so-called gateway temporary production notes.

Paying for raw materials — not water or containers

In paper production, Perlen makes use of important functionality such as the handling of raw material procurement.

Because of the large quantities purchased, the moisture, for example, of the wastepaper and wood delivered is measured, so as to avoid paying extra for the water contained in the material. The ERP's direct link with the laboratory makes it possible to convert measured and calculated quality criteria, such as ATRO (absolutely dry) and LUTRO (airdry) goods, into accounting factors straightaway. Parallel to this, well-conceived processes linked to weigh-bridges ensure that the net weight is determined precisely, taking account of incoming and outgoing transport containers. All this leads to immediate credit invoices which can be handed to the suppliers and/or forwarders on the spot.

Ping-pong with the laboratory

The inter-linking with the laboratory is one of the numerous highlights of the ERP at Perlen. When the master roll, known as the drum, covered with paper and weighing dose to 40 tonnes, is taken from the machine in the paper factory, the system transmits the online data of the completed production directly to the integrated laboratory module for quality control and traceability. In the twinkling of an eye, it can be determined whether any fluctuations or variations have occurred in the production process. Any moisture or whiteness of profile variations determined over the width or length cause the processing to be halted before finishing.

These inter-relations are even more complex on the other side of the grounds, where the foil-producing affiliated company is based. Here too, however, production and the laboratory work together in perfect harmony. In all cases, certificates can be issued in accordance with ISO 9000, as can external certificates according to the customer's needs.

Process costs under control

In Perlen, PP_mate is used primarily as a PPS system. The Meinikat software comprises product pre- and post-calculation as well as the necessary evaluation procedures. It gathers and manages the base data from the areas of purchasing, production, logistics and sales and forwards them to the financial and cost control tools for further processing. A basic accounting model has been progressively developed by cooperation between Perlen and Meinikat which has reconciled the objective process data on the one hand (quantity schedule) and the accounting needs of the Perlen Group on the other hand (evaluation schedule).

On the fiscal side with financial accounting and cost control, Perlen has opted for the linking of the Swiss products IRIS/400 and KORE. The background to this was, firstly, the desire to introduce a financial accounting System which was developed for the Swiss market and has no problem reproducing the specific national features of Switzerland with regard to accounting and fiscal law as well as other regulations. "We never considered anything else because it was essential to cover the prevailing local conditions", explains cost control manager Markus Keller. Secondly, Perlen had developed its own company accounting system over the years to fulfil specific business administration needs. These went beyond the PP mate standard and could therefore only be catered for in conjunction with the KORE System.

User profile

The company Perlen Papier AG, founded in 1872, is today one of the most important producers of magazine and newspaper printing papers in the Swiss paper industry. The distinguishing features of the independent family-run business, which

is part of the CPH Group with 400 employees, include its strong customer orientation, rapid decision-making channels and consistent ecological behaviour. Combined with high-quality products, these characteristics represent a solid basis and guarantee for the continued successful development of the Perlen production location in the future. Perlen Papier AG produces around 280,000 tonnes of newspaper and magazine paper per year using what are some of the most modern machines in the world.

The know-how and competence of Perlen Converting AG is in the foil coating segment. For years now, the company has focused on the production and marketing of barrier foils for the pharmaceutical industry as well as silicone-treated foils for medically or technically demanding areas of application. Under the brand name PERLALUX, Perlen Converting supplies the pharmaceutical industry with a wide range of blister foils from PVC monofoils to high-barrier foils with 120 g PVdC coating. The second product group under the name PERLASIC includes silicone-treated foils with different backings. PERLASIC is likewise aimed at customers in the medical field, e.g. for covering transdermal plasters, cardiac electrodes and ostomy bags, and is also used in the technical domain.

ERP as the central platform

"There is hardly anyone among the 480 staff at Perlen Papier and Perlen Converting who does not come into contact with the System in some way", says Jürgen Stokowy. "On the machines in the production plant, in the sales department with its very sector-specific requirements, in general purchasing or in the buying-in of raw materials, in the incoming goods section, in dispatch or in the warehouse - you can see the green monitors everywhere. We will probably be exchanging these shortly for graphics-capable Java clients with

Windows look and feel in a modular way and where it appears advantageous for the users.“ Some time ago, a Management Information System (MIS) was added at the decision-making level, although PP_mate does offer a statistical data warehouse. In addition to the operational data from PP mate, the Cognos MIS also receives data from IRIS/400, KORE and other applications, thus forming a general ‘overall cube system’ with correspondingly diverse evaluation perspectives.

The DP platform at Perlen

The Meinikat ERP system and its central expansions run on two parallel IBM AS/400 servers, model 720, which are synchronised using the Duplex method. It is planned to purchase an eSeries i5 520 at the beginning of 2005.

Not inconsistent with Best-of-Breed

It has always been the practice at Perlen to use the best solution for each area of the company. The example of waste material optimisation based on a software package from MAS — presently TietoEnator MAS — demonstrates that this principle can also be absolutely compatible with a complete solution. The special solution controls the efficient cutting to size of the ‘long x wide’ material by facilitating customer needs with as little material loss as possible caused by cutting the rolls and in conveniently combined production blocks. This very useful and extremely specific application was already in use prior to PP_mate and was then subsequently integrated into it. Today, the PPS data are channelled via a loop, enabling them to reach the machines in an optimized layout and cutting pattern.

The situation is similar for a freight exchange established at PEPA via a system supplied by Transporeon and linked to the central solutions. It takes

the form of an Internet-based tender platform which enables a selected group of forwarding agents to bid for freight consignments.

“Applications like this are very specific and can therefore not be expected from an ERP System per se“, stresses René Kuhn. “In this case, the best-of-breed concept requires having the core processes under control with the central system and purposefully complementing all the highly specific solutions.“

Dissimilar conditions.

The Perlen Group was involved in the development of PP_mate; the paper and foil production processes have, as described, been adapted in detail in both companies and reliably map the critical areas. Even though the dissimilar conditions in the personnel capacities of the affiliated companies have led to the level of maintenance and expansion being rather more advanced at PEPA, both sides stress that the system is 100% parameterizable and beneficial to them. As René Kuhn comments: “Of course, any System is only as good as the time that can be invested in it; however, we have lacked the resources up to now to keep pace with growth.“

What would the alternative be? The differences from an ERP system, as also used in its rudimentary form in furniture factories, by injection mould producers and in trading groups, are obvious to him: “Most of these solutions have covered the financial area very well, including goods management, but the more they get into the process-oriented domain, i.e. production and logistics, the more additions and adjustments have to be made, or even entire re-programming. With regard to the installation, we did not proceed from the business management aspect adopting the approach of ‘production, look out for yourself!’ but,

rather, that everything must be just right in that area where we make our money at the end of the day“, Jürgen Stokowy continues. On the other hand, he is very aware that Perlen’s needs with regard to the finance system made it necessary to develop an individual national EDP system and the additional software already described for the area of cost control. However, it was possible to find an optimum solution to this via interfaces thanks to the open PP_mate architecture. Because the ERP supplier knows the problems facing its client, it recently offered a continuation of the project work in order to generate a breath of fresh air and new satisfaction with additional functions like credit control, commission settlement for agents, an order optimizer, a historical costing database and graphical interfaces in addition to training and the optimisation of existing systems.

Subsequent costs

“One of the problems with the allrounders is that they often fall a bit short in detail in the core areas essential to us and also, of course, that it requires a high financial outlay to set the endless number of cogs of the standards in such a way as to map the user company’s requirements in a reasonable manner“, emphasises Jürgen Stokowy. “This task is not normally carried out by the software supplier or the user, but rather it is done by specialised management consultants called in at great expense.“ And the more people that can make money from such projects, the bigger the flock of advocates of such solutions will become, he argues. “At the end of the day, however, each company deciding on the introduction of a new solution must also calculate all of these ancillary costs, which often turn out subsequently to be the main costs in reality.”