

## The Somewhat Different EDP-System for the Paper Industry

An interview with Dipl.-Ing. Lutz Meinikat, Meinikat Informationssysteme GmbH, Hannover

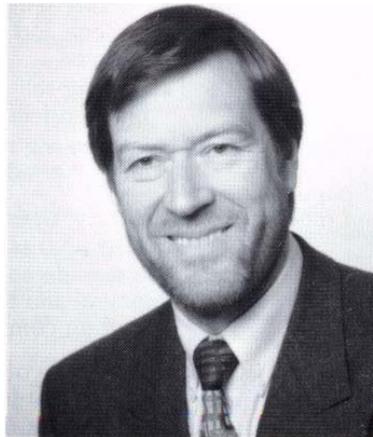
**apr:** In your programme you don't refer to individual solutions which are combined into a System but to a single, homogeneous and logical EDP-System. We should talk about what is meant by this. Therefore our first question would be: How do you proceed when giving advice to a customer?

**Meinikat:** You are right, a Software System which does not serve individual divisions but covers the whole Company must be handled and approached in a different way. We found out that in first place understanding and confidence must be achieved with the managers, since the necessary agreement and harmony of all divisions can only be obtained with their authority. A "general agreement" is compulsory for an overall System and is of course not to be realized at the level of division managers or officers in Charge, I know of course that competitors in the acquisition stage try hard to produce agreement and enthusiasm. We however are only striving very intensively for the agreement of the divisions and officials in charge when dealing with the project itself, in order to achieve the motivation for a successful project and long years of successful utilization.

**apr:** A "grain of salt" for the people is that they think they must do something, they are not able to or don't want to. Opposition is often there. But if you show them, that they will benefit from this, it will be easier?

**Meinikat:** I sometimes have to do with resistance and Opposition, which is based on poor experience made with other programs. The times, when the introduction of an EDP solution was equated with streamlined modernity and was much acclaimed are over and done with. In addition, the demands placed on an EDP-system - initiated by the media and by advertising Statements of the whole information business line -

have increased a lot. Nobody will "get down to grass roots" any longer today and where experiences have been made with Systems not matching the organization structure, people are rather reserved and cannot be got round.



**apr:** How many people are working here and do you work out the programs in all detail?

**Meinikat:** We are 12 people here in Hannover with whom we are coordinating the paper-specific functions in manufacture, calculation and storage control. Moreover, we have been cooperating for almost 15 years with a leading Dutch Software House in Den Haag, offering with its staff of 80 an international Software System for goods handling, marketing, bookkeeping and statistics. These are functions which must not necessarily be tailored and linked to paper, but which are used vice-versa by each paper mill. We have "fine-tuned" our development work in a way that we can offer together a highly integrated overall System for the following operational areas: Sales, purchase, material handling, storage control, production planning, BDE, quality assurance, calculation, cost System, financial accounting and statistics, which is both absolutely "paper-centred" but also wide-spread, internationally.

**apr:** You say that you don't make available isolated solutions but only integrated solutions. If anybody wants to have organized his storeroom, only, is this feasible or would you say "no"?

**Meinikat:** As much as a Company is a homogeneous, integrated "entity", a Software System must be, too, when aiming at "handling" the Operation. You can, of course, dispense with some functional procedures such as the calculation of costs or quality assurance, if you think that you don't need them. But on principle, causality must be maintained. We are not in a position to "eliminate" key functions. If you want e. g. to have available our calculation Software, this is not possible without PPS, on whose formulations and working programs it is based.

**apr:** To make it quite clear: You would not agree to waste optimization as an individual solution?

**Meinikat:** We would have to refuse such a project, indeed. Our own waste optimization System is matched and tailored to the whole production context in a way that neither complicated and difficult data input nor expensive interface programming would be in a position to re-stimulate its original "charms". But I must also deal with the retort of your question: You know that a renowned waste optimization System is available on the market which has also been spread in the paper industry. Integration of the latter would, of course, be possible if all the other tasks and duties would be assigned to our System. Thus, sufficient "integrated substance" would be left to include and utilize such an external System. You will agree, that we also know the art of compromises to some extent.

**apr:** You consider isolated solutions as alternative solutions. If you want to make good progress,

you would have to work your way through from beginning to end?

**Meinikat:** This is correct, and "beginning" and "end" are even included in the same "closed loop". I mean that the Sales Division collects Orders, directs them to the mill and invoices them in the end when they are leaving the mill. This is, of course expressed in a short formula, but you reasonably produce what is needed by the customer, so that sales are in the "fore". We transfer the sales Orders to production planning, prepare manufacturing Orders, combine them into optimal manufacturing batches (perhaps by including waste optimization), produce a calculation of the historical costs in form of a target/actual output comparison based on the motto: "What was ordered and what was produced", give rise to quality tests at the appropriate spots etc. All this is based on the same master files and on the same activity files. Since it is, indeed, always the same product which is being made. The question however is, how the whole can meet the diverse functional requirements in an elegant way, and we think, that there is nothing better than a common, uniform data base and a common and good logic. That's how we came across integrated systems. It is sometimes difficult to defend this idea since there are businesses based on different systems which the company wants to retain, but they also would like to solve other problems together with us.

Let's quote another instance, apart from the a. m. waste optimization: i. e. quality assurance. Some time ago we thought, that our basically complete software system could be combined with the quality assurance and documentation systems available on the market. But we have found out, that this is not feasible! A paper product to be made needs its own formulation and its own working plan as well as its own test regulations. These should, however, not be deposited elsewhere so that re-defining of all products there would be necessary. We have, therefore, stored the test regulations in the same data bank where the working plans, formulations, packaging specifications and processing regulations are stowed away. We would, however, call ourselves

liars, when offering and supplying this quality system as an "island" solution without PPS-connection.

**apr:** This is for you a thorny way, isn't it?

**Meinikat:** It is a thorny way when taking into consideration that certain functional areas have already more or less been solved in the form of "islands". On the other hand, we fail to see why we - in the interest of the customer - should impair and deteriorate an elegant solution by giving due consideration to existing isolated solutions. You definitely can talk customers over to our way of thinking, that outfashioned things which were useful, formerly and are now obsolete, should be replaced by a homogeneous overall solution. However we often find - unfortunately - isolated solutions, which have just been purchased. And if we don't keep watch and ward, special islands are even created running parallel to our overall solution, mostly in PC workstations. This is frequently done by interested people who want to have at their personal disposal production data - i.e. who want to have available a private information data stock. And here we come back to the flashpoint of our discussion: It is indispensable to achieve a previous consent with the management on what kind of database organization and data processing is requested or not.

**apr:** How do you get along with the staff members?

**Meinikat:** Our main task is of course, to serve the company as such, i. e. to "have a way" with the company itself. This however involves that we must strive for success-centred relationships with all specialized divisions within the scope determined by the management. This is a notable success, since we don't appear as computer scientists, but as experts who understand the "paper functionality". Those who have to do with "paper" themselves - be it in sales, production or in the storeroom - realize that we are able to verbalize their tasks and duties. We can, by good rights, work from the principle that the staff members have been doing their job well, and for years. But the formulation and verbalization of their doings is often difficult, mainly when EDP-

appropriate exactness is required. This is now our task and at the same time our strength: We verbalize what is happening at the workplace and what production flow looks like and, thus, obtain on the one hand the acceptance of the staff and on the other hand the convertibility into an EDP-system. We are always getting along well with the technical staff. It is also easy to get on with the computer scientists or EDP-experts, if they also understand themselves as "serving" the business. Then we are speaking the same language. If this is not the case, and if EDP-vogue words are brought to the fore, such as "graphic surface", "client/server", "data-warehousing" etc., then conflicts may arise.

**apr:** You must, of course, have detailed knowledge of the special subject, since, otherwise, works managers may deliberately suppress important facts, because they want to guard and protect themselves or their position.

**Meinikat:** I agree that there are protective mechanisms everywhere and that unbiased talks at all levels are hardly possible any more. A manager whose task is to "manage the business", but who shrinks from making decisions in this field unfamiliar to him, often refers to Mr. XY, who is responsible for these issues. And this is often a young computer scientist, who is competent and an expert in his field, it is true, but on the other hand does not know the required functions of a paper mill and is not competent to make a decision. Then everything is at a dead set, the software is regarded through the "computer scientist's eye-glasses", sometimes mixed with very private motives. And bloated EDP divisions are not always glad about "functioning" software, easy to handle. This is the reason why in the first stage we have to rely on and stick to the management level: There, we must verbalize and formulate our service offer, obtain understanding and confidence and point out clearly the pros and use. With this authority behind us and with the expert knowledge recognizable for our auditors we don't have the problems any longer which you mentioned before.

**apr:** This means that your advisory service takes up much time before

you will be able to install a computer?

**Meinikat:** For answering this question I must explain some more details of our concept. Before we started with software, we had been engaged for years in an advisory service, not only for the paper industry but also for the nonwovens, foils and packaging industry. These are industries engaged in chain production and handling formats and reels.

The generally accepted facts and figures filtered out and extracted from these experiences were introduced into the software, i. e. using our software means, as we call it, "coded management consulting". Based on this, we listen to the problems, discuss them and - thanks to the generally well functioning communication with our staff - lay our fingers on the point at once. We are not sitting down, analysing, writing and discussing for a whole year before we match our words with deeds. We don't install a software and leave a manual to our customers, either, telling them "Now try to find out, what will be best for you". If a project is completed, it has also been discussed, demonstrated, optimized and deemed good, so that commissioning will not involve any surprise.

**apr:** Based on your experiences you see definite solution possibilities which you develop in discussions?

**Meinikat:** The term "coded management consulting" mentioned above is enormously important to me. The software available on the market today is of inconceivable variance. This amplitude of variation is meanwhile requested by the companies without differentiation what functions are "paper-relevant" or not. The pressure of organizing things on our own is enormous today. We must, of course, follow the trend of the times to a certain degree; we, too, must provide configuration versions in our software systems. But - and this is where we absolutely make a halt - we must not break the "back" of our software. The "spine" of our software is the paper industry, and there are definite essentials which must be observed. If somebody has some clever functional or configuration ideas, all the better.

But if these have nothing to do with the paper requirements, I don't want them.

**apr:** You definitely should go further into this matter. From my own experience, I would interpret as follows: As soon as you have bought a software, there will be a better program available. And in the end you have things which you will never need. People who are fascinated by this will get into a whirlpool of new ideas and often won't find out again.

**Meinikat:** I can't give a better answer, either. There are, of course, different products, different processes, specific diversities, but they are all finite. If a software with too many parameters is made available now, where the "hardwired paperspine" is missing, the break-even-point of yield/expenditure will be exceeded. It is no longer transparent, what possibilities are incorporated in the software system and how they are tailored to the own business in an optimal way. If software offers optimum variance, we have not solved the problems, but we have created them. We can work against it when concentrating on industry solutions (in our case on the paper industry) and when meeting the user as an advisor and not as a computer scientist. The result of our "coded management consulting", therefore, is that you can't construct radios and cars with our software, but you can produce and convert paper. Thus we have not devolved the responsibility for the functioning of our software on the user but, deliberately, have put it on our own shoulders.

**apr:** And how does it work in the reverse case?

**Meinikat:** You mean, what would happen if I offered a highly configurable software system (if possible including the complete surface), without supplying advice or instruction? Then I would put the responsibility for the proper operation on the customer's shoulders. I would not have done him a favour, but would have only created a problem.

**apr:** It is not easy, as a user, to get back from a software everything I need and to cancel whatever I don't need.

**Meinikat:** Despite of my plain words I said before, we just cannot supply an outdated software. We cannot make available a hardwired software as it was common practice some 20 years ago; we, too, have included a multiplex variance, without however losing sight of the "spine", i. e. the paper industry. We already mentioned that - for reasons of integration - we also offer a bookkeeping system, which has nothing to do with paper, but cooperates extremely well with our manufacturing and storage modules. And this bookkeeping system works with bookkeeping keys, accepting each transaction (as we call it) and placing it to deposited accounts. It is up to the user to see to it (with our help, of course) that the sales definitely end up on the active account. Only then a correct turnover-tax return or balance sheet can be produced. But if I misapply the configurability of the programs, I will create an absolute nonsense-bookkeeping, and then we will get some reproachful words from the same users, who had asked for this configurability, before. It is a tightrope walk to supply as much configurability to the user as he can reasonably use and to save him as much configurability as would exceed his abilities.

**apr:** Can it be that you initiate modifications in a business, e. g. to reset and re-arrange machines and to rebuild or re-equip storerooms?

**Meinikat:** To such an extent as it was asked for. We practiced an example for your question, recently. On the occasion of an EDP introduction project, something became apparent which we knew, previously, but which we did not change: The production procedures were too complicated; Work started at the left side of the factory, was carried to the right side, was finished and carried again to the left for final finishing. Our project work has increased our awareness for this in a way that machines were, indeed, reset and re-arranged.

Our calculation systems eject and reveal e. g. in terms of time and money, what an elegant and what an unelegant production flow would be.

**apr:** Can you quote an instance for "configurational" re-arrangements and conversions?

**Meinikat:** Yes, I should like to mention an example from Papierfabrik Schoellershammer. Traditionally, work there was based on what I call the "push-principle". The paper machine is run continuously, and this involves a determined output which will have to be converted into different products. In the past, this was controlled by experimental experience, since the number of products was somehow finite. But we now live in times of individualization, everybody wants to have products tailored to his needs. This is not only true for the software, but also for paper. It means that each company wanting to subsist and exist in the market will have to cope with an increasing number of finished products. We are, thus, getting away from the situation where all products can be stored in the requested quantities. That's what the paper industry meanwhile does by mainly producing the customers' orders. The consequence however is - and I will now come to the "pull-principle" - that the customers' orders with their well-known products and product quantities will "entail" the production of semi-finished products. Thus, the demand of pads, drawing and writing papers initiates the consumption of large-size papers, of jumbo rolls and last but not least of cylinders. The paper machine, thus, no longer "pushes" paper into the factory, but the appropriate grades in correct quantities are "pulled-out". I was lucky enough to be able to carry out this conversion from the "push-principle" to the "pull-principle" with Messrs. Schoellershammer, entailing the positive result that the temporarily stored quantities were reduced, the required preliminary materials were available right in time, availability and traceability were improved and the in-plant ways of transportation were reduced.

**apr:** I know this from other companies, too, where the wholesaler was told - at the time when the order was given - how many orders are available for a determined grade and when they will have to be produced. The PM only manufactured what was ordered and not, what a "master"

believed to be necessary, now. It goes however without saying that a certain system and order should be maintained, if ever possible, e. g. in raising or lowering the grammages or inks.

**Meinikat:** There will, of course, always be some standard products the delivery of which will be done automatically and regularly. This is quite o. k., but as soon as variance is at stake, you definitely must know the customer's order. Then you "only" will have to make a neat job of the high-wire balancing act, on the one hand to supply the appropriate products at the right time and in correct quantity to the customer, and on the other hand to observe, if possible, the strategy of the production schedule.

This means, that despite of all this, work is done in a sequence of optimized set-up and change-over time, and an economically justifiable tonnage is produced. Customer's rhythmic and production rhythmic often stand in each other's light. It is quite obvious that there must be a readiness to compromise. The customer must probably agree to putting off the delivery from one week to the next, and production planning must perhaps only provide 15 tonnes instead of 20. The task is to satisfy everyone, if possible. And to come back to what you said before, this is no longer possible with individual "master-heads". This necessitates EDP which however must be able to think like a "master-head". It must be a paper system and not a system of the "1000 locking screws".

**apr:** But it must also be a system which takes specific things of the company and the staff into due account.

**Meinikat:** This is, of course, correct, and that's why I chose the metaphor of the "master-head". A master, indeed, manages and controls his factory in full possession of the company's conditions and given facts, the product's special features and the staff. And that's what I expect from an EDP-system, no whimsy logics of computer scientists, no special operating systems, but only competent correlation to and coordination with the factory and the staff.

**apr:** I think that apart from purely technical facts and figures sometimes specific humane interests and concerns will have to be taken into consideration, and a factory in southern Germany must, perhaps work in a different way than a company in northern Germany, not to speak of foreign countries.

**Meinikat:** You are right. I don't know, whether this can geographically be classified, but certainly quite individually from business to business. At the beginning of my professional career I once experienced what a wrong opinion on the relevant necessities and needs of an operation respectively its employees can bring about: A blank form with squares and arrows which I had designed was handed over to the staff of a concrete slab manufacturer to be filled in, daily. One of them looked at it in wide amazement and said: "Marvellous, now we will all be business people."