



ADAPTED FOR HÜHOCO

Flexibility for specific processes



THE ADAPTED ERP OF THE HÜHOCO GROUP

FLEXIBLE IT-SYSTEM FOR SPECIFIC PROCESSES

The example of the Hühoco Group in Wuppertal shows how important it can be when an ERP provider prepares for the processes of the potential user as early as the presentation of the system. „Off the peg“ does not always fit, as is the case with the medium-sized company from the Bergisch region in Germany. The Hühoco Group from Wuppertal, whose focus is on the processing of so-called metal coils, manufactures with a very high degree of specialization, like many German medium-sized companies. Experience has shown that the term „coil“ is not familiar to most people, which is why Hühoco gave the three potential suppliers the task of placing this coil at the center of their respective product presentations before selecting the new ERP system. Hühoco's IT managers Klaus-Peter Schönfeld and Mike Schirrmacher explain in an interview how they were able to choose the right ERP provider.

Klaus-Peter Schönfeld and Mike Schirrmacher, you are the two people responsible for IT operations in the company. What are your areas of responsibility? MIKE SCHIRRMACHER: I come from the IT sector and have already been involved in ERP implementations and programming. In 2008 I was hired to support Mr. Schönfeld. We have not explicitly divided the work areas, but both cover the entire spectrum to a large extent: this includes first and second level support and, to a large extent, the further development of our ERP system.

KLAUS-PETER SCHÖNFELD: I have been with Hühoco since 1991, when I was still a trained materials tester. In 1997, I first qualified as a tool technician and then completed additional training as a quality management representative (QMB). With this know-how I then took over the management of quality assurance.

In 2007 the company management asked me to take over the IT management. At that time, we were running a rather outdated ERP software. A unix-based accounting program from the seventies, which only had a rudimentary command of merchandise management. The goal was now to replace it. The documentation was also rather poor, so that even the creator and only programmer of this software often could not identify the sources of errors.

How did the selection process for the new ERP system develop? SCHÖNFELD: The selection process was already ongoing in 2007, when I was assigned the IT management. The decision to select a new system was then already more than overdue. In cooperation with all departments, we then drew up a specification sheet, which enabled us to determine the future target state of the software. Of course, many wishes and requirements were first formulated, which we then sorted by importance. It was soon clear to us that the system should already cover many standard functionalities in its basic configuration. Because with the previous software, important functions had to be programmed in with Excel or Access in addition. These in-house developments were largely my own - I think that's why I was given the responsibility for IT management.

Could you perhaps describe Hühoco's field of activity in a little more detail? SCHÖNFELD: Hühoco manufactures coated metal coils at its location in Wuppertal. Namely in different sizes, thicknesses, strengths and widths. One can imagine oversized Tesa coils, on which aluminum or stainless steel serve as carrier material. The coating is in the μm range (between 6 and 150 μm). In this so-called coil coating process, a rubber roller and the steel strip to be coated rotate in opposite directions. A steel roller sits above the rubber roll-

er, and between them is a layer of varnish, which is applied to the metal strip in accordance with the set gap between the rollers.

Our products have the characteristic of adhering to a rubber or plastic in an extrusion process and are mainly used in automobiles. The result is a sandwich of metal carrier and rubber or plastic. We also develop systems ourselves for new plastics coming onto the market. With this development we are actually the market leader in Germany and Europe. And then we also manufacture some decorative articles, some of which are only provided with adhesive on one side, e.g. decorative trim strips for car doors. However, we do not produce the decorative trim, we only manufacture the metal strip that we send to our customers, who in turn supply the automotive industry. On the underside of the trim strip there is a plastic bonding compound that bonds with the plastic in the injection moulding tool without the need for screws or rivets.

Finally, the gumming of metal strips is also one of our activities. Our customers use it to produce cylinder head gaskets, air conditioning gaskets, transmission gaskets and other secondary gaskets. These are also used in the brake sector, where they serve to reduce noise. We even have our own brake test stands for the development of these tapes.

And are there any other product groups?
SCHÖNFELD: Yes, such as window trim, window shaft seals, rubber seals in the trunk area or the seals of engine hood flaps, which all have metal cores. Principally, you could say that we are installed in almost all automobiles - for example, also in the chassis area with formed parts. So it's not only endless coils that we produce, we also take over parts production in cooperation with specialized stamping companies. This results in

the production of vibration absorbers, for example: Wherever control arms are installed, metal does not collide with metal, but rubber-metal composite products with intermediate bearings absorb the vibrations. The metal parts come from us and are provided with bonding compounds. The special feature is that the parts are punched and bent only after coil coating. Since this is possible with the rubber bonding compound we use, there is no need for costly subsequent piece painting of the punched parts.

Which ERP vendors were shortlisted according to your requirements?
SCHÖNFELD: We basically ruled out the „large“ providers from the very beginning. And then it turned out that it was already rather difficult to get a system that could be easily changed and that we could possibly adapt ourselves. In the end, there were only three providers left.

Which factors were the decisive ones in the selection?
SCHÖNFELD: The most important thing for us was the coil - that's what everything „revolves“ around. That's why we gave the three selected suppliers the task of explaining to us for the presentation what a coil actually is. By the presentation date one week later, everyone knew that it was a coiled metal strip. This has been good already. Two suppliers had also integrated the coil with a picture in their presentations. But only the third supplier had taken the decisive steps. He was able to show us a finished transaction around our coil in a test system. We use this transaction today to keep all the coil data available - it is basically the coil master management.

And which of the providers presented this?
SCHÖNFELD: That was the IAS GmbH. There the readiness was so high to think itself that deeply into our matter within one week. And the transaction presented did not only contain three or four fields, but had real functionality, including saving, selecting and entering of values. Some of the fields were even already monitored, so there were warnings in case of incorrect entries. For our perception IAS had really understood what we do and went into it exactly. The supplier made himself known, because he had never come into contact with coils before, and tried to answer our questions in his system. They were able to think their way around and quickly knew what actually makes a coil, they even learned the technical terms. About 300 to 400 pieces of data came together and from these they picked out the most relevant ones. And that's exactly how the presentation was made. This approach convinced us to choose them as our system partner.

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Isn't this a logical approach for all ERP vendors and even IT service providers? SCHÖNFELD: Yes, of course. Only those who move themselves, who look behind the scenes, so to speak, can make a difference.

You said that the large providers were dropping out right from the start, why? SCHÖNFELD: The systems seemed to be too rigid for us. It had to do primarily with the size of the companies behind the respective products, even though most of them are sold through partners. We feared that certain inquiries would simply take too much time. At the beginning we had the then still independent „Navision“ in mind. But when Navision was bought by Microsoft, it was dropped out for us.

SCHIRRMACHER: Yes, and points such as closeness, direct contact and the promised reaction times, which are definitely faster for smaller changes as well as for the overall project development, spoke in favor of smaller providers.

SCHÖNFELD: We can illustrate this with an example: We once discovered after a release upgrade that under certain circumstances certain transactions did not work. It was probably because the new interpreter produced an error. And only seven hours later we had a running interpreter again. The error was directly forwarded to the development department with highest priority and the repaired interpreter was then remotely installed into our system. This would be unthinkable with a large provider.

We notice that IAS wants to work together with its customers. So many customer adaptations are also integrated into the standard of their ERP system caniasERP. The users can therefore benefit from each other - almost like Open Source, but with fixed rules. The flexibility and the possibility to intervene if necessary spoke also for the software. Looking back, the speed with which we can create and correct functionalities and processes independently is the best thing that could have happened to us.

So you want to be able to implement things on your own? Or is a consultant of the provider necessary for this? SCHIRRMACHER: In the beginning, the adjustments were quite extensive, so the cooperation was very close. We were so involved in supporting the ongoing introduction phase that there was no time to participate in the developments ourselves. In the course of time, however, this effort was naturally reduced, which is why we were able to deal with and program projects ourselves. And now we can take over more and more of the work ourselves.

So this is possible with caniasERP? SCHIRRMACHER: Exactly. Also some other smaller providers allow this, but to our knowledge not to the same extent as IAS. We have access to the complete source code. Proprietary development is in no way blocked by IAS. At the same time, you can get support at any time.

Doesn't this lead to difficulties with release capability? SCHIRRMACHER: If certain rules are followed, that is actually not the case. This is because the changes are not made to the original source code, instead they are made by so-called overlays. Thus, the original remains unchanged and is only overlaid by the individual functionality. You always have the possibility to call the original code.

How much time did it take to internalize the systematics of your ERP system? SCHÖNFELD: Since we have been involved in the development of our system from the very beginning, we actually know how the cogs mesh. This now helps us to be able to carry out relatively complex programming and is simply fun. As already mentioned, we have purchased the entire source code for all modules. We can make changes quickly without detours, without loss of time and information and without misunderstandings. That is a real advantage. We started with the change of fields, in the meantime we can make more and more extensive adjustments. And currently we are taking care of integrating the remaining isolated applications into the system.

What are these, for example? SCHÖNFELD: Our calculation tool is of an older date and works with outdated basic data, which I am currently working on. We want to use our existing data matrix and the valid purchasing information data records to set up a preliminary calculation based on real values. And we are currently working on the QA area, because there we still have to maintain data in external, previously established databases, e.g. the blocked stock management.

SCHIRRMACHER: We didn't want to make things too complicated at the beginning, that's why we are proceeding step by step. So far, we haven't discovered any limits in our system, things are working in the third attempt at the latest. That is really great.

Doesn't that tempt you to make unnecessary loops sometimes? SCHÖNFELD: Yes, of course users want to have everything what is possible. Therefore, we first look at what is really necessary and reduce it to that. Of course, the focus is always

on weighing up the costs against the benefits. Of course we understand if a user doesn't always want to take five click steps in a particular process. But if the process is only executed once a month, five clicks continue to be necessary.

How did you proceed with the introduction? Also step by step? SCHIRRMACHER: In accordance with the operational process, the data flow was mapped successively from back to front. We started with financial accounting as the invoicing process, followed by package creation and feedback at the machines for creating packages in connection with production orders. Then purchasing, disposition and sales were added. It took us about a year and a half to get started.

Did industry functionality play a role in your selection process? SCHÖNFELD: For us it was important that the standard system already covers many functions. And the modular structure of our system is a great advantage here. We wanted a core system that could be used in the long term without additional isolated applications. In order to develop further from this basis, we were able to use a wide range of modules immediately and without much extra effort. After ten years of cooperation with IAS and through our adaptations, we have now created an optimal industry solution for us for all aspects of coils.

We showed the IAS consultants the whole process from the beginning. This included painting platforms and incoming inspection processes, how to perform tear tests, what chemical analyses are and how the analyses and the underlying chemical elements change due to the use of different base materials. IAS has internalized all these processes, which made common communication becoming increasingly easier. It is made up of the basic values of our technology and the language of programming. When we talk to the IAS people, everyone else at the table switches off because no one can understand us.

So a very extensive adjustment had to be made? Was there no alternative industry software from the fields of manufacturing, coating and/or metal processing? SCHIRRMACHER: We didn't find any software that would have made it possible to use it with only slight adjustments. It would certainly be nice if you only needed to integrate a few standards into the test tables or simply add an image or logo to print out the delivery bill, but that is far from reality.

caniasERP in turn is broadly positioned and represented the suitable basis for our precise requirements, on which we could build very well. It was

important for us that we did not have to adapt to a system as we would have had to do it with SAP, but that we got an adaptable software which we could turn into Hühoco ERP.

What adjustments have you made to the standard system? SCHÖNFELD: For example, we wanted to know when we received a sales order, when we had to order the prematerial and when which machine would be loaded to what expected capacity. That was one of the main tasks. On this basis, we started out with the standard. And since the ERP already had a scheduling system that could calculate across several parts lists and determine order times, we had very good conditions here.

We also wanted to create a production order using a work plan. We assigned a standard work plan to each sales material - that means we created new tables and assigned them to a material. The collected processes including the transports for the production of a material are defined via the standard work plan. This work plan is entered with variants, so that you can decide afterwards still on dispositive or capacitive factors.

Thus, it is possible that an order may not be completely manufactured in Wuppertal as originally planned, but instead our plant in Bad Salzungen will take over some work steps if these machines have been approved by the customer. Orders can be confirmed much more reliably and quickly because we can see the machine capacities as soon as the order is accepted.

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Topics like „Big Data“ or „Industry 4.0“ are on everyone’s mind. Is it also relevant for you to collect production data in order to be able to plan better in advance? SCHIRRMACHER: Yes, certainly. We have expanded our system from about 100 machine and work plan data to 500 to 600 in the meantime. The controlling department visualizes and evaluates all data collected by the ERP system during production. We are therefore able to determine our capacity utilization and the production status exactly. This also enables us to determine whether we are achieving our pre-defined performance and our stored targets.

Is it also thinkable for you to make data available to customers and suppliers, for example in terms of traceability? SCHÖNFELD: Particularly in my role as QMR, I naturally paid close attention to ensuring 100 percent traceability. It is also one of our guiding values to make our system transparent. This means that we can provide information at any time about the entire production process, right through to the receipt of goods and the order, no matter what reference a customer tells me regarding a supposedly defective delivery. That’s why it was also an advantage during the planning and implementation of our ERP system to have a process expert in the area of quality assurance and management. In my opinion, relying on a pure IT expert who doesn’t need to have a great deal of knowledge about processes and standardization leads to failure.

You have addressed the open source character of your system. Is it possible to create interfaces for docking external or proprietary software? SCHIRRMACHER: You always have to see to what extent the other party’s system is adapted. One of the two providers has to change or adapt. So one cannot speak of a fundamental standardization.

However, it can be said that although there are standardized interfaces, these have to be adapted again by each user. I cannot confirm the assumption that there are four or five communication protocols in the EDI segment, for example, that can be used without further ado.

SCHÖNFELD: By the way, we are currently participating in a standardization attempt, namely the ZUGFeRD initiative. We want to build up a large supplier in this direction. The first test PDF A3 files are already available.

Can you briefly describe the benefits of ZUG-FeRD? SCHÖNFELD: We already use the method between our branches as an automated intercompany relationship. For example, the user receives invoices for viewing as PDFs, and at the same time

the data is read into the system in a revision-proof manner because it is stored as XML in the PDF. I assume that this format will prevail in the future because no intermediate portal is required for the transmission of EDI data, as is the case with SupplyOn.

Is your IT centrally operated in Wuppertal? SCHÖNFELD: Correct. Our other locations are connected via VPN tunnel. The internal mail traffic runs through it, and the other branch also accesses some server drives. Here we have a 100 Mbit line, in Bad Salzungen it is 30 Mbit. So far there have been no disturbances.

Is the topic of IT outsourcing relevant for you? SCHIRRMACHER: No, not currently. That’s partly because of the availability of data at the location and partly because of data protection considerations. I don’t believe that externally operated IT can be so far superior to internal operations in terms of availability that you could derive great benefits from it. And the issue of data security is even more important: we want to minimize any risk by keeping the data in-house.

Suppliers respond that they can do this better and more securely than the users themselves... SCHIRRMACHER: Yes, that is a popular argument.

In the past, you couldn’t imagine how important the smartphone would become - can’t that also apply to cloud-based ERP systems? SCHÖNFELD: I currently don’t think so.

SCHIRRMACHER: I agree with that. It may be that we are still thinking a little too traditionally in this respect, but if we only look at the data incidents of the last 24 months, we see that the issue of data security is far from being solved. In my opinion, entrusting your highly sensitive data to an external provider still requires a great deal of courage.

Research and development, do you do it in isolated systems? SCHÖNFELD: We conduct research and development both here and in Bad Salzungen. Our paint development is located less than two kilometers from here in our ex-rolling mill. Yes, these systems are sealed off, the development data and recipes are protected in themselves. We have even taken the liberty of not looking after this area ourselves. In other words, we don’t know the system passwords ourselves and we don’t want to know them.

SCHIRRMACHER: The system is completely independent and not linked to our ERP system. We want to prevent external intervention.

So no universally propagated openness with constant communication via the Internet?

SCHÖNFELD: I won't see that until I retire, and I still have a few years to go. In my eyes, this openness is still quite far away.

What does this mean for the development of „Industry 4.0“?

SCHÖNFELD: One should question the motives, look at it realistically and put on the glasses of those who propagate these topics with hurrah.

SCHIRRMACHER: Actually, you could switch back to traditional letter post today, because e-mails are highly compromised. Even renowned security experts came to the conclusion some time ago, when even the German Bundestag and some large logistics companies were affected by IT attacks, that electronic communication should actually be completely shut down. Of course, this then rules out any consideration of opening up systems in the industrial and production sectors to the outside world unconditionally.

Of course, our customers also want to exchange data increasingly electronically. But that's more likely to apply to delivery advices or automatic order changes. The „big solution“ has not yet reached them either. And maybe that is a good thing.

As a final question: Do you see potential for improvement in your ERP system? And if so, where?

SCHÖNFELD: I can only mention the graphical representation. However, IAS itself knows this and recommends using an external system via ODBC interface (Open Database Connectivity). We use Qlikview here. This means that you suddenly have a comprehensive graphics and evaluation artist.

Our controlling department takes care of Qlikview with regard to structure and cockpit, while we are responsible for the functioning and maintenance of the database. You can visualize various evaluations in real time and change them quickly, you can take out and add months, look at specific machines separately, see which employee worked on which machines at what time. Although this could also be done with an ERP system, it would require a lot of programming.



