SUCCESS STORY

VALUE ADDED BY RELIABLE ERP INTEGRATION

WS CAD ELECTRICAL ENGINEERING

At a glance:

Customer
- HTT ENERGY GmbH, Herford
- Manufacturer of energy-efficient process heating and cooling systems

Situation
- Time-consuming need for coordination between Purchasing and Development
- Varying parts data

The solution
- Linking the ERP system to the electrical CAD software

Software used
- WSCAD SUITE
  - Electrical Engineering
  - Add-On PLM/ERPsync

Benefits
- Maintenance requirement for the consolidated parts master data minimised
- Data recorded once and used consistently
- Common component lists
- Efficient collaboration between Purchasing and Development
- Optimised reliable processes
- Less capital tied up due to reduced inventories

The objective of HTT ENERGY GmbH, a medium-sized manufacturer of individual process heating and cooling systems, was to improve customer satisfaction by speeding up process cycles. A key step towards reducing planning times and speeding up the project cycle was the integration of the electrical engineering environment in the ERP system. Since then, Technology and Purchasing have worked together in close collaboration, without any loss of momentum.

The design engineers from HTT ENERGY know what is important when it comes to the rising expectations of users and increasingly individualised solutions: their modern heaters, temperature control units, steam generators, heat exchangers and energy recovery systems require precise hardware configuration and electrical planning. They also need fast flexible tools which are linked together and guarantee consistent data flows.

Digitised processes, along with the exchange of process and product data between different IT systems, save an enormous amount of time and minimise the risk of error sources. In order to make optimum use of the electrical processes' full potential, HTT linked its WSCAD electrical CAD system to its ERP system from Karlsruhe company abas software AG. Data are exchanged directly via the PLM/ERPsync bidirectional interface from the WSCAD solution.

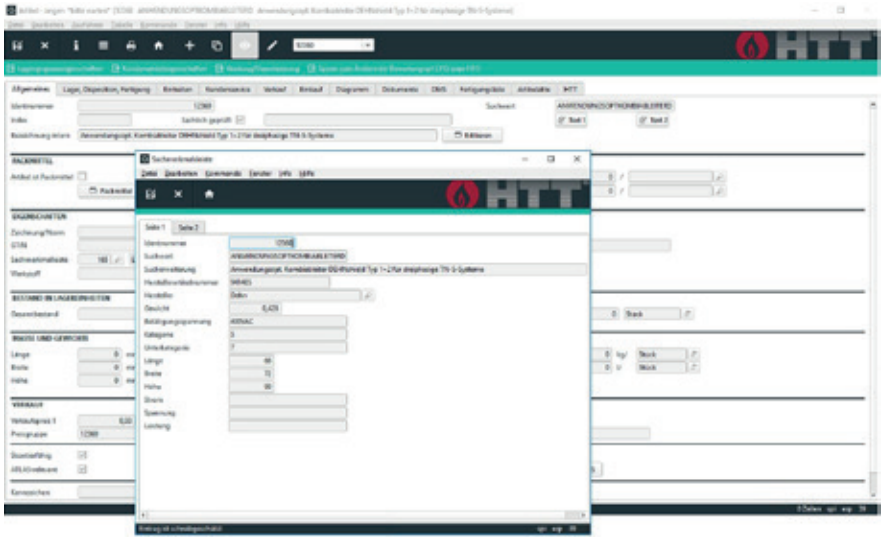
Transparency at all levels

Material procurement is based on current project parts lists. The prerequisite for seamless collaboration between Development and Purchasing is a common consolidated part master. Prior to system coupling, the developers from HTT exported the company's material lists to an Excel file which was recorded again manually by Purchasing. This time-consuming process is expected to be completely removed in the future.

> "WSCAD-abas integration has made collaboration with our colleagues in Purchasing so much more efficient and relaxed."

Another point on the modernisation agenda at HTT is the handling of complex processes. Thus one of the challenges was that some system modules had to be designed by both Mechanical Engineering and Electrical Engineering. For example, drives traditionally fall within the competence of Mechanical Engineering. However in order for Production to be able to see which drive was controlled in which control cabinet, the drives also had to be included on the circuit diagram. Therefore as a result, the drives appear on the

The source now used for part data is wscaduniverse.com with more than 1.4 million current symbols and parts data from more than 380 manufacturers.



Associated product specifications and technical attributes in the characteristics list facilitate and speed up part selection.

component lists of both disciplines. In order to make sure that Purchasing does not handle orders for such system components twice, components must be given corresponding identifiers which they always carry. When Electrical Engineering delivers its component list to Purchasing, the system deletes those items automatically from the component list before it is passed on to Planning. That way, multiple orders are avoided. The WSCAD component list remains unaffected by this deletion process.

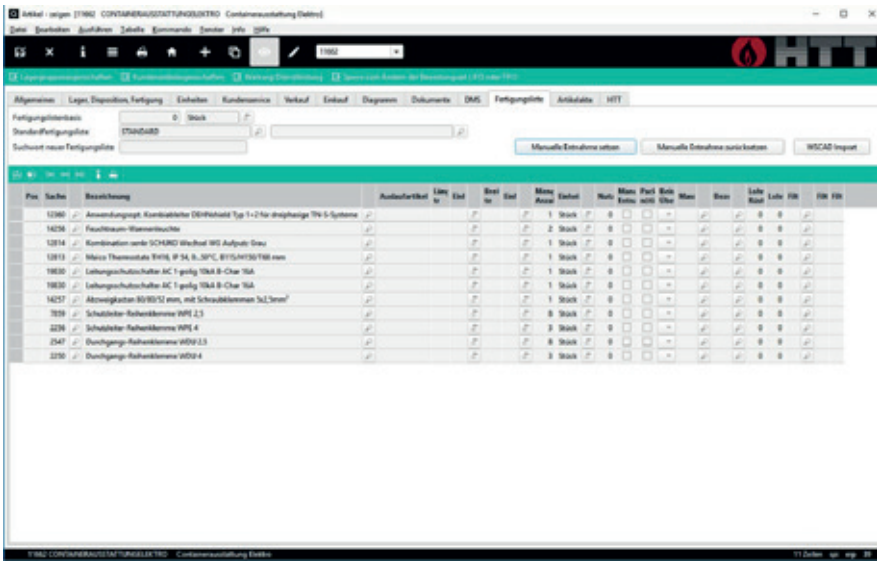
Maintenance requirement for part master data reduced to a minimum

The first step involved purging the existing WSCAD database in the performance specification of around 62,000 unused records. That included creating the part database based on the WSCAD software which permits the selected reading of component catalogues. In one fell swoop, the team streamlined its database to 1500 components from around 170 manufacturers. The HTT team were happy to bear the one-off costs involved in creating the part database as the quality of the data is outstanding, the maintenance requirement has halved and searches provide results much quicker.

The source now used for article data is wscaduniverse.com as the 1.4 million records within it, maintained by around 380 million manufacturers, already cover 90 per cent of the information required by HTT's design engineers. So this saves on valuable development resources when creating new parts. Only a few individual attributes – such as the class for finding parts quicker – still need to be added before the project engineer triggers synchronisation with ERP. Here, the new records are completed by adding commercial information. That includes the part version and status, important information when selecting components in WSCAD. This ensures that all parties concerned always use the latest components.

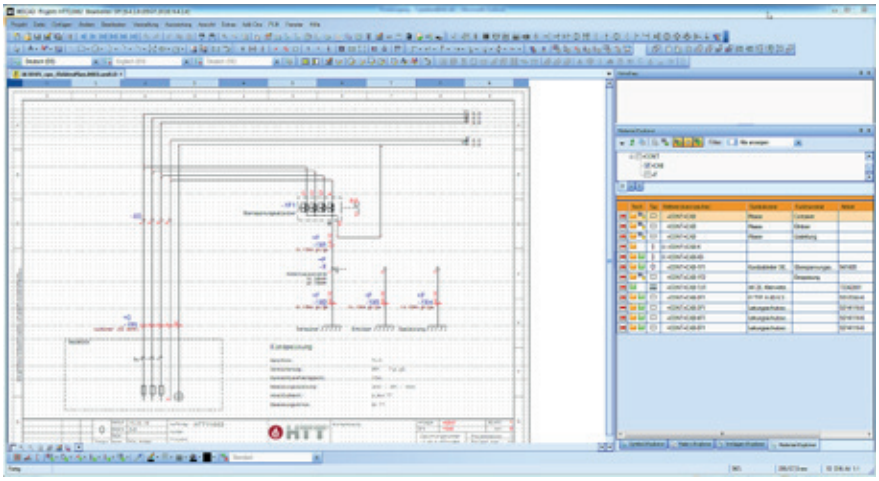
High added value thanks to standards

Every project is different. However, the basic steps involved in device set-up and electrification are standardised for the wide range of variants and defined as modules at HTT. Reusable WSCAD macros display the processes along with preferred variants and corresponding component lists. All the hardware configuration information and the underlying circuit diagrams are available, either as articles stored in the master data or as an item on the project component list. For the purpose of purchasing, the component list is closed and becomes part of the list of materials which totals all



When the WSCAD component list is passed on, the ERP system knows all the commercial details of the components. If assemblies cannot be ordered fully assembled, they are cancelled automatically.

the items with an identical part number. The advantages that PLM/ERP integration brings for HTT's design engineers through WSCAD software and wscaduniverse.com are obvious: No redundancies in material and component lists for the price and calculation overviews as well as synchronous part masters for stock on hand and replacement. "Our WSCAD-abas integration has made our collaboration with our colleagues in Purchasing so much more efficient and relaxed", explains Frank Spieker, Head of Electrical Engineering, HTT ENERGY. He explains: "It only takes a single click to transfer the component list. The same goes for preliminary orders and changes: we have a process that we can rely on as abas recognises the various versions of a project component list. The system displays planning changes and derives the correct actions from these".



The WSCAD Material Explorer only offers design engineers parts recognised by the ERP system when the component list is passed on. WSCAD synchronises the databases regularly in order to ensure this.

> "By reducing the variety of components, we have put our Purchasing department in a stronger negotiating position when dealing with our suppliers. This has reduced the stock in the warehouse which naturally also means that we have less capital tied up. This resulting savings potential has provided opportunities for investing in further projects as well as in research and development."

Technology and Purchasing work together digitally in close collaboration

For HTT, it was definitely worth all the effort. Today, order processing is about 30 per cent quicker than before and the use of standardised assemblies along with uniformly structured system documentation makes the work of the technical team easier. "These measures have enabled us to optimise our processes and reduce our costs considerably", says Erik Theilig, commercial director at HTT ENERGY. "By reducing the variety of components, we have put our Purchasing department in a stronger negotiating position when dealing with our suppliers. This has reduced the stock in the warehouse which naturally also means that we have less capital tied up. The resulting savings potential has provided opportunities for investing in further projects as well as in research and development".

WSCAD experts help find the perfect solution

During a two-day workshop, the project teams from HTT and WSCAD specified the details of the new inter-departmental information flows in relation to part data and component list management. "The experts from WSCAD know what they are talking about. They provided us with appropriate results-oriented guidance over the two days. We are also satisfied with the support we get, which is always provided promptly. Our questions are answered quickly and competently", says Frank Spieker, summing up the situation. Together they found transparent solutions and implemented them without delay. After just eight months, HTT ENERGY was able to put this new solution into operation.

WSCAD GMBH

NEXT GENERATION ELECTRICAL CAD

“Our goal is to create great experiences for engineers so they can finish their projects faster, better and easier.“

Dr. Axel Zein (CEO)

35,000
CUSTOMERS

>30 years
OF ONGOING MARKET SUCCESS

18
COUNTRIES OFFER WSCAD SOLUTIONS

24%
OF REVENUE IS RE-INVESTED IN R&D

WSCAD is part of the Buhl group with more than 800 employees. WSCAD has been developing electrical CAD solutions for three decades. Customers include medium-sized companies, international corporations and engineering service providers. More than 35,000 users rely on WSCAD software as their electrical CAD solution. The software is based on one core platform that covers six engineering disciplines: Electrical Engineering, Cabinet Engineering, Piping and Instrumentation, Fluid Engineering, Building Automation and Electrical Installation. Any change made to a component in one discipline immediately reflects in all the other disciplines. WSCAD methodologies for standardization, reuse and automation significantly reduce engineering time from several weeks to just a few hours or even minutes. At the same time, these practices also ensure a much higher quality of work.

wscaduniverse.com is by far the largest electrical CAD data library on the market offering over 1.4 million parts from more than 380 manufacturers. It is the only digital library that supports both WSCAD and Eplan* users alike as well as 3D CAD data. Use and provision is free of charge for all users and manufacturers of parts and equipment. Maintenance engineers and service personnel are now able to scan devices and components within a control cabinet by using the WSCAD Cabinet AR App on their smartphones or tablets. This provides them instant access to the schematics, device tags, part data, 3D views and even the original data sheets from the manufacturers.

The WSCAD portfolio is completed by eleven seamlessly integrated service offerings from WSCAD Global Business Services such as: engineering and migration checkups, consulting and training, digitization of paper documents and conversion of thirdparty electrical CAD formats.

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