



ERP Output Management & CAD Conversion for Demanding Intralogistics

New Output Management System for the BEUMER Group

The BEUMER Group from Beckum is an internationally leading intralogistics manufacturer in the sectors of materials handling and loading technology as well as sorting and distribution plants. Within the group there has been contemplation of consolidating the ERP and CAD systems. The plan is to introduce a new output management system at the same time to replace the current solution. As the BEUMER Group plans, builds and produces globally, it is essential that all the relevant data for producing the plants is in the right place at the right time.

For this purpose BEUMER has chosen an individual ERP system where all the special features of plant construction will be taken into consideration. In addition, construction data will also be administered. Construction is carried out with the CAD systems AutoCAD and Solid Edge. With this dual implementation of different CAD systems, even the most demanding plants and systems can be planned and successfully realised.

The demands

In order to be able to output production orders or available CAD drawings, powerful output management is needed. This system should assume processing and distribution of engineering drawings from all over the world. As construction and production take place in different locations and subsidiaries, reliability and load sharing play a decisive role.



The challenges

What is special about his project is how output processes are handled. All the data needed for a customer or a production order are recorded in the ERP system and linked up to the necessary construction data via the materials list. At production release, these native CAD drawings (Auto CAD, Solid Edge) should be provided with status and metadata. As the actual ERP System is also used by further subsidiaries in more than one country and in a variety of languages, it must be possible to replace this information automatically. Because native drawing data are used until production release, conversion only takes place upon request and therefore under tight time constraints.

The advantage of implementing new output management is obvious - the future of construction does not lie in order-related and language-dependent drawings, rather it is independent with variables.

The software components

With PLOSSYS® netdome, SEAL Systems offers a holistic output management system which can be used by every division and IT system. In this system, all IT applications in the corporation can connect with all output channels. This way the entire printing infrastructure is standardised and rationalised. Data processing (conversion, stamping and scaling), spooling and output channel management (printers, plotters or electronic output procedures) run automatically with PLOSSYS®.

The output management system processes all data formats from all connected business applications (ERP, host systems, Web applications, Windows® and Office, ECM, DMS, PLM and CAD) and provides smooth, optimally controlled output in every output channel. It also provides a broad functionality concerning all aspects of printing infrastructure and printing processes.

To ensure high performance for processing all native file formats and application data, SEAL Systems also offers the central conversion server DPF4Convert (Digital Process Factory®). With this workflow-based conversion framework, even the most diverse demands can be realised modularly by connecting the input and output converters with the working units.

Project Parameters

- **450 CAD user use plotting.**
- **1500 ERP user who use ERP process output.**
- **Twenty locations around the world are part of the PLOSSYS® netdome environment.**
- **150 printers A3/A4, 20 plotters.**
- **Three servers available for both AutoCAD and SOLIDEDGE (including back-up, load balancing, failover).**
- **Including headers and layer processing for each conversion or output (varies for each BEUMER organisation, language and even for each BEUMER location).**
- **25,000 conversions are carried out with the DPF4Convert engine per month.**

The solution

Using the software components from SEAL Systems, the specific requirements of the BEUMER Group were met with success. After constructing the customised plant and approving the order for production, automatic processing of all necessary documents begins. The pertinent CAD drawings are processed and converted according to the status data and metadata from the ERP system. For this, the order is delivered to PLOSSYS® netdome via the interface. This combines the necessary CAD drawings into an order record and passes it on to the conversion server DPF4Convert. With the data from the ERP order, the layers are selected and augmented with the title block data (variables). This makes it possible for different contractors and subsidiaries to attain a standardised and, where necessary, a multi-lingual appearance for the engineering documents. After all CAD drawings for an order have been made observing the correct sequence, it is possible to distribute these either electronically or to have them printed onto paper. Output is supported consistently for both small format printers and large format plotters.

As this is a critical corporate production process, it is crucial that the individualised job processing from the ERP system as well as the subsequent conversion and output run with a high level of performance and reliability. The central monitoring console (PLOSSYS® netdome, DPF tracker) and their administration surfaces provide transparency and sound support. In order to cope with

arising processing peaks (25,000 conversions per month), the conversion server DPF4Convert has load balancing onto even more conversion units (remote working units) as well as a failover procedure.

With this solution, the business employees and the designers at the headquarters in Beckum can approve an order in the ERP system whereupon the necessary engineering documents are compiled automatically and distributed and outputted to the different production units and subsidiaries.

In addition to the ERP output and the CAD conversion, the customer can also expand the system to corporate output management later and replace their existing Windows printing servers.



About the BEUMER Group

The BEUMER Group is an internationally leading intralogistics manufacturer in the sectors of materials handling and loading technology, palletizing and packing technology as well as sorting and distribution plants. Together with Crisplant a/s and Enexo Teknologies India Limited, it has around 4,000 employees and generates annual revenues of about 680 million EUR. Its locations and agents contribute to the BEUMER Group's global presence.

Dr. Christoph Beumer is a managing partner and chair of BEUMER Group's Board of Directors.



Do you have any questions?

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