SER

DOXIS

Leading the global market with intelligent document management

CUSTOMER STORY

SEW EURODRIVE

The company

As a market leader in drive and automation technology, SEW-EURODRIVE moves applications, processes, systems, and machinery in virtually every sector. With approximately 21,000-strong workforce, they have been playing a key role in shaping the future of drive technology for over 90 years. SEW-EURODRIVE has been an owner-operated family enterprise since it was established in 1931, and it is still based in Bruchsal, not far from Karlsruhe in Germany. Their solutions can be found all over the world in scenarios ranging from the fast, dynamic, and highly accurate applications found in discrete manufacturing, to the large and powerful applications typical of the raw materials industry and container terminals, not to mention continuous and logistical processes. Countless conveyor belts, packaging machines, bottling plants, logistics centers, gravel plants, cable cars, airport baggage conveyors, and much more besides would grind to a halt without the drive technology and services provided by SEW-EURODRIVE.

SEW-EURODRIVE, Bruchsal, Germany

Management Summary

30 years of document management at SEW-EURODRIVE

It all started with a special type of document: the assembly order. These internal documents contain technical information relating to the products that are required for the assembly process. Back in 1993, around 1000 of these paper documents were handled every day and each of them had to be accessible at all times. So, to minimise the effort and expenditure involved in sorting, archiving and – above all – searching for the assembly orders, SEW-EURODRIVE made the decision to introduce an electronic archive from SER and has been a loyal customer of the ECM vendor ever since. In addition to the global roll-out of the DMS/archive solutions and the development of an international, high-availability storage infrastructure, the last three decades have seen the launch of numerous SER solutions for standardising, automating and optimising processes, streamlining document management and collaboration, utilizing artificial intelligence and increasing regulatory compliance.

The project at a glance	
AREA OF APPLICATION	Global DMS/archive infrastructure, electronic files, intelligent invoice automation/archive infrastructure
CUSTOMER	SEW-EURODRIVE
INDUSTRY	Drive technologies
EMPLOYEES	21,000 worldwide
COLLABORATION	Since 1993
SER SOLUTIONS	Doxis DMS, Doxis Intelligent Invoice Automation & more
INTEGRATION	SAP, MS Office, various SEW business applications, e.g. Doxis web service
USERS	6100 users in 37 countries
STORAGE ARCHITECTURE	High-availability system with redundant components

Drive technology from SEW: Servo gear units

The first step: International archiving and document management

1993 – The first DMS project: Processing assembly orders

SEW-EURODRIVE – the drive technology specialist – receives around 250,000 assembly orders each year. Prior to 1993, these paper documents were filed away in folders and then stored on microfilm at the end of each business year. But the use of media such as paper and microfilm required a significant amount of effort when it came to sorting and archiving, not to mention searching for information; in fact, it was not unusual back then for the company to record 270 accesses and 23 hours spent on search and travel times every day – including external searches performed by domestic and international subsidiaries. With the help of an electronic DMS and archive, however, the hope was that such large-scale automation would make it possible to enter orders on a day-to-day basis with minimal staffing effort and expenditure. Not only would this reduce staffing, transaction and processing costs, but also save on paper consumption and space – all while boosting customer and employee satisfaction levels.

This is exactly why SEW-EURODRIVE made the decision to stop archiving assembly orders on microfiche film in favour of digitising and retaining them in an electronic archive, which would speed up document searches while broadening access to cover all workplaces. The "automatic scanning with barcode and post indexing" and archiving CI documents scenarios were processed electronically. A preselection process was carried out to determine twelve participants who were invited to tender and, at the end of 1992, the decision was made to go with the SER archive system. Barely four months later, the SER system and archive were put into operation, boasting COLD processing, close integration into the SEW-EURODRIVE SAP systems, and a redundant, high-availability storage infrastructure.

Industrial gear unit service from SEW-EURODRIVE

Engineering services
from SEW-EURODRIVE

Within six months of placing the order with SER, SEW-EURODRIVE oversaw not only the installation and commissioning of the new SER solution, but also the relevant employee training and the roll-out of 50 searching stations at its Bruchsal headquarters. Then, during the second half of 1993, the first international subsidiaries were added to the system after purchasing a company licence for the entire group. The SER solution quickly developed into a company-wide system that is now used in various countries across Europe, Asia, Africa, Australia and New Zealand for CI archiving order confirmations, invoices and assembly orders.

But this initial DMS project is not only of historical significance to SEW-EURODRIVE. In fact, in 2012, the subject of digitising assembly orders came back on the agenda, but this time it revolved around the old stock of microfiche film. Over the course of the decade, it emerged that the number of older documents accessed showed no signs of decreasing. An analysis of the age of the documents being accessed revealed that assembly orders dating from 1959 to 1992 were still being accessed 20 times a day. As a result, in 2013 the IT department was tasked with retroactively digitising four million documents – approximately 2 TB of data – and transferring them to the SER archive. As the quality of the microfiche had deteriorated over the years, however, this was no mean feat.

For Jörn Lamb, Project Manager within the IT department for optical archiving at SEW-EURODRIVE, this highlights a fundamental question which has to be asked for every new DMS project: "Do I just start processing everything digitally from now on, or do I go back and do the same for all my old documents, too? People often make things easier for themselves to begin with by saying that they'll just start with the new documents for now and leave the old material to one side. In retrospect, however, it makes more sense to migrate all the old material at the same time."

Archive development from 1996 to 2007: International access for new document types and SAP data

The first customer orders were archived in 1996. These were in paper form and submitted by SEW customers via fax, which meant that boxes after boxes of documents took over not only the offices of the sales representatives, but also the corridors. By scanning and archiving these masses of paper using "Late entry with barcode", the sales department could reclaim the space in its offices and even access all electronic documents directly.

In 2004, SEW-EURODRIVE was at the heart of the major SAP R/3 roll-out in Europe. The ability to archive the SAP data and documents was already in the planning while the SAP system was being designed. The DMS employees were involved from the outset and supported the SAP team, which meant that the documents could be taken over directly by SAP and transferred into the archive as soon as it was launched.

The first international DMS launch took place in Canada in 2007. For the DMS team at SEW-EURODRIVE, this represented a particular challenge, as it was their first experience of operating over such a large distance. This challenge applied in particular to the system performance, as the central DMS infrastructure is located at the SEW headquarters in Bruchsal, Germany. Nevertheless, after performing various tests, the team quickly established that this distance did not cause any limitations or delays in service. With this in mind, rather than implementing a local installation, the SER solution was hosted centrally in Germany and made available to the Canadian colleagues, just as it is for other international sites. "Our practical experience of SER's service to date has been consistently positive. Even tasks such as performing local scans, which involves transferring images across large distances to the central server in Germany, are no problem at all," comments Jörn Lamb.

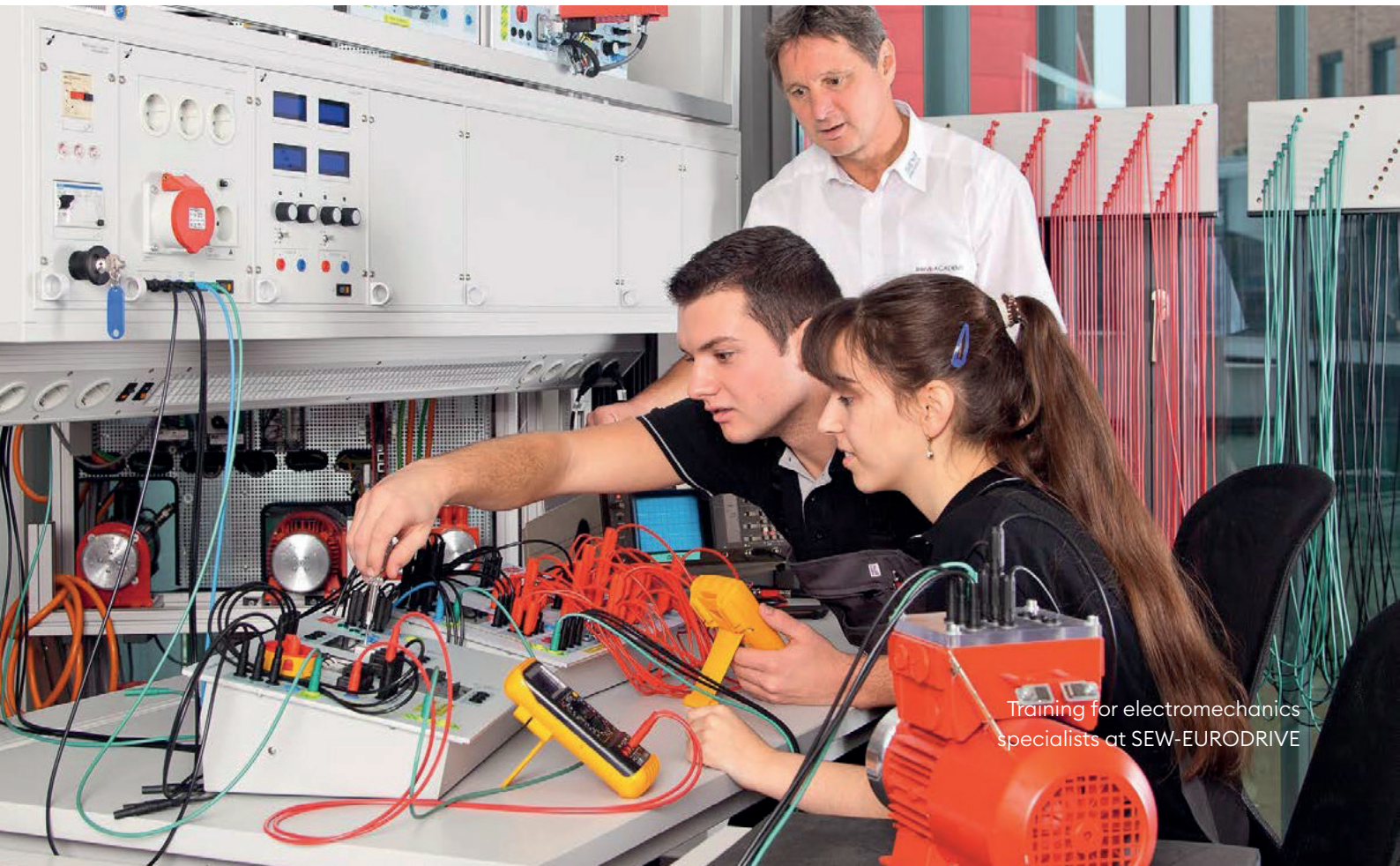
"Our practical experience of the service to date has been consistently positive. Even tasks such as performing local scans, which involves transferring images from abroad across large distances to the central server in Germany, are no problem at all."

Jörn Lamb, Project Manager within the IT department for optical archiving at SEW-EURODRIVE

From archive to ECM – Process optimisation from development to management

SEW-EURODRIVE uses SER solutions in many of its internationally connected departments, including sales, development and design, application technology, finance, human resources, IT, and electronics manufacturing. As a result, they can all take advantage of benefits such as no longer needing to file paper, having online access to all relevant documents, and the ability to access information from anywhere.

With the SER solution, the development department can archive documents including CAD drawings of up to A0 size, company standards, assembly instructions, manufacturing instructions, operating instructions, parts lists and safety regulations, and make this information automatically available to 30 countries around the world. Paper drawings of up to A0 size from old stock have also been transferred into the electronic system.



Training for electromechanics specialists at SEW-EURODRIVE

In the finance department, the SER solution is closely integrated into the SAP system. Commercial CI documents such as invoices, company code summary sheets, general ledger accounts summary sheets, credit notes/reversals and ledger sheets are archived directly from the SAP system. On the other hand, accounts payable invoices are processed in line with the "Late entry with barcode and automatic post-indexing" scenario, which means that they are also available at the touch of a button.

Standardisation of sales processes

In 2009, it was time to look at standardising business operations – particularly within the sales department. The objective was to combine all relevant documents from each of the different parts of the company into a single sales process and make these available centrally in Doxis. The types of documents involved in this process include customer orders, documents such as delivery notes and invoices from the SAP R/3 system, and even test logs from the final assembly inspection, all of which are automatically transferred into the SER system via an interface. To replace the paper-based system that had previously been in use, a simple storage form for sales-related documents was created for the sales staff, and this was very well received by the employees.

2010/2011: Introduction of order records (for industrial gear units)

The EPDA – electronic process and document record for the field of industrial gear units – also known as the order record, is the largest record-related project that SEW-EURODRIVE has ever carried out. The industrial gear units product division is the most complex in terms of not only the products themselves, but also the projects and associated sales transactions. The order record is actually used to support these sales and production processes. Records for the industrial gear unit family (orders, offers, requests) are only created from the leading SAP CRM system when saving the newly created orders, offers or requests and these are always based on the same template (record model). The record model for industrial gear unit records is completely dynamic and based on data provided by the CRM system. The types of documents in the industrial gear unit record include production-related documents such as dimensions sheets, parts lists, assembly orders, assembly drawings, operating instructions, test certificates and customer approvals, as well as commercial documents such as offers, delivery notes, invoices and acceptance logs.

The range of advantages for the development department is impressive:

- Removal of decentralised drawing and microfiche archiving systems
- Faster global access following amendments and releases
- Automatic versioning of the drawings
- Ability to attach annotations
- Automatic printing of CAD drawings when the manufacturing order is released in the SAP system
- Direct security querying via the CAD system at user and document level

Electric monorail system

“This template is so easy to use that our international subsidiaries couldn’t wait to get hold of it. They’d been working with paper for so long, so they were very excited at the prospect of such a massive improvement”

Jörn Lamb, Project Manager within the IT department for optical archiving at SEW-EURODRIVE

The folder contains basic information from the SAP system that is automatically fed in. Access to the records is logged via the Doxis audit trail. The reason for this is that a large number of departments and front-line business areas are involved in a single order: sales, design and assembly teams, for example, can all use the same record, create documents and find out information. What's special about the folder structure is that there are not just static folders for employees to fill – even email correspondence is included. The industrial gear unit records even include dynamic folders that are generated and updated – in terms of the order positions, for example – completely by the SAP system.

Migrating to Doxis

In 2013, SEW-Eurodrive migrated to Doxis. Key facts:

- Around 70 million stock-related documents and 17,000 records
- Client roll-out for around 4,000 workplaces
- 340 COLD jobs
- 30 storage forms
- 80 search forms
- Various individual developments
- Consolidation of old data structures
- Global launch over a weekend: the first morning after the launch already saw 800 to 900 users working in the Doxis production system

The SEW-EURODRIVE system today

- 312.8 million documents
- Approx. 35 million documents added each year
- Around 22 TB of data

"An excellent example of how you can achieve so much with such little effort."

Jörn Lamb, Project Manager within the IT department for optical archiving at SEW-EURODRIVE

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