

KLINGEL GROUP



Intelligent email management automates processes and significantly improves customer service

Germany's second-largest long-distance retailer achieved a high level of automation, as well as significant improvements to its throughput times and customer service, thanks to intelligent email management with NOVO CxP. At the heart of this solution is the long-term integration of a range of channels and media formats, creating a standardized all-channel view of the customer.

AT A GLANCE

- **INDUSTRY**

Long-distance retail

- **THE STARTING POINT**

The KLINGEL Group communicates with external companies or individuals (suppliers, customers, service providers, partners) across a wide range of channels and media formats. The Group's internal communication formats are also increasingly diverse. KLINGEL uses a range of isolated solutions which do not permit the integration of newer channels. Maintenance is complex, automation levels are low and throughput times are long.

- **THE TASK**

In the broader context of a general ECM strategy, KLINGEL aims to realize a centralized, enterprise-scale input management solution focusing on email processing to replace its existing isolated solutions. This solution should receive, store and archive each piece of incoming content, while incoming documents should primarily be digitally processed. The next step will be to process chat messages as well.

- **THE SOLUTION**

The input management system NOVO CxP from inovoo is able to process messages coming in through a wide range of channels, analyzing and sorting them based on sender, content and recipient, then forwarding them onwards based on predefined rules and archiving them in compliance with legal regulations. This enables optimal automation of the email channel.

- **THE RESULT**

NOVO CxP automatically processes over 1 million emails per year. Employees' workloads are reduced, meaning that response times can be significantly accelerated. This in turn has significantly improved KLINGEL's customer service.



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THE STARTING POINT

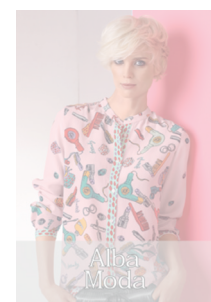
In 1920, when Robert Klingel laid the foundations for the company known today as K – Mail Order GmbH & Co. KG, the concept of a “process” as we understand it now was unheard of. Indeed, IT as a whole did not exist. Today, the Klingel Group’s IT team ensures that all processes work together seamlessly, every step of the way from procurement to shipping. The customer remains the focal point throughout, with forward-looking system solutions always being designed to meet new specialist challenges.

In order to continue offering the very best in customer service, an efficient input management system is essential. Internal and external communication is getting increasingly diverse. Meanwhile, Klingel was unable to integrate new communication channels. The Group used a range of isolated solutions, with various different systems running in parallel. Text templates were managed redundantly and automation levels were low. Throughput and processing times were significantly over the desired service level. Maintenance was extremely complex.

THE GOALS

The task for KLINGEL’s employees (who currently number around 100) is to process several thousand emails a day from Germany, Austria, Switzerland and the United Kingdom – with other countries soon to follow. This amounts to over 1 million emails every year – and the number is rising. On top of this, around 95% of these emails also have attachments. KLINGEL’s first priority was to improve its service, so its goal was to automate its input management system for processing incoming digital messages. This would increase productivity, reduce throughput times and create a permanently standardized view of the customer across all channels. The focus was on optimizing working processes in the customer center and among external service providers, specifically around customer communication and incoming emails. All other company divisions and input channels can be seamlessly integrated in future.

Another benefit: All NOVOCxP functions are modular and can be configured using their individual processing tools. Configuration is child’s play, avoiding the need for programming work. The customer is highly independent from the software developer, allowing staff to perform administrative tasks by themselves.

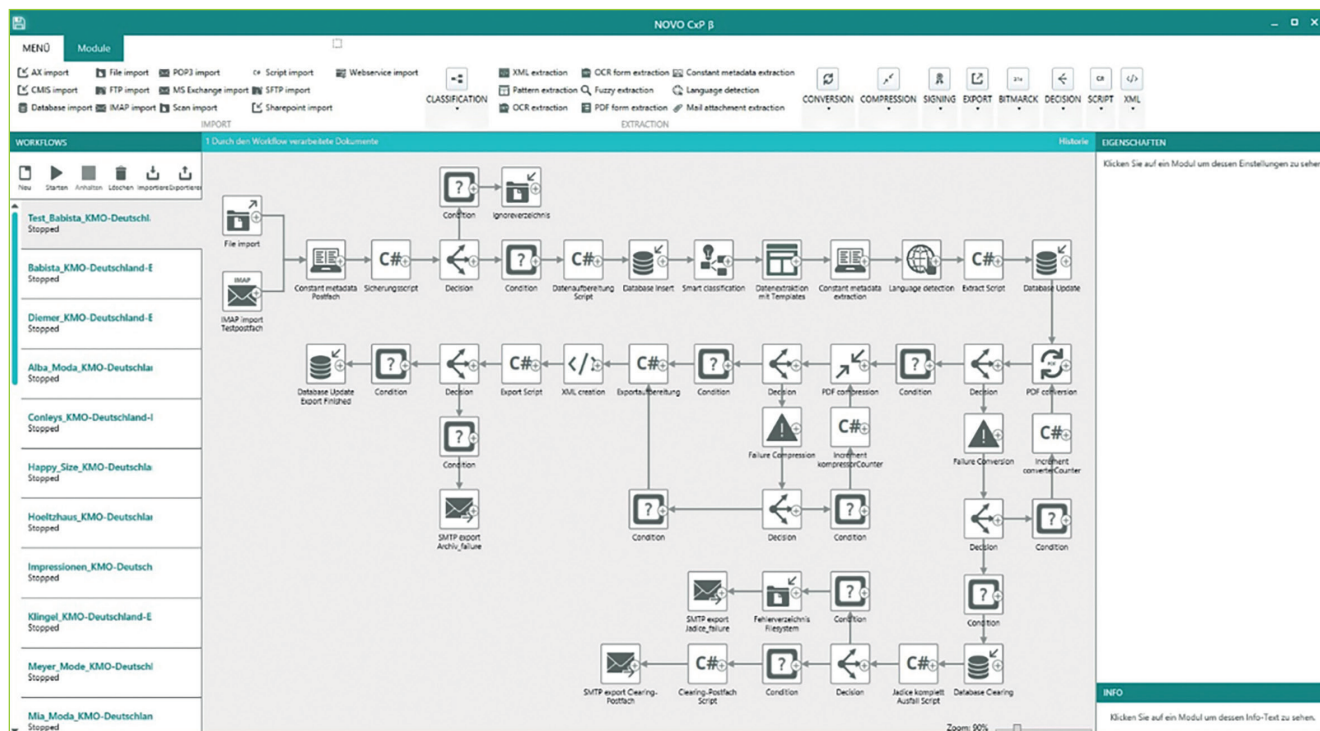


DIY: SIGNIFICANT INDEPENDENCE THANKS TO DO-IT-YOURSELF IMPLEMENTATION

This was a real challenge, one which KLINGEL mastered using inOVO's NOVO CxP solution. The project focused on automatically analyzing incoming emails in a total of 40 possible combinations of countries and brands, assigning them to the correct business process and handing them over to the archive. During processing, NOVO CxP fully automatically identifies personal and transaction-related data in scanned documents and digital information such as emails and their attachments. "Fuzzy" searching even allows the system to accurately recognize spread-out, incomplete or incorrect information. Thanks to the system's high recognition rate, manual post-processing work is kept to a minimum.

Four languages are currently supported. The system needs to be available every day from 6 AM until midnight (with maintenance being handled from midnight until 6 AM). The reaction time in case of an error may not exceed twelve hours. The system is scalable and service-oriented.

One particularly interesting fact is that, following a brief training process, KLINGEL was able to train the system on many document classes by itself. This is one of the secrets of NOVO CxP's success: the software lets users do as much as possible themselves, implementing specialist processing rules quickly and directly according to their own needs. This enables maximum independence, speed and flexibility while keeping costs low.



KLINGEL has individual workflows for each brand. NOVO CxP makes it easy for the user to configure workflows by dragging and dropping functions.



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FUNCTIONS

MODULE 1: Import



Using the IMAP interface, the email importer imports emails from predefined mailboxes on the company's internal MS Exchange server. The emails are retrieved at predefined intervals and handed over to the next instance in MSG format. Email metadata is saved in XML files.

stages also make it possible to exclude certain parts of the email from processing, such as segments like "RE:RE:RE:".

MODULE 2: Classification

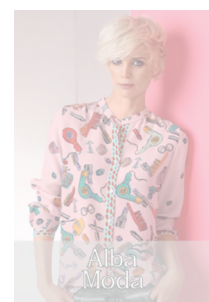
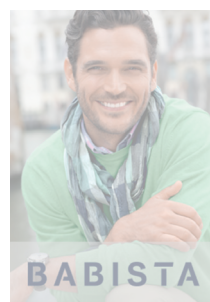
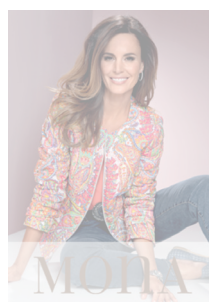


In this step, incoming information is quickly assigned to the relevant business processes based on its category, ensuring that it is handed over to the right group of administrators. Email headers, bodies and attachments are inspected, and the solution's ingenious technology analyzes image-based documents and text. An intelligent classification system is in place for each language.

Throughout this process, the document is primarily assigned to the appropriate category using rules-based as well as statistical and semantic classification techniques. Classification is entirely digital, avoiding conversion to TIFF format for typical classification and extraction processes using OCR software. This improves performance and reduces licensing costs. Scanned email attachments in image formats such as TIFF and JPG (whether in color or black/white) are also converted into fully readable text at this stage using an integrated OCR engine, before **NOVO CxP's** recognition algorithms step in to handle categorization and extraction.

So-called "bounce emails" can be directed through the system by analyzing their text content. Add-on

KLINGEL defines categories across multiple brands, ensuring that email categories that have already been "learned" can be reused. Each mailbox (e.g. service@company1.com) can use the same or different categorization techniques and categories.



MODULE 3: Extraction



Customer data can be extracted from documents using a range of search terms, rules or templates. The solution also enables fuzzy data searching, matching content against existing data (e.g. in a customer database), which helps significantly with extracting the desired content. Fuzzy searching is also able to identify the required personal or transaction-related information in a scanned or digital document (such as emails and/or their attachments), then extract it and validate it against data in existing systems – even when the information is spread out or incomplete.

Interestingly, because KLINGEL customers, details and process management-related information are automatically identified, an additional benefit is achieved. Clearing work is reduced by 85%, despite the continued need for occasional manual corrections.

MODULE 4: Conversion



To ensure that the relevant categories of incoming emails are stored in a standardized long-term archiving format, NOVO CxP converts incoming emails from MSG format to PDF/A-3, then compresses them and makes them available to other processes. Since this is not required for every category, only relevant emails are converted. For all other categories, which do not require long-term archiving, this step is skipped.

The conversion tool receives a file in EML format through the incoming data stream and outputs a PDF/A file, a black/white TIFF (optional) and a color TIFF or JPEG (optional) for each email. Any attachments within the email are automatically processed along with it and included in the output file.

The conversion tool also offers:

- Open interfaces, for easier integration with future applications
- Load balancing thanks to multi-server functionality (in order to prevent outages)

MODULE 5: Compression



The NOVO PDF Compression module compresses typical file sizes for scanned documents from 6-7 MB per page down to 60-100 KB. Color documents in PDF/A-2 format are therefore often smaller than black/white documents created using traditional methods, keeping storage space requirements to an absolute minimum.

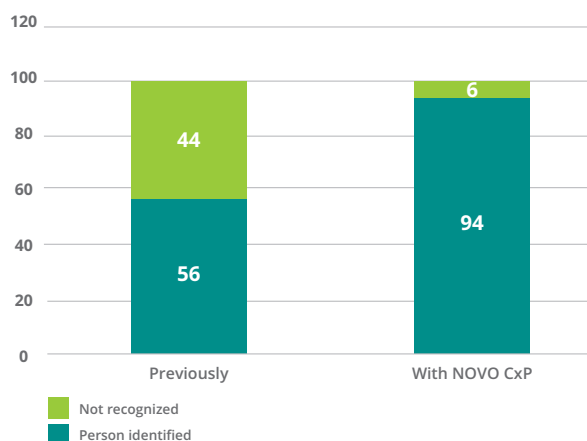
MODULE 6: Export



Once processed, the email can be handed over to any target system in PDF/A and XML format. A wide range of output formats and interfaces can also be configured using the straightforward administrative tools.

Another benefit: All functions are modular and can be configured based on the specific processes in place. Integrated components can be configured directly in the NOVO CxP configuration interface. This limits the need for programming work and lets customers manage their own processes.

Determining identity based on whole-page content Identifying customers from incoming mail in %



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THE BENEFITS TO KLINGEL

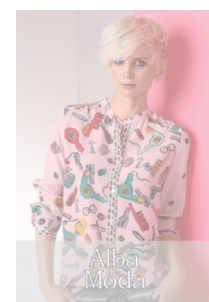
- Outstanding customer service thanks to automated email processing
- Seamless integration with existing processes and technology
- Automated processing for faster workflows (over 1 million emails per year)
- Text templates, address books, imprints and more are managed centrally (avoiding reduplication of work)
- Complete contact history with CRM system
- Continuity of media formats throughout transactions
- Input management can be expanded to other divisions
- Email attachments can also be analyzed
- "Bounce" emails are handed over for further processing
- Early bounce recognition simplifies processing and avoids mistakes
- Reporting functionality included
- Predefined error handling protocols
- Configurable administrative interface, easy to understand and use
- Comprehensible, user-friendly reporting interface



FLORIAN SCHEEL

Head of Customer Experience Solutions
at KLINGEL

"Thanks to the NOVO CxP platform, we benefit from excellent transparency and now have a clear, simple system environment. We find it particularly helpful that email content from a wide range of sources is quickly and automatically extracted. In other words, this is real, efficient multichannel management, which saves time and money and dramatically improves the customer journey."

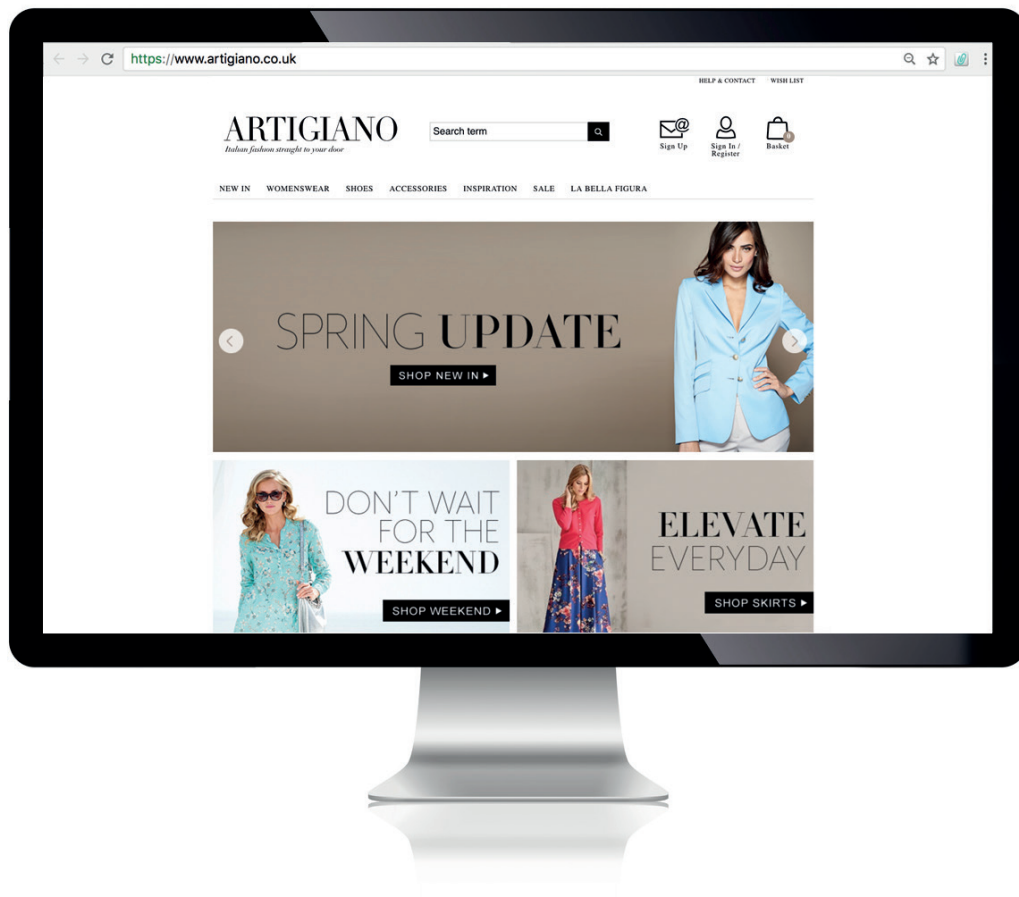


THE CUSTOMER
KLiNGEL (www.klingel.de)

The KLINGEL Group, Germany's second-largest traditional long-distance retailer, is a medium-sized family company with many years of experience in multichannel long-distance retail. The Group's focus is on online sales. In recent years, the KLINGEL Group has continued to grow, with 17 brands (Klingel, Wenz, Mona, Babista, DiEMER, Alba Moda, Meyermode, Happy Size, Impressionen, Conleys, Miavilla, MIAMODA, Vamos, HOELTZhaus, WELLSANA, Egle and Jungborn)

now part of the Group, which employs over 2,000 people with officers in eleven additional countries. Management, logistics and customer service are all based in Pforzheim, in Germany.

As well as the Group's extensive range of women's apparel, its over 60 online shops sell jewelry, shoes and lifestyle articles. Klingel operates one of the most modern logistics centers in Europe, shipping five digits' worth of packages every day.



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inovoo is a highly specialized partner in the fields of email management, scanning solutions, multi-channel management (customer dialog, customer correspondence), process automation and mobile solutions. We provide products and solutions for our customers that cover the entire spectrum of input management, output management, and everything in between – and all from one source. We guarantee 100% integrated and effective solutions for all channels, including traditional-mails and faxes, email and web services, and even mobile end devices. The result: nothing less than highly efficient automatic processing.

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