

# Success Story

## Introduction of an integrated System for the capture and recognition of documents at Deutsche Post World Net

### REFERENCE

Deutsche Post World Net  
<http://www.dpwn.de>

### INDUSTRY

Logistics

### CHALLENGE

Introduction of an integrated system to capture and recognize documents for contract management

### ADVANTAGES OF THE SOLUTION

- Efficient processing and administration of the contract documents - shorter cycles
- Technical support of checks to confirm the correctness of contracts
- Deployment of contracts within the company
- Shorter search times

### ENGINEERING

#### Hardware

- Server: Pentium IV 1,6 GHz, 1 GB SDRAM
- Scan Clients: Pentium III 700 MHz, 512 MB RAM
- Scanner: Fujitsu M4099D-VRS, Fujitsu M4097D-VRS
- Image Processing Accelerators: Kofax Adrenaline 1700 SCSI Scanner accelerator, Kofax Adrenaline 850 SCSI Scanner accelerator

#### Software

- Kofax Ascent Capture 5.51
- Abby FineReader 5 Custom Module for Kofax Ascent Capture (OCR)
- CompareFilesX (Comparison of files)
- ID Automation AdvCode128 (Barcode creation)



neeb & partner realized the introduction of an integrated system for the capture and recognition of documents for contract management, division BRIEF, on behalf of the leading provider of logistics services Deutsche Post World Net. The human work process has been optimally mapped on the basis of Kofax' solution „Ascent Capture“: various employees manually look for different information in documents, compare and correct them, and pass them on to downstream systems. The electronic system process was structured to match this flow within the company's contract management.

### CHALLENGE

Within its partnerships and cooperative deals, Deutsche Post World Net, division BRIEF, offers numerous contracts, which have to be filled out, signed, and sent back. The returned contract documents – including appendices and notices of termination - are thus manually checked to detect any deviations from the sample contracts issued.

The need to process some 250,000 pages every month led the logistics provider to look for an automated solution that would ensure the central processing and administration of the incoming contracts according to their document type and allow for checks of deviations from sample contracts and the deployment of contract data for relevant centers within the company.

### REALIZATION

The company uses an electronic contract management system to administer contract documents efficiently. In this system, all contracts including attachments and notices are administered. All other systems of contract processing (scanning and OCR software) and contract control are linked to this system.

The challenge for neeb & partner consisted in the development of a system that would allow contracts to be processed, checked and stored in the electronic contract management system automatically according to the document type. In the process, the different contract types and the concomitant requirements for correct processing are taken into consideration. Basically, a distinction is made between old contracts, continuous text contracts, and form contracts. In the first phase of the project, the processing of old and continuous text contracts was realized.



# Success Story

**neeb & partner** supplies the complete capture software and the necessary scanner systems in addition to comprehensive consulting and programming services. Kofax' „Ascent Capture“ in combination with Abbyy's „FineReader Fullpage Recognition Server“ and Fujitsu scanners serve as the basis for this solution. In addition, an Oracle database and modules developed by neeb & partner are used to validate the content of continuous text contracts, interpret barcodes, and collate the data from the overall process.

## PROCESSING OF OLD CONTRACTS

In the course of processing old contracts, the hard copies were scanned in to provide electronic image data, which were then transferred to the electronic contract management system. Automated capture, image processing, indexing, barcode validation and interpretation, and the delivery of information to the database system were done using Kofax.

The separation of documents – „mass scan processing“ – was done using separator sheets created for each contract. These separator sheets also have an unambiguous barcode.

## Barcode

The barcode allows image data and log files to be assigned to current contract data already in the electronic contract management system, such as contracting parties, commencement of contracts, deadlines, amounts, and banking connections. On the one hand, the barcode contains information for the clear identification of contracts and, on

the other, information about the necessary number of pages per contract. The scanned pages per contract are compared with the analyzed barcode. This serves to check whether all of the pages of a contract have actually been scanned in. If this is not the case, a notice to this extent is entered in the log file. All of the data from the scanning process are collected in a compressed zip-file and transferred.

## PROCESSING OF CONTINUOUS TEXT CONTRACTS

The scanning system provides the basis for the processing of continuous text contracts. The process involves a text-based comparison of the incoming contracts and the

sample contracts they are based on. The original „hard copies“ were captured using OCR software. The results of OCR are automatically compared to the underlying sample contract from the electronic contract management system on a XML basis.

The goal of the system is to detect any deviations between the contract and the sample, such as additional content (contracting parties, deadlines, dates, amounts, banking connections, etc.), OCR errors, and content changes (such as items struck from the contract). In the process, users are provided with the content of the contract that does not correspond to the sample for their perusal and corrections.

## Additional contractual content

The system automatically extracts any content added to the contract and presents it to the user for inspection. As it is not possible to adjust the content to match the sample, this content has to be corrected manually and marked as additional content.

## OCR errors

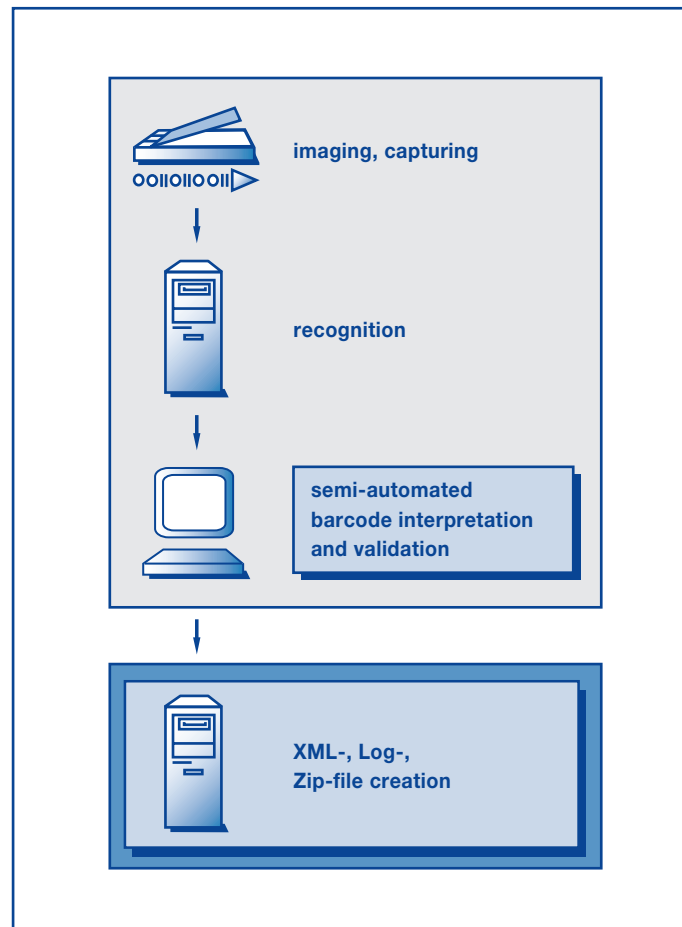
The system automatically corrects OCR errors the user has marked as such by taking the relevant passages from the sample contract.

## Changes in content

If any changes have been made to the content of a contract, they are also provided to the users for assessment. As changes to a contract would make it invalid, any changes are listed in the contracts log file and transferred to the electronic contract management system. There, the contract is again checked to confirm its validity.

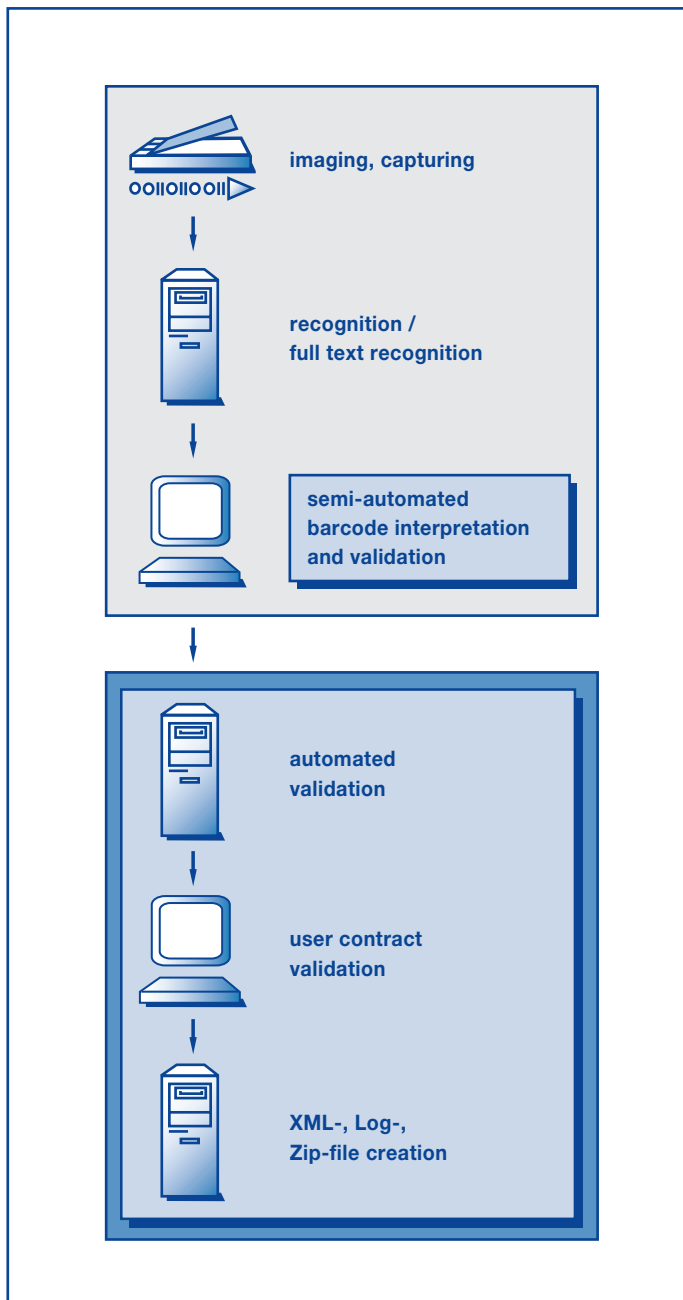
## Barcode

Here, the processing / assignment of individual contracts is based on the use of barcodes that clearly label each contract. The barcode defines which contract documents go with which electronic sample contract in the electronic contract management system. Each page of a contract has an unambiguous barcode. The barcode consists of the contract ID, the number of pages in the contract, the current page number, and the number of contract appendices to be scanned in. In the system developed by neeb & partner, the barcode is analyzed to check the completeness of the scanned in



Processing of old contracts

# Success Story



Processing of continuous text contracts

contract pages. If they are not complete, an entry is made to this effect in the log file, and the contract is excluded from further processing. It has to be scanned in again.

The data extracted from the contract are transferred to the electronic contract management system in XML format. In the course of the delivery, the images of the contract are put in a compressed zip-file along with the XML and log files and forwarded.

## ADVANTAGES

The documents to be processed can be any of some 30 different contract types. Before this integrated document capture and recognition system was rolled out, contracts had to be manually processed, checked and researched. The introduction of the new system allows for the fast, efficient processing of incoming contract documents, automatic checks of contracts, and fast access to contract data in the electronic contract management system.

## PROSPECTS

In a second project phase, neeb & partner is realizing the processing of form contracts. Here, too, Kofax' „Ascent Capture" offers the basic functionalities of the system. All of the relevant contractual data are extracted from the contracts and transferred to the electronic contract management system. As with the processing of continuous text contracts, the content is checked to confirm its correctness before it is passed on. In addition to the contractual data in XML format, the electronic contract management system contains the image data scanned in and a log file for the validation process.

## Deutsche Post World Net

Deutsche Post World Net is the world's leading logistics company with its strong brands Deutsche Post, DHL, Danzas and Postbank. More than 300.000 employees achieved a return of 33,4 Billion Euro in 2001. The group offers worldwide mail, express and logistics services, and wide-ranging financial services portfolio for national and international customers. The Deutsche Post World Net is quoted on the Frankfurt stock exchange and represented in the Germany stock index (in short: DAX 30).

## neeb & partner GmbH

Bartningstraße 55  
D-64289 Darmstadt  
Fon: +49 (0) 6151 1793-0  
Fax: +49 (0) 6151 1793-190  
email: np.info@np-gmbh.com  
www.np-gmbh.com

