

***icoya***<sup>®</sup>  
*eForms*

**The revolution of form based  
business processes.**

**The complete solution for managing  
electronic and printed forms as well as  
legally valid signatures**

# This is form management today

A multitude of business processes today are connected by the recording and exchange of paper as well as electronic forms. This includes, for example, applications, order forms, and contracts. The predominant number of these processes require a handwritten or digital legal signature. Because the infrastructure for the digital signature is overwhelmingly unavailable especially to consumers, the process ends with classic, printed, paper forms. Today, when a sender's signature is required for legal reasons, paper is the prevailing medium.

Managing paper forms is cost intensive: manually recording form data consumes time and personnel. In addition, manual recording is prone to error, prompting high costs induced by recognizing, forwarding, returning, correcting, and re-entering tainted information.

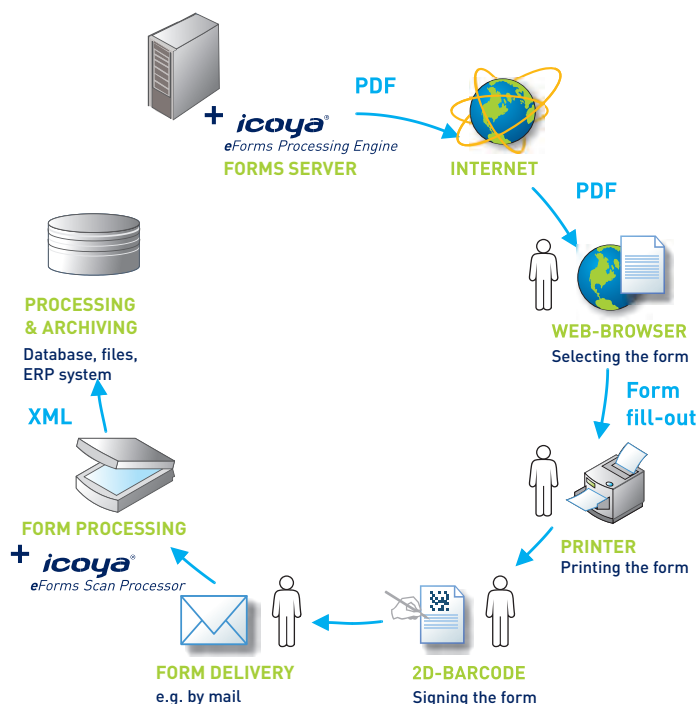
icoya eForms combines the advantages of paper and electronic forms and automates the acquisition of form data. icoya eForms eliminates mistakes and substantially reduces data acquisition and processing costs.

## icoya eForms brings the future and present together: the icoya 2D-Barcode – the bridge from paper to the digital world

With the icoya eForms solution, your company is able to efficiently and easily build the bridge between paper-based forms and pure electronic form management.

With icoya eForms technology, the user's input is saved in a producer-independent and standardized XML-Format, safely encrypted in a 2 dimensional barcode, and written into the form. This barcode is printed out with the form and, in addition to the given form data, contains the complete structure as well as an optional digital signature which guarantees form data is transmitted without falsification.

With the Date Code, the print-out contains, once again, the complete document including the digital signature in an alteration-proof form. With that, the printed document can, at any time, be transferred back into the digital format without a media break – the bridge from paper to the digital world is built...without having to change existing work processes.



### Applications for electronic forms

- applications
- financial transactions
- order forms
- invoices

### Industries

- banks and insurance companies
- chemical, pharmaceutical, biotech
- telecommunications and media
- automotive and aviation
- public administration

### icoya eForms account application

Online filled in icoya eForms form

icoya eForms form with 2D barcodes

# The icoya eForms Processing Engine: the professional solution tailored to your special requirements!

icoya eForms automates all work processes in which forms are filled out and/or signed.

icoya eForms meets the requirements of numerous work processes where forms play a role. Typical and frequent examples include internal and external application forms for data acquisition, forms in internal and external release processes, customer forms from banks and insurance companies, as well as public administration forms used by citizens and authorities.

A basic function of icoya eForms is the central server-sided form administration and management with encompassing form search functions, a rights and role concept, as well as a freely configurable workflow system. Administration and access are entirely browser-based and require no additional software.

As its core functionality, icoya eForms facilitates the generation and acquisition of form data in 2D-barcodes. In so doing, icoya eForms combines paper forms requiring handwritten signatures with the ability to further process these documents electronically. For this, icoya eForms contains components for generating 2D-barcodes from XML data and corresponding scanning- and decoder- software for extracting data from 2D-barcodes. In addition, a legally valid digital signature can be generated and saved in forms and documents, e.g. faxes, by means of a 2D barcode. This signature may also include further information like time stamps, sender, and receiver data.

Through this, signature verification is not only possible electronically but also in the printed out and archived paper document. Additionally, a complete digital reproduction is possible of form-based work processes involving digital signatures. This includes the direct acquisition of XML data over PDF-forms, the transmission of form data to backend systems, and support of digital signatures all the way through.

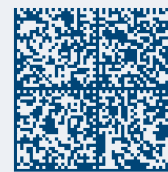
icoya eForms automates, for example, the management of order, invoice, and application forms, e.g. for opening accounts or deposits, and offers enormous cost savings compared to manual data entry. Other application areas of icoya eForms include the creation and processing of application forms in public administrations as well as contracts and orders between companies. Authorities and companies significantly reduce incurred form processing costs, while increasing data quality and legal security in electronic business communications. Time- and personnel-intensive, error-prone work processes for traditional form data acquisition are completely eliminated through the use of icoya eForms. The complete electronic reproduction of form-related business processes replaces expensive paper forms and time consuming workflows and, thus, results in huge cost savings. icoya eForms eliminates all costs of printed forms and time-consuming handling processes.

**icoya eForms' flexible license model offers unrivaled return-on-investment:**

**icoya eForms users immediately reduce processing costs and only pay for optimized transactions – icoya eForms Requires no high initial investment, pleases every budget, and reduces running costs!**

## The 2d barcode

Compared to ordinary barcodes, 2d barcodes use intelligent information compression to store much more data in the same area. They also provide high security data transmission, so even partially damaged or illegible 2d barcodes can still be processed correctly. Modifying the aspect ratio of 2d barcodes makes it easy to integrate them into any given geometrical arrangement.



## Advantages of icoya eForms:

- Completely automates the acquisition of printed form data.
- Removes error sources of manual data entry.
- Easy digital integration of (printed) forms and form data.
- No software installation necessary.
- The paper-based encoding of data enables the logistic separation of form issuing and form processing parties.
- Future-safe and flexible data storage in XML format.
- Uses world-wide standards. 100% compatibility with Adobe Portable Document format (PDF). Filling-in and saving of form data using the (free) Acrobat Reader.
- Supports complex, server-side checking of form data (also With database access)
- Supports law-conforming digital signatures
- Form data can be saved in XML format on the eForms server
- Future-safe and extensible architecture based on open source technology
- Flexible license model and immediate positive ROI
- Future-safe. icoya eForms is available for a variety of 32 and 64 bit operating systems: Windows 2000/2003, Linux 32/64-Bit (Red Hat, SuSE, debian, Gentoo, Ubuntu), Solaris 32/64-Bit, MAC OS X, HP-UX, OS/390, AIX.

## Your Benefits:

- Significant cost reduction of form-based business processes:
  - » The digital form solution minimizes costs for print and storage of paper-based forms,
  - » Spares cost-intensive configuration of OCR-software and form adaptation,
  - » Utmost time savings for data acquisition from printed forms,
  - » Error-free data acquisition avoids high costs associated with cleaning-up faulty data sets.
- Protection from misuse and manipulation: Inalterability of forms and form data is ensured through digital signatures.
- Forms printed with icoya eForms can be recognized at any Time for comparison with digital data sets.

# icoya eForms Overview

## ■ How it works

icoya eForms encodes printed form data in 2D barcodes to facilitate the automatic, reliable scanning and processing of that Data. Complex, character-oriented and error-prone OCR (Optical Character Recognition) is no longer required for the acquisition of form data. Compared to conventional form scanners, icoya eForms excels with the very low error rate of less than one error on 100 million scanning processes.

## ■ 2D-Barcode Technology

- » icoya eForms can store almost any kind of data sets on paper. Each barcode-symbol can encode several thousand characters of XML data.
- » Multiple barcodes per page are supported. The icoya Scan Processor automatically combines multiple barcodes in one data file.
- » PDF-417 barcodes are used on millions of US driver's licenses. PDF-417 follows the ISO/IEC 15438 standard.
- » The DataMatrix Code is highly reliable and especially suited for ink and laser printers. This code is used for identification Of billions of goods. DataMatrix follows the ISO/IEC 16022 standard.
- » PDF-417 and DataMatrix are fully supported by existing scanning solutions, ICR software, and hand scanners.

## ■ Security and Digital Signature

The icoya eForms Server supports digital signing of filled-out electronic forms. Adobe Acrobat Reader allows signature verification in the electronic document. The icoya Scan Processor reads and verifies the signature in the scanned document. The stored information is protected from revision and forgery through digital signature (1024-, 2048-, 4096-Bit), encryption, and a world-wide unique form serial number.

## ■ Utilization of the existing infrastructure

- » icoya eForms can be used with arbitrary PDF forms, the form layout is unrestricted. No additional effort is required for the set-up of forms with automated data barcodes, and conventional forms need not be retailored for icoya eForms. Online verification of forms is easily accomplished as well.
- » Existing document scanners, hand scanners, ICR software and document archive systems can be used together with icoya eForms.
- » Additional software besides icoya eForms is not required.

## The application of icoya eForms means...

the complete integration of online and offline form services as well as database, PDF, digital signature, and barcode processing in a single system.

## Contact

Make a presentation appointment and experience icoya eForms and other solutions live in practice. The icoya solutions suite is presented in detail and its application and benefits custom sketched for your enterprise based on your business processes.

We gladly offer

- an online-presentation with live demo
- individual consulting with presentation
- to send additional information materials and access to the online demo system.

Just contact us.

We are always available for you by telephone +49 711 89 66 56-0 or email [sales@struktur.de](mailto:sales@struktur.de).

Find more information at <http://www.icoya.com>.

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