



COMARCH DMS

DOCUMENT MANAGEMENT SYSTEM

COMARCH DMS INFOSTORE PLATFORM

COMARCH

Comarch DMS Infostore – main features

Comarch DMS Infostore is a system for capturing, processing and archiving of documents from various sources: scanner, disk, fax, e-mail, web form, database.

The basic functionalities of the DMS application include distributing and queuing tasks between authorized users in accordance with business rules and application logic (workflow) and enabling document preview, retrieved both from DMS and other systems authorized in it. To complete these functionalities the system offers:

- ▶ web interface (thin client application)
- ▶ workflow (documents and data processing)
- ▶ electronic repository with document image search and preview
- ▶ communication and integration modules

Electronic archiving and processing of documents in the DMS system is closely linked with their physical workflow. All logistic services are requested and recorded by the system users at the web application level, which offers modules both used by the business users and modules dedicated for the paper archive and scanning units. System continually reports the current location of paper copies of documents and can adjust the electronic processing to it.

The DMS architecture enables full integration with any external system, both for export of data collected in the processing of documents, and import of data supporting this processing. It also allows unrestricted management of user competencies by providing them with access not only to the specific functionalities of the system, but also to specific document types, processing stages and scopes of business responsibility.

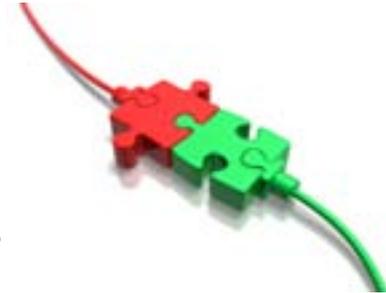
ADVANTAGES OF COMARCH DMS INFOSTORE SOLUTION

- ▶ Efficient and responsive to the highest standards electronic documents repository
- ▶ User-friendly application based 100% on web technology
- ▶ Flexible processes designing
- ▶ Full integration with any other Comarch solution (ERP, EDI, CRM, Infrastructure)
- ▶ Easy integration with external:
 - - systems (ERP, CRM, BPM, etc.)
 - - products (LotusNotes, MSOffice, etc.)
 - - protocols (LDAP, SSL, XML, etc.)
- ▶ Ability to handle even the most complicated business processes in every industry
- ▶ Built-in tools for ongoing monitoring and measuring the effectiveness of business processes
- ▶ Full consulting and HelpDesk support at all stages of project implementation
- ▶ Guaranteed service support of our solutions in any long term

INTEGRATION OF COMARCH DMS WITH EXTERNAL SYSTEMS

Platform modules easily integrate with:

- ▶ any directory servers
- ▶ any database
- ▶ any application servers
- ▶ active directories
- ▶ portals
- ▶ accounting and ERP systems - SAP, PeopleSoft, Oracle, Lotus Notes, GIM (Gold Invoice Matching System), etc.
- ▶ integrated logistics systems - DCSi Logistics
- ▶ content management platforms (ECM) - FileNet, Documentum, Oracle, SharePoint



SUPPORTED BUSINESS PROCESSES

- ▶ Office | Registry
- ▶ Liabilities Accounting | Investments | Purchasing
- ▶ Personnel Records
- ▶ Sales of Goods and Services
- ▶ Waybills | Freight Invoices
- ▶ Customer Service | Client Documentation
- ▶ Legal Service | Contracts
- ▶ Archive

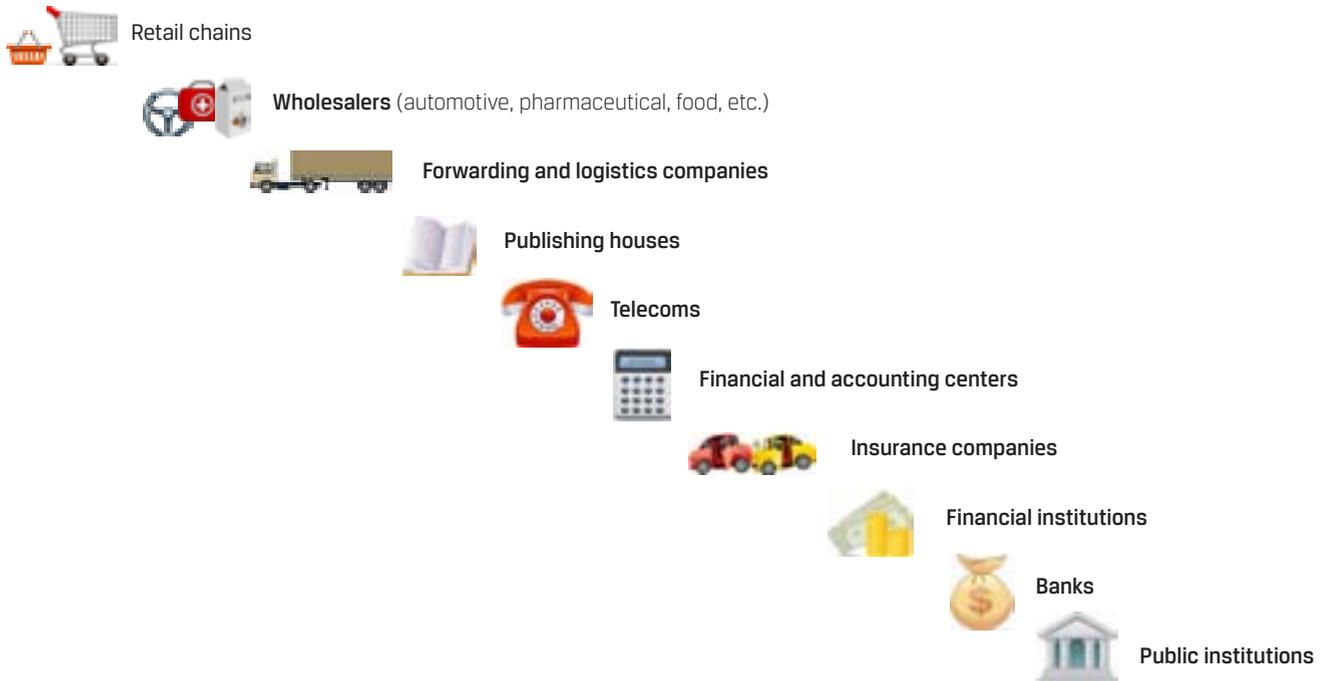


COMARCH DMS INFOSTORE CUSTOMERS

OVERALL CUSTOMER PROFILE:

- ▶ companies with a distributed organizational structure (HQ + branches, networks of distribution warehouses, retail and wholesale networks, etc.)
- ▶ large companies, which despite their centralized location have a complex organizational structure
- ▶ companies exchanging large amounts of printed or electronic documents with their contractors (telecoms, Retail&FMCG, forwarding and freight companies, the power sector, etc.)
- ▶ companies processing large amounts of forms and documents internally (banks, insurance companies, government institutions, offices, etc.)
- ▶ companies with large numbers of employees, forced to keep and file their personal documentation
- ▶ companies processing documents with non-standardized format
- ▶ companies preferring outsourcing

Customer types:



COMARCH DMS INFOSTORE IMPLEMENTATION BENEFITS

- ▶ Quick access to requested information
- ▶ Accelerated workflow of issues and documents
- ▶ Processing of documents without their paper originals
- ▶ Ability to simultaneously provide a document to many employees at many company locations
- ▶ Ability to associate one document image with many issues and customers
- ▶ Processing of issues and documents of many company departments from the level of one application
- ▶ Ability to track the activity and performance of users and the workflow of issues and documents
- ▶ Ability to allocate the 'saved' human resources to new tasks
- ▶ Ability to hold the employees accountable for their work time and efficiency
- ▶ Standardizing the business procedures throughout the organization
- ▶ Increasing the security level of access to documents and data
- ▶ Higher level of support for contractors and customers through automation of standard procedures
- ▶ No need to install and update software in user workstations (application based on the web environment)
- ▶ Costs reduction of documents processing, searching and storage and also business processes handling



WHY COMARCH?...

We know, what to ask about to correctly recognize Your needs and design an adequate solution.
 We are a large and stable partner
 – you will never be left without daily support and ability to expand the systems we implemented.
 We know and are able to avoid the pitfalls related to the processing various types of documents in different sectors.



We are able to integrate with any external system with which Comarch DMS should exchange information.

We are able to provide IT support for any other area of your company business, as a complement to our DMS offer (ECOD, Infrastructure, Loyalty, etc.)

DOCUMENT LIFECYCLE

Documents are one of the **key information carrier** in an organization.

The effective management of documents has a significant impact on improving the quality of business processes within an organization. It makes it possible to improve the security of information, reduce operating costs and eliminate errors. Business decisions are based on reliable and up-to-date data, available to authorized persons when they need it.

Efficient **document management** means effective system support for all areas of the document lifecycle: from the moment of its origination (creation), through capturing the document from any source and location (**capturing**), until it is archived (archiving) so that it is easily accessible from any location (**searching**).

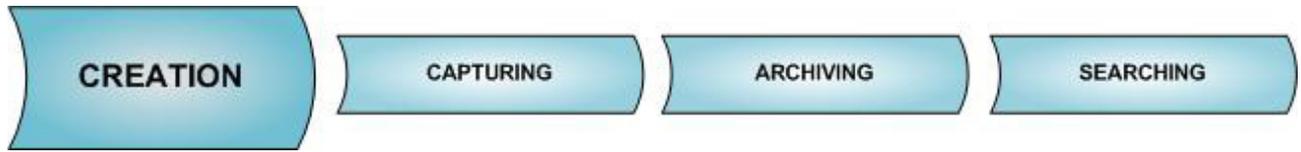


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Standard document processing and archiving scheme in the company using document management system.

CREATION



Documents are created in different places and in different ways.

Handwritten notes, printed documents requiring signatures, invoices or correspondence are **created on paper**.

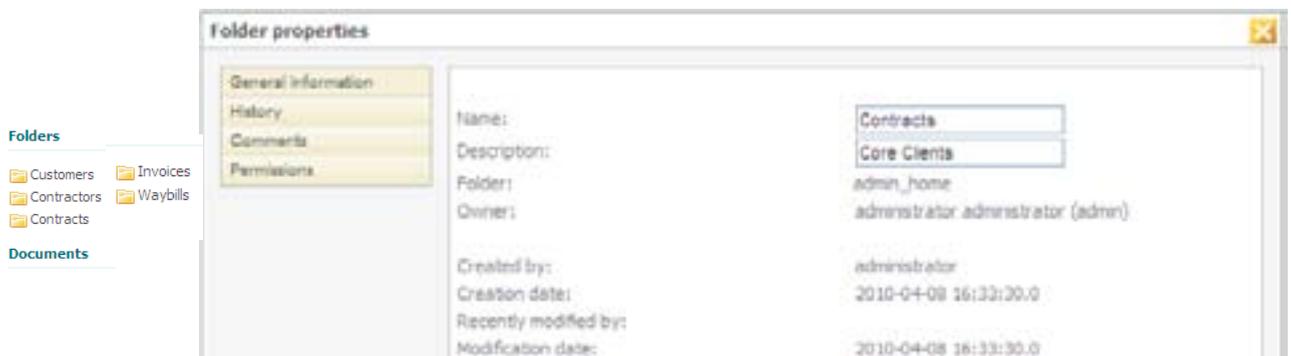
Documents **in electronic format** are typically created in applications which are native for the document **format** in question, such as e-mail clients, word processors, spreadsheets, presentation tools or design software.

Documents are also created as reports, printouts or **data exports** from ERP, CRM, EDI systems as well as data from billing systems.

The document itself is typically created outside of the IT-based document management system, but such a system can easily support work on the electronic version of the document, through the use of **shared repository, versioning and permission management** mechanisms.

In this way, the work that is done on a document is transparent, secure and efficient. This is particularly crucial in cases where a single unauthorized change in the document can be of critical importance (e.g. in trade agreements).

Comarch DMS Infostore supports document creation through a repository that is easily accessible from a web browser and is where documents can be organized in a **folder structure**.

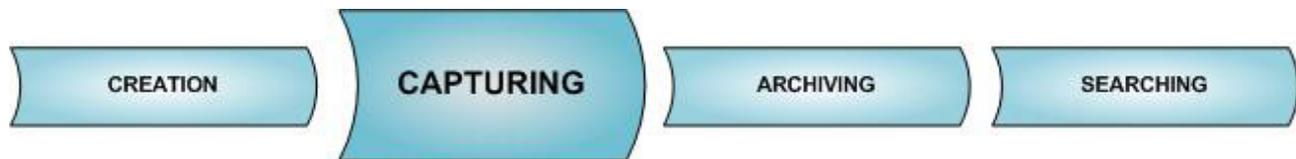


Exemplary windows to define the structure and properties of folders

The **versioning** mechanisms provide a complete history of subsequent changes in the document and make it possible to eliminate the risk of overwriting the results of users' work (modification by one person at a time).

Thanks to **configurable permissions** only authorized users can see or edit the document. Therefore, they can more easily handle the process of document creation and can exercise full control over documents while simultaneously attaining a higher level of ergonomics in their work.

CAPTURING



Comprehensive document management also means effective handling of channels through which documents are captured, in particular: fax and e-mail servers, user files, bulk-captured files and data from IT systems (such as ERP).

During the actual stage of document capture it is important to gather descriptive data (metadata), in order to manage it more effectively.

Comarch DMS Infostore solution provides state-of-the-art **tools for content capture**. Paper documents can be entered by using a scanning application, user document files through a web site, and documents from e-mail and fax servers through dedicated plug-ins.

Additionally, the system enables the bulk importation of files (file interface) and data from external computer systems (web service interface).

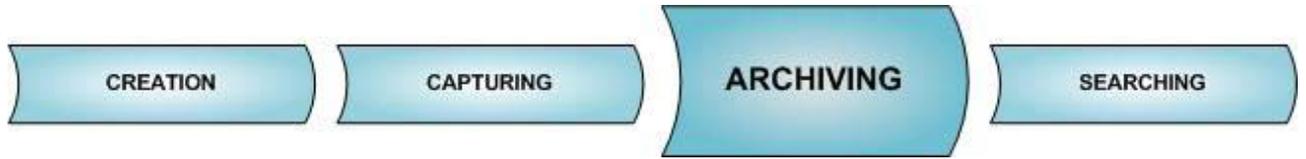
The capture of metadata at this stage can be automated, for example by reading information contained in bar codes (document scanning), e-mail addresses or fax numbers as well as file names (with bulk import of files) or with data from external IT systems (through web services).

Metadata makes it possible not only to find documents in an efficient way, but also to **automate their distribution**, e.g. route a purchase invoice to the right unit of the accounting department or forward a fax message to the sales person handling the customer (by recognizing the sender's telephone number).



Exemplary scanning application window: on the left - document metadata edit panel (index fields)

ARCHIVING



The captured in the system structural data and electronic versions of captured and placed in a repository documents should be archived in a way that guarantees the security and **productivity of the solution**.

Secure archiving takes into account capturing relevant information related to operations performed on the document (audit trail), which can be accomplished only by authorized users

Secure archiving is also a guarantee of interoperability with standard storage media and storing data in a way which enables its easy recovery/migration should there be a subsequent technology change.

Productivity of the archiving solution means ensuring the **quick capture of documents** as required and maintaining this level of productivity should the volume of data or the number of users increase as a result of a scaling-up of the solution.

Comarch DMS Infostore through a structured system of permissions and a recording of the audit trail, provides full control over the 'document lifecycle'. The use of open technology standards and best practices guarantees the system's owner with secure access to data.

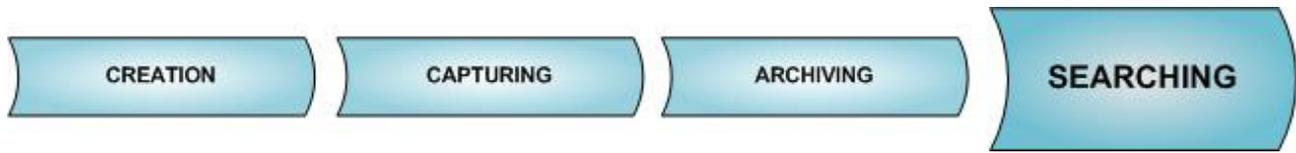
Event name	Date	User	Decision	Description
Starting process	2017-02-01 15:34	System User (system)		Process forur history of administrative growth. Item Requested "via process, PIA
Making decision	2017-02-01 15:35	Grzegorz Pank (zgrzeska@)		
Object creation	2017-02-01 15:40	Anna Hajgrodzka (ahajgro@)		New document: PIA

Exemplary document and user tracing forms

Performance of the solution is ensured through an architecture in which a model of separating the location of the metadata storage (a relational database) from the data itself (mass storage, file systems) was adopted.

The chosen technology stack, in terms of the database (Oracle) and application (J2EE), enables the effective **scalability** of the solution.

SEARCHING



The key to effective document management lies in the **speed** and **ease at which you are able to access your data**. This is why flexible and powerful search mechanisms are so important in the system.

These mechanisms must also be secure enough to allow users the ability to perform only those operations that match their permissions to specific document types.

Comarch DMS Infostore offers state-of-the-art search mechanisms, the security of which is ensured by **an extensive model of permission management**.

Users group/User (login)	Access
Administrators	FullAccess
Coordinators	FullAccess
RecordAdministrators	FullAccess
RepositoryUsers	Read
Rozanski Krzysztof (admin)	FullAccess

Permission groups:

- None
- Browse
- Read
- Write
- Create
- Execute
- Version
- Delete
- FullAccess
- Special

Permissions:

- Take ownership of the object
- Write for children objects
- Write system properties
- Write dynamic indexes
- Write content
- Write permissions

Exemplary access rights configuration window - on the left: defined user groups, on the right: rights assignment panel

In addition to a quick search, as users of Internet search engines are familiar with, the system provides **tools for constructing complex queries**. Users can utilize logical operators to create search criteria based on document metadata, the data describing the document, such as: document type, name, title, author, date modified, ID, etc.

Quick search

Criteria:

Results count:

12 results, show 20 records, Page 1 of 1, Page 1 / 1

Type	Object name	Owner	Created date	Modification date	Properties
	111-111	Krzysztof Rozanski (admin)	2011-02-04 12:00	2011-02-04 12:00	
	111-111	Krzysztof Rozanski (admin)	2011-02-04 12:00	2011-02-04 12:00	

Repository search

Search type:

Search criteria:

Index	Operator	Value	Connector
Epoch	<<<		AND
Data checked out	<	Mar 10, 2010	AND
Folder	<	Confidence	OR
Folder	<	Trade Pockets	OR
Folder	<	Trade	AND

Results count:

Exemplary search forms

DOCUMENTS PREVIEW



In the available user interface of **Comarch DMS Infostore** system **just one click on the selected document is enough to preview its contents**. The system automatically identifies the type of files (image, text file, MS Word® document, etc.) and displays its contents in a new window (as a rule most commonly used graphic formats are supported, such as: TIFF, PNG, GIF, JPEG) or starts the application associated with the file type (e.g. MS Word®).

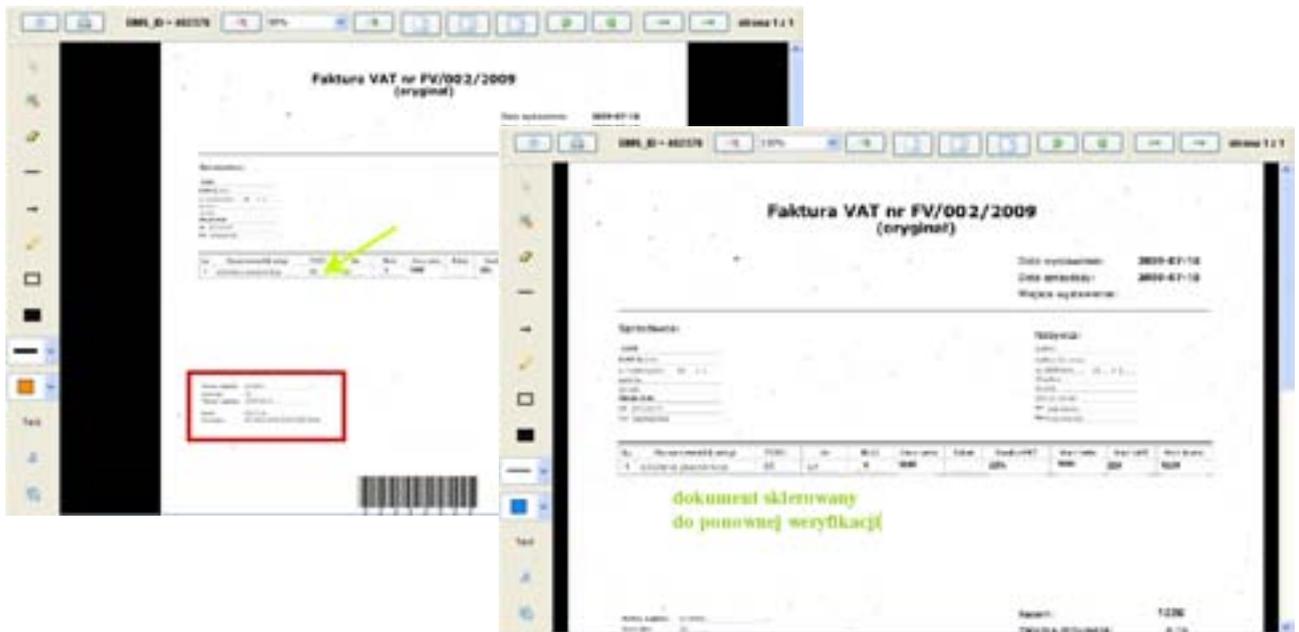
SIMPLE DOCUMENT PREVIEW

Preview of a scanned document is implemented by default with a light module, allowing for quick opening image and access to basic tools of preview - navigation between pages of the document or matching the view.

Preview window always displays the image data to uniquely identify the document in the system: id number and barcode number.

ADVANCED DOCUMENT PREVIEW

If necessary, you can preview the image document by using more advanced applications. Like in a simple version of the preview, the document image displays is a new web browser window, but the advanced module extends the browser with a tool that allows deposition of **additional layers** in the image (text comments and/or graphic mark-outs).



Examples of advanced document preview window

With image editing tools you can easily draw e.g. accounting's attention to the selected invoice position.

Any change in the document image is marked as a separate layer. Thanks to this mechanism the original image of the document remains unchanged, and made annotations can be displayed or hidden with a single click.

MORE INFORMATION:

For more information about the Comarch DMS family of products, please contact our consultant:

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www.comarch.com/trade_and_services



COMARCH DMS
INFOSTORE

COMARCH

Comarch is a dynamic global provider of IT solutions. It is valued by the market mainly for its new technology and the flexibility of its products and services.

Comarch stakes its reputation on knowledge, technology and innovation as well as professional customer service.

The company owns offices in 15 countries worldwide and employs 3500 experts on 4 continents, carrying out approximately 1000 projects per year. Comarch offers 17 years experience and industry expertise.



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ComArch Spółka Akcyjna with its registered seat in Kraków at Aleja Jana Pawła II 39A, entered in the National Court Register kept by the District Court for Kraków-Śródmieście in Kraków, the 11th Commercial Division of the National Court Register under no. KRS 000057567. The share capital amounts to 7,960,596.00 zł. The share capital was fully paid, NIP 677 - 00 - 65 - 406

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