



## **ArcMate Enterprise 7.0 EDMS Technical Specifications**

ArcMate document management system is based on a n-tier architecture that completely separates the server's environment from the client's for superior security and scalability. ArcMate is a true n-tier, not just a web façade over a legacy client - server architecture.

The core EDMS and imaging functions are imbedded inside an XML web service built with .Net technology to provide standardization and dependability in addition to a very high security level. ArcMate appears as a standard web site to client machines, all upgrades and maintenance are done on the server side.

ArcMate is fully multi lingual (English/French/Arabic) with on-the-fly switching between interface languages.

ArcMate is a scalable system designed to be implemented to small and medium organizations as well as large enterprises with its high performance repository and disaster recovery capabilities.

Your long term investment is secure, ArcMate is an open system that relies on no proprietary technologies, data is saved in industry standard formats and can be exported to standard XML.

ArcMate supports state of the art database engines (Oracle and MS SQL Server), ODBC compliant databases.

Import function from delimited text files ensures upgradeability of legacy application data, an easy to use wizard interface will guide the user through the steps of migrating legacy data to ArcMate environment.

Clients can interface with the system using a standard web browser to enter and retrieve documents with no need for any software installation on their machines, as for advanced image processing and scanning, users can interface using the special capture module.

No need for any software (including database connection drivers) on the client machines. All system functionality is web based. Capture module is only necessary for advanced image manipulation / printing and scanning and requires no database client installation or configuration.

ArcMate comes with its embedded document routing feature and integrates with powerful stand alone workflow engines to define document routing and approval chains.

### **New to version 7.0**

- Security and internal email systems now common to all projects: ArcMate 7.0 projects now share the same set of users and groups, simplifying cross project internal email system and providing a single logon to all accessible archives.
- Enhanced and expanded web service API: Version 7.0 provides a much enhanced API, for both XML web service and COM object.
- Easier project creation and management: wizard based settings and project management.
- In addition to many new optional modules and other enhancements.

### **Document Capture**

- ArcMate accepts any type of electronic documents (voice, video, spreadsheets, ...).
- Batch scanning support, the system can create a new record for each document and sense different page separators.
- Very fast operation, no need for dedicated hardware compression devices.
- Page insert / delete / reorder



- ArcMate recognizes blank and special barcode pages as document separators for batch scanning.
- Supports industry standard scanners (Simplex/Duplex/Color/Mono...)
- Direct archiving from Microsoft Office applications (MS Word, MS Excel and MS Power Point).
- Drag and Drop archiving for electronic documents.
- Upload document using HTTP from either internet explorer or capture module.
- Monitor folders for automatic acquisition of files.

### **Document Storage**

- Documents can be saved on the server file system or inside the database records for additional security.
- Documents can be encrypted to prevent unauthorized access to the physical storage repository.
- ArcMate uses industry standard file formats for image documents and metadata files.
- Support of two sided, multi page documents and multi documents records, documents and pages can be arranged at will. Documents can be assigned different security levels and access privileges.
- Support of document aging, documents are assigned a certain lifespan after which they are automatically removed from the system.

### **Indexing**

- Users can freely define metadata entry forms with no limits on number of fields. Field types can be (among others) : text, numeric, date, logical, lists, combo ...
- Default values and validation rules can be defined for metadata fields.
- Project designers can construct substitution lists for text fields where any word or group of words can be substituted by a number or a keyword to accelerate entry.
- Documents are grouped in folders in a multi level tree structure with security settings for each folder.
- Files in each document can be further categorized into document specific or project wide subfolders.
- Multiple sets of indexing fields (applications) for each individual archive
- Index each type of document with its custom design application profile.
- Security profiles applicable for each application.
- [Cabinet / drawer / file structure for tree folders.](#)

### **Document Viewing**

- Supported raster image formats:
  - JPG (JPEG File Interchange Format).
  - TIF (Tagged Image File Format).
  - Gif (CompuServe Gif).
  - BMP (Windows Bitmap).
  - ICO (Windows Icon File).
  - CUR (Windows Cursor File).
  - FPX (FlashPix)
  - PCX (ZSoft PCX).



XPM (XPicmap File).  
PGM (Portable Greymap).  
PPM (Portable Pixelmap).  
CUT (Dr. Halo).  
PSD (Adobe Photoshop).  
PNG (Portable Network Graphics).  
TGA (TARGA).  
EPS (Encapsulated PostScript).  
WPG (Word Perfect Graphics).  
CLP (Windows Clipboard).  
SGI (Silicon Graphics Image).  
SCT (Scitex Continuous Tone format).  
PDF (Raster PDF Format).  
WFX (Winfax file Format).  
ICA (IOCA file Format).  
CAL (CALs File Format).  
AWD (Microsoft FAX format).  
MAC (MaxPaint file Format).  
MSP (Microsoft Paint).  
PBM (Portable Bitmap).  
IMG (GEM Image).  
SMP (Xionics format).

- Support for firewall environments, ArcMate delivers image documents to web browser clients as standard HTML files, no need for any ActiveX control on the client's machine.
- Free zoom / Magnifying lens and scale to gray for B/W documents.
- Thumbnail views of image documents for web browser as well as capture module clients.
- OCR capability for Latin text with control of OCR areas and interactive correction, output text could be saved either as plain text or as DOC, PDF, RTF or HTML and other formats files.
- Print / Fax / Email documents directly from within ArcMate.

### **Annotations**

- Annotations can be added to any image on a separate layer without affecting the original document. Documents can be printed with or without annotations according to security privileges.
- Each annotation could have its own security level and access privileges, so annotations could be used to hide parts of the document from unauthorized users (redaction). Security is maintained on web browser viewing by "burning" the annotations on the downloaded copy of the document (while keeping the original one intact).
- Documents could be printed with or without annotation layer.
- Annotation types: Line, Rectangle, Circle, Highlight, Stamps (freely definable), Free text.
- Support of multimedia (audio and video) annotations.
- Search for any text in annotations.



### **Search and retrieval**

- ArcMate can index any metadata field to accelerate search with special emphasis on Arabic language peculiarities like ignoring Hamzas, Diacritics, Kashidas, Alef Maksoura and Taa Marbouda in search operations.
- Every user can store his database queries to run it again at any time.
- Any metadata field or group of fields can be searched. Approximate and wild card searches are supported.
- Documents could be retrieved from either the record metadata or from tags attached individually to each document.
- Record searchable metadata includes creator / date of creation and record identification number.
- Complex logical queries: any combination of “and” / “or” / “not” operators.
- Search results can be exported to delimited text files.
- A simple "Google" like web search page that enables anybody to find documents without any prior knowledge of ArcMate.

### **Security**

- Security model based on Users/Groups, each user or group of users could be assigned permissions to do specific operations or view certain documents.
- Accounts expiry date.
- Passwords encryption for added security.
- Levels of security could be assigned to records, documents, tree folders and individual annotations.
- Sensitive documents can be password encrypted individually regardless of the document security settings.
- Administrators can watch certain users/groups, operations or folders.
- Passwords can be periodically changed, ArcMate alerts administrators when the password is due to be changed.
- Documents and tree branches have distinct security levels and user/group access lists [that enable administrators to specify allowed operations on each object \(view, modify, delete, print ...\)](#). The user should have the necessary level or privilege to be able to access the data. Parts of the archive can be hidden from certain users according to their security level or privileges.
- System administrators can hide or display certain metadata fields from certain users according to their security level or privileges.
- E-Mail notifications and reminders for failed logins attempts, password expiration, ...
- The system prevents print screens, right click copy and save from web browsers.



## Add-on optional modules

### 1 - ISIS

ISIS scanners interface support.

### 2 - Scanner Sharing

Routing scanned documents to any indexing workstation.

- Scanner operators can select to route documents to a certain user or all users for metadata entry.
- Auto naming of scanned documents with prefix letters and numeric counters.

### 3 - Image Editing

- Image editing functions:  
Pen / Eraser / Free Text / Color chooser
- An extensive set of image manipulation functions, some of which are:
  - Flip Horizontal / Vertical
  - Mirror
  - Any Angle Rotation
  - Deskew
  - Despeckle
  - Shear
  - Resample
  - Change Color Depth
  - Crop
  - Smooth
  - Brightness / Contrast
  - Hue / Saturation
  - Histogram Equalize
  - Stretch Intensity
  - Gamma Correction
  - Intensity Detection

### 4 - Advanced Image editing

- Group editing functions in stored templates to apply to document batches.
- Productivity reports for data entry operators, the system counts documents, files and pages entered by each user and provides administrators with detailed reports.
- Advanced editing functions:
  - Line Removal
  - Reverse Text
  - Border Removal
  - Punch Holes Removal
  - Color Reverse



- Image filters:  
Posterize / Mosaic / Average / Median / Sharpen / Enhance Edge / Oilify / Gradient / Laplacian / Sobel / Prewitt / Shift and Difference / Line Segment / Erosion / Dilation
- Color Separation: RGB / CMY / CYMK / HSV / HLS
- Count unique colors
- Support for the following vector formats:  
DXF (Drawing Interchange Format).  
DRW (DRaWing - Micrografx Designer).  
CGM (Computer Graphics Metafile).  
PCT (Macintosh QuickDraw)  
PLT (HPGL – Hewlett-Packard).  
WMF (Windows Meta File).  
EMF (Windows Enhanced Meta File).  
BGR (Gerber).  
PCL (Printer Command Language – Hewlett-Packard).  
SHP (ESRI Shape – Environmental System Research Institute).  
SVG (Scalable Vector Graphics Format).

#### **5 - EMail and fax archiving module**

- Archive email messages directly. ArcMate connects to any POP3 and SMTP servers to receive and send emails. Messages can be routed within the system according to sender, subject or special keywords.
- Extracts email attributes (From, to, subject ...) to metadata fields.
- ArcMate accepts and route incoming faxes to different users according to the administrator settings.

#### **6 - Content indexing module (full text search)**

- Automatically OCR scanned documents and add results to the full text archive.
- ArcMate supports full text indexing of many file types: Text, HTML, Microsoft Office documents, PDF ....
- Users can search for any word inside the documents text directly without any need to enter metadata or do any document structuring.
- [Hits highlight for search results.](#)

#### **7 - Arabic OCR module**

- Support of Arabic OCR of scanned pages. (requires Sakhr OCR engine – sold separately).
- Sakhr OCR operation is completely transparent, all OCR operations take place in the background with no need to learn any new user interface or software application.

#### **8 - CD publishing module**

- [Any part of the archive can be exported to an open database system that can be browsed using any web browser without any software installation.](#)
- [AJAX \(XML/JAVA Script\) technology for off line browsing and search.](#)



- Full searching and viewing capabilities.

### **9 - Active Directory integration module**

Active directory user authentication and single login support.

### **10 - Oracle DB connection module**

Seamless support of Oracle 8i, 9i database engines for archiving projects.

### **11 - Zone OCR module**

- Metadata entry fields can be filled automatically from text areas located on defined parts of the page for batch scanning.
- Text areas can be saved in templates for different kinds of documents.
- Multiple templates could be defined for each project.

### **12 - Zone bar code module**

Same functionality of Zone OCR with support for the following OCR types:

- Linear barcodes (1D): EAN 13, EAN 8, UPC A, Code 3 of 9, Code 128, Interleaved 2 of 5, CODABAR, UCCEAN 128
- PDF barcode: PDF417 (2D)
- Data Matrix (2D): DM\_DEF, DM\_10x10, DM\_12x12, DM\_14x14, DM\_16x16, DM\_18x18, DM\_20x20, DM\_22x22, DM\_24x24, DM\_26x26, DM\_32x32, DM\_36x36, DM\_40x40, DM\_44x44, DM\_48x48, DM\_52x52, DM\_64x64, DM\_72x72, DM\_80x80, DM\_88x88, DM\_96x96, DM\_104x104, DM\_120x120, DM\_132x132, DM\_144x144, DM\_8x18, DM\_8x32, DM\_12x26, DM\_12x36, DM\_16x36, DM\_16x48, DM\_WRITE\_RECTANGLE

### **13 - Disaster recovery module**

Reconstruct archiving projects from document storage area if the database is corrupted for any reason.

### **14 - XML export and backup options**

- Standard XML Import / Export of all project information. The user long term investment is guaranteed through world class compatibility.
- XML backup includes binary data in standard Base 64 format.
- Full and differential backup operations.
- Scheduled backups (unattended)

### **15 - Document routing module**

- Scanned and imported documents can be routed among users in an unlimited number of user definable stages, user roles in the route could be defined by system administrator.
- Routes are represented graphically.
- Multiple actions could be performed by authorized users: create, accept, reject, submit, approve, publish....
- Email notification of timed out actions.
- Full audit trail of route history with



- Delegation of user rights to other users either by the user himself or by the system administrator.
- Full reports on user roles and permitted actions.
- [Programmable document disposal \(deletion\) process.](#)

### **16 - Image enabling**

- Image enabling provides an easy method to integrate ArcMate with other database application systems.
- Image enable Windows applications through the ArcMate system API that allows other applications to tap the powerful imaging capabilities of the ArcMate.
- Image enabling without source code: screen scraping techniques could be used to image enable other Windows / web browsers or legacy terminal emulation applications using a key for image enabling.

### **17 - Image printer**

- The ability to store electronic documents in their original formats or as standard images.
- Automatic generation of image thumbnails and snapshots for electronic documents for easy preview of their contents.
- Export any electronic document (Word processor, spread sheet,...) to a standard image and distribute it without needing the original application.

### **18 - Internal email system module**

- Mail messages and attach documents among ArcMate users without any external email server.
- Security settings are maintained for documents when mailed among users.
- Documents do not occupy any space when attached to email messages, only shortcuts are copied in the messages.
- Email announcements to entire groups at the same time.

### **19 - Advanced Security Module**

- Audit trail: full logging of system activities according to the system manager wishes. All user activities can be monitored.
- Hide records and documents based on certain values in indexing fields. (example: hide all records that have the type "invoice" from unprivileged users.
- Restrict login times for certain users or groups.
- Security policies for user accounts (password age, formation, ...)

### **20 - ODMA Support**

Direct indexing and archiving from any ODMA enabled application.

### **21 - Background OCR Server**

- Moves all time and resource consuming OCR operation to a dedicated machine.
- Free scanning and acquisition workstations from OCR operations burden to achieve maximum entry productivity.
- A single OCR license, customers do not have to pay licensing fees for each scanning workstations.



## **22 - Versioning**

- Version management for tracking document revisions.
- Versioning support for image as well as electronic documents.
- Check-in and check-out documents for collaborative work.

## **23 - Data import**

- Import documents and indexes from standard delimited text files.
- No need of any knowledge of the internal database details of ArcMate.
- Easy data transfer from legacy systems.
- An easy to use wizard interface guides users through the necessary steps of import operations.
- Data import templates could be saved and reused.

## **24 - Additional interface language**

- ArcMate comes standard with one language interface. Each additional language comes as an option.

## **25 - COM object integration API**

- An advanced API that consists of dozens of functions implemented in a fully documented and easy to use COM object that can be embedded in any programming environment.
- Sample code in many programming languages.
- System integrators can build entire client applications.

## **26 - Indexing fields auto fill module**

- The ability to build complex indexing data processing applications to service the customer's specific needs.
- This module could be sold separately for the customer to build his custom processing application or bundled with the required functionality.

## **27 - Productivity reports**

- Assess data entry operators' productivity with detailed reports on documents/files/pages scanned or entered in any time interval.

## **28 – Capture module (Replaces Remote scanning module)**

- Reduce network traffic during peak hours by scanning to a local workstation and transfer images later.
- Enable scanner to work at full speed even in WAN environments where network bandwidth is limited.
- Leverage existing staff and network infrastructure.
- [Data upload can be done on-line or off-line with any media type.](#)
- [Automatic form recognition.](#)
- [Head up digitizing](#)
- [Double data entry for additional quality control.](#)
- [Many scanner and image profiles can be saved and applied.](#)



- Collaborative work with a programmable staging system for document quality control and approval processes.
- Programmable release script with sample code in Visual Basic and Visual basic .Net.

### **29 – Reporting module**

- Customizable and professional looking reports with Crystal Reports.
- User specific report templates can be saved and later retrieved.
- User definable report properties (fields, fonts, sizes, colors, page size, ..).
- PDF output and export.

### **30 – Digital Signatures module**

- Users can digitally sign documents to ensure authenticity and data integrity.

### **31 – Multiple server operation and synchronization module**

- Multiple ArcMate servers (local or remote) can be configured to work on the same archive.
- Full on-line or off-line synchronization