

# Standards for Digital Records Programs

ARMA Baltimore, 2007

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## DLM Forum – ERM standards listing

Please be aware that many standards such as MoReq and ISO 15489 cover many of the below concepts. DLM Forum has listed these standards in the category considered “most relevant” using the structure from AIIM’s ERM training program. This list of standards and resources is not intended to be comprehensive, but provides a substantive overview for further exploration.

### ***ERM terminology***

- Information and documentation — ISO 15489, parts 1 & 2
- ANSI/AIIM TR2-1998, Technical Report for Information and Image Management – Glossary of Document Technologies available from AIIM international
- MoReq – Model Requirements for the Management of Electronic Records. Published by the Office for Official Publications of the European Commission, 2002, ISBN 92-894-1290-9.
- ISO 12651:1999 Electronic imaging - Vocabulary

### ***Creating & capturing records***

- ISO 12652 Technical report on planning considerations addressing preparation of documents for scanning system
- ISO 12653:2000 Electronic Imaging – Test target for black-and-white scanning of office documents
- ISO 12033 Electronic imaging - Guidance for selection of document image compression methods
- ISO/TS 12022:2001 Electronic imaging – Guidance of document image compression methods
- ANSI/AIIM TR15-1997 – Planning Considerations, Addressing Preparation of Documents for Image Capture
- ANSI/AIIM TR32-1994 – Paper Forms Design Optimization for Electronic Image Management

### ***Classification***

- ISO 15489 Information and documentation - Records Management.
- MoReq - Model Requirements for the Management Of Electronic Records, as published by the European Commission
- The *Design and Implementation of Record - Keeping Systems* (DIRKS) methodology developed by State Records New South Wales and National Archives of Australia. This is the most fully developed methodology for reengineering records management systems, including the close relationship with business change and the functional approach to BCS.
- ISO 2788, on Documentation, entitled “Guidelines for the Establishment of Monolingual Thesauri”, dated 1986(E) but under review.

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## ***Access controls***

- ISO/IEC 15816:2002 Information technology - Security techniques - Security information objects for access control
- ISO/IEC 17799:2005 Information technology - Security techniques - Code of practice for information security management
- ISO/IEC 18028-1:2006 Information technology - Security techniques - IT network security - Part 1: Network security management
- ISO/IEC 18028-5:2006 Information technology - Security techniques - IT network security - Part 5: Securing communications across networks using virtual private networks

## ***Storage, search & retrieval***

- ISO 15801:2004 Electronic Imaging – Information stored electronically – Recommendations for trustworthiness and reliability
- ANSI/AIIM TR25-1995 – The use of optical disks for public records
- Information retrieval protocol (ANSI Z39.50/ISO 23950)

## ***Retention and disposal***

- MoReq – Model Requirements for the Management of Electronic Records. Published by the Office for Official Publications of the European Commission, 2002, ISBN 92-894-1290-9. Copies available in several languages from <http://www.cornwell.co.uk/moreq.html>
- ISO/TR 12037:1998 Electronic imaging – Recommendations for the expungement of information records on write-once optical media.

## ***Metadata***

- Federal Enterprise Architecture (FEA) Data Reference Model (DRM) Final Version 2.0
- UK e-Government Metadata Standard (e-GMS)
- The Dublin Core Metadata Initiative (DCMI)
- AIIM (Integrated EDM/ERM Functional Requirements)
- The National Archives (UK) Functional Requirements for ERM: Metadata Standard
- Information and documentation — ISO 15489, parts 1 & 2
- MoReq - Model Requirements for the Management of Electronic Records
- Records Management processes - Metadata for records – ISO 23081, part 1
- Australian Recordkeeping Metadata Schema (RKMS)
- Designing and Implementing Recordkeeping Systems (DIRKS, Australia)
- Standard for Electronic Records Management, US Dept. of Defense, DoD 5015.2-STD
- Character encoding (ASCII, ISO 10646, ISO 8859)
- Country names (ISO 3166)
- Date format (ISO 8601, BSI DISC PD2000)
- Information retrieval protocol (ANSI Z39.50/ISO 23950)
- Language codes (ISO 639)

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- Thesauri (ISO 2788, ISO 5964)

## ***Discovery & disclosure***

- Information and documentation — ISO 15489, parts 1 & 2

## ***Migration***

- ISO 14721:2003 Space data and information transfer systems -- Open archival information system -- Reference model

## ***Digital preservation***

- PADI – Preservation and Access to Digital Information - <http://www.nla.gov.au/padi/>
- Digital Preservation Coalition – <http://www.dpconline.org>
- File Format Information Registry Initiatives
- PRONOM - <http://www.nationalarchives.gov.uk/pronom/>
- Global Digital Format Registry (GDFR) - <http://hul.harvard.edu/gdfr/>
- Library of Congress Format Descriptions <http://www.digitalpreservation.gov/formats/fdd/descriptions.shtml>
- ISO 19005-1:2005 Document management -- Electronic document file format for long-term preservation -- Part 1: Use of PDF 1.4 (PDF/A-1)
- ISO 14721:2003 Space data and information transfer systems -- Open archival information system -- Reference model

## ***Software certification***

- Design Criteria Standard for Electronic Records Management Software Applications, US DOD 5015.2-STD. Published by the Assistant Secretary of Defense for Command, Control, Communications and Intelligence, 2002. <http://www.dtic.mil/whs/directives/corres/html/50152std.htm>
- DOMEA® Concept Requirement catalogue 2.0. Published by Federal Government Co-ordination and Advisory Agency (KBSt), 2005. <http://www.kbst.bund.de/doc,-304105/Federal-Government-Co-ordinati.htm>
- Electronic Recordkeeping Systems Standard. Published by Archives New Zealand, 2005. <http://www.archives.govt.nz/continuum/dls/pdfs/ARC2529ElectronicRecordkeepingStandard.pdf>
- Functional specification for Integrated document And records management solutions. Published by National Archives and Records Service of South Africa, Department of Arts and Culture, 2004. [http://www.national.archives.gov.za/rms/nars\\_func\\_t\\_spec.pdf](http://www.national.archives.gov.za/rms/nars_func_t_spec.pdf)
- MoReq – Model Requirements for the Management of Electronic Records. Published by the Office for Official Publications of the European Commission, 2002, ISBN 92-894-1290-9. Copies available in several languages from <http://www.cornwell.co.uk/moreq.html>
- NOARK-4 - Norwegian recordkeeping system Version 4. Published by Riksarkivet - The National Archives of Norway, 1999 (English version 2000). <http://www.riksarkivet.no/english/electronic.html>

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- Protocollo Gestione. Published by CIPNA, 2001. Available in Italian only. [http://protocollo.gov.it/libreria\\_03.asp](http://protocollo.gov.it/libreria_03.asp) and [http://www.cnipa.gov.it/site/it-IT/Aree\\_operative/Progetti,\\_applicazioni\\_e\\_servizi/Protocollo\\_informatico/](http://www.cnipa.gov.it/site/it-IT/Aree_operative/Progetti,_applicazioni_e_servizi/Protocollo_informatico/)
- Requirements for the management of electronic records by Italian government Records/Document/Information Management (RDIM): Integrated Document Management System for the Government of Canada. Published by the Information Management Standards and Practices Division, National Archives of Canada, 1996. <http://www.collectionscanada.ca/information-management/docs/4rdims.pdf>
- Records Management Service Components Requirements Development Project Final Report. Published by the National Archives and Records Administration, 2005. <http://www.archives.gov/era/rmsc/rmsc-documents.html>
- ReMANO. Softwarespecificaties voor Records Management Applicaties voor de Nederlandse Overheid. Published by Archiefschool, 2004. Available in Dutch only. <http://www.archiefschool.nl/remano2004.htm>
- Requirements for Electronic Records Management Systems (4 volumes). Published by The National Archives, 2002. <http://www.nationalarchives.gov.uk/electronicrecords/reqs2002>
- Victorian Electronic Records Management Strategy (VERS). Published by Public Record Office Victoria (PROV), standard 99/007, 2003. <http://www.prov.vic.gov.au/vers/vers/default.htm>

## ***Security classification***

- ISO/IEC 15816:2002 Information technology - Security techniques - Security information objects for access control
- ISO/IEC 17799:2005 Information technology - Security techniques - Code of practice for information security management
- ISO/IEC 18028-1:2006 Information technology - Security techniques - IT network security - Part 1: Network security management
- ISO/IEC 18028-5:2006 Information technology - Security techniques - IT network security - Part 5: Securing communications across networks using virtual private networks

## ***Legislation, standards and regulation***

- ISO 12654 - Electronic imaging -- Recommendations for the management of electronic recording systems for the recording of documents that may be required as evidence, on WORM optical disk
- CAN/CGSB-72.34-2005 – Electronic Records as Documentary Evidence
- ANSI/AIIM TR31-2004 – Legal acceptance of records produced by information technology systems
- ISO/TR 18492:2005 – Long-Term Preservation of Electronic Document-Based Information
- ISOI/NP 26102 – Information and Documentation – Requirements for Long-Term Preservation of Electronic Records

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## Additional Industry Guidelines

### *Document imaging and document management*

- ISO 10196:2003, Document Imaging application – Recommendations for the creation of original documents
- ISO/TS 12022:2001, Electronic imaging – Guidance of document image compression methods
- ISO/TR 12037:1998, Electronic imaging – Recommendations for the expungement of information recorded on write-once optical media
- ISO 12651:1999, Electronic imaging – Vocabulary
- ISO/DTR 12652, Technical report on preparation of existing documents for image capture systems
- ISO 12653-1:2000, Electronic imaging – Test target for the black-and-white scanning of office documents – part 1: Characteristics
- ISO 12653-2:2000, Electronic imaging – Test target for the black-and-white scanning of office documents-Part 2: Method of use
- ISO/TR 14105:2001, Electronic imaging – Human and organizational issues for successful electronic image management (EIM) implementation
- ISO 15801-2004, Electronic imaging – Information stored electronically – Recommendations for trustworthiness and reliability.
- ANSI/AIIM TR2-1998 – Glossary of Document Technologies
- ANSI/AIIM TR15-1997 – Planning Considerations, Addressing Preparation of Documents for Image Capture
- ANSI/AIIM TR21-1991 – Recommendations for the Identifying Information to be Placed on Write-Once-Read-Many (WORM) and Rewritable Optical Disk (OD) Cartridge Label(s) and Optical Disk Cartridge Packaging (Shipping Containers)
- ANSI/AIIM TR25-1995 – The Use of Optical Disks for Public Records
- ANSI/AIIM TR27-1996 – Electronic Imaging Request to Proposal (RFP) Guidelines
- ANSI/AIIM TR28-1991 - The Expungement of Information Recorded on Optical Write-Once-Read-Many (WORM) Systems
- ANSI/AIIM TR31-2004 – Legal Acceptance of Records Produced by Information Technology Systems
- ANSI/AIIM TR32-1994 – Paper Forms Design Optimization for Electronic Image Management (EIM)
- ANSI/AIIM TR 33-1998 – Selecting an Appropriate Image Compression method to Match User Requirements
- ANSI/AIIM TR34-1996 – Sampling Procedures for Inspection by Attributes of Images in Electronic Image Management (EIM) and Micrographics Systems
- ANSI/AIIM TR35-1995 – Human and Organizational Issues for Successful EIM System Implementation
- ANSI/AIIM TR40-1995 – Suggested Index Fields for Documents in Electronic Image (EIM) Environments
- ANSI/AIIM MS52-1991 – Recommended Practice for the Requirements and Characteristics of Original Documents Intended for Optical Scanning

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- ANSI/AIIM MS53-1993 – Recommended Practice; File Format for Storage and Exchange of Image; Bi-Level Image File Format: Part 1
- ANSI/AIIM MS55-1994 – Recommended Practice for the Identification and Indexing of page Components (Zones) for Automated Processing in an EIM Environment

## ***Document Services Industry Standards***

- Document Management Alliance (DMA) – The DMA organization included more than 60 user and vendor companies working together as a task force to define interoperability specifications that meet the requirements of enterprise document management systems. The DMA specification defined software component interfaces that enable uniform search and access to documents stored in multi-vendor document management systems.
- DMWare – DMWare is the open-source distribution and development clearinghouse. The subject matter of DMWare, based on the work of the DMA and of the Open Document Management API (ODMA) coalition, is public, openly contributed document management software, documentation, and metadata definitions.
- Open Document management API (ODMA)

## ***Records Management Standards***

- ANSI/ARMA 16-2007 – The Digital Records Conversion Process: Program Planning, Requirements, Procedures

## ***Storage and Archival Standards***

- ANSI/AIIM TR41-2006 – Optical Disk Storage Technology, Management and Standards
- ISO/IEC 17345:2004 – Information Technology – Data Interchange on 130mm Rewritable and Write Once Read Many Ultra Density Optical (UDO) Disk Cartridges – Capacity: 30Gbytes per cartridge (first generation)
- ANSI/INCITS 212-1992 (R2002) (ISO/IEC 10089:1991) – 130mm Rewritable Optical Disk Cartridge for Information Interchange
- ISO/IEC 13549-1993 – Data Interchange on 130mm Optical Disk Cartridges – Capacity: 1,3Gigabytes Per Cartridge
- ISO/IEC 11560:1992 – Information Interchange on 130mm Optical Disk Cartridges Using the Magneto-Optical Effect, for Write Once, Read Multiple Functionality

## ***Workflow Industry Standards***

- WfMC – Application programming Interface (Interface 2 & 3)
- WfMC – Audit Data Specification
- WfMC – Interoperability, Internet, e-mail MIME Binding

## **Websites of Interest**

American National Standards Institute – [www.ansi.org](http://www.ansi.org)

ARMA International – [www.arma.org](http://www.arma.org)

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[dlmforum.typepad.com](http://dlmforum.typepad.com)

Department of Defense, RMA Certification Website  
[jitc.fhu.disa.mil/recmgt](http://jitc.fhu.disa.mil/recmgt)

International Organization for Standardization Website  
[www.iso.ch](http://www.iso.ch)

National Archives of Australia, Digital Recordkeeping  
[www.naa.gov.au/recordkeeping/er/guidelines/DigitalRecordkeeping.pdf](http://www.naa.gov.au/recordkeeping/er/guidelines/DigitalRecordkeeping.pdf)

National Information Standards Organization (NISO)  
[www.niso.org](http://www.niso.org)