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APPENDIX 10 - INFORMATION ON OTHER RECORDS MANAGEMENT APPLICATONS AND THEIR APPROPRIATE USE

Automated recordskeeping systems have been developed which use databases for specialized records management functions. These include but are not limited to:

- Electronic Document Imaging (EDI)
- Enterprise Report Management (ERM)
- Computer-Assisted Retrieval (CAR)
- Scan On Demand Document Conversion Systems
- Records Center Management Systems

Electronic Document Imaging (EDI)

Electronic Document Imaging (EDI) is a technology designed to provide for the storage and retrieval of all bitmapped documents, regardless of format, though most often a group four (compression) tiff (tagged information file format). Tiff files have become a standard primarily due to their loss-less attributes. That is, the bitmap is an accurate map of the pixels as compared to jpeg, etc. Storage and retrieval approaches have often included various aspects of "hierarchical storage management" (HSM) and database strategies for scaleable (expandable from a few users to the entire organization) document imaging solutions.

HSM software works with document imaging to manage equipment-storing images on multiple optical disks (in a "jukebox" like device). As hard drive costs have plummeted jukeboxes are less in demand and HSM software is also in less demand.

Image backups are made on various media, however, CD ROMs and other optical media are currently **favored for their stability**. Estimates of their storage reliability range from fifteen to one hundred years, though thirty to fifty years is considered by most to be reliable and is discussed in further detail in the Care of Storage Media section of this publication. Electronic Recordskeeping Systems (ERS) utilize EDI as a records repository resource.

Computer-Assisted Retrieval (CAR)

Broadly defined, the phrase computer-assisted retrieval (CAR) denotes an automated document storage and retrieval technology that uses computer hardware and software to index and locate documents or document images recorded on any media. CAR systems use database management software to create, maintain, retrieve and manipulate machine-readable records that contain index information accompanied by pointers to document locations. At retrieval time, the index is searched to determine the existence and storage locations of documents related to specific information needs.

While computer-assisted retrieval concepts can be applied to paper documents and to document images recorded on magnetic or optical media, the most common use of CAR in State government is with systems that utilize microforms for document storage. This use of computer-assisted retrieval combines the space savings and other advantages of microform storage with the ability of computers to rapidly manipulate index information. From the computer standpoint, the CAR approach simplifies data entry and on-line storage by limiting those activities to index data rather than entire documents.

A microform-based computer-assisted retrieval system includes computer and micrographic subsystems. A CAR system's computer components support the entry, maintenance, and processing of index records that are linked to document images stored by the micrographic subsystem.

The computer system includes a central processor, a display unit with keyboard, and sufficient magnetic disk capacity for on-line storage of data base records, supporting files, and CAR software.

Optional hardware components include a printer and telecommunication links to other computer systems. Computer configurations will vary with application characteristics.

Scan on Demand Document Conversion Systems

Electronic recordskeeping systems manage all types of documents that constitute a specific record. This may include paper or microfilm left in their original form. Depending upon an organization’s business requirements, it may not be necessary to have all documents available to the system in electronic format. Time or other constraints may prohibit the immediate conversion to electronic format. Scan on demand allows conversion at or near the time the system becomes operational.

When the need for an electronic copy arises, the electronic recordskeeping system can incorporate a “scan on demand” methodology that can provide a document upon request. This can be initiated by a simple e-mail message or be part of a more complex rule based

electronic workflow. The key to utilizing this approach is a thorough understanding of the underlying business need, which can result in a dramatic cost reduction associated with document conversion.

Enterprise Report Management (ERM)

Enterprise Report Management (ERM), previously known as Computer Output to Laser Disk or COLD, is an integrated software and hardware solution that captures, stores and indexes formatted computer output (pages) on optical disks, magnetic disk, or magnetic tape as an alternative to paper printouts or computer-output-to-microfilm (COM).

Fields on any ERM report can be used to create indexes for quick retrieval. Print output files are stored in their native "raw" format--not converted into a raster file--and compressed to reduce storage space requirements. Any individual with proper security privileges can access the data.

The type of data that ERM technology is typically concerned with is the result of transactions (data files and database records) being formatted by the application into page-oriented form for printing on paper or computer output to microfiche (COM). The data focuses on a particular time period and the output has a specific, known structure and format.

The ERM process mainly involves two procedures: recording (indexing and storing the data) and retrieving (making the data available to users). However, there are other complex tasks that need to be addressed. Data must be downloaded or transferred to the ERM server before it can be processed; and the method of transfer from the mainframe/host system to the ERM subsystem depends on the communications capability in place.

The ERM systems have the capability to deliver productivity and customer service benefits with a minimum level of disruption to existing operations.

- New reports can be created from existing (standard) legacy reports without programming. **Benefit:** significant time and cost savings in responding to user needs.

- A common application server is created which stores document output from heterogeneous computer systems in a standard format. **Benefit:** a "middleware" server providing both internal client and web to legacy data access from many different computer systems.

- Outbound documents such as statements and invoices can be stored for access by customers on a self-service basis. **Benefit:** reduction of call center staffing requirements and improved service levels.

Records Center Management Systems

In a computer-based records center management system, the computer is used to manage data concerning existing records location and retention; without altering the format or storage of the records. Records center management system software tracks records throughout the life cycle, provides appropriate reports, and allows queries of records. However, this type of software has not been designed to be a fully functional electronic recordskeeping system as defined by the DGS "Specifications for Electronic Records Management Software."

An efficient records center management system should be able to accurately describe the status of records in the record center in terms of their location and characteristics. The system also contains action prompts that tell when to purge, transfer, and alter the status of records. To fulfill these requirements, the system should be capable of producing routine system reports, such as:

- Records by retention status.
- Records by type (vital, active, inactive, and archival).
- Records by location.
- Records by confidentiality designation.
- Records to be moved.
- Records update.
- Equipment location.

This type of software can help an agency to locate, retrieve, and share files in central and decentralized locations. The computerized master index for records brings together information on each file as well as on files in every location, provides faster retrieval time, facilitates accurate maintenance of statistics on activity rates, and enables better records management planning.

Some of the functions that records center management systems perform are keyword indexing/searches, records location management, records retrieval assistance, automated file label creation (with bar codes), retention schedule maintenance, records inventory, box/file/record tracking, and destruction notifications. This software typically utilizes bar codes (label printing and bar code reader support) for tracking the locations and actions related to a specific file.

APPENDIX 11 - OVERVIEW OF THE UNIFORM ELECTRONIC TRANSACTIONS (UETA) ACT

As of the date of this Handbook, five states (California, Pennsylvania, Indiana, South Dakota, Utah) have adopted a uniform electronic commerce law: the Uniform Electronic Transactions Act (UETA). Governor Ridge of Pennsylvania signed UETA into law December 16, 1999, and it became effective January 15, 2000. Although California had previously adopted UETA, its version has 76 amendments that may result in substantial non-uniformity. States are adopting UETA at a fast pace, UETA awaits the governors signature in Kentucky and will likely pass soon in Virginia. UETA promises to simplify divergent forms of e-Commerce laws that nearly 40 states had previously adopted. States slow to act may see federal law imposed on them until UETA is adopted, S.761 and/or HR.1714 may emerge from the 106th Congress to preempt other state e-Commerce laws.

Uniform laws like UETA are developed by the American Law Institute (ALI) and the National Conference of Commissioners on Uniform State Laws (NCCUSL). Uniformity is widely considered to be a significant factor that promotes commerce through national certainty. For example, the Uniform Commercial Code (UCC) governs commercial law in all 50 states. This cooperative uniformity has permitted the states to retain considerable self-governance and preserve many benefits of federalism.

UETA enables business and government to agree to use electronic forms of records, signatures, acknowledgments and notarization. It is more procedural than substantive, a perspective dramatized by this caricature: “the medium shall not be the message.” UETA requires no standard or particular form of electronic transaction. Instead, UETA validates the use of electronic means where traditional paper documents and signatures were previously required.

UETA also authorizes the use of electronic agents. Electronic forms of various traditionally paper-based negotiable instruments are also enabled, including notes, bills of lading, warehouse receipts and documents of title. UETA does not apply to some classes of documents, such as wills, codicils and testamentary trusts, nor to the most common negotiable documents such as checks, drafts, letters of credit and investment securities. Nevertheless, the experience of UETA should influence how negotiable instruments eventually migrate to electronic form. UETA does not alter many states’ consumer protections, such as requirements for written or mailed notices. At this time, it appears that UETA and its companion proposal, the Uniform Computer Information Transactions Act (UCITA, enacted by Virginia in March 2000), will be the most important Cyberlaws for many business persons. For a section by section analysis of UETA Provisions, you may refer to the UETA web site and click to see the UETA chart.

Impact of UETA

UETA's impact will be felt most immediately on attorneys practicing in states having enacted or soon to enact UETA. Knowledge of UETA will directly impact attorneys in transactional practices and in representing business clients located in UETA states. Clients in other states may also be impacted if they do business with counter-parties in UETA states. Knowledge of UETA is important to businesses, which create, process and accept paper-based contracts but seek to convert to electronic forms of these documents. Understanding of UETA is needed for persons proposing to use electronic records and who are doing business or government activities in states where UETA applies. Knowledge of UETA may also be important to counsel and clients evaluating transactions that include choice of law or choice of forum provisions that either directly elect UETA or choose the law of a particular state that has enacted UETA. State regulatory agencies must determine how and to what extent UETA will be implemented. For example, the PA Office of Administration is charged to promote consistency and interoperability among PA agencies and with other states and the federal government.

Overview of UETA's Provisions

UETA establishes several new terms of commercial practice and thereby expands traditional contracting concepts to work in the digital age. A record is information inscribed in a tangible medium or stored and retrievable in perceivable form; an electronic record is a record that is created, generated, sent, communicated, or received by electronic means. Information means data, text, images, sounds, codes, computer programs, software, databases, etc. An electronic signature is an electronic sound, symbol, or process attached to or logically associated with a record with the intent to sign the record. An electronic agent is an automated means (machine, computer program), essentially a tool that independently initiates action or response to electronic records or performances, without human intervention. Eventually, electronic agents may develop artificial intelligence enabling autonomous action. Electronic agents may form automated transactions, these are contracts formed without human intervention. Automated transactions may also be formed with interaction between a human and an electronic agent.

UETA permits but does not require electronic contracting, that is, parties must agree to use electronic records and electronic signatures rather than their written counterparts. When parties agree to transact electronically, their records, signatures and contracts must be enforced if made in electronic form. this means that electronic records and electronic signatures will satisfy requirements under other laws that require signatures and writings. UETA must be applied to facilitate electronic transactions and it must be construed consistent with reasonable commercial practice and promote uniformity among the states. UETA applies only prospectively, that is to transactions using electronic records or electronic signatures that are created, generated, sent, communicated, received, or stored after the adopting legislation becomes effective.

Electronic Records and Electronic Signatures

The centerpiece of UETA is §7, which validates the use of electronic records and signatures. Electronic records satisfy requirements for writings so that the enforceability of a record or signature cannot be denied simply because it is electronic form. Electronic records must still satisfy any other formal requirements, such as notices, disclosures or completeness of terms. For example, if the parties' e-mails show agreement on the sale of widgets, these electronic records would still need a quantity term to create a valid contract. Electronic records and signatures simply satisfy requirements under existing law, such as the statute of frauds that require documents be in signed writings.

Legal requirements to provide information in writing are satisfied with an electronic record if it is capable of retention (printing & storing) by recipient when received. UETA makes electronic records the equivalent of writings but does not alter other substantive requirements of contract law. Many other laws have specific requirements for the posting, display, communication or transmittal of records, usually a physical, printed form is required. While UETA validates electronic records, it does not override these existing legal requirements under other laws mandating particular methods of posting, sending or formatting records. For example, eviction notices generally must be posted where the tenant is most likely to see it, right on the front door of the dwelling. Even if the landlord and tenant agree to electronic transactions, UETA cannot override property law requirements for physical posting of eviction notices.

Many Internet users encounter frustration when important information cannot be saved or printed after downloading from a website. UETA requires that electronic records must be capable of retention by the recipient. If the sender inhibits the recipient from printing or storing the electronic record, the electronic record is not effective.

Electronic transactions pose different security problems than under traditional practices using printed documents or voice telephone conversations. Electronic information is vulnerable to corruption by electronic interference or intentional forgery by hackers. UETA authorizes the use and innovation in security procedures (e.g., encryption) to verify the identity of the sender. UETA makes an electronic record or electronic signature attributable to a particular sender if it was the act of that person. This can be shown in any manner from the context & surrounding circumstances, such as an effective security procedure.

UETA's recognition of electronic signatures differs somewhat from digital signature law and practice, the latter focuses on security and encryption. By contrast, UETA simply permits the substitution of an electronic sound, symbol, or process when the law requires a physical signature if it is attached to or logically associated with a record and used with the intent to sign the record. Electronic signatures may take many forms, including PIN, password, server identification, biometrics, clickwrap using the "I Agree" button or some form of encryption.

Changes and Errors in Electronic Transmissions

Electronic transmissions can be prone to ***errors*** caused by individual users and sometimes are prone to ***changes*** caused by electronic computers or during communication. UETA encourages the use of security procedures to detect and correct changes or errors. In §10, UETA provides that if one party fails to use a security procedure that both parties had previously agreed to use, the conforming party may avoid the change or error if the security procedure would have discovered it and permitted its correction. Other types of changes or errors are resolved by existing contract law under the doctrine of mistake. In an automated transaction with an individual, the party using an electronic agent must give the individual an opportunity to prevent or correct the error. For example, consider an individual who strikes the numeric key "1" to order a single copy of a book from an online bookseller but the "1" key sticks causing "111" to be sent. In such a situation, the electronic agent facility of the online bookseller must send a confirmation screen permitting the individual to review the quantity ordered. This confirmation might be as simple as a box saying "You ordered 111 books, click yes if this is this correct." Without this or some other security procedure, the individual may avoid the contract for the quantity of 111 books.

Restitution is usually required to unwind a mistaken transaction. If UETA gives one party a right to rescind a mistaken transaction, any consideration already received must be either returned, destroyed or follow instructions from the other party. However, a party may be prohibited from rescinding if the consideration was already received and used. For example, it may be impossible not to have use information after it is revealed, information is the consideration received. Once information is received and understood it may be impossible to avoid using or receiving its value and this situation limits the right to avoid the error or change.

Retention of Electronic Records

There are many laws that require various documents be saved as evidence for future use. UETA §12 permits the retention or presentation of electronic records to satisfy these retention requirements if the information accurately reflects the original and it remains accessible for future reference. Accessibility of electronic records becomes problematic over time. Obsolete computer systems become incompatible, accessible only by data recovery experts. Floppy disks are not stable over time and conversion between systems is time consuming and expensive. Nevertheless, electronic records must remain accessible to satisfy legal requirements for retention of electronic records. For example, if a law requires retention of a check, that requirement is satisfied by electronic retention of all information on the front and back of the check. Unless there is a requirement to the contrary, written documents can be discarded once transferred to electronic form.

Automated Transactions

UETA facilitates contracts formed without human intervention or those formed with interaction between a human and an electronic agent. Machines may act as electronic agents and can form contracts. Although human intent is required for contract formation, the use of machines is not fatal because the necessary intent is found in the programming and use of the machine. For example, an anonymous click-through on-line could be effective to create a contract. There are two different scenarios. First, an individual acquires access to a website and uses the information without identifying herself - a legal relationship is not created. By contrast, if the website clearly indicates the information is proprietary and may be used only for certain purposes to which the individual agrees by clicking, a legal relationship would arise.

Sending and Receipt of Electronic Records

The law often requires an inquiry into the time or place that a document is sent or received. For example, the mailbox rule holds a contract is created when the acceptance is dispatched and the UCC requires some notices be delivered to a party's place of business. Electronic records are considered sent when: (1) properly addressed to a system designated by the recipient, (2) are in a form capable of processing by the recipient's system, (3) the information enters a system outside the sender (or sender's agent's) system. Receipt occurs when the record reaches the recipient's designated system & is capable of processing by that system. It is not necessary for the individual recipient to have notice of its receipt. This is similar to the rule that designates it as receipt when the recipient of traditional mail, who never reads a notice but has it in hand, is bound by the receipt. General broadcast messages that are sent to systems rather than individuals are not considered a sending. The key element is whether the sender/recipient has control. UETA §15 does not address proof of time of receipt. In the situation of multiple email addresses, the recipient can designate the e-mail address to be used. When the precise location is an issue, for example in conflict of laws issues, or tax issues, the location is that of the sender or recipient, not the location of information system.

Transferable Records

UETA facilitates electronic negotiable documents but only in the limited areas of the electronic equivalent of paper promissory notes and paper documents of title if issuer of the electronic record agrees that the electronic record should also be an electronic transferable record. UETA does not apply to checks, drafts, investment securities or letters of credit, which may be developed in the future but the banking system is not yet ready for these documents to "go electronic" under UETA.

UETA creates the concept of "control" over an electronic record, which should be the equivalent of "possession" traditionally used in the paper context. Systems must be in place to ensure that the transfer of the record is done in such a manner that there is only one "holder" of the record. The transferable record must remain unique, identifiable and unalterable.

APPENDIX 12 - THE WORLD-WIDE WEB

The World Wide Web

The World Wide Web, (WWW) is a universe of information. The web's existence relies on global networks. The web allows human communication and cooperation by sharing knowledge, and opens this to ordinary people who need no technical skills. By pointing and clicking, just about anyone can find their way through, and even contribute to, this growing base of information that is stored on servers worldwide.

First designed at the physics laboratory, CERN, in 1989, the WWW has spread exponentially, doubling every few months. During 1993 this explosion of available information broke into public awareness. Commercial, educational and government bodies are all rushing to become Web enabled.

Meanwhile, the designers at CERN, and in the many laboratories around the world, who develop web-related code in informal collaboration, have been relying on CERN for coordination, and direction. CERN's charter, however, is for particle physics research, which precludes CERN from funding technology of such a wide application. Companies that are becoming increasingly committed to the web as a way of working and doing business are calling for a central body to define the web, ensure its stability and smooth progression through continued technological innovation.

Tim Berners-Lee

The World Wide Web was really created by Mr. Tim Berners-Lee. In 1989, while he was working at the European Particle Physics Laboratory, he proposed that a global hypertext space be created in which any network-accessible information could be refered to by a single "Universal Document Identifier". In 1990 he proposed that servers be connected together using the available telephone lines. His intention was to permit communications within the High Energy Physics community at first, and to other communities in the summer of 1991.

Between the summers of 1991 and 1994, the load on the first Web server ("info.cern.ch") rose steadily by a factor of 10 each year. In 1992 academia, and in 1993 industry, was taking notice. Mr. Berners-Lee was under pressure to define the future evolution. After much discussion he decided to form the World Wide Web Consortium in September 1994, with a base at MIT in the USA, INRIA in France, and now also at Keio University in Japan. The Consortium is a neutral open forum where companies and organizations to whom the future of the Web is important come to discuss and to agree on new common computer protocols.

The Internet became a part of the World Wide Web when it became apparent that the type and amount of traffic on the Web needed be categorized into separate user communities. The scientific and academic communities were separated from the military and consumer

communities. The various communities were formed into what we know today as internets. Each net of users could intercommunicate without interrupting the other nets of users. The control of these communities was given over to the WWW Consortium, who would go on to define the boundaries, parameters and standards governing the WWW.

Aims

The aims of the consortium are as follows:

- To define the World-Wide Web
- To act as a primary point of contact for those expressing interest in the web
- To coordinate the development of the communication standards (network protocols, etc) on which the web is based;
- To ensure that current trends in research are taken into account
- To support, develop and collect public domain software to act as reference implementation of these protocols, etc;
- To promote the use of the web in new domains, especially within education, and interchange between governments, research, and industry.
- To aid especially the less technically developed countries in using the web for the rapid transfer of knowledge, diffusion of culture and as an economic enabler;

Activities

In order to accomplish these aims, the consortium shall manage and support (directly or through subcontract):

- The exchange of information with the public, the press and members, about web-related activities.
- The coordination of technological innovation. Ensure that fragmentation of standards does not occur, and that enhancements will have the required properties of compatibility and scalability, and will represent the leading edge of technology in the field. Define compliance with standards. Act as liaison with general standard bodies.
- The development of specific enhancements to protocols and reference software in response to requests from contributing members. Maintain registries of servers, of organizations providing web-related services, and of web-compatible products.

Technical design is coordinated by the consortium, but decisions will be made by rough consensus among participants in open discussions taking place over the networks and, when deemed appropriate, at physical meetings. The board of the consortium, and if necessary, the president will rule in the case of arbitrary decisisions, or impasse.

APPENDIX 13 - MEDIA STANDARDS

Section 1: ANSI/AIIM Standards, Technical Reports, and Guidelines (4/2000)

ANSI/AIIM MS52-1991 - *Recommended Practice for the Requirements and Characteristics of Original Documents Intended for Optical Scanning*
ANSI/AIIM MS53-1993 - *Recommended Practice; File Format for Storage and Exchange of Image; Bi-Level Image File Format: Part 1*
ANSI/AIIM MS54-1993 (R1999) – *Symbols for Various Functions of Document Handling Equipment*
ANSI/AIIM MS55-1994 - *Recommended Practice for the Identification and Indexing of Page Components (Zones) for Automated Processing in an Electronic Image Management (EIM) Environment*
ANSI/AIIM MS58-1996 - *Standard Recommended Practice for Implementation of Small Computer Systems Interface (SCSI-2) (X3.131-1994)*
ANSI/AIIM MS59-1996 - *Media Error Monitoring and Reporting Techniques for Verification of Stored Data on Optical Digital Data Disks*
ANSI/AIIM MS60-1996 - *Electronic Folder Interchange Datastream*
ANSI/AIIM MS61-1996 - *Application Programming Interface (API) for Scanners in Document Imaging Systems*
ANSI/AIIM MS66-1999 - *Metadata for Interchange of Files on Sequential Storage Media Between File Storage Management Systems (FSMSs)*
ANSI/AIIM TR1-1988 (A1992) – *Guidelines for Metrics*
ANSI/AIIM TR2-1998 – *Glossary of Document Technologies*
ANSI/AIIM TR15-1997– *Planning Considerations, Addressing Preparation of Documents for Image Capture*
ANSI/AIIM TR17-1989 – *Facsimile and Its Role in Electronic Imaging*
ANSI/AIIM TR19-1993 – *Electronic Imaging Display Devices*
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 TR26-1993 – *Resolution as it Relates to Photographic and Electronic Imaging*
ANSI/AIIM TR27-1996 – *Electronic Imaging Request for Proposal (RFP) Guidelines*
ANSI/AIIM TR28-1991 – *The Expungement of Information Recorded on Optical Write-Once-Read-Many (WORM) Systems*
ANSI/AIIM TR29-1993 – *Electronic Imaging Output Printers*
ANSI/AIIM TR31:1-1992 – *Performance Guideline for the Legal Acceptance of Records Produced by Information Technology Systems Part 1: Evidence*
ANSI/AIIM TR31:2-1993 – *Performance Guideline for the Legal Acceptance of Records Produced by Information Technology Systems Part 2: Acceptance by Government Agencies*

ANSI/AIIM TR31:3-1994 – *Performance Guideline for the Legal Acceptance of Records Produced by Information Technology Systems Part 3: Implementation*
ANSI/AIIM TR31:4-1994 – *Performance Guideline for the Legal Acceptance of Records Produced by Information Technology Systems Part 4: Model Act and Rule*
ANSI/AIIM TR32-1994 – *Paper Forms Design Optimization for Electronic Image Management (EIM)*
ANSI/AIIM TR33-1998 – *Selecting an Appropriate Image Compression Method to Match User Requir*ements
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 TR38-1996 – *Compilation of Test Target for Document Imaging Systems*
ANSI/AIIM TR39-1996 – *Guidelines for the Use of Media Error Monitoring and Reporting Techniques for the Verification of Information Stored on Optical Digital Data Disks*
ANSI/AIIM TR40-1995 – *Suggested Index Fields for Documents in Electronic Image (EIM) Environments*

Section 2: ANSI/ISO Standards

ISO 10089 - *Rewritable 130 mm Magneto-Optical*
ISO 10090 - *Rewritable 90 mm Optical Disk.*
ISO 10149 - *Information Technology - Data Interchange on Read-Only 120 mm Optical Data Discs*
ISO 10922 - *Recommendations for Identifying Information on Optical Disk Package Labels.*
ISO 11560 - *Magneto-Optical Recorded WORM.*
ANSI X3.213 *86 mm Rewritable Optical Disk Cartridge Using the Discrete Block Format (DBF) Method.*
ISO/IEC 10090 *90 mm optical disk cartridge rewritable and read only for information interchange.*
ISO/IEC 9171-1 *130 mm optical disk cartridge, write once, for information interchange - Part 1: unrecorded optical disk cartridge.*
ISO/IEC 9171-2 *130 mm optical disk cartridge, write once, for information interchange - Part 2: Recording format.*
ISO/IEC 10089 *130 mm rewritable optical disk cartridge for information interchange.*
ISO/IEC 11560 *130 mm rewritable optical disk cartridge write-once, using the magneto-optical effect for information interchange.*
ANSI X3B11/91-120 *WORM application using MO media*
ISO/IEC DIS 13481 Data interchange on 130 mm optical disk cartridges - Capacity: 1 gigabyte per *cartridge.*
ANSI X3.211-1992 *130 mm Write-Once Optical Disk Cartridge using Continuous Composite Serve, RLL 2,7 Encoding and LDC.*
ANSI X3.212-1992 *130 mm Optical Disk Cartridge Using the Magneto-Optical Effect and Continuous Composite Servo Forma*t.
ANSI X3.214-1992 *130 mm Write-Once Optical Disk Cartridge Using Sampled Servo and 4/15 Modulation.*
ANSI X3.220-1992 *Digital Information Interchange - 130 mm Optical Disk Cartridge Using the Magneto-Optical Effect for Write-Once Functionality.*
ANSI X3.191-1991 *Recorded Optical Media Unit for Digital Information Interchange - 130 mm Write-Once Sampled Servo RZ Selectable-Pitch Optical Disk Cartridge.*
ISO/IEC JTC1 *Information Interchange on 300 mm Optical Disk Cartridges of the Write Once, Read Multiple (WORM) Using the CCS Method.*
ISO/IEC 10885 *356 mm optical disk cartridge for information interchange - write once.*
ANSI X3.200-1992 *356 mm Write Once Optical Disk Cartridge for Information Interchange.*
ANSI X3.191-1991 -*Recorded, Unrecorded Characteristics of 130 mm Optical Disk Cartridges Using Sampled Servo and RZ Modulation.*
ANSI X3.200-1992 - *Unrecorded and Recorded Characteristics of 130 mm Optical Disk Cartridges of the WORM Type Using the Magneto-optic Effect.*
ANSI X3.200-1992 – *Recorded and Unrecorded Characteristics of 356 mm (14-inch) Optical Disk Cartridges.*

ANSI X3.211-1992 –*Recorded, Unrecorded Characteristics of 130 mm Optical Disk Cartridges Using Continuous Composite Servo, RLL 2, 7 Modulation and LDC Error Correction.*
ANSI X3.212-1992 – *Recorded and Unrecorded Characteristics of 130 mm Magneto-optic Rewritable Media.*
ANSI X3.213-1992 –*Unrecorded and Recorded Characteristics of 86 mm Rewritable, Read-Only Optical Disk Cartridges Using the Discrete Block Format (DBF).*
ANSI X3.214-1992– *Recorded, Unrecorded Characteristics of 130 mm Optical Disk Cartridges Using Sampled Servo and 4/15 Modulation.*
ISO 9171/1 – *130 mm (5.25-inch) Optical Disk Cartridge, Write Once, for Information Interchange, Part 1: Unrecorded Optical Disk Cartridge.*
ISO 9171/2– *130 mm (5.25-inch) Optical Disk Cartridge, Write Once, for Information Interchange, Part 2: Recording Format.*
ISO 12024 – *Permanence of Information Recorded on CD-ROM.*
ISO 12037 – *Recommended Practice for the Expungement, Deletion, Correction or Amendment of Records on Optical Write-Once-Read-Many (WORM) Systems. .*
ISO/IEC 13346 – *Volume and File Structures for Optical Media.*

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