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Digital Imaging and Communications in Medicine (DICOM)

DICOM Supplement 82

90 mm 2.3 GB MOD Medium Format and use in US profiles

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Introduction - will not appear in final standard

I.1 INTRODUCTION

45 This supplement introduces the 2.3 GB 90mm MOD medium for DICOM storage. It is intended for US and US Multi-frame SOP Classes.

Two changes to the DICOM standard are introduced:

1. Part 11 is extended with a US application profile for 2.3 GB 90mm MOD
2. Part 12 is extended with the medium specification

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Changes to NEMA Standards Publication PS 3.11-2003

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Part 11: Media Storage Application Profiles

Add entries for 90mm 2.3 GB to Table C.3-3 Media Classes:

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Table C.3-3 MEDIA CLASSES

Media	Media Classes	Media Format	PS 3.12
<u>2.3 GB 90 mm MOD</u>	<u>MOD23-90</u>	<u>DOS unpartitioned (removable media)</u>	<u>Annex Z</u>

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Changes to NEMA Standards Publication PS 3.12-2003

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Part 12: Media Formats and Physical Media for Data Interchange

Update PS 3.12 references section:

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2 Normative references

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GIGAMO 2.3GB 90mm Magneto-optical Disk System, Cherry Book2 version 1.0

Add an Annex for 90mm 2.3 GB MO media

Annex Z (Normative) 90 mm 2.3 GB Magneto-Optical Disk

80 Z.1 DICOM MAPPING TO MEDIA FORMATS

Only one DICOM File-set shall be stored onto a single 90mm disk.

Z.2 MEDIA FORMATS

The media format comprises two distinct components:

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- a. The Recording format, which addresses magnetic recording, track definition, sector headers, etc.
 - b. The Logical format, which addresses the organization of the data portion of sectors to support semantics of the file system.

Z.2.1 Recording Format

90 The low level formatting shall be done using the GIGAMO standard. GIGAMO is published as a Sony-Fujitsu document and is currently not an ISO/IEC standard. The document specifying this formatting is the "GIGAMO 2.3GB 90mm Magneto-optical Disk System in Cherry Book2 version 1.0". The Secondary Defect List shall be used.

Z.2.2 Logical Format

The Logical Format for the 90mm 2.3GB disk shall be the PC File System (Annex A).

95 The boot sector defined in Annex A shall have the following values.

**Table Z.2-1
BOOT PARAMETER VALUES FOR 90mm 2.3 GB MAGNETO-OPTICAL DISK**

Byte(s)	Value	Description
11 - 12	0800H	2048 Bytes/Sector
13	08H, 10H, 20H, or 40H	Sectors / cluster, either 8, 16, 32, or 64
21	F8H	Flag for disk type F8H = Hard Disk
24-25	0019H (Nominal)	Nominally 25 sectors/track, but may vary, and any value should not affect interoperability
26-27	0001 (Nominal)	Nominally 1 head, but may vary, and any value

		should not affect interoperability.
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Note: When formatted the total formatted capacity of the disk is approximately 2.02GB.

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Z.3 PHYSICAL MEDIA

The physical media shall be the 90mm Magneto-Optical Rewritable disk with 2048 bytes per sector. It shall be compatible with the R/W Type cartridge defined in the "GIGAMO 2.3GB 90mm Magneto-optical Disk System in Cherry Book2 version 1.0".

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