

NEMA Standards Publication IIC 1 v02A

*Digital Imaging and Communications in Security (DICOS)
Information Object Definitions (IODs)*

A DICOS® Publication

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Contents

Foreword	ix
Section 1 Scope	1
1.1 References	1
1.1.1 Normative References	1
1.1.2 Other References	3
1.1.3 Contacts	3
1.2 Definitions, Acronyms, and Abbreviations	4
1.3 Conventions	10
1.3.1 References to DICOM	10
1.3.2 Entity-Relationship (E-R) Model	10
1.3.3 Sequences	11
1.3.4 Attribute Macros	11
1.3.5 Use of Private Attributes	14
1.3.6 Attribute Type	14
1.3.7 Enumerated Values and Defined Terms	16
1.3.8 Value Representation (VR)	17
1.3.9 Display Order versus Coding Order	17
1.3.10 Attribute Value Length	25
1.3.11 Data Element with Explicit and Implicit VR of OD	25
1.4 File Meta Information	26
1.5 DICOS Transfer Syntax	26
Section 2 Overview	27
2.1 DICOS Example, Person Traveling with One Checked Bag and One Carry-on	30
2.2 Background	35
2.3 Elements of an Information Object Definition (IOD)	36
2.3.1 IOD Description	36
2.3.2 IOD Entity-Relationship Model	37
2.3.3 Overview of the Composite IOD Module Content	40
Section 3 OOI Owner Modules	42
3.1 OOI Owner Module Attributes	42
Section 4 Object of Inspection (OOI) Modules	46
4.1 OOI Module Attributes	47
4.2 Itinerary Module	48
4.2.1 Itinerary Module Attribute Descriptions	50
Section 5 General Scan Modules	51
5.1 General Scan Module Attributes	51
Section 6 General Series Modules	52
6.1 General Series Module Attributes	52
6.2 Modality	53
Section 7 Computed Tomography (CT) Image Information Object Definition (IOD)	54
7.1 CT Image IOD Description	54
7.2 CT Image IOD Entity-Relationship (E-R) Model	54
7.3 CT Image IOD Module Table	54
7.3.1 CT Image Multiframe Functional Group Macros	55
7.4 CT Image	55
7.4.1 CT Series Module	55
7.4.2 CT Image Module	55
7.4.3 CT Image Functional Group Macros	59
7.5 Common CT Descriptions	62

7.5.1	Image Type and Frame Type	62
7.5.2	Common CT Image Description Macro	64
Section 8	Digital X-Ray (DX) Information Object Definition (IOD).....	68
8.1	Digital X-Ray (DX) Image Information Object Definition (IOD).....	68
8.2	DX Image IOD Entity-Relationship (E-R) Model.....	68
8.2.1	DX IOD Module Table	68
8.2.2	DX Modules	69
Section 9	Advanced Imaging Technology (AIT) Information Object Definition (IOD).....	86
9.1	Reference Coordinate System (RCS)	86
9.1.1	AIT Image Position and Image Orientation	87
9.1.2	Person Reference Coordinate System (PRCS) and RCS to PRCS relationship	88
9.2	2D Advanced Imaging Technology (AIT) Information Object Definition (IOD).....	94
9.2.1	Advanced Imaging Technology (AIT) IOD Entity-Relationship (E-R) Model.....	94
9.2.2	2D AIT IOD Module Table	95
9.2.3	2D AIT Modules.....	96
9.3	3D Advanced Imaging Technology (AIT) Information Object Definition (IOD).....	103
9.3.1	3D AIT Image IOD Entity-Relationship (E-R) Model	103
9.3.2	3D AIT Image IOD Module Table	103
9.3.3	3D AIT Modules.....	104
9.3.4	Common 3D AIT Descriptions.....	109
Section 10	Quadrupole Resonance (QR) Information Object Definition (IOD).....	115
10.1	QR IOD Entity-Relationship (E-R) Model	115
10.2	QR IOD Module Table	115
10.3	QR Modules.....	116
10.3.1	QR Series Module	116
10.3.2	QR Measurements Module.....	116
Section 11	Threat Detection Report (TDR) Information Object Definition (IOD)	118
11.1	TDR Series Module	118
11.2	Additional Inspection Selection Criteria Module	118
11.2.1	Additional Inspection Selection Criteria Attributes	119
11.3	General Report Module	119
11.4	Threat Detection Report (TDR) Module	119
11.5	Threat Sequence Module	123
11.5.1	Baggage-Specific TDR Details Macro.....	126
11.5.2	Person-Specific Details Macro	128
11.6	Threat Detection Report (TDR) Examples (Informative).....	129
11.6.1	Basic TDR Examples (Informative)	130
11.6.2	Automatic Threat Detection Report (ATDR) Examples for Bags (Informative).....	131
11.6.3	Automatic Threat Detection Report (ATDR) Examples for Bags with Operator Threat Detection Reports (OTDRs)	135
11.6.4	Automatic Threat Detection Report (ATDR) Examples for Persons	145
11.6.5	Example 12, ATDR, 6 PTOs. Example 13, OTDR, 3 PTOs.....	149
Section 12	Common Information Entity (IE) Modules and Macros	158
12.1	Common Equipment IE Modules.....	158
12.1.1	General Equipment Module.....	158
12.2	Common Image IE Modules	162
12.2.1	Image Pixel Module	162
12.2.2	Supplemental Palette Color Lookup Table Module.....	174
12.2.3	ICC Profile Module	175
12.2.4	Overlay Plane Module	175
12.2.5	VOI LUT Module.....	178
12.2.6	Image Histogram Module	182
12.2.7	Acquisition Context Module.....	185

12.2.8	TIP Image Module	188
12.3	Common Image IE Modules	188
12.3.1	General Image Module	188
12.4	SOP Common Module.....	194
12.4.1	SOP Common Attribute Descriptions	198
12.5	Common Instance Reference Module	202
12.6	Inspection Selection Criteria Module	203
12.6.1	Inspection Selection Criteria Attributes	203
12.7	Series and Instance Reference Macro	204
12.8	SOP Instance Reference Macro.....	204
12.9	Hierarchical SOP Instance Reference Macro.....	204
12.10	Basic Pixel Spacing Calibration Macro.....	205
12.10.1	Basic Pixel Spacing Calibration Macro Attribute Descriptions	206
12.11	Encoding of Coded Entry Data	207
12.11.1	Code Value	208
12.11.2	Coding Scheme Designator and Coding Scheme Version	208
12.11.3	Code Meaning	208
12.11.4	Mapping Resource	209
12.11.5	Context Group Version	209
12.11.6	Context Identifier	209
12.11.7	Context Group Extensions	209
12.11.8	Standard Attribute Sets for Code Sequence Attributes.....	209
12.12	Extended Code SEQUENCE MACRO	210
12.12.1	Extended Code Value.....	211
12.12.2	Extended Code Meaning	211
12.13	Person Identification Macro	212
12.14	Common Functional Group Macros	213
12.14.1	Pixel Measures Macro	213
12.14.2	Frame Content Macro.....	213
12.14.3	Plane Position Macro.....	218
12.14.4	Plane Orientation Macro.....	221
12.14.5	AIT Plane Orientation Macro	221
12.14.6	Referenced Image Macro	222
12.14.7	Derivation Image Macro	223
12.14.8	Frame VOI LUT Macro	224
12.14.9	Real World Value Mapping Macro.....	228
12.14.10	Pixel Intensity Relationship LUT Macro.....	231
12.15	Frame of Reference Module.....	232
12.15.1	Frame of Reference UID	233
12.15.2	Position Reference Indicator	233
12.16	Multiframe Dimension Module	233
12.16.1	Dimension Indices	235
12.16.2	Dimension Organization UID.....	236
12.17	Multiframe Functional Groups Module	237
12.17.1	Multiframe Functional Groups Module Attribute Description.....	240
12.18	Image SOP Instance Reference Macro.....	242
Section 13	Data Transmission	244
13.1	DICOS SOP Instance Transfer with DICOM Transmission Services.....	244
Section 14	DICOS SOP Classes	245
14.1	Storage SOP Class	245
14.1.1	DICOS Standard Storage SOP Classes	245
14.1.2	Specialization for DICOS Standard Storage SOP Classes.....	246
14.1.3	Pixel Format Specific Format	247
14.2	DICOS Document File Extension	248

Section 15 Content Mapping Resources	249
15.1 Conventions.....	249
15.2 Coding Schemes	250
15.3 DICOS Context Tables and General Context Groups.....	250
15.3.1 CID DCS1 Chemical Compound Identification.....	250
15.3.2 CID DCS2 AIT Body Zones	251
15.3.3 CID DCS3 AIT Secondary Inspection Methods	252
15.3.4 CID DCS4 Identification Encoding Type	252
15.4 Context Group UID Values	252
15.5 Controlled Terminology Definitions.....	253
Section 16 Index.....	254

Figures

Figure 1 Relationship Convention.....	10
Figure 2 Hierarchy of DICOS Data Structure for Capturing Security Screening Information	28
Figure 3 High-Level Overview of a Security System	29
Figure 4 DICOS Example—Owner Contains Passenger & Checked/Carry-on Bag	30
Figure 5 Screening Procedures Performed as Passenger OOI Traverses Security System (Blue Arrow), with Corresponding Changes to Attributes in DICOS v02A Hierarchy.....	32
Figure 6 Screening Procedures Performed as Checked-bag OOI Traverses Security System (Left to Right), with Corresponding Changes to Attributes in DICOS v02A Hierarchy	33
Figure 7 Screening Procedures Performed as Carry-on Bag OOI Traverses Security System (Left to Right), with Corresponding Changes to Attributes in DICOS v02A Hierarchy	34
Figure 8 Data Interfaces for Digital Information-Based Devices or Systems.....	36
Figure 9 DICOS v02A Composite Instance IOD E-R Model.....	38
Figure 10 Sample OOI in the Context of Air Travel	46
Figure 11 MONOCHROME2 Photometric Interpretation—Supplemental Palette Color Mapping	66
Figure 12 Explanation of Presentation Intent Type.....	71
Figure 13 Explanation of DX Detector Configuration.....	80
Figure 14 Explanation of DX Image Coordinates	81
Figure 15 Explanation of DX Detector Geometry	82
Figure 16 Reference Coordinate System (RCS).....	87
Figure 17 Illustration of Rotated Coordinate Systems	89
Figure 18 Person Reference Coordinate System (PRCS) and Person Standard Unit Vector (PSUV)	90
Figure 19 PRCS to RCS Example 1—Person Faces Front of Volume	91
Figure 20 PRCS to RCS Example 2—Person Turned 90 Degrees to Right	92
Figure 21 PRCS to RCS Example 3—Person Facing Back of Volume.....	93
Figure 22 PRCS to RCS Example 4—Person Turned 90 Degrees to Left.....	94
Figure 23 Explanation of Presentation Intent Type.....	98
Figure 24 MONOCHROME2 Photometric Interpretation—Supplemental Palette Color Mapping	113
Figure 25 Example, PTO Sequential Numbering.....	130

Figure 26 Example, Pixel Dimensions	174
Figure 27 Example, Histogram Bin Width	185
Figure 28 Example, Pixel Row and Column Spacing	207
Figure 29 Relationship of Timing-Related Attributes	215
Figure 30 Identifying Attributes for Concatenation, SOP Instances, Frames, and Stacks	217
Figure 31 Example, Multiple Stacks.....	218
Figure 32 Reference Coordinate System.....	220
Figure 33 Real World Value LUT and Image Viewing Pipeline	229
Figure 34 Example, Mapping Stored Values to Real World Values	231
Figure 35 Purpose of Pixel Intensity Relationship LUT	232
Figure 36 Example—Use of Dimension Organization Module	237
Figure 37 Graphical Presentation of Multiframe Functional Groups Structure	241
Figure 38 Concatenating SOP Instances.....	242
Figure 39 InChi Chemical Formula Example	251

Tables

Table 1 Referenced Series Sequences Attribute.....	11
Table 2 Example—Module Figure	12
Table 3 Example—Macro.....	12
Table 4 Example—Module Figure without Use of an Attribute Macro.....	12
Table 5 Example—IOD Modules	13
Table 6 Attribute Type Designations.....	15
Table 7 Value Representations (Excerpted from DICOM PS 3.5 Table 6.2-1 and Amended).....	18
Table 8 Data Element with Explicit VR of OD.....	26
Table 9 Data Element with Implicit VR of OD	26
Table 10 File Meta Information	26
Table 11 Composite IOD Modules Overview.....	40
Table 12 OOI Owner Module Attributes.....	42
Table 13 OOI Module Attributes	47
Table 11 Itinerary Module Attributes	48
Table 12 General Scan Module Attributes	51
Table 13 General Series Module Attributes	52
Table 14 CT Image IOD Modules	54
Table 15 CT Image Multiframe Functional Group Macros.....	55
Table 16 Series Module Attributes	55
Table 17 CT Image Module Attributes	56

Table 18 Image Type and Frame Type Value 4 for CT	59
Table 19 CT Image Frame Type Macro Attributes.....	60
Table 20 CT X-Ray Details Sequence Macro Attributes.....	60
Table 21 CT Pixel Value Transformation Macro Attributes.....	61
Table 22 Image Type and Frame Type Value 1	63
Table 23 Image Type and Frame Type Value 2	63
Table 24 Image Type and Frame Type Value 3 Common.....	64
Table 25 Image Type and Frame Type Value 4 Common.....	64
Table 26 Common CT Image Description Macro Attributes	64
Table 27 Pixel Presentation Attribute Values.....	65
Table 28 Volumetric Properties Attribute Values	66
Table 29 Volume-Based Calculation Technique Attribute Values	67
Table 30 DX IOD Modules	68
Table 31 DX Series Module Attributes.....	70
Table 32 DX Image Module Attributes	72
Table 33 DX Detector Module Attributes	77
Table 34 DX Positioning Module Attributes	83
Table 35 X-Ray Generation Module Attributes	83
Table 36 X-Ray Filtration Module Attributes	84
Table 37 2D AIT IOD Modules.....	95
Table 38 2D AIT Series Module Attributes.....	97
Table 39 2D AIT Image Module Attributes.....	98
Table 40 2D AIT Functional Macros	103
Table 41 3D AIT Image IOD Modules.....	103
Table 42 3D AIT Image Multiframe Functional Group Macros	104
Table 43 3D AIT Series Module Attributes.....	105
Table 44 3D AIT Image Module Attributes.....	105
Table 45 Image Type and Frame Type Value 4 for AIT	108
Table 46 3D AIT Image Frame Type Macro Attributes	109
Table 47 Image Type and Frame Type Value 1	110
Table 48 Image Type and Frame Type Value 3 Common.....	111
Table 49 Image Type and Frame Type Value 4 Common.....	111
Table 50 Common 3D AIT Image Description Macro Attributes.....	111
Table 51 Pixel Presentation Attribute Values.....	112
Table 52 Volumetric Properties Attribute Values	113
Table 53 Volume-Based Calculation Technique Attribute Values	114
Table 54 QR IOD Modules.....	115

Table 55 QR Series Module Attributes	116
Table 56 QR Measurements Module Attributes.....	116
Table 57 TDR IOD Modules.....	118
Table 58 TDR Series Module Attributes	118
Table 59 Additional Inspection Selection Criteria Module Attributes	119
Table 60 General Report Module Attributes	119
Table 61 Threat Detection Report Module Attributes	120
Table 62 Threat Sequence Module Attributes	123
Table 63 Baggage-Specific TDR Details Macro	126
Table 64 Person-Specific TDR Details Macro Attributes	128
Table 65 Example 1, Cleared Bag and Example 2, Aborted Bag (Oversize).....	131
Table 66 Example 3, ATDR, DX, Liquids Detection & Example 3A, OTDR, DX, Liquids Detection	132
Table 67 Example 4, ATDR, Example 5, OTDR PVS, and Example 6, OTDR SVS	136
Table 68 Example 7, ATDR; Example 8, OTDR PVS; and Example 9, OTDR SVS	140
Table 69 Example 10, AIT ATDR and Example 11, OTDR PVS	145
Table 70 Example 12, BHS ATDR with six threats. Example 13 OTDR with six threats.....	149
Table 71 General Equipment Module Attributes	158
Table 72 Image Pixel Module Attributes	163
Table 73 Image Pixel Macro Attributes	165
Table 74 Supplemental Palette Color Table Lookup Module Attributes	174
Table 75 ICC Profile Module Attributes.....	175
Table 76 Overlay Plane Module Attributes	176
Table 77 VOI LUT Module Attributes	178
Table 78 VOI LUT Macro Attributes.....	178
Table 79 Image Histogram Module Attributes.....	183
Table 80 Acquisition Context Module Attributes	186
Table 81 TIP Image Module Attributes	188
Table 82 General Image Module Attributes	188
Table 83 SOP Common Module Attributes	194
Table 84 Defined Terms for Single-Byte Character Sets without Code Extensions.....	198
Table 85 Defined Terms for Single-Byte Character Sets with Code Extensions.....	200
Table 86 Defined Terms for Multi-Byte Character Sets with Code Extensions	201
Table 87 Defined Terms for Multi-Byte Character Sets without Code Extensions	202
Table 88 Common Instance Reference Module Attributes	203
Table 89 Inspection Selection Criteria Module Attributes	203
Table 90 Series and Instance Reference Macro Attributes	204
Table 91 SOP Instance Reference Macro Attributes.....	204

Table 92 Hierarchical SOP Instance Reference Macro Attributes	204
Table 93 Hierarchical Series Reference Macro Attributes	205
Table 94 Basic Pixel Spacing Calibration Macro Attributes	205
Table 95 Common Attribute Set for Code Sequence Attributes	210
Table 96 Common Attribute Set for Extended Code Sequence Attributes	211
Table 97 Person Identification Macro Attributes Description	212
Table 98 Pixel Measures Macro Attributes	213
Table 99 Frame Content Macro Attributes	214
Table 100 Plane Position Macro Attributes	219
Table 101 Plane Orientation Macro Attributes	221
Table 102 AIT Plane Orientation Macro Attributes	222
Table 103 Referenced Image Macro Attributes	222
Table 104 Derivation Image Macro Attributes	223
Table 105 Frame VOI LUT Macro Attributes	224
Table 106 Real World Value Mapping Macro Attributes	228
Table 107 Pixel Intensity Relationship LUT Macro Attributes	231
Table 111 Frame of Reference Module Attributes	233
Table 112 Multiframe Dimension Module Attributes	234
Table 113 Multiframe Functional Groups Module Attributes	237
Table 114 Image SOP Instance Reference Macro Attributes	243
Table 115 DICOS Application Context Names	244
Table 116 DICOS Standard Storage SOP Classes	245
Table 113 DICOM SOP Class UIDs	246
Table 114 Example—Context Groups Table Style	249
Table 115 Example—Extended Context Groups Table Style	249
Table 116 Coding Schemes	250
Table 117 CID DCS1 Chemical Compound Identification	250
Table 118 CID DCS2 AIT Body Zones	252
Table 119 CID DCS3 AIT Secondary Inspection Methods	252
Table 120 CID DCS4 Identification Encoding Type	252
Table 121 Context Group UID Values	253
Table 122 DICOS Code Definitions (Coding Scheme Designator “DICOS” Coding Scheme Version “01”)	253

Foreword

The Digital Imaging and Communications in Security (DICOS) Standard, this Standards publication, is formally designated as NEMA IIC 1 v02A. NEMA IIC 1 v02A is inspired by and relies heavily on elements of Digital Imaging and Communications in Medicine (DICOM). NEMA IIC 1 v02A adapts DICOM as necessary for security screening applications. While NEMA IIC 1 v02A was retained as the formal Standard designation, NEMA IIC 1 v02A is referenced informally as DICOS v02A.

DICOS v02A revises, corrects, and clarifies the predecessor of DICOS v02A, reflecting “lessons learned” as a result of TSA implementation of the predecessor version of DICOS v02A. Because significant functionality was not added or removed, the designation DICOS v02A was selected.

The predecessor of DICOS V02A, designated as DICOS V02, was published in 2012.

Note: The user’s attention is called to the possibility that compliance with this Standard could require the use of an invention covered by patent rights. By publication of this Standard, no position is taken with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and non-discriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from NEMA.

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The NEMA Industrial Imaging and Communications Section (04 IIC) developed DICOS V02A. Section approval of DICOS V02A does not necessarily imply that section Members voted for its approval or participated in its development. At the time it was approved, the Section was composed of the following Members:

- a. Rapiscan www.rapiscan.com
- b. Stratovan www.stratovan.com
- c. TeleSecurity Sciences, Inc. www.telesecuritysciences.com

In addition to countless Member efforts, recognition is also given to those organizations that supported the development of DICOS v02A by participating in development efforts and providing comment:

- a. U.S. Department of Homeland Security, Transportation Security Administration with input from Customs and Border Protection

Recognition is also given to those organizations that supported the development of DICOS through coordination, by participating in development efforts, or by providing comments, including:

- a. Battelle www.battelle.com
- b. GST www.gst.com
- c. Morpho Detection www.morpho.com/detection
- d. Smiths Detection www.smithsdetection.com

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Section 1

Scope

The Digital Imaging and Communications in Security (DICOS) Standard, designated as NEMA IIC 1 v02A, provides a data interchange protocol and an interoperable, extensible file format to facilitate data information interchange (e.g., demographic information, x-ray radiographs, CT images, material-specific information, trace detection signatures, threat assessment) of objects of inspection (e.g., checked luggage, carry-on luggage, parcels, and personnel) for security screening applications.

NEMA IIC 1 v02A is inspired by and relies heavily on elements of Digital Imaging and Communications in Medicine (DICOM). NEMA IIC 1 v02A adapts DICOM as necessary for security screening applications. NEMA IIC 1 v02A includes many references to elements in the DICOM Standard. In text, these references take the general form, see DICOM PS X.Y. Other elements of NEMA IIC 1 v02A, while initially inspired by DICOM, were updated for airport security screening applications. NEMA IIC 1 v02A reflects these adaptations.

Note: From this point forward, while NEMA IIC 1 v02A is retained as the formal Standard designation, NEMA IIC 1 v02A is referenced as its informal designation, DICOS v02A.