



Technical Publications

2137547–100

Revision 4

DRS DICOM Software V1.2 DICOM V3.0 (ID/Net V3.0) Conformance Statement

This document applies to the following DRS systems:

- ▶ **DRS 3.1 / P3.1**
- ▶ **DRS 3.0 / P3.0**
- ▶ **DRS 2.3 / P2.3 Upgrade Dicom & Pixel Shift**

REVISION HISTORY

REV	DATE	REASON FOR CHANGE
0	March 20, 1995	Initial release to Direction Stock.
1	Nov. 30, 1995	Review
2	March 6, 1996	A.E. Title, Study Description field
3	July 16 1996	Corrections
4	Fébruary 1999	Title page updated with DRS systems references.

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SECTION 1 – INTRODUCTION

1-0 OVERVIEW

Section 1, *Introduction*, provides general information about the content and scope of this document.

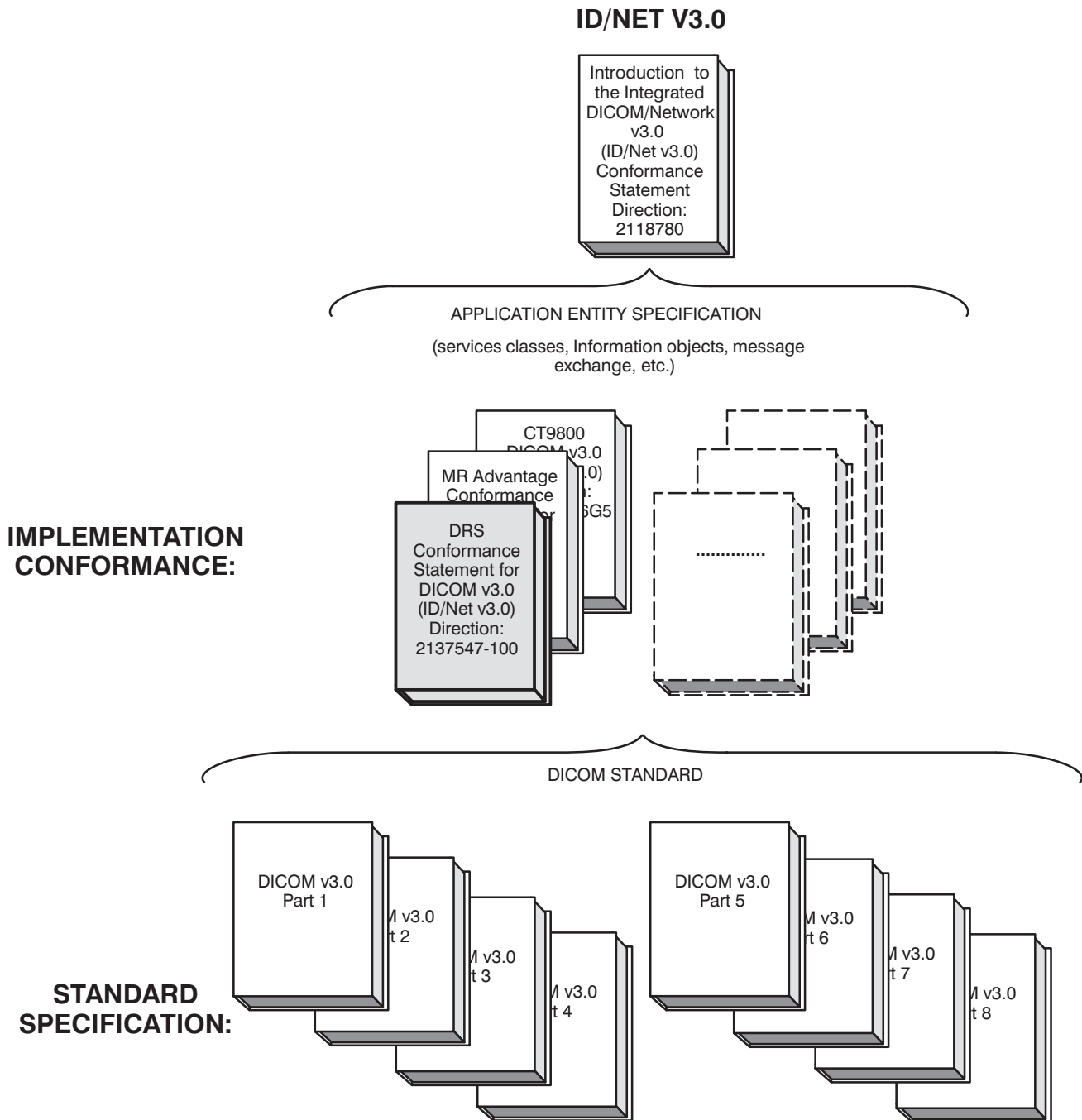
Section 2, *Conformance Statement*, is the DICOM v3.0 Conformance Statement related to this product. Conformance Statements define the subset of options selected from those offered by the DICOM v3.0 standard.

Section 3, *DRS XRAY RF Information Object Definition* defines the technical specifications required to interoperate with a GE Medical Systems (GEMS) ID/Net v3.0 network interface. They define the technical details of the Information Object Definitions (IOD's) listed in the Conformance Statement.

1-1 OVERALL CONFORMANCE STATEMENT DOCUMENT STRUCTURE

The Documentation Structure of the ID/Net v3.0 Conformance Statements and their relationship with the DICOM v3.0 Conformance Statements is shown in Illustration 1-2.

ILLUSTRATION 1-3
DOCUMENTATION STRUCTURE



The Documentation Structure given in Illustration 1-2 shows the overall documentation structure for all of the GEMS ID/Net v3.0 Conformance Statements.

Introductory information, which is applicable to all GEMS ID/Net v3.0 Conformance Statements, is described in the document:

*Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0)
Conformance Statement
Direction: 2118780.*

This Introduction familiarizes the reader with DICOM v3.0 terminology and general concepts. It should be read prior to reading the individual products' ID/Net v3.0 Conformance Statements.

The ID/Net v3.0 Conformance Statement, specifies the supported Lower Layer communications (e.g., TCP/IP). However, the Technical Specifications are defined in the DICOM v3.0 Part 8 standard.

For more information including Network Architecture and basic DICOM concepts, please refer to the *Introduction*.

The present document specifies the DICOM v3.0 product implementation conformance. It is entitled:

*DRS
Conformance Statement for DICOM v3.0 (ID/Net v3.0)
Direction 2137547-100*

This Conformance Statement documents the DICOM v3.0 Conformance Statement and Technical Specification required to interoperate with the GEMS ID/Net v3.0 network interface.

For the convenience of software developers, there is a "collector" Direction available. By ordering the collector, the Introduction described above and all of the currently published ID/Net v3.0 Product Conformance Statements will be received. The collector Direction is:

*ID/Net v3.0 Conformance Statements
Direction: 2117016*

For more information regarding DICOM v3.0, copies of the Standard may be obtained by written request or phone by contacting:

NEMA Publication
2101 L Street, N.W., Suite 300
Washington, DC 20037 USA
Phone: (202) 457-8474

1-2 INTENDED AUDIENCE

The reader of this document is concerned with software design and/or system integration issues. It is assumed that the reader of this document is familiar with the DICOM v3.0 Standards and with the terminology and concepts which are used in those Standards.

1-3 SCOPE AND FIELD OF APPLICATION

It is the intent of this document, in conjunction with the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780*, to provide an unambiguous specification for GEMS ID/Net v3.0 implementations for DRS products.

The reader of this Conformance Statement should be aware that different GEMS devices are capable of using different Information Object Definitions. For example, a GEMS CT Scanner may send images using the CT Information Object, MR Information Object, Secondary Capture Object, etc.

Included in the Technical Specification of this Conformance Statement are the Module Definitions which define all data elements used by this GEMS ID/Net v3.0 implementation. If the user encounters unspecified private data elements while parsing a GEMS Data Set, the user is well advised to ignore those data elements (per the DICOM v3.0 standard). Unspecified private data element information is subject to change without notice. If, however, the device is acting as a “full fidelity storage device”, it should retain and retransmit all of the private data elements which are sent by GEMS devices.

1–4 IMPORTANT REMARKS

The use of these Conformance Statements, in conjunction with the DICOM v3.0 Standards, is intended to facilitate communication with GE imaging equipment. However, **by itself, it is not sufficient to ensure that interoperation will be successful.** The **user (or user's agent)** needs to proceed with caution and address at least four issues:

- **Integration** – The integration of any device into an overall system of interconnected devices goes beyond the scope of standards (DICOM v3.0), and of this introduction and associated Conformance Statements when interoperability with non-GE equipment is desired. The responsibility to analyze the applications requirements and to design a solution that integrates GE imaging equipment with non-GE systems is the **user's** responsibility and should not be underestimated. The **user** is strongly advised to ensure that such an integration analysis is correctly performed.
- **Validation** – Testing the complete range of possible interactions between any GE device and non-GE devices, before the connection is declared operational, should not be overlooked. Therefore, the **user** should ensure that any non-GE provider accepts full responsibility for all validation required for their connection with GE devices. This includes the accuracy of the image data once it has crossed the interface between the GE imaging equipment and the non-GE device and the stability of the image data for the intended applications. Such a validation is required before any clinical use (diagnosis and/or treatment) is performed. It applies when images acquired on GE imaging equipment are processed/displayed on a non-GE device, as well as when images acquired on non-GE equipment is processed/displayed on a GE console or workstation.
- **Future Evolution** – GE understands that the DICOM Standard will evolve to meet the user's growing requirements. GE is actively involved in the development of the DICOM v3.0 Standard. DICOM v3.0 will incorporate new features and technologies and GE may follow the evolution of the Standard. ID/Net v3.0 is based on DICOM v3.0 as specified in each ID/Net DICOM Conformance Statement. Evolution of the Standard may require changes to devices which have implemented DICOM v3.0. **In addition, GE reserves the right to discontinue or make changes to the support of communications features (on its products) reflected on by these ID/Net DICOM Conformance Statements.** The **user** should ensure that any non-GE provider, which connects with GE devices, also plans for the future evolution of the DICOM Standard. Failure to do so will likely result in the loss of function and/or connectivity as the DICOM Standard changes and GE Products are enhanced to support these changes.
- **To be kept informed of the evolution of the implementation described in this document, the User should register on the GE Internet Server, accessible via anonymous ftp, by entering his e-mail address (GE Internet Server Address: ftp.med.ge.com, 192.88.230.11).**
- **Interaction** – It is the sole responsibility of the **non-GE provider** to ensure that communication with the interfaced equipment does not cause degradation of GE imaging equipment performance and/or function.

1-5 REFERENCES

A list of references which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780*.

The information object implementation refers to the X-Ray Radiofluoroscopic Image Object Definition (DICOM v3.0 Standard Supplement 6) to Part 3 (Information Object Definition)

1-6 DEFINITIONS

A set of definitions which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780*.

1-7 SYMBOLS AND ABBREVIATIONS

A list of symbols and abbreviations which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780*.

1-8 CONVENTIONS

Please refer to DICOM Standard Part 3 (Information Object Definitions) for the Attribute Type Definitions which are used in the Module Descriptions found in sections 3 through this conformance statement.

SECTION 2 – CONFORMANCE STATEMENT

2-0 INTRODUCTION

This Conformance Statement (CS) specifies the GE DRS compliance to DICOM v3.0. It details the DICOM Service Classes and roles which are supported by this product. Other sections of this document describe the Information Object data elements which are used by this implementation.

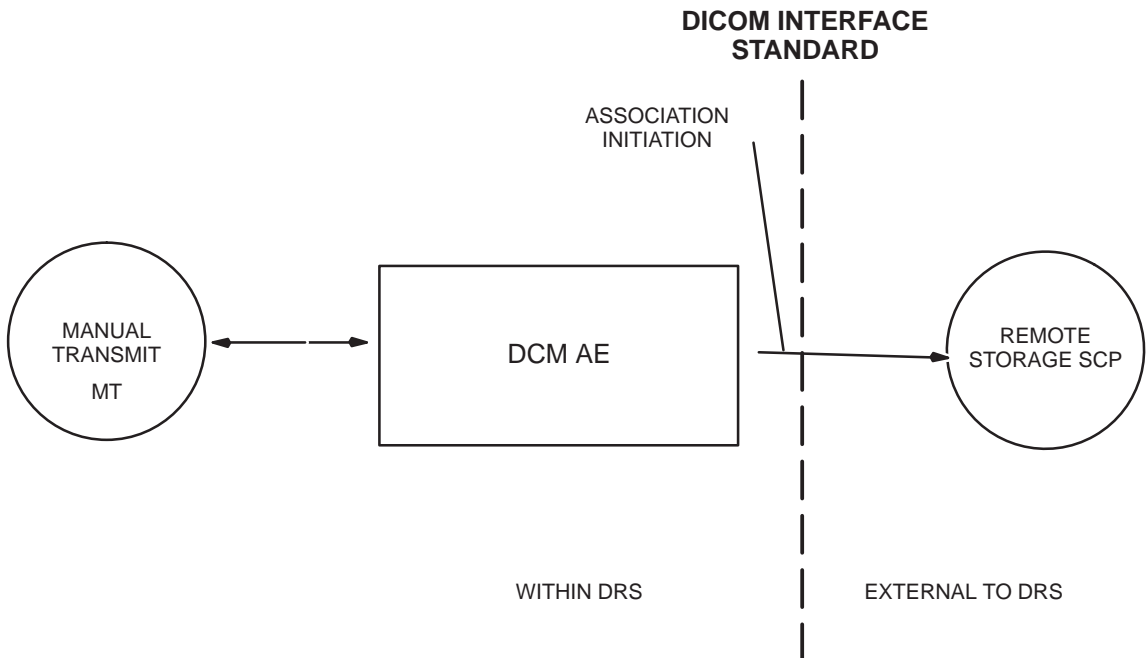
Note that the format of this section strictly follows the format of DICOM Standard Part 2 (Conformance) Appendix A. Please refer to that part of the standard while reading this section.

2-1 IMPLEMENTATION MODEL

2-1-1 Application Data Flow Diagram

The Basic and Specific Application models for DRS are shown in Ill. 2-1 .

ILLUSTRATION 2-1
SPECIFIC AE APPLICATION MODEL



The DCM Application Entity (AE) is an application which handles all DICOM protocol communications. DCM AE is brought up when an Operator initiates a transfer on the DRS Operator Console (OC) .

All remote DICOM AE Titles must be manually entered on the OC, usually at software installation time, by a GEMS Field Engineer.

There is only one local real world activity: Manual Transmit (MT), which can cause the DCM AE to initiate a DICOM association to store an image.

MT consists of an operator selecting a Study from the *Patient List* screen of the operator console User Interface, and choosing to send the *selected* image(s) to a selected destination.

2-1-2 Functional Definition of DCM AE

DCM Application Entity supports the following functions:

- Has access to patient demographics and pixel data in the local database.
- Manually (MT) initiates a DICOM association to send images.

2-1-3 Sequencing of Real-World Activities

Not Applicable

2-2 AE SPECIFICATIONS

2-2-1 DCM AE Specification

This Application Entity provides Standard Conformance to the following DICOM V3.0 SOP Classes as an SCU:

SOP Class Name	SOP Class UID
XRAY Radio Fluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2

2-2-1-1 Association Establishment Policies

2-2-1-2 General

The DICOM Application Context Name (ACN), which is always offered, is:

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

The Maximum Length PDU negotiation is included in all association establishment requests. The maximum length PDU for an association initiated by the DCM AE is:

Maximum Length PDU	4 Kbytes
--------------------	----------

The SOP class Extended Negotiation is not supported.

The maximum number of Presentation Context Items that is offered is 1.

The user info items sent by this product are:

- Maximum PDU Length and,
- Implementation UID

Note: Max PDU length is not configurable at run time.

2-2-1-3 Number of Associations

The DCM AE initiates only one DICOM association at a time to perform an image store.

The DCM AE does not support multiple associations.

2-2-1-4 Asynchronous Nature

Asynchronous mode is not supported. All operations are performed synchronously.

2-2-1-5 Implementation Identifying Information

The Implementation UID for this ID/Net v3.0 Implementation is:

DRS Implementation UID	1.2.840.113619.6.15
-------------------------------	----------------------------

2-2-1-6 Association Initiation Policy

This AE attempts to initiate a new association “Manual Transmit Operation “ initiated by the operator

2-2-1-7 Real-World Activity “MANUAL TRANSMIT”

2-2-1-8 Associated Real-World Activity

An image is sent to a DICOM Storage SCP on manual request.

2-2-1-9 Proposed Presentation Contexts

Presentation Context Table – Proposed					
Abstract Syntax		Transfer Syntax		Role	Expanded Negotiation
Name	UID	Name List	UID List		
XRAY RF Image Info Obj.	1.2.840.10008.5.1.4.1.1.12.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

2-2-1-10 SOP Specific Conformance Statement for Image Storage SOP Classes

Upon receiving a **C-STORE** confirmation containing a **Successful** status, this implementation will perform the next C-STORE operation.

Upon receiving a **C-STORE** confirmation containing an **Error** or **Refused** status, this implementation will terminate the association. The current image is considered failed. If more images are left to be sent, they will be transmitted on a different association.

Each C-STORE operation supports a “Per Image” Store Timeout. This timeout starts once a C-STORE request has been issued and stops once a C-STORE confirmation has been received. This timeout is 190 minutes.

2-2-1-11 Acceptance Policies

Not applicable

2-3 COMMUNICATION PROFILES

2-3-1 Supported Communication Stacks (parts 8,9)

DICOM Upper Layer (Part 8) is supported using TCP/IP.

2-3-2 TCP/IP Stack

The TCP/IP stack is inherited from a VRTX Operating System.

2-3-2-1 Application Programming Interface

Not applicable to this product.

2-3-2-2 Physical Media Support

Ethernet v2.0, IEEE 802.3.

2-3-3 Point-to-Point Stack

A 50-pin ACR-NEMA connection is not applicable to this product.

2-4 EXTENSIONS/SPECIALIZATIONS/PRIVATIZATIONS

2-4-1 Standard Extended/Specialized/Private SOP's

Not Applicable.

2-5 CONFIGURATION

2-5-1 AE Title/Presentation Address Mapping

Both Local AE Title and Remote AE Title are configurable. The AE Titles must be configured by a GEMS Field Service Engineer during an installation.

2-5-2 Configurable Parameters

The following fields are configurable for this AE (local):

- Local IP Address
- Local AE Title

The following fields are configurable for the five supported remote AEs:

- Remote AE Title
- Responding TCP/IP Port
- Remote IP Address
- Gateway Address
- Subnetmask

- Note:**
1. All configuration must be performed by a GEMS Field Service Engineer.
 2. For the DRS P2 and DRS 2.2, only one target workstation is supported.

2-6 SUPPORT OF EXTENDED CHARACTER SETS

The ASCII character table ISO 8859-ISO-IR100 is supported.

SECTION 3 – RADIO FLUOROSCOPIC (RF) INFORMATION OBJECT IMPLEMENTATION

3-0 INTRODUCTION

This section specifies the use of the DICOM RF Image IOD to represent the information included in RF images produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

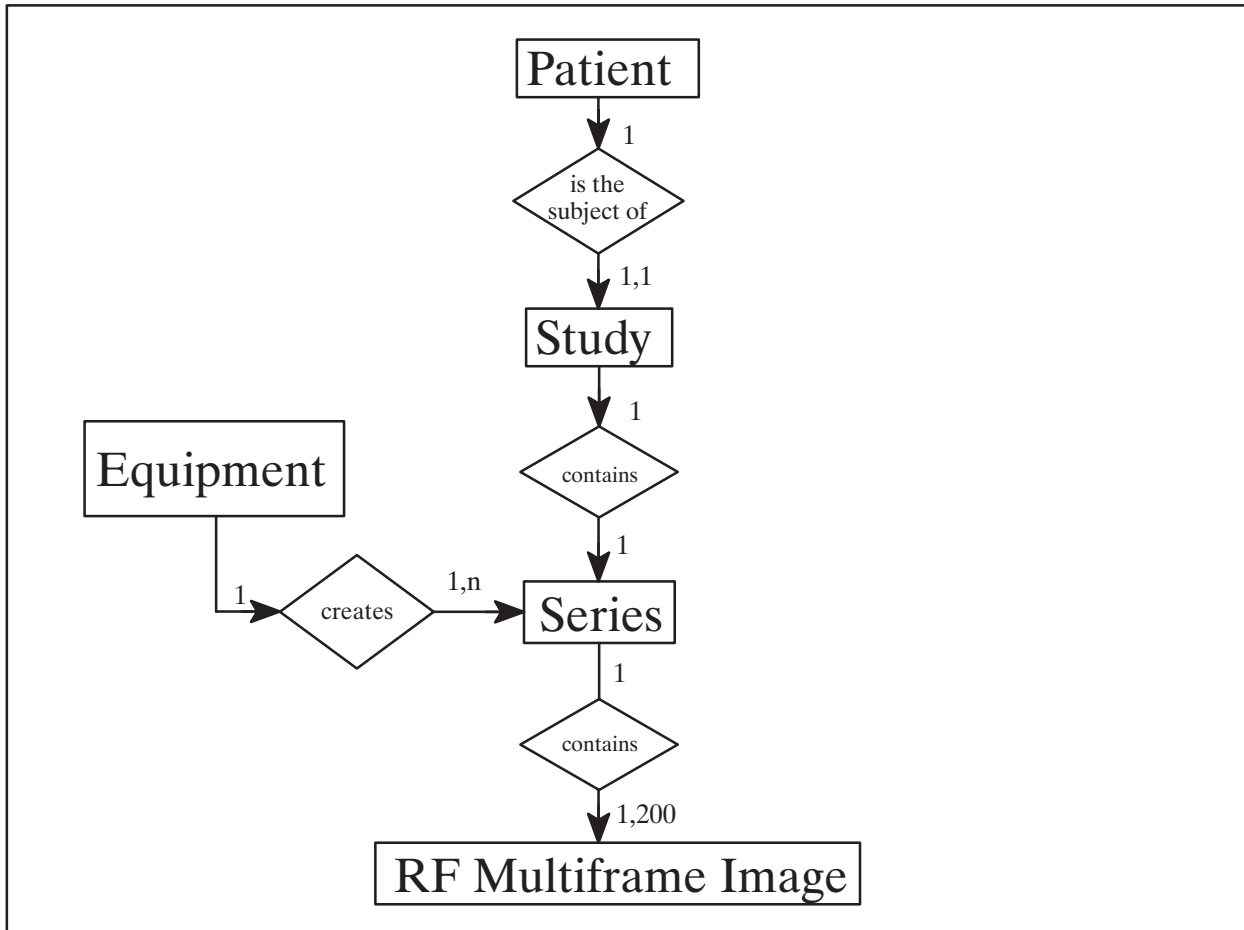
- 3.1 – X-ray RF IOD Implementation
- 3.2 – X-ray IOD Entity Relationship Model
- 3-3 – X-ray RF Image IOD Module Table
- 3-4 – Information Module Definitions

3-1 XRAY RF IOD IMPLEMENTATION

This Section defines the implementation of XRF image information object. It refers to the DICOM V3.0 Standard, Supplement 6 (Oct. 21, 1994) to Part 3 (Information Object Definition).

3-2 XRAY IOD ENTITY RELATIONSHIP MODEL

ILLUSTRATION 3-1
RF IMAGE ENTITY RELATIONSHIP DIAGRAM



The Entity-Relationship diagram for the RF Image interoperability schema is shown in Illustration 3-1. In this figure, the following diagrammatic convention is established to represent the information organization:

- each entity is represented by a rectangular box
- each relationship is represented by a diamond shaped box
- the fact that a relationship exists between two entities is depicted by lines connecting the corresponding entity boxes to the relationship boxes.

The relationships are fully defined with the maximum number of possible entities in the relationship shown. In other words, the relationship between Series and Image can have up to 200 Images per Series, but the Patient to Study relationship has 1 Study for each Patient (a Patient can have more than one Study on the system, however each Study will contain all of the information pertaining to that Patient).

3-2-1 ENTITIES DESCRIPTION

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the RF Information Object.

3-2-2 DRS MAPPING OF DICOM ENTITIES

DICOM	DRS
PATIENT ENTITY	PATIENT ENTITY
STUDY ENTITY	no match
SERIE ENTITY	no match
MULTIFRAME IMAGE ENTITY	SEQUENCE ENTITY
FRAME	IMAGE

3-3 XRAY RF IMAGE IOD MODULE TABLE

Within an entity of the DICOM v3.0 RF Image Information Object Definition, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into datasets.

Table 3-1 identifies the defined modules within the entities which comprise the DICOM v3.0 RF Image Information Object Definition. Modules are identified by Module Name.

See DICOM v3.0 Part 3 for a complete definition of the entities, modules, and attributes.

TABLE 3-1
RF IMAGE INFORMATION OBJECT DEFINITION (IOD) MODULE TABLE

Entity Name	Module Name	Reference
Patient	Patient	3-4-1-1
Study	General Study	3-4-2-1
	Patient Study	3-4-1-1
Series	General Series	3-4-3-1
Equipment	General Equipment	3.3.4.1
Image	General Image	3-4-5-1
	Image Pixel	3-4-5-2
	Cine Module	3.3.5.3
	Multi Frame Module	3.3.5.4
	Frame Pointer Module	3.3.5.5
	XRAY Image Module	3.3.5.6
	XRAY Acquisition Module	3.3.5.7
	Display Shutter Module	3.3.5.8
	VOI LUT Module	3.3.5.9
	SOP Common	3.3.5.10
	Private Data Dictionary	3.5

Note: The following modules are included to convey Enumerated values, Defined Terms, and Optional Attributes Supported. Type 1 & Type 2 Attributes are also included for completeness but it should be noted that they are the same ones as defined in DICOM Part 3.

3-4 INFORMATION MODULE DEFINITIONS

Please refer to DICOM v3.0 Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the RF Information Object.

3-4-1 Patient Entity Module

3-4-1-1 Patient Module

TABLE 3-2
PATIENT MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Patient Name	(0010,0010)	2	
Patient ID	(0010,0020)	2	
Patient Birth Date	(0010,0030)	2	No value zero length
Patient Sex	(0010,0040)	2	No value , zero length

3-4-2 Study Entity Modules

3-4-2-1 General Study Module

TABLE 3-3
GENERAL STUDY ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Study Instance UID	(0020,000D)	1	(1)
Study Date	(0008,0020)	2	
Study Time	(0008,0030)	2	No value , zero length
Referring Physician's Name	(0008,0090)	2	No value , zero length
Study ID	(0020,0010)	2	No value , zero length
Accession Number	(0008,0050)	2	No value , zero length
Study Description	(0008,1030)	3	Study description

Note:

(1) For multiframe images, the DRS allows selection of images to be sent. The Study Instance UID is generated using the number of the first image, and the image number of the multiframe. Thus, for example, if the multiframe images are 4, 5, and 6, the UID will be the same if the selected images are 4 and 5, or 4 and 6.

3-4-3 Series Entity Module

3-4-3-1 General Series Module

TABLE 3-4
GENERAL SERIES MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Modality	(0008,0060)	1	Enumerated Value: "RF" – Radio Fluoroscopic
Series Instance UID	(0020,000E)	1	
Series Number	(0020,0011)	2	value : 1
Performing Physician's Name	(0008,1050)	3	content of field RADIOLOGIST NAME in user interface.
Series Date	(0008,0021)	3	

3-4-4 Equipment Entity Module

3-4-4-1 General Equipment Module

TABLE 3-5
GENERAL EQUIPMENT MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Manufacturer	(0008,0070)	2	Defined Terms: "GE MEDICAL SYSTEMS"
Manufacturer Model Name	(0008,1090)	3	Defined Terms: "DRS"
Software Version	(0018,1020)	3	

3-4-5 Image Entity Modules

3-4-5-1 General Image Module

TABLE 3-6
GENERAL IMAGE MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Image Number	(0020,0013)	2	DRS Sequence number
Image Date	(0008,0023)	2C	
Image Time	(0008,0033)	2C	
Image Type	(0008,0008)	3	Value = "ORIGINAL\PRIMARY\SINGLE PLANE"
Acquisition Date	(0008,0022)	3	
Acquisition Time	(0008,0032)	3	
Image Comments	(0020,4000)	3	
Lossy Image Compression	(0028,2110)	3	Value = 0 , No lossy Compression

3-4-5-2 Image Pixel Module

TABLE 3-7
IMAGE PIXEL MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Samples per Pixel	(0028,0002)	1	Value = 1
Photometric Interpretation	(0028,0004)	1	Defined Value: "MONOCHROME2"
Rows	(0028,0010)	1	Defined Value: 1024 or 512
Columns	(0028,0011)	1	Defined Value: 1024 or 512
Bits Allocated	(0028,0100)	1	Defined Value: 8
Bits Stored	(0028,0101)	1	Defined Value: 8
High Bit	(0028,0102)	1	Defined Value: 7
Pixel Representation	(0028,0103)	1	Defined Value: 0
Pixel Data	(7FE0,0010)	1	

3-4-5-3 Cine Module

TABLE 3-8
CINE MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Frame Time Vector	(0018,1065)	1C	
Start Trim	(0008,2142)	3	Value = 1
Stop Trim	(0008,2143)	3	
Recommended Display Rate	(0008,2144)	3	
Actual Frame Duration	(0018,1242)	3	Value = 40 ms

3-4-5-4 Multi Frame Module (Conditional)

TABLE 3-9
MULTIFRAME MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Number of Frames	(0028,0008)	1	
Frame Increment Pointer	(0028,0009)	3	cf tag (0018,1065)

3-4-5-5 Frame Pointers Module (User Option)

TABLE 3-10
FRAME POINTERS MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Frames Number of Interest	(0028,6020)	3	
Frame of Interest Description	(0028,6022)	3	
Representative Frame Number	(0028,6010)	3	Value = 1

3-4-5-6 XRAY Image Module

TABLE 3-11
XRAY IMAGE MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Image Type	(0008,0008)	3	Value = ORIGINAL\PRIMARY\SINGLE PLANE
Frame Increment Pointer	(0028,0009)	1C	cf tag (0018,1065)
Pixel Intensity Relationship	(0028,1040)	1	Value = LIN for graphy images acquired on DRS, otherwise DISP. It is always DISP for DRS 2.2 and DRS P2.
Samples per Pixel	(0028,0002)	1	Value = 1
Photometric Interpretation	(0028,0004)	1	Defined Value: "MONOCHROME2"
Rows	(0028,0010)	1	Defined Value: 1024 or 512
Columns	(0028,0011)	1	Defined Value: 1024 or 512
Bits Allocated	(0028,0100)	1	Defined Value: 8
Bits Stored	(0028,0101)	1	Defined Value: 8
High Bit	(0028,0102)	1	Defined Value: 7
Pixel Representation	(0028,0103)	1	Defined Value: 0
Acquisition Device Processing Description	(0018,1400)	3	Filter number
Pixel Data	(7FE0,0010)	1	

3-4-5-7 XRAY Acquisition Module

TABLE 3-12
XRAY ACQUISITION MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Radiation Setting	(0018,1155)	1	
KVP	(0018,0060)	2	No value , zero length
XRAY tube current	(0018,1151)	2C	No value , zero length
Exposure Time	(0018,1150)	2C	No value , zero length

3-4-5-8 Display Shutter Module

TABLE 3-13
XRAY DISPLAY SHUTTER MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Shutter Shape	(0018,1600)	1	Value = CIRCULAR\RECTANGULAR
Shutter Left Vertical Edge	(0018,1602)	1C	
Shutter Right Vertical Edge	(0018,1604)	1C	
Shutter Upper Horizontal Edge	(0018,1606)	1C	
Shutter Lower Horizontal Edge	(0018,1608)	1C	
Center of Circular Shutter	(0018,1610)	1C	
Radius of Circular Shutter	(0018,1612)	1C	

3-4-5-9 VOI LUT Module

TABLE 3-14
XRAY VOI LUT MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
Window Center	(0028,1050)	3	
Window Width	(0028,1051)	1C	

3-4-5-10 SOP Common Module

TABLE 3-15
SOP COMMON MODULE ATTRIBUTES

Attribute Name	Element Tag	Type	Notes
SOP Class UID	(0008,0016)	1	Value = 1.2.840.10008.5.1.4.1.1.12.2
SOP Instance UID	(0008,0018)	1	
Specific character set	(0008,0005)	1C	ISO_IR 100

3-5 PRIVATE DATA DICTIONARY

TABLE 4-1
ADDITIONAL INFORMATION

Attribute Name	Element Tag	Type	VR	VM
Private Creator DRS_1	(0037,00xx)	3	LO	1
Referring Department	(0037,xx10)	3	LO	1
Screen Number	(0037,xx20)	3	US	1
Left Orientation	(0037,xx40)	3	CS	1
Right Orientation	(0037,xx42)	3	CS	1
Inversion	(0037,xx50)	3	CS	1
DSA	(0037,xx60)	3	CS	1

Attribute Name	Element Tag	Value
Private Creator DRS_1	(0037,00xx)	GEMS_DRS_1

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