TOSHIBA

DICOM CONFORMANCE STATEMENT

FOR
TOSHIBA DIGITAL RADIOGRAPHY SYSTEM

MODEL SREX-D32C

TOSHIBA MEDICAL SYSTEMS CORPORATION

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1. CONFORMANCE STATEMENT OVERVIEW

Table 1-1 provides an overview of the Media Storage Application Profiles supported by SREX-D32C.

Table 1-1
Overview of the Media Storage Application Profiles

Media Storage Application Profile	Write Files (FSC)	Read Files (FSR)	Update Files (FSU)
DVD-RAM			
General Purpose	Yes	Yes	Yes

2. TABLE OF CONTENTS

3. INTRODUCTION

3.1. AUDIENCE

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of DICOM.

3.2. REMARKS

DICOM, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates a first-level validation for interoperability between different applications supporting the same DICOM functionality.

This Conformance Statement is not intended to replace validation with other DICOM equipment to ensure proper exchange of information intended.

The scope of this Conformance Statement is to facilitate communication with Toshiba Medical Systems and other vendors' Medical equipment. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [DICOM]. However, by itself it is not guaranteed to ensure the desired interoperability and a successful interconnectivity.

The user should be aware of the following important issues:
— The comparison of different conformance statements is the first step towards assessing interconnectivity between Toshiba Medical Systems and non- Toshiba Medical Systems equipment.
— Test procedures should be defined to validate the desired level of connectivity.
— The DICOM standard will evolve to meet the users' future requirements. Toshiba Medical Systems is actively involved in developing the standard further and therefore reserves the right to make changes to its products or to discontinue its delivery.

3.3.   DEFINITIONS, TERMS AND ABBREVIATIONS

Definitions, terms and abbreviations used in this document are defined within the different parts of the DICOM standard.

Abbreviations and terms are as follows:

AE	Application Entity
AET	Application Entity Title
DVD	Digital Versatile Disc
DVD-RAM	An abbreviation of DVD recordable
FSC	File-Set Creator
FSU	File-Set Updater
FSR	File-Set Reader
IE	Information Entity
IOD	Information Object Definition
ISO	International Standard Organization
SOP	Service-Object Pair
UID	Unique Identifier

3.4.   REFERENCES

[DICOM] Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-3.18, 2004

4. MEDIA STORAGE

4.1.   IMPLEMENTATION MODEL

4.1.1. Application Data Flow Diagram
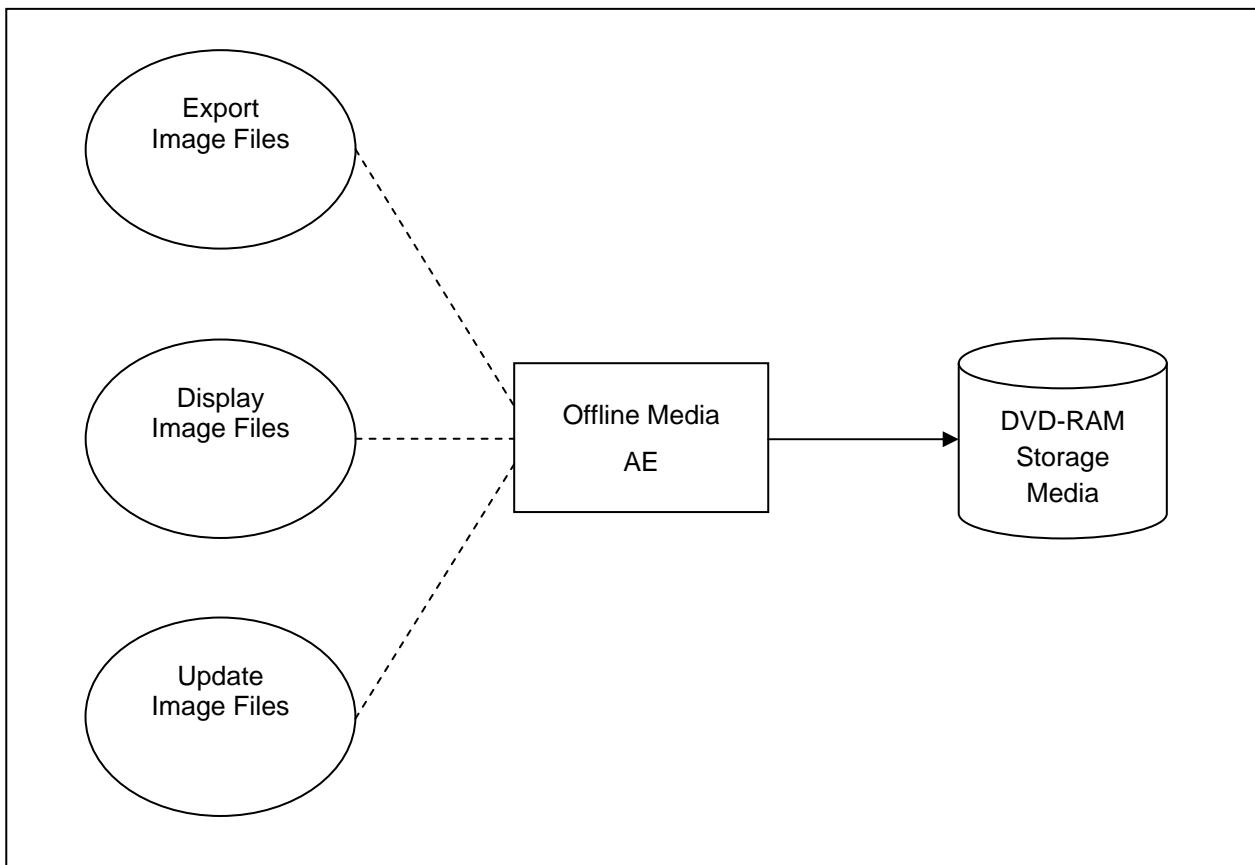
Figure 4-1
APPLICATION DATA FLOW DIAGRAM

— The Offline Media AE exports image files to a DVD-RAM storage medium as File-set. It is associated with the Local Real-World Activity "Export Image Files" performed by automatically or by user operation.
— The Offline Media AE displays one or more files in a File set from a DVD-RAM storage medium. It is associated with the Local Real World Activity "Display Image Files" performed by user operation.
— The Offline Media AE creates additional files to a DVD-RAM storage medium, or modifies existing files on a DVD-RAM storage medium. It is associated with the Local Real-World Activity "Update Image Files" performed by automatically or by user operation.

4.1.2. Functional Definition of AEs

4.1.2.1.   Functional Definition of Offline Media AE

The Offline Media AE is performed by automatically or by user operation.

This Application performs following functions:

Export:

Records DICOM Information Objects and the DICOMDIR file as File-set to the DVD-RAM storage medium.

Import:

The selected images will be loaded from the DVD-RAM storage medium, and will be displayed on the screen.

Update:

- Adds DICOM Information Objects to the DVD-RAM medium.

- Modifies DICOMDIR file on the DVD-RAM storage medium.

- Modifies Study Information on the DVD-RAM storage medium.

4.1.3. Real World Activities

4.1.3.1.   Activity – Export Image Files to DVD-RAM

This AE will create File-set(s) onto a DVD-RAM storage medium. The functions of "Export Image Files Real-World Activity" are described as below:

4.1.3.1.1.   Manually writing

Step-1: Inserts initialized DVD-RAM storage medium.

Step-2: Selects the images from "All images" or "Unrecorded images".

Step-3: Requests to copy.

4.1.3.1.2.   Automatically writing

If DVD-RAM storage medium has been inserted, Unrecorded images will be recorded automatically.

4.1.3.2.   Activity – Display Image Files

This AE will read File-set(s) from the DVD-RAM storage medium. The functions of "Display Image Files Real-World Activity" are described as below:

4.1.3.2.1.   Reading from DVD-RAM

Step-1: Inserts a DVD-RAM storage medium containing the DICOM Information Objects.

Step-2: The list of Study Date will be displayed.

Step-3: After selects Study Date, the corresponding images will be displayed.

4.1.3.3.   Activity – Update Image Files

This AE will update File-set(s) on the DVD-RAM. The functions of "Update Image Files Real-World Activity" are described as below:

4.1.3.3.1.   Additional writing to DVD-RAM

4.1.3.3.1.1.   Manually writing

Step-1: Inserts a DVD-RAM storage medium containing the DICOM Information Objects.

Step-2: Selects the images from "All images" or "Unrecorded Images".

Step-3: Requests to copy.

4.1.3.3.1.2.   Automatically writing

If DVD-RAM storage medium has been inserted, unrecorded images will be recorded automatically.

4.1.3.3.2.   Modifying of Study Information

Step-1: Insert a DVD-RAM storage medium containing the DICOM Information Objects.

Step-2: The list of patient will be displayed.

Step-3: Selects patient.

Step-4: Modifies the selected patient's Study Information, and update the Study Information.

4.1.4. FILE META INFORMATION FOR IMPLEMENTATION CLASS AND VERSION

The default values for the Digital Radiography System are used for the File Meta Information Version, the implementation Class UID and the Implementation Version Name.

Table 4-1
File Meta Information for Implementation Class and Version

Parameter	Default
File Meta Information Version	1
Implementation Class UID	1.2.392.200036.9116.32.2
Implementation Version Name	DRV_DICOMDIR_001

4.2. AE SPECIFICATIONS

4.2.1. OFFLINE MEDIA AE SPECIFICATION

The Offline Media AE provides standard conformance to DICOM interchange Option of the Media Storage Service Class. The supported Application Profiles and roles are listed in Table 4-2
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Table 4-2
Application Profiles, Activities, and Roles for Offline Media

Application Profiles Supported	Real World Activity	Role	SC Option
STD-GEN-DVD-RAM	Export Image Files	FSC	Interchange
	Display Image Files	FSR	Interchange
	Update Image Files	FSU	Interchange

4.2.1.1. File Meta Information for the Application Entity

The Offline Media AE does not set the Source Application Entity Title.

4.2.1.2. Real-World Activities

4.2.1.2.1. Activity – Export Image Files

The Offline Media AE performs as an FSC using the interchange option when exports SOP Instances from the local storage to a DVD-RAM storage medium.

4.2.1.2.1.1. Media Storage Application Profiles

The Offline Media AE supports the STD-GEN-DVD-RAM Application Profile.

4.2.1.2.1.1.1. Options

The Offline Media AE supports the SOP Classes and Transfer Syntaxes listed in the Table 4-3.

Table 4-3
IODs, SOP Classes and Transfer Syntaxes for the STD-GEN-DVD-RAM Profile

Information Object Definition	Service Object Pair Class UID	Transfer Syntax	Transfer Syntax UID	Role
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSC
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSC

4.2.1.2.2. Activity – Display Image Files

The Offline Media AE performs as an FSR using the interchange option when operates to display SOP Instances from a DVD-RAM medium.

4.2.1.2.2.1. Media Storage Application Profiles

The Offline Media AE supports the STD-GEN-DVD-RAM Application Profile.

4.2.1.2.2.1.1. Options

The Offline Media AE supports the SOP Classes and Transfer Syntaxes listed in the Table 4-4.

Table 4-4
IODs, SOP Classes and Transfer Syntaxes for the STD-GEN-DVD-RAM Profile

Information Object Definition	Service Object Pair Class UID	Transfer Syntax	Transfer Syntax UID	Role
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSR
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSR

4.2.1.2.3. Activity – Update Image Files

The Offline Media AE performs as an FSU using the interchange option when updates SOP Instances on a DVD-RAM medium.

4.2.1.2.3.1. Media Storage Application Profiles

The Offline Media AE supports the STD-GEN-DVD-RAM Application Profile.

4.2.1.2.3.1.1. Options

The Offline Media AE supports the SOP Classes and Transfer Syntaxes listed in the Table 4-5.

Table 4-5
IODs, SOP Classes and Transfer Syntaxes for the STD-GEN-DVD-RAM Profile

Information Object Definition	Service Object Pair Class UID	Transfer Syntax	Transfer Syntax UID	Role
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSU
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	FSU

4.3.   AUGMENTED AND PRIVATE APPLICATION PROFILES

4.3.1. AUGMENTED APPLICATION PROFILES

Not applicable to this product.

4.3.2. PRIVATE APPLICATION PROFILES

Not applicable to this product.

4.4.   CONFIGURATION

Not applicable to this product.

5. SUPPORT OF CHARACTER SETS

This product supports the following character sets:

- ISO-IR 6 (default)   ISO 646
- ISO-IR 13 (Japanese)   JIS X 0201 (Katakana)
- ISO-IR 87 (Japanese)   JIS X 0208 (Kanji)

Character sets ISO-IR 13 and ISO-IR 87 can be set to the tags listed in the Table 5-1;

Table 5-1
Tag lists for ISO-IR 13/87

Attribute Name	Tag	VR
Referring Physician's Name	(0008,0090)	PN
Patient's Name	(0010,0010)	PN
Patient Comments	(0010,4000)	LT
Requesting Service	(0032,1033)	LO

6. ANNEXES

6.1. IOD CONTENTS

6.1.1. Created SOP Instances

The following tables use a number of abbreviations. The abbreviations used in the "Presence of …" column are:

VNAP   Value Not Always Present (attribute sent zero length if no value is present)

ANAP   Attribute Not Always Present

ALWAYS   Always Present with a value

EMPTY   Attribute is sent without a value

The abbreviations used in the "Source" column:

USER   Attribute value source is from User input

AUTO   Attribute value is generated automatically

CONFIG   Attribute value source is a configurable parameter

6.1.1.1. XRF IMAGE IOD

When the image is exported to DVD-RAM, the DICOM header is added to the image data. The content of the tag that set as DICOM header is described in Table 6-1.

Table 6-1
XRF Image IOD

Module Name Attribute Name	Tag	VR	Value	Presence of Value	Source
Group Length					
Group Length	(0008, 0000)	UL	0	ALWAYS	AUTO
Group Length	(0010, 0000)	UL	0	ALWAYS	AUTO
Group Length	(0018, 0000)	UL	0	ALWAYS	AUTO
Group Length	(0028, 0000)	UL	0	ALWAYS	AUTO
Group Length	(0032, 0000)	UL	0	ALWAYS	AUTO
Group Length	(707D, 0000)	UL	0	ALWAYS	AUTO
Patient					
Patient's Name	(0010, 0010)	PN		VNAP	USER
Patient's ID	(0010, 0020)	LO		VNAP	USER
Patient's Birthday	(0010, 0030)	DA		VNAP	USER
Patient's Sex	(0010, 0040)	CS		VNAP	USER
Patient Comments	(0010, 4000)	LT		VNAP	USER
General Study					
Study Date	(0008, 0020)	DA		ALWAYS	AUTO
Study Time	(0008, 0030)	TM		ALWAYS	AUTO
Accession Number	(0008, 0050)	SH		VNAP	AUTO
Referring Physician's Name	(0008, 0090)	PN	Default is "TOSHIBA TARO".	ALWAYS	CONFIG
Study Description	(0008, 1030)	LO	"UPPER GI"	ALWAYS	AUTO
Study Instance UID	(0020, 000D)	UI	"1.2.392.200036.9116.32.2.2.1.[Device Number].[Acquisition Date]"	ALWAYS	AUTO
Study ID	(0020, 0010)	SH		EMPTY	AUTO
Patient Study					
Patient's Size	(0010, 1020)	DS		EMPTY	AUTO
Patient's Weight	(0010, 1030)	DS		EMPTY	AUTO
General Series					
Series Date	(0008, 0021)	DA		ALWAYS	AUTO
Series Time	(0008, 0031)	TM		ALWAYS	AUTO
Modality	(0008, 0060)	CS	"RF"	ALWAYS	AUTO
Body Part Examined	(0018, 0015)	CS	"ABDOMEN"	ALWAYS	AUTO
Series Instance UID	(0020, 000E)	UI	"1.2.392.200036.9116.32.2.2.1.[Device Number].[Acquisition Date].1"	ALWAYS	AUTO
Series Number	(0020, 0011)	IS		EMPTY	AUTO
General Equipment					

Module Name Attribute Name	Tag	VR	Value	Presence of Value	Source
Manufacturer	(0008, 0070)	LO	"TOSHIBA_MEC"	ALWAYS	AUTO
Institution Name	(0008, 0080)	LO	"TOSHIBA MEDICAL SYSTEMS"	ALWAYS	CONFIG
Manufacturer's Model Name	(0008, 1090)	LO	Default is "DRV-1000A".	ALWAYS	CONFIG
Device Serial Number	(0018, 1000)	LO	Default is "J1A0561234".	ALWAYS	CONFIG
Software Version	(0018, 1020)	LO		VNAP	CONFIG
General Image					
Acquisition Date	(0008, 0022)	DA		ALWAYS	AUTO
Image Date	(0008, 0023)	DA		ALWAYS	AUTO
Acquisition Time	(0008, 0032)	TM		ALWAYS	AUTO
Image Time	(0008, 0033)	TM		ALWAYS	AUTO
Image Pixel					
Rows	(0028, 0010)	US	0x0400	ALWAYS	AUTO
Columns	(0028, 0011)	US	0x0400	ALWAYS	AUTO
X-Ray Image					
Image Type	(0008, 0008)	CS	"ORIGINAL¥¥PRIMARY¥¥SINGLE PLANE"	ALWAYS	AUTO
Samples per Pixel	(0028, 0002)	US	0x0001	ALWAYS	AUTO
Photometric Interpretation	(0028, 0004)	CS	"MONOCHROME1" or "MONOCHROME2"	ALWAYS	AUTO
Bits Allocated	(0028, 0100)	US	0x0010	ALWAYS	AUTO
Pixel Intensity Relationship	(0028, 1040)	CS	"LIN"	ALWAYS	AUTO
Bits Stored	(0028, 0101)	US	0x000c	ALWAYS	AUTO
High Bit	(0028, 0102)	US	0x000b	ALWAYS	AUTO
Pixel Representation	(0028, 0103)	US		EMPTY	AUTO
X-Ray Acquisition					
KVP	(0018, 0060)	DS		ALWAYS	AUTO
X-Ray Tube Current	(0018, 1151)	IS		ALWAYS	AUTO
Exposure Time	(0018, 1150)	IS		ALWAYS	AUTO
Exposure	(0018, 1152)	IS		ALWAYS	AUTO
Radiation Setting	(0018, 1155)	CS	"GR"	ALWAYS	AUTO
Intensifier Size	(0018, 1162)	DS		VNAP	CONFIG
Display Shutter					
Shutter Shape	(0018, 1600)	CS	"RECTANGULAR¥¥CIRCULAR" When the division image is made, it changes to "RECTANGULAR".	ALWAYS	AUTO
Shutter Left Vertical Edge	(0018, 1602)	IS		VNAP	AUTO
Shutter Right Vertical Edge	(0018, 1604)	IS		VNAP	AUTO
Shutter Upper Horizontal Edge	(0018, 1606)	IS		VNAP	AUTO
Shutter Lower Horizontal Edge	(0018, 1608)	IS		VNAP	AUTO
Center of Circular Shutter	(0018, 1610)	IS		VNAP	AUTO
Radius of Circular Shutter	(0018, 1612)	IS		VNAP	AUTO

Module Name Attribute Name	Tag	VR	Value	Presence of Value	Source
XRF Positioner					
Distance Source to Detector	(0018, 1110)	DS	Default is "89.0"	ALWAYS	CONFIG
VOI LUT					
Window Center	(0028, 1050)	DS	"2048"	ALWAYS	AUTO
Window Width	(0028, 1051)	DS	"4095"	ALWAYS	AUTO
Private Tags					
Manufacturer	(707D, 0010)	LO	"TOSHIBA_MEC_RF3"	ALWAYS	AUTO
Subdivision	(707D, 1000)	ST	Selects it as follows. " STANDARD¥¥1,1" " STANDARD¥¥2,1" " STANDARD¥¥1,2" " STANDARD¥¥2,2"	ALWAYS	AUTO
Compression Used Flag	(707D, 1001)	US		ALWAYS	AUTO
Histogram Minimum Value	(707D, 1002)	US		VNAP	CONFIG
Histogram Maximum Value	(707D, 1003)	US		VNAP	CONFIG
Histogram Threshold Value	(707D, 1004)	US		VNAP	CONFIG
Histogram How to Treat Pixel	(707D, 1005)	US		VNAP	CONFIG
Auto-Window Limit Upper	(707D, 1006)	US		VNAP	CONFIG
Auto-Window Limit Lower	(707D, 1007)	US		VNAP	CONFIG
Matrix Size of SFLT	(707D, 1008)	US		VNAP	CONFIG
Emphasize Level of SFLT	(707D, 1009)	US		VNAP	CONFIG
Coefficient Data of SFLT	(707D, 100A)	OW		VNAP	CONFIG
Number of Gamma Curve	(707D, 100B)	US		VNAP	CONFIG
Data of Gamma Curve	(707D, 100C)	OW		VNAP	CONFIG
Number of DCF LPF	(707D, 100D)	US		ALWAYS	CONFIG
Data of DCF LPF	(707D, 100E)	FD		ALWAYS	CONFIG
Number of DCF LUT	(707D, 100F)	US		ALWAYS	AUTO
Data of DCF LUT	(707D, 1010)	SS		ALWAYS	AUTO
Imaging Service Request					
Request Service	(0032, 1033)	LO	Default is "TOSHIBA MEDICAL SYSTEMS".	ALWAYS	CONFIG
Image Plane					
Pixel Spacing	(0028, 0030)	DS		ALWAYS	CONFIG
SOP Common					
Specific Character Set	(0008, 0005)	CS	"¥¥ISO 2022 IR 87¥¥ISO 2022 IR 13"	ALWAYS	AUTO
SOP Class UID	(0008, 0016)	UI	"1.2.840.10008.5.1.4.1.1.12.2"	ALWAYS	AUTO
SOP Instance UID	(0008, 0018)	UI	"1.2.392.200036.9116.32.2.2.1.[Device Number].[Acquisition Date]"	ALWAYS	AUTO
Instance Number	(0020, 0013)	IS		VNAP	AUTO

6.1.1.2.   DICOMDIR

When the DVD-RAM is unmounted, DICOMDIR file in the DVD-RAM will be created, or will be updated.

DICOMDIR is based on BASIC DIRECTORY IOD as below.

Table 6-2
Basic Directory IOD Modules

Module Name	Module Description	Reference
File-set Identification	File-set Identification information	**Table 6-3**
Directory Information	Directory Information followed by a Sequence of Directory Records.	**Table 6-4**

Table 6-3
File-set Identification Module

Attribute Name	Tag	VR	Value	Presence of Value	Source
File-set ID	(0004,1130)	CS	"DRV_DICOMDIR"	ALWAYS	AUTO
File-set Descriptor File ID	(0004,1141)	CS		ANAP	AUTO
Specific Character Set of File-set Descriptor File	(0004,1142)	CS		ANAP	AUTO

Table 6-4
Directory Information Module

Attribute Name	Tag	VR	Value	Presence of Value	Source
Offset of the First Directory Record of the Root Directory Entity	(0004,1200)	UL		ALWAYS	AUTO
Offset of the Last Directory Record of the Root Directory Entity	(0004,1202)	UL		ALWAYS	AUTO
File-set Consistency Flag	(0004,1212)	US	0000	ALWAYS	AUTO
Directory Record Sequence	(0004,1220)	SQ		ALWAYS	AUTO
>Offset of the Next Directory Record	(0004,1400)	UL		ALWAYS	AUTO
>Record In-use Flag	(0004,1410)	US	FFFF	ALWAYS	AUTO
>Offset of Referenced Lower-Level Directory Entity	(0004,1420)	UL		ALWAYS	AUTO
>Directory Record Type	(0004,1430)	CS	"PATIENT", "STUDY", "SERIES", or "IMAGE"	ALWAYS	AUTO
>Private Record UID	(0004,1432)	UI		ANAP	AUTO
>Referenced File ID	(0004,1500)	CS		ANAP	AUTO
>MRDR Directory Record Offset	(0004,1504)	UL		ANAP	AUTO
>Referenced SOP Class UID in File	(0004,1510)	UI	Image file (0002,0002) tag information	ANAP	AUTO
>Referenced SOP Instance UID in File	(0004,1511)	UI	Image file (0002,0003) tag information	ANAP	AUTO
>Referenced Transfer Syntax UID in File	(0004,1512)	UI	Image file (0002,0010) tag information	ANAP	AUTO

6.1.2. Definition of Specific Directory Records

Table 6-5
Definition of Specific Directory Records

Directory Record Type	Directory Record Types which is included in the next lower-level directory Entity	Reference
(Root Directory Entity)	PATIENT	-
PATIENT	STUDY	Table 6-6
STUDY	SERIES	Table 6-7
SERIES	IMAGE	Table 6-8
IMAGE		Table 6-9

Table 6-6
PATIENT KEYS

Key	Tag	VR	Value	Presence of Value	Source
Specific Character Set	(0008,0005)	CS	Image file (0008,0005) tag information	ALWAYS	AUTO
Patient's Name	(0010,0010)	PN	Image file (0010,0010) tag information	VNAP	AUTO
Patient ID	(0010,0020)	LO	Image file (0010,0020) tag information	VNAP	AUTO
Patient's Birth Date	(0010,0030)	DA	Image file (0010,0030) tag information	VNAP	AUTO
Patient's Sex	(0010,0040)	CS	Image file (0010,0040) tag information	VNAP	AUTO
Referenced Patient Sequence	(0008,1120)	SQ		ANAP	AUTO
>Referenced SOP Class UID	(0008,1150)	UI		ANAP	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI		ANAP	AUTO
Patient's Birth Time	(0010,0032)	TM		ANAP	AUTO
Other Patient's ID's	(0010,1000)	LO		VNAP	AUTO
Other Patient's Names	(0010,1001)	PN		ANAP	AUTO
Ethnic Group	(0010,2160)	SH		ANAP	AUTO
Patient Comments	(0010,4000)	LT	Image file (0010,4000) tag information	VNAP	AUTO

Table 6-7
STUDY KEYS

Key	Tag	VR	Value	Presence of Value	Source
Specific Character Set	(0008,0005)	CS	Image file (0008,0005) tag information	ALWAYS	AUTO
Study Date	(0008,0020)	DA	Image file (0008,0020) tag information	ALWAYS	AUTO
Study Time	(0008,0030)	TM	Image file (0008,0030) tag information	ALWAYS	AUTO
Study Description	(0008,1030)	LO	Image file (0008,1030) tag information	ALWAYS	AUTO
Study Instance UID	(0020,000D)	1C	Image file (0020,000D) tag information	ALWAYS	AUTO
Study ID	(0020,0010)	SH	Image file (0020,0010) tag information	EMPTY	AUTO
Accession Number	(0008,0050)	SH	Image file (0008,0050) tag information	VNAP	AUTO
Referring Physician's Name	(0008,0090)	PN	Image file (0008,0090) tag information	ALWAYS	AUTO
Physician of Record	(0008,1048)	PN		ANAP	AUTO
Name of Physician Reading Study	(0008,1060)	PN		ANAP	AUTO
Referenced Study Sequence	(0008,1110)	SQ		ANAP	AUTO
>Referenced SOP Class UID	(0008,1150)	PN		ANAP	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI		ANAP	AUTO
Procedure Code Sequence	(0008,1032)	SQ		ANAP	AUTO

Table 6-8
SERIES KEYS

Key	Tag	VR	Value	Presence of Value	Source
Specific Character Set	(0008,0005)	CS	Image file (0008,0005) tag information	ALWAYS	AUTO
Modality	(0008,0060)	CS	Image file (0008,0060) tag information	ALWAYS	AUTO
Series Instance UID	(0020,000E)	UI	Image file (0020,000E) tag information	ALWAYS	AUTO
Series Number	(0020,0011)	IS	Image file (0020,0011) tag information	EMPTY	AUTO
Icon Image Sequence	(0088,0200)	SQ		ANAP	AUTO
Laterality	(0020,0060)	CS		ANAP	AUTO
Series Date	(0008,0021)	DA	Image file (0008,0021) tag information	ALWAYS	AUTO
Series Time	(0008,0031)	TM	Image file (0008,0031) tag information	ALWAYS	AUTO
Performing Physician's Name	(0008,1050)	PN		ANAP	AUTO
Protocol Name	(0018,1030)	LO		ANAP	AUTO
Series Description	(0008,103E)	LO		ANAP	AUTO
Operators' Name	(0008,1070)	PN		ANAP	AUTO
Referenced Performed Procedure Step Sequence	(0008,1111)	SQ		ANAP	AUTO
Referenced SOP Class UID	(0008,1150)	UI		ANAP	AUTO
Referenced SOP Instance UID	(0008,1155)	UI		ANAP	AUTO
Body Part Examined	(0018,0015)	CS	Image file (0018,0015) tag information	ALWAYS	AUTO
Patient Position	(0018,5100)	CS		ANAP	AUTO
Smallest Pixel Value in Series	(0028,0108)	US		ANAP	AUTO
Largest Pixel Value in Series	(0028,0109)	US		ANAP	AUTO
Request Attributes Sequence	(0040,0275)	SQ		ANAP	AUTO
>Requested Procedure ID	(0040,1001)	SH		ANAP	AUTO
>Scheduled Procedure Step ID	(0040,0009)	SH		ANAP	AUTO
>Scheduled Procedure Step Description	(0040,0007)	LO		ANAP	AUTO
>Scheduled Action Item Code Sequence	(0040,0008)	SQ		ANAP	AUTO
Performed Procedure Step ID	(0040,0253)	SH		ANAP	AUTO
Performed Procedure Step Start Date	(0040,0244)	DA		ANAP	AUTO
Performed Procedure Step Start Time	(0040,0245)	TM		ANAP	AUTO
Performed Procedure Step Description	(0040,0254)	LO		ANAP	AUTO
Performed Protocol Code Sequence	(0040,0260)	SQ		ANAP	AUTO

Table 6-9
IMAGE KEYS

Key	Tag	VR	Value	Presence of Value	Source
Specific Character Set	(0008,0005)	CS	Image file (0008,0005) tag information	ALWAYS	AUTO
Icon Image Sequence	(0088,0200)	SQ		ANAP	AUTO
Instance Number	(0020,0013)	IS	Image file (0020,0013) tag information	ANAP	AUTO
Patient Orientation	(0020,0020)	CS		ANAP	AUTO
Content Date	(0008,0023)	DA	Image file (0008,0023) tag information	ALWAYS	AUTO
Content Time	(0008,0033)	TM	Image file (0008,0033) tag information	ALWAYS	AUTO
Image Type	(0008,0008)	CS	Image file (0008,0008) tag information	ALWAYS	AUTO
Acquisition Number	(0020,0012)	IS		ANAP	AUTO
Acquisition Date	(0008,0022)	DA	Image file (0008,0022) tag information	ALWAYS	AUTO
Acquisition Time	(0008,0032)	TM	Image file (0008,0032) tag information	ALWAYS	AUTO
Acquisition Date Time	(0008,002A)	DT		ANAP	AUTO
Referenced Image Sequence	(0008,1140)	SQ		ANAP	AUTO
>Referenced SOP Class UID	(0008,1150)	UI		ANAP	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI		ANAP	AUTO
>Referenced Frame Number	(0008,1160)	IS		ANAP	AUTO
Derivation Description	(0008,2111)	ST		ANAP	AUTO
Source Image Sequence	(0008,2112)	SQ		ANAP	AUTO
Images in Acquisition	(0020,1002)	IS		ANAP	AUTO
Image Comments	(0020,4000)	LT		ANAP	AUTO
Quality Control Image	(0028,0300)	CS		ANAP	AUTO
Burned In Annotation	(0028,0301)	CS		ANAP	AUTO
Lossy Image Compression	(0028,2110)	CS		ANAP	AUTO
Lossy Image Compression Ratio	(0028,2112)	DS		ANAP	AUTO

6.2. DATA DICTIONARY OF PRIVATE ATTRIBUTES

Not applicable to this product.

6.3. CONTROLLED TERMINOLOGY AND TEMPLATES

Not applicable to this product.

6.4. GRAYSCALE IMAGE CONSISTENCY

Not applicable to this product.

6.5. STANDARD EXTENDED/SPECIALIZED/PRIVATE SOP CLASSSES

Not applicable to this product.

6.6. PRIVATE TRANSFER SYNTAXES

Not applicable to this product.

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