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The Intelligent CR Company

QPC XSCAN32 DICOM 3.0 Conformance Statement

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0 INTRODUCTION

0.1 Purpose of this Document

This document is the DICOM Conformance Statement for the QPC XSCAN32 medical imaging software application developed by iCRco. *QPC XSCAN32* is a service class provider for the DIMSE-C services for the storage of images. *QPC XSCAN32* is a service class user for DIMSE-C services for the storage, worklist query, printing, query and retrieval of images.

0.2 Intended Audience

The intended user of this document is involved with software design and system integration. It is understood that this individual is familiar with the concepts and terms used in the DICOM 3.0 standard.

Readers not familiar with DICOM 3.0 terminology should first read the appropriate parts of the DICOM standard prior to reading this conformance statement.

0.3 Integration

The DICOM 3.0 standard should not be interpreted as a guarantee of connectivity between QPC XSCAN32 and any applications and/or equipment of different vendors. Integration and connectivity of QPC XSCAN32 to different vendors products is the user's responsibility.

0.4 Validation

The user is responsible for testing the inferred connectivity between QPC XSCAN32 and different vendors products.

0.5 Sources for this Document

- American College of Radiology-National Electrical Manufacturers Association (ACR-NEMA) Digital Imaging and Communications v2.0, 1988.
- ACR-NEMA Digital Imaging and Communications in Medicine (DICOM) v3.0, parts 1 through 8, 10 through 12, and 14 through 16, Aug. 2003.

0.7 Typographical Conventions

This section is designed to assist the reader in understanding the terms and typographical conventions used in this document.

Formatting convention	Type of information
Italic type	Application Entity

1 IMPLEMENTATION MODEL

1.1 Application Data Flow Diagram

Figure 1. Association Initiation

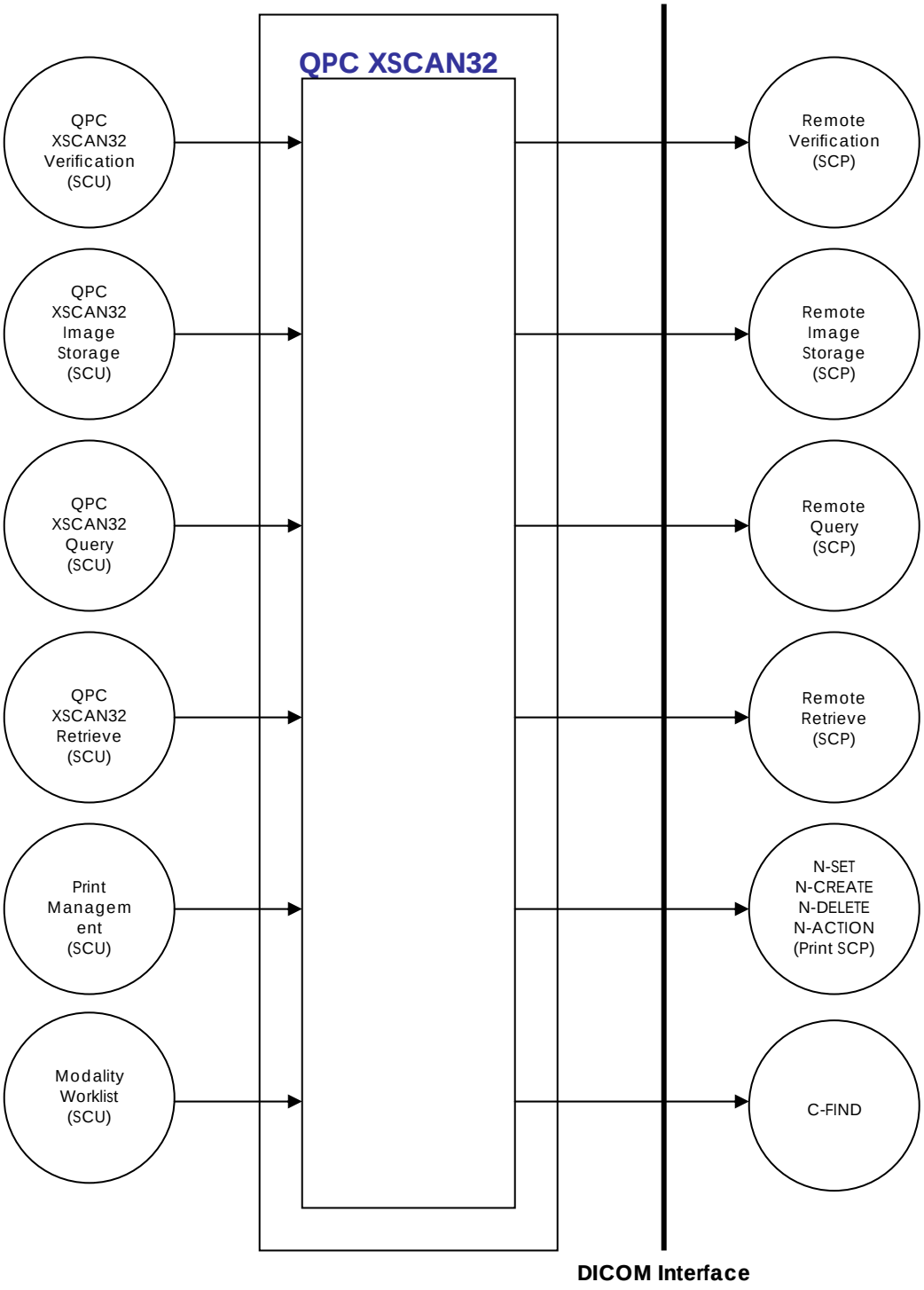
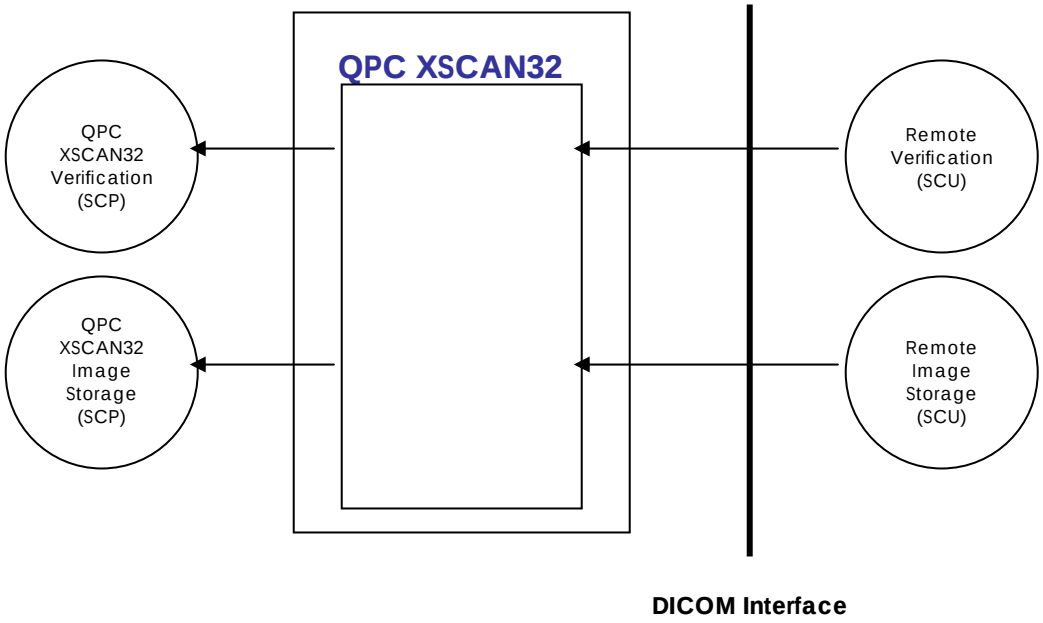


Figure 2. Association Acceptance



QPC XSCAN32 can store images sent to it by service class users. *QPC XSCAN32* can query other DICOM SCPs based on several standard query models, and can move/retrieve requested images. *QPC XSCAN32* can also store images to remote DICOM SCPs.

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1.1.1 Verification as SCU

QPC XSCAN32 sends C-ECHO-RQ messages to a remote DICOM SCP and receives C-EHCO-RSP messages.

1.1.2 Verification as SCP

QPC XSCAN32 accepts incoming C-ECHO-RQ messages from a remote DICOM SCU and returns a C-ECHO-RSP message with a status of “success” or “failed”.

1.1.3 Image Storage as SCP

QPC XSCAN32 stores a received image in its entirety, without change, in its internal data store.
QPC XSCAN32 extracts the query information with respect to the patient, study, series and image, and stores this information within its internal database.

1.1.4 Image Storage as SCU

QPC XSCAN32 stores an image to a remote DICOM SCP.

1.1.5 Query as SCU

QPC XSCAN32 sends query requests to retrieve patient, study, series, and image information from a remote DICOM SCP.

1.1.6 Retrieve as SCU

QPC XSCAN32 sends retrieve requests to move images directly from a remote DICOM SCP to a different DICOM SCP, potentially to itself.

1.1.7 DICOM Print as SCU

QPC XSCAN32 sends print job requests to PRINT SCP.

1.1.8 Modality Worklist as SCU

QPC XSCAN32 sends Modality Worklist requests to DICOM SCP.

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1.2 Functional Definitions of Application Entities

All communications and image transfer with the remove application is accomplished utilizing the DICOM protocol over a network using the TCP/IP protocol stack.

Below is a table of the functions supported by QPC XSCAN32 application entities:

SCU	SCP
Verification	Verification
Storage	Storage
Query/Retrieve	
Basic Grayscale Print Management	
Modality Worklist Management	

1.3 Sequencing of Real World Activities

Not applicable.

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2. APPLICATION ENTITY SPECIFICATIONS

2.1 *AE* Specifications for QPC XSCAN32 DICOM Services

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Verification SOP Class as an SCP and as an SCU.

Table 1. Verification SOP CLASS

SOP Class	SOP Class UID
Verification	1.2.840.10008.1.1

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Storage SOP Classes as an SCP.

Table 2. Storage SOP Classes

SOP Class	SOP Class UID
Computed Radiology Image Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Storage	1.2.840.10008.5.1.4.1.1.2
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3
MR Image Storage	1.2.840.10008.5.1.4.1.1.4
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.5
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Storage SOP Classes as an SCU.

Table 3. Storage SOP Classes

SOP Class	SOP Class UID
Computed Radiology Image Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Storage	1.2.840.10008.5.1.4.1.1.2
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3
MR Image Storage	1.2.840.10008.5.1.4.1.1.4
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.5
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Print Management SOP Class

Table 4. Print Management SOP Classes

SOP Class	SOP Class UID
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Query/Retrieve SOP Classes as an SCU:

Table 5. Query/Retrieve SOP Classes

SOP Class	SOP Class UID
Patient Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.1.1
Patient Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.1.3
Study Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.2.1
Study Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.2.3
Patient/Study Only Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.3.1
Patient/Study Only Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.3.3

QPC XSCAN32 provides Standard Conformance to the following DICOM V3.0 Modality Worklist SOP Cloasses as an SCU:

Table 6. Query/Retrieve SOP Classes

SOP Class	SOP Class UID
Modality Worklist Information Model - Find	1.2.840.10008.5.1.4.31

2.1.1 Association Establishment Policies

2.1.1.1 General

The services of QPC XSCAN32 shall offer a maximum PDU size of 16Kb (16384 bytes) upon association initiation, and accept maximum PDU sizes up to 16kB (16384 bytes) on association initiated by remote applications.

2.1.1.2 Number of Associations

QPC XSCAN32 as a default limits the number of concurrent associations as an SCP to 1. The maximum number of simultaneous associations accepted by QPC XSCAN32 is 10. Users may increase this value as needed; however, one should expect performance to degrade as the maximum number of simultaneous associations increases. Increasing the number of concurrent associations as an SCP means that QPC XSCAN32 will listen for incoming associations and spawn a new process to manage each request. This ability means it is possible for QPC XSCAN32 to receive from multiple SCUs simultaneously.

2.1.1.3 Asynchronous Nature

QPC XSCAN32 allows a single outstanding operation on any association. Therefore, *QPC XSCAN32* does not support asynchronous operations window negotiation, other than the default as specified by the DICOM specification.

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2.1.1.4 Implementation Identifying Information

QPC XSCAN32 supplies value of 1.2.826.0.1.3680043.2.1074 as Implementation Class UID. Implementation version is also provided in the form of "V.M.R" where V is major version number, M is minor version number, and R is revision number.

2.1.1.5 Called/Calling Titles

The calling title that *QPC XSCAN32* will use is configurable.

2.1.2 Association Initiation Policy (SCU)

QPC XSCAN32 initiates associations for the following activities:

- DICOM communication verification between QPC XSCAN32 and a remote system.
- Sending images from the local QPC XSCAN32 database to a remote system.
- Queries of remote database contents
- Retrieval of images from a remote database to the local QPC XSCAN32 database.
- Print images
- Modality Worklist Query

2.1.2.1 Verify Communication with a Remove System (SOP Class Verification)

2.1.2.1.1 Associated Real World Activity (SOP Class Verification)

The user selects a remote system AET from the list of targets and clicks "Test".

2.1.2.1.2 Proposed Presentation Contexts (SOP Class Verification)

Table 7. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2

Table 8. Presentation Contexts

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Verification	1.2.840.10008.1.1	All from Table 7	SCU	None

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2.1.2.1.3 SOP Specific Conformance Statement (SOP Class Verification)

QPC XSCAN32 provides standard conformance to the DICOM Verification Service Class. *QPC XSCAN32* returns one of the following status codes.

Table 9. Verification status codes

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Error	Failed	C000		The operation was not successful.
Success	Success	0000		Operation performed properly.

2.1.2.2 Send Images to a Remote System (SOP Class Image Storage)

2.1.2.2.1 Associated Real World Activity (SOP Class Image Storage)

QPC XSCAN32 will issue a Storage request when a user of *QPC XSCAN32* wishes to send one or more images to a remote DICOM SCP. The user selects one or more patients, studies or images and clicks the Send button. A list of targets appear, from which the user selects one.

2.1.2.2.2 Proposed Presentation Contexts (SOP Class Image Storage)

QPC XSCAN32 supports the transfer syntaxes listed in Table 10. For a Storage request, *QPC XSCAN32* will propose the Presentation Contexts listed in Table 11.

Table 10. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2
DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1
Baseline JPEG Huffman-encoded pixel data set	1.2.840.10008.1.2.4.50
Extended JPEG Huffman-encoded pixel data set	1.2.840.10008.1.2.4.51

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Table 11. Storage SOP Classes

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	All from Table 10	SCU	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	All from Table 10	SCU	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3	All from Table 10	SCU	None
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	All from Table 10	SCU	None
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.5	All from Table 10	SCU	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6	All from Table 10	SCU	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	All from Table 10	SCU	None

2.1.2.2.3 SOP Specific Conformance Statement (SOP Class Image Storage)

Images stored in the QPC XSCAN32 database that are to be sent to the remote systems are converted to instances of the corresponding SOP Storage class(es). Images are then sent sequentially to the remote system(s).

2.1.2.3 Query a Remote Database (SOP Class Query)

2.1.2.3.1 Associated Real World Activity (SOP Class Query)

QPC XSCAN32 will issue a FIND request when a user of *QPC XSCAN32* wishes to view patient and study information from a remote DICOM SCP.

2.1.2.3.2 Proposed Presentation Contexts (SOP Class Query)

QPC XSCAN32 supports the transfer syntaxes listed in Table 12. For a QUERY request, *QPC XSCAN32* will propose the Presentation Contexts listed in Table 13.

Table 12. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2
DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1

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Table 13. Query SOP Classes

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Patient Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.1.1	All from Table 12	SCU	See Note 1
Study Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.2.1	All from Table 1	SCU	See Note 1
Patient Study Only Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.3.1	All from Table 12	SCU	See Note 1

2.1.2.3.3 SOP Specific Conformance Statement (SOP Class Query)

2.1.2.4 Retrieve from a Remote System (SOP Class Retrieve)

2.1.2.4.1 Associated Real World Activity (SOP Class Retrieve)

QPC XSCAN32 will issue a MOVE request when a user of *QPC XSCAN32* wishes to move one or more studies from a remote DICOM SCP back to *QPC XSCAN32*.

2.1.2.4.2 Proposed Presentation Contexts (SOP Class Retrieve)

QPC XSCAN32 supports the transfer syntaxes listed in Table 14. For a MOVE request, *QPC XSCAN32* will propose the Presentation Contexts listed in Table 15.

Table 14. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2
DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1

Table 15. Move SOP Classes

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Patient Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.1.2	All from Table 14	SCU	See Note 2
Study Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.2.2	All from Table 14	SCU	See Note 2
Patient Study Only Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.3.2	All from Table 14	SCU	See Note 2

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2.1.2.4.3 SOP Specific Conformance Statement (SOP Class Retrieve)

2.1.2.5 Print to a Remote Laser Imager (SOP Class Basic Grayscale Print Management Meta Classes)

2.1.2.5.1 Associated Real World Activity (SOP Class Basic Grayscale Print Management Meta Classes)

The user selects the desired image(s) and selects the Printer icon on the toolbar then they use the film composer application to layout images. The user can click on the change settings button to change the default printer.

2.1.2.5.2 Proposed Presentation Contexts (SOP Class Basic Grayscale Print Management Meta Classes)

QPC XSCAN32 supports the transfer syntaxes listed in Table 16. For a CREATE request, *QPC XSCAN32* will propose the Presentation Contexts listed in Table 17.

Table 16. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2

Table 17. Query SOP Classes

Abstract Syntax		**Transfer Syntax**	Role	Extended Negotiation
SOP Class	SOP Class UID			
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	All from Table 16	SCU	None

2.1.2.5.3 SOP Specific Conformance Statement (SOP Class Basic Grayscale Print Management Meta Classes)

Below are the mandatory print SOP classes supported by QPC XSCAN32 for the Basic Grayscale Management Meta class.

Table 18. Basic Grayscale Print Management Meta SOP Classes

Basic Grayscale Print Management Meta Class: Supported SOP Classes	
SOP Class Name	**SOP Class UID**
Basic Film Session	1.2.840.10008.5.1.1.1
Basic Film Box	1.2.840.10008.5.1.1.2
Basic Grayscale Image Box	1.2.840.10008.5.1.1.4
Printer	1.2.840.10008.5.1.1.16

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2.1.2.5.3.1 Conformance for SOP Class Basic Film Session

QPC XSCAN32 includes the following N-Create attributes for the Basic Film Session SOP class:

Table 19. Basic Film Session SOP class N-CREATE: Attributes

Description	Tag
Number of Copies	(2000,0010)
Print Priority	(2000,0020)
Medium Type	(2000,0030)
Film Session Label	(2000,0050)

N-Set and N-Action are not used; however, N-Delete is used to delete the complete Basic Film Session SOP instance hierarchy.

2.1.2.5.3.2 Conformance for SOP Class Basic Film Box

The table below lists the N-Create attributes for the Basic Film Box SOP class.

Table 20. Basic Film Box SOP class N-CREATE: Attributes

Description	Tag
Image Display Format	(2010,0010)
Film Orientation	(2010,0040)
Film Size ID	(2010,0050)
Magnification Type	(2010,0060)
Trim	(2010,0140)
Border Density	(2010,0100)
Empty Image Density	(2010,0110)

The N-Set is currently unused; however, the N-Action is used to print a complete Basic Film Box SOP instance and N-Delete is used to delete it after printing.

2.1.2.5.3.3 Conformance for SOP Class Basic Grayscale Image Box

The following attributes are included in QPC XSCAN32 N-Set for the Basic Grayscale Image SOP class.

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Table 21. Basic Grayscale Image SOP Box: N-Set Attributes

Description	Tag
Image Position	(2020,0010)
Polarity	(2020,0020)
Requested Image Size	(2020,0030)
> Samples Per Pixel	(0028,0002)
> Bits Allocated	(0028,0100)
> Bits Stored	(0028,0101)
> High Bit	(0028,0102)
> Pixel Representation	(0028,0103)
> Photometric Interpretation	(0028,0004)
> Rows	(0028,0010)
> Columns	(0028,0011)
> Pixel Data	(7FE0,0010)

QPC XSCAN32 supports 8-bit and 16-bit printing.

2.1.2.5.3.4 Conformance for SOP Class Printer

QPC XSCAN32 uses N-GET for the Printer SOP class to get information from the SCP.

2.1.2.5.4 Optional SOP Classes for Basic Grayscale Print Management Meta

These SOP classes are not yet supported by QPC XSCAN32.

2.1.2.6 Query a Worklist (MWL) from a Remote System (SOP Class Modality Worklist Service)

2.1.2.6.1 Associated Real World Activity (SOP Class Modality Worklist Service)

QPC XSCAN32 initiates a DICOM association in order to query the worklist from a remote system. The user requests QPC XSCAN32 to query a remote system for a worklist.

2.1.2.6.2 Proposed Presentation Contexts (SOP Class Modality Worklist Service)

QPC XSCAN32 supports the transfer syntaxes listed in 22. For a modality worklist request, *QPC XSCAN32* will propose the Presentation Contexts listed in Table 23.

Table 22. Transfer Syntaxes

Transfer Syntax	UID
Implicit VR Little Endian	1.2.840.10008.1.2
Explicit VR Little Endian	1.2.840.10008.1.2.1

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Table 23. Modality Worklist Service SOP Classes

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Modality Worklist C - FIND	1.2.840.10008.5.1.4.31	All from Table 22	SCU	None

2.1.2.6.3 SOP Specific Conformance Statement (SOP Class Modality Worklist Service)

QPC XSCAN32 provides standard conformance to the DICOM V3.0 Modality Worklist following SOP Classes:

- Modality Worklist C-FIND, UID = 1.2.840.10008.5.1.4.31

2.1.3 Association Acceptance Policy

QPC XSCAN32 accepts associations for the activities listed below:

- DICOM communication verification between QPC XSCAN32 and a remote system.
- Image transfer from a remote system to QPC XSCAN32

2.1.3.1 Verify Communication with a Remote System (SOP Class Verification)

2.1.3.1.1 Associated Real Word Activity (SOP Class Verification)

QPC XSCAN32 will respond to Verification requests to provide an SCU with the ability to determine if *QPC XSCAN32* is receiving DICOM requests.

2.1.3.1.2 Presentation Context Table (SOP Class Verification)

QPC XSCAN32 supports the transfer syntaxes listed in Table 24. *QPC XSCAN32* will accept any of the Presentation Contexts listed in Table 25 for Verification.

Table 24. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2

Table 25. Presentation Contexts

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Verification	1.2.840.10008.1.1	All from Table 24	SCP	None

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2.1.3.1.3 SOP Specific Conformance Statement (SOP Class Verification)

QPC XSCAN32 provides standard conformance to the DICOM Verification Service Class. *QPC XSCAN32* returns one of the following status codes.

Table 26. Verification status codes

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Error	Failed	C000		The operation was not successful.
Success	Success	0000		Operation performed properly.

2.1.3.1.4 Presentation Context Acceptance Criterion (SOP Class Verification)

QPC XSCAN32 will always accept a Presentation Context for the Verification SOP Class with the default DICOM transfer syntax listed in Table 20.

2.1.3.1.5 Transfer Syntax Selection Policies (SOP Class Verification)

Since no DICOM data object is associated with a Verification command, only the default DICOM transfer syntax is required/supported.

2.1.3.2 Receive Images from a Remote System (SOP Class Storage)

2.1.3.2.1 Associated Real World Activity (SOP Class Storage)

QPC XSCAN32 will store images that are sent to it from an SCU.

2.1.3.2.2 Presentation Context Table (SOP Class Storage)

QPC XSCAN32 supports the following transfer syntaxes listed in Table 27. *QPC XSCAN32* will accept any of the Presentation Contexts listed in Table 28 for Storage.

Table 27. Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2
DICOM Explicit VR Little Endian Transfer Syntax	1.2.840.10008.1.2.1
Baseline JPEG Huffman-encoded pixel data set	1.2.840.10008.1.2.4.50
Extended JPEG Huffman-encoded pixel data set	1.2.840.10008.1.2.4.51

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Table 28. Presentation Contexts

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
SOP Class	SOP Class UID			
Computed Radiography Image	1.2.840.10008.5.1.4.1.1.1	All from Table 27	SCP	N/A
Storage CT Image Storage	1.2.840.10008.5.1.4.1.1.2	All from Table 27	SCP	N/A
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3	All from Table 27	SCP	N/A
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	All from Table 27	SCP	N/A
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.5	All from Table 27	SCP	N/A
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6	All from Table 27	SCP	N/A
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	All from Table 27	SCP	N/A
Unknown Storage	Any unknown UID	All from Table 27	SCP	N/A

2.1.3.2.3 SOP Specific Conformance Statement (SOP Class Storage)

In the event of a successful C-STORE operation the image is written to internal storage. Note: Storage extended negotiation is not currently supported.

QPC XSCAN32 returns one of the following status codes.

Table 29. C-STORE status codes.

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Error	Failed	C000		The operation was not successful.
Success	Success	0000		Operation performed properly

2.1.3.2.4 Presentation Context Acceptance Criterion (SOP Class Storage)

QPC XSCAN32 will accept any number of Storage Presentation Contexts per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

2.1.3.2.5 Transfer Syntax Selection Policies (SOP Class Storage)

QPC XSCAN32 supports the Default Little Endian transfer syntax.

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3 COMMUNICATION PROFILES

QPC XSCAN32 provides DICOM V3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

3.1 TCP/IP STACK

QPC XSCAN32 inherits its TCP/IP stack from the computer system upon which it executes.

3.1.1 Physical Media Support

QPC XSCAN32 is indifferent to the physical medium over which TCP/IP executes; it inherits the medium from the computer system upon which it executes.

4 EXTENSIONS/SPECIALIZATIONS/PRIVATIZATIONS

QPC XSCAN32 provides Conformance to the following General Electric Medical Systems ID/Net 2 ("ACR/NEMA 2 with DICOM V3.0 extensions") Storage SOP Classes as an SCP.

Table 30. GE ID/Net 2 Storage SOP Classes

SOP Class	SOP Class UID
CT Image Storage	1.2.840.113619.4.3
MR Image Storage	1.2.840.113619.4.2

QPC XSCAN32 automatically converts the received ID/Net 2 information object to the corresponding DICOM v.3.0 information object.

5 CONFIGURATION

QPC XSCAN32 obtains configuration information form the following sources:

- Mapping from Application Entity Title to Presentation Address is provided by the database.
- Configuration table stores Application Entity Title

6 SUPPORT FOR EXTENDED CHARACTER SETS

QPC XSCAN32 is known to support the following character sets:

- ISO-IR 6 (default) Basic GO Set
- ISO-IR 100 Latin Alphabet No. 1

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7 Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document.

AE	Application Entity
ACR	American College of Radiology
ANSI	American National Standards Institute
DICOM	Digital Imaging and Communications in Medicine
DIMSE	DICOM Message Service Element
DIMSE-C	DICOM Message Service Element-Composite
DIMSE-N	DICOM Message Service Element-Normalized
NEMA	National Electrical Manufacturers Association
PDU	Protocol Data Unit
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair
TCP/IP	Transmission Control Protocol/Internet Protocol
UID	Unique Identifier