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TITLE: SeeQuanta v.1.5 DICOM Conformance Statement			

Prepared By: Romer A. De Los Santos II

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1. Purpose

This DICOM Conformance Statement describes the level of DICOM Conformance for SeeQuanta v. 1.5.

2. Scope

This DICOM Conformance Statement only applies to SeeQuanta v. 1.5. All references to SeeQuanta refer to SeeQuanta v.1.5 specifically.

3. Definitions

Term	Definition
IOD	Information Object Definition
SOP	Service Object Pair
SCU	Service Class User
SCP	Service Class Provider
AE	Application Entity
UID	Unique Identifier

4. References

Document Number / Source	Description
PS 3.2-2007	Part 2: Conformance
PS 3.3-2007	Part 3: Information Object Definitions
PS 3.4-2007	Part 4: Service Class Specifications
PS 3.6-2007	Part 6: Data Dictionary

5. Overview

This DICOM conformance statement describes the following functionality in accordance with DICOM V.3.0:

- Modality Worklist Implementation
- Verification – ECHO Implementation

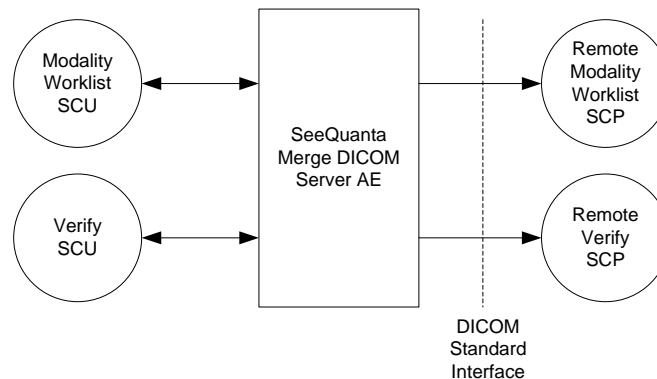
The intended audience should have a basic understanding of DICOM concepts. No explanation of DICOM standard itself shall be detailed in this document.

6. SeeQuanta

6.1. Application Data Flow Diagram

All DICOM functionality for SeeQuanta is provided by MergeCom3 Advanced Integrator's .NET DICOM Toolkit.

Figure 1 Application Data Flow Diagram



6.2. SOP Specification

The SeeQuanta Application Entity provides Standard Conformance to the following DICOM v. 3.0 SOP Classes as an SCU:

Figure 2 Supported SOPs

SOP Class Name	SOP Class UID
Modality Worklist Information Model – Find	1.2.840.10008.5.1.4.31
Verification - ECHO	1.2.840.10008.1.1

6.3. General Overview

A user requests a worklist of Nuclear Image Service Requests from the SCP. Service Requests are uniquely identified by the Study Instance UID (0020,000D). All service requests are scheduled to be performed by being added to the database. No duplicate service requests will be added to the database. After all the requests have been scheduled and completed the SCU returns the updated worklist to the SCP.

6.3.1. Number of Associations

SeeQuanta supports only one association at a time.

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6.3.2. Mode of Operation

SeeQuanta does not support asynchronous communication (multiple outstanding transactions over a single association). All operations are performed synchronously.

6.4. Implementation Identification

Figure 3 Implementation UID

SOP Class Name	SOP Class UID
SeeQuanta Implementation Class UID	1.2.840.114436.1.1

6.5. Association Initiation Policy

SeeQuanta initiates a new association:

- Due to a modality worklist request being initiated from the SeeQuanta User Interface.

6.6. Real World Activity: Modality Worklist

6.6.1. Associated Real World Activity

The user requests SeeQuanta to query the remote AE for a worklist.

6.6.2. Presentation Context Table

The following table shows the presentation contexts for SeeQuanta after the real world activity “Modality Worklist” has been initiated.

Figure 4 Modality Worklist Presentation Context Table

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Worklist C-Find	1.2.840.10008.5.1.4.31	Implicit VR Little Endian	1.2.840.10008.1.2 (DICOM Default)	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		

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6.7. Real World Activity: Verify

6.7.1. Associated Real World Activity

SeeQuanta Merge DICOM Server will initiate an association with the remote DICOM AE in order to verify communication at the application level. The user will be notified if the process was successful or has failed via the user interface.

6.7.2. Presentation Context Table

Figure 5 Verification Context Table

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2 (DICOM Default)	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		

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7. SeeQuanta Modality Worklist Object Implementation

7.1. Modality Worklist Information Model

Module Name	Attribute	Tag	Matching Key	Return Key
Scheduled Procedure Step	Scheduled Procedure Step Sequence	(0040,0100)	R	1
	Scheduled Station AE Title	(0040,0001)	R	1
	Scheduled Procedure Step Start Date	(0040,0002)	R	1
	Scheduled Procedure Step Start Time	(0040,0003)	R	1
	Modality	(0008,0060)	R	1
	Scheduled Performing Physician's Name	(0040,0006)	R	2
	Scheduled Procedure Step Description	(0040,0007)	O	1C
	Scheduled Station Name	(0040,0010)	O	2
	Scheduled Procedure Step Location	(0040,0011)	O	2
	Scheduled Protocol Code Sequence	(0040,0008)	O	1C
	Code Value	(0008,0100)	O	1
	Code Meaning	(0008,0104)	O	3
	Coding Scheme Designator	(0008,0102)	O	1
	Coding Scheme	(0008,0103)	O	3

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	Version			
	Scheduled Procedure Step ID	(0040,0009)	O	1
Requested Procedure	Requested Procedure ID	(0040,1001)	O	1
	Study Instance UID	(0020,000D)	O	1
	Study Date	(0008,0020)	O	3
	Study Time	(0008,0030)	O	3
Image Service Request	Accession Number	(0008,0050)	O	2
	Requesting Physician	(0032,1032)	O	2
	Referring Physician's Name	(0008,0090)	O	2
Visit Identification	Institution Name	(0008,0080)	O	3
Patient Identification	Patient Name	(0010,0010)	R	1
	Patient ID	(0010,0020)	R	1
	Other Patient IDs	(0010,1000)	O	3
	Other Patient Names	(0010,1001)	O	3
Patient Demographic	Patient Birth Date	(0010,0030)	O	2
	Patient Birth Time	(0010,0032)	O	3
	Patient's Age	(0010,1010)	O	3
	Patient's Sex	(0010,0040)	O	2
	Patient Weight	(0010,1030)	O	2
	Patient Size	(0010,1020)	O	3
	Ethnic Group	(0010,2160)	O	3

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