



***Kodak DirectView PACS System Storage Class User  
(SSCU) 4.2.1  
for Windows***

**DICOM V3.0 Conformance Statement**

**August 11, 2003**

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# Contents

CONTENTS .....	1
SECTION A — CONFORMANCE STATEMENT .....	4
1 INTRODUCTION.....	4
2 IMPLEMENTATION MODEL .....	5
2.1 APPLICATION DATA FLOW DIAGRAM.....	5
2.2 FUNCTIONAL DEFINITIONS OF AES .....	6
2.3 SEQUENCING OF REAL WORLD ACTIVITIES.....	6
2.3.1 <i>Auto Send</i> .....	6
2.3.2 <i>Manual Send</i> .....	7
3 AE SPECIFICATIONS .....	7
3.1 ASSOCIATION ESTABLISHMENT POLICIES.....	9
3.1.1 <i>General</i> .....	9
3.1.2 <i>Number of Associations</i> .....	9
3.1.3 <i>Asynchronous Nature</i> .....	10
3.1.4 <i>Implementation Identifying Information</i> .....	10
3.2 ASSOCIATION INITIATION BY REAL WORLD ACTIVITY.....	10
3.2.1 <i>Real World Activity A, B</i> .....	11
3.2.2 <i>SOP Specific Conformance Statement for Secondary Capture Image Storage SOP Classes</i> .....	14
3.2.3 <i>Association Acceptance Policy</i> .....	15
4 COMMUNICATION PROFILES.....	15
4.1 SUPPORTED COMMUNICATION STACKS (PARTS 8, 9) .....	15
4.2 OSI STACK.....	16
4.3 TCP/IP STACK .....	16
4.3.1 <i>API</i> .....	16
4.3.2 <i>Physical Media Support</i> .....	16
4.4 POINT-TO-POINT STACK .....	16
5 EXTENSIONS/SPECIALIZATION/PRIVATIZATIONS .....	16
5.1 STANDARD EXTENDED/SPECIALIZED/PRIVATE SOPS.....	16
6 CONFIGURATION.....	16
6.1 AE TITLE/PRESENTATION ADDRESS MAPPING.....	16
6.2 CONFIGURABLE PARAMETERS .....	16
7 SUPPORT OF EXTENDED CHARACTER SETS.....	17
SECTION B — COMPOSITE INFORMATION OBJECT MODULE DEFINITION .....	17
8 IMAGE ENTITY RELATIONSHIP DIAGRAM.....	17
9 ENTITY MODULE TABLES.....	18
9.1 COMPUTED RADIOGRAPHY IMAGE IOD MODULE TABLE .....	18

9.2	CT IMAGE IOD MODULE TABLE .....	19
9.3	MR IMAGE IOD MODULE TABLE.....	20
9.4	SC IMAGE IOD MODULE TABLE.....	21
<b>10</b>	<b>INFORMATION MODULE TABLES.....</b>	<b>21</b>
10.1	PATIENT MODULE .....	21
10.2	GENERAL STUDY MODULE .....	22
10.3	GENERAL SERIES MODULE .....	22
10.4	CR SERIES MODULE .....	22
10.5	FRAME OF REFERENCE MODULE.....	23
10.6	GENERAL EQUIPMENT MODULE.....	23
10.7	SC EQUIPMENT MODULE.....	23
10.8	GENERAL IMAGE MODULE.....	24
10.9	IMAGE PLANE MODULE .....	24
10.10	IMAGE PIXEL MODULE .....	24
10.11	SOP COMMON MODULE .....	25
10.12	SC IMAGE MODULE.....	25
10.13	CR IMAGE MODULE .....	25
10.14	CT IMAGE MODULE.....	25
10.15	MR IMAGE MODULE .....	25
<b>SECTION C</b>	<b>— PRIVATE DATA TAGS .....</b>	<b>25</b>

# Section A — Conformance Statement

## 1 Introduction

This document describes DICOM V3.0 functions and services implemented by this *DirectView* PACS 4.2.1 DICOM product. This document also serves as a Requirements Statement for connecting *DirectView* PACS products with products from other vendors through DICOM V3.0. Other vendors should review this document before connecting their products with *DirectView* PACS products. This software provides the following DICOM services:

- Storage Service Class User (SCU)
- Verification Service Class User (SCU)

This *DirectView* PACS product provides Standard Conformance to the DICOM V3.0 Storage Service Class as SCU for the following Service Object Pair (SOP) Classes:

- Secondary Capture (SC) Image Information Objects
- CT Image Information Objects
- MR Image Information Objects
- CR Image Information Objects
- Ultrasound Multi-frame (Ret) Image Information Objects
- Ultrasound Multi-frame Image Information Objects
- Nuclear Medicine Image Storage (Ret) Information Objects
- Ultrasound Image Storage (Ret) Information Objects
- Ultrasound Image Information Objects
- X-Ray Angiographic Image Information Objects
- X-Ray Radiofluoroscopic Image Information Objects
- X-Ray Angiographic Image Bi-plane Information Objects
- Nuclear Medicine Image Information Objects

- Digital X-Ray Image Information Objects - for presentation
- Digital Mammography X-Ray Image Information Objects - for presentation
- Digital Intra-oral X-Ray Image Information Objects - for presentation

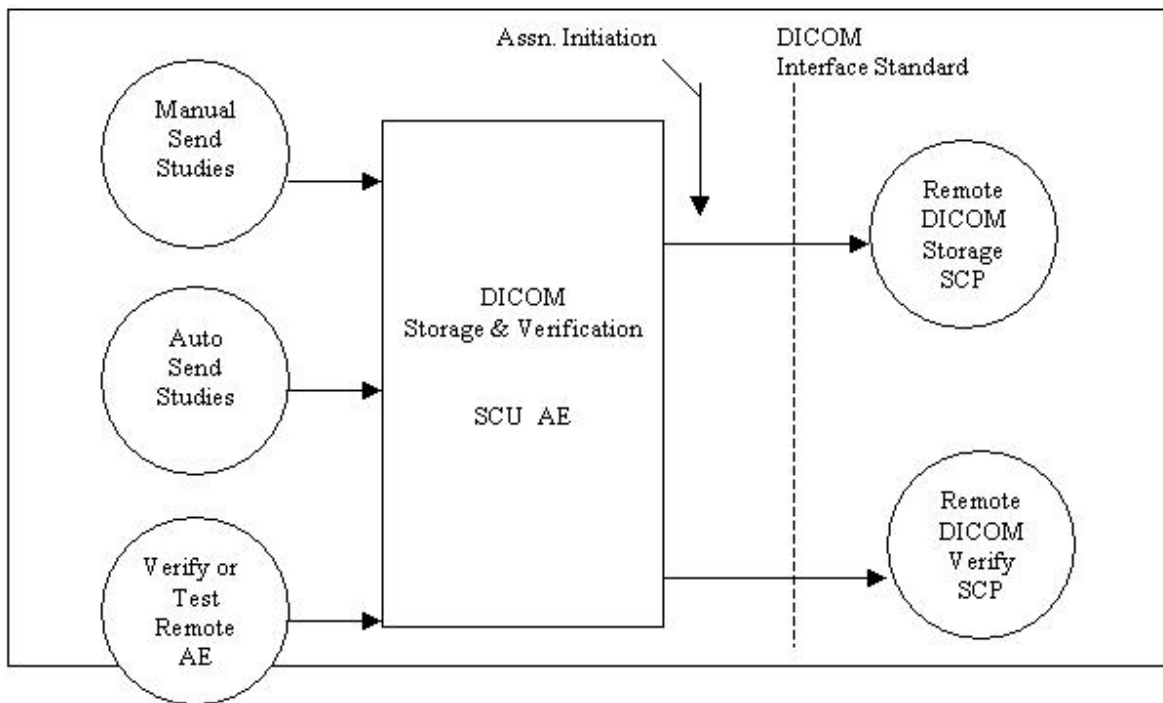
## 2 Implementation Model

The DICOM V3.0 Storage product is implemented within this system to provide transmitting (Storage SCU) *DirectView* PACS Study File Format (ASFF versions 1.x and 2.0) as DICOM Information Object with DICOM communication protocols.

Transmit (Storage SCU) allows *DirectView* PACS to send images or studies to other DICOM workstations. The Transmit software conforms to DICOM V3.0 Storage Class User Protocols.

### 2.1 Application Data Flow Diagram

The Application Data Flow Diagram, showing the Application Entities relationship to Real World Activities, is shown in Figure 1.



## Figure 1. Implementation Model

The Local DICOM Application Entity (AE) - DICOM Storage and Verification SCU (SSCU) handle all DICOM protocol communications. The DICOM SSCU AE can run in either foreground or background mode. It can run on the same machine with other Kodak Acquisition software like FilmDigitizer v3.0 and ScanLink V 3.0.

The Local DICOM Storage SCU AE is invoked by the following Real World Activities:

- In Auto Send mode SSCU can be set up to send studies to different destination(s).
- Manual Send one or multiple Studies to single or multiple selected destinations
- Verify or perform association test with other DICOM Verification SCP

DICOM SSCU can send studies in two ways: Auto and Manual Send. In Auto Send mode, SSCU Autosend thread monitors the destinations folder for new ASFF study files. If a new study is detected, SSCU converts the ASFF study file to a DICOM object and sends it out. On an Acquisition system (FilmDigitizer or ScanLink V), an ASFF study file is automatically sent when all images are captured.

In Manual Send mode, the user has to set up the input directory, which will be used by SSCU to look for ASFF study files. At sending time, the user selects ASFF study(ies) and destination(s) for transfer.

## 2.2 Functional Definitions of AEs

DICOM Storage SCU AE supports the following functions:

- Sends verification association request to DICOM Verification SCP
- Negotiates and establishes DICOM association with remote destination
- Sends DICOM Information Objects to remote destination

## 2.3 Sequencing of Real World Activities

### 2.3.1 Auto Send

- Monitors the Scan Destination folder and waits for file change notification for input folder(s)
- When a new study is detected, Storage SCU will initiate a DICOM association
- Selects appropriate Abstract and Transfer syntaxes from those accepted by the remote AE
- Uses the C-STORE operation to send the image

### 2.3.2 Manual Send

- Selects a study (ies) and destination(s) for sending
- Initiates a DICOM association
- Proposes default Abstract and Transfer syntaxes with Remote AE
- Uses the C-STORE operation to send the image.

## 3 AE Specifications

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

**Table 1. Proposed SOP Class**

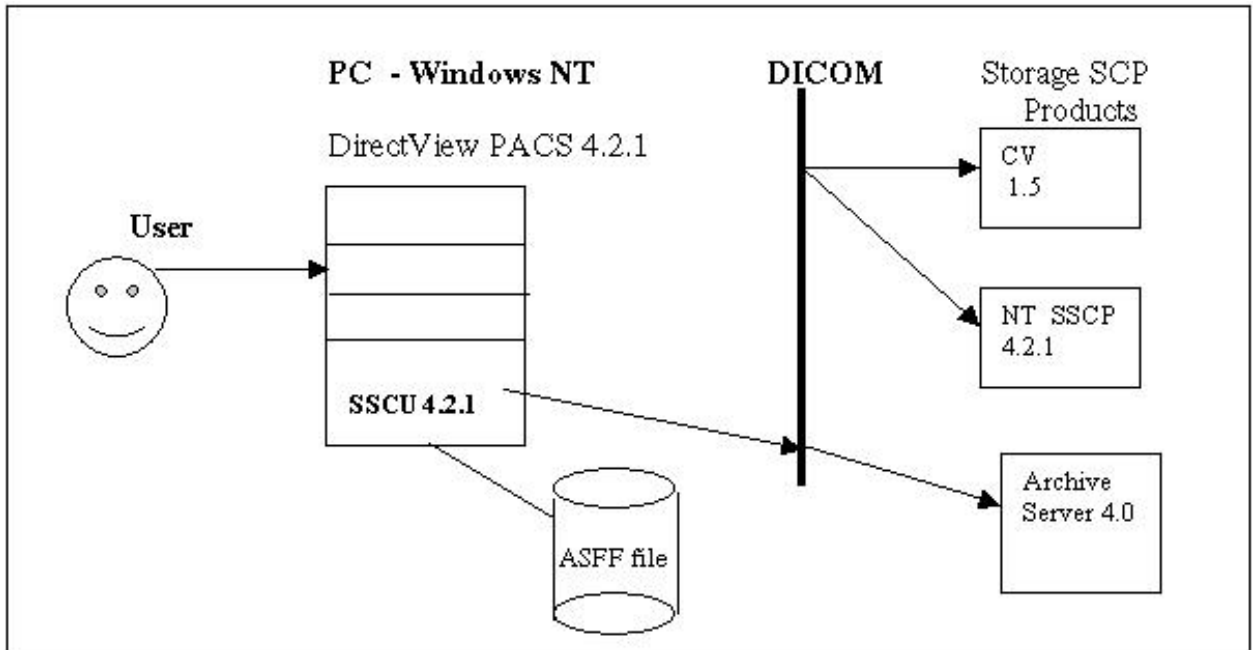
SOP Class Name	SOP Class UID
Computed Radiography Image Storage	1.2.840.10008.5.1.4.2.1.1
CT Image Storage	1.2.840.10008.5.1.4.2.1.2
Ultrasound Multi-frame Image Storage (Ret)	1.2.840.10008.5.1.4.2.1.3
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.2.1.3.1
MR Image Storage	1.2.840.10008.5.1.4.2.1.4
Nuclear Medicine Image Storage (Ret)	1.2.840.10008.5.1.4.2.1.5
Ultrasound Image Storage (Ret)	1.2.840.10008.5.1.4.2.1.6
Ultrasound Image Storage	1.2.840.10008.5.1.4.2.1.6.1
SC Image Storage	1.2.840.10008.5.1.4.2.1.7
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.2.1.12.1
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.2.1.12.2
X-Ray Angiographic Image Bi-plane Storage	1.2.840.10008.5.1.4.2.1.12.3
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.2.1.20
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.2.1.1.1
Digital Mammography X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.2.1.1.2
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.2.1.1.3
Verification (Echo)	1.2.840.10008.1.1



### 3.1 Association Establishment Policies

#### 3.1.1 General

The following Application Context Name is proposed by DICOM Storage SCU AE:



**Figure 2. DICOM SSCU Configuration**

**Table 2. Application Context Name**

DICOM V3.0 Application Context	1.2.840.10008.3.1.1.1
--------------------------------	-----------------------

The maximum length Protocol Data Unit (PDU) is 1MB. The maximum length PDU information is included in the message header at the association negotiation time. DICOM Storage SCU AE uses a fixed value of 16KB for a maximum length PDU.

#### 3.1.2 Number of Associations

DICOM Storage SCU AE can maintain one open association to store images at a time.

### 3.1.3 Asynchronous Nature

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

### 3.1.4 Implementation Identifying Information

The implementation UID for DICOM Storage SCU is 1.2.840.113674. The UID root is used to identify all devices.

Table 3. Implementation Identifying Information

Item	UID
Implementation Class UID	1.2.840.113674.8.19.1994
Version Name	<b>OAKmmddyyyy</b>  where mmddyyyy is the date of the software build. Ex. JUN132001.

## 3.2 Association Initiation by Real World Activity

DICOM Storage SCU initiates an association when the following activities occur:

A Manual Transmit (multiple studies can be selected by the operator and sent to a selected destination) is initiated from the UI.

B. Auto Transmit is initiated by an acquisition task. There is no operator intervention in this case; the UI process must be running.

### **3.2.1 Real World Activity A, B**

Although two different real world activities (A, B) can start sending function, the DICOM Association Initiation and Transfer Process are identical for each case.

#### **3.2.1.1 Associated Real-World Activity**

Upon manual or automatic request, DICOM Storage SCU sends images to the DICOM Storage SCP on the destination system.

#### **3.2.1.2 Proposed Presentation Contexts**

DICOM Storage SCU proposes a single Presentation Context (as shown in Table 4).

**Table 4. Proposed Presentation Context Table**

<b>Presentation Context Table</b>					
<b>Abstract Syntax</b>		<b>Transfer Syntax</b>		<b>Role</b>	<b>Extended Negotiation</b>
<b>Name</b>	<b>UID</b>	<b>Name List</b>	<b>UID List</b>		
Computed Radiography Info Object	1.2.840.10008.5.1.4.2.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossy	1.2.840.10008.1.2.4.51	SCU	None
		JPEG Lossless	1.2.840.10008.1.2.4.57	SCU	None
CT Image Storage		Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossy	1.2.840.10008.1.2.4.51	SCU	None
		JPEG Lossless	1.2.840.10008.1.2.4.57	SCU	None
Ultrasound Multi-frame Image Storage (Ret)	1.2.840.10008.5.1.4.2.1.3	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.2.1.3.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
MR Image Storage		Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossy	1.2.840.10008.1.2.4.51	SCU	None
		JPEG Lossless	1.2.840.10008.1.2.4.57	SCU	None
Nuclear	1.2.840.10008.5.1.4.2.1.5	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

Medicine Image Storage		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Ultrasound Image	1.2.840.10008.5.1.4.2.1.6.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Ultrasound Image Storage (Ret)	1.2.840.10008.5.1.4.2.1.6	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
SC Image Info Object	1.2.840.10008.5.1.4.2.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossy	1.2.840.10008.1.2.4.51	SCU	None
		JPEG Lossless	1.2.840.10008.1.2.4.57	SCU	None
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.2.1.12.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.2.1.12.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
X-Ray Angiographic Image Biplane Storage	1.2.840.10008.5.1.4.2.1.12.3	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.2.1.20	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None

Digital X-Ray Image Storage – For Presentation	1.2.840.10008.5.1.4.2.1.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Digital Mammography X-Ray Image Storage – For Presentation	1.2.840.10008.5.1.4.2.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Digital Intra-oral X-Ray Image Storage – For Presentation	1.2.840.10008.5.1.4.2.1.1.3	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None

### 3.2.2 SOP Specific Conformance Statement for Secondary Capture Image Storage SOP Classes

Storage SCU can perform multiple C-STORE operations over a single association. It will not close an association as long as the images sent belong to a same study. DICOM does not support time out in C-STORE operations.

If DICOM Storage SCU is unable to open an association to which to send images, it reports the error status to the status window.

The SSCU will be Level 2 conformant as described in Section B.4.2 of Part 4 of the DICOM V3.0 Standard document.

The following table lists the interpretation of DIMSE C-Store service specific status codes.

Table 5. Secondary Capture C-Store Response Status

Code	Status	Meaning
Success	0000	Storage was completed successfully
Warning	B000	Data element coercion has taken place
	B007	Data set does not match
	B006	Unsupported elements were discarded
Error	A900	Data set does not conform to Patient IE
	A901	Data set does not conform to Study IE
	A902	Data set does not conform to Series IE
	A903	Data set does not conform to Image IE
	C000	Cannot Understand
Refused	A700	Memory resources temporarily not available
	A701	Database temporarily not available
	0122	SOP Class not supported
Failed	0211	Unrecognized operation on this association

The following table lists the interpretation of the DIMSE C-Echo service specific status codes.

**Table 6. C-Echo Response Status**

Status	Code	Meaning
Success	0000	Application level communication verified
Failure	0211	Unrecognized operation on this association

### 3.2.3 Association Acceptance Policy

DICOM Storage SCU never accepts an association generated by a remote application.

## 4 Communication Profiles

### 4.1 Supported Communication Stacks (Parts 8, 9)

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

## **4.2 OSI Stack**

OSI stack is not supported.

## **4.3 TCP/IP Stack**

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

### **4.3.1 API**

Not applicable to this product.

### **4.3.2 Physical Media Support**

DICOM is indifferent to the physical medium over which TCP/IP executes (for example, Ethernet V2.0 IEEE 802.3, ATM, FDDI).

## **4.4 Point-to-Point Stack**

Not applicable to this product.

# **5 Extensions/Specialization/Privatizations**

## **5.1 Standard Extended/Specialized/Private SOPs**

Not applicable for this product.

# **6 Configuration**

## **6.1 AE Title/Presentation Address Mapping**

The Local AE Title is configurable. A Field Service Engineer during installation must configure this.

## **6.2 Configurable Parameters**

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

- Local AE Title

The following fields are configurable for every remote DICOM AE:

- Remote AE Title
- Responding TCP/IP Port
- Remote IP Address.
- Compression Info

## 7 Support of Extended Character Sets

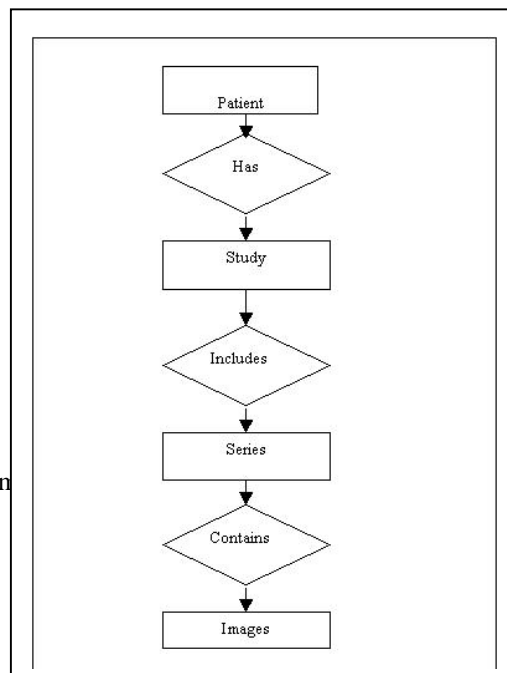
European extended character sets are supported.

## Section B — Composite Information Object Module Definition

- Image Entity Relationship
- Entity Module Tables
- Information Module Tables

## 8 Image Entity Relationship Diagram

This section specifies the subset of the DICOM SC, CR, CT and MR Image Information Object Definitions (IOD) used to represent the information included in images produced by this implementation. All supported attributes are conveyed with module construct.



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Document #1F9246 Rev A

DICOM Conformance Statement

**Figure 3. Composite Image IOD Information Model**

## 9 Entity Module Tables

### 9.1 Computed Radiography Image IOD Module Table

The SSCU 4.2.1 will support all DICOM 3.0 CR images, which will be completely preserved along with its header and sent out as is. The following table is a list of modules for the CR Image Storage SOP Class.

In the following table, M = Mandate and U=User Option (not required)

**Table 7. CR Image IOD Modules**

Entity Name	Module Name	Usage	Reference
Patient	Patient	M	
Study	General Study	M	
	Patient Study	U	Not Supported
Series	General Series	M	
	CR Series	M	
Equipment	General Equipment	U	
Image	General Image	M	
	Image Pixel	M	
	Contrast/Bolus	C Required if contrast media was used in this image	Not Supported

CR Image	M	
Overlay Plane	U	Not Supported
Curve	U	Not Supported
VOI LUT	U	Not Supported
Modality LUT	U	Not Supported
SOP Common	M	

## 9.2 CT Image IOD Module Table

The SSCU 4.2.1 will support all DICOM 3.0 CT images, which will be completely preserved along with its' header and sent out as is. The following table is a list of modules for the CT Image Storage SOP Class.

In the following table, M = Mandate and U=User Option (not required).

**Table 8. CT Image IOD Modules**

Entity Name	Module Name	Usage	Reference
Patient	Patient	M	
Study	General Study	M	
	Patient Study	U	Not Supported
Series	General Series	M	
Frame of Reference	Frame of Reference	M	
Equipment	General Equipment	M	
Image	General Image	M	
	Image Plane	M	
	Image Pixel	M	
	Contrast/Bolus	C Required if contrast media was used in this	Not Supported

		image	
	CT Image	M	
	Overlay Plane	U	Not Supported
	VOI LUT	U	Not Supported
	SOP Common	M	3.11

### 9.3 MR Image IOD Module Table

The SSCU 4.2.1 will support all DICOM 3.0 MR images, which will be completely preserved along with its header and sent out as is. The following table is a list of modules for the MR Image Storage SOP Class.

In the following table, M = Mandate and U=User Option (not required).

**Table 9. MR Image IOD Modules**

Entity Name	Module Name	Usage	Reference
Patient	Patient	M	
Study	General Study	M	
	Patient Study	U	Not Supported
Series	General Series	M	
Frame of Reference	Frame of Reference	M	
Equipment	General Equipment	M	
Image	General Image	M	
	Image Plane	M	
	Image Pixel	M	
	Contrast/Bolus	C Required if contrast media was used in this image	Not Supported
	MR Image	M	
	Overlay Plane	U	Not Supported
	VOI LUT	U	Not Supported
	SOP Common	M	

## 9.4 SC Image IOD Module Table

The following table is a list of modules for the SC Image Storage SOP Class.

In the following table, M = Mandate and U=User Option (not required)

**Table 10. Secondary Capture Image IOD Modules**

Entity Name	Module Name	Usage	Reference
Patient	Patient	M	
Study	General Study	M	
	Patient Study	U	Not Supported
Series	General Series	M	
Equipment	General Equipment	U	
	SC Equipment	M	
Image	General Image	M	
	Image Pixel	M	
	SC Image	M	
	Overlay Plane	U	Supported See DICOM Standard Part 3 C.9.2
	VOI LUT	U	Supported See DICOM Standard Part 3 C.11.2
	Modality LUT	U	Supported See DICOM Standard Part 3 C.11.1
	SOP Common	M	

## 10 Information Module Tables

### 10.1 Patient Module

The following attributes in the Patient Module will be used in CT, CR, MR, and SC images:

**Table 11. Patient Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Patient's Name	(0010,0010)	2
Patient's ID	(0010,0020)	2
Patient's Birth Date	(0010,0030)	2
Patient's Sex	(0010,0040)	2

## 10.2 General Study Module

The following attributes in the General Study Module will be used in CR, CT, MR, and SC images:

**Table 12. General Study Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Study Instance UID	(0020,000D)	1
Study Date	(0008,0020)	2
Study Time	(0008,0030)	2
Referring Physician's Name	(0008,0090)	2
Study ID	(0020,0010)	2
Accession Number	(0008,0050)	2

## 10.3 General Series Module

The following attributes in the General Series Module will be used in CR, CT, MR, and SC images:

**Table 13. General Series Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Modality	(0008,0060)	1
Series Instance UID	(0020,000E)	1
Series Number	(0020,0011)	2
Laterality	(0020,0060)	2C

## 10.4 CR Series Module

The following attributes in the CR Series Module will be used in CR images:

**Table 14. CR Series Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Body Part Examined	(0018,0015)	2

## 10.5 Frame of Reference Module

The following attributes in the Frame of Reference Module will be used in MR and CT images:

**Table 15. Frame of Reference Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Frame of Reference UID	(0020,0052)	1
Position Reference Indicator	(0020,1040)	2

## 10.6 General Equipment Module

The following attributes in the General Equipment Module will be used in CR, CT, MR and SC images:

**Table 16. General Equipment Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Manufacturer	(0008,0070)	2
Institution Name	(0008,0080)	3

## 10.7 SC Equipment Module

The following attribute in the SC Equipment Module will be used in SC images:

**Table 17. SC Equipment Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Conversion Type	(0008,0064)	1

## 10.8 General Image Module

The following attributes in the General Image Module will be used in CR, CT, MR and SC images:

**Table 18. General Image Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Image Number	(0020,0013)	2

## 10.9 Image Plane Module

The following attributes in the Image Plane Module will be used in CT and MR images:

**Table 19. Image Plane Module Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Pixel Spacing	(0028, 0030)	1

## 10.10 Image Pixel Module

The following attributes in the Image Pixel Module will be used in CR, CT, MR and SC images:

**Table 20. Image Pixel Module**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>
Sample per Pixel	(0028,0002)	1
Photometric Interpretation	(0028,0004)	1
Rows	(0028,0010)	1
Columns	(0028,0011)	1
Bits Allocated	(0028,0100)	1
Bit Stored	(0028,0101)	1
High Bit	(0028,0102)	1
Pixel Representation	(0028,0103)	1
Window Center	(0028,1050)	3
Window Width	(0028,1051)	3
Pixel Data	(7FE0,0010)	1

## 10.11 SOP Common Module

The following attributes in the SOP Common Module will be used in CR, CT, MR and SC images:

Table 21. SOP Common Module Attributes

Attribute Name	Tag	Type
SOP Class UID	(0008,0016)	1
SOP Instance UID	(0008,0018)	1

## 10.12 SC Image Module

Table 22. SC Image Module Attributes

Attribute Name	Tag	Type
Date of Secondary Capture	(0018,1012)	3
Time of Secondary Capture	(0018,1014)	3

## 10.13 CR Image Module

All attributes pertaining to the CT Image Module included in the data file will be supported.

## 10.14 CT Image Module

All attributes pertaining to the CT Image Module included in the data file will be supported.

## 10.15 MR Image Module

All attributes pertaining to the MR Image Module included in the data file will be supported.

## Section C — Private Data Tags

Windows SSCU 4.2.1 also supports data tags not defined in the DICOM Standard. These tags are of private domain and are defined for and used solely by *Kodak* products.

The following table contains data elements with these private tags.

**Table 23. Private data Tags**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>	<b>VM</b>	<b>VR</b>
KODAK Private Tag Reservation	(0x0029, 0x0010)	3	1	LT
Note	(0x0029, 0x1010)	3	1	LO
Key Image	(0x0029, 0x1000)	3	1	LO
Graphic/Measurement Sequence	(0x0029, 0x1020)	3	1	SQ
> X Start Position	(0x0029, 0x1030)	3	1	LO
> Y Start Position	(0x0029, 0x1040)	3	1	LO
> X End Position	(0x0029, 0x1050)	3	1	LO
> Y End Position	(0x0029, 0x1060)	3	1	LO
> Annotation Text	(0x0029, 0x1070)	3	1	LO
> Which Marker	(0x0029, 0x1080)	3	1	LO
Annotation Sequence	(0x0029, 0x1090)	3	1	SQ
> X coordinates (1...n)	(0x0029, 0x1091)	3	1-n	IS
> Y coordinates (1...n)	(0x0029, 0x1092)	3	1-n	IS
> Annotation Type	(0x0029, 0x1093)	3	1	IS
> Number of points	(0x0029, 0x1094)	3	1	IS
Reserved for Future	(0x0029, 0x1095)	3	1	IS

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