

DICOM Conformance Statement  
AIDA compact NEO



PRODUCT INFO  
OR1™

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## Table of Content

<b>Table of Content</b> .....	<b>3</b>
<b>Abbreviations</b> .....	<b>4</b>
<b>Definitions</b> .....	<b>4</b>
<b>References</b> .....	<b>4</b>
<b>1 CONFORMANCE STATEMENT OVERVIEW</b> .....	<b>5</b>
<b>2 INTRODUCTION</b> .....	<b>7</b>
2.1 AUDIENCE .....	7
2.2 REMARKS .....	7
<b>3 NETWORKING</b> .....	<b>8</b>
3.1 IMPLEMENTATION MODEL .....	8
3.1.1 Application Data Flow.....	8
3.1.2 Functional Definition of AEs .....	9
3.1.3 Sequencing of Real World Activities .....	10
3.2 AE SPECIFICATIONS .....	10
3.2.1 General Association Policies.....	10
3.2.2 WLM-SCU AE Specification .....	11
3.2.3 MPPS-SCU AE Specification .....	13
3.2.4 STORAGE and STORAGE COMMITMENT SCU AE Specification .....	15
3.2.5 FIND-SCU AE Specification .....	16
3.2.6 MOVE-SCU AE Specification.....	18
3.2.7 STORAGE-SCP AE Specification .....	18
3.3 NETWORK INTERFACES.....	23
3.3.1 Physical Network Interface.....	23
3.3.2 Physical Media Support.....	23
3.3.3 Additional Protocols.....	23
3.4 CONFIGURATION.....	23
3.4.1 AE Title/Presentation Address Mapping .....	23
3.4.2 Parameters .....	23
<b>4 MEDIA INTERCHANGE</b> .....	<b>24</b>
<b>5 SUPPORT OF CHARACTER SETS</b> .....	<b>25</b>
5.1 OVERVIEW .....	25
5.2 CHARACTER SETS .....	25
5.3 CHARACTER SET CONFIGURATION .....	25
<b>6 SECURITY</b> .....	<b>26</b>
6.1 SECURITY PROFILES.....	26
6.2 MANAGEMENT PROFILES .....	26
6.3 ASSOCIATION LEVEL SECURITY.....	26
6.4 APPLICATION LEVEL SECURITY .....	26
<b>7 Annexes</b> .....	<b>27</b>
7.1 IOD CONTENTS.....	27
7.1.1 Created SOP Instance(s) .....	27
7.1.2 Attribute Mapping .....	32
7.2 DATA DICTIONARY OF PRIVATE ATTRIBUTES .....	32
7.3 CODED TERMINOLOGY AND TEMPLATES .....	33
7.4 GRAYSCALE IMAGE CONSISTENCY .....	33
7.5 STANDARD EXTENDED/SPECIALIZED/PRIVATE SOP CLASSES .....	33
7.6 PRIVATE TRANSFER SYNTAXES.....	33

## Abbreviations

### General abbreviations

AIDA	<u>A</u> dvanced <u>I</u> mage and <u>D</u> ata <u>A</u> cquisition / <u>A</u> rchiving System = KARL STORZ AIDA™ (KST applications for endoscopic image and video acquisition with various functional options)
DICOM	<u>D</u> igital <u>I</u> maging and <u>C</u> ommunication in <u>M</u> edicine - Communication Standard in Medicine
GUI	<u>G</u> raphic <u>U</u> ser Interface
HL7	<u>H</u> ealth <u>L</u> evel <u>S</u> even - Communication Standard in Medicine
HIS	<u>H</u> ospital <u>I</u> nformation <u>S</u> ystem
IHE	<u>I</u> ntegrating the <u>H</u> ealthcare <u>E</u> nterprise
KST	KARL STORZ GmbH & Co. KG = KARL STORZ Tuttlingen
PACS	<u>P</u> icture <u>A</u> rchiving and <u>C</u> ommunication <u>S</u> ystem
SCB	<u>S</u> torz <u>C</u> ommunication <u>B</u> us

### Network specific abbreviations

IP	<u>I</u> nternet <u>P</u> rotocol
PDU	<u>P</u> rotocol <u>D</u> ata <u>U</u> nit
TCP	<u>T</u> ransport <u>C</u> ontrol <u>P</u> rotocol
TLS	<u>T</u> ransport <u>L</u> ayer <u>S</u> ecurity

### DICOM specific abbreviations

AE	<u>A</u> pplication <u>E</u> ntity
MPPS	<u>M</u> odality <u>P</u> erformed <u>P</u> rocedure <u>S</u> tep
MWL	<u>M</u> odality <u>W</u> orklist
SOP	<u>S</u> ervice <u>O</u> bject <u>P</u> air
SCP	<u>S</u> ervice <u>C</u> lass <u>P</u> rovider (= Server)
SCU	<u>S</u> ervice <u>C</u> lass <u>U</u> ser (= Client)
UID	<u>U</u> nique <u>I</u> dentifier
UTF-8	<u>U</u> nicode <u>T</u> ransformation <u>F</u> ormat (8 bit)
VL	<u>V</u> isible <u>L</u> ight
VR	<u>V</u> alue <u>R</u> epresentation

## Definitions

IHE Integration Profiles	IHE Integration Profiles define the workflow processes and data contents which must be supported by IHE compliant applications.
Acquisition Modality	A system that acquires and creates medical images while a patient is present, e.g. an endoscope. A modality may also create other evidence objects such as Grayscale Softcopy Presentation States for the consistent viewing of images or Evidence Documents containing measurements.

## References

[DICOM]	Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-3.18, 2009
[IHE TF]	IHE Technical Framework Rev. 7.0, ACC/HIMSS/RSNA, 2006

## 1 CONFORMANCE STATEMENT OVERVIEW

This document is a DICOM conformance statement in accordance with the standard as specified in DICOM PS 3.2-2007.

The AIDA DICOM interfaces allow participation of AIDA in the actor role of “Acquisition Modality” in the IHE Radiology Integration Profile.

**Acquisition Modality** is a device that acquires and creates medical images while a patient is present.

Supported IHE Radiology Integration Profiles as Acquisition Modality are:  
Scheduled Workflow (SWF)

This product of KARL STORZ GmbH & Co. KG implements the necessary DICOM services to provide the following functionality:

**Query Modality Worklist** – Based on a query entered at the Acquisition Modality, a modality worklist is generated listing all the items that satisfy the query. This list of Scheduled Procedure Steps with selected demographic information is returned to the Acquisition Modality.

**Modality Procedure Step In Progress** – The Acquisition Modality notifies the Performed Procedure Step Manager of the start of a new Procedure Step and the PPS Manager informs the Department System, Image Manager and the Report Manager.

**Modality Procedure Step Completed** – The Acquisition Modality notifies the Performed Procedure Step Manager of the completion of a Procedure Step and the PPS Manager informs the Department System, Image Manager and the Report Manager.

**Modality Images Stored** – The Acquisition Modality sends acquired or generated images to a Image Manager or Image Archive (PACS).

**Storage Commitment** – The Acquisition Modality requests that the Image Manager or Image Archive confirms ownership for the specified DICOM objects (e.g. images) that the requestor stored previously, thus allowing the sender to delete those objects now owned by the Image Manager.

In addition, the AIDA DICOM interfaces provide the following functionality:

**Image Display** – A device that can access images through network query/retrieve or reading interchange media and allows the user to view the images.

**Query Images** – The Image Display queries an Image Archive for a list of entries representing images by patient, study, series, or instance.

**Retrieve Images** – The Image Display requests and retrieves a particular image or set of images from a Image Archive.

Table 2.1-1 provides an overview of the network services supported by the AIDA system.

**Table 2.1-1 Supported Network Services**

SOP Classes	Service User (SCU)	Service Provider (SCP)
<b>Transfer</b>		
Secondary Capture Image Storage	Yes	Yes
VL Endoscopic Image Storage	Yes	Yes
Video Endoscopic Image Storage	Yes	Yes
Ultrasound Image Storage	No	Yes
Ultrasound Multiframe Image Storage	No	Yes
CT Image Storage	No	Yes
MR Image Storage	No	Yes
Nuclear Medicine Image Storage	No	Yes
X-Ray Angiographic Image Storage	No	Yes
X-Ray Radiofluoroscopic Image Storage	No	Yes
Positron Emission Tomography Image Storage	No	Yes
RT Image Storage	No	Yes
CR Image Storage	No	Yes
Digital X-Ray Image Storage – For Presentation	No	Yes
Digital Mammography X-Ray Image Storage – For Presentation	No	Yes
Digital Intra-oral X-Ray Image Storage – For Presentation	No	Yes
Hardcopy Color Image Storage SOP Class (Retired)	No	Yes
Hardcopy Grayscale Image Storage SOP Class (Retired)	No	Yes
VL Image Storage (Retired)	No	Yes
VL Microscopic Image Storage	No	Yes
VL Photographic Image Storage	No	Yes
Video Microscopic Image Storage	No	Yes
Video Photographic Image Storage	No	Yes
Storage Commitment Push Model SOP Class	Yes	No
<b>Query/Retrieve</b>		
Patient Root Query/Retrieve Information Model – FIND	Yes	No
Patient Root Query/Retrieve Information Model – MOVE	Yes	No
Patient Root Query/Retrieve Information Model – GET	No	No
Study Root Query/Retrieve Information Model – FIND	Yes	No
Study Root Query/Retrieve Information Model – MOVE	Yes	No
Study Root Query/Retrieve Information Model – GET	No	No
<b>Workflow Management</b>		
Modality Worklist Information Model – FIND	Yes	No
Modality Performed Procedure Step SOP Class	Yes	No
<b>Print Management</b>		
None		

Table 2.1-2 provides an overview of the Media Storage Application Profiles supported by the AIDA system.

**Table 2.1-2 Supported Media Services**

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR)
<b>Compact Disk – Recordable</b>		
General Purpose CD-R	No	No
<b>DVD</b>		
General Purpose DVD-RAM	No	No

## **2 INTRODUCTION**

### **2.1 AUDIENCE**

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

### **2.2 REMARKS**

DICOM, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates 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 the AIDA system 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 KARL STORZ GmbH & Co. KG and non- KARL STORZ GmbH & Co. KG equipment.

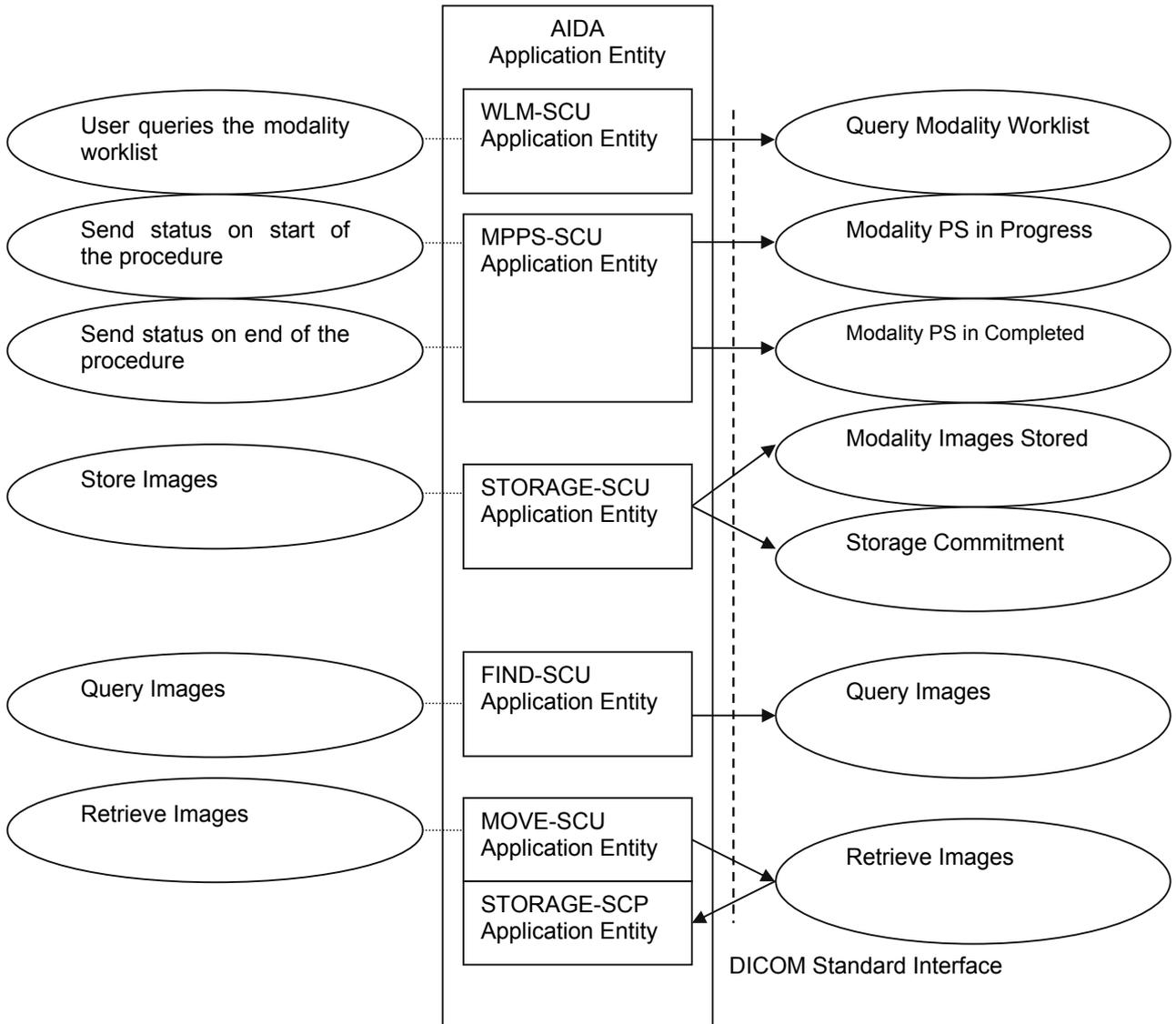
Test procedures should be defined to validate the desired level of connectivity.

The DICOM standard will evolve to meet the users future requirements. KARL STORZ GmbH & Co. KG 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 NETWORKING

#### 3.1 IMPLEMENTATION MODEL

##### 3.1.1 Application Data Flow



Conceptually the network services may be modeled as the following separate AEs, though in fact *all* the AEs share a *single* (configurable) AIDA AE Title:

- WLM-SCU requests a modality worklist based on a query entered.
- MPPS-SCU notifies of the start of a new procedure step or the completion or cancellation of a procedure step.
- STORAGE-SCU sends acquired images, sends requests that the remote node confirms ownership for the specified DICOM objects, and handles the corresponding notification events.
- FIND-SCU queries the remote node for a list of entries representing images by patient, study, series, or instance.
- MOVE-SCU requests and retrieves a particular image or set of images from the remote node.
- STORAGE-SCP allows incoming image or set of images for MOVE-SCU.

### **3.1.2.1 Functional Definition of WLM-SCU Application Entity**

The WLM-SCU AE is invoked by the real-world action 'Query Modality Worklist'.

Based on a query entered a modality worklist is requested.

The query supports:

- Patient Based Worklist Query
- Broad Worklist Query

The supported matching-query-keys and return-query- keys are listed in this document.

### **3.1.2.2 Functional Definition of MPPS-SCU Application Entity**

The MPPS-SCU AE is invoked by the system on start and end or cancellation of a procedure step.

The possible real-world events are 'Procedure Start', 'Procedure Completed' and 'Procedure Discontinued'.

### **3.1.2.3 Functional Definition of STORAGE-SCU Application Entity**

The STORAGE-SCU AE is invoked by the real-world action 'Store Images' or 'Finish procedure'.

It sends acquired or generated images to the storage destination.

The STORAGE-SCU AE optionally requests that the Storage Commitment Acceptor confirms ownership for the specified DICOM objects (e.g. images) that the requestor stored in the storage destination, thus allowing the sender to delete those objects now owned by the storage destination.

### **3.1.2.4 Functional Definition of FIND-SCU Application Entity**

The FIND-SCU AE is invoked by the real-world action 'Query Images'.

It queries the storage source for a list of entries representing images by patient, study, series, or instance.

The query can be refined by means of search criteria.

The supported matching-query-keys and return-query- keys are listed in this document.

### **3.1.2.5 Functional Definition of MOVE-SCU Application Entity**

The MOVE-SCU AE is invoked by the real-world action 'Retrieve Images'.

It requests and retrieves a particular image or set of images from the storage source.

The MOVE-SCU AE triggers the STORAGE-SCP to receive the requested image or set of images from the storage source.

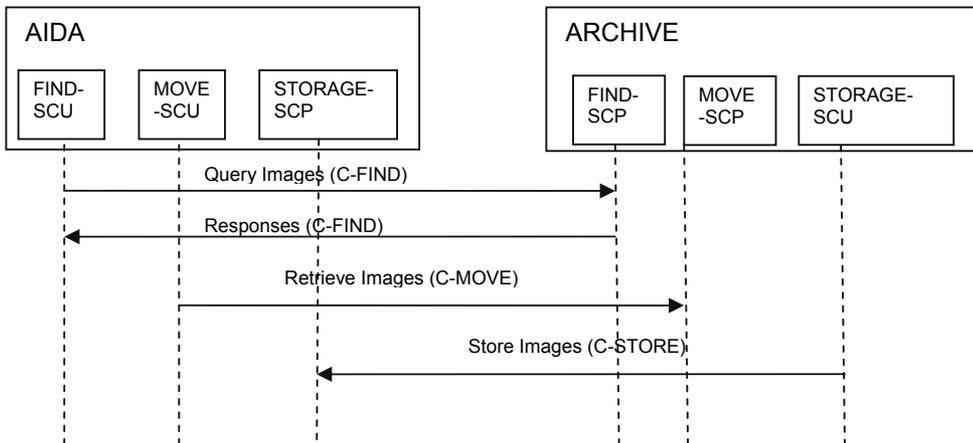
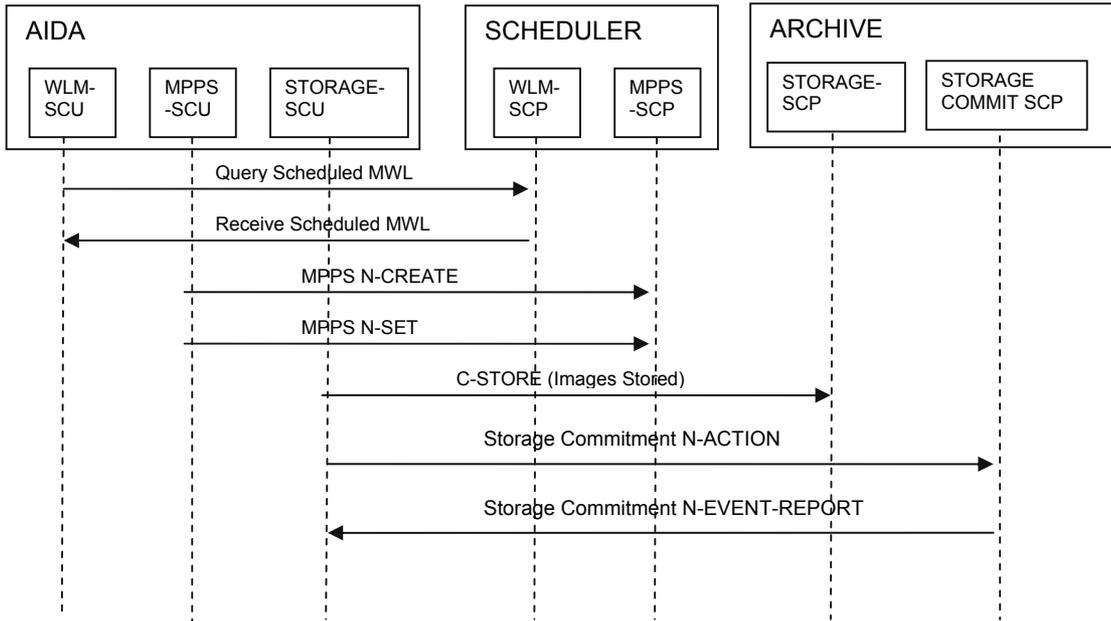
### **3.1.2.6 Functional Definition of STORAGE-SCP Application Entity**

The STORAGE-SCP AE acts as storage destination for the MOVE-SCU AE during the retrieval of images.

It is invoked as sub-operation of the 'Retrieve Images'.

The received image or set of images are stored in the local database and can be viewed by the user.

### 3.1.3 Sequencing of Real World Activities



## 3.2 AE SPECIFICATIONS

### 3.2.1 General Association Policies

#### 3.2.1.1 General

AIDA will utilize and understand the following Application Context Name:

- DICOM V3.0 Application Context 1.2.840.10008.3.1.1.1

AIDA will attempt to establish an association whenever the user invokes a DICOM related operation (query a worklist from a remote AE, store images to a remote AE or query studies and retrieve images from a remote AE) in the user interface of AIDA.

The maximum PDU size, which AIDA will use, is configurable. The default value is 1022000 Bytes.

### 3.2.1.2 Number of Associations

AIDA initiates only one association at a time. It accepts up to four open associations.

### 3.2.1.3 Asynchronous Nature

AIDA does not use asynchronous communication (multiple outstanding transactions over a single association).

### 3.2.1.4 Implementation Identifying Information

AIDA Implementation Class UID 1.2.276.0.67.2  
Implementation Version Name AIDAC31

## 3.2.2 WLM-SCU AE Specification

### 3.2.2.1 SOP Classes

The AIDA system provides Standard Conformance to the following SOP Classes:

**Table 3.2-1 SOP Classes for WLM-SCU AE**

SOP Class Name	SOP Class UID	SCU	SCP
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Yes	No

### 3.2.2.2 Association Policies

See 3.2.1 General Association Policies.

### 3.2.2.3 Association Initiation Policy

AIDA attempts to initiate a new association for the following service operations:

- Query Modality Worklist

#### 3.2.2.3.1 Associated Real-World Activity – Query Worklist of a remote AE

Depending on the configuration, the user initiates either a broad query or a patient based query. For broad queries, the configuration defines if a specific date or date range and the station AE title shall be used. For patient based queries the user specifies the attributes (Patient's Name, Patient ID, Accession Number, Scheduled Performing Physician) which the remote application should use to query its worklist database.

#### 3.2.2.3.2 Proposed Presentation Contexts – Query Worklist of a remote AE

The Presentation Contexts proposed by AIDA are defined in the following table:

**Table 3.2-2 SOP Presentation Context Table - Query Worklist of a remote AE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		

#### 3.2.2.3.2.1 SOP Specific Conformance Statement – Query Worklist of a remote AE

AIDA establishes an association to the remote AE, sends the C-FIND request and closes it after receiving the responses. AIDA uses the following query keys in the C-FIND request:

**Table 3.2-3 Modality Worklist Query Keys**

Attribute Name	Tag	Broad Query	Patient Query	Addition information
SOP Common Module				
Specific Character Set	(0008,0005)	Y	Y	ISO IR 100 or ISO IR 192
Modality Worklist Module				
Scheduled Procedure Step Sequence	(0040,0100)	Y	Y	
Modality	>(0008,0060)	Y *	N	
Station AE Title	>(0040,0001)	Y *	N	configurable option

Attribute Name	Tag	Broad Query	Patient Query	Addition information
Scheduled Procedure Step Start Date	>(0040,0002)	Y *)	N	configurable option
Scheduled Performing Physician's Name	>(0040,0006)	N	Y	user entry *)
Patient's Name	(0010,0010)	N	Y	user entry *)
Patient ID	(0010,0020)	N	Y	user entry *)
Accession Number	(0008,0050)	N	Y	user entry *)
Requested Procedure ID	(0040,1001)	N	Y	user entry *)

\*) may be empty

AIDA checks for the following status codes in the response to the C-FIND request:

- SUCCESS (0000)
- PENDING (FF00)
- PENDING with WARNING (FF01)
- All other status codes are interpreted as errors. Errors are displayed to the user and logged to file.

AIDA does not request matching on optional matching key attributes. It does also not require optional return key attributes. It supports ISO IR 100 and ISO IR 192 character sets.

**Table 3.2-4 Modality Worklist Attributes**

Attribute Name	Tag	Requested	Read	Addition information
<b>SOP Common Module</b>				
Specific Character Set	(0008,0005)	Y	Y	ISO IR 100 or ISO IR 192
<b>Patient Module</b>				
Patient Name	(0010,0010)	Y	Y	
Patient ID	(0010,0020)	Y	Y	
Patient's Birth Date	(0010,0030)	Y	Y	
Patient's Sex	(0010,0040)	Y	Y	
Other Patient IDs	(0010,1000)	Y	Y	
<b>Visit Module</b>				
Admission ID	(0038,0010)	Y	Y	
Referenced Patient Sequence	(0008,1120)	N	Y	
>Referenced SOP Class UID	(0008,1150)	N	Y	
>Referenced SOP Instance UID	(0008,1155)	N	Y	
<b>Imaging Service Request Module</b>				
Accession Number	(0008,0050)	Y	Y	
Referring Physician's Name	(0008,0090)	Y	Y	
<b>Requested Procedure Module</b>				
Study Date	(0008,0020)	Y	Y	
Referenced Study Sequence	(0008,1110)	N	Y	
>Referenced SOP Class UID	(0008,1150)	N	Y	
>Referenced SOP Instance UID	(0008,1155)	N	Y	
Study Instance UID	(0020,000D)	Y	Y	
Requested Procedure Description	(0032,1060)	Y	Y	
Requested Procedure Code Sequence	(0032,1064)	Y	Y	
>Code Value	(0008,0100)	Y	Y	
>Coding Scheme Designator	(0008,0102)	Y	Y	
>Coding Scheme Version	(0008,0103)	Y	Y	
>Code Meaning	(0008,0104)	Y	Y	
Requested Procedure ID	(0040,1001)	Y	Y	
<b>Scheduled Procedure Step Module</b>				
Scheduled Procedure Step Sequence	(0040,0100)	Y	Y	
>Modality	(0008,0060)	Y	Y	
>Scheduled Station AE Title	(0040,0001)	Y	Y	
>Scheduled Procedure Step Start Date	(0040,0002)	Y	Y	
>Scheduled Procedure Step Start Time	(0040,0003)	Y	Y	
>Scheduled Procedure Step End Date	(0040,0004)	Y	N	
>Scheduled Performing Physician's Name	(0040,0006)	Y	Y	

Attribute Name	Tag	Requested	Read	Addition information
>Scheduled Procedure Step Description	(0040,0007)	Y	Y	
>Scheduled Protocol Code Sequence	(0040,0008)	Y	Y	
>>Code Value	(0008,0100)	Y	Y	
>>Coding Scheme Designator	(0008,0102)	Y	Y	
>>Coding Scheme Version	(0008,0103)	Y	Y	
>>Code Meaning	(0008,0104)	Y	Y	
>Scheduled Procedure Step ID	(0040,0009)	Y	Y	
>Scheduled Station Name	(0040,0010)	Y	Y	
>Scheduled Procedure Step Location	(0040,0011)	Y	Y	

### 3.2.3 MPPS-SCU AE Specification

#### 3.2.3.1 SOP Classes

The AIDA provides Standard Conformance to the following SOP Classes:

**Table 3.2-5 SOP Classes for MPPS-SCU AE**

SOP Class Name	SOP Class UID	SCU	SCP
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Yes	No

#### 3.2.3.2 Association Policies

See 3.2.1 General Association Policies.

#### 3.2.3.3 Association Initiation Policy

AIDA attempts to initiate a new association for the following service operations:

- Start Procedure Step
- Finish Procedure Step
- Discontinue Procedure Step

##### 3.2.3.3.1 Associated Real-World Activity – Send Status message to remote AE

When the surgery is started, AIDA creates an MPPS (Modality Performed Procedure Step) object from the information that was provided by a previous C-Find request for a worklist from a remote Worklist SCP.

When the surgery is finished, AIDA updates the status of the MPPS object (to 'Completed' or 'Discontinued').

##### 3.2.3.3.2 Proposed Presentation Contexts – Send Status message to remote AE

The Presentation Contexts proposed by AIDA are defined in the following table:

**Table 3.2-6 SOP Presentation Context Table - Send MPPS Message to remote AE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		

##### 3.2.3.3.2.1 SOP Specific Conformance Statement – Send Status message to remote AE

Once the MPPS association has been established, AIDA sends a N-CREATE-RQ or N-SET-RQ message to the MPPS SCP. After the response is received the association is closed. The table below lists all Modality Performed Procedure Step attributes, which may be created by N-CREATE and updated by N-SET.

**Table 3.2-7 Modality Performed Procedure Step Attributes**

Attribute Name	Tag	N-CREATE	N-SET	Addition information
<b>SOP Common Module</b>				
Specific Character Set	(0008,0005)	Y	N	ISO IR 100 or ISO IR 192
<b>Performed Procedure Step Relationship Module</b>				
Referenced Patient Sequence	(0008,1120)	Y	N	
>Referenced SOP Class UID	(0008,1150)	N	N	

Attribute Name	Tag	N-CREATE	N-SET	Addition information
>Referenced SOP Instance UID	(0008,1155)	N	N	
Patient Name	(0010,0010)	Y	N	
Patient ID	(0010,0020)	Y	N	
Patient's Birth Date	(0010,0030)	Y	N	
Patient's Sex	(0010,0040)	Y	N	
Other Patient IDs	(0010,1000)	Y	N	
Admission ID	(0038,0010)	Y	N	
Scheduled Step Attribute Sequence	(0040,0270)	Y	N	
>Accession Number	(0008,0050)	Y	N	
>Referenced Study Sequence	(0008,1110)	Y	N	
>>Referenced SOP Class UID	(0008,1150)	Y	N	
>>Referenced SOP Instance UID	(0008,1155)	Y	N	
>Study Instance UID	(0020,000D)	Y	N	
>Requested Procedure ID	(0040,1001)	Y	N	
>Requested Procedure Description	(0032,1060)	Y	N	
>Scheduled Procedure Step ID	(0040,0009)	Y	N	
>Scheduled Procedure Step Description	(0040,0007)	Y	N	
>Scheduled Protocol Code Sequence	(0040,0008)	Y	N	
>>Code Value	(0008,0100)	Y	N	
>>Coding Scheme Designator	(0008,0102)	Y	N	
>>Coding Scheme Version	(0008,0103)	Y	N	
>>Code Meaning	(0008,0104)	Y	N	
<b>Performed Procedure Step Information</b>				
Procedure Code Sequence	(0008,1032)	Y	Y	
>Code Value	(0008,0100)	Y	Y	
>Coding Scheme Designator	(0008,0102)	Y	Y	
>Coding Scheme Version	(0008,0103)	Y	Y	
>Code Meaning	(0008,0104)	Y	Y	
Performed Station AE Title	(0040,0241)	Y	N	
Performed Station Name	(0040,0242)	Y	N	
Performed Location	(0040,0243)	Y	N	
Performed Procedure Step Start Date	(0040,0244)	Y	N	
Performed Procedure Step Start Time	(0040,0245)	Y	N	
Performed Procedure Step End Date	(0040,0250)	Y	Y	Always empty in N-CREATE
Performed Procedure Step End Time	(0040,0251)	Y	Y	Always empty in N-CREATE
Performed Procedure Step Status	(0040,0252)	Y	Y	
Performed Procedure Step ID	(0040,0253)	Y	N	
Performed Procedure Step Description	(0040,0254)	Y	Y	
Performed Procedure Type Description	(0040,0255)	Y	Y	
<b>Image Acquisition Results</b>				
Modality	(0008,0060)	Y	N	
Study ID	(0020,0010)	Y	N	
Performed Protocol Code Sequence	(0040,0260)	Y	Y	
>Code Value	(0008,0100)	Y	Y	
>Coding Scheme Designator	(0008,0102)	Y	Y	
>Coding Scheme Version	(0008,0103)	Y	Y	
>Code Meaning	(0008,0104)	Y	Y	
Performed Series Sequence	(0040,0340)	Y	Y	
>Performing Physician's Name	(0008,1050)	Y	Y	
>Operator's Name	(0008,1070)	Y	Y	
>Protocol Name	(0018,1030)	Y	Y	
>Series Instance UID	(0020,000E)	Y	Y	
>Series Description	(0008,103E)	Y	Y	
>Retrieve AE Title	(0008,0054)	Y	Y	
>Referenced Image Sequence	(0008,1140)	Y	Y	Always empty in N-CREATE
>>Referenced SOP Class UID	(0008,1150)	N	Y	
>>Referenced SOP Instance UID	(0008,1155)	N	Y	

Attribute Name	Tag	N-CREATE	N-SET	Addition information
>Referenced Non-Image Composite SOP Instance Sequence	(0040,0220)	Y	Y	Always empty

### 3.2.4 STORAGE and STORAGE COMMITMENT SCU AE Specification

#### 3.2.4.1 SOP Classes

The AIDA system provides Standard Conformance to the following SOP Classes:

**Table 3.2-8 SOP Classes for STORAGE-SCU AE**

SOP Class Name	SOP Class UID	SCU	SCP
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	No
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Yes	No
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	Yes	No
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	No

#### 3.2.4.2 Association Policies

See 3.2.1 General Association Policies.

#### 3.2.4.3 Association Initiation Policy

AIDA attempts to initiate a new association for the following service operations:

- Store Image(s) to a remote AE (Storage Service)
- Request Storage Commitment from a remote AE (if enabled)

##### 3.2.4.3.1 Associated Real-World Activity – Store Image on a remote AE and request Commitment

The associated real-world activity is a storage request initiated by the user after the surgical procedure. The user either selects the images which shall be stored and the remote provider they shall be stored to, or the automatic storage of all images taken during the surgery to a configured remote provider (for example archive) and initiates the transfer. If the storage response from the remote AE contains a status other than success, an error message is displayed to the user.

If Storage Commitment is enabled, AIDA requests automatically a storage commitment after the storage. A timed-out commit request is automatically repeated twice. Timed-out and failed commit request are listed in separate tables.

##### 3.2.4.3.2 Proposed Presentation Contexts – Store Image to a remote AE and request Commitment

The Presentation Contexts proposed by AIDA are defined in the following table. Transfer syntaxes for compressed images are only proposed if the image was captured in JPEG format.

**Table 3.2-9 Presentation Context Table - Store Image to a remote AE and request Commitment**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCU	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCU	None
Video	1.2.840.10008.5.1.4.1.1.	MPEG2 Main Profile @	1.2.840.10008.1.2.4.100	SCU	None

Endoscopic Image Storage	77.1.1.1	Main Level			
Storage Commitment Push Model	1.2.840.10008.1.20.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None

**3.2.4.3.2.1 SOP Specific Conformance Statement – Store Image to a remote AE and request Commitment**

For storage, AIDA establishes an association to the remote AE, sends the storage requests and closes it after receiving the responses.

For storage commitment, AIDA establishes an association to the remote AE, sends the storage commitment requests and closes it after receiving the responses.

If Storage Commitment is disabled, AIDA sends all images on one association.

If Storage Commitment is enabled, AIDA sends one image per association and then requests the Storage Commitment on a new association. It accepts the Storage Commitment N-EVENT-RQ either immediately afterwards on that association, or later on a separate association.

The DICOM images sent by AIDA conform to the DICOM IOD definitions. Extended negotiation is not supported. AIDA supports ISO IR 100 and ISO IR 192 character sets.

**3.2.4.4 Association Acceptance Policy**

AIDA accepts an association request for the following service operation:

- Receive Storage Commitment from a remote AE (if enabled)

AIDA accepts an association request for storage commitment events if the requested AE title and the requestor’s AE title and IP address correspond to the configured values.

**3.2.4.4.1 Associated Real-World Activity – Receive Storage Commitment**

The remote provider (archive) sends a storage commitment when he takes over the responsibility for the stored image. After receiving this commitment, AIDA deletes automatically the backup copy of the image.

**3.2.4.4.2 Accepted Presentation Contexts – Receive Storage Commitment**

The Presentation Contexts accepted by AIDA are defined in the following table:

**Table 3.2-10 Acceptable Presentation Context Table - Receive Storage Commitment**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Storage Commitment Push Model	1.2.840.10008.1.20.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None

**3.2.4.4.2.1 SOP Specific Conformance Statement – Receive Storage Commitment**

None.

**3.2.5 FIND-SCU AE Specification**

**3.2.5.1 SOP Classes**

The AIDA system provides Standard Conformance to the following SOP Classes:

**Table 3.2-11 SOP Classes for FIND-SCU AE**

SOP Class Name	SOP Class UID	SCU	SCP
Patient Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	Yes	No
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	Yes	No

### 3.2.5.2 Association Policies

See 3.2.1 General Association Policies.

### 3.2.5.3 Association Initiation Policy

AIDA attempts to initiate a new association for the following service operations:

- Query stored studies on a remote AE

and for the following SOP classes

- Patient Root Query/Retrieve Information Model - FIND
- Study Root Query/Retrieve Information Model - FIND

If both SOP classes are accepted, AIDA will use the Patient Root Query/Retrieve Information Model – FIND SOP class for the query.

#### 3.2.5.3.1 Associated Real-World Activity – Query a remote AE

The user defines one or more search criteria and then initiates a query through the user interface of AIDA. If the response from the remote AE contains the status success then AIDA displays the result to the user. Otherwise it displays an error message.

#### 3.2.5.3.2 Proposed Presentation Contexts – Query a remote AE

The Presentation Contexts proposed by AIDA are defined in the following table:

**Table 3.2-12 Presentation Context Table - Query a remote AE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Patient Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None

#### 3.2.5.3.2.1 SOP Specific Conformance Statement – Query a remote AE

AIDA establishes an association to the remote AE, sends the C-FIND request and closes it after receiving the responses. AIDA uses the following query keys in the C-FIND request:

**Table 3.2-13 Archive Query Keys**

Attribute Name	Tag	Patient Root	Study Root	Addition information
Specific Character Set	(0008,0005)	Y	Y	ISO IR 100 or ISO IR 192
Query Level	(0008,0052)	Y	Y	user selectable
Patient's Name	(0010,0010)	Y	Y	user entry *)
Patient ID	(0010,0020)	Y	Y	user entry *)
Patient's Sex	(0010,0040)	Y	Y	user entry *)
Study Date	(0008,0020)	Y	Y	user entry *)
Modality	(0008,0060)	Y	Y	user entry *)

\*) may be empty

AIDA checks for the following status codes in the response to the C-FIND request:

- SUCCESS (0000)
- PENDING (FF00)
- PENDING with WARNINGS (FF01)
- All other status codes are interpreted as errors. Errors are displayed to the user and logged to file

AIDA does not support optional matching key attributes. It does also not request relational queries. It supports ISO IR 100 and ISO IR 192 character sets.

### 3.2.6 MOVE-SCU AE Specification

#### 3.2.6.1 SOP Classes

The AIDA system provides Standard Conformance to the following SOP Classes:

**Table 3.2-14 SOP Classes for MOVE-SCU AE**

SOP Class Name	SOP Class UID	SCU	SCP
Patient Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	Yes	No
Study Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	Yes	No

#### 3.2.6.2 Association Policies

See 3.2.1 General Association Policies.

#### 3.2.6.3 Association Initiation Policy

AIDA attempts to initiate a new association for the following service operations:

- Retrieve image(s) from a remote AE
- and for the following SOP classes
- Patient Root Query/Retrieve Information Model - MOVE
  - Study Root Query/Retrieve Information Model - MOVE

If both SOP classes are accepted, AIDA will use the Patient Root Query/Retrieve Information Model – MOVE SOP class for the retrieval.

##### 3.2.6.3.1 Associated Real-World Activity – Retrieve Images from a remote AE

The user selects a study, series or image which should be uploaded from a list generated as a result of the previous C-FIND operation and AIDA establishes an association to the remote AE and sends a C-MOVE request. The transfer will be done by a subsequent C-STORE and then the result will be displayed to the user.

##### 3.2.6.3.2 Proposed Presentation Contexts – Retrieve Images from a Remote AE

The Presentation Contexts proposed by AIDA are defined in the following table:

**Table 3.2-15 Presentation Context Table - Retrieve Images from a Remote AE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Patient Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Study Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		

##### 3.2.6.3.2.1 SOP Specific Conformance Statement – Retrieve Images from a Remote AE

AIDA establishes an association to the remote AE, sends the C-MOVE request and closes it after receiving the final response.

### 3.2.7 STORAGE-SCP AE Specification

#### 3.2.7.1 SOP Classes

The AIDA system provides Standard Conformance to the following SOP Classes:

**Table 3.2-16 SOP Classes for STORAGE-SCP AE**

SOP Class Name	SOP Class UID	SCU	SCP
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	No	Yes
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	No	Yes
Digital Mammography X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	No	Yes
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	No	Yes
Computed Tomography Image Storage	1.2.840.10008.5.1.4.1.1.2	No	Yes
Ultrasound Multiframe Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	No	Yes
Ultrasound Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	No	Yes
Magnetic Resonance Image Storage	1.2.840.10008.5.1.4.1.1.4	No	Yes
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	No	Yes
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	No	Yes
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	No	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	No	Yes
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	No	Yes
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	No	Yes
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	No	Yes
VL Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.77.1	No	Yes
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	No	Yes
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	No	Yes
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	No	Yes
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	No	Yes
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.1	No	Yes
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4.1	No	Yes
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	No	Yes
Radiotherapy Image Storage	1.2.840.10008.5.1.4.1.1.481.1	No	Yes
Hardcopy Grayscale Image Storage (Retired)	1.2.840.10008.5.1.1.29	No	Yes
Hardcopy Color Image Storage (Retired)	1.2.840.10008.5.1.1.30	No	Yes

**3.2.7.2 Association Policies**

See 3.2.1 General Association Policies.

**3.2.7.3 Association Initiation Policy**

The association is initiated by the remote AE.

**3.2.7.4 Association Acceptance Policy**

AIDA accepts a new association the following service operations:

- Receive Image from a remote AE (Storage Service)

AIDA accepts an association request for storage if the requested AE title and the requestor's AE title and IP address correspond to the configured values.

**3.2.7.4.1 Associated Real-World Activity – Receive Image from Remote AE**

After receiving a move request, the remote AE will start to move images to AIDA. The user will see a preview of each image and can decide whether a received image is to be temporarily stored on disc so that it can be displayed to the physician during the surgery. All received images will be deleted at the end of the surgery.

**3.2.7.4.2 Presentation Contexts– Receive Images from a Remote AE**

AIDA will accept Presentation Contexts as shown in the following table:

**Table 3.2-17 SOP Presentation Context Table - Receive Images from a Remote AE**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Computed Radiography	1.2.840.10008.5.1.4.1.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		

Image Storage		Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91		
Digital X-Ray Image Storage - For Present.	1.2.840.10008.5.1.4.1.1.1.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Digital Mammography X-Ray Image Storage - For Present.	1.2.840.10008.5.1.4.1.1.1.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Digital Intra-oral X-Ray Image Storage - For Present.	1.2.840.10008.5.1.4.1.1.1.3	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Computed Tomography Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Ultrasound Multiframe Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Ultrasound Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Magnetic Resonance Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90	SCP	None

		JPEG 2000	1.2.840.10008.1.2.4.91		
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
X-Ray Radio-fluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
VL Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.77.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
VL Microscopic Image	1.2.840.10008.5.1.4.1.1.77.1.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCP	None

Storage		JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91		
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1. 77.1.4	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1. 77.1.1.1	MPEG2 Main Profile @ Main Level	1.2.840.10008.1.2.4.100	SCP	None
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1. 77.1.2.1	MPEG2 Main Profile @ Main Level	1.2.840.10008.1.2.4.100	SCP	None
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1. 77.1.4.1	MPEG2 Main Profile @ Main Level	1.2.840.10008.1.2.4.100	SCP	None
Radiotherapy Image Storage	1.2.840.10008.5.1.4.1.1.4 81.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1. 128	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Hardcopy Grayscale Image Storage (Retired)	1.2.840.10008.5.1.1.29	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None
Hardcopy Color Image Storage (Retired)	1.2.840.10008.5.1.1.30	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian JPEG Lossless JPEG Baseline JPEG 2000 Lossless Only JPEG 2000	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.91	SCP	None

### 3.2.7.4.2.1 SOP Specific Conformance – Receive Images from a Remote AE

AIDA always returns in the C-STORE-RSP message the status SUCCESS, but images will only be stored on the local hard disc in the context of a C-MOVE command.

Extended negotiation is not supported.

### **3.3 NETWORK INTERFACES**

#### **3.3.1 Physical Network Interface**

The AIDA system provides DICOM V3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard (PS 3.8 Network Communication Support for Message Exchange).

##### **3.3.1.1 OSI Stack**

No OSI Stack communications are provided.

##### **3.3.1.2 TCP/IP Stack**

AIDA uses the TCP/IP stack from Windows XP Embedded upon which it executes.

#### **3.3.2 Physical Media Support**

AIDA is independent of the physical medium over which TCP/IP executes.

#### **3.3.3 Additional Protocols**

When host names rather than IP addresses are used in the configuration properties to specify presentation addresses for remote AE's, the application is dependent on the name resolution mechanism of the underlying operating system.

### **3.4 CONFIGURATION**

All configurations are performed through AIDA. This configuration can be done by an administrator. These settings are stored in a configuration file.

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

The mapping of the application entity titles to host names and port numbers can be configured by the user or an administrator through the user interface of AIDA. The mapping is stored in a configuration file.

The application entity title of AIDA and the port number of AIDA can also be configured through the user interface of AIDA.

#### **3.4.2 Parameters**

The following parameters can be configured:

- Application entity title and port number of AIDA
- Time-out
- Modality type
- Character Set
- Communication security
- Maximum PDU size
- Application entity title and port number for a worklist server
- Application entity title and port number for a MPPS server
- Application entity title and port number for a storage and storage commitment server
- Application entity title and port number for a query/retrieve server
- Institution name and address
- Department name
- Station name and location
- Modality worklist query type, date filter and AE title filter
- Storage commitment activation and time-out
- Storage commitment option for response on same association as request

#### **4 MEDIA INTERCHANGE**

AIDA does not support Media Storage.

## 5 SUPPORT OF CHARACTER SETS

### 5.1 OVERVIEW

The application supports all character sets defined in the Table 5.2-1.

Support extends to correctly decoding and displaying the correct symbol for all names and strings found in the DICOMDIR, in storage instances from media and received over the network, and in the local database.

No specific support for sorting of strings other than in the default character set is provided in the browsers.

### 5.2 CHARACTER SETS

In addition to the default character repertoire, the Specific Character Sets in Table 5.2-1 are supported:

**Table 5.2-1 Supported Specific Character Sets**

Character Set Description	Defined Term
Latin alphabet No. 1	ISO_IR 100
Unicode in UTF-8	ISO_IR 192

### 5.3 CHARACTER SET CONFIGURATION

Whether or not characters are displayed correctly depends on the presence of font support in the underlying operating system. Typically, as described in the release notes, it may be necessary for the administrator to add one of the “all Unicode” fonts to the system configuration in order to correctly display characters that would not typically be used in the default locale.

## **6 SECURITY**

### **6.1 SECURITY PROFILES**

The implementation adheres to the following Security Profiles:

#### **SECURE USE PROFILES**

The implementation adheres to the following Secure Use Profiles:

None.

#### **SECURE TRANSPORT CONNECTION PROFILES**

The implementation adheres to the following Secure Transport Connection Profiles.

Basic TLS Secure Transport Connection profile with cipher suites

TLS\_DHE\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA

TLS\_DHE\_RSA\_WITH\_DES\_CBC\_SHA

The IP port “2762-dicom-tls” is used for this profile.

The IP port on which the implementation accepts TLS connections can be configured through the configuration setting.

#### **DIGITAL SIGNATURE PROFILE**

The implementation adheres to the following Digital Signature Profiles:

None.

#### **MEDIA STORAGE SECURITY PROFILES**

The implementation adheres to the following Media Storage Application Profiles which in turn require conformance to one or more Media Storage Security Profiles:

None.

### **6.2 MANAGEMENT PROFILES**

The implementation adheres to the following Management Profiles:

#### **NETWORK ADDRESS MANAGEMENT PROFILES**

The implementation adheres to the following Network Address Management Profiles:

None

#### **TIME SYNCHRONIZATION PROFILES**

The implementation adheres to the following Time Synchronization Profiles:

None

#### **APPLICATION CONFIGURATION MANAGEMENT PROFILES**

The implementation adheres to the following Application Configuration Management Profiles:

None

### **6.3 ASSOCIATION LEVEL SECURITY**

Only configured AE Titles may open an Association.

### **6.4 APPLICATION LEVEL SECURITY**

None

## 7 Annexes

### 7.1 IOD CONTENTS

#### 7.1.1 Created SOP Instance(s)

The AIDA application creates the following IODs for SOP Instances:

- VL Endoscopic Image Storage
- VIDEO Endoscopic Image Storage
- Secondary Capture Storage

Table 7.1-1 specifies the attributes of a VL Endoscopic Image transmitted by the AIDA system.  
Table 7.1-2 specifies the attributes of a Video Endoscopic Image transmitted by the AIDA system.  
Table 7.1-3 specifies the attributes of a Secondary Capture Image transmitted by the AIDA system.

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

ALWAYS	Always Present
ANAP	Attribute Not Always Present
VNAP	Value Not Always Present (attribute sent with zero length if no value is present)
EMPTY	Attribute is sent without a value
NEVER	Never Present

The abbreviations used in the “Source” column are:

MWL	the attribute value source is Modality Worklist
USER	the attribute value source is User input
AUTO	the attribute value is generated automatically
MPPS	the attribute value is the same as that used for Modality Performed Procedure Step
CONFIG	the attribute value source is a configurable parameter

All dates and times are encoded in the local configured calendar and time. Date, Time and Time zone

#### 7.1.1.1 VL Endoscopic Image IOD

**Table 7.1-1 IOD OF CREATED VL ENDOSCOPIC IMAGE IOD**

IE	Module	Reference	Presence of Module
Patient	Patient	Table 7.1-4	ALWAYS
	Clinical Trial Subject		NEVER
Study	General Study	Table 7.1-5	ALWAYS
	Patient Study		NEVER
	Clinical Trial Study		NEVER
Series	General Series	Table 7.1-6	ALWAYS
	Clinical Trial Series		NEVER
Equipment	General Equipment	Table 7.1-7	ALWAYS
Image	General Image	Table 7.1-8	ALWAYS
	Image Pixel	Table 7.1-9	ALWAYS
	SOP Common	Table 7.1-10	ALWAYS
	Acquisition Context	Table 7.1-11	ALWAYS
	VL Image	Table 7.1-12	ALWAYS
	Overlay Plane		NEVER
	VOI LUT	Table 7.1-13	ALWAYS

#### 7.1.1.2 VIDEO Endoscopic Image IOD

**Table 7.1-2 IOD OF CREATED VIDEO ENDOSCOPIC IMAGE IOD**

IE	Module	Reference	Presence of Module
Patient	Patient	Table 7.1-4	ALWAYS
	Clinical Trial Subject		NEVER
Study	General Study	Table 7.1-5	ALWAYS

IE	Module	Reference	Presence of Module
	Patient Study		NEVER
	Clinical Trial Study		NEVER
Series	General Series	Table 7.1-6	ALWAYS
	Clinical Trial Series		NEVER
Equipment	General Equipment	Table 7.1-7	ALWAYS
Image	General Image	Table 7.1-8	ALWAYS
	Image Pixel	Table 7.1-9	ALWAYS
	SOP Common	Table 7.1-10	ALWAYS
	Acquisition Context	Table 7.1-14	ALWAYS
	VL Image	Table 7.1-15	ALWAYS
	Cine	Table 7.1-16	ALWAYS
	Multi-frame	Table 7.1-17	ALWAYS
	Overlay Plane		NEVER
	VOI LUT		NEVER

**7.1.1.3 Secondary Capture Image IOD**

**Table 7.1-3 IOD OF CREATED SECONDARY IMAGE IOD**

IE	Module	Reference	Presence of Module
Patient	Patient	Table 7.1-4	ALWAYS
	Clinical Trial Subject		NEVER
Study	General Study	Table 7.1-5	ALWAYS
	Patient Study		NEVER
	Clinical Trial Study		NEVER
Series	General Series	Table 7.1-6	ALWAYS
	Clinical Trial Series		NEVER
Equipment	General Equipment	Table 7.1-7	NEVER
	SC Equipment	Table 7.1-18	ALWAYS
Image	General Image	Table 7.1-8	ALWAYS
	Image Pixel	Table 7.1-9	ALWAYS
	SOP Common	Table 7.1-10	ALWAYS
	SC Image	Table 7.1-19	ALWAYS
	Overlay Plane		NEVER
	VOI LUT	Table 7.1-20	ALWAYS

**7.1.1.4 Common Modules**

**Table 7.1-4 PATIENT MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Patient's Name	(0010,0010)	PN	Values supplied by Modality Worklist are sent as received (no checks made).	VNAP	MWL/USER
Patient ID	(0010,0020)	LO		VNAP	MWL/USER
Patient's Birth Date	(0010,0030)	DA		VNAP	MWL/USER
Patient's Birth Time	(0010,0032)	TM		NEVER	
Patient's Sex	(0010,0040)	CS		VNAP	MWL/USER
Other Patient IDs	(0010,1000)	LO		VNAP	MWL/USER
Other Patient Names	(0010,1001)	PN		NEVER	
Ethnic Group	(0010,2160)	SH		NEVER	
Patient Comments	(0010,4000)	LT		NEVER	

**Table 7.1-5 GENERAL STUDY MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Study Date	(0008,0020)	DA		VNAP	MWL/AUTO
Study Time	(0008,0030)	TM		VNAP	MWL/AUTO
Accession Number	(0008,0050)	SH		VNAP	MWL/USER

Attribute Name	Tag	VR	Value	Presence	Source
Referring Physician's Name	(0008,0090)	PN		VNAP	MWL/USER
Study Description	(0008,1030)	LO		ANAP	MWL/USER
Physician(s) of Record	0008,1048)	PN		NEVER	
Name of Phycisian(s) Reading Study	(0008,1060)	PN		NEVER	
Study Instance UID	(0020,000D)	UI		ALWAYS	MWL/AUTO
Study ID	(0020,0010)	SH		VNAP	MWL
Admission ID	(0038,0010)	LO		VNAP	MWL/USER

**Table 7.1-6 GENERAL SERIES MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Series Date	(0008,0021)	DA		ALWAYS	AUTO
Series Time	(0008,0031)	TM		ALWAYS	AUTO
Series Description	(0008,103E)	LO		ANAP	MWL/USER
Performing Phycisian's Name	(0008,1050)	PN		ANAP	MWL/USER
Operator's Name	(0008,1070)	PN		ANAP	MWL/USER
Ref. Performed Proc. Step Seq.	(0008,1111)	SQ		ANAP	
> Referenced SOP Class UID	(0008,1150)	UI		ANAP	MPPS
> Referenced SOP Instance UID	(0008,1155)	UI		ANAP	MPPS
Body Part Examined	(0018,0015)	CS		NEVER	
Protocol Name	(0018,1030)	LO		ALWAYS	MWL/USER
Patient Position	(0018,5100)	CS		NEVER	
Series Instance UID	(0020,000E)	UI		ALWAYS	AUTO
Series Number	(0020,0011)	IS		ALWAYS	AUTO
Laterality	(0020,0060)	CS		NEVER	
Performed Proc. Step Start Date	(0040,0244)	DA		NEVER	
Performed Proc. Step Start Time	(0040,0245)	TM		NEVER	
Performed Proc. Step ID	(0040,0253)	LO		ANAP	MWL/USER
Performed Proc. Step Description	(0040,0254)	LO		ANAP	MWL/USER
Comments on the Perf. Proc. Step	(0040,0280)	ST		ANAP	USER

**Table 7.1-7 GENERAL EQUIPMENT MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Manufacturer	(0008,0070)	LO	"KARLSTORZ"	ALWAYS	AUTO
Manufacturer's Model Name	(0008,1090)	LO	"compact III"	ALWAYS	AUTO
Software Versions	(0018,1020)	LO		ALWAYS	AUTO
Station Name	(0008,1010)	SH		ANAP	CONFIG
Institution Name	(0008,0080)	LO		ANAP	CONFIG
Institution Address	(0008,0081)	ST		ANAP	CONFIG
Institutional Department Name	(0008,1040)	LO		ANAP	CONFIG

**Table 7.1-8 GENERAL IMAGE MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Image Type	(0008,0008)	CS		ALWAYS	AUTO
Acquisition Date	(0008,0022)	DA		NEVER	
Acquisition Time	(0008,0033)	TM		NEVER	
Content Date	(0008,0023)	DA		ALWAYS	AUTO
Content Time	(0008,0033)	TM		ALWAYS	AUTO
Acq. Datetime	(0008,002A)	DT		NEVER	
Derivation Descr.	(0008,2111)	ST		NEVER	
Acquisition Number	(0020,0012)	IS		NEVER	
Instance Number	(0020,0013)	IS		VNAP	AUTO
Patient Orientation	(0020,0020)	CS		EMPTY	
Image Comment	(0020,4000)	LT		ANAP	USER
Lossy Image Compression	(0028,2110)	CS		EMPTY	

**Table 7.1-9 IMAGE PIXEL MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Samples per Pixel	(0028,0002)	US		ALWAYS	AUTO
Photometric Interpretation	(0028,0004)	CS		ALWAYS	AUTO
Planar Configuration	(0028,0006)	US		ALWAYS	AUTO
Number of Frames	(0028,0008)	US		ALWAYS	AUTO
Rows	(0028,0010)	US		ALWAYS	AUTO
Columns	(0028,0011)	US		ALWAYS	AUTO
Pixel Aspect Ratio	(0028,0034)	IS		ANAP	AUTO
Bits Allocated	(0028,0100)	US		ALWAYS	AUTO
Bits Stored	(0028,0101)	US		ALWAYS	AUTO
High bit	(0028,0102)	US		ALWAYS	AUTO
Pixel Representation	(0028,0103)	US		ALWAYS	AUTO
Smallest Image Pixel Value	(0028,0106)	US		ALWAYS	AUTO
Largest Image Pixel Value	(0028,0107)	US		ALWAYS	AUTO
Pixel Data	(7FE0,0010)	OW		ALWAYS	AUTO

**Table 7.1-10 SOP COMMON MODULE OF CREATED SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Spec. Character Set	(0008,0005)	CS	ISO_IR 100 or ISO_IR 192	ANAP	CONFIG
SOP Class UID	(0008,0016)	UI		ALWAYS	AUTO
SOP Instance UID	(0008,0018)	UI		ALWAYS	AUTO

**7.1.1.5 VL Endoscopic Image Modules****Table 7.1-11 ACQUISITION CONTEXT MODULE OF CREATED VL ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Acquisition Context	(0040,0555)	SQ		EMPTY	
Acq. Context Descr.	(0040,0556)	ST		NEVER	

**Table 7.1-12 VL IMAGE MODULE OF CREATED VL ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Image Type	(0008,0008)	CS	"ORIGINAL"	ALWAYS	AUTO
Referenced Image Sequence	(0008,1140)	SQ		NEVER	
Samples per Pixel	(0028,0002)	US		ALWAYS	AUTO

Attribute Name	Tag	VR	Value	Presence	Source
Photometric Interpretation	(0028,0004)	CS	"RGB"	ALWAYS	AUTO
Planar Configuration	(0028,0006)	US		ALWAYS	AUTO
Number of Frames	(0028,0008)	US		ALWAYS	AUTO
Rows	(0028,0010)	US		ALWAYS	AUTO
Columns	(0028,0011)	US		ALWAYS	AUTO
Pixel Aspect Ratio	(0028,0034)	IS		NEVER	
Bits Allocated	(0028,0100)	US		ALWAYS	AUTO
Bits Stored	(0028,0101)	US		ALWAYS	AUTO
High bit	(0028,0102)	US		ALWAYS	AUTO
Pixel Representation	(0028,0103)	US		ALWAYS	AUTO
Lossy Image Compression	(0028,2110)	CS		EMPTY	

**Table 7.1-13 VOI LUT MODULE OF CREATED VL ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Window Center	(0028,1050)	SQ		ALWAYS	AUTO
Window Width	(0028,1051)	ST		ALWAYS	AUTO

**7.1.1.6 Video Endoscopic Image Modules****Table 7.1-14 ACQUISITION CONTEXT MODULE OF CREATED VIDEO ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Acquisition Context	(0040,0555)	SQ		EMPTY	
Acq. Context Descr.	(0040,0556)	ST		NEVER	

**Table 7.1-15 VL IMAGE MODULE OF CREATED VIDEO ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Image Type	(0008,0008)	CS	"ORIGINAL"	ALWAYS	AUTO
Referenced Image Sequence	(0008,1140)	SQ		NEVER	
Samples per Pixel	(0028,0002)	US		ALWAYS	AUTO
Photometric Interpretation	(0028,0004)	CS	"YBR_PARTIAL_420"	ALWAYS	AUTO
Planar Configuration	(0028,0006)	US		ALWAYS	AUTO
Number of Frames	(0028,0008)	US		ALWAYS	AUTO
Rows	(0028,0010)	US		ALWAYS	AUTO
Columns	(0028,0011)	US		ALWAYS	AUTO
Pixel Aspect Ratio	(0028,0034)	IS		ALWAYS	AUTO
Bits Allocated	(0028,0100)	US		ALWAYS	AUTO
Bits Stored	(0028,0101)	US		ALWAYS	AUTO
High bit	(0028,0102)	US		ALWAYS	AUTO
Pixel Representation	(0028,0103)	US		ALWAYS	AUTO
Lossy Image Compression	(0028,2110)	CS	"01"	ALWAYS	AUTO

**Table 7.1-16 CINE MODULE OF CREATED VIDEO ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Frame Time	(0018,1063)	DS		ALWAYS	AUTO
Frame Time Vector	(0018,1065)	DS		NEVER	

**Table 7.1-17 MULTI FRAME MODULE OF CREATED VIDEO ENDOSCOPIC SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Number of Frames	(0028,0008)	IS		ALWAYS	AUTO
Frame Increment Pointer	(0028,0009)	AT		ALWAYS	AUTO

**7.1.1.7 Secondary Capture Modules**

**Table 7.1-18 SC EQUIPMENT MODULE OF CREATED SEC. CAPTURE SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Modality	(0008,0060)	CS		ALWAYS	CONFIG
Conversion Type	(0008,0064)	CS	“DV”	ALWAYS	AUTO

**Table 7.1-19 SECONDARY CAPTURE IMAGE MODULE OF CREATED SEC. CAPT. SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Date of Secondary Capture	(0018,1012)	DA		NEVER	
Time of Secondary Capture	(0018,1014)	TM		NEVER	

**Table 7.1-20 VOU LUT MODULE OF CREATED SEC. CAPTURE SOP INSTANCES**

Attribute Name	Tag	VR	Value	Presence	Source
Window Center	(0028,1050)	SQ		ALWAYS	AUTO
Window Width	(0028,1051)	ST		ALWAYS	AUTO

**7.1.2 Attribute Mapping**

**Table 7.1-21 ATTRIBUTE MAPPING BETWEEN MODALITY WORKLIST, IMAGE AND MPPS**

Modality Worklist	Image IOD	MPPS IOD
Patient Name	Patient Name	Patient Name
Patient ID	Patient ID	Patient ID
Patient’s Birth Date	Patient’s Birth Date	Patient’s Birth Date
Patient’s Sex	Patient’s Sex	Patient’s Sex
Other Patient IDs	Other Patient IDs	Other Patient IDs
Admission ID	Admission ID	Admission ID
Study Instance UID	Study Instance UID	Study Instance UID
Accession Number	Accession Number	Accession Number
Referenced Study Sequence	Referenced Study Sequence	Referenced Study Sequence
Requested Procedure ID	---	Requested Procedure ID
Req. Procedure Description	Study Description	Req. Procedure Description
Req. Procedure Code Sequence	---	---
Sched. Proc. Step Sequence	Request Attributes Sequence	Sched. Step Attribute Sequence
Modality	Modality	Modality
Sched. Procedure Step ID	Sched. Procedure Step ID	Sched. Procedure Step ID
Sched. Proc. Step Description	Sched. Proc. Step Description Series Description	Sched. Proc. Step Description
Sched. Protocol Code Seq.	Sched. Protocol Code Seq.	Sched. Protocol Code Seq.
Scheduled Station Name	---	---
Sched. Proc. Step Location	---	---
---	Protocol Name	Protocol Name
Scheduled Performing Physician	Performing Physician’s Name	Performing Physician’s Name
---	Operators Name	Operators Name

**7.2 DATA DICTIONARY OF PRIVATE ATTRIBUTES**

None.

None.

#### **7.4 GRAYSCALE IMAGE CONSISTENCY**

None.

#### **7.5 STANDARD EXTENDED/SPECIALIZED/PRIVATE SOP CLASSES**

None.

#### **7.6 PRIVATE TRANSFER SYNTAXES**

None.