Medical Imaging Consultants, Inc.

Conformance Statement
IA2000

Document: MICI-210-01 Revision: 6.0
Document Status: Approved

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Reviewers	**Approvals**
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Revision History

Revision	Date	Author	Reason for Change
2.0	12/20/1999	Meryll	First version.
2.1	01/20/2001	Meryll	Modality Additions
2.2	11/30/2002	Meryll	Added PET and Mammography
2.3	01/15/2009	Meryll	Added Enhanced CT
2.4	02/15/2011	Meryll	Added Breast Tomosyntesis
2.5	05/25/2011	Meryll	Added Modality Worklist Management (MWM)
2.6	07/02/2012	Meryll	Added JPEG Lossless Transfer Syntax

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1. Introduction

1.1 Purpose of this Document

This document is a provisional DICOM Conformance Statement for the storage services of the Medical Imaging Consultants, Inc. *IA2000* DICOM Image Archive.

IA2000 is a service class provider for services for the storage and retrieval of images.

1.2 Sources for this Document

- ACR-NEMA Digital Imaging and Communications in Medicine (DICOM) V3.0. Current.

1.3 Acronyms and Abbreviations

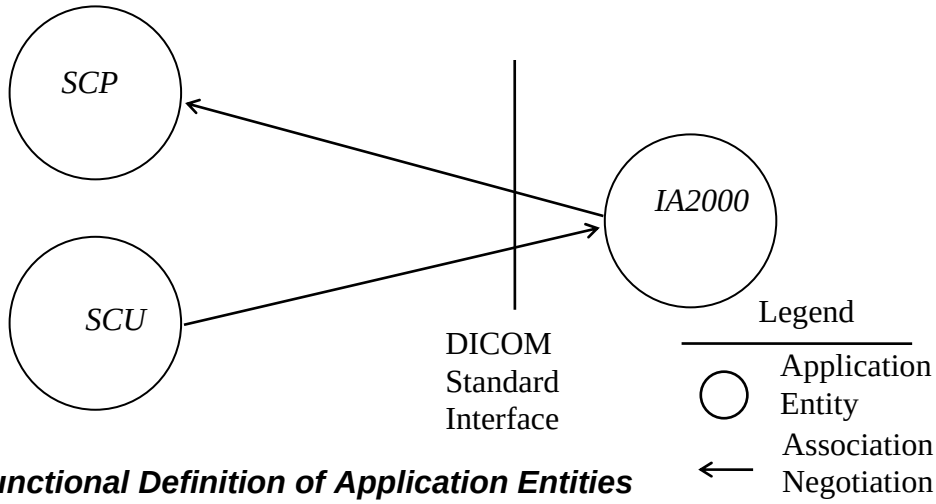
The following acronyms and abbreviations are used in this document.

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

2. Implementation Model

IA2000 is an image database and storage facility. *IA2000 appears as* a single application entity that stores images sent to it by service class users, takes responsibility for storage of the images, allows queries based on several standard query models, and retrieves requested images. *IA2000* is able to validate images before they are stored internally by querying a service class provider for demographic information. Images found to be registered with the HIS/RIS are stored, while images not found to be registered marked as such but passed on to storage with operator notification of the requirement for manual correction by a technician.

Application Data Flow Diagram:



2.1 Functional Definition of Application Entities

2.1.1 Receive Images

IA2000 stores a received image in its entirety, without change, in its internal data store consisting of a hierarchical storage system optimized for DICOM study information. The tiers consist of short, medium, and long term storage.

IA2000 extracts the query information with respect to the patient, study and series, storing these data within its internal relational database.

2.1.2 Commitment to Store Images Received

IA2000 acts a Service Class Provider of Storage Commitment to explicitly take responsibility for storing images received.

2.1.3 Query from Other Devices

IA2000 responds to queries based on the records stored in its database.

2.1.4 Retrieve to Other Devices

IA2000 acts as a Service Class Provider of C-Move to retrieve images. It does so by obtaining a reference from the database then obtaining the image object(s) itself from the data store.

2.1.5 Transmit Images

IA2000 acts a Service Class User of C-Store to transmit images to other compatible devices.

3. AE Specifications

3.1 IA2000 *Specifications*

3.1.1 Verification as an SCU and SCP

IA2000 provides Standard Conformance to the following DICOM V3.0 SOP Class as an SCU and SCP.

Table 1 Verification SOP Class

SOP Class	SOP Class UID
Verification	1.2.840.10008.1.1

3.1.2 Default Transfer Syntaxes

IA2000 supports the default transfer syntax displayed in Table 2.

Table 2 Default Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian	1.2.840.10008.1.2

3.1.3 Extended Transfer Syntaxes

IA2000 supports the extended transfer syntaxes displayed in **Table 3** for the purpose of storage and retrieval.

Table 3 Extended Transfer Syntaxes

Transfer Syntax	UID
DICOM Implicit VR Little Endian	1.2.840.10008.1.2
DICOM Explicit VR Little Endian	1.2.840.10008.1.2.1
DICOM Explicit VR Big Endian	1.2.840.10008.1.2.2
DICOM JPEG Lossless	1.2.840.10008.1.2.4.70
DICOM JPEG Lossy 8 Bit	1.2.840.10008.1.2.4.50
DICOM JPEG Lossy 12 Bit	1.2.840.10008.1.2.4.51
DICOM JPEG 2000 Lossless	1.2.840.10008.1.2.4.90

3.1.4 Storage as an SCU and SCP

Table 4 lists the SOP Classes that are supported by *IA2000* for storage services. In general, IA2000 will be extended to support all image SOP classes recognized by DICOM.

Table 4 Storage SOP Classes

SOP Class	SOP Class UID
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1
Digital X-Ray Image Storage - Presentation	1.2.840.10008.5.1.4.1.1.1.1
Digital X-Ray Image Storage - Processing	1.2.840.10008.5.1.4.1.1.1.1.1
Digital Mammography - Presentation	1.2.840.10008.5.1.4.1.1.1.2
Digital Mammography - Processing	1.2.840.10008.5.1.4.1.1.1.2.1
Digital Intra-oral X-Ray Image Storage - Presentation	1.2.840.10008.5.1.4.1.1.1.3
Digital Intra-oral X-Ray Image Storage - Processing	1.2.840.10008.5.1.4.1.1.1.3.1
CT Image Storage	1.2.840.10008.5.1.4.1.1.2
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1
Ultrasound Multi-frame Image Storage (retired)	1.2.840.10008.5.1.4.1.1.3
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
MR Image Storage	1.2.840.10008.5.1.4.1.1.4
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2
Enhanced MR Color Image Storage	1.2.840.10008.5.1.4.1.1.4.3
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.5
Ultrasound Image Storage (retired)	1.2.840.10008.5.1.4.1.1.6
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1
Enhanced US Volume Storeage	1.2.840.10008.5.1.4.1.1.6.2
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4
Stand-alone Overlay Image Storage (retired)	1.2.840.10008.5.1.4.1.1.8
Stand-alone Curve Storage (retired)	1.2.840.10008.5.1.4.1.1.9
Stand-alone Modality LUT Storage	1.2.840.10008.5.1.4.1.1.10
Stand-alone VOI LUT Storage	1.2.840.10008.5.1.4.1.1.11
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1
X-ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1
X-ray RadioFluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2
X-ray Angiographic Bi-plane Image Storage	1.2.840.10008.5.1.4.1.1.12.3
Breast Tomosynthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20
Visible Light Storage	1.2.840.10008.5.1.4.1.1.77.1
Visible Light Multi-frame Storage	1.2.840.10008.5.1.4.1.1.77.2
Positron Emission Tomography Image	1.2.840.10008.5.1.4.1.1.128

SOP Class	SOP Class UID
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1
Digital X-Ray Image Storage - Presentation	1.2.840.10008.5.1.4.1.1.1.1
Digital X-Ray Image Storage - Processing	1.2.840.10008.5.1.4.1.1.1.1.1
Digital Mammography - Presentation	1.2.840.10008.5.1.4.1.1.1.2
Digital Mammography - Processing	1.2.840.10008.5.1.4.1.1.1.2.1
Digital Intra-oral X-Ray Image Storage - Presentation	1.2.840.10008.5.1.4.1.1.1.3
Digital Intra-oral X-Ray Image Storage - Processing	1.2.840.10008.5.1.4.1.1.1.3.1
Standalone PET Curve	1.2.840.10008.5.1.4.1.1.129

3.1.5 Storage Commitment as an SCU and SCP (Release 4.0)

IA2000 will provide Standard Conformance to the following DICOM V3.0 **Storage Commitment** SOP Class as an SCU and SCP with the 4.0 software release.

Table 5 Storage Commitment SOP Classes

SOP Class	SOP Class UID
Storage Commitment Push Model	1.2.840.10008.1.20.1

3.1.6 Query/Retrieve as an SCU and SCP

IA2000 provides Standard Conformance to the following DICOM V3.0 **Query/Retrieve** SOP Class as an SCU and SCP.

Table 6 Query/Retrieve SOP Classes

SOP Class	SOP Class UID
Patient Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.1.1
Patient Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.1.2
Study Root Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.2.1
Study Root Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.2.2
Patient/Study Only Query/Retrieve IM Find	1.2.840.10008.5.1.4.1.2.3.1
Patient/Study Only Query/Retrieve IM Move	1.2.840.10008.5.1.4.1.2.3.2

3.2 Association Establishment Policies

3.2.1 General

The following Application Context Name will be proposed and recognized by *IA2000*

- DICOM 3.0 Application Context **1.2.840.10008.3.1.1.1**

IA2000 contains no limitations for maximum PDU size.

3.2.2 Number of Associations

The maximum number of simultaneous associations accepted by *IA2000* is configurable at run time, based on the system resources available. By default, the maximum number of associations is set at 32. There is no inherent limit to the number of associations other than limits imposed by the computer operating system.

3.2.3 Asynchronous Nature

IA2000 allows a single outstanding operation on any association. Therefore, *IA2000* does not support asynchronous operations window negotiation, other than the default as specified by the DICOM specification.

3.2.4 Implementation Identifying Information

IA2000 will respond with the following implementation identifying parameters:

- Implementation Class UID **1.2.124.113532.3510**
- Implementation Version Name **MICI_IA2000_5.0**

The implementation version name policies are the following: base **MICI** followed by the product name "**_IA2000**" followed by the version of the product, "**_5.0**".

3.2.5 Called/Calling Titles

The default calling title that *IA2000* will use is configurable at run *IA2000* can be configured to validate the Called Title of the requesting SCU during association negotiation.

3.2.6 Association Initiation by Real World Activity

3.2.6.1 Real World Activity - Verification

3.2.6.1.1 Associated Real World Activity - Verification

IA2000 will issue Verification requests in response to UI mediated requests from the user to test validity of DICOM connection.

3.2.6.1.2 Presentation Context Table - Verification

IA2000 requests the presentation contexts listed in Table 7.

Table 7 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all Table 1	all Table 2	SCU	None

3.2.6.1.3 SOP Specific Conformance - Verification

IA2000 provides standard conformance to the DICOM **Verification** Service Class.

3.2.6.2 Real World Activity - Storage

3.2.6.2.1 Associated Real World Activity - Storage

IA2000 will transmit stored images to the requested destination from move requests received by users.

3.2.6.2.2 Presentation Context Table - Storage

IA2000 may request any of the Presentation Contexts listed in **Table 8** for Storage.

Table 8 Presentation Contexts for Storage

SOP Class	Transfer Syntax	Role	Extended Negotiation
all Table 4	all Table 3	SCU	None

3.2.6.2.3 SOP Specific Conformance - Storage

IA2000 conforms to the DICOM **Storage** Service Class as an SCU.

3.2.6.3 Real World Activity - Storage Commitment

3.2.6.3.1 Associated Real World Activity - Storage Commitment

- *IA2000* permanently stores images that are sent to it from an *SCU.*

3.2.6.3.2 Presentation Context Table – Storage Commitment

IA2000 requests the presentation contexts listed in Table 9.

Table 9 Presentation Contexts – Storage Commitment

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 5**	all Table 2	SCU	None

3.2.6.3.3 SOP Specific Conformance – Storage Commitment

IA2000 provides standard conformance to the DICOM **Storage Commitment** Service Class.

IA2000 supports the following elements for this SOP class as an SCU. The Transaction UID Attribute (0008,1195) value generated by *IA2000* uniquely identifies each Storage Commitment Request.

Table 10: Storage Commitment Request – Action Information

Action Type Name	Action Type ID	Attribute Name	Tag
Request Storage Commitment	1	Transaction UID	(0008,1195)
		Referenced SOP Sequence	(0008,1199)
		>Referenced SOP Class UID	(0008,1150)
		>Referenced SOP Instance UID	(0008,1155)
		Referenced Study Component Sequence	(0008,1111)
		>Referenced SOP Class UID	(0008,1150)
		>Referenced SOP Instance UID	(0008,1155)

Subsequently, *IA2000* expects N-EVENT-REPORT from the SCP. *IA2000* returns an N-EVENT-REPORT response primitive with one of the following status codes.

Table 11: Storage Commitment status codes

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Success	Success	0000		Successful notification.

3.2.6.3.4 Transfer Syntax Selection Policies – Storage Commitment

IA2000 supports the Little Endian Implicit Transfer Syntax.

3.2.6.4 Real World Activity - Find

3.2.6.4.1 Associated Real World Activity - Find

IA2000 will negotiate requests to an *SCP*.

3.2.6.4.2 Presentation Context Table - Find

IA2000 will initiate any of the Presentation Contexts listed in Table 12 for Query.

Table 12 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 6** Find	All Table 2	SCU	None

3.2.6.4.3 SOP Specific Conformance - Find

SOP classes of the **Query/Retrieve** Service Class are implemented via the DIMSE **C-FIND** and **C-MOVE** services as defined in Part 7 of the DICOM standard.

3.2.6.4.4 Presentation Context Acceptance Criterion - Find

IA2000 will initiate one **Find** Presentation Context per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

3.2.6.4.5 Transfer Syntax Selection Policies - Find

IA2000 supports the default transfer syntax of Implicit Little Endian.

3.2.6.5 Real World Activity - Move

3.2.6.5.1 Associated Real World Activity - Move

IA2000 will initiate retrieve requests to an *SCP*.

3.2.6.5.2 Presentation Context Table - Move

IA2000 will initiate any of the Presentation Contexts listed in Table 13 for Move.

Table 13 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 6** Move	Table 2	SCU	None

3.2.6.5.3 SOP Specific Conformance - Move

IA2000 will try to establish an association with the move destination specified in the **Move** request. One or more of the Presentation Contexts listed in the **Store** section of this document may be negotiated in this association.

3.2.6.5.4 Presentation Context Acceptance Criterion - Move

IA2000 will accept any number of **Move** Presentation Contexts per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

3.2.6.5.5 Transfer Syntax Selection Policies - Move

IA2000 supports the default transfer syntax of Implicit Little Endian.

3.2.7 Association Acceptance Policy

3.2.7.1 Real World Activity - Verification

3.2.7.1.1 Associated Real World Activity - Verification

IA2000 will respond to **Verification** requests to provide an SCU with the ability to determine if *IA2000* is receiving DICOM requests.

3.2.7.1.2 Presentation Context Table - Verification

IA2000 will accept any of the Presentation Contexts listed in Table 14 for Verification.

Table 14 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
All Table 1	all Table 2	SCP	None

3.2.7.1.3 SOP Specific Conformance - Verification

IA2000 provides standard conformance to the DICOM **Verification** *Service Class. IA2000* returns one of the following status codes.

Table 15 Verification status codes.

Service	Further Meaning	Protocol	Related	Description

Status		Codes	Fields	
Success	Success	0000		Operation performed properly.

3.2.7.1.4 Presentation Context Acceptance Criterion - Verification

IA2000 will always accept a Presentation Context for the Verification SOP Class with the default DICOM transfer syntax listed in Table 2.

3.2.7.1.5 Transfer Syntax Selection Policies - Verification

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

3.2.7.2 Real World Activity - Storage

3.2.7.2.1 Associated Real World Activity - Storage

IA2000 will store images that are sent to it from an *SCU*. All images received by *IA2000* can be retrieved at a later time.

3.2.7.2.2 Presentation Context Table - Storage

IA2000 will accept any of the Presentation Contexts listed in Table 16 for Storage.

Table 16 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all from Table 4	Table 3	SCP	None

3.2.7.2.3 SOP Specific Conformance - Storage

IA2000 conforms to the DICOM **Storage** Service Class at Level 2 (Full). No elements are discarded or coerced by *IA2000*. In the event of a successful **C-STORE** operation, the image has been written to internal storage, and can be retrieved at any later time.

IA2000 returns one of the following status codes.

Table 17 C-STORE status codes

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Refused	Out of resources	A700		Indicates that there was not enough storage space to store the image. Recovery from this condition is left to the administrative functions.
	SOP Class not supported	A800		Indicates that the SOP Class of the Image in the C-STORE operation did not match the Abstract Syntax negotiated for the Presentation Context.

Error	Data set does not match SOP Class	A900		Indicates that the Data Set does not encode an instance of the SOP Class specified.
	Failed	C000		The operation was not successful.
	Unable to register object, study locked; no new objects allowed	C005		Indicates that no new objects can be added to this study because it has been locked.
	Cannot understand	C005		Indicates that the Data Set cannot be parsed into elements.
Warning	Data set does not match SOP Class	B007		Indicates that the Data Set does not match the SOP Class, but that the image was stored anyway.
	Duplicate SOP Instance UID	D000		Indicates that the SOP Instance UID of the specified image is already stored in the database.
Success	Success	0000		Operation performed properly.

3.2.7.2.4 Presentation Context Acceptance Criterion - Storage

IA2000 will accept any number of **Storage** Presentation Contexts per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

3.2.7.2.5 Transfer Syntax Selection Policies - Storage

IA2000 supports all transfer syntaxes listed in Table 3. By default, *IA2000* sends the IOD using the transfer syntax that was used when the image was originally stored.

If the C-STORE SCP supports a limited number of Transfer Syntaxes, *IA2000* can be configured on a per-destination basis to convert the IOD from the original transfer syntax to Implicit Little Endian.

3.2.7.3 Real World Activity - Storage Commitment

3.2.7.3.1 Associated Real World Activity - Storage Commitment

IA2000 stores images that are sent to it from an *SCU*. The request for storage commitment may then be transmitted to *IA2000* together with a list of references to one or more SOP instances. *IA2000* will receive and respond to DIMSE N-ACTION. The following message is supported:

- Request Storage Commitment - to request the safekeeping of a set of SOP instances

3.2.7.3.2 Presentation Context Table – Storage Commitment

Table 18 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 5**	all Table 2	SCP	None

3.2.7.3.3 SOP Specific Conformance – Storage Commitment

IA2000 supports the following elements for this SOP class as an SCP:

Table 19: Storage Commitment Request – Action Information

Action Type Name	Action Type ID	Attribute Name	Tag
Request Storage Commitment	1	Transaction UID	(0008,1195)
		Referenced SOP Sequence	(0008,1199)
		>Referenced SOP Class UID	(0008,1150)
		>Referenced SOP Instance UID	(0008,1155)
		Referenced Study Component Sequence	(0008,1111)
		>Referenced SOP Class UID	(0008,1150)
		>Referenced SOP Instance UID	(0008,1155)

3.2.7.3.3.1 Storage Commitment Result

If *IA2000* determines that it has successfully completed storage commitment, *IA2000* issues an N-EVENT-REPORT to the SCU including references to the successfully stored SOP Instances contained in the N-ACTION.
The N-EVENT-REPORT contains the Transaction UID value contained in the initiating N-ACTION. The N-EVENT-REPORT is sent on a separate association from the N-ACTION operation.
IA2000 supports the Event Information as specified in Table 20.

Table 20 Storage Commitment Result – Event Information

Action Type Name	Event Type ID	Attribute Name	Tag
Storage Commitment Request Successful	1	Transaction UID	(0008,1195)
		Referenced SOP Sequence	(0008,1199)
		>Referenced SOP Class UID	(0008,1150)
		>Referenced SOP Instance UID	(0008,1155)
		Referenced Study Component Sequence	(0008,1111)
		>Referenced SOP Class UID	(0008,1150)

		>Referenced SOP Instance UID	(0008,1155)

If *IA2000* determines that Storage Commitment has failed, it returns the following status code in an N-ACTION Response, indicating that it has not accepted responsibility for the SOP instances referenced by a Storage Commitment Request.

Table 21: Storage Commitment status codes.

Service Status	Further Meaning	Protocol Codes	Related Fields	Error Comment
Failure	Failure	C001		Error. Object not found in database; storage commit fails.

IA2000 does *not* currently invoke the N-EVENT-REPORT primitive to inform the SCU that it has not accepted storage commitment responsibility for the SOP instances referenced by a Storage Commitment Request.

3.2.7.3.4 Operations – Storage Commitment

IA2000 commits to permanently storing a SOP Instance, unless it is manually deleted from *IA2000*.

SOP Instances can be retrieved from *IA2000* via C-FIND (3.2.7.4) and C-MOVE (3.2.7.5).

3.2.7.3.5 Transfer Syntax Selection Policies – Storage Commitment

IA2000 supports only the Little Endian Implicit Transfer Syntax.

3.2.7.4 Real World Activity - Find

3.2.7.4.1 Associated Real World Activity - Find

IA2000 will respond to query requests that are sent to it from an *SCU*.

3.2.7.4.2 Presentation Context Table - Find

IA2000 will accept any of the Presentation Contexts listed in Table 22 for Query.

Table 22 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 6** Find	all Table 2	SCP	None

3.2.7.4.3 SOP Specific Conformance - Find

SOP classes of the **Query/Retrieve** Service Class are implemented via the DIMSE **C-FIND** and **C-MOVE** services as defined in Part 7 of the DICOM standard.

IA2000 supports hierarchical queries. *IA2000* supports relational queries. *IA2000*, by default, supports all mandatory search keys.

Table 23 Patient level attributes

Description	Tag
Patient name	(0x0010, 0x0010)
Patient id	(0x0010, 0x0020)

Table 24 Study level attributes

Description	Tag
Study instance UID	(0x0020, 0x000D)
Study id	(0x0020, 0x0010)
Study date	(0x0008, 0x0020)
Study time	(0x0008, 0x0010)
Accession number	(0x0008, 0x0050)
Station Name	(0x0008, 0x1010)
Study Description	(0x0008, 0x1030)

Table 25 Series level attributes

Description	Tag
Series instance UID	(0x0020, 0x000E)
Series number	(0x0020, 0x0011)
Modality	(0x0008, 0x0060)
Series Description	(0x0008, 0x103e)

IA2000 returns one of the following status codes to a C-FIND request.

Table 26 C-FIND status codes.

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Refused	Out of Resources	A700		
Failed	Identifier does not match SOP Class	A900		The specified identifier contains a request that does not match the specified SOP Class.
	Unable to process	C001		For some reason (database off-line?) we cannot process this request at this time.
Cancel	Matching terminated due to Cancel Request	FE00		The original requester canceled this operation.
Pending	Pending	FF00		All Optional Keys are supported in the same manner as Required Keys.
	Pending	FF01		The matching operation is continuing. Warning that one or more Optional Keys were not supported in the same manner as Required Keys.
Success	Success	0000		Operation performed properly.

3.2.7.4.4 Presentation Context Acceptance Criterion - Find

IA2000 will accept any number of **Find** Presentation Contexts per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

3.2.7.4.5 Transfer Syntax Selection Policies - Find

IA2000 currently only supports the default transfer syntax of Implicit Little Endian.

3.2.7.5 Real World Activity - Move

3.2.7.5.1 Associated Real World Activity - Move

IA2000 will respond to retrieve requests that are sent to it from an *SCU*.

3.2.7.5.2 Presentation Context Table - Move

IA2000 will accept any of the Presentation Contexts listed in Table 27 for Move.

Table 27 Presentation Contexts

SOP Class	Transfer Syntax	Role	Extended Negotiation
all **Table 6** Move	Table 2	SCP	None

3.2.7.5.3 SOP Specific Conformance - Move

IA2000 will try to establish an association with the move destination specified in the **Move** request. One or more of the Presentation Contexts listed in the **Store** section of this document, may be negotiated in this association.

IA2000 returns one of the following status codes to a C-MOVE request.

Table 28 C-MOVE status codes

Service Status	Further Meaning	Protocol Codes	Related Fields	Description
Refused	Out of Resources	A701		Unable to calculate number of matches.
	Out of Resources	A702		Unable to perform storage of images to move destination.
Failed	Move destination unknown	A801		The destination of this move request is unknown.
	Identifier does not match SOP Class	A900		The specified identifier contains a request that does not match the specified SOP Class.
	Unable to process	C002		Indicates that *IA2000* cannot process this request at this time.
Cancel	Storage terminated due to Cancel Request	FE00		The original requester canceled this operation.
Warning	Warning	B000		Storage complete with one or more failures.
Pending	Pending	FF00		The storage operation is continuing.
	Pending for a long time	FF02		This operation is expected to require a long period of time to complete. The SCU may break the association at any time, but the operation will continue to completion.
Success	Success	0000		Operation performed properly.

3.2.7.5.4 Presentation Context Acceptance Criterion - Move

IA2000 will accept any number of **Move** Presentation Contexts per association request. Any one Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

3.2.7.5.5 Transfer Syntax Selection Policies - Move

By default, *IA2000* sends the IOD using the transfer syntax that was used when the image was originally stored.

If the C-MOVE destination supports a limited number of Transfer Syntaxes, *IA2000* can be configured on a per-destination basis to convert the IOD from the original transfer syntax to Implicit Little Endian.

4. Communications Profiles

IA2000 provides DICOM V3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.1 TCP/IP Stack

IA2000 inherits its TCP/IP stack from the computer system upon which it executes.

4.1.1 Physical Media Support

IA2000 is indifferent to the physical medium over which TCP/IP executes; it inherits the medium from the computer system upon which it executes.

5. Extensions/Specializations/Privatizations

6. Configuration

IA2000 obtains configuration information from the following sources:

- Mapping from Application Entity Title to Presentation Address is provided by the database. Along with this mapping, the database stores those AE titles that are allowed to communicate with *IA2000*.

7. Support for Extended Character Sets

None