

DICOM 3.0  
Conformance Statement  
IAS PACS\_MWMRead v1.0  
Part number: 0100001-0001 06/20/2019 Jingyan-Pan

Document #:

Copyright © 2019 Infinity Medical Soft, Inc. All Rights Reserved.

Infinity Medical Soft, Inc.  
2120-6-101, Higashinaganuma, Inagishi,  
Tokyo JAPAN 206-0802

tel: 042-379-6421

fax: 042-379-6429

web: [www.inf-medicalsoft.co.jp](http://www.inf-medicalsoft.co.jp)

# Table of Contents

<b>1.0 Introduction</b> .....	3
<b>1.1 Scope and Audience</b> .....	3
<b>1.2 Reference</b> .....	3
<b>1.3 Definitions</b> .....	3
<b>2.0 Implementation model</b> .....	4
<b>2.1 Application data flow diagram</b> .....	4
<b>2.2 Functional definition of Application Entities</b> .....	4
<b>2.3 Sequencing of Real World Activities</b> .....	4
<b>3 Application Entity Specifications</b> .....	5
<b>3.1 AE Title</b> .....	5
<b>3.2 AE SCU Classes</b> .....	5
<b>3.3 IAS PACS_MWMRead Association Establishment</b> .....	5
<b>4 Communication Profiles</b> .....	8
<b>4.1 Supported Communications Stacks</b> .....	8
<b>4.2 TCP/IP Stack</b> .....	8
<b>4.3 Physical Media Support</b> .....	8
<b>5 EXTENSIONS / SPECIALIZATIONS / PRIVATIZATIONS</b> .....	8

## 1.0 Introduction

### 1.1 Scope and Audience

This is the DICOM conformance statement for **IAS PACS\_MWMRead** Ver1.0 product which supports:

Worklist Management Service Class (SCU)

This document has been written using the guidelines provided in the DICOM standard  
This version of this document applies to **IAS PACS\_MWMRead** Ver1.0  
Future Release of the product may support other DICOM Service

### 1.2 Reference

[1] ACR/NEMA Standards Publications, No PS3, DICOM Standards:

Part 1 - Introduction

Part 2 - Conformance

Part 3 - Information Object Definitions

Part 4 - Service Class Specifications

Part 5 - Data Structures and Encoding

Part 6 - Data Dictionary

Part 7 - Message Exchange

Part 8 - Network Communication Support

Part 9 - Point to Point Communication Support for Message Exchange

Part 10 - Media Storage and File Format for Media Interchange

Part 11 - Media Storage Application Profiles

Part 12 - Storage Functions and Media Formats for Data Interchange

Part 13 - Print Management Point-to-Point Communication Support

### 1.3 Definitions

The following are symbols and abbreviations used within this document.

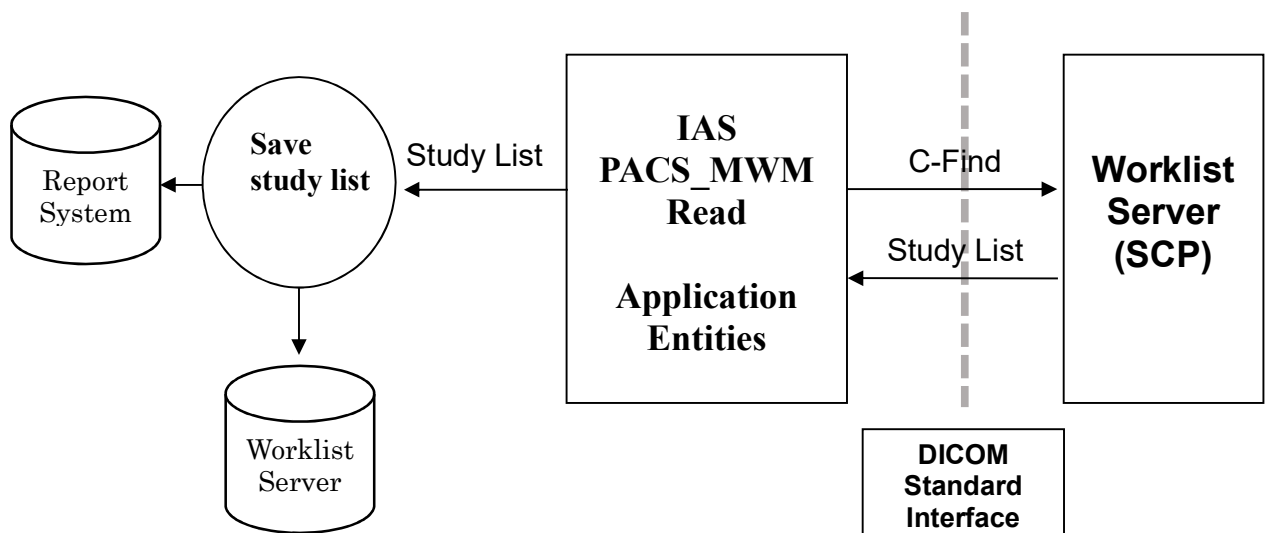
AE	Application Entity
ACR	American College of Radiology
DICOM	Digital Imaging and Communications in Medicine
DIMSE	DICOM Message Service Element
DIMSE-C	DICOM Message Service Element-Composite
DIMSE-N	DICOM Message Service Element-Normative
NEMA	National Electrical Manufacturers Association
OSI	Open Systems Interconnection
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
SR	Structured Reports

## 2.0 Implementation model

**IAS PACS\_MWMRead** is used to send request for Study List to a Worklist Server and to retrieve Study List with Procedure Step. It therefore performs the following tasks:

- Establishes DICOM Association with remote Worklist Server
- Performs request of DICOM Modality Worklist Objects to remote Worklist Server
- Retrieves Study List with Procedure Step Information from remote Worklist Server
- Save the Study List as study orders to the database of the report system
- Save the Study List as Modality Worklist to the database of our Worklist Server

### 2.1 Application data flow diagram



### 2.2 Functional definition of Application Entities

IAS PACS\_MWMRead (Worklist Management Service Class User) acts as a communication process and obtains study information by C-FIND after the request for establishing an association with the Worklist Server is accepted.

### 2.3 Sequencing of Real World Activities

IAS PACS\_MWMRead works as a windows service application and the user do not need to touch it at run time.

### 3 Application Entity Specifications

#### 3.1 AE Title

The client AE Title used by IAS PACS\_MWMRead is MITY\_GATEWAY\_MWL as default. It can be changed by editing the configuration file.

#### 3.2 AE SCU Classes

IAS PACS\_MWMRead application provides standard conformance as:

DICOM 3.0 Query/Retrieve SCU when querying for Modality Worklist

SOP Class UID	SOP Class Name
1.2.840.10008.5.1.4.31	Modality Worklist Find

#### 3.3 IAS PACS\_MWMRead Association Establishment

##### 3.3.1 Application Context Name

IAS PACS\_MWMRead establishes association with the Worklist Server using the DICOM 3.0. Application Context Name of “1.2.840.10008.3.1.1.1”.

##### 3.3.2 Number of Associations

IAS PACS\_MWMRead establishes one association at one time. The time interval can be changed by editing the configuration file.

##### 3.3.3 Asynchronous Nature

Not applicable.

##### 3.3.4 Implementation Identification

Not applicable.

##### 3.3.6 Version Name

The Implementation Version Name for the IAS PACS\_MWMRead is “DicomObjects.Net”.

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCP	None
Modality Worklist C-Find	1.2.840.10008.5.1.4.31	Implicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None

### 3.4.5 Modality Work List Requests

#### C-Find Query Conditions

Description	Tag	Note
Query/Retrieve Level	(0008,0052)	STUDY
Scheduled Procedure Step Sequence	(0040, 0100)	
Modality	>(0008, 0060)	*1
ScheduledStationAET	>(0040, 0001)	*1
Study Date	>(0040, 0002)	*2

\*1: can be set by editing the configuration file

\*2: can be set to empty or the current date by editing the configuration file.

#### Study Information to Retrieve

Description	Tag	Note
Specific Character Set	(0008, 0005)	
Accession Number	(0008, 0050)	
Patient Name	(0010, 0010)	
Patient ID	(0010, 0020)	
Patient's Birth Date	(0010, 0030)	
Patient's Sex	(0010, 0040)	
Patient's Size	(0010, 1020)	
Patient's Weight	(0010, 1030)	
Medical Alerts	(0010, 2000)	
Contrast Allergies	(0010, 2110)	
Pregnancy Status	(0010, 21C0)	
Patient Comments	(0010, 4000)	
Name of the radiopharmaceutical	(0018, 0031)	
Study Instance UID	(0020, 000D)	
Requesting Physician	(0032, 1032)	

Requesting Service	(0032, 1033)	
Requested Procedure Description	(0032, 1060)	
Scheduled Procedure Step Start Time	(0040, 0003)	
Scheduled Performing Step End Date	(0040, 0004)	
Scheduled Performing Step End Time	(0040, 0005)	
Scheduled Performing Physician's Name	(0040, 0006)	
Scheduled Procedure Step Description	(0040, 0007)	
Scheduled Procedure Step ID	(0040, 0009)	
Scheduled Station Name	(0040, 0010)	
Scheduled Procedure Step Location	(0040, 0011)	
Scheduled Procedure Step Status	(0040, 0020)	
Comments on the Scheduled Procedure Step	(0040, 0400)	
Requested Procedure ID	(0040, 1001)	
Reason for the Requested Procedure	(0040, 1002)	
Requested Procedure Priority	(0040, 1003)	
Reporting Priority	(0040, 1009)	
Issue Date of Imaging Service Request	(0040, 2004)	
Issue Time of Imaging Service Request	(0040, 2005)	

### 3.4.6 MWL C-Find Response Codes

IAS PACS\_MWMRead recognizes and handles the following response codes from the Worklist Server:

MWL C-Find Response Codes	
Response	Hex Value
C_FIND_SUCCESS	0000
C_FIND_PENDING	FF00
C_FIND_CANCEL_REQUEST_RECEIVED	FE00
C_FIND_FAILURE_REFUSED_NO_RESOURCES	A700
C_FIND_FAILURE_UNABLE_TO_PROCESS	C001

### 3.4.7 MWL Search Constraints

Not applicable.

## **4 Communication Profiles**

### **4.1 Supported Communications Stacks**

IAS PACS\_MWMRead provides DICOM V3.0 TCP/IP Network Communication Support as defined in PS 3.8.

### **4.2 TCP/IP Stack**

IAS PACS\_MWMRead inherits the TCP/IP stack from the MS Windows system upon which it executes.

### **4.3 Physical Media Support**

IAS PACS\_MWMRead is indifferent to the physical medium over which TCP/IP executes; they inherit this from the MS Windows system upon which they execute.

## **5 EXTENSIONS / SPECIALIZATIONS / PRIVATIZATIONS**

No extended, specialized or private SOP classes are supported.  
No private transfer syntaxes are supported.