



Penrad Technologies, Inc.

DICOM Conformance Statement for PenSR

10580 Wayzata Blvd., Ste. 200
Minnetonka, MN 55305
www.penrad.com

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1 Introduction

1.1 Scope and Field of Application

1.2 Acronyms

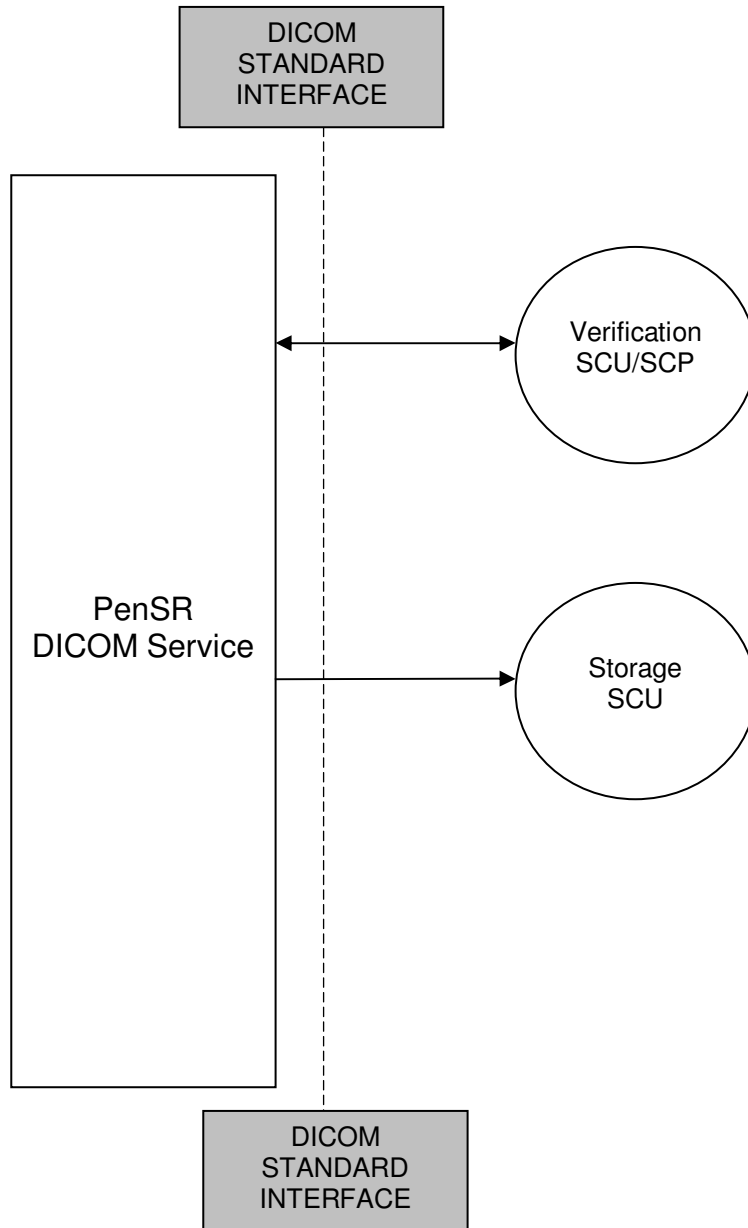
The following acronyms and abbreviations are used in this document.

AE	Application Entity
ACR	American College of Radiology
ANSI	American National Standards Institute
DICOM	Digital Imaging and Communications in Medicine
GUI	Graphical User Interface
HIS	Hospital Information System
IOD	Information Object Definition
NEMA	National Electrical Manufacturers Association
PACS	Picture Archiving and Communications System
PDU	Protocol Data Unit
RIS	Radiological Information System
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair
TCP/IP	Transmission Control Protocol/Internet Protocol
UID	Unique Identifier
VR	Value Representation

Furthermore, all symbols, abbreviations, and definitions used herein are described in the Digital Imaging and Communications in Medicine (DICOM) standard, parts 1 through 13 (NEMA PS3.1-13).

2 Implementation Model

2.1 Application Data Flow Diagram



2.2 Functional Definitions of Application Entities

The PenSR system supports Verification Services as a SCP. The DICOM Service Class User may request a C-ECHO operation to verify communications with the SCP.

The PenSR system acts as an SCU for Verification and Storage SOP classes.

2.3 Sequencing of Real-World Activities

No sequencing of Real World activities is required. An association is opened at the beginning of each activity and the association is ended when the activity is completed.

3 AE Specifications

3.1 AE Specifications for PenSR

The PenSR system Application Entity provides Standard Conformance to the following DICOM v3.0 SOP Class as a SCP:

SOP Classes as SCP	
SOP Class UID	SOP Class Name
Verification	
1.2.840.10008.1.1	Verification

The PenSR system Application Entity provides Standard Conformance to the following DICOM v3.0 SOP Class as a SCU:

SOP Classes as SCU	
SOP Class UID	SOP Class Name
Verification	
1.2.840.10008.1.1	Verification
Storage	
1.2.840.10008.5.1.4.1.1.88.11	SR Basic Text

3.1.1 Association Establishment Policies

3.1.1.1 General

Application Context Name	1.2.840.10008.3.1.1.1
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Maximum PDU size offered	Unlimited
Maximum PDU size accepted	Unlimited

3.1.1.2 Number of Associations

Not configurable

3.1.1.3 Implementation Identifying Information

Implementation UID	TBD
Implementation Version Name	PenSR

3.1.2 Association Initiation Policy

3.1.2.1 Send Structured Reports to a Remote System

3.1.2.1.1 Associated Real World Activity

The PenSR system can be configured to send structured reports to any number of remote systems. PenSR receives a HL7 Observation message and converts it to a structured report.

3.1.2.1.2 Accepted Presentation Contexts

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Basic SR Text	1.2.840.10008.5.1.4.1.1.88.11	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

3.1.2.1.3 SOP Specific Conformance for SOP Class Storage

SR Storage		
Module	Description	Tag
Patient	Patient's Name	(0010,0010)
	Patient ID	(0010,0020)
	Patient Birth Date	(0010,0030)
	Patient Sex	(0010,0040)
	Patient Birth Time	(0010,0032)
	Patient Other IDs	(0010,1000)
	Patient Other Names	(0010,1001)
	Patient Ethnic Group	(0010,2160)
	Patient Comments	(0010,4000)
General Study	Study Instance UID	(0020,000D)
	Study Date	(0008,0020)
	Study Time	(0008,0030)

	Referring Physician's Name	(0008,0090)
	Study ID	(0020,0010)
	Accession Number	(0008,0050)
	Physicians Of Record	(0008,1048)
SR Document Series	Modality	(0008,0060)
	Series Instance UID	(0020,000E)
	Series Number	(0020,0011)
General Equipment	Manufacturer	(0008,0070)
	Institution Name	(0008,0080)
	Institution Address	(0008,0081)
	Station Name	(0008,1010)
	Institutional Department Name	(0008,1040)
	Software Versions	(0018,1020)
SR Document General	Instance Number	(0020,0013)
	Completion Flag	(0040,A491)
	Completion Flag Description	(0040,A492)
	Verification Flag	(0040,A493)
	Content Date	(0008,0023)
	Content Time	(0008,0033)
	Verifying Observer Name	(0040,A075)
	Verifying Organization	(0040,A027)
	Verifying Date Time	(0040,A030)
SR Document Content	Code Value Type	(0040,A040)
	Code Meaning	(0008,0100)
	Code Scheme Designator	(0008,0102)
	Text Value	(0040,A160)
SOP Common	SOP Class UID	(0008,0016)
	SOP Instance UID	(0008,0018)

4 Communication Profiles

4.1 Supported Communication Stacks

PenSR system provides DICOM v3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard

4.2 TCP/IP Stack

PenSR system utilizes the TCP/IP stack from the Microsoft Windows platform.

4.2.1 Physical Media Supported

PenSR system is independent of the physical medium over which TCP/IP executes. Any device listed in the Microsoft Windows Hardware compatibility list may be used

5 Extensions/Specialization/Privatizations

Not applicable.

6 Configuration

The PenSR system utilizes XML configuration files for the setting of all configurable settings.