DIGITAL ANGIOGRAPHY SYSTEM
DAR-9500f

SCORE 3D Workstation 3.0
DICOM CONFORMANCE
STATEMENT

⊕ SHIMADZU

Revision History

Rev.	Date	Content of Change
First	2021.07.06	Newly issued.

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1 Preface

This document is a DICOM conformance statement for SCORE 3D Workstation.

SCORE 3D Workstation supports the following DICOM service:

- Verification Service Class User (SCU)
- Verification Service Class Provider (SCP)
- Storage Service Class User (SCU)
- Storage Service Class Provider (SCP)
- Query/Retrieve Service Class User (SCU)
- Print Service Class User (SCU)
- Write files on General Purpose CD-R/DVD-R (FSC)
- Read files from General Purpose CD-R/DVD-R (FSR)

2   Implementation Model

2.1 Application Data Flow

DICOM Standard Interface
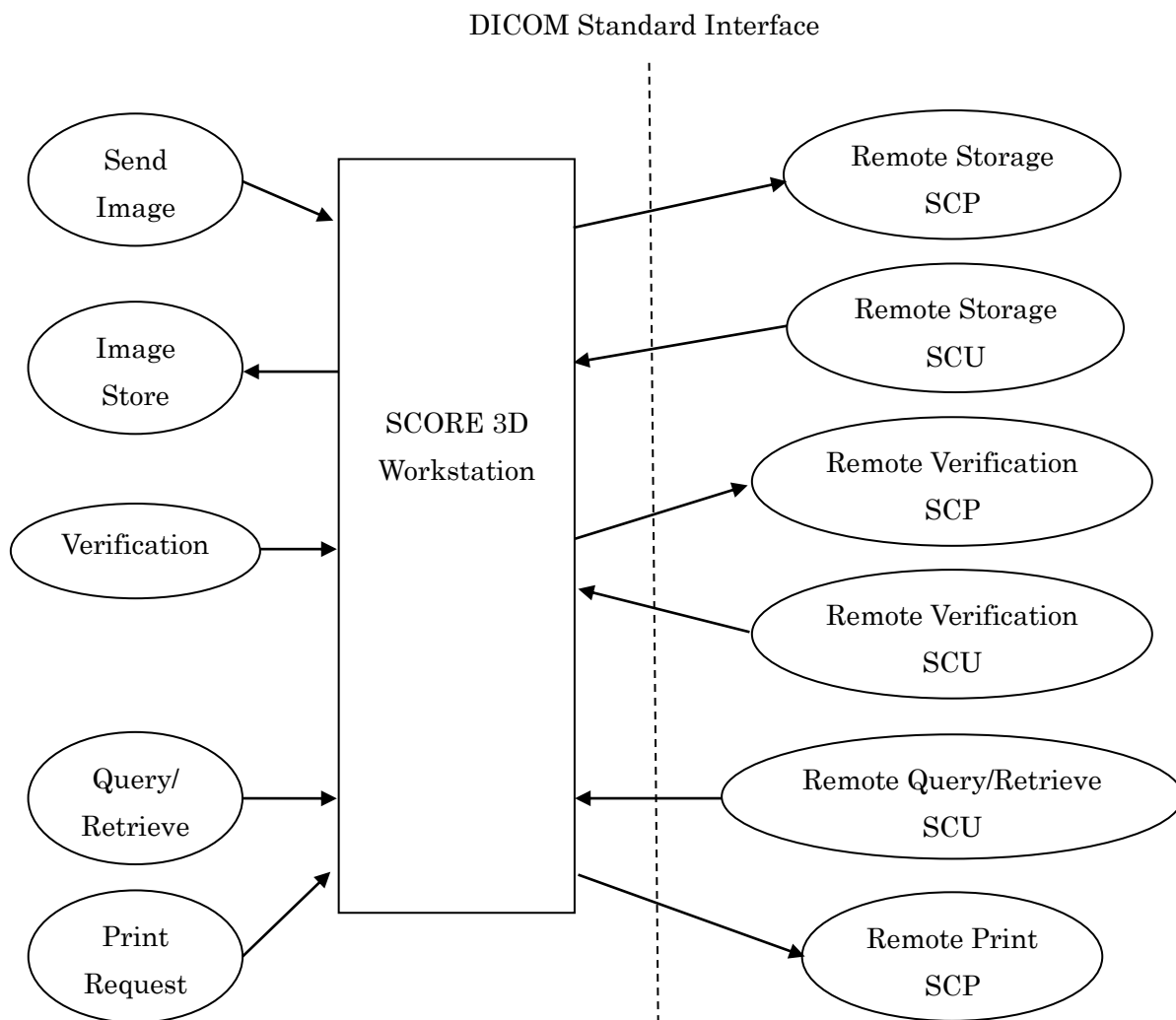
Fig. 1 Application Data Flow Diagram

SCORE 3D Workstation Implementation Model is shown in Fig.1

All DICOM services are provided through SCORE 3D Workstation, which is launched by an operator. The remote DICOM Application Entities (AE), which are associated with SCORE 3D Workstation, should have been configured by the support engineers beforehand.

Association of image store service to remote AE is activated when an operator manually calls for transfer. An operator indicates the transfer DICOM image data to remote AE after he selects the one of patients, studies, series or images on SCORE 3D Workstation. SCORE 3D Workstation sends a request for the Verification service to the remote AE.

SCORE 3D Workstation responds to the Verification service from remote AE.

The association for storage service is invoked from remote AE. And its association is received and accepted by SCORE 3D Workstation, remote AE begins to transfer the DICOM image data.

SCORE 3D Workstation starts up the association for Query/Retrieve and Print service requests to remote AE.

SCORE 3D Workstation also supports reading data from General Purpose CD-R/DVD-R media and export data to Fig. 2.
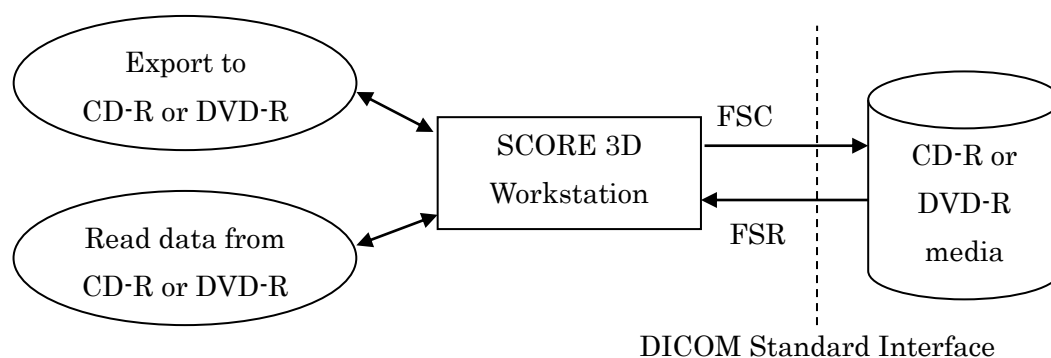
Fig. 2 Application Data Flow Diagram

2.2 AE's Functional Description

SCORE 3D Workstation supports the following functions.

- Accept the association from remote AE
- Startup the association
- Send DICOM image data (SCU)
- Receive DICOM image data (SCP)
- Request remote AE for the verification service (SCU)
- Respond to the verification service from remote AE (SCP)
- Request remote AE for Query service (SCU)
- Request remote AE for Retrieve service (SCU)
- Request remote AE for the print service (SCU)
- Export data to General Purpose CD-R/DVD-R (FSC)
- Read files from General Purpose CD-R/DVD-R (FSR)
- Manage image files by using database

2.3 Sequencing of Real World Activity

Not applicable.

3   AE Specifications

SCORE 3D Workstation provides Standard Conformance to the following DICOM SOP
Class as SCP:

Table 1

SOP Class Name	SOP Class UID
Verification SOP Class	1.2.840.10008.1.1
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
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

SCORE 3D Workstation provides Standard Conformance to the following DICOM SOP
Class as SCU:

Table 2

SOP Class Name	SOP Class UID
Verification SOP Class	1.2.840.10008.1.1
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7
Study Root Query/Retrieve Information Model-FIND	1.2.840.10008.5.1.4.1.2.2.1
Study Root Query/Retrieve Information Model-MOVE	1.2.840.10008.5.1.4.1.2.2.2
Basic Gray Scale Print Administration Meta SOP Class	1.2.840.10008.5.1.1.9
Basic Color Print Administration Meta SOP Class	1.2.840.10008.5.1.1.18

3.1 Association Establishment Policies

3.1.1   General

The following Application Context Name is acceptable.

Table 3

DICOM Application Context	1.2.840.10008.3.1.1.1

Max PDU size is 65536 (64K) as default.

3.1.2   Number of Associations

SCORE 3D Workstation accepts number of association "1" at a time.

3.1.3   Asynchronous Nature

SCORE 3D Workstation does not support asynchronous operations (or sub-operations)
window negotiation.

3.1.4 Implementation Identifying Information

Implementation Class UID and Implementation Version Name are shown in the table below.

Table 4

Implementation UID	1.2.392.200080.100.200
Implementation Version Name	ZIO_DCM_SVR_200

3.2 Association Initiation by Real World Activity

SCORE 3D Workstation initiates the association C-STORE the remote AE by C-MOVE sub-operation. The remote AE has to be registered on SCORE 3D Workstation beforehand.

SCORE 3D Workstation runs association between remote AE by operator with manual transfer for the following operation:

A. Verification

B. Manual Transfer

C. Query/Retrieve

D. Print

3.2.1 Real World Activity A, B, C, D

Three Real World Activity (A, B, C, D) will startup DICOM association.

3.2.1.1 Related Real World Activity

SCORE 3D Workstation initiates the association C-STORE to remote AE which are specified by the C-MOVE service.

Request C-ECHO to remote AE on verification and show the result.

Send DICOM image data to remote AE by manual transfer.

At Query/Retrieve, it queries about remote AE DICOM image data information, and it receives necessary data.

Specify width/height film format and send DICOM image data. Print request is in cue mode and processed on background.

3.2.1.2 Request of Presentation Context

SCORE 3D Workstation requests the presentation context in the following table.

Table 5

Presentation Context					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name List**	**UID List**		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Baseline	1.2.840.10008.1.2.4.50	SCU	None
		JPEG Extended	1.2.840.10008.1.2.4.51	SCU	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCU	None
		JPEG 2000 Image Compression (LosslessOnly)	1.2.840.10008.1.2.4.90	SCU	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCU	None
		RLE Lossless	1.2.840.10008.1.2.5	SCU	None
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
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
Basic Gray Scale Print Administration Meta SOP class	1.2.840.10008.5.1.1.9	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Basic Color Print Administration Meta SOP class	1.2.840.10008.5.1.1.18	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

3.2.1.3 SOP Specific Conformance

3.2.1.3.1   SOP Specific Conformance for Verification SOP Class

SCORE 3D Workstation provides the standard conformance as SCU of Verification SOP class.

3.2.1.3.2   SOP Specific Conformance for Storage SOP Class

SCORE 3D Workstation can operate multiple C-STORE at one association as a storage service user. When C-STORE is succeeded, SCORE 3D Workstation transfers the manually selected DICOM image data to remote AE. When association or transfer is failed, SCORE 3D Workstation displays an error message. When the response of C-STORE is warning state, processing is stopped. Expanded negotiation is not supported.

3.2.1.3.3 SOP Specific Conformance for Query/Retrieve Information Model – FIND

SCORE 3D Workstation does not support relational queries. No extended negotiation is performed. The following table shows available keys for queries.

Table 6: Study Level Request Attributes for Study Root Query/Retrieve Information Model

Attribute Name	Tag	Type
Study Date	(0008,0020)	R
Study Time	(0008,0030)	R
Accession Number	(0008,0050)	R
Patient's Name	(0010,0010)	R
Patient ID	(0010,0020)	R
Study ID	(0020,0010)	R
Study Instance UID	(0020,000d)	U
Number of Study Related Series	(0020,1206)	O
Number of Study Related Instances	(0020,1208)	O
Modalities in Study	(0008,0061)	O
Referring Physician's Name	(0008,0090)	O
Study Description	(0008,1030)	O

Table 7: Study Level Request Attributes for Study Root Query/Retrieve Information Model

Attribute Name	Tag	Type
Modality	(0008,0060)	R
Series Number	(0020,0011)	R
Study Instance UID	(0020,000d)	U(*)
Series Instance UID	(0020,000e)	U
Number of Series Related Instances	(0020,1209)	O
Series Description	(0008,103e)	O
Body Part Examined	(0018,0015)	O
Protocol Name	(0018,1030)	O

(*): Higher level unique key

Table 8: Image Level Request Attributes for Study Root Query/Retrieve Information Model

Attribute Name	Tag	Type
Instance Number	(0020,0013)	R
SOP Instance UID	(0008,0018)	U
Study Instance UID	(0020,000d)	U(*)
Series Instance UID	(0020,000e)	U(*)

(*): Higher level unique key

3.2.1.3.4 SOP Specific Conformance for Query/Retrieve Information Model – MOVE

SCORE 3D Workstation does not support relational retrievals. No extended negotiation is performed.

3.2.1.3.5 SOP Specific Conformance for Print Management Service Class

Switching between Color and Grayscale is manual. If the association or data transfer fails, then error messages are displayed. No extended negotiation is performed.

SCORE 3D Workstation supports the following SOP classes as defined by the Print management Service Class.

Table 9

SOP Class Name	SOP Class UID
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2
Basic Gray Scale Image Box SOP Class	1.2.840.10008.5.1.1.4
Basic Color Image Box SOP Class	1.2.840.10008.5.1.1.4.1
Printer SOP Class	1.2.840.10008.5.1.1.16

3.2.1.3.5.1   Basic Film Session SOP Class

SCORE 3D Workstation provides the following support for the Basic Film Session attributes sent by the N-CREATE DIMSE service's SCU.

Support attribute of table 7. Other attributes are not set, and using default of printer is expected.

Table 10

Attribute Name	Tag	Attribute
Number of Copies	(2000,0010)	1 to 1000
Copy Priority	(2000,0020)	MED

3.2.1.3.5.2 Basic Film Box SOP Class

SCORE 3D Workstation provides the following support for the Basic Film Box attributes sent by the N-CREATE, N-ACTION and N-DELETE service's SCU.

Support attribute of table 8. Other attributes are not set, and using default of printer is expected.

Table 11

Attribute Name	Tag	Attribute
Image Display Format	(2010,0010)	STANDARD\C,R C=[1..8] R=[1..8]
Film Direction	(2010,00,0040)	PORTRAIT

3.2.1.3.5.3 Basic Gray Scale Image Box SOP Class

SCORE 3D Workstation provides the following support for the Basic Grayscale Image Box attributes sent by the N-SET service's SCU.

Support attribute of table 9. Other attributes are not set, and using default of printer is expected.

Table 12

Attribute Name	Tag	Attribute
Image Box Position	(2020,0010)	1 to 25
Basic Gray Scale Image Sequence	(2020,0110)	
> Sample per Pixel	(0028,0002)	1
> Photometric Interpretation	(0028,0004)	MONOCHROME1 MONOCHROME2
> Rows	(0028,0010)	
> Columns	(0028,0011)	
>Pixel Aspect Ratio	(0028,0034)	1\1
> Bits Allocated	(0028,0100)	8
> Bits Stored	(0028,0101)	8
> High Bit	(0028,0102)	7
> Pixel Representation	(0028,0103)	0
> Pixel Data	(0028,0010)	

3.2.1.3.5.4   Basic Color Image Box SOP Class

SCORE 3D Workstation supports N_SET as SCU of DIMSE service.

Support attribute of table 10. Other attributes are not set, and using default of printer is expected.

Table 13

Attribute Name	Tag	Attribute
Basic Color Image Sequence	(2020,00111)	
> Image Box Position	(2020,0010)	1 to 25
> Sample per Pixels	(0028,0002)	3
> Photometric Interpretation	(0028,0004)	RGB
> Rows	(0028,0010)	
> Columns	(0028,0011)	
>Pixel Aspect Ratio	(0028,0034)	1\1
> Bits Allocated	(0028,0100)	8
> Bits Stored	(0028,0101)	8
> High Bit	(0028,0102)	7
> Pixel Representation	(0028,0103)	0
> Pixel Data	(7FE0,0010)	

3.2.1.3.5.5   Printer SOP Class

SCORE 3D Workstation supports N_GET as SCU of DIMSE service.

Support attribute of table 11.

Table 14

Attribute Name	Tag	Attribute
Printer Status	(2110,0010)	
Printer Status Information	(2110,0020)	
Printer Name	(2110,0030)	
Manufacturer	(0008,0070)	
Manufacturer Model Name	(0008,1090)	
System Serial Number	(0018,1000)	
Software Version	(0018,1020)	
Last Calibration Date	(0018,1200)	
Last Calibration Time	(0018,1201)	

3.3 Association Acceptance Policy

SCORE 3D Workstation accepts the association from remote AE when the following conditions are acceptable.

- AE, which startup an association, is registered in SCORE 3D Workstation.
- It is an association for verification service.
- SCORE 3D Workstation is in association acceptable state.

3.3.1   Real World Activity

3.3.1.1 Related Real World Activity

SCORE 3D Workstation is waiting for an association for verification service.

Accept the association if it is startup from the registered AE.

3.3.1.2 Acceptance of Presentation Context

SCORE 3D Workstation accepts the following presentation context in the table.

Table 15

Presentation Context					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Baseline	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended	1.2.840.10008.1.2.4.51	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCP	None
		JPEG 2000 Image Compression (LosslessOnly)	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCP	None
		RLE Lossless	1.2.840.10008.1.2.5	SCP	None
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Baseline	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended	1.2.840.10008.1.2.4.51	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCP	None
		JPEG 2000 Image Compression (LosslessOnly)	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCP	None
		RLE Lossless	1.2.840.10008.1.2.5	SCP	None

Presentation Context					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Baseline	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended	1.2.840.10008.1.2.4.51	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCP	None
		JPEG 2000 Image Compression (LosslessOnly)	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCP	None
		RLE Lossless	1.2.840.10008.1.2.5	SCP	None
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Baseline	1.2.840.10008.1.2.4.50	SCP	None
		JPEG Extended	1.2.840.10008.1.2.4.51	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCP	None
		JPEG 2000 Image Compression (LosslessOnly)	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCP	None
		RLE Lossless	1.2.840.10008.1.2.5	SCP	None

3.3.1.3 SOP Specific Conformance

3.3.1.3.1   SOP Specific Conformance for Verification SOP Class

SCORE 3D Workstation provides the standard conformance as SCP of verification SOP class.

3.3.1.3.2   SOP Specific Conformance for Storage SOP Class

SCORE 3D Workstation can execute multiple C-STORE as Storage Service provider with a single association. SCORE 3D Workstation is Level 2 (Full) conformant as a Storage Service provider. No attributes are overridden and modified. If C-STORE is successful, SCORE 3D Workstation stores the DICOM image data to hard disk. The data stored in a hard disk is enabled to access through the user of the OS service or the SCORE 3D Workstation.

SCORE 3D Workstation returns C-STORE response status shown in the following table.

Table 16

Error Code	Service Status	Reason
0x0000	Success	Success
0xA700	Refused	Out of Resources
0xA900	Error	Data Set does not match SOP Class
0xB000	Warning	Coercion of Data Elements
0xB006	Warning	Elements Discarded
0xB007	Warning	Data Set does not match SOP Class
0xCxxx	Error	Any other error

3.3.1.4 Standard of Proposed of Presentation Context

SCORE 3D Workstation is capable of proposing multiple Presentation Contexts. The specification is shown as follows:

(Abstract Syntax + (Transfer Syntax * Number of Syntax)) * Number of Syntax

In this case, number of syntax is equal to or greater than 1.

4　Communication Profiles

4.1　Supported Protocol Stack (PS 3.8, PS 3.9)

SCORE 3D Workstation provides DICOM V3.0 TCP/IP Network Protocol Stacks support in which stacks are defined in DICOM Standards PS 3.8.

4.2　OSI Stack

OSI stack is not supported.

4.3　TCP/IP Stack

SCORE 3D Workstation inherits TCP/IP stack from execution environment OS.

4.4　API

API is not applicable.

4.5　Physical Device Support

SCORE 3D Workstation inherits Physical Device Support from runtime environment OS.

4.6　Point –to-point stack

Point-to-point stack is not supported.

5   Standard/Extension/Specialization/Private SOP Classes

5.1 Extended Secondary Capture Object

SCORE 3D Workstation is making the following extensions to Secondary Capture SOP Class:

Table 177

Attribute Name	Tag	Type	VR
Private Creator	(7109,00XX)	3	LO
Private Data 1	(7109,XX21)	3	OB
Private Data 2	(7109,XX23)	3	OB
Private Data 3	(7109,XX30)	3	DS
Private Data 4	(7109,XX31)	3	DS
Private Data 5	(7109,XX32)	3	DS
Private Data 6	(7109,XX33)	3	UI
Private Data 7	(7109,XX34)	3	CS

6   Configuration

6.1 AE Title/Presentation Address Mapping

AE title and presentation address will be configured, when installing SCORE 3D Workstation by support engineer.

6.2 Configurable Parameters

The following parameters are configurable. It is configured when installing by support engineer.

- AE title
- IP address
- Port number
- Max PDU size

7　Media Interchange

7.1　Implementation Model

7.1.1　Application Data Flow

Application Data Flow is shown in Fig. 2.

7.2　AE Specifications

7.2.1　Application Entity Specification

SCORE 3D Workstation provides Standard Conformance to the DICOM Media Storage Service Class. The Application Profiles and Roles are listed below.

Table 18

Application Profiles Supported	Real World Activity	Role
STD-GEN-CD	Export to CD-R/DVD-R	FSC
STD-GEN-CD	Read data from CD-R/DVD-R	FSR

7.2.1.1 Real-World Activities

7.2.1.1.1　Activity – Export to CD-R/DVD-R

SCORE 3D Workstation acts as an FSC when requested to export SOP Instance from the local database to a CD-R/DVD-R medium.

The user will be prompted to insert an empty CD-R/DVD-R for each export job. The contents of the export job will be written together with a corresponding DICOMDIR to a single-session CD-R/DVD-R. Writing in multi-session mode is not supported. The user can cancel an export job in the job queue.

7.2.1.1.1.1　　Media Storage Application Profiles

SCORE 3D Workstation supports the STD-GEN-CD Application Profile.

7.2.1.1.2　Activity – Read data from CD-R/DVD-R

SCORE 3D Workstation acts an FSR when requested to read data from a CD-R/DVD-R medium.

7.2.1.1.2.1　　Media Storage Application Profiles

SCORE 3D Workstation supports the STD-GEN-CD Application Profile.

8 Supporting Extended Character Sets

SCORE 3D Workstation supports the following extended character sets:

- ISO-8859-1 (ISO-IR 100 Latin-1)

- JIS X 0201 (ISO-IR 13 Japanese katakana and ISO-IR 14 Japanese romaji)

- JIS X 0208 (ISO-IR 87 Japanese kanji, hiragana and katakana)

- JIS X 0212 (ISO-IR 159 Supplementary Japanese kanji)

9 Appendix

The following is the attribute list when SCORE 3D Workstation sends SC SOP instance.

IE	Module	Reference	
		Written Standard	Usage
Patient	Patient	C.7.1.1	M
Study	General Study	C.7.2.1	M
	Patient Study	C.7.2.2	U
Series	General Series	C.7.3.1	M
Equipment	General Equipment	C.7.5.1	U
	SC Equipment	C.8.6.1	M
Image	General Image	C.7.6.1	M
	Image Pixel	C.7.6.3	M
	SC Image	C.8.6.2	M
	Overlay Plane	C.9.2	U
	Modality LUT	C.11.1	U
	VOI LUT	C.11.2	U
	SOP Common	C.12.1	M

Patient

Attribute Name	Tag	Type	Possible Values
Patient's Name	(0010, 0010)	2	
Patient ID	(0010, 0020)	2	
Patient's Birth Date	(0010, 0030)	2	
Patient's Sex	(0010, 0040)	2	
Patient Comments	(0010, 4000)	3	A zero-length value is encoded.

General Study

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

Patient Study

Attribute Name	Tag	Type	Possible Values
Patient's Age	(0010, 1010)	3	
Patient's Size	(0010, 1020)	3	
Patient's Weight	(0010, 1030)	3	

General Series

Attribute Name	Tag	Type	Possible Values
Modality	(0008, 0060)	1	"XA"
Series Instance UID	(0020, 000E)	1	
Series Number	(0020, 0011)	2	
Series Date	(0008, 0021)	3	
Series Time	(0008, 0031)	3	
Body Part Examined	(0018, 0015)	3	A zero-length value is encoded.

General Equipment

Attribute Name	Tag	Type	Possible Values
Manufacturer	(0008, 0070)	2	"Shimadzu Corp."
Institution Name	(0008, 0080)	3	
Station Name	(0008, 1010)	3	

SC Equipment

Attribute Name	Tag	Type	Possible Values
Conversion Type	(0008, 0064)	1	"WSD"
Modality	(0008, 0006)	3	"XA"

General Image

Attribute Name	Tag	Type	Possible Values
Instance Number (former Image Number)	(0020, 0013)	2	
Patient Orientation	(0020, 0020)	2C	A zero-length value is encoded.
Image Date	(0008, 0023)	2C	
Image Time	(0008, 0033)	2C	
Image Type	(0008, 0008)	3	"DERIVED\SECONDARY"
Image Comments	(0020, 4000)	3	

Image Pixel

Attribute Name	Tag	Type	Possible Values
Samples per Pixel	(0028, 0002)	1	Number of samples (planes) in this image. Monochrome image has " 1 ". Color image has " 3 ".
Photometric Interpretation	(0028, 0004)	1	Specifies the intended interpretation of the pixel data. Monochrome image has " MONOCHROME2 ". Color image has " RGB ".
Rows	(0028, 0010)	1	
Columns	(0028, 0011)	1	
Bits Allocated	(0028, 0100)	1	
Bits Stored	(0028, 0101)	1	
High Bit	(0028, 0102)	1	
Pixel Representation	(0028, 0103)	1	
Pixel Data	(7FE0, 0010)	1	
Planar Configuration	(0028, 0006)	1C	Only for color image.

SC Image

Attribute Name	Tag	Type	Possible Values
(None)			

Overlay Plane

Attribute Name	Tag	Type	Possible Values
(None)			

Modality LUT

Attribute Name	Tag	Type	Possible Values
(None)			

VOI LUT

Attribute Name	Tag	Type	Possible Values
Window Center	(0028, 1050)	3	Only for Monochrome image.
Window Width	(0028, 1051)	1C	Only for Monochrome image.

SOP Common

Attribute Name	Tag	Type	Possible Values
SOP Class UID	(0008, 0016)	1	1.2.840.10008.5.1.4.1.1.7 (Secondary Capture Image Storage)
SOP Instance UID	(0008, 0018)	1	
Specific Character Set	(0008, 0005)	1C	
Instance Creation Date	(0008, 0012)	3	
Instance Creation Time	(0008, 0013)	3	