

**VISTAシリーズ
POPULUSシリーズ
ESPACIO AVANT
DICOM v3.0
Conformance Statement**

Revision 2.7

富士フイルム株式会社

E1ja-FX0011-A1

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1. Conformance Statement Overview

本書は、富士フイルム株式会社製DR (Digital Radiography) 装置において、ESPACIO AVANT/VISTAシリーズ/POPULUSシリーズに適用される。対象となるシステム名称は以下のとおり。

ESPACIO AVANT

CUREVISTA

EXAVISTA

VersiFlex VISTA

DIAVISTA

DIAVISTA Luce

POPULUS Ti

POPULUS So

以降では、便宜上CUREVISTAと記述する。

CUREVISTAは、以下表1.1に示すネットワークサービスに対応する。

ただし、納入システムの構成、バージョンによっては対応しないサービスがある。

表 1.1 Network Services

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
Transfer		
X-Ray Radio Fluoroscopic Image Storage	Yes	Yes
X-Ray Radiation Dose SR Storage	Yes ※	No
Computed Radiography Image Storage	No	Yes
Digital X-Ray Image Storage - For Presentation	No	No
CT Image Storage	No	Yes
MR Image Storage	No	Yes
Nuclear Medicine Image Storage	No	Yes
Secondary Capture Image Storage	No	Yes
Ultrasound Image Storage	No	Yes
Ultrasound Multi-Frame Image Storage	No	Yes
X-Ray Angiographic Image Storage	No	Yes
X-Ray Angiographic Bi-plane Image Storage	No	Yes
Workflow Management		
Modality Worklist	Yes	No
Storage Commitment Push Model	Yes	No
Modality Performed Procedure Step	Yes	No
Print Management		
Basic Grayscale Print Management	Yes	No
> Basic Film Session	Yes	No
> Basic Film Box	Yes	No
> Basic Grayscale Image Box	Yes	No
> Printer	Yes	No
Print Job	Yes	No
Query/Retrieve		
Patient Root QR Information Model - FIND SOP Class	Yes	No
Study Root QR Information Model - FIND SOP Class	Yes	No
Patient Root QR Information Model - MOVE SOP Class	Yes	No
Study Root QR Information Model - MOVE SOP Class	Yes	No

※ POPULUS Ti、POPULUS Soのシステムでは非対応

CUREVISTAは、以下表1.2に示すメディアサービスに対応する。

表 1.2 Media Services

Media Storage Application Profile	File-set Creator (FSC)	File-set Updater (FSU)	File-set Reader (FSR)
DVD			
General Purpose DVD-RAM ※	Yes	Yes	Yes
USB			
General Purpose USB	Yes	Yes	Yes

※ 下記システムでは非対応

- ・ ESPACIO AVANT
- ・ DIAVISTA Luce

2. Introduction

2.1 Revision History

Document Version	Description
1.1	対象システムに POPULUS Ti, POPULUS So を追加
1.2	対象システムに VersiFlexVISTA を追加
1.3	対象システムに DIAVISTA を追加
2.0	各 DICOM サービスの DICOM 適合宣言書を統合 X-Ray Radiation Dose SR Storage を追加 General Purpose USB を追加 Storage Commitment Push Model を追加
2.1	対象システムに ESPACIO AVANT を追加 X-Ray Radiation Dose SR Storage を更新
2.2	対象システムに DIAVISTA Luce を追加 X-Ray Radiation Dose SR Storage を更新
2.3	表 3.17 MPPS Request Identifier for N-SET Request の誤記を修正
2.4	対象システムに CUREVISTA Open、CUREVISTA Open GX を追加
2.5	X-Ray Radiation Dose SR Storage を更新 以下の表の誤記を修正 ・ 表 3.10 Worklist Request Identifier ・ 表 7.2 Information Object Definition ・ 表 7.3 Information Object Definition ・ 表 8.1 Copy from MWL
2.6	対象システムに CUREVISTA Apex を追加
2.7	対象システムから CUREVISTA Open、CUREVISTA Open GX、CUREVISTA Apex を削除

2.2 Terms and Definitions

本書では、以下に示す略語を使用する。

表 2.1 略語

略語	
DICOM	Digital Imaging and Communications in Medicine
AE	Application Entity
SCU	Service Class User
SCP	Service Class Provider
IOD	Information Object Definition
SOP	Service Object Pair
UID	Unique Identifier
PDU	Protocol Data Unit

3. Networking

3.1 Implementation Model

3.1.1 Application Data Flow

CUREVISTAのAEタイトル名称をCUREVISTA AEと記述する。
CUREVISTAのアプリケーションデータフローを以下に示す。

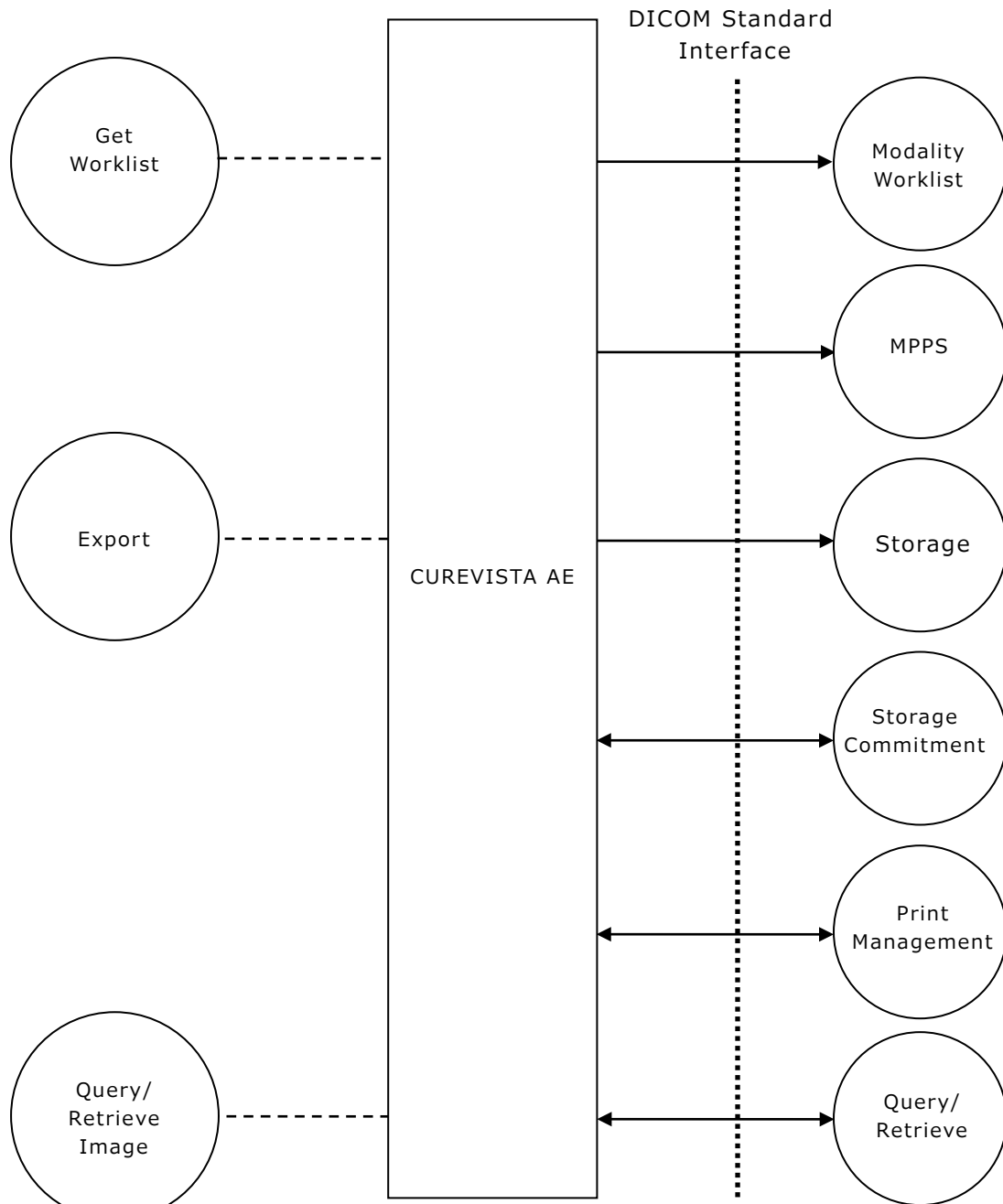


図 3.1 Application Data Flow Diagram

3.1.2 Functional Definition of AEs

CUREVISTA AEは以下のサービスクラスのSCUとして動作する。

- Storage Service Class
- Storage Commitment Service Class
- Query / Retrieve Service Class
- Print Management Service Class
- Modality Worklist Management Service Class
- Modality Performed Procedure Step Service Class

CUREVISTA AEは以下のサービスクラスのSCPとして動作する。

- Storage Service Class

3.1.3 Sequencing of Real-World Activities

CUREVISTA AEの典型的な画像生成および出力のシーケンスを図 3.2、画像取得のシーケンスを図 3.3に示す。

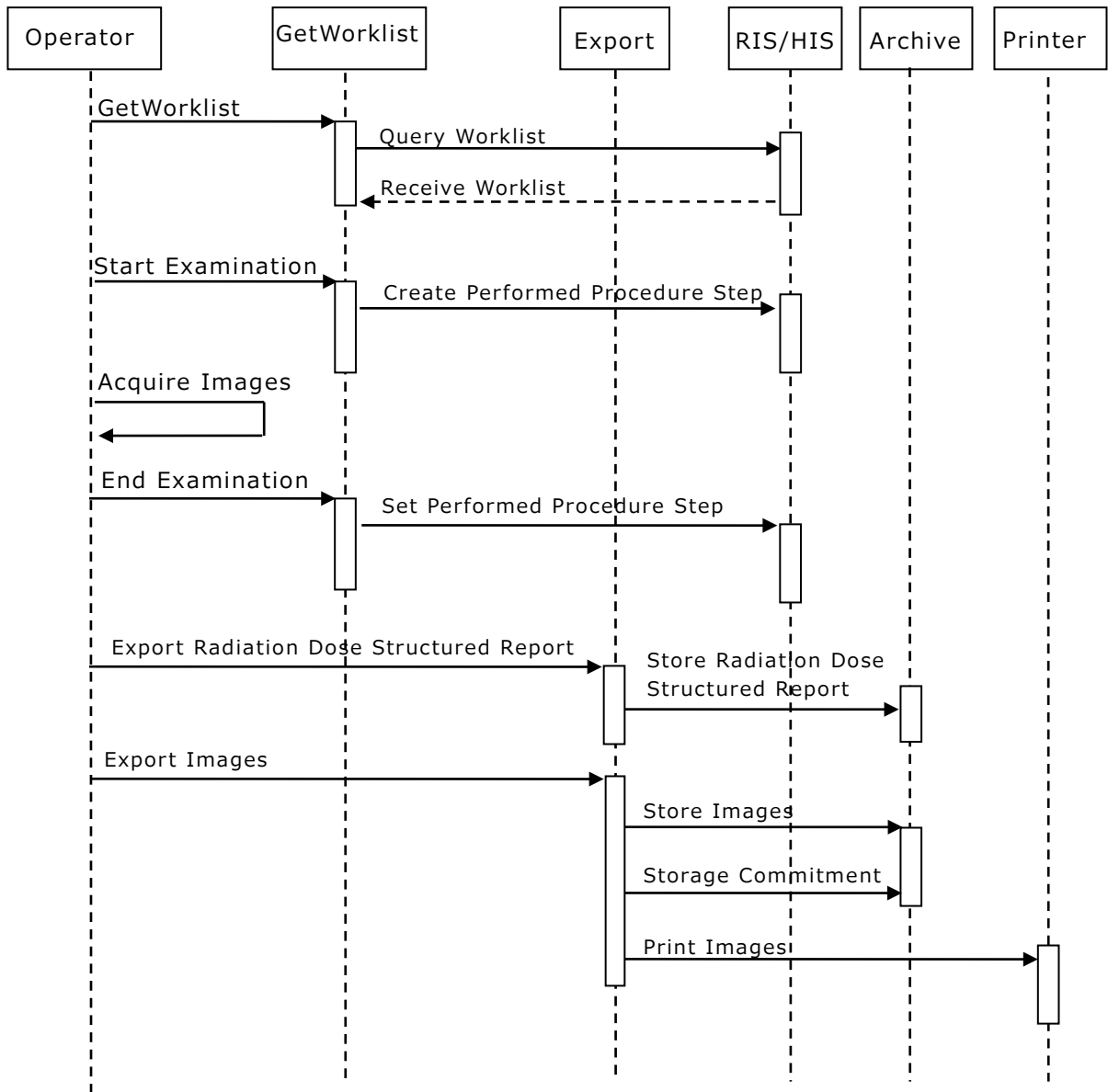
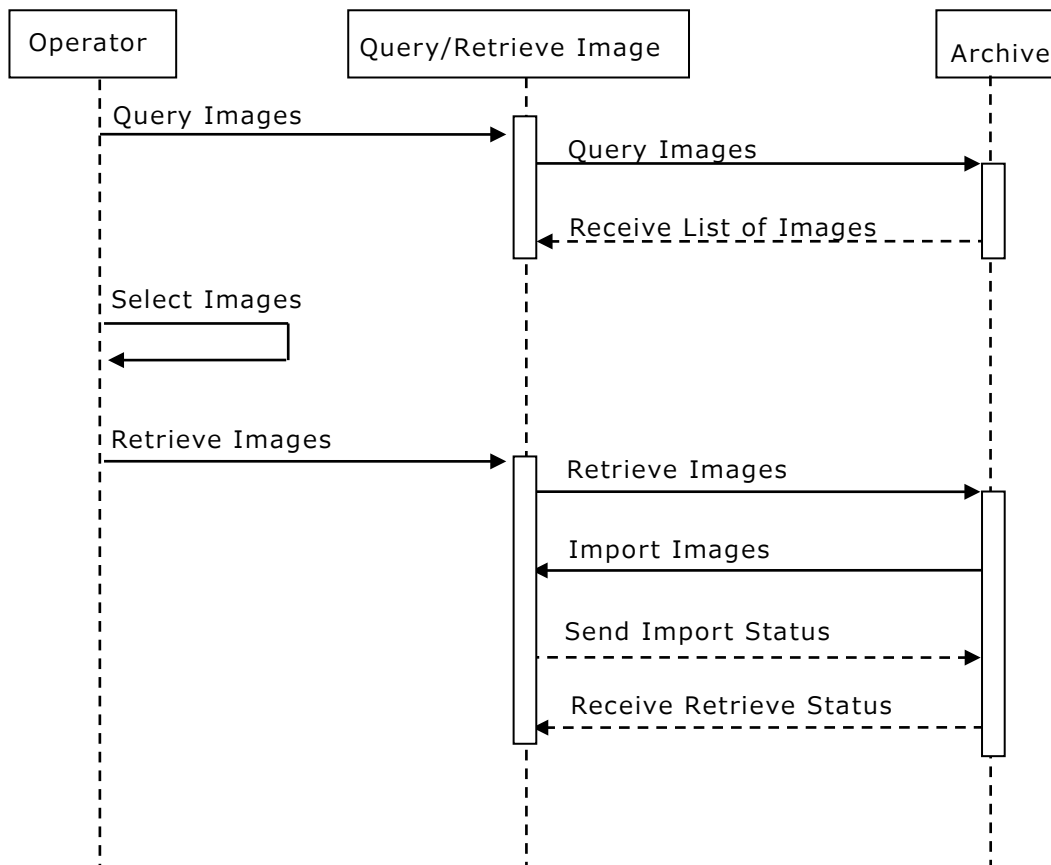


図 3.2 Typical Acquisition Export Sequence



☒ 3.3 Typical Query/Retrieve Sequence

3.2 AE Specifications

3.2.1 CUREVISTA AE

3.2.1.1 SOP Classes

CUREVISTA AEがサポートするSOP クラスを表3.1に示す。

表 3.1 SOP Classes for CUREVISTA AE

SOP Classes	SOP Class UID	SCU	SCP
X-Ray Radio Fluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Yes	Yes
X-Ray Radiation Dose SR Storage	1.2.840.10008.5.1.4.1.1.88.67	Yes※	No
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	No
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	No	Yes
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	No	Yes
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	No	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	No	Yes
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	No	Yes
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	No	Yes
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	No	Yes
X-Ray Angiographic Bi-plane Image Storage	1.2.840.10008.5.1.4.1.1.12.3	No	Yes
Modality Worklist	1.2.840.10008.5.1.4.31	Yes	No
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	No
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Yes	No
Basic Grayscale Print Management	1.2.840.10008.5.1.1.9	Yes	No
> Basic Film Session	1.2.840.10008.5.1.1.1	Yes	No
> Basic Film Box	1.2.840.10008.5.1.1.2	Yes	No
> Basic Grayscale Image Box	1.2.840.10008.5.1.1.4	Yes	No
> Printer	1.2.840.10008.5.1.1.16	Yes	No
Print Job	1.2.840.10008.5.1.1.14	Yes	No
Patient Root QR Information Model - FIND SOP Class	1.2.840.10008.5.1.4.1.2.2.1	Yes	No
Study Root QR Information Model - FIND SOP Class	1.2.840.10008.5.1.4.1.2.2.2	Yes	No
Patient Root QR Information Model - MOVE SOP Class	1.2.840.10008.5.1.4.1.2.1.1	Yes	No
Study Root QR Information Model - MOVE SOP Class	1.2.840.10008.5.1.4.1.2.1.2	Yes	No

※ POPULUS Ti、POPULUS Soのシステムでは非対応

3.2.1.2 Association Policies

3.2.1.2.1. General

常にDICOM 3.0のDICOM標準アプリケーションコンテキスト名を提示する。

表 3.2 DICOM Application Context

Description	Value
Application Context Name	1.2.840.10008.3.1.1.1

3.2.1.2.2. Number of Association

1度に確立するアソシエーションの数は最大1つ、受理するアソシエーションの数は最大5つ。

表 3.3 Number of associations as an Association Initiated

Description	Value
Maximum number of simultaneous associations	1

表 3.4 Number of associations as an Association Accepted

Description	Value
Maximum number of simultaneous associations	5

3.2.1.2.3. Asynchronous Nature

CUREVISTA AEは非同期通信をサポートしない。

表 3.5 Asynchronous Nature as a SCU

Description	Value
Maximum number of outstanding asynchronous transactions	1

3.2.1.2.4. Implementation Identifying Information

CUREVISTA AEのインプリメンテーションクラスUIDとバージョン名は以下のとおり。

表 3.6 DICOM Implementation Class and Version

Description	Value
Implementation Class UID	1.2.392.200036.9123.100.15.8001
Implementation Version Name	HMCACROSS1.0

3.2.1.3 Association Initiation Policy

3.2.1.3.1. Activity – Storage as SCU

3.2.1.3.1.1. Description and Sequencing of Activities

CUREVISTA AEはStorage Service ClassのSCUとして、アソシエーションを確立し、STORE要求を送信する。STORE要求送信後、リモートアプリケーションからのSTORE応答を受信する。

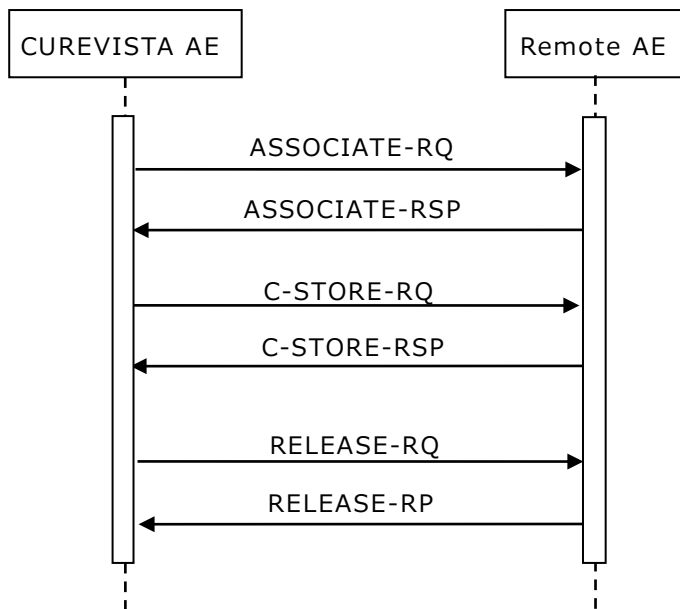


図 3.4 Sequencing of Activity – Storage as SCU

3.2.1.3.1.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.7 Proposed Presentation Contexts for Activity – Storage as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
X-Ray Radio Fluoroscopic Image Storage	1.2.840.10008. 5.1.4.1.1.12.2	Implicit VR Little	1.2.840.10008.1.2	SCU	None
		Endian	1.2.840.10008.1.2.1		
		Explicit VR Little	1.2.840.10008.1.2.2		
X-Ray Radiation Dose SR Storage	1.2.840.10008. 5.1.4.1.1.88.67	Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Little	1.2.840.10008.1.2.2		
		Endian			
		Explicit VR Big			
Endian					

3.2.1.3.1.3. SOP Specific Conformance for Storage SOP Classes

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.8 C-STORE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Warning	Coercion of Data Elements	B000	Close the association and the Status Code is logged. ※
	Data Set does not match SOP Class	B007	Close the association and the Status Code is logged. ※
	Elements Discarded	B006	Close the association and the Status Code is logged. ※
Failure	Out of Resources	A700	Close the association and the Status Code is logged.
	Cannot Understand	C000	Close the association and the Status Code is logged.
*	*	Any other status code	Close the association and the Status Code is logged.

※ 設定によりSuccessと同じ動作にすることが可能

3.2.1.3.2. Activity – Modality Worklist as SCU

3.2.1.3.2.1. Description and Sequencing of Activities

CUREVISTA AEはModality Worklist Management Service ClassのSCUとして、アソシエーションを確立し、照合キー(Matching Key)を含むFIND要求を送信する。FIND要求送信後、リモートアプリケーションからのFIND応答(Return Key)を受信する。

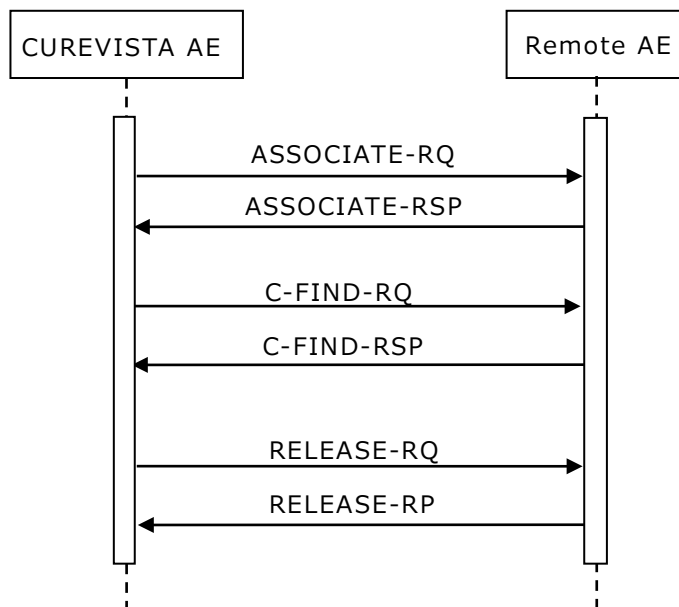


図 3.5 Sequencing of Activity – Modality Worklist as SCU

3.2.1.3.2.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.9 Proposed Presentation Contexts for Activity – Modality Worklist as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Worklist Information Model -FIND	1.2.840.10008.5.1.4.31	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

3.2.1.3.2.3. SOP Specific Conformance for Modality Worklist

CUREVISTA AEの照合キー(Matching Key)および応答キー(Return Key)は以下のとおり。

各列の内容：

- M 自動生成するMatching Key
- S 完全一致指定(Single Value Matching)
- W ワイルドカードによる部分指定(Wild Card Matching)
- R 日付の範囲指定(Range Matching)
- R XはUniversal Matchingに用いるReturn Keyを示す
- Q Xは操作者が指定可能なMatching Key (Interactive Query Key)を示す
- D Xは画面表示するKey(Displayed Key)を示す
- IOD XはModality Performed Procedure Stepで生成されるインスタンスに用いるKeyを示す
- Comment 表示する画面の項目を示す

表 3.10 Worklist Request Identifier

Attribute Name	Tag	VR	M	R	Q	D	IOD	Comment
SOP Common Module								
Specific Character Set	(0008,0005)	CS		X				
Scheduled Procedure Step Module								
Scheduled Procedure Step Sequence	(0040,0100)	SQ		X				
> Scheduled Station AE Title	(0040,0001)	AE	S	X	X			
> Scheduled Station Name	(0040,0010)	SH		X				
> Scheduled Procedure Step Location	(0040,0011)	SH		X				
> Scheduled Procedure Step Start Date	(0040,0002)	DA	R	X	X	X		検査予約日
> Scheduled Procedure Step Start Time	(0040,0003)	TM		X		X		検査予約時間
> Scheduled Procedure Step End Date	(0040,0004)	DA		X				
> Scheduled Procedure Step End Time	(0040,0005)	TM		X				
> Scheduled Performing Physician's Name	(0040,0006)	PN		X				

Attribute Name	Tag	VR	M	R	Q	D	IOD	Comment
> Scheduled Procedure Step Description	(0040,0007)	LO		X			X	
> Scheduled Protocol Code Sequence	(0040,0008)	SQ		X			X	
>> Code Value	(0008,0100)	SH		X			X	
>> Coding Scheme Designator	(0008,0102)	SH					X	
>> Coding Scheme Version	(0008,0103)	SH					X	
>> Code Meaning	(0008,0104)	LO					X	
> Scheduled Procedure Step ID	(0040,0009)	SH		X			X	
> Comments on the Scheduled Procedure Step	(0040,0400)	LT		X				
> Modality	(0008,0060)	CS	S	X	X			
> Requested Contrast Agent	(0032,1070)	LO		X				
> Pre-Medication	(0040,0012)	LO		X				
Requested Procedure Module								
Requested Procedure ID	(0040,1001)	SH		X			X	
Reason for the Requested Procedure	(0040,1002)	LO		X				
Requested Procedure Comments	(0040,1400)	LT		X				
Requested Procedure Code Sequence	(0032,1064)	SQ		X				
> Code Value	(0008,0100)	SH						
> Coding Scheme Designator	(0008,0102)	SH						
> Coding Scheme Version	(0008,0103)	SH						
> Code Meaning	(0008,0104)	LO						
Study Instance UID	(0020,000D)	UI		X			X	
Referenced Study Sequence	(0008,1110)	SQ		X			X	
> Referenced SOP Class UID	(0008,1150)	UI					X	
> Referenced SOP Instance UID	(0008,1155)	UI					X	
Requested Procedure Description	(0032,1060)	LO		X			X	
Requested Procedure Priority	(0040,1003)	SH		X				
Requested Procedure Location	(0040,1005)	LO		X				
Reporting Priority	(0040,1009)	SH		X				
Imaging Service Request Module								
Imaging Service Request Comments	(0040,2400)	LT		X				
Requesting Physician	(0032,1032)	PN		X		X		依頼医師名
Referring Physician's Name	(0008,0090)	PN		X				
Requesting Service	(0032,1033)	LO		X		X		依頼科
Accession Number	(0008,0050)	SH	W	X	X	X	X	検診番号
Issue Date of Imaging Service Request	(0040,2004)	DA		X				
Issue Time of Imaging Service Request	(0040,2005)	TM		X				
Placer Order Number / Imaging Service Request	(0040,2016)	LO		X			X	
Filler Order Number / Imaging Service Request	(0040,2017)	LO		X			X	
Order entered by ...	(0040,2008)	PN		X				
Order Enterer's Location	(0040,2009)	SH		X				
Order Callback Phone Number	(0040,2010)	SH		X				
Visit Relationship Module								
Referenced Patient Sequence	(0008,1120)	SQ		X			X	
> Referenced SOP Class UID	(0008,1150)	UI					X	
> Referenced SOP Instance UID	(0008,1155)	UI					X	

Attribute Name	Tag	VR	M	R	Q	D	IOD	Comment
Patient Identification Module								
Patient's Name	(0010,0010)	PN	W	X	X	X	X	名前
Patient ID	(0010,0020)	LO	W	X	X	X	X	ID
Issuer of Patient ID	(0010,0021)	LO		X				
Patient Demographic Module								
Confidentiality Constraint on Patient Data Description	(0040,3001)	LO		X				
Patient's Birth Date	(0010,0030)	DA		X		X	X	生年月日
Patient's Sex	(0010,0040)	CS		X		X	X	性別
Patient's Size	(0010,1020)	DS		X				
Patient's Weight	(0010,1030)	DS		X				
Ethnic Group	(0010,2160)	SH		X				
Patient Comments	(0010,4000)	LT		X		X		コメント
Patient Medical Module								
Medical Alerts	(0010,2000)	LO		X				
Contrast Allergies	(0010,2110)	LO		X				
Additional Patient History	(0010,21B0)	LT		X				
Pregnancy Status	(0010,21C0)	US		X				
Special Needs	(0038,0050)	LO		X				
Patient State	(0038,0500)	LO		X				

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.11 C-FIND Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Close the association and the Status Code is logged. Worklist items are displayed.
Pending	Matches are continuing	FF00	Maintain the association and the Status Code is logged. Processing of the matches continues.
	Matches are continuing - Warning that one or more Optional Keys were not supported	FF01	Maintain the association and the Status Code is logged. Processing of the matches continues.
Cancel	Matching terminated due to Cancel request	FE00	Close the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.3. Activity – Storage Commitment as SCU

3.2.1.3.3.1. Description and Sequencing of Activities

CUREVISTA AE はStorage Commitment Service Class のSCU として、アソシエーションを確立し、保存委託対象のリストをリモートAE に送信する。保存委託の結果を受信するために、リモートAE がアソシエーションを開始するとCUREVISTA AE は折衝する。そして、リモートAE とのアソシエーションを確立することができれば、リモートAE から保存委託の結果を受信する。

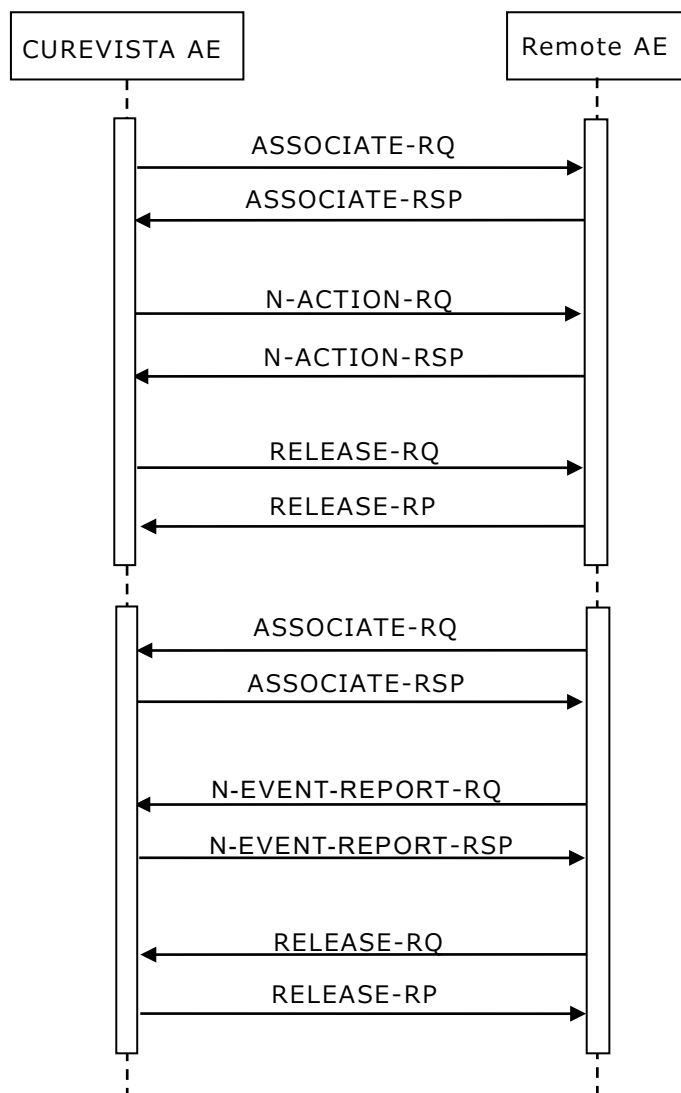


図 3.6 Sequencing of Activity – Storage Commitment as SCU

3.2.1.3.3.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.12 Proposed Presentation Contexts for Activity – Storage Commitment as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Storage Commitment Push Model SOP Class	1.2.840.1008.1.20.1	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

3.2.1.3.3.3. SOP Specific Conformance for Storage Commitment

3.2.1.3.3.3.1. Storage Commitment Push Model SOP Class Operations (N-ACTION)

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.13 N-ACTION Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.3.3.2. Storage Commitment Push Model SOP Class Notifications (N-EVENT-REPORT)

CUREVISTA AEがN-EVENT-REPORT応答で送信するステータスは以下のとおり。

表 3.14 Storage Commitment Push Model SOP Class N-EVENT-REPORT Response Status Reasons

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The notification event has been successfully received.

3.2.1.3.4. Activity – Modality Performed Procedure Step as SCU

3.2.1.3.4.1. Description and Sequencing of Activities

CUREVISTA AEはModality Performed Procedure Step Service ClassのSCUとして、アソシエーションを確立し、検査開始、検査終了を通知する。

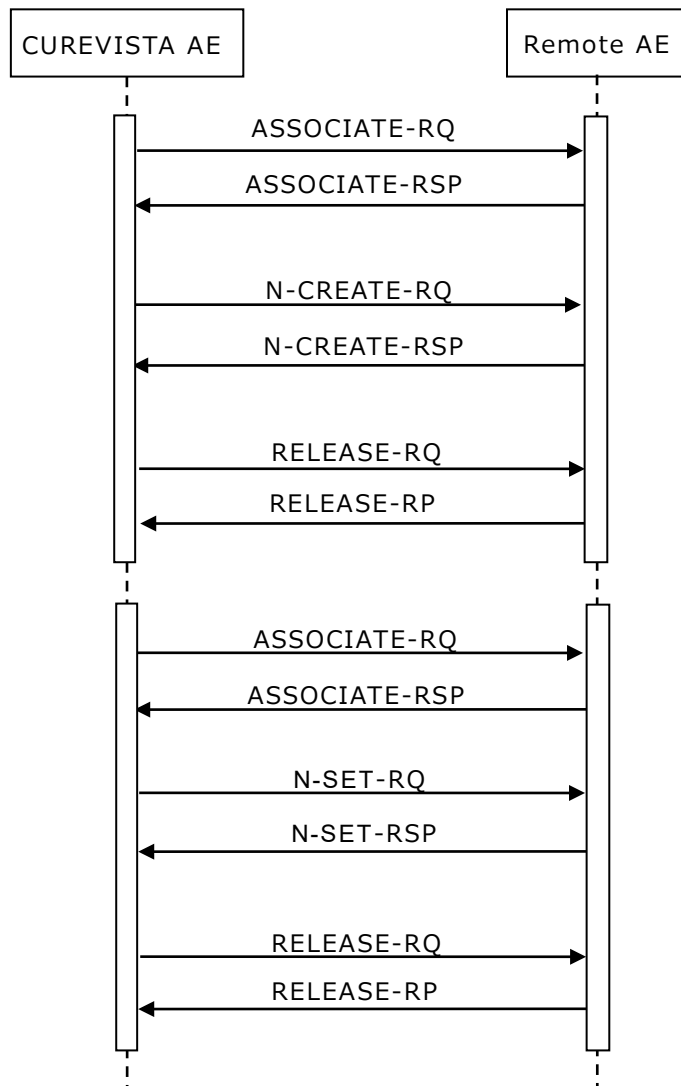


図 3.7 Sequencing of Activity – Modality Performed Procedure Step as SCU

3.2.1.3.4.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.15 Proposed Presentation Contexts for Activity – Modality Performed Procedure Step as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	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

3.2.1.3.4.3. SOP Specific Conformance for Modality Performed Procedure Step

CUREVISTA AEの検査開始通知(N-CREATE) は以下のとおり。

"Value"列の内容：

USER	ユーザーの入力値
AUTO	自動生成した値
CONFIG	設定パラメータを元に生成
MWL	Modality Worklistから引用
NA	生成しない
EMPTY	空(NULL)のDICOMタグを生成

表 3.16 MPPS Request Identifier for N-CREATE Request

Attribute Name	Tag	VR	Value
SOP Common Module			
Specific Character Set	(0008,0005)	CS	CONFIG
Performed Procedure Step Relationship Module			
Patient's Name	(0010,0010)	PN	USER or MWL
Patient ID	(0010,0020)	LO	USER or MWL
Patient's Birth Date	(0010,0030)	DA	USER or MWL
Patient's Sex	(0010,0040)	CS	USER or MWL
Referenced Patient Sequence	(0008,1120)	SQ	MWL or EMPTY
> Referenced SOP Class UID	(0008,1150)	UI	MWL
> Referenced SOP Instance UID	(0008,1155)	UI	MWL
Scheduled Step Attributes Sequence	(0040,0270)	SQ	AUTO
> Study Instance UID	(0020,000D)	UI	MWL or AUTO
> Referenced Study Sequence	(0008,1110)	SQ	MWL or EMPTY
>> Referenced SOP Class UID	(0008,1150)	UI	MWL
>> Referenced SOP Instance UID	(0008,1155)	UI	MWL
> Accession Number	(0008,0050)	SH	USER or MWL
> Placer Order Number/Imaging Service Request	(0040,2016)	LO	MWL or NA
> Filler Order Number/Imaging Service Request	(0040,2017)	LO	MWL or NA

Attribute Name	Tag	VR	Value
> Requested Procedure ID	(0040,1001)	SH	MWL or EMPTY
> Requested Procedure Description	(0032,1060)	LO	MWL or EMPTY
> Scheduled Procedure Step ID	(0040,0009)	SH	MWL or EMPTY
> Scheduled Procedure Step Description	(0040,0007)	LO	MWL or EMPTY
> Scheduled Protocol Code Sequence	(0040,0008)	SQ	MWL or EMPTY
>> Code Value	(0008,0100)	SH	MWL
>> Coding Scheme Designator	(0008,0102)	SH	MWL
>> Coding Scheme Version	(0008,0103)	SH	MWL
>> Code Meaning	(0008,0104)	LO	MWL
Performed Procedure Step Information Module			
Performed Procedure Step ID	(0040,0253)	SH	AUTO
Performed Station AE Title	(0040,0241)	AE	CONFIG
Performed Station Name	(0040,0242)	SH	CONFIG
Performed Location	(0040,0243)	SH	EMPTY
Performed Procedure Step Start Date	(0040,0244)	DA	AUTO
Performed Procedure Step Start Time	(0040,0245)	TM	AUTO
Performed Procedure Step Status	(0040,0252)	CS	"IN PROGRESS"
Performed Procedure Step Description	(0040,0254)	LO	EMPTY
Performed Procedure Type Description	(0040,0255)	LO	EMPTY
Procedure Code Sequence	(0008,1032)	SQ	MWL or EMPTY
Performed Procedure Step End Date	(0040,0250)	DA	EMPTY
Performed Procedure Step End Time	(0040,0251)	TM	EMPTY
Image Acquisition Results Module			
Modality	(0008,0060)	CS	"RF"
Study ID	(0020,0010)	SH	MWL or EMPTY
Performed Protocol Code Sequence	(0040,0260)	SQ	EMPTY
Performed Series Sequence	(0040,0340)	SQ	EMPTY
Radiation Dose Module			
Total Time of Fluoroscopy	(0040,0300)	US	EMPTY
Total Number of Exposures	(0040,0301)	US	EMPTY
Distance Source to Detector(SID)	(0018,1110)	DS	EMPTY
Distance Source to Entrance	(0040,0306)	DS	EMPTY
Entrance Dose	(0040,0302)	US	EMPTY
Entrance Dose in mGy	(0040,8302)	DS	EMPTY
Exposed Area	(0040,0303)	US	EMPTY
Image Area Dose Product	(0018,115E)	DS	EMPTY
Comments on Radiation Dose	(0040,0310)	ST	EMPTY
Exposure Dose Sequence	(0040,030E)	SQ	EMPTY

CUREVISTA AEの検査終了通知(N-SET)は以下のとおり。

表 3.17 MPPS Request Identifier for N-SET Request

Attribute Name	Tag	VR	Value
SOP Common Module			
Specific Character Set	(0008,0005)	CS	CONFIG
Performed Procedure Step Information Module			
Performed Procedure Step Status	(0040,0252)	CS	CONFIG
Procedure Code Sequence	(0008,1032)	SQ	MWL or NA
> Code Value	(0008,0100)	SH	MWL
> Coding Scheme Designator	(0008,0102)	SH	MWL
> Coding Scheme Version	(0008,0103)	SH	MWL
> Code Meaning	(0008,0104)	LO	MWL
Performed Procedure Step End Date	(0040,0250)	DA	AUTO
Performed Procedure Step End Time	(0040,0251)	TM	AUTO
Image Acquisition Results Module			
Modality	(0008,0060)	CS	"RF"
Study ID	(0020,0010)	SH	MWL or EMPTY
Performed Protocol Code Sequence	(0040,0260)	SQ	MWL or EMPTY
> Code Value	(0008,0100)	SH	MWL
> Coding Scheme Designator	(0008,0102)	SH	MWL
> Coding Scheme Version	(0008,0103)	SH	MWL
> Code Meaning	(0008,0104)	LO	MWL
Performed Series Sequence	(0040,0340)	SQ	AUTO
> Performing Physician's Name	(0008,1050)	PN	USER
> Protocol Name	(0018,1030)	LO	USER
> Operator's Name	(0008,1070)	PN	USER
> Series Instance UID	(0020,000E)	UI	AUTO
> Series Description	(0008,103E)	LO	EMPTY
> Retrieve AE Title	(0008,0054)	AE	EMPTY
> Referenced Image Sequence	(0008,1140)	SQ	EMPTY
> Referenced Non-Image Composite SOP Instance Sequence	(0040,0220)	SQ	AUTO
>> Referenced SOP Class UID	(0008,1150)	UI	"1.2.840.10008.3.1.2.3.3"
>> Referenced SOP Instance UID	(0008,1155)	UI	N-CREATE-RSP
Radiation Dose Module			
Total Time of Fluoroscopy	(0040,0300)	US	AUTO
Total Number of Exposures	(0040,0301)	US	AUTO
Entrance Dose	(0040,0302)	US	AUTO
Entrance Dose in mGy	(0040,8302)	DS	AUTO
Image Area Dose Product	(0018,115E)	DS	AUTO
Exposure Dose Sequence	(0040,030E)	SQ	AUTO
> Radiation Mode	(0018,115A)	CS	"PULSED"
> KVp	(0018,0060)	DS	AUTO
> X-ray Tube Current in μ A	(0018,8151)	DS	AUTO
> Exposure Time	(0018,1150)	IS	AUTO
Billing and Material Management Codes Module			
Film Consumption Sequence	(0040,0321)	SQ	AUTO
> Number of Films	(2100,0170)	IS	AUTO

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.18 N-CREATE/N-SET Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0x0000	Close the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.5. Activity – Print Management as SCU

3.2.1.3.5.1. Description and Sequencing of Activities

CUREVISTA AEはPrint Management Service ClassのSCUとして、アソシエーションを確立し、リモートAEに対してプリント出力を要求する。

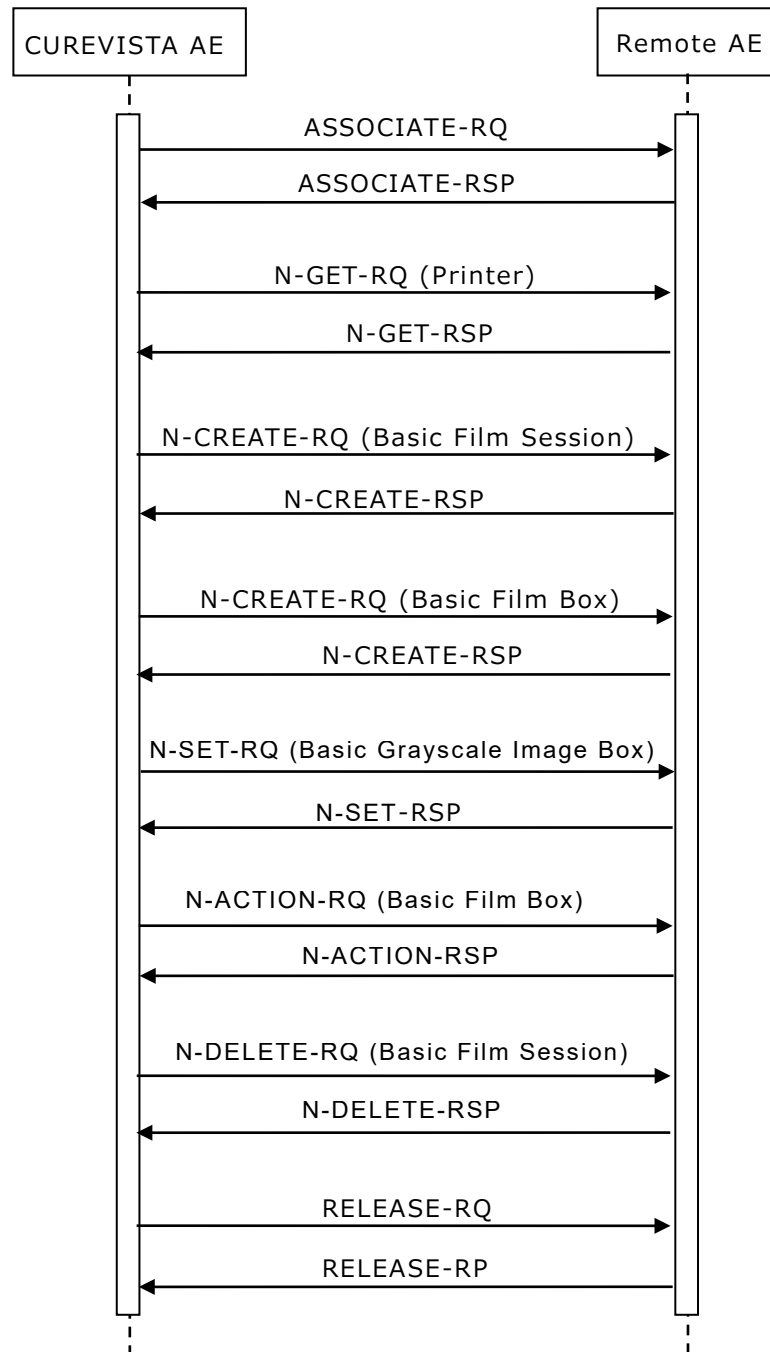


図 3.8 Sequencing of Activity – Print Management as SCU

3.2.1.3.5.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.19 Proposed Presentation Contexts for Activity – Print Management as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9				
>Basic Film Session SOP Class	1.2.840.10008.5.1.1.1	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
>Printer SOP Class	1.2.840.10008.5.1.1.16	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
>Basic Film Box SOP Class	1.2.840.10008.5.1.1.2	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	SCU	None
>Basic Grayscale Image Box SOP Class	1.2.840.10008.5.1.1.4	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
Print Job SOP Class	1.2.840.10008.5.1.1.14	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

3.2.1.3.5.3. SOP Specific Conformance for Basic Film Session SOP Class

3.2.1.3.5.3.1. Basic Film Session SOP Class Operations (N-CREATE)

CUREVISTA AEが対応するN-CREATE要求の内容は以下のとおり。

"Presence of Value"列の内容：

ALWAYS 常に値を持って出力
 ANAP 存在しない場合がある
 NA 出力しない

"Source"列の内容：

AUTO 自動生成する値
 CONFIG 設定パラメータを元に生成
 Printer Remote AEが生成

表 3.20 Basic Film Session SOP Class N-CREATE Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number of Copies	(2000,0010)	IS	1	ALWAYS	AUTO
Print Priority	(2000,0020)	CS	MED	ALWAYS	AUTO
Medium Type	(2000,0030)	CS		NA	
Film Destination	(2000,0040)	CS		NA	
Film Session Label	(2000,0050)	LO		NA	
Memory Allocation	(2000,0060)	IS		NA	

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.21 Basic Film Session SOP Class N-CREATE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Error	Processing Failure	0110	Abort the association and the Status Code is logged.
	Resource Limitation	0213	Abort the association and the Status Code is logged.
Warning	Attribute List Error	0107	Maintain the association and the Status Code is logged.
	Attribute Value Out of range	0116	Maintain the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.5.3.2. Basic Film Session SOP Class Operations (N-DELETE)

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.22 Basic Film Session SOP Class N- DELETE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Error	Processing Failure	0110	Close the association and the Status Code is logged.
	Class Instance Conflict	0119	Close the association and the Status Code is logged.
*	*	Any other status code	Close the association and the Status Code is logged.

3.2.1.3.5.4. SOP Specific Conformance for Printer SOP Class

3.2.1.3.5.4.1. Printer SOP Class Operations (N-GET)

CUREVISTA AEがN-GET応答から取得する内容は以下のとおり。

表 3.23 Printer SOP Class N-GET Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Printer Status	(2110,0010)	CS	Provided by Remote AE	ALWAYS	Printer
Printer Status Info	(2110,0020)	CS	Provided by Remote AE	ALWAYS	Printer

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.24 Printer SOP Class N-GET Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Warning	Requested optional Attributes are not supported	0001	Maintain the association and the Status Code is logged.
	Attribute List Error	0107	Maintain the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.5.4.2. Printer SOP Class Notifications (N-EVENT-REPORT)

CUREVISTA AEがN-EVENT-REPORT要求から取得する内容は以下のとおり。

表 3.25 Printer SOP Class N-EVENT-REPORT Behavior

Event Type Name	Event Type ID	Behavior
Normal	1	Continue jobs.
Warning	2	Continue jobs. Get Printer Status Info (2110,0020) and Printer Name (2110,0030).
Failure	3	Continue jobs. Get Printer Status Info (2110,0020) and Printer Name (2110,0030).
*	*	Continue jobs.

CUREVISTA AEがN-EVENT-REPORT応答で送信するステータスは以下のとおり。

表 3.26 Printer SOP Class N-EVENT-REPORT Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Reasons
Success	Success	0000	The notification event has been successfully received.

3.2.1.3.5.5. SOP Specific Conformance for Basic Film Box SOP Class

3.2.1.3.5.5.1. Basic Film Box SOP Class Operations (N-CREATE)

CUREVISTA AEが対応するN-CREATE要求の内容は以下のとおり。

表 3.27 Basic Film Box SOP Class N-CREATE Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Display Format	(2010,0010)	ST	表 3.28	ALWAYS	CONFIG
Film Orientation	(2010,0040)	CS	PORTRAIT LANDSCAPE	ALWAYS	CONFIG
Film Size ID	(2010,0050)	CS	14INX17IN 14INX14IN 11INX14IN 10INX12IN 8INX10IN A4	ALWAYS	CONFIG
Magnification Type	(2010,0060)	CS	CUBIC	ALWAYS	AUTO
Smoothing Type	(2010,0080)	CS		NA	
Border Density	(2010,0100)	CS		NA	
Min Density	(2010,0120)	US		NA	
Max Density	(2010,0130)	US		NA	
Trim	(2010,0140)	CS		NA	
Configuration Information	(2010,0150)	ST	LUT number	ANAP	CONFIG

表 3.28 Image Display Format Value based on Film Orientation

Film Orientation (2010,0040)	Image Display Format (2040,0010)
PORTRAIT	STANDARD¥1,1 STANDARD¥1,2 STANDARD¥2,2 STANDARD¥2,3 STANDARD¥3,3 STANDARD¥3,4 STANDARD¥4,5
LANDSCAPE	STANDARD¥1,1 STANDARD¥2,1 STANDARD¥2,2 STANDARD¥3,2 STANDARD¥3,3 STANDARD¥4,3 STANDARD¥5,4

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.29 Basic Film Box SOP Class N-CREATE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Error	Invalid Attribute Value	0106	Abort the association and the Status Code is logged.
	Processing Failure	0110	Abort the association and the Status Code is logged.
	Duplicate SOP Instance	0111	Abort the association and the Status Code is logged.
Warning	Missing Attribute	0120	Abort the association and the Status Code is logged.
	Attribute List Error	0107	Maintain the association and the Status Code is logged.
	Attribute Value Out of Range	0116	Maintain the association and the Status Code is logged.
	Requested Min or Max Density Outside Range	B605	Maintain the association and the Status Code is logged.
*	*	Any other status code	Abort the association and the Status Code is logged.

3.2.1.3.5.5.2. Basic Film Box SOP Class Operations (N-ACTION)

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.30 Basic Film Box SOP Class N-ACTION Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Maintain the association and the Status Code is logged.
Warning	No collation support	B601	Maintain the association and the Status Code is logged.
	Session empty page	B602	Maintain the association and the Status Code is logged.
	Box empty page	B603	Maintain the association and the Status Code is logged.
Error	Processing Failure	0110	Abort the association and the Status Code is logged.
	No such SOP Instance	0112	Abort the association and the Status Code is logged.
	Invalid argument value	0115	Abort the association and the Status Code is logged.
	Class instance conflict	0119	Abort the association and the Status Code is logged.
	No film SOP instances	C600	Abort the association and the Status Code is logged.
	Session print queue is full	C601	Abort the association and the Status Code is logged.
	Box print queue full	C602	Abort the association and the Status Code is logged.
	Size larger than box	C603	Abort the association and the Status Code is logged.
	*	*	Any other status code

3.2.1.3.5.6. SOP Specific Conformance for Basic Grayscale Image Box SOP Class

3.2.1.3.5.6.1. Basic Grayscale Image Box SOP Class Operations (N-SET)

CUREVISTA AEが対応するN-SET要求の内容は以下のとおり。

表 3.31 Basic Image Box SOP Class N-SET Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Basic Grayscale Image Sequence	(2020,0110)	SQ		ALWAYS	AUTO
Sample per Pixel	>(0028,0002)	US	1	ALWAYS	AUTO
Photometric Interpretation	>(0028,0004)	CS	MONOCHROME2	ALWAYS	AUTO
Rows	>(0028,0010)	US	256,320,512, 1024,2048,etc	ALWAYS	AUTO
Columns	>(0028,0011)	US	256,320,512, 1024,2048,etc	ALWAYS	AUTO
Pixel Aspect Ratio	>(0028,0034)	DS	1≠1	ALWAYS	AUTO
Bits Allocated	>(0028,0100)	US	8,16	ALWAYS	AUTO
Bits Stored	>(0028,0101)	US	8,12	ALWAYS	AUTO
High Bit	>(0028,0102)	US	7,11	ALWAYS	AUTO
Pixel Representation	>(0028,0103)	US	0	ALWAYS	AUTO
Requested Image Size	(2020,0030)	DS		ANAP	CONFIG

3.2.1.3.5.7. SOP Specific Conformance for Print Job SOP Class

3.2.1.3.5.7.1. Print Job SOP Class Notifications (N-EVENT-REPORT)

CUREVISTA AEがN-EVENT-REPORT要求から取得する内容は以下のとおり。

表 3.32 Printer Job SOP Class N-EVENT-REPORT Behavior

Event Type Name	Event Type ID	Behavior
Normal	1	Continue jobs. Get Printer Status Info (2110,0020), Printer Name (2110,0030), and Film Session Label (2000,0050).
Warning	2	Continue jobs. Get Printer Status Info (2110,0020), Printer Name (2110,0030), and Film Session Label (2000,0050).
Failure	3	Continue jobs. Get Printer Status Info (2110,0020), Printer Name (2110,0030), and Film Session Label (2000,0050).
*	*	Continue jobs. Get Printer Status Info (2110,0020), Printer Name (2110,0030), and Film Session Label (2000,0050).

CUREVISTA AEがN-EVENT-REPORT応答で送信するステータスは以下のとおり。

表 3.33 Printer Job SOP Class N-EVENT-REPORT Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Reasons
Success	Success	0000	The notification event has been successfully received.

3.2.1.3.6. Activity – Query/Retrieve

3.2.1.3.6.1. Description and Sequencing of Activities

CUREVISTA AEはQuery / Retrieve Service ClassのSCUとして、アソシエーションを確立し、FIND要求を送信する。FIND要求送信後、リモートアプリケーションからのFIND応答を受信する。

CUREVISTA AEは、前述の方法でアソシエーションを確立し、MOVE要求を送信する。MOVE要求送信後、リモートアプリケーションMOVE応答を受信する。

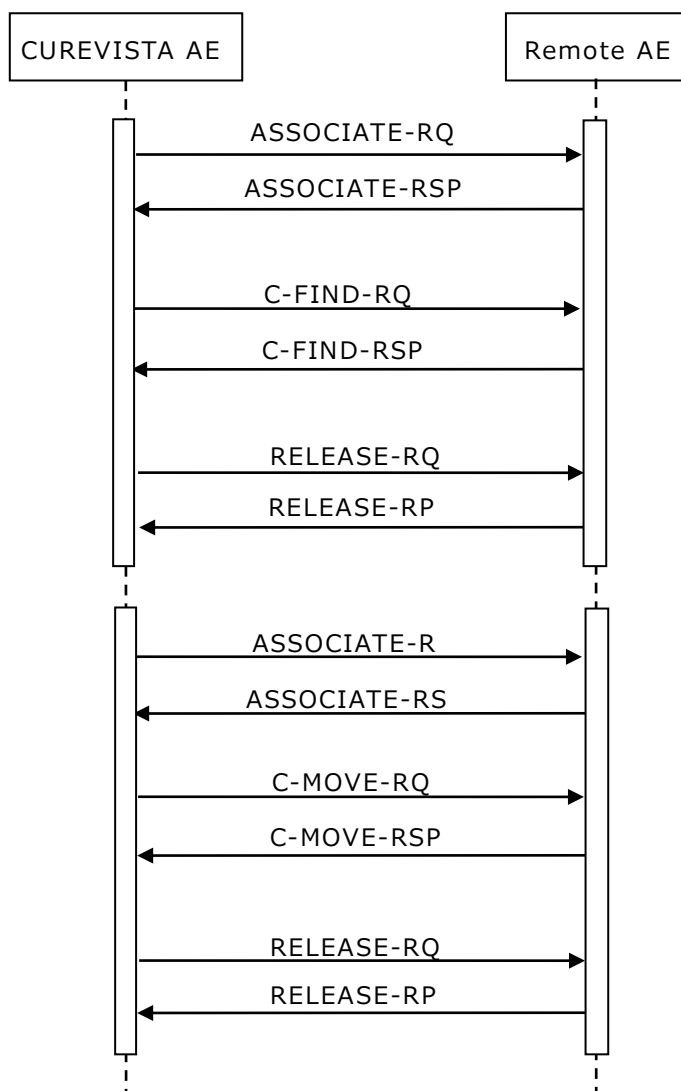


図 3.9 Sequencing of Activity – Query/Retrieve

3.2.1.3.6.2. Proposed Presentation Contexts

CUREVISTA AEのプレゼンテーションコンテキストは以下のとおり。

表 3.34 Proposed Presentation Contexts for Activity – FIND as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Study Root Query/Retrieve Information Model-FIND	1.2.840.10008. 5.1.4.1.2.2.1	Implicit VR Little	1.2.840.10008.1.2	SCU	None
		Endian	1.2.840.10008.1.2.1		
		Explicit VR Little	1.2.840.10008.1.2.2		
		Endian			
Patient Root Query/Retrieve Information Model-FIND	1.2.840.10008. 5.1.4.1.2.1.1	Implicit VR Little	1.2.840.10008.1.2	SCU	None
		Endian	1.2.840.10008.1.2.1		
		Explicit VR Little	1.2.840.10008.1.2.2		
		Endian			

表 3.35 Proposed Presentation Contexts for Activity – MOVE as SCU

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Study Root Query/Retrieve Information Model-MOVE	1.2.840.10008. 5.1.4.1.2.2.2	Implicit VR Little	1.2.840.10008.1.2	SCU	None
		Endian	1.2.840.10008.1.2.1		
		Explicit VR Little	1.2.840.10008.1.2.2		
		Endian			
Patient Root Query/Retrieve Information Model-MOVE	1.2.840.10008. 5.1.4.1.2.1.2	Implicit VR Little	1.2.840.10008.1.2	SCU	None
		Endian	1.2.840.10008.1.2.1		
		Explicit VR Little	1.2.840.10008.1.2.2		
		Endian			

表 3.36 Proposed Presentation Contexts for Activity – STORE as SCP

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Computed Radiography Image Storage	1.2.840.1000 8.5.1.4.1.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
CT Image Storage	1.2.840.1000 8.5.1.4.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
MR Image Storage	1.2.840.1000 8.5.1.4.1.1.4	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Nuclear Medicine Image Storage	1.2.840.1000 8.5.1.4.1.1.20	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Secondary Capture Image Storage	1.2.840.1000 8.5.1.4.1.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Ultrasound Image Storage	1.2.840.1000 8.5.1.4.1.1.6.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Ultrasound Multi-frame Image Storage	1.2.840.1000 8.5.1.4.1.1.3.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
X-ray Angiographic Image Storage	1.2.840.1000 8.5.1.4.1.1.12.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
X-ray Radio Fluoroscopic Image Storage	1.2.840.1000 8.5.1.4.1.1.12.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
X-ray Angiographic Bi-Plane Image Storage	1.2.840.1000 8.5.1.4.1.1.12.3	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		

3.2.1.3.6.3. SOP Specific Conformance for FIND as SCU
 CUREVISTA AEの照合キー(Matching Key)は以下のとおり。

"Type of Matching"列の内容：

- S 完全一致指定(Single Value Matching)
- W ワイルドカードによる部分指定(Wild Card Matching)
- U NULLを指定(Universal Matching)
- R 日付の範囲指定(Range Matching)

表 3.37 Request Identifier for FIND as SCU

Attribute Name	Tag	Type of Matching
PATIENT Level		
Patient's Name	(0010,0010)	W
Patient ID	(0010,0020)	W
STUDY Level		
Study Date	(0008,0020)	R
Study Instance UID	(0020,000D)	S
SERIES Level		
Modality	(0008,0060)	S
Series Number	(0020,0011)	U
Series Instance UID	(0020,000E)	S
IMAGE Level		
Instance Number	(0020,0013)	U
Columns	(0028,0011)	U
Rows	(0028,0010)	U
Body Part Examined	(0018,0015)	U
Storage Media File Set ID	(0088,0130)	U

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.38 C-FIND Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0x0000	Close the association and the Status Code is logged. Received items are displayed.
Cancel	Matching terminated due to Cancel request	0xFE00	Close the association and the Status Code is logged.
*	*	Any other status code	Maintain the association and the Status Code is logged.

3.2.1.3.6.4. SOP Specific Conformance for MOVE as SCU

CUREVISTA AEの照合キー(Matching Key)は以下のとおり。

表 3.39 Request Identifier for MOVE as SCU

Attribute Name	Tag	Unique, Matching or Return Key
PATIENT Level		
Patient ID	(0010,0020)	UNIQUE
STUDY Level		
Study Instance UID	(0020,000D)	UNIQUE
SERIES Level		
Series Instance UID	(0020,000E)	UNIQUE
IMAGE Level		
SOP Instance UID	(0008,0018)	UNIQUE

応答を受けてのCUREVISTA AEの動作は以下のとおり。

表 3.40 C-MOVE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Pending	Pending	FF00	Maintain the association and the Status Code is logged.
Success	Success	0000	Close the association and the Status Code is logged.
Cancel	Matching terminated due to Cancel request	FE00	Close the association and the Status Code is logged.
Warning	Sub-operations Complete - One or more Failures	B000	Close the association and the Status Code is logged.
*	*	Any other status code	Close the association and the Status Code is logged.

3.2.1.3.6.5. SOP Specific Conformance for STORE as SCP

CUREVISTA AEがC-STORE応答で送信するステータスは以下のとおり。

表 3.41 C-STORE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Reasons
Success	Success	0000	The notification event has been successfully received.
Error	Out of Resources	A700	Out of Resources.
	Cannot Understand	C000	Cannot Understand.

3.2.1.4 Association Acceptance Policy

3.2.1.4.1. Activity – Storage as SCP

3.2.1.4.1.1. Description and Sequencing of Activities

CUREVISTA AEはStorage Service ClassのSCPとして、アソシエーションを受理し、STORE要求を受信する。STORE要求受信後、リモートアプリケーションにSTORE応答を送信する。

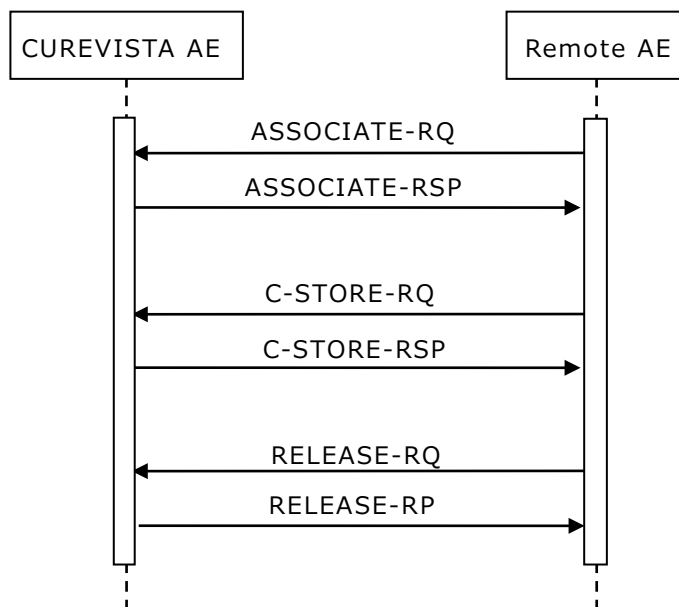


図 3.10 Sequencing of Activity – Storage as SCP

3.2.1.4.1.2. Description and Sequencing of Activities

CUREVISTA AEが受理するプレゼンテーションコンテキストは以下のとおり。

表 3.42 Acceptable Presentation Contexts for Activity – Storage SCP

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
X-Ray Radio Fluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.88.67	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
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		
		Explicit VR Big Endian	1.2.840.10008.1.2.2		

Presentation Context Table					
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 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
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	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	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	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	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	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCP	None
Ultrasound Multi-Frame 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	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	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	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCP	None
X-Ray Angiographic Bi-plane Image Storage	1.2.840.10008.5.1.4.1.1.12.3	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

3.3 Network Interface

3.3.1 Physical Network Interface

CUREVISTAが対応する物理媒体サポートは以下のとおり。

表 3.43 Supported Physical Network Interfaces

Ethernet 100baseT
Ethernet 1000baseT

3.3.2 IPv4 and IPv6 Support

CUREVISTAはIPv4のみサポートする。

3.4 Configuration

CUREVISTAは、自分のAEタイトル、リモートホストのDICOM AEタイトル、ホスト名称、ポート番号等をコンフィグレーションファイルに設定する。設定は、当社または当社の指定する業者の技術者が行う。

4. Media Interchange

4.1 Implementation Model

4.1.1 Application Data Flow

CUREVISTAのAEタイトル名称をCUREVISTA AEと記述する。

CUREVISTA AEは、CUREVISTA上で生成された画像を保存するために、DICOM規格に準拠したDVD-RAM、USBを作成することができる。また、DICOM規格に準拠したDVD-RAM、USBに、CUREVISTA上で生成された画像を追加することができる。また、DICOM規格に準拠したDVD-RAM、USB画像を読み出し、CUREVISTA上で表示することができる。

CUREVISTA AEは、DICOM規格PS 3.12の仕様に従ってフォーマットされている4.7GB の 120mm DVD-RAM をサポートする。ただし、CUREVISTA AEがFSCとして作成するDVD-RAMメディアはUDF2.0でフォーマットされる。

CUREVISTAのアプリケーションデータフローを以下に示す。

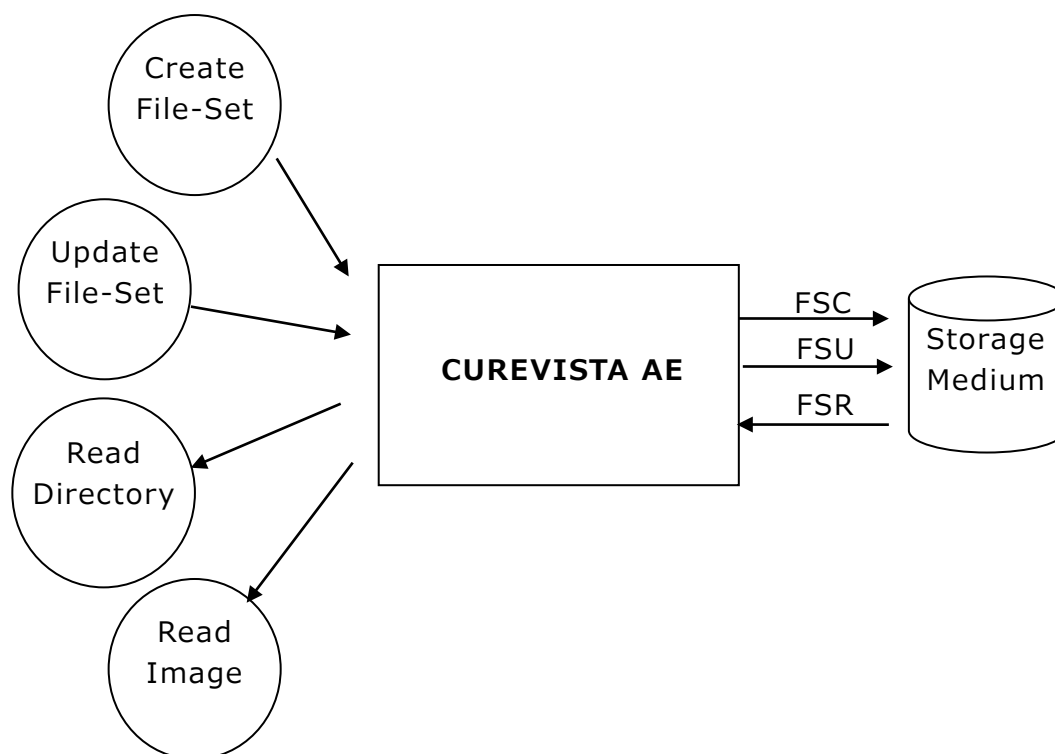


図 4.1 Application Data Flow Diagram

4.1.2 Functional Definition of AEs

CUREVISTA AEは、GUIを通して受け取ったユーザー要求をもとに、CUREVISTAで作成したDVD-RAMメディア、USBに対して下記の操作を行う。

- 新品のメディアを初期化し、新規のDICOMファイルセットを書き込む
- メディア内のDICOMファイルセットのリストを表示する
- メディア内のSOPインスタンスをCUREVISTAデータ管理にコピーする
- 新規のSOPインスタンスを書き込んでメディアを更新する

4.1.3 Sequencing of Real-World Activities

CUREVISTA AEの書き込みおよび読み込みの操作は以下のとおり。

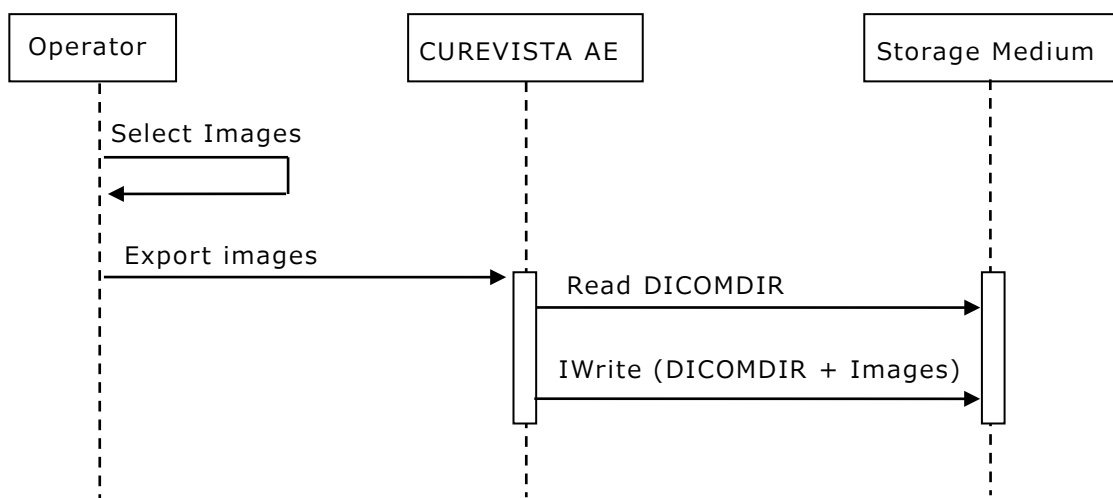


図 4.2 Sequencing of Activity – Export Images

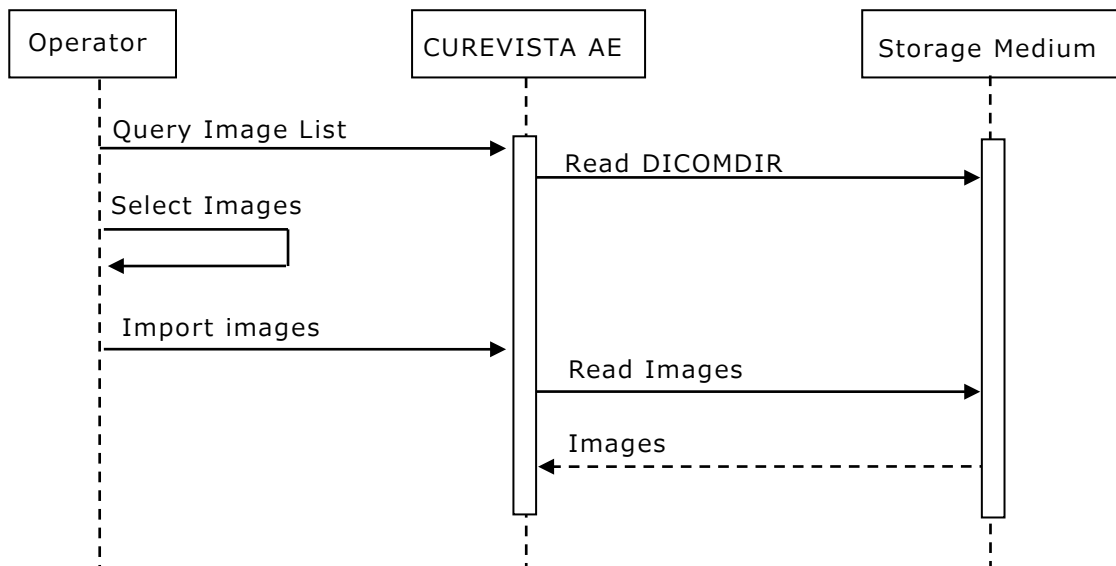


図 4.3 Sequencing of Activity – Import Images

4.1.4 File Meta Information Options

CUREVISTA AEのファイルメタ情報に書き込まれるインプリメンテーション情報は以下のとおり。

表 4.1 DICOM Implementation Class and Version

Description	Value
Implementation Class UID	1.2.392.200036.9123.100.15.8001
Implementation Version Name	HMCACROSS1.0

4.2 AE Specification

4.2.1 CUREVISTA AE

CUREVISTA AEは、DICOM規格のStorage Media Storage Service Classをサポートする。サポートするApplication ProfileとRoleを下記に示す。

表 4.2 Application Profiles, Activities and Roles

Application Profiles Supported	Real World Activity	Role
STD-GEN-DVD-RAM	Create File-Set	FSC
	Read Directory	FSR
	Read Image	FSR
	Update File-Set	FSU
STD-GEN-USB	Create File-Set	FSC
	Read Directory	FSR
	Read Image	FSR
	Update File-Set	FSU

4.2.1.1 File Meta Information for the Application Entity

AEタイトル名称は、設定することができる。4.4参照。

4.2.1.2 Real-World Activities

4.2.1.2.1. Create File-Set

CUREVISTA AEはCreate File-Setの要求を受けるとFSCとしてメディアのファイルシステムの初期化を行い、DICOMファイルセット（DICOMDIR）を新規に作成する。Create File-SetがサポートするSOPクラスを下記に示す。

表 4.3 SOP Classes and Transfer Syntaxes

SOP Class		Transfer Syntax	
Name	UID	Name List	UID List
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1

4.2.1.2.2. Read Directory

CUREVISTA AEはRead Directoryの要求を受けるとFSRとしてメディアのDICOMファイルセット（DICOMDIR）を読み取り、メディアに記録されているSOPインスタンスの情報を提示する。その際、CUREVISTA AEはユーザーが指定した条件に合致するSOPインスタンスのみを提示する。

Read DirectoryがサポートするSOPクラスを下記に示す。

表 4.4 SOP Classes and Transfer Syntaxes

SOP Class		Transfer Syntax	
Name	UID	Name List	UID List
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1

4.2.1.2.3. Read Image

CUREVISTA AEはRead Imageの要求を受けるとFSRとしてRead Directoryで提示したSOPインスタンスからユーザーが選択したものをメディアから読み込み、CUREVISTAデータ管理にコピーする。

Read ImageがサポートするSOPクラスを下記に示す。

表 4.5 SOP Classes and Transfer Syntaxes

SOP Class		Transfer Syntax	
Name	UID	Name List	UID List
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1
X-Ray Radio Fluoroscopic Image Storage	1.2.840.10008.5.1.4. 1.1.12.2	Explicit VR Little Endian	1.2.840.10008.1.2.1

4.2.1.2.4. Update File-Set

CUREVISTA AEはUpdate File-Setの要求を受けるとFSUとしてユーザーが指定したCUREVISTAデータ管理上の画像をメディアに書き込み、メディアのDICOMファイルセット(DICOMDIR)を更新する。

Update File-SetがサポートするSOPクラスを下記に示す。

表 4.6 SOP Classes and Transfer Syntaxes

SOP Class		Transfer Syntax	
Name	UID	Name List	UID List
Media Storage Directory Storage	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1
X-Ray Radio Fluoroscopic Image Storage	1.2.840.10008.5.1.4. 1.1.12.2	Explicit VR Little Endian	1.2.840.10008.1.2.1

4.3 Augmented and Private Application Profiles

サポートしない。

4.4 Media Configuration

CUREVISTAは、自分のAEタイトル、ドライブ情報等をコンフィグレーションファイルに設定する。設定は、当社または当社の指定する業者の技術者が行う。

5. Support of Character Sets

下記の拡張文字集合をサポートする。

- ASCII (ISO 2022 IR 6)
- JIS X 0201 Katakana (ISO 2022 IR 13)
- JIS X 0208 Kanji (ISO 2022 IR 87)

6. Security

サポートしない。

7. Annex of Storage as SCU

7.1 X-Ray Radio Fluoroscopic Image Storage

7.1.1 Private Tags

表 7.1はCUREVISTAがX-Ray Radio Fluoroscopic Image Storageで出力するプライベートデータを示す。

表7.1 Private Attributes

Tag	VR	VM
(0009, 0010)	LO	1
(0009, 0030)	LO	1
(0009, 0040)	LO	1
(0009, 0090)	LO	1
(0009, 1020)	US	1
(0009, 1030)	OB	1
(0009, 1050)	OB	1
(0009, 1060)	OB	1
(0009, 3000)	LO	1
(0009, 3010)	US	1
(0009, 3020)	US	1
(0009, 3030)	US	1
(0009, 3031)	US	1
(0009, 3032)	US	1
(0009, 3033)	US	1
(0009, 3040)	US	1
(0009, 3041)	US	1
(0009, 3042)	US	1
(0009, 3043)	US	1
(0009, 3050)	US	1
(0009, 3060)	US	1
(0009, 3061)	US	1
(0009, 4000)	IS	1
(0009, 4010)	IS	1
(0009, 4020)	OB	1
(0009, 9000)	LO	1

7.1.2 IOD Contents

CUREVISTAがX-Ray Radio Fluoroscopic Image Storageで出力するIODを下表に示す。

"Value"列の内容は下記を表す。

USER	ユーザーの入力値
AUTO	自動生成した値
CONFIG	設定パラメータを元に生成
MWL	Modality Worklistから引用
MPPS	Modality Performed Procedure Stepから引用
NA	生成しない
EMPTY	空(NULL)のDICOMタグを生成

表 7.2 Information Object Definition

Attribute Name	Tag	Type	Value
Patient Module			
Patient's Name	(0010,0010)	2	USER or MWL
Patient ID	(0010,0020)	2	USER or MWL
Patient's Birth Date	(0010,0030)	2	USER or MWL
Patient's Sex	(0010,0040)	2	USER or MWL
Referenced Patient Sequence	(0008,1120)	3	MWL
>Referenced SOP Class UID	(0008,1150)	1	MWL
>Referenced SOP Instance UID	(0008,1155)	1	MWL
General Study Module			
Study Instance UID	(0020,000D)	1	MWL or AUTO
Study Date	(0008,0020)	2	AUTO
Study Time	(0008,0030)	2	AUTO
Referring Physician's Name	(0008,0090)	2	USER or MWL
Study ID	(0020,0010)	2	MWL or "0"
Accession Number	(0008,0050)	2	USER or MWL
Study Description	(0008,1030)	3	NA
Referenced Study Sequence	(0008,1110)	3	MWL
>Referenced SOP Class UID	(0008,1150)	1	MWL
>Referenced SOP Instance UID	(0008,1155)	1	MWL
Procedure Code Sequence	(0008,1032)	3	MPPS
General Series Module			
Modality	(0008,0060)	1	AUTO
Series Instance UID	(0020,000E)	1	AUTO
Series Number	(0020,0011)	1	0
Series Date	(0008,0021)	3	AUTO
Series Time	(0008,0031)	3	AUTO
Performing Physician's Name	(0008,1050)	3	USER
Protocol Name	(0018,1030)	3	NA or AUTO
Series Description	(0008,103E)	3	NA
Operator's Name	(0008,1070)	3	USER
Referenced Performed Procedure Step Sequence	(0008,1111)	2	AUTO
>Referenced SOP Class UID	(0008,1150)	1	"1.2.840.10008.3.1.2.3.3"
>Referenced SOP Instance UID	(0008,1155)	1	MPPS

Attribute Name	Tag	Type	Value
Body Part Examined	(0018,0015)	3	USER
Request Attributes Sequence	(0040,0275)	3	MWL or NA
>Requested Procedure ID	(0040,1001)	1C	MWL
>Requested Procedure Description	(0032,1060)	3	MWL
>Scheduled Procedure Step ID	(0040,0009)	1C	MWL
>Scheduled Procedure Step Description	(0040,0007)	3	MWL
>Scheduled Protocol Code Sequence	(0040,0008)	3	MWL
>>Code Value	(0008,0100)	1C	MWL
>>Coding Scheme Designator	(0008,0102)	1C	MWL
>>Coding Scheme Version	(0008,0103)	1C	MWL
>>Coding Scheme Meaning	(0008,0104)	1	MWL
General Equipment			
Manufacturer	(0008,0070)	2	"FUJIFILM Healthcare Corp."
Institution Name	(0008,0080)	3	CONFIG
Station Name	(0008,1010)	3	CONFIG
Institutional Department Name	(0008,1040)	3	USER or MWL
Manufacturer's Model Name	(0008,1090)	3	"DR-V"
Device Serial Number	(0018,1000)	3	CONFIG
General Image Module			
Instance Number	(0020,0013)	2	AUTO
Patient Orientation	(0020,0020)	2C	EMPTY
Content Date	(0008,0023)	2C	AUTO
Content Time	(0008,0033)	2C	AUTO
Image Type	(0008,0008)	3	AUTO
Acquisition Date	(0008,0022)	3	AUTO
Acquisition Time	(0008,0032)	3	AUTO
Images in Acquisition	(0020,1002)	3	AUTO
Image Comments	(0020,4000)	3	USER or MWL
Irradiation Event UID	(0008,3010)	3	NA
Image Pixel Module			
Samples per Pixel	(0028,0002)	1	1
Photometric Interpretation	(0028,0004)	1	AUTO
Rows	(0028,0010)	1	AUTO
Columns	(0028,0011)	1	AUTO
Bits Allocated	(0028,0100)	1	16
Bits Stored	(0028,0101)	1	12
High Bit	(0028,0102)	1	11
Pixel Representation	(0028,0103)	1	0
Pixel Data	(7FE0,0010)	1C	AUTO
X-Ray Image Module			
Image Type	(0008,0008)	1	AUTO
Pixel Intensity Relationship	(0028,1040)	1	"DISP" or "LIN"
Samples per Pixel	(0028,0002)	1	1
Photometric Interpretation	(0028,0004)	1	AUTO
Bits Allocated	(0028,0100)	1	16
Bits Stored	(0028,0101)	1	12
High Bit	(0028,0102)	1	11
Pixel Representation	(0028,0103)	1	0
Scan Options	(0018,0022)	3	NA or "TOMO"
X-Ray Acquisition Module			
KVP	(0018,0060)	2	AUTO
Radiation Setting	(0018,1155)	1	"GR"
X-Ray Tube Current	(0018,1151)	2C	AUTO
Exposure Time	(0018,1150)	2C	AUTO
Exposure	(0018,1152)	2C	AUTO
Field of View Dimension(s)	(0018,1149)	3	AUTO

Attribute Name	Tag	Type	Value
Pixel Spacing	(0028,0030)	1C	AUTO
Focal Spot	(0018,1190)	3	0
X-Ray Tomography Acquisition			
Tomo Layer Height	(0018,1460)	1	NA or AUTO
Tomo Angle	(0018,1470)	3	NA or AUTO
Tomo Time	(0018,1480)	3	NA or AUTO
Tomo Type	(0018,1490)	3	NA or "LINER"
Tomo Class	(0018,1491)	3	NA or "TOMOSYNTHESIS"
Number of Tomosynthesis Source Images	(0018,1495)	3	NA or AUTO
SOP Common			
SOP Class UID	(0008,0016)	1	"1.2.840.10008.5.1.4.1.1.12.2"
SOP Instance UID	(0008,0018)	1	AUTO
Specific Character Set	(0008,0005)	1C	CONFIG
Instance Number	(0020,0013)	3	AUTO
VOI LUT Module			
Window Center	(0028,1050)	3	AUTO
Window Width	(0028,1051)	1C	AUTO

7.2 X-Ray Radiation Dose SR Storage

7.2.1 IOD Contents

CUREVISTAがX-Ray Radiation Dose SR Storageで出力するIODを下表に示す。

"Value"列の内容は下記を表す。

USER	ユーザーの入力値
AUTO	自動生成した値
CONFIG	設定パラメータを元に生成
MWL	Modality Worklistから引用
MPPS	Modality Performed Procedure Stepから引用
NA	生成しない
EMPTY	空(NULL)のDICOMタグを生成

表 7.3 Information Object Definition

Attribute Name	Tag	Type	Value
Patient Module			
Patient's Name	(0010,0010)	2	USER or MWL
Patient ID	(0010,0020)	2	USER or MWL
Patient's Birth Date	(0010,0030)	2	USER or MWL
Patient's Sex	(0010,0040)	2	USER or MWL
General Study Module			
Study Instance UID	(0020,000D)	1	MWL or AUTO
Study Date	(0008,0020)	2	AUTO
Study Time	(0008,0030)	2	AUTO
Referring Physician's Name	(0008,0090)	2	USER or MWL
Study ID	(0020,0010)	2	MWL or "0"
Accession Number	(0008,0050)	2	USER or MWL
Study Description	(0008,1030)	3	NA
Patient Study Module			
Patient's Size	(0010,1020)	3	MWL or NA
Patient's Weight	(0010,1030)	3	MWL or NA
SR Document Series			
Modality	(0008,0060)	1	"SR"
Series Instance UID	(0020,000E)	1	AUTO
Series Number	(0020,0011)	1	0
Series Date	(0008,0021)	2	AUTO
Series Time	(0008,0031)	2	AUTO
Series Description	(0008,103E)	3	NA
Referenced Performed Procedure Step Sequence	(0008,1111)	2	MPPS or EMPTY
>Referenced SOP Class UID	(0008,1150)	1	"1.2.840.10008.3.1.2.3.3"
>Referenced SOP Instance UID	(0008,1155)	1	MPPS

Attribute Name	Tag	Type	Value
General Equipment			
Manufacturer	(0008,0070)	2	"FUJIFILM Healthcare Corp."
Institution Name	(0008,0080)	3	CONFIG
Station Name	(0008,1010)	3	CONFIG
Institutional Department Name	(0008,1040)	3	USER or MWL
Manufacturer's Model Name	(0008,1090)	3	"DR-V"
Device Serial Number	(0018,1000)	3	CONFIG
Software Version(s)	(0018,1020)	3	AUTO
Enhanced General Equipment			
Manufacturer	(0008,0070)	1	"FUJIFILM Healthcare Corp."
Manufacturer's Model Name	(0008,1090)	1	"DR-V"
Device Serial Number	(0018,1000)	1	CONFIG
Software Version(s)	(0018,1020)	1	AUTO
SR Document General			
Instance Number	(0020,0013)	1	"1"
Completion Flag	(0040,A491)	1	"COMPLETE" or "PARTIAL"
Verification Flag	(0040,A493)	1	"UNVERIFIED"
Content Date	(0008,0023)	1	AUTO
Content Time	(0008,0033)	1	AUTO
Referenced Request Sequence	(0040,A370)	1C	MWL or NA
>Study Instance UID	(0020,000D)	1	MWL
>Referenced Study Sequence	(0008,1110)	2	MWL
>>Referenced SOP Class UID	(0008,1150)	1	MWL
>>Referenced SOP Instance UID	(0008,1155)	1	MWL
>Accession Number	(0008,0050)	2	MWL
>Requested Procedure ID	(0040,1001)	2	MWL
>Requested Procedure Description	(0032,1060)	2	MWL
>Requested Procedure Code Sequence	(0032,1064)	2	MWL
>>Code Value	(0008,0100)	1C	MWL
>>Coding Scheme Designator	(0008,0102)	1C	MWL
>>Coding Scheme Version	(0008,0103)	1C	MWL
>>Coding Scheme Meaning	(0008,0104)	1	MWL
Performed Procedure Code Sequence	(0040,A372)	2	MPPS or EMPTY
SOP Common			
SOP Class UID	(0008,0016)	1	"1.2.840.10008.5.1.4.1.1.88.67"
SOP Instance UID	(0008,0018)	1	AUTO
Specific Character Set	(0008,0005)	1C	CONFIG

7.2.2 SR Document Contents

CUREVISTAがX-Ray Radiation Dose SR Storageで出力するSR Document Contentsを下表に示す。

"Value"列の内容は下記を表す。

USER ユーザーの入力値
 AUTO 自動生成した値
 CONFIG 設定パラメータを元に生成
 NA 生成しない

表 7.4 SR Document Contents

NL	Rel with Parent	VT	Concept Name	VM	Type	Value
TID 10001 Projection X-Ray Radiation Dose						
		CONTAINER	EV (113701, DCM, "X-Ray Radiation Dose Report")	1	M	-
>	HAS CONCEPT MOD	CODE	EV (121058, DCM, "Procedure reported")	1	M	Code Sequence (113704, DCM, "Projection X-Ray")
>>	HAS CONCEPT MOD	CODE	EV (G-C0E8, SRT, "Has Intent")	1	M	Code Sequence (SRT, R-408C3, "Diagnostic Intent")
>	CONTAINS	CODE	EV (122142, DCM, "Acquisition Device Type")	1	U	Code Sequence (113957, DCM, "Fluoroscopy-Guided Projection Radiography System")
>		INCLUDE	DTID 1002 "Observer Context"	1-n	M	See TID 1002. Observer Context
>	HAS OBS CONTEXT	CODE	EV (113705, DCM, "Scope of Accumulation")	1	M	Code Sequence (DCM, 113014, "Study") Code Sequence
>>	HAS PROPERTIES	UIDREF	DCID 10001 "UID Types": Study Instance UID	1	M	Study Instance UID
>	CONTAINS	CODE	EV (113945, DCM, "X-Ray Detector Data Available")	1	U	Code Sequence (R-0038A, DCM, "No")
>	CONTAINS	CODE	EV (113943, DCM, "X-Ray Source Data Available")	1	U	Code Sequence (DCM, R-0038D, "Yes")
>	CONTAINS	CODE	EV (113944, DCM, "X-Ray Mechanical Data Available")	1	U	Code Sequence (R-0038A, DCM, "No") Code Sequence (R-0038D, DCM, "Yes") ※1
>	CONTAINS	INCLUDE	DTID 10002 "Accumulated X-Ray Dose"	1	MC	See TID 10002 Accumulated X-Ray Dose
>	CONTAINS	INCLUDE	DTID 10003 "Irradiation Event X-Ray Data"	1-n	MC	See TID 10003 Irradiation Event X-Ray Data
>	CONTAINS	CODE	EV (113854, DCM, "Source of Dose Information")	1-n	M	CONFIG

NL	Rel with Parent	VT	Concept Name	VM	Type	Value
TID 10002 Accumulated X-Ray Dose						
		CONTAINER	EV (113702, DCM, "Accumulated X-Ray Dose Data")	1	M	
>	HAS CONCEPT MOD	CODE	EV (113764, DCM, "Acquisition Plane")	1	M	Code Sequence (113622, DCM, "Single Plane")
>	CONTAINS	CONTAINER	EV (122505, DCM, "Calibration")	1-n	MC	CONFIG
>>	HAS CONCEPT MOD	CODE	EV (113794, DCM, "Dose Measurement Device")	1	M	Code Sequence (SRT, A-2C090, "Dosimeter")
>>	CONTAINS	DATETIME	EV (113723, DCM, "Calibration Date")	1	M	CONFIG
>>	CONTAINS	NUM	EV (122322, DCM, "Calibration Factor")	1	M	CONFIG
>>	CONTAINS	NUM	EV (113763, DCM, "Calibration Uncertainty")	1	M	CONFIG
>>	CONTAINS	TEXT	EV (113724, DCM, "Calibration Responsible Party")	1	M	"FUJIFILM Healthcare Corp."
>>	CONTAINS	TEXT	EV (113720, DCM, "Calibration Protocol")	1	U	CONFIG
>	CONTAINS	INCLUDE	DTID 10004 "Accumulated Fluoroscopy and Acquisition Projection X-Ray Dose"	1	MC	See TID 10004 Accumulated Fluoroscopy and Acquisition Projection X-Ray Dose
>	CONTAINS	INCLUDE	DTID 10007 "Accumulated Total Projection Radiography Dose"	1	MC	See TID 10007 Accumulated Total Projection Radiography Dose
TID 10003 Irradiation Event X-Ray Data						
		CONTAINER	EV (113706, DCM, "Irradiation Event X-Ray Data")	1	M	
>	HAS CONCEPT MOD	CODE	EV (113764, DCM, "Acquisition Plane")	1	M	Code Sequence (113622, DCM, "Single Plane")
>	CONTAINS	UIDREF	EV (113769, DCM, "Irradiation Event UID")	1	M	AUTO
>	CONTAINS	DATETIME	DT (111526, DCM, "Date Time Started")	1	M	AUTO
>	CONTAINS	CODE	EV (113721, DCM, "Irradiation Event Type")	1	M	Code Sequence (DCM, 113611, "Stationary Acquisition") Code Sequence (SRT, P5-06000, "Fluoroscopy") ※ 1
>	CONTAINS	TEXT	EV (125203, DCM, "Acquisition Protocol")	1	U	USER
>	CONTAINS	CODE	EV (123014, DCM, "Target Region")	1	M	CONFIG
>	CONTAINS	NUM	EV (122130, DCM, "Dose Area Product")	1	MC	AUTO

NL	Rel with Parent	VT	Concept Name	VM	Type	Value
>	CONTAINS	INCLUDE	DTID 10003B "Irradiation Event X-Ray Source Data"	1	MC	See TID 10003B Irradiation Event X-Ray Source Data
>	CONTAINS	INCLUDE	DTID 10003C "Irradiation Event X-Ray Mechanical Data"	1	MC	See TID 10003C Irradiation Event X-Ray Mechanical Data ※1
TID 10003B Irradiation Event X-Ray Source Data						
		NUM	EV (113738, DCM, "Dose (RP)")	1	MC	AUTO
		CODE	EV (113780, DCM, "Reference Point Definition")	1	MC	Code Sequence (DCM, 113863, "30cm above Tabletop")
		CODE	EV (113732, DCM, "FluoroMode")	1	UC	Code Sequence (DCM, 113630, "Continuous") ※1 Code Sequence (DCM, 113631, "Pulsed") ※2
		NUM	EV (113791, DCM, "PulseRate")	1	MC	AUTO ※2
		NUM	EV (113768, DCM, "Number of Pulses")	1	MC	AUTO
>	HAS CONCEPT MOD	CODE	EV (121401, DCM, "Derivation")	1	MC	Code Sequence (R-10260, SRT, "Estimated") ※2
		NUM	EV (113793, DCM, "Pulse Width")	1-n	U	AUTO
		NUM	EV (113742, DCM, "Irradiation Duration")	1	U	AUTO
		NUM	EV (113733, DCM, "KVP")	1-n	M	AUTO
		NUM	EV (113734, DCM, "X-Ray Tube Current")	1-n	MC	AUTO
		NUM	EV (113767, DCM, "Average X-Ray Tube Current")	1	U	AUTO
		NUM	EV (113824, DCM, "Exposure Time") or EV (113735, DCM, "Exposure Time")	1	MC	AUTO
TID 10003C Irradiation Event X-Ray Mechanical Data						
		CODE	EV (113956, DCM, "CR/DR Mechanical Configuration")	1	U	Code Sequence (113952, DCM, "Table Mount") ※1
		NUM	EV (113754, DCM, "Table Head Tilt Angle")	1	U	AUTO ※1
		NUM	EV (113756, DCM, "Table Cradle Tilt Angle")	1	U	AUTO ※1
		NUM	DCID 10008 "Dose Related Distance Measurements"	1-n	U	See DCID 10008 Dose Related Distance Measurements

NL	Rel with Parent	VT	Concept Name	VM	Type	Value
DCID 10008 Dose Related Distance Measurements						
		NUM	EV (DCM, 113750, "Distance Source to Detector")	1-n	U	AUTO ※1
TID 10004 Accumulated Fluoroscopy and Acquisition Projection X-Ray Dose						
		NUM	EV (113722, DCM, "Dose Area Product Total")	1	M	AUTO
		NUM	EV (113725, DCM, "Dose(RP) Total")	1	MC	AUTO
		NUM	EV (113726, DCM, "Fluoro Dose Area Product Total")	1	MC	AUTO
		NUM	EV (113728, DCM, "Fluoro Dose (RP) Total")	1	MC	AUTO
		NUM	EV (113730, DCM, "Total Fluoro Time")	1	MC	AUTO
		NUM	EV (113727, DCM, "Acquisition Dose Area Product Total")	1	M	AUTO
		NUM	EV (113729, DCM, "Acquisition Dose (RP)Total")	1	MC	AUTO
		NUM	EV (113855, DCM, "Total Acquisition Time")	1	M	AUTO
		NUM	EV (113737, DCM, "Distance Source to Reference Point")	1	U	CONFIG
		NUM	EV (113731, DCM, "Total Number of Radiographic Frames")	1	U	AUTO
		CODE	EV (113780, DCM, "Reference Point Definition")	1	MC	CONFIG
TID 10007 Accumulated Total Projection Radiography Dose						
		NUM	EV (113722, DCM, "Dose Area Product Total")	1	M	AUTO
		NUM	EV (113725, DCM, "Dose (RP) Total")	1	MC	AUTO
		NUM	EV (113737, DCM, "Distance Source to Reference Point")	1	U	CONFIG
		NUM	EV (113731, DCM, "Total Number of Radiographic Frames")	1	U	AUTO
		CODE	EV (113780, DCM, "Reference Point Definition")	1	MC	CONFIG

NL	Rel with Parent	VT	Concept Name	VM	Type	Value
TID 1002. Observer Context						
	HAS OBS CONTEXT	CODE	EV (121005, DCM, "Observer Type")	1	MC	Code Sequence (DCM, 121007, "Device")
	HAS OBS CONTEXT	INCLUDE	DTID 1003 "Person Observer Identifying Attributes"	1	MC	See TID 1003. Person Observer Identifying Attributes
	HAS OBS CONTEXT	INCLUDE	DTID 1004 "Device Observer Identifying "	1	MC	See TID 1004. Device Observer Identifying Attributes
TID 1004. Device Observer Identifying Attributes						
		UIDREF	EV (121012, DCM, "Device Observer UID")	1	M	AUTO
		TEXT	EV (121013, DCM, "Device Observer Name")	1	U	AUTO
		TEXT	EV (121014, DCM, "Device Observer Manufacturer")	1	U	"FUJIFILM Healthcare Corp."
		TEXT	EV (121015, DCM, "Device Observer Model Name")	1	U	"DR-V"
		TEXT	EV (121016, DCM, "Device Observer Serial Number")	1	U	AUTO

※1 サポートするシステム

- ・ ESPACIO AVANT
- ・ DIAVISTA Luce

※2 サポートするシステム

- ・ DIAVISTA Luce

8. Annex of Copy from MWL

Modality Worklistの応答キー (Return Key)を引用するDICOMタグは以下のとおり。

表 8.1 Copy from MWL

MWL		MPPS CREATE	MPPS SET	RF	SR
Attribute Name	Tag				
Scheduled Procedure Step Module					
Scheduled Procedure Step Sequence	(0040,0100)	-	-	-	-
> Scheduled Station AE Title	(0040,0001)	-	-	-	-
> Scheduled Station Name	(0040,0010)	-	-	-	-
> Scheduled Procedure Step Location	(0040,0011)	-	-	-	-
> Scheduled Procedure Step Start Date	(0040,0002)	-	-	-	-
> Scheduled Procedure Step Start Time	(0040,0003)	-	-	-	-
> Scheduled Procedure Step End Date	(0040,0004)	-	-	-	-
> Scheduled Procedure Step End Time	(0040,0005)	-	-	-	-
> Scheduled Performing Physician's Name	(0040,0006)	-	-	-	-
> Scheduled Procedure Step Description	(0040,0007)	(0040,0270) >(0040,0007)	-	(0040,0275) >(0040,0007)	-

MWL		MPPS CREATE	MPPS SET	RF	SR
Attribute Name	Tag				
> Scheduled Protocol Code Sequence	(0040,0008)	(0040,0270) >(0040,0008)	(0040,0260)	(0040,0275) >(0040,0008)	-
>> Code Value	(0008,0100)	(0040,0270) >(0040,0008) >>(0008,0100)	(0040,0260) >(0008,0100)	(0040,0275) >(0040,0008) >>(0008,0100)	-
>> Coding Scheme Designator	(0008,0102)	(0040,0270) >(0040,0008) >>(0008,0102)	(0040,0260) >(0008,0102)	(0040,0275) >(0040,0008) >>(0008,0102)	-
>> Coding Scheme Version	(0008,0103)	(0040,0270) >(0040,0008) >>(0008,0103)	(0040,0260) >(0008,0103)	(0040,0275) >(0040,0008) >>(0008,0103)	-
>> Code Meaning	(0008,0104)	(0040,0270) >(0040,0008) >>(0008,0104)	(0040,0260) >(0008,0104)	(0040,0275) >(0040,0008) >>(0008,0104)	-
> Scheduled Procedure Step ID	(0040,0009)	(0040,0270) >(0040,0009)	-	(0040,0275) >(0040,0009)	-
> Comments on the Scheduled Procedure Step	(0040,0400)	-	-	-	-
> Modality	(0008,0060)	-	-	-	-
> Requested Contrast Agent	(0032,1070)	-	-	-	-
> Pre-Medication	(0040,0012)	-	-	-	-

MWL		MPPS CREATE	MPPS SET	RF	SR
Attribute Name	Tag				
Requested Procedure Module					
Requested Procedure ID	(0040,1001)	(0040,0270) >(0040,1001)	-	(0020,0010) (0040,0275) >(0040,1001)	(0020,0010) (0040,A370) >(0040,1001)
Reason for the Requested Procedure	(0040,1002)	-	-	-	-
Requested Procedure Comments	(0040,1400)	-	-	-	-
Requested Procedure Code Sequence	(0032,1064)	-	(0008,1032)	-	(0040,A370) >(0032,1064)
> Code Value	(0008,0100)	-	(0008,1032) >(0008,0100)	-	(0040,A370) >(0032,1064) >>(0008,0100)
> Coding Scheme Designator	(0008,0102)	-	(0008,1032) >(0008,0102)	-	(0040,A370) >(0032,1064) >>(0008,0102)
> Coding Scheme Version	(0008,0103)	-	(0008,1032) >(0008,0103)	-	(0040,A370) >(0032,1064) >>(0008,0103)
> Code Meaning	(0008,0104)	-	(0008,1032) >(0008,0104)	-	(0040,A370) >(0032,1064) >>(0008,0104)
Study Instance UID	(0020,000D)	(0040,0270) >(0020,000D)	-	(0020,000D)	(0020,000D) (0040,A370) >(0020,000D)
Referenced Study Sequence	(0008,1110)	(0040,0270) >(0008,1110)	-	(0008,1110)	(0040,A370) >(0008,1110)
> Referenced SOP Class UID	(0008,1150)	(0040,0270) >0008,1110 >>(0008,1150)	-	(0008,1110) >(0008,1150)	(0008,1110) >(0008,1150)
> Referenced SOP Instance UID	(0008,1155)	(0040,0270) >(0008,1110) >>(0008,1155)	-	(0008,1110) >(0008,1155)	(0008,1110) >(0008,1155)
Requested Procedure Description	(0032,1060)	(0040,0270) >(0032,1060)	-	(0040,0275) >(0032,1060)	(0040,A370) >(0032,1060)
Requested Procedure Priority	(0040,1003)	-	-	-	-
Requested Procedure Location	(0040,1005)	-	-	-	-
Reporting Priority	(0040,1009)	-	-	-	-

MWL		MPPS CREATE	MPPS SET	RF	SR
Attribute Name	Tag				
Imaging Service Request Module					
Imaging Service Request Comments	(0040,2400)	-	-	-	-
Requesting Physician	(0032,1032)	-	-	(0008,0090)	(0008,0090)
Referring Physician's Name	(0008,0090)	-	-	-	-
Requesting Service	(0032,1033)	-	-	(0008,1040)	(0008,1040)
Accession Number	(0008,0050)	(0040,0270) >(0008,0050)	-	(0008,0050)	(0008,0050) (0040,A370) >(0008,0050)
Issue Date of Imaging Service Request	(0040,2004)	-	-	-	-
Issue Time of Imaging Service Request	(0040,2005)	-	-	-	-
Placer Order Number / Imaging Service Request	(0040,2016)	(0040,0270) >(0040,2016)	-	-	-
Filler Order Number / Imaging Service Request	(0040,2017)	(0040,0270) >(0040,2017)	-	-	-
Order entered by ...	(0040,2008)	-	-	-	-
Order Enterer's Location	(0040,2009)	-	-	-	-
Order Callback Phone Number	(0040,2010)	-	-	-	-

MWL		MPPS CREATE	MPPS SET	RF	SR
Attribute Name	Tag				
Visit Relationship Module					
Referenced Patient Sequence	(0008,1120)	(0008,1120)	-	(0008,1120)	-
> Referenced SOP Class UID	(0008,1150)	(0008,1120) >(0008,1150)	-	(0008,1120) >(0008,1150)	-
> Referenced SOP Instance UID	(0008,1155)	(0008,1120) >(0008,1155)	-	(0008,1120) >(0008,1155)	-
Patient Identification Module					
Patient's Name	(0010,0010)	(0010,0010)	-	(0010,0010)	(0010,0010)
Patient ID	(0010,0020)	(0010,0020)	-	(0010,0020)	(0010,0020)
Issuer of Patient ID	(0010,0021)	-	-	-	-
Patient Demographic Module					
Confidentiality Constraint on Patient Data Description	(0040,3001)	-	-	-	-
Patient's Birth Date	(0010,0030)	(0010,0030)	-	(0010,0030)	(0010,0030)
Patient's Sex	(0010,0040)	(0010,0040)	-	(0010,0040)	(0010,0040)
Patient's Size	(0010,1020)	-	-	-	(0010,1020)
Patient's Weight	(0010,1030)	-	-	-	(0010,1030)
Ethnic Group	(0010,2160)	-	-	-	-
Patient Comments	(0010,4000)	-	-	(0020,4000)	-
Patient Medical Module					
Medical Alerts	(0010,2000)	-	-	-	-
Contrast Allergies	(0010,2110)	-	-	-	-
Additional Patient History	(0010,21B0)	-	-	-	-
Pregnancy Status	(0010,21C0)	-	-	-	-
Special Needs	(0038,0050)	-	-	-	-
Patient State	(0038,0500)	-	-	-	-

9. Annex of Print Management as SCU

9.1 Proprietary format

CUREVISTAは、以下に示す特殊フォーマットで出力できる。但し、この特殊フォーマットで出力可能なDICOMプリントサーバーは限られている。詳細は、当社までお問い合わせください。

Image	1X1,1X2,2X2,2X3,etcのコマ数分割がある
ID	患者ID、患者名、検査日、モダリティ等をプリントする
Grayscale	グレースケールをプリントする

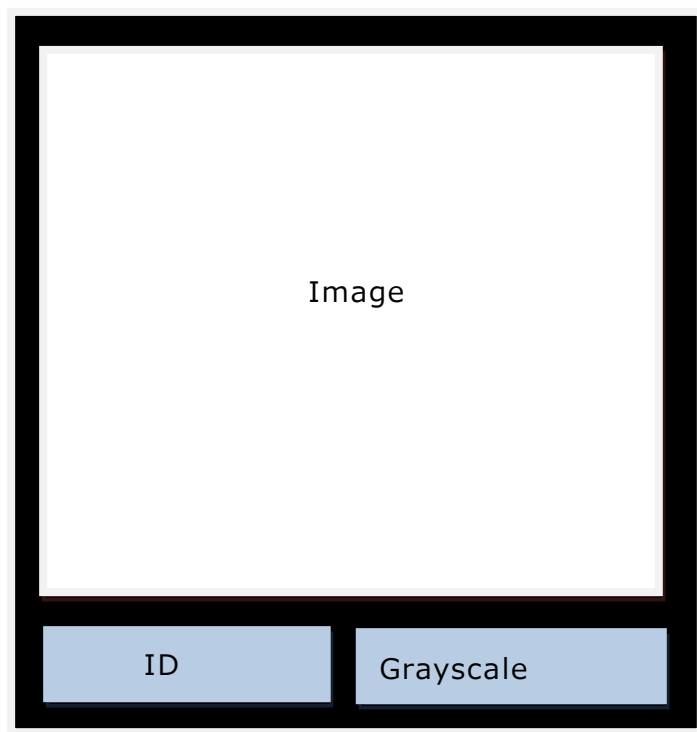


図9.1 Proprietary format