Release VC10A

syngo.via
RT Image Suite

DICOM Conformance Statement

20-Feb-2026

SIEMENS Healthineers

DICOM Conformance Overview

RT Image Suite is an image processing application, and can process the incoming data (DICOM images, reports).
RT Image Suite creates and displays instances of the below listed SOP Classes but depends on syngo.via as a DICOM Communication platform to start RT Image Suite.

Table 1: Network Services

SOP Classes	SOP Class UID	User of Service (SCU)		Provider of Service (SCP)	
		Create	Send	Store	Display
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	Yes	No	No	No
RT Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	Yes	No	No	Yes
RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	Yes	No	No	Yes
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	Yes	No	No	Yes
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Yes	No	No	Yes
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	Yes	No	No	Yes
Deformable Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.3	Yes	No	No	Yes
Real World Value Mapping Storage	1.2.840.10008.5.1.4.1.1.67	Yes	No	No	Yes
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Yes	No	No	Yes
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Yes	No	No	Yes
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	Yes	No	No	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	No	No	Yes
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Yes	No	No	Yes
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Yes	No	No	Yes
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	Yes	No	No	Yes

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1 Introduction

1.1 Revision History

Version	Date	Change
VC10A	2025-02-24	Initial version of DICOM Conformance Statement for syngo.via RT Image Suite of VC10A.
VC10A	2026-02-20	Updated release after incorporating review comments.

1.2 Audience

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of DICOM.

1.3 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between RT Image Suite and other DICOM products. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [1]. DICOM by itself does not guarantee interoperability.
The Conformance Statement does, however, facilitate a first-level comparison for interoperability between different applications supporting compatible DICOM functionality.
This Conformance Statement is not supposed to replace validation with other DICOM equipment to ensure proper exchange of intended information. In fact, the user should be aware of the following important issues:

- The comparison of conformance statements is the first step towards Assessing interconnectivity and interoperability of RT Image Suite DICOM conformant equipment.
- Test procedures should be defined and executed to validate the required level of interoperability with specific compatible DICOM equipment, as established by the healthcare facility.

Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice. Please contact your local Siemens Healthineers representative for the most recent product information.

1.4 Terms and Definitions

Terms and Definitions used in this document are defined within the different parts of the DICOM standard.

IOD	The specified set of Attributes that comprise a type of data object; does not represent a specific instance of the data object, but rather a class of similar data objects that have the same properties. Examples: MR Image IOD, CT Image IOD, Print Job IOD. The Attributes within an IOD may be specified as Mandatory (Type 1), Required but possibly unknown (Type 2), or Optional (Type 3), and there may be conditions associated with the use of an Attribute (Types 1C and 2C).
SCP	The role played by a DICOM Application Entity (DIMSE-Service-User) that performs operations and invokes notifications on a specific Association.
SCU	The role played by a DICOM Application Entity (DIMSE-Service-User) that invokes operations and performs notifications on a specific Association.
SOP Class	The pair of an Information Object and either a DIMSE Service Group, a Media Storage Service, or a Web Service.
SOP Instance	A concrete occurrence of an Information Object that is managed by a DICOM Application Entity and may be operated upon in a communication context defined by a specific set of DIMSE Services (on a network or interchange media). A SOP Instance is persistent beyond the context of its communication.

Unique Identifier (UID)	A globally unique "dotted decimal" string that identifies a specific object or a class of objects; an ISO-8824 Object Identifier. Examples: Study Instance UID, SOP Class UID, SOP Instance UID.
Value Representation (VR)	The format type of an individual DICOM data element, such as text, an integer, a person's name, or a code. DICOM information objects can be transmitted with either explicit identification of the type of each data element (Explicit VR), or without explicit identification (Implicit VR) ; with Implicit VR, the receiving application must use a DICOM data dictionary to look up the format of each data element.

1.5 Basics of DICOM Communication

Refer [2]

1.6 Abbreviations

Abbreviations and terms are as follows:

DCS	DICOM Conformance Statement
DICOM	Digital Imaging and Communications in Medicine
FMA	Foundational Model of Anatomy ontology
IHE	Integrating the Healthcare Enterprise
ISO	International Standard Organization
N/A	Not Applicable
NEMA	National Electrical Manufacturers Association
RTiS	RT Image Suite
RWVM	Real World Value Mapping
SC	Secondary Capture

1.7 References

[1] NEMA PS3 / ISO 12052, Digital Imaging and Communications in Medicine (DICOM) Standard, National Electrical Manufacturers Association, Rosslyn, VA, USA (available free at https://www.dicomstandard.org/)
[2] syngo.via DCS – https://www.siemens-healthineers.com/services/it-standards/dicom-conformance-statements-digital-and-automation/syngo-via

2 Networking

Refer [2]

3 Media Interchange

Refer [2]

4 Transformations of DICOM to CDA

Refer [2]

5 Support of Extended Character Sets

Refer [2]

6 Attribute confidentiality profiles

Refer [2]

7 Security

Refer [2]

8 Annexes

8.1 IOD Contents

The following Tables use several abbreviations. The abbreviations used in the “Presence of Value” column are

- VNAP: Value is Not Always Present. Attribute is sent zero length if no value is present.
- ANAP: Attribute Not Always Present.
- ALWAYS: Attribute and Value are always present.
- EMPTY: Attribute is sent zero length.

The abbreviations used in the “Source” column are

- USER: Attribute value is entered by the user.
- AUTO: Attribute value is generated by the system.
- CONFIG: Attribute value is obtained by configuration
- COPIED: Attribute value is obtained from the input image
- FIXED: Attribute value is hard coded in the application

The abbreviations used in the “Presence of Module” column are

- ALWAYS: Module is always present.
- CONDITIONAL: Module is used under specified condition.
- OPTIONAL: Module is not always present.
- NONE: Module consists of optional (Type 3) Attributes only

8.1.1 Created SOP Instances

8.1.1.1 Common Modules

8.1.1.1.1 Patient Module Attributes

Table 2: Patient Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient's Name	(0010, 0010)	COPIED		VNAP	
Patient ID	(0010,0020)	COPIED		VNAP	
Patient's Birth Date	(0010,0030)	COPIED		VNAP	
Patient's Birth Time	(0010,0032)	COPIED		ANAP	
Patient's Sex	(0010,0040)	COPIED		VNAP	
Other Patient IDs	(0010,1000)	COPIED		ANAP	
Other Patient Names	(0010,1001)	COPIED		ANAP	
Ethnic Group	(0010,2160)	COPIED		ANAP	

8.1.1.1.2 General Study Module Attributes

Table 3: General Study Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Study Instance UID	(0020,000D)	COPIED		ALWAYS	
Study Date	(0008,0020)	COPIED		VNAP	
Study Time	(0008,0030)	COPIED		VNAP	
Study ID	(0020,0010)	COPIED		VNAP	
Referring Physician's Name	(0008,0090)	COPIED		VNAP	
Accession Number	(0008,0050)	COPIED		VNAP	
Study Description	(0008,1030)	COPIED		ANAP	
Procedure Code Sequence	(0008,1032)	COPIED		ANAP	
>Code Value	(0008,0100)	COPIED		ALWAYS	
>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>Coding Scheme Version	(0008,0103)	COPIED		VNAP	
>Code Meaning	(0008,0104)	COPIED		ALWAYS	
Referenced Study Sequence	(0008,1110)	COPIED		ANAP	
>Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	

8.1.1.1.3 Patient Study Module Attributes

Table 4: Patient Study Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient's Age	(0010,1010)	COPIED		ANAP	
Smoking Status	(0010,21A0)	COPIED		ANAP	

8.1.1.1.4 General Series module Attributes

Table 5: General Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Series Date	(0008,0021)	AUTO		ALWAYS	
Series Time	(0008,0031)	AUTO		ALWAYS	
Modality	(0008,0060)	AUTO	MR, CT, PT	ALWAYS	
Series Description	(0008,103E)	AUTO/USER/FIXED	- "RT Image Suite_RTIS Mappings" for RWVM IOD - USER in case of Registration IODs - USER for Synthetic CT IOD with prefixed value "SyntheticCT" and "HU" for HU based generation, "RED" for RED based generation, "RMD" for RMD based generation While generating multiphase split series below conditions apply with description length not exceeding 64 characters - FIXED for 4D CT input images with format of "<Original series description> <Space><Phase Info><Space><TPS_SORT><Space><Phase number><%> If Original series description contains percentage signs, task shall remove percentage signs from Original series description as part of resultant series name. In 4D amplitude reconstruction images, Phase Info shall be <Phase value><Space> <Ex/In> - FIXED for 3D input images with format of "<original series description><Space><x>" where x is running number - For 4D MR diffusion series input images with format of "<original series description><space><BValue>" - For MR Dynamic input Images with format of	ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
			“<original series description>_TPS_SORT<<Phase number>>%”		
Operators' Name	(0008,1070)	COPIED		ANAP	
Performed Procedure Step Start Date	(0040,0244)	COPIED		ANAP	
Performed Procedure Step Start Time	(0040,0245)	COPIED		ANAP	
Performed Procedure Step End Date	(0040,0250)	COPIED		ANAP	
Performed Procedure Step ID	(0040,0253)	COPIED		ANAP	
Performed Procedure Step Description	(0040,0254)	COPIED		ANAP	
Related Series Sequence	(0008,1250)	COPIED		ANAP	
>Study Instance UID	(0020,000D)	COPIED		ALWAYS	
>Series Instance UID	(0020,000E	COPIED		ALWAYS	
>Purpose of Reference Code Sequence	(0040, A170)	COPIED		VNAP	
>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>Code Meaning	(0008,0104)	COPIED		ALWAYS	
>>Mapping Resource	(0008,0105)	COPIED		ANAP	
>>Context Group Version	(0008,0106)	COPIED		ANAP	
>>Context Identifier	(0008,010F)	COPIED		ANAP	
Series Instance UID	(0020,000E)	AUTO		ALWAYS	
Series Number	(0020,0011)	AUTO		VNAP	
Laterality	(0020,0060)	COPIED		ANAP	
Patient Position	(0018,5100)	COPIED		ANAP	

8.1.1.1.5 General Equipment Module Attributes

Table 6: General Equipment Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Manufacturer	(0008,0070)	FIXED	SIEMENS Healthineers	ALWAYS	
Station Name	(0008,1010)	USER		ANAP	
Device Serial Number	(0018,1000)	CONFIG		ALWAYS	
Software Versions	(0018,1020)	FIXED	VC10A	ALWAYS	
Spatial Resolution	(0018,1050)	CONFIG		ANAP	
Institutional Department Name	(0008,1040)	CONFIG		ANAP	
Manufacturer's Model Name	(0008,1090)	FIXED	syngo.via.VC10A syngo.via.VC10A.RTEngine (for all Registration IODs)	ALWAYS	

8.1.1.1.6 Frame of Reference Module Attributes

Table 7: Frame of Reference Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Frame of Reference UID	(0020,0052)	COPIED		ALWAYS	
Position Reference Indicator	(0020,1040)	COPIED		VNAP	Empty in case of RT Image IOD

8.1.1.1.7 General Image Module Attributes

Table 8: General Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	*Remaining values are copied from input image apart from "DERIVED\SECONDARY"
Acquisition Date	(0008,0022)	COPIED		ANAP	
Content Date	(0008,0023)	AUTO		ALWAYS	
Acquisition Time	(0008,0032)	COPIED		ANAP	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Patient Orientation	(0020,0020)	COPIED		VNAP	
Burned In Annotation	(0028,0301)	COPIED		ANAP	
Image Comments	(0020,4000)	FIXED	- For HU based "SyntheticCT HU, Derived from MR images" - For RED based "SyntheticCT RED, Derived from MR images" - For RMD based "SyntheticCT RMD, Derived from MR images"	ANAP	

8.1.1.1.8 General Reference Module Attributes

Table 9: General Reference Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Derivation Description	(0008,2111)	COPIED/AUTO	Synthetic CT with value Measurement_ID	ALWAYS	Copied for SC images.

8.1.1.1.9 Image Pixel Module Attribute

Table 10: Image Pixel Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Samples per Pixel	(0028,0002)	COPIED/FIXED	For RT Image & Synthetic CT -it's fixed with value 1	ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED/FIXED	For RT Image & Synthetic CT -it's fixed with value MONOCHROME2	ALWAYS	
Rows	(0028,0010)	AUTO		ALWAYS	
Columns	(0028,0011)	AUTO		ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	
High Bit	(0028,0102)	AUTO		ALWAYS	
Pixel Representation	(0028,0103)	AUTO		ALWAYS	
Pixel Data	(7FE0,0010)	AUTO		ALWAYS	VR type will be OW as RT Image Suite supports image with 16 bits

8.1.1.1.10 VOI LUT Module Attributes

Table 11: VOI LUT Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Window Center	(0028,1050)	COPIED/FIXED/AUTO	FIXED in case of Synthetic CT In case of HEAD scan, value is 40 In case of PELVIS scan, value is 35 AUTO – in case of RT Image COPIED – for all other Images.	ANAP	
Window Width	(0028,1051)	COPIED/FIXED/AUTO	FIXED in case of Synthetic CT In case of HEAD scan, value is 120 In case of PELVIS scan, value is 350 AUTO – in case of RT Image	ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
			COPIED – for other than RT Image and Synthetic CT.		

8.1.1.1.11 SOP Common Module Attributes

Table 12: SOP Common Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Specific Character Set	(0008,0005)	COPIED		ANAP	Please refer Table 1.7-1:Supported Specific Character Sets, 5.7 Specific Character Sets in [2] syngo.via DICOM Conformance Statement.
Instance Creation Date	(0008,0012)	AUTO		ALWAYS	
Instance Creation Time	(0008,0013)	AUTO		ALWAYS	
SOP Class UID	(0008,0016)	COPIED		ALWAYS	
SOP Instance UID	(0008,0018)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	

8.1.1.1.12 Common Instance Reference Module Attributes

Table 13: Common Instance Reference Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Referenced Series Sequence	(0008,1115)	AUTO		ALWAYS	
>Referenced Instance Sequence	(0008,114A)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Series Instance UID	(0020,000E)	AUTO		ALWAYS	

8.1.1.1.13 Enhanced General Equipment Module Attributes

Table 14: Enhanced General Equipment Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Manufacturer	(0008,0070)	FIXED	SIEMENS Healthineers	ALWAYS	
Manufacturer's Model Name	(0008,1090)	FIXED	syngo.via.VC10A Syngo.via.VC10A.RTEngine (for all Registration IODs)	ALWAYS	
Device Serial Number	(0018,1000)	CONFIG		ALWAYS	
Software Versions	(0018,1020)	FIXED	VC10A	ALWAYS	

8.1.1.1.14 RT Series Module Attributes

Table 15: RT Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Series Date	(0008,0021)	AUTO	Date the Series started	ALWAYS	
Series Time	(0008,0031)	AUTO	Time the Series started	ALWAYS	
Modality	(0008,0060)	FIXED	RTSTRUCT, RTIMAGE, RTDOSE, RTPLAN	ALWAYS	Either one of the enumerated values based on the type of IOD created
Series Description	(0008,103E)	USER/AUTO	- For StructureSet IOD - "User_defined_16_characters_yyyyMMdd_HHmmss" - For RT Image IOD “<RT Plan Name (300A,0003)>_ RTImageSeries” with number of characters not exceeding 64 - For RT Plan IOD “RT Plan Label(300A,0002)” - For RT Dose IOD - User defined	ANAP	
Operators' Name	(0008,1070)	COPIED		VNAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Series Instance UID	(0020,000E)	AUTO		ALWAYS	
Series Number	(0020,0011)	AUTO		VNAP	

8.1.1.2 RT Structure Set IOD Contents

Table 16: IOD of Created Instances of the RT Structure Set Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	RT Series	Table 15: RT Series Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Structure Set	Structure Set	Table 17: Structure Set Module	ALWAYS
	ROI Contour	Table 148: ROI Contour Module	ALWAYS
	ROI Observations	Table 19: RT ROI Observations Module	ALWAYS
	Approval	Table 20: Approval Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.2.1 Structure Set Module Attributes

Table 17: Structure Set Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Structure Set Label	(3006,0002)	AUTO		ALWAYS	
Structure Set Name	(3006,0004)	USER		ANAP	
Structure Set Date	(3006,0008)	AUTO		ALWAYS	
Structure Set Time	(3006,0009)	AUTO		ALWAYS	
Referenced Frame of Reference Sequence	(3006,0010)	AUTO		ALWAYS	
>Frame of Reference UID	(0020,0052)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>RT Referenced Study Sequence	(3006,0012)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>RT Referenced Series Sequence	(3006,0014)	AUTO		ALWAYS	
>>>Series Instance UID	(0020,000E)	AUTO		ALWAYS	
>>>Contour Image Sequence	(3006,0016)	AUTO		ALWAYS	
>>>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
Structure Set ROI Sequence	(3006,0020)	AUTO		ALWAYS	
>Private Creator	(0029,0010)	AUTO	SIEMENS CT RT Structure Set	ANAP	If Contour Geometric Type (3006,0042) is POINT
>Rt ROI Locked Status	(0029,1001)	USER	With values of None, UserLock, ApprovedLock, SendToLaserLock, LaserReachedLock	ANAP	
>ROI Number	(3006,0022)	AUTO	Running number starting from 1	ALWAYS	
>Referenced Frame of Reference UID	(3006,0024)	COPIED		ALWAYS	
>ROI Name	(3006,0026)	USER		VNAP	
>ROI Generation Algorithm	(3006,0036)	USER	AUTOMATIC or MANUAL	VNAP	Based on user choice, either manually drawn or automatically calculated by Algorithm

8.1.1.2.2 ROI Contour Module Attributes

Table 148: ROI Contour Module

Attribute	Tag	Source	Value	Presence of Value	Comments
ROI Contour Sequence	(3006,0039)	AUTO		ALWAYS	
>Private Creator	(0029,0010)	FIXED	SIEMENS CT RT Structure Set	ANAP	Present only if Contour Geometric Type (3006,0042) is POINT
>Rt Reference Point Token	(0029,1002)	AUTO	RT reference point token	ANAP	System generated token value
>ROI Display Color	(3006,002A)	AUTO		ANAP	
>Contour Sequence	(3006,0040)	AUTO		ANAP	
>>Contour Image Sequence	(3006,0016)	AUTO		ALWAYS	
>>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>Contour Geometric Type	(3006,0042)	AUTO	POINT in case of Reference Point created by user. CLOSED_PLANAR in case of organ or tumor segmentation	ALWAYS	
>>Number of Contour Points	(3006,0046)	AUTO		ALWAYS	
>>Contour Number	(3006,0048)	AUTO		ANAP	
>>Contour Data	(3006,0050)	AUTO		ALWAYS	
>Referenced ROI Number	(3006,0084)	AUTO	Value equal to ROI Number (3006,0022)	ALWAYS	

8.1.1.2.3 RT ROI Observations Module Attributes

Table 19: RT ROI Observations Module

Attribute	Tag	Source	Value	Presence of Value	Comments
RT ROI Observations Sequence	(3006,0080)	AUTO		ALWAYS	
>Observation Number	(3006,0082)	AUTO	Value equal to ROI Number (3006,0022)	ALWAYS	
>Referenced ROI Number	(3006,0084)	AUTO	Value equal to ROI Number (3006,0022)	ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>RT ROI Identification Code Sequence	(3006,0086)	AUTO		ALWAYS	
>>Code Value	(0008,0100)	CONFIG	Refer to Tabel 79 and Table 81.	ALWAYS	
>> Code Scheme Designator	(0008,0102)	CONFIG	Refer to Tabel 79 and Table 81.	ALWAYS	
>> Coding Scheme Version	(0008,0103)	CONFIG	Refer to Tabel 79 and Table 81.	ALWAYS	
>> Code Meaning	(0008,0104)	CONFIG	Refer to Tabel 79 and Table 81.	ALWAYS	
>>Mapping Resource	(0008,0105)	AUTO	Refer to Table 80.	ALWAYS	
>>Context Group Version	(0008,0106)	AUTO	Refer to Table 80.	ALWAYS	
>>Context Identifier	(0008,010F)	AUTO	Refer to Table 80.	ALWAYS	
>RT ROI Interpreted Type	(3006,00A4)	USER	ISOCENTER or MARKER in case of Contour Geometric Type (3006,0042) is POINT. AVOIDANCE, BOLUS, CAVITY, CONTRAST_AGENT, CONTROL, CTV, DOSE_REGION, EXTERNAL, FIXATION, GTV, IRRAD_VOLUME, MARKER, ORGAN, PTV, SUPPORT, TREATED_VOLUME in case of Contour Geometric Type (3006,0042) is CLOSED_PLANAR.	VNAP	
>ROI Interpreter	(3006,00A6)	AUTO		VNAP	

8.1.1.2.4 Approval Module Attributes

Table 20: Approval Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Approval Status	(300E,0002)	USER/FIXED	With a value of either APPROVED, REJECTED. Fixed in case of UNAPPROVED	ALWAYS	
Review Date	(300E,0004)	AUTO	Date on which object was approved/rejected	ANAP	
Review Time	(300E,0005)	AUTO	Time at which object was approved/rejected	ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Reviewer Name	(300E,0008)	USER	Name of person who has approved/rejected object	ANAP	

8.1.1.3 RT Image IOD Contents

Table 21: IOD of Created Instances of the RT Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	RT Series	Table 15: RT Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE
Image	General Image	Table 8: General Image Module	ALWAYS
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	RT Image	Table 22: RT Image Module	ALWAYS
	Modality LUT	Table 23: Modality LUT Module	ALWAYS
	VOI LUT	Table 11: VOI LUT Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.3.1 RT Image Module Attributes

Table 22: RT Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED	DERIVED\SECONDARY\DRR	ALWAYS	
Conversion Type	(0008,006)	FIXED	WSD	ALWAYS	
Samples per Pixel	(0028,0002)	FIXED	1	ALWAYS	
Photometric Interpretation	(0028,0004)	AUTO	MONOCHROME2	ALWAYS	
Bits Allocated	(0028,0100)	COPIED		ALWAYS	
Bits Stored	(0028.0101)	COPIED		ALWAYS	
High Bit	(0028,0102)	COPIED		ALWAYS	
Pixel Representation	(0028,0103)	COPIED		ALWAYS	
RT Image Label	(3002,0002)	USER		ALWAYS	
RT Image Name	(3002,0003)	USER		ANAP	
RT Image Plane	(3002,000C)	FIXED	NORMAL	ALWAYS	
X-Ray Image Receptor Angle	(3002,000E)	FIXED	EMPTY	EMPTY	
Image Plane Pixel Spacing	(3002,0011)	COPIED		VNAP	
RT Image Position	(3002,0012)	FIXED	EMPTY	EMPTY	
Radiation Machine Name	(3002,0020)	USER		VNAP	
Radiation Machine SAD	(3002,0022)	USER		VNAP	
RT Image SID	(3002,0026)	USER	Same as Radiation Machine SAD (3002,0022)	VNAP	
Primary Dosimeter Unit	(300A,00B3)	FIXED	EMPTY	EMPTY	
Gantry Angle	(300A,011E)	USER		ANAP	
Beam Limiting Device Angle	(300A,0120)	USER		ANAP	
Referenced RT Plan Sequence	(300C,0002)	AUTO		ANAP	
>Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Referenced Beam Number	(300C,0006)	AUTO	Refers to Beam Number (300A,00C0)	ANAP	

8.1.1.3.2 Modality LUT Module Attributes

Table 23: Modality LUT Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Rescale Intercept	(0028,1052)	COPIED/FIXED	For RT Image - Copied from Volume For RT Dose - 0	ALWAYS	
Rescale Slope	(0028,1053)	COPIED/FIXED	For RT Image - Copied from Volume For RT Dose – Same as Dose Grid Scaling (3004,000E) value	ALWAYS	
Rescale Type	(0028,1054)	COPIED/FIXED	For RT Image - Copied from Volume For RT Dose - Copied from Dose Volume if present or else “US”	ALWAYS	

8.1.1.4 RT Dose IOD Contents

RT Image Suite supports only loading and creation of Grid based doses.

Table 24: IOD of Created Instances of the RT Dose Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	RT Series	Table 15: RT Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Dose	Image Plane	Table 25: Image Plane Module	ALWAYS (As RT Image Suite supports only grid-based doses)
	Image Pixel	Table 10: Image Pixel Module	ALWAYS (As RT Image Suite supports only grid-based doses)
	Multi-frame	Table 26: Multi-frame Module	ALWAYS (As RT Image Suite supports only grid-based doses)
	Modality LUT	Table 23: Modality LUT Module	ALWAYS
	RT Dose	Table 27: RT Dose Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.4.1 Image Plane Module Attributes

Table 25: Image Plane Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Slice Thickness	(0018,0050)	AUTO		VNAP	
Image Position (Patient)	(0020,0032)	AUTO		ALWAYS	
Image Orientation (Patient)	(0020,0037)	AUTO		ALWAYS	
Pixel Spacing	(0028,0030)	AUTO		ALWAYS	

8.1.1.4.2 Multi-frame Module Attributes

Table 26: Multi-frame Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Number of Frames	(0028,0008)	AUTO		ALWAYS	
Frame Increment Pointer	(0028,0009)	FIXED	Points to Grid Frame Offset Vector (3004,000C)	ALWAYS	

8.1.1.4.3 RT Dose Module Attributes

Table 27: RT Dose Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Instance Number	(0020,0013)	FIXED	1	ALWAYS	
Samples per Pixel	(0028,0002)	COPIED		ANAP	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	COPIED		ALWAYS	
Bits Stored	(0028,0101)	COPIED		ALWAYS	
High Bit	(0028,0102)	COPIED		ALWAYS	
Dose Units	(3004,0002)	COPIED		ALWAYS	
Dose Type	(3004,0004)	COPIED		ALWAYS	
Dose Comment	(3004,0006)	USER		ANAP	
Dose Summation Type	(3004,000A)	FIXED	PLAN - When dose files belonging to same RT Plan are summed up. MULTI_PLAN - When dose files belonging to different RT Plans are summed up.	ALWAYS	
Grid Frame Offset Vector	(3004,000C)	AUTO		ANAP	
Dose Grid Scaling	(3004,000E)	AUTO		ANAP	
Pixel Representation	(0028,0103)	COPIED		ALWAYS	
Referenced RT Plan Sequence	(300C,0002)	AUTO		ALWAYS	
>Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	

8.1.1.5 RT Plan IOD Contents

RT Image Suite loads only native RT treatment plans manufactured by SIEMENS Healthineers with Manufacturer's Model Name as RT Engine. It will not load other vendor plans.

Table 28: IOD of Created Instances of the RT Plan Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	RT Series	Table 15: RT Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	OPTIONAL
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Plan	RT General Plan	Table 29: RT General Plan	ALWAYS
	RT Patient Setup	Table 31: RT Patient Setup Module	OPTIONAL
	RT Beams	Table 30: RT Beams	ALWAYS
	Approval	Table 20: Approval Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.5.1 RT General Plan Module Attributes

Table 29: RT General Plan Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Instance Number	(0020,0013)	FIXED	1	ALWAYS	RT Image suite creates single RT Plan instance for each plan series
RT Plan Label	(300A,0002)	USER		ALWAYS	Allowed length of character is 16
RT Plan Name	(300A,0003)	AUTO	Value of RT Plan Label (300A,0002)	ALWAYS	
RT Plan Date	(300A,0006)	AUTO		VNAP	
RT Plan Time	(300A,0007)	AUTO		VNAP	
Referenced Structure Set Sequence	(300C,0060)	AUTO		ALWAYS	
>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
RT Plan Geometry	(300A,000C)	FIXED	PATIENT	ALWAYS	

8.1.1.5.2 RT Beams Module Attributes

Table 30: RT Beams Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Beam Sequence	(300A,00B0)	AUTO		ALWAYS	
>Manufacturer	(0008,0070)	USER		ANAP	
>Manufacturer's Model Name	(0008,1090)	FIXED	RT Engine	ALWAYS	
>Treatment Machine Name	(300A,00B2)	USER		VNAP	
>Source-Axis Distance	(300A,00B4)	USER		ANAP	
>Beam Limiting Device Sequence	(300A,00B6)	AUTO		ALWAYS	
>> RT Beam Limiting Device Type	(300A,00B8)	CONFIG	One of the values: ASYMX – When horizontal jaws are configured. ASYMY – Default configuration for Beam Limiting device sequence of type Y MLCX – When multi leaf collimator is configured in x direction.	ALWAYS	
>>Number of Leaf/Jaw Pairs	(300A,00BC)	USER		ALWAYS	
>>Leaf Position Boundaries	(300A,00BE)	USER		ANAP	
>Beam Number	(300A,00C0)	AUTO	Running number starting from 1	ALWAYS	
>Beam Name	(300A,00C2)	USER		ANAP	
>Beam Description	(300A,00C3)	AUTO	Value from Beam Name (300A,00C2)	ANAP	
>Beam Type	(300A,00C4)	FIXED	STATIC	ALWAYS	
>Radiation Type	(300A,00C6)	FIXED	PHOTON	ALWAYS	
>Number of Wedges	(300A,00D0)	FIXED	0	ALWAYS	
>Number of Compensators	(300A,00E0)	FIXED	0	ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>Number of Boli	(300A,00ED)	FIXED	0	ALWAYS	
>Number of Blocks	(300A,00F0)	FIXED	0	ALWAYS	
>Number of Control Points	(300A,0110)	FIXED	2	ALWAYS	
>Control Point Sequence	(300A,0111)	AUTO		ALWAYS	
>>Control Point Index	(300A,0112)	FIXED	0	ALWAYS	
>>Nominal Beam Energy	(300A,0114)	USER		ANAP	
>>Beam Limiting Device Position Sequence	(300A,011A)	AUTO		ANAP	
>>>RT Beam Limiting Device Type	(300A,00B8)	CONFIG	One of the values: ASYMX – When horizontal jaws are configured. ASYMY – Default configuration for Beam Limiting device sequence of type Y MLCX – When multi leaf collimator is configured in x direction.	ALWAYS	
>>>Leaf/Jaw Positions	(300A,011C)	USER		ALWAYS	
>>Gantry Angle	(300A,011E)	USER		ANAP	
>>Gantry Rotation Direction	(300A,011F)	USER		ANAP	
>>Beam Limiting Device Angle	(300A,0120)	USER		ANAP	
>>Beam Limiting Device Rotation Direction	(300A,0121)	FIXED	NONE	ALWAYS	
>>Patient Support Angle	(300A,0122)	USER		ANAP	
>>Patient Support Rotation Direction	(300A,0123)	FIXED	NONE	ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>>Table Top Eccentric Angle	(300A,0125)	FIXED	0	ALWAYS	
>>Table Top Eccentric Rotation Direction	(300A,0126)	FIXED	NONE	ALWAYS	
>>Isocenter Position	(300A,012C)	USER		ANAP	
>>Cumulative Meterset Weight	(300A,0134)	FIXED	0 or 1	VNAP	
>Referenced Reference Image Sequence	(300C,0042)	AUTO		ANAP	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>Reference Image Number	(300A,00C8)	AUTO		ALWAYS	
>Referenced Patient Setup Number	(300C,006A)	FIXED	1	ALWAYS	

8.1.1.5.3 RT Patient Setup Module Attributes

Table 31: RT Patient Setup Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient Setup Sequence	(300A,0180)	AUTO		ALWAYS	
>Patient Position	(0018,5100)	COPIED		ALWAYS	
>Patient Setup Number	(300A,0182)	FIXED	1	ALWAYS	
>Setup Technique	(300A,01B0)	FIXED	ISOCENTRIC	ALWAYS	

8.1.1.6 Spatial Registration IOD Contents

Table 32: IOD of Created Instances of the Spatial Registration Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
	Spatial Registration Series	Table 33: Spatial Registration Series	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Spatial Registration	Spatial Registration	Table 34: Spatial Registration Module	ALWAYS
	Common Instance Reference	Table 13: Common Instance Reference Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.6.1 Spatial Registration Series Attributes

Table 33: Spatial Registration Series

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	FIXED	REG	ALWAYS	

8.1.1.6.2 Spatial Registration Module Attributes

Table 34: Spatial Registration Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Private Creator	(0029,0010)	AUTO	SIEMENS SYNGO ADVANCED PRESENTATION	ALWAYS	
Registration Creation Algorithm Name	(0029,1073)	FIXED	IVTRigidRegistration, CTCTRigidRegistration, MMRigidRegistration	ALWAYS	
Private Creator	(0031,0010)	AUTO	SIEMENS SYNGO WORKFLOW	ALWAYS	
WF Internal Patient UID	(0031,1010)	COPIED		VNAP	
Content Label	(0070,0080)	FIXED	RTISREGISTRATION	ALWAYS	
Content Description	(0070,0081)	USER	With values of Deform_Reg, Rigid_Reg	VNAP	Based on registration type specified by User
Content Creator's Name	(0070,0084)	AUTO		VNAP	
Registration Sequence	(0070,0308)	AUTO		ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ANAP	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Frame of Reference UID	(0020,0052)	AUTO		ANAP	
>Matrix Registration Sequence	(0070,0309)	AUTO		ALWAYS	
>>Matrix Sequence	(0070,030A)	AUTO		ALWAYS	
>>>Frame of Reference Transformation Matrix Type	(0070,030C)	FIXED	Type of Frame of Reference Transformation Matrix (3006,00C6). Possible values: RIGID, RIGID_SCALE, AFFINE	ALWAYS	
>>>Frame of Reference	(3006,00C6)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Transformation Matrix					
>>Registration Type Code Sequence	(0070,030D)	AUTO		EMPTY	
>Private Creator	(0071,0010)	FIXED	SIEMENS SYNGO REGISTRATION	ALWAYS	
>Registration Is Validated Flag	(0071,1021)	FIXED	YES or NO	ALWAYS	

8.1.1.7 Spatial Fiducials IOD Contents

Table 35: IOD of Created Instances of the Spatial Fiducials Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	General Series	Table 5: General Series Module	ALWAYS
	Spatial Fiducials Series	Table 36: Spatial Fiducials Series Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Spatial Fiducials	Spatial Fiducials	Table 37: Spatial Fiducials Module	ALWAYS
	Common Instance Reference	Table 13: Common Instance Reference Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.7.1 Spatial Fiducials Series Module Attributes

Table 36: Spatial Fiducials Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	FIXED	FID	ALWAYS	

8.1.1.7.2 Spatial Fiducials Module Attributes

Table 37: Spatial Fiducials Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Content Label	(0070,0080)	FIXED	SPATIALFIDUCIAL	ALWAYS	
Content Description	(0070,0081)	AUTO		VNAP	
Content Creator's Name	(0070,0084)	AUTO		VNAP	
Fiducial Set Sequence	(0070,031C)	AUTO		ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ANAP	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Frame of Reference UID	(0020,0052)	AUTO		ANAP	
>Fiducial Sequence	(0070,031E)	AUTO		ALWAYS	
>>Shape Type	(0070,0306)	FIXED	POINT	ALWAYS	
>>Fiducial Identifier	(0070,0310)	AUTO	Integer running number corresponding to number of landmark points, within the session, starting from 1 as string	ALWAYS	
>>Fiducial UID	(0070,031A)	AUTO		ANAP	
>>Number of Contour Points	(3006,0046)	AUTO		ALWAYS	
>>Contour Data	(3006,0050)	AUTO		ALWAYS	

8.1.1.8 Deformable Spatial Registration IOD Contents

Table 38: IOD of Created Instances of the Deformable Spatial Registration Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	General Series	Table 5: General Series Module	ALWAYS
	Spatial Registration Series	Table 33: Spatial Registration Series	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
	Enhanced General Equipment	Table 14: Enhanced General Equipment Module	ALWAYS
Spatial Registration	Deformable Spatial Registration	Table 39: Deformable Spatial Registration Module	ALWAYS
	Common Instance Reference	Table 13: Common Instance Reference Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.8.1 Deformable Spatial Registration Module Attributes

Table 39: Deformable Spatial Registration Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Private Creator	(0029,0010)	FIXED	SIEMENS SYNGO ADVANCED PRESENTATION	ALWAYS	
Registration Creation Algorithm Name	(0029,1073)	FIXED	DeformableRegEngineRegistration	ALWAYS	
Private Creator	(0031,0010)	FIXED	SIEMENS SYNGO WORKFLOW	ALWAYS	
WF Internal Patient UID	(0031,1010)	COPIED		ALWAYS	
Deformable Registration Sequence	(0064,0002)	AUTO		ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ANAP	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Source Frame of Reference UID	(0064,0003)	AUTO	Refers to input image Frame of Reference UID	ALWAYS	
>Deformable Registration Grid Sequence	(0064,0005)	AUTO		ANAP	
>>Image Position (Patient)	(0020,0032)	AUTO		ALWAYS	
>>Image Orientation (Patient)	(0020,0037)	AUTO		ALWAYS	
>>Grid Dimensions	(0064,0007)	AUTO		ALWAYS	
>>Grid Resolution	(0064,0008)	AUTO		ALWAYS	
>>Vector Grid Data	(0064,0009)	AUTO		ALWAYS	
>Pre Deformation Matrix Registration Sequence	(0064,000F)	AUTO		ALWAYS	
>>Frame of Reference	(0070,030C)	FIXED	RIGID	ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Transformation Matrix Type					
>>Frame of Reference Transformation Matrix	(3006,00C6)	AUTO		ALWAYS	
>Post Deformation Matrix Registration Sequence	(0064,0010)	AUTO		ANAP	
>>Frame of Reference Transformation Matrix Type	(0070,030C)	FIXED	RIGID	ALWAYS	
>>Frame of Reference Transformation Matrix	(3006,00C6)	AUTO		ALWAYS	
>Registration Type Code Sequence	(0070,030D)	AUTO		EMPTY	
>Private Creator	(0071,0010)	FIXED	SIEMENS SYNGO REGISTRATION	ALWAYS	
>Registration Is Validated Flag	(0071,1021)	FIXED	NO	ALWAYS	
>Deformable Registration Inverse Grid Sequence	(0071,1022)	FIXED		ALWAYS	
>>Image Position (Patient)	(0020,0032)	AUTO		ALWAYS	
>>Image Orientation (Patient)	(0020,0037)	AUTO		ALWAYS	
>>Grid Dimensions	(0064,0007)	AUTO		ALWAYS	
>>Grid Resolution	(0064,0008)	AUTO		ALWAYS	
>>Vector Grid Data	(0064,0009)	AUTO		ALWAYS	
Content Label	(0070,0080)	FIXED	RTISREGISTRATION	ALWAYS	
Content Description	((0070,0081)	FIXED	Deform_Reg	ALWAYS	
Content Creator's Name	(0070,0084)	AUTO		VNAP	

8.1.1.9 Real World Value Mapping IOD Contents

Table 40: IOD of Created Instances of the Real World Value Mapping Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
Series	General Series	Table 5: General Series Module	ALWAYS
	Real World Value Mapping Series	Table 41: Real World Value Mapping Series Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Real World Value Mapping	Real World Value Mapping	Table 42: Real World Value Mapping Module	ALWAYS
	Common Instance Reference	Table 13: Common Instance Reference Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.9.1 Real World Value Mapping Series Module Attributes

Table 41: Real World Value Mapping Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	FIXED	RWV	ALWAYS	

8.1.1.9.2 Real World Value Mapping Module Attributes

Table 42: Real World Value Mapping Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Private Creator	(0029,0010)	FIXED	SIEMENS SYNGO RWVM	ALWAYS	
RWVM Version	(0029,1050)	AUTO	1.0	ALWAYS	
Private Creator	(0031,0010)	AUTO	SIEMENS SYNGO WORKFLOW	ALWAYS	
WF Internal Patient UID	(0031,1010)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Referenced Image Real World Value Mapping Sequence	(0040,9094)	AUTO		ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Real World Value Mapping Sequence	(0040,9096)	AUTO		ALWAYS	
>>LUT Explanation	(0028,3003)	AUTO	Same as Code Value (0008,0100) from Measurement Units Code Sequence (0040,08EA)	ALWAYS	
>>Measurement Units Code Sequence	(0040,08EA)	AUTO		ALWAYS	
>>>Code Value	(0008,0100)	USER/FIXED	Either of “{SUVbw}g/ml” or “Bq/ml” or ”%”	ALWAYS	
>>>Coding Scheme Designator	(0008,0102)	FIXED	UCUM	ALWAYS	
>>>Code Meaning	(0008,0104)	AUTO		ALWAYS	
>>LUT Label	(0040,9210)	AUTO	Same as Code Value (0008,0100) from Measurement Units Code Sequence (0040,08EA)	ALWAYS	
>>Real World Value Last Value Mapped	(0040,9211)	FIXED	FIXED in case of Dose as “65535”, for others “32767”	ALWAYS	
>>Real World Value First Value Mapped	(0040,9216)	FIXED	FIXED in case of Dose as “0” for others “-32768”	ALWAYS	
>>Real World Value Intercept	(0040,9224)	FIXED	0.0	ALWAYS	
>>Real World Value Slope	(0040,9225)	FIXED	1	ALWAYS	
Content Label	(0070,0080)	FIXED	L1 in case of RT Dose SOP class, otherwise MAPPINGS	ALWAYS	
Content Description	(0070,0081)	AUTO		VNAP	
Content Creator’s Name	(0070,0084)	AUTO		VNAP	

8.1.1.10 CT Image Storage IOD Contents

Table 43: IOD of Created Instances of the CT Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE
Image	General Image	Table 8: General Image Module	ALWAYS
	General Reference	Table 9: General Reference Module	OPTIONAL
	Image Plane	Table 25: Image Plane Module	ALWAYS
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	CT Image	Table 44: CT Image Module	ALWAYS
	VOI LUT	Table 11: VOI LUT Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.10.1 CT Image Module Attributes

Table 44: CT Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/AUTO/COPIED	DERIVED\SECONDARY\AXIAL* Where * can be: •SYNCT_HEAD or /SYNCT/120KVP_EQ/Pelvic depending on whether the Body Part Examined (0018,0015) is BRAIN (HEAD) or PELVIS in the case of MR datasets. •Implementation-specific identifiers such as CT_SOM5 SPI, SYNCT, MEAN, MAXIMUM, etc. •Modality-specific characteristics such as DIFFUSION.	ALWAYS	
KVP	(0018,0060)	FIXED	120	ALWAYS	
Acquisition Number	(0020,0012)	FIXED	EMPTY	EMPTY	
Samples per Pixel	(0028,0002)	COPIED/FIXED	For Synthetic CT it is fixed with value 1	ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED/FIXED	For Synthetic CT it is fixed with value MONOCHROME2	ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	
High Bit	(0028,0102)	AUTO		ALWAYS	
Rescale Intercept	(0028,1052)	FIXED	-1024.0	ALWAYS	
Rescale Slope	(0028,1053)	FIXED	1.0	ALWAYS	
Rescale Type	(0028,1054)	FIXED	HU	ALWAYS	

8.1.1.11 MR Image Storage IOD Contents

Table 45: IOD of Created Instances of the MR Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE
Image	General Image	Table 8: General Image Module	ALWAYS
	General Reference	Table 9: General Reference Module	OPTIONAL
	Image Plane	Table 25: Image Plane Module	ALWAYS
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	MR Image	Table 46: MR Image Module	ALWAYS
	VOI LUT	Table 11: VOI LUT Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.11.1 MR Image Module Attributes

Table 46: MR Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	*Remaining values are copied from input image apart from "DERIVED\SECONDARY". It contains

Attribute	Tag	Source	Value	Presence of Value	Comments
					Implementation specific identifiers such as * MEAN, MAXIMUM etc. It contains Modality Specific Characteristics such as *DIFFUSION
Scanning Sequence	(0018,0020)	COPIED		ALWAYS	
Sequence Variant	(0018,0021)	COPIED		ALWAYS	
Scan Options	(0018,0022)	COPIED		VNAP	
MR Acquisition Type	(0018,0023)	COPIED		VNAP	
Echo Time	(0018,0081)	COPIED		VNAP	
Echo Train Length	(0018,0091)	COPIED		VNAP	
Samples per Pixel	(0028,0002)	COPIED		ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	COPIED		ALWAYS	
Bits Stored	(0028,0101)	COPIED		ALWAYS	
High Bit	(0028,0102)	COPIED		ALWAYS	

8.1.1.12 Positron Emission Tomography Image IOD Contents

Table 47: IOD of Created Instances of the Positron Emission Tomography Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
	PET Series	Table 52: PET Series Module	ALWAYS

IE	Module	Reference	Presence of Module
	PET Isotope	Table 49: PET Isotope Module	ALWAYS
	PET Multi-Gated Acquisition	Table 50: PET Multi-Gated Acquisition Module	Present if Series Type (0054,1000) Value 1 is GATED
	NM/PET Patient Orientation	Table 51: NM/PET Patient Orientation Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE
Image	General Image	Table 8: General Image Module	ALWAYS
	General Reference	Table 9: General Reference Module	OPTIONAL
	Image Plane	Table 25: Image Plane Module	ALWAYS
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	PET Image	Table 52: PET Image Module	ALWAYS
	VOI LUT	Table 11: VOI LUT Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.12.1 PET Series Module attributes

Table 48: PET Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Series Date	(0008,0021)	AUTO		ALWAYS	
Series Time	(0008,0031)	AUTO		ALWAYS	
Units	(0054,1001)	COPIED		ALWAYS	
Counts Source	(0054,1002)	COPIED		ALWAYS	
Series Type	(0054,1000)	COPIED		ALWAYS	
Reprojection Method	(0054,1004)	COPIED		ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Number of R-R Intervals	(0054,0061)	COPIED		ANAP	
Number of Time Slots	(0054,0071)	COPIED		ANAP	
Number of Time Slices	(0054,0101)	COPIED		ANAP	
Number of Slices	(0054,0081)	COPIED		ALWAYS	
Corrected Image	(0028, 0051)	COPIED		VNAP	
Randoms Correction Method	(0054,1100)	COPIED		ANAP	
Attenuation Correction Method	(0054,1101)	COPIED		ANAP	
Scatter Correction Method	(0054,1105)	COPIED		ANAP	
Decay Correction	(0054,1102)	COPIED		ALWAYS	
Convolution Kernel	(0018,1210)	COPIED		ANAP	
Reconstruction Method	(0054,1103)	COPIED		ANAP	
Collimator Type	(0018,1181)	COPIED		VNAP	
Axial Acceptance	(0054,1200)	COPIED		ANAP	
Axial Mash	(0054,1201)	COPIED		ANAP	
Energy Window Range Sequence	(0054,0013)	COPIED		ANAP	
>Energy Window Lower Limit	(0054,0014)	COPIED		ANAP	
>Energy Window Upper Limit	(0054,0015)	COPIED		ANAP	

8.1.1.12.2 PET Isotope Module attributes

Table 49: PET Isotope Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Radiopharmaceutical Information Sequence	(0054,0016)	COPIED		VNAP	
> Radionuclide Code Sequence	(0054,0300)	COPIED		VNAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>Coding Scheme Version	(0008,0103)	COPIED		ALWAYS	
>>Code Meaning	(0008,0104)	COPIED		ALWAYS	

8.1.1.12.3 PET Multi-Gated Acquisition Module attributes

Table 50: PET Multi-Gated Acquisition Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Beat Rejection Flag	(0018,1080)	COPIED		VNAP	

8.1.1.12.4 NM/PET Patient Orientation Module attributes

Table 51: NM/PET Patient Orientation Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient Orientation Code Sequence	(0054,0410)	COPIED		VNAP	
>Code Value	(0008,0100)	COPIED		ANAP	
>Coding Scheme Designator	(0008,0102)	COPIED		ANAP	
>Coding Scheme Version	(0008,0103)	COPIED		ANAP	
>Code Meaning	(0008,0104)	COPIED		ANAP	
>Patient Orientation Modifier Code Sequence	(0054,0412)	COPIED		ANAP	
>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>Coding Scheme Version	(0008,0103)	COPIED		ANAP	
>>Code Meaning	(0008,0104)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient Gantry Relationship Code Sequence	(0054,0414)	COPIED		VNAP	
>Code Value	(0008,0100)	COPIED		ALWAYS	
>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>Coding Scheme Version	(0008,0103)	COPIED		ANAP	
>Code Meaning	(0008,0104)	COPIED		ALWAYS	

8.1.1.12.5 PET Image Module Attributes

Table 52: PET Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	*Remaining values are copied from input image apart from "DERIVED\SECONDARY". It contains Implementation specific identifiers such as MEAN, MAXIMUM etc.
Acquisition Date	(0008,0022)	COPIED		VNAP	
Acquisition Time	(0008,0032)	COPIED		VNAP	
Actual Frame Duration	(0018,1242)	COPIED		VNAP	
Samples per Pixel	(0028,0002)	COPIED		ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	
High Bit	(0028,0102)	AUTO		ALWAYS	
Rescale Intercept	(0028,1052)	COPIED		ALWAYS	
Rescale Slope	(0028,1053)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Index	(0054,1330)	COPIED		ALWAYS	

8.1.1.13 Secondary Capture Image IOD Contents

Table 53: IOD of Created Instances of the Secondary Capture Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	OPTIONAL
	SC Equipment	Table 54: SC Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE
Image	General Image	Table 8: General Image Module	ALWAYS
	General Reference	Table 9: General Reference Module	OPTIONAL
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	SC Image	Table 55: SC Image Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.13.1 SC Equipment Module Attributes

Table 54: SC Equipment Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	COPIED		ANAP	
Conversion Type	(0008,0064)	FIXED	WSD	ALWAYS	
Secondary Capture Device ID	(0018,1010)	USER	syngo.via	ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Secondary Capture Device Manufacturer	(0018,1016)	FIXED	SIEMENS Healthineers	ALWAYS	
Secondary Capture Device Software Versions	(0018,1019)	FIXED	VC10A	ALWAYS	

8.1.1.13.2 SC Image Module Attributes

Table 55: SC Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Date of Secondary Capture	(0018,1012)	AUTO		ANAP	
Time of Secondary Capture	(0018,1014)	AUTO		ANAP	
Pixel Spacing	(0028,0030)	AUTO		ANAP	

8.1.1.14 Enhanced MR Image IOD Contents

Table 56: IOD of Created Instances of the Enhanced MR Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
	MR Series	Table 55: MR Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
	Enhanced General Equipment	Table 14: Enhanced General Equipment Module	ALWAYS
Image	Image Pixel	Table 10: Image Pixel Module	ALWAYS

IE	Module	Reference	Presence of Module
	Multi-frame Functional Groups	Table 58: Enhanced MR Multi-frame Functional Groups Module	ALWAYS
	Multi-frame Dimension	Table 59: Multi-frame Dimension Module	ALWAYS
	Acquisition Context	Table 60: Acquisition Context Module	ALWAYS
	Enhanced MR Image	Table 61: Enhanced MR Image Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.14.1 MR Series Module Attributes

Table 57: MR Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	FIXED	MR	ALWAYS	
Referenced Performed Procedure Step Sequence	(0008,1111)	COPIED		ANAP	
>Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	

8.1.1.14.2 Enhanced MR Multi-frame Functional Groups Module Attributes

Table 58: Enhanced MR Multi-frame Functional Groups Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Number of Frames	(0028,0008)	AUTO		ALWAYS	
Shared Functional Groups Sequence	(5200,9229)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
> Referenced Image Sequence	(0008,1140)	COPIED		ANAP	
>> Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>> Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	
>>Referenced Frame Number	(0008,1160)	COPIED		ALWAYS	
>>Purpose of Reference Code Sequence	(0040, A170)	COPIED		ALWAYS	
>>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>>Code Meaning	(0008,0104)	COPIED		ALWAYS	
>Derivation Image Sequence	(0008,9124)	COPIED		ANAP	
>>Source Image Sequence	(0008,2112)	COPIED		ANAP	
>>>Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>>>Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	
>>>Referenced Frame Number	(0008,1160)	COPIED		ALWAYS	
>>> Purpose of Reference Code Sequence	(0040, A170)	COPIED		ALWAYS	
>>>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>>> Code Meaning	(0008,0104)	COPIED		ALWAYS	
>>Derivation Code Sequence	(0008,9215)	COPIED		ALWAYS	
>>>Code Value	(0008,0100)	COPIED		ALWAYS	
>>>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>> Code Meaning	(0008,0104)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>MR Imaging Modifier Sequence	(0018,9006)	COPIED		VNAP	
> MR Receive Coil Sequence	(0018,9042)	COPIED		VNAP	
> MR Transmit Coil Sequence	(0018,9049)	COPIED		VNAP	
> MR Spatial Saturation Sequence	(0018,9107)	COPIED		VNAP	
> MR Timing and Related Parameters Sequence	(0018,9112)	COPIED		VNAP	
> MR Echo Sequence	(0018,9114)	COPIED		VNAP	
> MR Modifier Sequence	(0018,9115)	COPIED		VNAP	
> MR Diffusion Sequence	(0018,9117)	COPIED		VNAP	
> Cardiac Synchronization Sequence	(0018,9118)	COPIED		VNAP	
> MR Averages Sequence	(0018,9119)	COPIED		VNAP	
> MR Velocity Encoding Sequence	(0018,9197)	COPIED		VNAP	
> Frame Anatomy Sequence	(0020,9071)	COPIED		ALWAYS	
>> Anatomic Region Sequence	(0008,2218)	COPIED		ALWAYS	
>>> Code Value	(0008,0100)	COPIED		ALWAYS	
>>> Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>> Code Meaning	(0008,0104)	COPIED		ALWAYS	
>> Frame Laterality	(0020,9072)	COPIED		ALWAYS	
> Respiratory Synchronization Sequence	(0020,9253)	COPIED		VNAP	
Per-Frame Functional Groups Sequence	(5200,9230)	AUTO		ALWAYS	
> Frame Content Sequence	(0020,9111)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>> In-Stack Position Number	(0020,9057)	AUTO		ALWAYS	
>> Dimension Index Values	(0020,9157)	AUTO		ALWAYS	
>> Stack ID	(0020,9056)	AUTO		ALWAYS	
> Plane Position Sequence	(0020,9113)	AUTO		ALWAYS	
>> Image Position (Patient)	(0020,0032)	AUTO		ALWAYS	
> Plane Orientation Sequence	(0020,9116)	AUTO		ALWAYS	
>> Image Orientation (Patient)	(0020,0037)	AUTO		ALWAYS	
> Pixel Measures Sequence	(0028,9110)	AUTO		ALWAYS	
>> Slice Thickness	(0018,0050)	AUTO		ALWAYS	
>> Spacing Between Slices	(0018,0088)	AUTO		ALWAYS	
>> Pixel Spacing	(0028,0030)	AUTO		ALWAYS	
> Frame VOI LUT Sequence	(0028,9132)	COPIED		ALWAYS	
>> Window Center	(0028,1050)	COPIED		ALWAYS	
>> Window Width	(0028,1051)	COPIED		ALWAYS	
> MR Image Frame Type Sequence	(0018,9226)	COPIED		ALWAYS	
>> Frame Type	(0008,9007)	COPIED		ALWAYS	
>> Pixel Presentation	(0008,9205)	COPIED		ALWAYS	
>> Volumetric Properties	(0008,9206)	COPIED		ALWAYS	
>> Volume Based Calculation Technique	(0008,9207)	COPIED		ALWAYS	

8.1.1.14.3 Multi-frame Dimension Module Attributes

Table 59: Multi-frame Dimension Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Dimension Organization Sequence	(0020,9221)	COPIED		ALWAYS	
>Dimension Organization UID	(0020,9164)	COPIED		ALWAYS	
Dimension Index Sequence	(0020,9222)	COPIED		ALWAYS	
>Dimension Organization UID	(0020,9164)	COPIED		ALWAYS	
>Dimension Index Pointer	(0020,9165)	COPIED		ALWAYS	
>Functional Group Pointer	(0020,9167)	COPIED		ANAP	

8.1.1.14.4 Acquisition Context Module Attributes

Table 60: Acquisition Context Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Acquisition Context Sequence	(0040,0555)	COPIED		VNAP	

8.1.1.14.5 Enhanced MR Image Module Attributes

Table 61: Enhanced MR Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	Remaining values are copied from input image apart from "DERIVED\SECONDARY"
Samples per Pixel	(0028,0002)	COPIED		ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	
High Bit	(0028,0102)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Pixel Representation	(0028,0103)	AUTO		ALWAYS	
Pixel Presentation	(0008,9205)	COPIED		ALWAYS	
Volumetric Properties	(0008,9206)	COPIED		ALWAYS	
Volume Based Calculation Technique	(0008,9207)	COPIED		ALWAYS	
Complex Image Component	(0008,9208)	COPIED		ALWAYS	
Acquisition Contrast	(0008,9209)	COPIED		ALWAYS	
Content Qualification	(0018,9004)	COPIED		ALWAYS	
Applicable Safety Standard Agency	(0018,9174)	COPIED		ALWAYS	
Burned In Annotation	(0028,0301)	COPIED		ALWAYS	
Lossy Image Compression	(0028,2110)	COPIED		ALWAYS	
Presentation LUT Shape	(2050,0020)	COPIED		ALWAYS	
Referenced Image Evidence Sequence	(0008,9092)	AUTO		ALWAYS	
>Referenced Series Sequence	(0008,1115)	AUTO		ALWAYS	
>>Referenced SOP Sequence	(0008,1199)	AUTO		ALWAYS	
>>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>Series Instance UID	(0020,000E)	AUTO		ALWAYS	
>Study Instance UID	(0020,000D)	AUTO		ALWAYS	
Source Image Evidence Sequence	(0008,9154)	AUTO		ALWAYS	
> Referenced Series Sequence	(0008,1115)	AUTO		ALWAYS	
>>Referenced SOP Sequence	(0008,1199)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>>>Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>Series Instance UID	(0020,000E)	AUTO		ALWAYS	
>Study Instance UID	(0020,000D)	AUTO		ALWAYS	

8.1.1.15 Enhanced CT Image IOD Contents

Table 62: IOD of Created Instances of the Enhanced CT Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
	CT Series	Table 63: CT Series Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
	Enhanced General Equipment	Table 14: Enhanced General Equipment Module	ALWAYS
Image	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	Multi-frame Functional Groups	Table 64: Enhanced CT Multi-frame Functional Groups Module	ALWAYS
	Multi-frame Dimension	Table 65: Multi-frame Dimension Module	ALWAYS
	Acquisition Context	Table 66: Acquisition Context Module	ALWAYS
	Enhanced CT Image	Table 67: Enhanced CT Image Module	ALWAYS

IE	Module	Reference	Presence of Module
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.15.1 CT Series Module Attributes

Table 63: CT Series Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Modality	(0008,0060)	FIXED	CT	ALWAYS	
Referenced Performed Procedure Step Sequence	(0008,1111)	COPIED		ANAP	
>> Referenced SOP Class UID	(0008,1150)	COPIED		ALWAYS	
>> Referenced SOP Instance UID	(0008,1155)	COPIED		ALWAYS	

8.1.1.15.2 Enhanced CT Multi-frame Functional Groups Module Attributes

Table 64: Enhanced CT Multi-frame Functional Groups Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Shared Functional Groups Sequence	(5200,9229)	COPIED		ALWAYS	
>Derivation Image Sequence	(0008,9124)	COPIED		VNAP	
> CT Image Frame Type Sequence	(0018,9329)	COPIED		ALWAYS	
>> Frame Type Attribute	(0008,9007)	COPIED		ALWAYS	
>> Pixel Presentation	(0008,9205)	COPIED		ALWAYS	
>> Volumetric Properties	(0008,9206)	COPIED		ALWAYS	
>> Volume Based Calculation Technique	(0008,9207)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
> Irradiation Event Identification Sequence	(0018,9477)	COPIED		ALWAYS	
>> Irradiation Event UID	(0008,3010)	COPIED		ALWAYS	
> Frame Anatomy Sequence	(0020,9071)	COPIED		ALWAYS	
>> Anatomic Region Sequence	(0008,2218)	COPIED		ALWAYS	
>>> Code Value	(0008,0100)	COPIED		ALWAYS	
>>> Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>>> Code Meaning	(0008,0104)	COPIED		ALWAYS	
>> Frame Laterality	(0020,9072)	COPIED		ALWAYS	
>Plane Orientation Sequence	(0020,9116)	COPIED		ALWAYS	
>>Image Orientation (Patient)	(0020,0037)	COPIED		VNAP	
>Pixel Measures Sequence	(0028,9110)	COPIED		ALWAYS	
>> Slice Thickness	(0018,0050)	COPIED		ALWAYS	
>> Pixel Spacing	(0028,0030)	COPIED		ALWAYS	
> Frame VOI LUT Sequence	(0028,9132)	COPIED		ALWAYS	
>> Window Center	(0028,1050)	COPIED		ALWAYS	
>> Window Width	(0028,1051)	COPIED		ALWAYS	
>Pixel Value Transformation Sequence	(0028,9145)	COPIED		ALWAYS	
>> Rescale Intercept	(0028,1052)	COPIED		ALWAYS	
>> Rescale Slope	(0028,1053)	COPIED		ALWAYS	
>> Rescale Type	(0028,1054)	COPIED		ALWAYS	
> Real World Value Mapping Sequence	(0040,9096)	COPIED		ALWAYS	
>> LUT Explanation	(0028,3003)	COPIED		ALWAYS	
>> Measurement Units Code Sequence	(0040,08EA)	COPIED		ALWAYS	
>>> Code Value	(0008,0100)	COPIED		VNAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
>>> Coding Scheme Designator	(0008,0102)	COPIED		VNAP	
>>> Coding Scheme Version	(0008,0103)	COPIED		VNAP	
>>> Code Meaning	(0008,0104)	COPIED		VNAP	
>> LUT Label	(0040,9210)	COPIED		ALWAYS	
>>Real World Value Last Value Mapped	(0040,9211)	COPIED		VNAP	
>>Real World Value First Value Mapped	(0040,9216)	COPIED		VNAP	
>> Real World Value Intercept	(0040,9224)	COPIED		VNAP	
>> Real World Value Slope	(0040,9225)	COPIED		VNAP	
Per-frame Functional Groups Sequence	(5200,9229)	AUTO		ALWAYS	
> Frame Content Sequence	(0020,9111)	AUTO		ALWAYS	
>> Stack ID	(0020,9056)	AUTO		ALWAYS	
>> In-Stack Position Number	(0020,9057)	AUTO		ALWAYS	
>> Frame Acquisition Number	(0020,9156)	AUTO		ALWAYS	
>> Dimension Index Values	(0020,9157)	AUTO		ALWAYS	
> Plane Position Sequence	(0020,9113)	AUTO		ALWAYS	
>> Image Position (Patient)	(0020,0032)	AUTO		ALWAYS	
Instance Number	(0020,0013)	AUTO		ALWAYS	
Content Date	(0008,0023)	AUTO		ALWAYS	
Content Time	(0008,0033)	AUTO		ALWAYS	
Number of Frames	(0028,0008)	AUTO		ALWAYS	

8.1.1.15.3 Multi-frame Dimension Module Attributes

Table 65: Multi-frame Dimension Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Dimension Organization Sequence	(0020,9221)	COPIED		ALWAYS	
>Dimension Organization UID	(0020,9164)	COPIED		ALWAYS	
Dimension Index Sequence	(0020,9222)	COPIED		ALWAYS	
>Dimension Index Pointer	(0020,9165)	COPIED		ALWAYS	
>Functional Group Pointer	(0020,9167)	COPIED		ANAP	.
>Dimension Organization UID	(0020,9164)	COPIED		ALWAYS	

8.1.1.15.4 Acquisition Context Module Attributes

Table 66: Acquisition Context Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Acquisition Context Sequence	(0040,0555)	COPIED		VNAP	

8.1.1.15.5 Enhanced CT Image Module Attributes

Table 67: Enhanced CT Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	*Remaining values are copied from input image apart from "DERIVED\SECONDARY
Samples Per Pixel	(0028,0002)	COPIED		ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
High Bit	(0028,0102)	AUTO		ALWAYS	
Content Qualification	(0018,9004)	COPIED		ALWAYS	
Burned In Annotation	(0028,0301)	COPIED		ALWAYS	
Lossy Image Compression	(0028,2110)	COPIED		ALWAYS	
Lossy Image Compression Ratio	(0028,2112)	COPIED		ANAP	
Lossy Image Compression Method	(0028,2114)	COPIED		ANAP	
Presentation LUT Shape	(2050,0020)	COPIED		ALWAYS	
Pixel Presentation	(0008,9205)	COPIED		ALWAYS	
Volumetric Properties	(0008,9206)	COPIED		ALWAYS	
Volume Based Calculation Technique	(0008,9207)	COPIED		ALWAYS	

8.1.1.16 Nuclear Medicine Image IOD Contents

Table 68: IOD of Created Instances of the Nuclear Medicine Image Storage SOP Class

IE	Module	Reference	Presence of Module
Patient	Patient	Table 2: Patient Module	ALWAYS
Study	General Study	Table 3: General Study Module	ALWAYS
	Patient Study	Table 4: Patient Study Module	OPTIONAL
Series	General Series	Table 5: General Series Module	ALWAYS
	NM/PET Patient Orientation	Table 69: NM/PET Patient Orientation Module	ALWAYS
Frame of Reference	Frame of Reference	Table 7: Frame of Reference Module	ALWAYS
Equipment	General Equipment	Table 6: General Equipment Module	ALWAYS
Acquisition	General Acquisition	N/A	NONE

IE	Module	Reference	Presence of Module
Image	General Image	Table 8: General Image Module	ALWAYS
	Image Pixel	Table 10: Image Pixel Module	ALWAYS
	NM Image Pixel	Table 72: NM Image Pixel Module	ALWAYS
	Multi-frame	Table 77: Multi-frame Module	ALWAYS
	NM Multi-frame	Table 73: NM Multi-frame Module	ALWAYS
	NM Image	Table 74: NM Image Module	ALWAYS
	NM Isotope	Table 75: NM Isotope Module	ALWAYS
	NM Detector	Table 76: NM Detector Module	ALWAYS
	VOI LUT	Table 11: VOI LUT Module	ALWAYS
	SOP Common	Table 12: SOP Common Module	ALWAYS

8.1.1.16.1 NM/PET Patient Orientation Module Attribues

Table 69 : NM/PET Patient Orientation Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Patient Orientation Code Sequence	(0054,0410)	COPIED		VNAP	
>Code Value	(0008,0100)	COPIED		ALWAYS	
>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>Coding Scheme Version	(0008,0103)	COPIED		ANAP	
>Code Meaning	(0008,0104)	COPIED		ALWAYS	
Patient Gantry Relationship Code Sequence	(0054,0414)	COPIED		VNAP	
> Code Value	(0008,0100)	COPIED		ALWAYS	
>Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
>Coding Scheme Version	(0008,0103)	COPIED		ANAP	
>Code Meaning	(0008,0104)	COPIED		ALWAYS	

8.1.1.16.2 NM Image Pixel Module Attributes

Table 72: NM Image Pixel Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Samples per Pixel	(0028,0002)	COPIED		ALWAYS	
Photometric Interpretation	(0028,0004)	COPIED		ALWAYS	
Bits Allocated	(0028,0100)	AUTO		ALWAYS	
Bits Stored	(0028,0101)	AUTO		ALWAYS	
High Bit	(0028,0102)	AUTO		ALWAYS	
Pixel Spacing	(0028,0103)	AUTO		ALWAYS	

8.1.1.16.3 NM Multi-frame Module Attributes

Table 73: NM Multi-frame Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Frame Increment Pointer	(0028,0009)	AUTO		ALWAYS	
Energy Window Vector	(0054,0010)	COPIED		ANAP	
Number of Energy Windows	(0054,0011)	COPIED		ALWAYS	
Detector Vector	(0054,0020)	COPIED		ANAP	
Number of Detectors	(0054,0021)	COPIED		ALWAYS	
Phase Vector	(0054,0030)	COPIED		ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Number of Phases	(0054,0031)	COPIED		ANAP	
Rotation Vector	(0054,0050)	COPIED		ANAP	
Number of Rotations	(0054,0051)	COPIED		ANAP	
R-R Interval Vector	(0054,0060)	COPIED		ANAP	
Number of R-R Intervals	(0054,0061)	COPIED		ANAP	
Time Slot Vector	(0054,0070)	COPIED		ANAP	
Number of Time Slots	(0054,0071)	COPIED		ANAP	
Slice Vector	(0054,0080)	COPIED		ANAP	
Number of Slices	(0054,0081)	COPIED		ANAP	
Angular View Vector	(0054,0090)	COPIED		ANAP	
Time Slice Vector	(0054,0100)	COPIED		ANAP	

8.1.1.16.4 NM Image Module Attributes

Table 74: NM Image Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Image Type	(0008,0008)	FIXED/COPIED	DERIVED\SECONDARY*	ALWAYS	*Remaining values are copied from input image apart from "DERIVED\SECONDARY"
Image ID	(0054,0400)	COPIED		ANAP	

Attribute	Tag	Source	Value	Presence of Value	Comments
Lossy Image Compression	(0028,2110)	COPIED		ANAP	
Counts Accumulated	(0018,0070)	COPIED		VNAP	
Acquisition Termination Condition	(0018,0071)	COPIED		ANAP	
Table Traverse	(0018,1131)	COPIED		ANAP	
Actual Frame Duration	(0018,1242)	COPIED		ANAP	
Corrected Image	(0028,0051)	COPIED		ANAP	

8.1.1.16.5 NM Isotope Module Attributes

Table 75: NM Isotope Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Energy Window Information Sequence	(0054,0012)	COPIED		VNAP	
>Energy Window Name	(0054,0018)	COPIED		ANAP	
>Energy Window Range Sequence	(0054,0013)	COPIED		ANAP	
>>Energy Window Lower Limit	(0054,0014)	COPIED		ANAP	
>>Energy Window Upper Limit	(0054,0015)	COPIED		ANAP	
Radiopharmaceutical Information Sequence	(0054,0016)	COPIED		VNAP	
>Radionuclide Total Dose	(0018,1074)	COPIED		ANAP	
>Radionuclide Code Sequence	(0054,0300)	COPIED		VNAP	
>>Code Value	(0008,0100)	COPIED		ALWAYS	
>> Coding Scheme Designator	(0008,0102)	COPIED		ALWAYS	
>> Code Meaning	(0008,0104)	COPIED		ALWAYS	

Attribute	Tag	Source	Value	Presence of Value	Comments
Intervention Drug Information Sequence	(0018,0026)	COPIED		ANAP	
>Intervention Drug Dose	(0018,0028)	COPIED		ANAP	
>Intervention Drug Start Time	(0018,0035)	COPIED		ANAP	

8.1.1.16.6 NM Detector Module Attributes

Table 76: NM Detector Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Detector Information Sequence	(0054,0022)	AUTO		VNAP	
>Collimator/Grid Name	(0018,1180)	COPIED		ANAP	
>Collimator Type	(0018,1181)	COPIED		VNAP	
>Field of View Dimension(s)	(0018,1149)	COPIED		ANAP	
>Focal Distance	(0018,1182)	COPIED		VNAP	
>X Focus Center	(0018,1183)	COPIED		ANAP	
>Y Focus Center	(0018,1184)	COPIED		ANAP	
>Zoom Factor	(0028,0031)	COPIED		ANAP	
>Center of Rotation Offset	(0018,1145)	COPIED		ANAP	
>Start Angle	(0054,0200)	COPIED		ANAP	
>Image Orientation (Patient)	(0020,0037)	AUTO		VNAP	
>Image Position (Patient)	(0020,0032)	AUTO		VNAP	

8.1.1.16.7 Multi-frame Module Attributes

Table 77: Multi-frame Module

Attribute	Tag	Source	Value	Presence of Value	Comments
Number of Frames	(0028,0008)	AUTO		ALWAYS	
Frame Increment Pointer	(0028,0009)	AUTO		ALWAYS	

8.1.2 Usage of Attributes from Received IODs

N/A

8.1.3 Attribute Mapping

N/A

8.1.4 Coerced/Modified Fields

N/A

8.2 Data Dictionary of Private Attributes

Table 78: Private Data Attributes Dictionary

DICOM Tag	Name	VR	VM	Safe from Identity Leakage
(0029,SIEMENS CT RT Structure Set,01)	Rt ROI Locked Status	LO	1	YES
(0029, SIEMENS CT RT Structure Set,02)	Rt Reference Point Token	UL	1	YES
(0071,SIEMENS SYNGO REGISTRATION,21)	Registration Is Validated Flag	CS	1	YES
(0071,SIEMENS SYNGO REGISTRATION,22)	Deformable Registration Inverse Grid Sequence	SQ	1	YES
(0029,SIEMENS SYNGO ADVANCED PRESENTATION,73)	Registration Creation Algorithm Name	LO	1	YES
(0031,SIEMENS SYNGO WORKFLOW,10)	WF Internal Patient UID	UI	1	YES
(0029,SIEMENS SYNGO RWVM,50)	RWVM Version	LO	1	YES

8.3 Coded Terminology and Templates

8.3.1 Context Groups

RT Image Suite uses the below coding scheme designators to identify below structures (organs) in the system as mentioned in the following table. These are used within the “RT ROI Identification Code Sequence” of RT ROI Observation module.

Table 79: Organs referring DICOM Coding Scheme from FMA and RADLEX

ROI Name	Code Value	Coding Scheme Designator	Scheme Version	Code Meaning
Arytenoid Cartilage	55109	FMA	3.2	Arytenoid cartilage
Arytenoid Cartilage Left	55114	FMA	3.2	Left arytenoid cartilage
Arytenoid Cartilage Right	55113	FMA	3.2	Right arytenoid cartilage
Base of Tongue	54645	FMA	3.2	Base of tongue
Brain	50801	FMA	3.2	Brain
Brainstem	79876	FMA	3.2	Brainstem
Carotid Artery	3939	FMA	3.2	Common carotid artery
Cerebellum	67944	FMA	3.2	Cerebellum
Cerebellum Left Hemisphere	83877	FMA	3.2	Left hemisphere of cerebellum
Cerebellum Right Hemisphere	83876	FMA	3.2	Right hemisphere of cerebellum
Cerebrum	62000	FMA	3.2	Telencephalon
Cerebrum Left Hemishphere	61819	FMA	3.2	Left cerebral hemisphere
Cerebrum Right Hemisphere	67292	FMA	3.2	Right cerebral hemisphere
Cochlea	60201	FMA	3.2	Cochlea
Cochlea Left	60203	FMA	3.2	Left cochlea
Cochlea Right	60202	FMA	3.2	Right cochlea
Cornea	58238	FMA	3.2	Cornea
Cornea Left	58240	FMA	3.2	Left cornea
Cornea Right	58239	FMA	3.2	Right cornea
Coronary Artery	49893	FMA	3.2	Coronary artery
Cricoid Cartilage	9615	FMA	3.2	Cricoid cartilage
Ear Left	53642	FMA	3.2	Left ear
Ear Right	53641	FMA	3.2	Right ear
Ears	268858	FMA	3.2	Set of ears
External Auditory Canal Left	61736	FMA	3.2	Left external acoustic tube
External Auditory Canal Right	61735	FMA	3.2	Right external acoustic tube
External Ear	52781	FMA	3.2	External ear
External Ear Left	53644	FMA	3.2	Left external ear
External Ear Right	53643	FMA	3.2	Right external ear
Eye Globe Left	12515	FMA	3.2	Left eyeball

Eye Globe Right	12514	FMA	3.2	Right eyeball
Eye Globes	264089	FMA	3.2	Set of eyeballs
Facial Cranial Nerve Left	50889	FMA	3.2	Left facial nerve
Facial Cranial Nerve Right	50888	FMA	3.2	Right facial nerve
Facial Cranial Nerves	264817	FMA	3.2	Set of facial nerves
Frontal Lobe	61824	FMA	3.2	Frontal lobe
Frontal Lobe Left	72970	FMA	3.2	Left frontal lobe
Frontal Lobe Right	72969	FMA	3.2	Right frontal lobe
Glottis	55414	FMA	3.2	Glottis
Hippocampus	275020	FMA	3.2	Hippocampus
Hippocampus Left	275024	FMA	3.2	Left hippocampus
Hippocampus Right	275022	FMA	3.2	Right hippocampus
Hypothalamus	62008	FMA	3.2	Hypothalamus
Lacrimal Gland	59101	FMA	3.2	Lacrimal gland
Lacrimal Gland Left	59103	FMA	3.2	Left lacrimal gland
Lacrimal Gland Right	59102	FMA	3.2	Right lacrimal gland
Larynx	55097	FMA	3.2	Larynx
Lateral Pterygoid Left	49017	FMA	3.2	Left lateral pterygoid
Lateral Pterygoid Right	49016	FMA	3.2	Right lateral pterygoid
Lens	58241	FMA	3.2	Lens
Lens Left	58243	FMA	3.2	Left lens
Lens Right	58242	FMA	3.2	Right lens
LN Level Ia Submental Triangle	223846	FMA	3.2	Submental lymphatic chain
LN Level Ib Submandibular Triangle Left	224001	FMA	3.2	Left submandibular lymphatic chain
LN Level Ib Submandibular Triangle Right	223999	FMA	3.2	Right submandibular lymphatic chain
Level Ib: Submandibular triangle	223782	FMA	3.2	Submandibular lymphatic chain
LN Level II Upper Jugular Nodes Left	265660	FMA	3.2	Left level II lymphatic chain
LN Level II Upper Jugular Nodes Right	265658	FMA	3.2	Right level II lymphatic chain
Level II: Upper jugular nodes	265656	FMA	3.2	Level II lymphatic chain
LN Level III Middle Jugular Nodes Left	241953	FMA	3.2	Left level III lymphatic chain
LN Level III Middle Jugular Nodes Right	241951	FMA	3.2	Right level III lymphatic chain
Level III: Middle jugular nodes	241949	FMA	3.2	Level III lymphatic chain
Level IV Left: Lower jugular nodes	241959	FMA	3.2	Left inferior lateral deep cervical lymphatic chain
Level IV Right: Lower jugular nodes	241957	FMA	3.2	Right inferior lateral deep cervical lymphatic chain
Level IV: Lower jugular nodes	241955	FMA	3.2	Inferior lateral deep cervical lymphatic chain
LN Level V Posterior Triangle Group Left	241965	FMA	3.2	Left level V lymphatic chain

LN Level V Posterior Triangle Group Right	241963	FMA	3.2	Right level V lymphatic chain
Level V: Posterior triangle group	241961	FMA	3.2	Level V lymphatic chain
Level VI Left: Anterior triangle group	241971	FMA	3.2	Left level VI lymphatic chain
Level VI Right: Anterior triangle group	241969	FMA	3.2	Right level VI lymphatic chain
Level VI: Anterior triangle group	241967	FMA	3.2	Level VI lymphatic chain
Lips	59815	FMA	3.2	Labial part of mouth
Mandible	52748	FMA	3.2	Mandible
Masseter Left	48998	FMA	3.2	Left masseter
Masseter Muscles	48996	FMA	3.2	Masseter
Masseter Right	48997	FMA	3.2	Right masseter
Medial Pterygoid Left	49013	FMA	3.2	Left medial pterygoid
Medial Pterygoid Right	49012	FMA	3.2	Right medial pterygoid
Medial Supra-clavicular nodes	14192	FMA	3.2	Supraclavicular lymph node
Medial Supra-clavicular nodes Left	232719	FMA	3.2	Left supraclavicular lymph node
Medial Supra-clavicular nodes Right	232721	FMA	3.2	Right supraclavicular lymph node
Middle Ear	56513	FMA	3.2	Middle ear
Middle Ear Left	56515	FMA	3.2	Left middle ear
Middle Ear Right	56514	FMA	3.2	Right middle ear
Nasal Cavity	54378	FMA	3.2	Nasal cavity
Occipital Lobe	67325	FMA	3.2	Occipital lobe
Occipital Lobe Left	72976	FMA	3.2	Left occipital lobe
Occipital Lobe Right	72975	FMA	3.2	Right occipital lobe
Optic Chiasm	62045	FMA	3.2	Optic chiasm
Optic Nerve Left	50878	FMA	3.2	Left optic nerve
Optic Nerve Right	50875	FMA	3.2	Right optic nerve
Optic Nerves	264799	FMA	3.2	Set of optic nerves
Oral Cavity	20292	FMA	3.2	Cavity of mouth
Parietal Lobe	61826	FMA	3.2	Parietal lobe
Parietal Lobe Left	72974	FMA	3.2	Left parietal lobe
Parietal Lobe Right	72973	FMA	3.2	Right parietal lobe
Parotid Gland Left	59798	FMA	3.2	Left parotid gland
Parotid Gland Right	59797	FMA	3.2	Right parotid gland
Pharyngeal Constrictor Muscle Inferior	46623	FMA	3.2	Inferior pharyngeal constrictor
Pharyngeal Constrictor Muscle Middle	46622	FMA	3.2	Middle pharyngeal constrictor
Pharyngeal Constrictor Muscle Superior	46621	FMA	3.2	Superior pharyngeal constrictor
Pharyngeal Constrictors	54966	FMA	3.2	Set of constrictor muscles of pharynx
Pharynx	46688	FMA	3.2	Pharynx
Pituitary Gland	13889	FMA	3.2	Pituitary gland
Posterior Cranial Fossa	54368	FMA	3.2	Posterior cranial fossa
Retina	58301	FMA	3.2	Retina

Retina Left	58303	FMA	3.2	Left retina
Retina Right	58302	FMA	3.2	Right retina
LN Level VIIa Retropharyngeal Nodes Left	224033	FMA	3.2	Left level VIIa retropharyngeal lymphatic chain
LN Level VIIa Retropharyngeal Nodes Right	224031	FMA	3.2	Right level VIIa retropharyngeal lymphatic chain
RN: Retropharyngeal nodes	224029	FMA	3.2	Retropharyngeal lymphatic chain
Salivary Glands	9597	FMA	3.2	Salivary gland
Semicircular Canal	60186	FMA	3.2	Semicircular canal
Semicircular Canal Left	60197	FMA	3.2	Left semicircular canal
Semicircular Canal Right	60196	FMA	3.2	Right semicircular canal
Sternocleidomastoid Left	13409	FMA	3.2	Left sternocleidomastoid
Sternocleidomastoid Right	13408	FMA	3.2	Right sternocleidomastoid
Submandibular Gland Left	59803	FMA	3.2	Left submandibular gland
Submandibular Gland Right	59802	FMA	3.2	Right submandibular gland
Supraglottic Larynx	55476	FMA	3.2	Supraglottic part of larynx
Temporal Lobe	61825	FMA	3.2	Temporal lobe
Temporal Lobe Left	72972	FMA	3.2	Left temporal lobe
Temporal Lobe Right	72971	FMA	3.2	Right temporal lobe
Temporomandibular Joint	54832	FMA	3.2	Temporomandibular joint
Temporomandibular Joint Left	54834	FMA	3.2	Left temporomandibular joint
Temporomandibular Joint Right	54833	FMA	3.2	Right temporomandibular joint
Tongue	54640	FMA	3.2	Tongue
Vertebral Column Cervical	24138	FMA	3.2	Cervical vertebral column
Vestibucochlear Cranial Nerve Left	50891	FMA	3.2	Left vestibulocochlear nerve
Vestibucochlear Cranial Nerve Right	50890	FMA	3.2	Right vestibulocochlear nerve
Vestibulocochlear Cranial Nerves	264798	FMA	3.2	Set of vestibulocochlear nerves
LN Level IX Bucco-facial Group Left	223844	FMA	3.2	Left level IX bucco-facial group
LN Level IX Bucco-facial Group Right	223842	FMA	3.2	Right level IX bucco-facial group
LN Level VIII Parotid Group Left	223806	FMA	3.2	Left level VIII parotid group
LN Level VIII Parotid Group Right	223804	FMA	3.2	Right level VIII parotid group
LN Level Xa Retroauricular & Subauricular Nodes Left	223794	FMA	3.2	Left retro-auricular lymphatic chain
LN Level Xa Retroauricular & Subauricular Nodes Right	223792	FMA	3.2	Right retro-auricular lymphatic chain

LN Level Xb Occipital Nodes Left	223788	FMA	3.2	Left occipital lymphatic chain
LN Level Xb Occipital Nodes Right	223786	FMA	3.2	Right occipital lymphatic chain
Adrenal Gland Left	15630	FMA	3.2	Left adrenal gland
Adrenal Gland Right	15629	FMA	3.2	Right adrenal gland
Aorta	3734	FMA	3.2	Aorta
Axillary nodes	73247	FMA	3.2	Axillary lymphatic chain
Axillary nodes Left	73250	FMA	3.2	Left axillary lymphatic chain
Axillary nodes level I	73251	FMA	3.2	Pectoral axillary lymphatic chain
LN Axilla Level I Left	73253	FMA	3.2	Left pectoral axillary lymphatic chain
LN Axilla Level I Right	73252	FMA	3.2	Right pectoral axillary lymphatic chain
Axillary nodes level II	73260	FMA	3.2	Central axillary lymphatic chain
LN Axilla Level II Left	73263	FMA	3.2	Left central axillary lymphatic chain
LN Axilla Level II Right	73262	FMA	3.2	Right central axillary lymphatic chain
Axillary nodes level III	73261	FMA	3.2	Apical axillary lymphatic chain
LN Axilla Level III Left	73265	FMA	3.2	Left apical axillary lymphatic chain
LN Axilla Level III Right	73264	FMA	3.2	Right apical axillary lymphatic chain
Axillary nodes Right	73249	FMA	3.2	Right axillary lymphatic chain
Azygos Vein	4838	FMA	3.2	Azygos vein
Brachial Nerve Plexus	5906	FMA	3.2	Brachial nerve plexus
Brachial Plexus Left	45245	FMA	3.2	Left brachial nerve plexus
Brachial Plexus Right	45244	FMA	3.2	Right brachial nerve plexus
Brachiocephalic Artery	3932	FMA	3.2	Brachiocephalic artery
Breasts	268893	FMA	3.2	Set of breasts
Bronchial Tree	26660	FMA	3.2	Bronchial tree
Bronchial Tree Left	26662	FMA	3.2	Left bronchial tree
Bronchial Tree Right	26661	FMA	3.2	Right bronchial tree
Carina	7465	FMA	3.2	Carina of trachea
Chest Wall	50060	FMA	3.2	Chest wall
Clavicle Left	13323	FMA	3.2	Left Clavicle
Clavicle Right	13322	FMA	3.2	Right Clavicle
Esophagus	7131	FMA	3.2	Esophagus
Female Breast Left	19910	FMA	3.2	Left female breast
Female Breast Right	19908	FMA	3.2	Right female breast
Vena Cava Inferior	10951	FMA	3.2	Inferior vena cava
Infraclavicular nodes	229144	FMA	3.2	Infraclavicular lymphatic chain
Infraclavicular nodes Left	229148	FMA	3.2	Left infraclavicular lymphatic chain

Infraclavicular nodes Right	229146	FMA	3.2	Right infraclavicular lymphatic chain
Internal mammary nodes	235068	FMA	3.2	Parasternal lymphatic chain
Internal mammary nodes Left	236745	FMA	3.2	Left parasternal lymphatic chain
Internal mammary nodes Right	236743	FMA	3.2	Right parasternal lymphatic chain
Interpectoral nodes	44312	FMA	3.2	Interpectoral lymph node
Interpectoral nodes Left	275997	FMA	3.2	Left interpectoral lymph node
Interpectoral nodes Right	275995	FMA	3.2	Right interpectoral lymph node
CA Left Anterior Descending Artery (LAD)	3862	FMA	3.2	Anterior interventricular branch of left coronary artery
Lung Left	7310	FMA	3.2	Left lung
Lung Lobe Left Lower	7371	FMA	3.2	Lower lobe of left lung
Lung Lobe Left Upper	7370	FMA	3.2	Upper lobe of left lung
Lung Lobe Right Lower	7337	FMA	3.2	Lower lobe of right lung
Lung Lobe Right Middle	7383	FMA	3.2	Middle lobe of lung
Lung Lobe Right Upper	7333	FMA	3.2	Upper lobe of right lung
Lung Right	7309	FMA	3.2	Right lung
Lungs	68877	FMA	3.2	Pair of lungs
Main Bronchus	7405	FMA	3.2	Main bronchus
Main Bronchus Left	7396	FMA	3.2	Left main bronchus
Main Bronchus Right	7395	FMA	3.2	Right main bronchus
Male Breast Left	19913	FMA	3.2	Left male breast
Male Breast Right	19912	FMA	3.2	Right male breast
Mediastinum	9826	FMA	3.2	Mediastinum
N1 Station 10: Hilar Nodes	5965	FMA	3.2	Bronchopulmonary lymph node
N1 Station 10: Hilar Nodes Left	5967	FMA	3.2	Left bronchopulmonary lymph node
N1 Station 10: Hilar Nodes Right	5966	FMA	3.2	Right bronchopulmonary lymph node
N1 Station 11: Interlobar Nodes	276828	FMA	3.2	Interlobar lymph node
N1 Station 12: Lobar Nodes	276849	FMA	3.2	Lobar lymph node
N1 Station 13: Segmental Nodes	276855	FMA	3.2	Segmental lymph node
1 Station 14: Subsegmental Nodes	276861	FMA	3.2	Subsegmental lymph node
N2 Station 1: Highest Mediastinal Nodes	276928	FMA	3.2	Highest mediastinal lymph node
N2 Station 2: Upper Paratracheal Nodes	276933	FMA	3.2	Upper paratracheal lymph node
N2 Station 2: Upper Paratracheal Nodes Left	276938	FMA	3.2	Left upper paratracheal lymph node
N2 Station 2: Upper Paratracheal Nodes Right	276936	FMA	3.2	Right upper paratracheal lymph node
N2 Station 3: Prevascular and Retrotracheal Nodes	276905	FMA	3.2	Station 3 lymph node
N2 Station 3A: Prevascular Nodes	276907	FMA	3.2	Pre-vascular lymph node
N2 Station 3P: Retrotracheal Nodes	276897	FMA	3.2	Prevertebral lymph node

N2 Station 4: Lower Paratracheal Nodes	5959	FMA	3.2	Superior tracheobronchial lymph node
N2 Station 4: Lower Paratracheal Nodes Left	5961	FMA	3.2	Left superior tracheobronchial lymph node
N2 Station 4: Lower Paratracheal Nodes Right	5960	FMA	3.2	Right superior tracheobronchial lymph node
N2 Station 5: Subaortic Nodes	276813	FMA	3.2	Aortopulmonary lymph node
N2 Station 6: Para-aortic Nodes	276820	FMA	3.2	Para-aortic thoracic lymph node
N2 Station 7: SubCarinal Nodes	5962	FMA	3.2	Inferior tracheobronchial lymph node
N2 Station 8: Paraesophageal Nodes	12784	FMA	3.2	Esophageal lymph node
N2 Station 9: Pulmonary Ligament Nodes	276867	FMA	3.2	Lymph node of inferior pulmonary ligament
N2 Station 9: Pulmonary Ligament Nodes Left	276871	FMA	3.2	Lymph node of left inferior pulmonary ligament
N2 Station 9: Pulmonary Ligament Nodes Right	276869	FMA	3.2	Lymph node of right inferior pulmonary ligament
Nipple	67771	FMA	3.2	Nipple
Nipple Left	223695	FMA	3.2	Left nipple
Nipple Right	223693	FMA	3.2	Right nipple
Pulmonary Artery	66326	FMA	3.2	Pulmonary artery
Pulmonary Vein	66643	FMA	3.2	Pulmonary vein
Rib	7574	FMA	3.2	Rib
Rib Left 1	7987	FMA	3.2	Left first rib
Rib Left 10	8472	FMA	3.2	Left tenth rib
Rib Left 11	8532	FMA	3.2	Left eleventh rib
Rib Left 12	8534	FMA	3.2	Left twelfth rib
Rib Left 2	8012	FMA	3.2	Left second rib
Rib Left 3	8039	FMA	3.2	Left third rib
Rib Left 4	8148	FMA	3.2	Left fourth rib
Rib Left 5	8093	FMA	3.2	Left fifth rib
Rib Left 6	8202	FMA	3.2	Left sixth rib
Rib Left 7	8256	FMA	3.2	Left seventh rib
Rib Left 8	8310	FMA	3.2	Left eighth rib
Rib Left 9	8391	FMA	3.2	Left ninth rib
Rib Right 1	7857	FMA	3.2	Right first rib
Rib Right 10	8445	FMA	3.2	Right tenth rib
Rib Right 11	8531	FMA	3.2	Right eleventh rib
Rib Right 12	8533	FMA	3.2	Right twelfth rib
Rib Right 2	7882	FMA	3.2	Right second rib
Rib Right 3	7909	FMA	3.2	Right third rib
Rib Right 4	7957	FMA	3.2	Right fourth rib
Rib Right 5	8066	FMA	3.2	Right fifth rib
Rib Right 6	8175	FMA	3.2	Right sixth rib
Rib Right 7	8229	FMA	3.2	Right seventh rib
Rib Right 8	8283	FMA	3.2	Right eighth rib
Rib Right 9	8364	FMA	3.2	Right ninth rib

Ribs	71331	FMA	3.2	Set of ribs
Sternum	7485	FMA	3.2	Sternum
Subclavicular Artery	3951	FMA	3.2	Subclavian artery
SubClavicular Vein	4725	FMA	3.2	Subclavian vein
Vena Cava Superior	4720	FMA	3.2	Superior vena cava
Thyroid	9603	FMA	3.2	Thyroid gland
Thyroid cartilage	55099	FMA	3.2	Thyroid cartilage
Trachea	7394	FMA	3.2	Trachea
Vertebral Column Thoracic	9140	FMA	3.2	Thoracic vertebral column
Atrium Left	7097	FMA	3.2	Left atrium
Atrium Right	7096	FMA	3.2	Right atrium
Heart	7088	FMA	3.2	Heart
Ventricle Left	7101	FMA	3.2	Left ventricle
Ventricle Left Endocardium	9559	FMA	3.2	Left ventricle endocardium
Ventricle Right	7098	FMA	3.2	Right ventricle
Ventricle Left Myocardium	9558	FMA	3.2	Left ventricle myocardium
Abdominopelvic Cavity	12267	FMA	3.2	Abdominopelvic cavity
Bowel Small	7200	FMA	3.2	Small intestine
Celiac Artery	50737	FMA	3.2	Celiac artery
Colon	14543	FMA	3.2	Colon
Duodenum	7206	FMA	3.2	Duodenum
Group1: right cardial lymph nodes (RC)	5973	FMA	3.2	Right cardiac lymphatic trunk
Group10: lymph nodes at the hilus of the spleen (HS)	66187	FMA	3.2	Splenic lymph node
Group11: lymph nodes along the splenic artery (SA)	12799	FMA	3.2	Superior pancreatic lymph node
Group13: posterior pancreaticoduodenal lymph nodes (PPD)	278174	FMA	3.2	Posterior pancreaticoduodenal lymph node group
Group14: lymph nodes around the superior mesenteric artery (SMA)	71801	FMA	3.2	Superior mesenteric lymph node group
Group15: lymph nodes along the middle colic artery (MCA)	71811	FMA	3.2	Middle colic lymph node group
Group16: paraaortic lymph nodes (PA)	84599	FMA	3.2	Lumbar lymph node
Group17: anterior pancreaticoduodenal lymph nodes (APD)	277368	FMA	3.2	Anterior pancreaticoduodenal lymph node
Group18: inferior body lymph nodes (IB)	16628	FMA	3.2	Inferior pancreatic lymph node
Group2: left cardial lymph nodes (LC)	5972	FMA	3.2	Left cardiac lymphatic trunk
Group3: lymph nodes along lesser curvature of the stomach (LCS)	277064	FMA	3.2	Inferior left gastric lymph node
Group4: lymph nodes along greater curvature of the stomach (GCS)	277652	FMA	3.2	Gastro-epiploic lymph node

Group5: suprapyloric lymph nodes (SP)	66183	FMA	3.2	Suprapyloric lymph node
Group6: infrapyloric lymph nodes (IP)	66184	FMA	3.2	Subpyloric lymph node
Group7: lymph nodes around the left gastric artery (LGA)	277061	FMA	3.2	Superior left gastric lymph node
Group8: lymph nodes around the common hepatic artery (CHA)	277259	FMA	3.2	Common hepatic lymph node
Group9: lymph nodes around the celiac trunk (CT)	12792	FMA	3.2	Celiac lymph node
Kidney Left	7205	FMA	3.2	Left kidney
Kidney Right	7204	FMA	3.2	Right kidney
Kidneys	264815	FMA	3.2	Set of kidneys
Left gastric nodes	12797	FMA	3.2	Left gastric lymph node
Liver	7197	FMA	3.2	Liver
Liver Dome	265200	FMA	3.2	Dome of liver
Pancreas	7198	FMA	3.2	Pancreas
Paracardial nodes	12803	FMA	3.2	Paracardial gastric lymph node
Portal Vein	66645	FMA	3.2	Portal vein
Spleen	7196	FMA	3.2	Spleen
Splenic Vein	14331	FMA	3.2	Splenic vein
Stomach	7148	FMA	3.2	Stomach
Superior Mesenteric Artery	14749	FMA	3.2	Superior mesenteric artery
Superior Mesenteric Vein	14332	FMA	3.2	Superior mesenteric vein
Vertebral Column Lumbar	16203	FMA	3.2	Lumbar vertebral column
Sigmoid	14548	FMA	3.2	Sigmoid colon
Anal Canal	15703	FMA	3.2	Anal canal
Anal Sphincter External	21930	FMA	3.2	External anal sphincter
Anal Sphincter Internal	15710	FMA	3.2	Internal anal sphincter
Bladder	15900	FMA	3.2	Urinary bladder
Bladder Wall	15902	FMA	3.2	Wall of urinary bladder
Bowel Large	7201	FMA	3.2	Large intestine
Cauda Equina	52590	FMA	3.2	Cauda equina
Cervix	17740	FMA	3.2	Cervix of uterus
Common iliac nodes	224269	FMA	3.2	Common iliac lymphatic chain
External iliac nodes	229177	FMA	3.2	External iliac lymphatic chain

Femoral Head	32851	FMA	3.2	Head of femur
Femoral Head Left	55012	FMA	3.2	Head of left femur
Femoral Head Right	55011	FMA	3.2	Head of right femur
Femoral Joint	35178	FMA	3.2	Hip joint
Femoral Joint Left	35180	FMA	3.2	Left hip joint
Femoral Joint Right	35179	FMA	3.2	Right hip joint
Femoral Neck	42385	FMA	3.2	Neck of femur
Femoral Neck Left	42387	FMA	3.2	Neck of left femur
Femoral Neck Right	42386	FMA	3.2	Neck of right femur
Gallbladder	7202	FMA	3.2	Gallbladder
Genitalia External	45643	FMA	3.2	External genitalia
Inguinal Nodes	236337	FMA	3.2	Inguinal lymphatic chain
Inguinal Nodes Left	236341	FMA	3.2	Left inguinal lymphatic chain
Inguinal Nodes Right	236339	FMA	3.2	Right inguinal lymphatic chain
Internal iliac nodes	224275	FMA	3.2	Internal iliac lymphatic chain
LN Common Iliac Left	224273	FMA	3.2	Left common iliac lymphatic chain
LN Common Iliac Right	224271	FMA	3.2	Right common iliac lymphatic chain
LN External Iliac Left	229181	FMA	3.2	Left external iliac lymphatic chain
LN External Iliac Right	229179	FMA	3.2	Right external iliac lymphatic chain
LN Internal Iliac Left	224279	FMA	3.2	Left internal iliac lymphatic chain
LN Internal Iliac Right	224277	FMA	3.2	Right internal iliac lymphatic chain
LN Presacral	234280	FMA	3.2	Sacral lymphatic chain
Medial Inguinofemoral Nodes	44304	FMA	3.2	Intermediate deep inguinal lymph node
Medial Inguinofemoral Nodes Left	276021	FMA	3.2	Left intermediate deep inguinal lymph node
Medial Inguinofemoral Nodes Right	276019	FMA	3.2	Right intermediate deep inguinal lymph node
Obturator nodes	16656	FMA	3.2	Obturator lymph node
Ovaries	7209	FMA	3.2	Ovary
Ovary Left	7214	FMA	3.2	Left ovary
Ovary Right	7213	FMA	3.2	Right ovary
Para-aortic nodes	223899	FMA	3.2	Lateral aortic lymphatic chain
Parametrium	77061	FMA	3.2	Parametrium
Pararectal nodes	234274	FMA	3.2	Pararectal lymphatic chain
Pelvic bones	16580	FMA	3.2	Bony pelvis

Penile Bulb	19614	FMA	3.2	Bulb of penis
Penis	9707	FMA	3.2	Penis
Perineum	9579	FMA	3.2	Perineum
Prostate	9600	FMA	3.2	Prostate
Proximal Femur Left	32843	FMA	3.2	Proximal epiphysis of left femur
Proximal Femur Right	32842	FMA	3.2	Proximal epiphysis of right femur
Pubic Symphysis	16950	FMA	3.2	Pubic symphysis
Rectal Wall	14626	FMA	3.2	Wall of rectum
Rectal Wall Anterior	86682	FMA	3.2	Anterior wall of rectum
Rectum	14544	FMA	3.2	Rectum
Retroperitoneal Nodes	16694	FMA	3.2	Retroperitoneal lymph node
Sacral Plexus	5909	FMA	3.2	Sacral nerve plexus
Sacrum	16202	FMA	3.2	Sacrum
Seminal Vesicle	19386	FMA	3.2	Seminal vesicle
Seminal Vesicles	323968	FMA	3.2	Set of seminal vesicles
Skin of Perineum	20429	FMA	3.2	Skin of perineum
Testis	7210	FMA	3.2	Testis
Testis Left	7212	FMA	3.2	Left testis
Testis Right	7211	FMA	3.2	Right testis
Ureter Left	17888	FMA	3.2	Left ureter proper
Ureter Right	17887	FMA	3.2	Right ureter proper
Urethra	19667	FMA	3.2	Urethra
Uterus	17558	FMA	3.2	Uterus
Vagina	19949	FMA	3.2	Vagina
Vulva	20462	FMA	3.2	Vulva
Elbow Joint	35289	FMA	3.2	Elbow joint
Femur	9611	FMA	3.2	Femur
Femur Left	24475	FMA	3.2	Left femur
Femur Right	24474	FMA	3.2	Right femur
Glenohumeral Joint	25912	FMA	3.2	Glenohumeral joint
Glenohumeral Joint Left	25929	FMA	3.2	Left glenohumeral joint
Glenohumeral Joint Right	25927	FMA	3.2	Right glenohumeral joint
Knee Joint	35175	FMA	3.2	Knee joint
Quadriceps Femoris Tendon	46900	FMA	3.2	Tendon of quadriceps femoris
Bone Marrow	9608	FMA	3.2	Bone marrow
Bones	5018	FMA	3.2	Bone organ
Skeleton	303630	FMA	3.2	Skeleton
Skin	7163	FMA	3.2	Skin
Spinal Canal	9680	FMA	3.2	Vertebral canal
Spinal Cord	7647	FMA	3.2	Spinal cord
Thecal Sac	83720	FMA	3.2	Lumbar cistern

Vertebra	9914	FMA	3.2	Vertebra
Vertebral Column	13478	FMA	3.2	Vertebral column
Humeral Head Left	13307	FMA	3.2	Head of left humerus
Humeral Head Right	13306	FMA	3.2	Head of right humerus
Humeral Head	13304	FMA	3.2	Head of humerus
Hip Bone	16585	FMA	3.2	Hip bone
Hip Bone Left	16587	FMA	3.2	Left hip bone
Hip Bone Right	16586	FMA	3.2	Right hip bone
CA Left Circumflex (LCX)	3895	FMA	3.2	Circumflex branch of left coronary artery
CA Right Coronary Artery (RCA)	50039	FMA	3.2	Right coronary artery
Artifact	11296	RADLEX	3.8	Artifact

8.3.2 Template Specifications

N/A

8.3.3 Private mapping resources

RT Image Suite uses following private mapping resources specific private codes.

Table 80: Coded Entry Attributes

Attribute	Tag	Source	Value	Presence of Value	Comments
Mapping Resource	(0008,0105)	AUTO	99VMS	ALWAYS	
Context Group Version	(0008,0106)	AUTO	20161209	ALWAYS	
Context Identifier	(0008, 010F)	AUTO	VMS011	ALWAYS	

RT Image Suite uses the following private coding scheme designator 99VMS_STRUCTCODE to identify below structures (organs) in the system as mentioned in the following table. These are used within the “RT ROI Identification Code Sequence” of RT ROI Observation module.

Table 81: Organs referring private coding scheme 99VMS_STRUCTCODE.

ROI Name	Code Value	Coding Scheme Designator	Scheme Version	Code Meaning
Brain Metastasis	brain-gtvs	99VMS_STRUCTCODE	1	Brain GTVs
Parotid Glands	Parotids	99VMS_STRUCTCODE	1	Set of parotid glands
Submandibular Glands	Submandibular	99VMS_STRUCTCODE	1	Set of submandibular glands
LN Level IVa Lower Jugular Group Left	323946_L	99VMS_STRUCTCODE	1	Left level IVa set of lower jugular lymph nodes
LN Level IVa Lower Jugular Group Right	323946_R	99VMS_STRUCTCODE	1	Right level IVa set of lower jugular lymph nodes
LN Level IVb Medial Supraclavicular Group Left	LN_HN_IVB_L	99VMS_STRUCTCODE	1	Left level IVb medial supraclavicular group

LN Level IVb Medial Supraclavicular Group Right	LN_HN_IVB_R	99VMS_STRUCTCODE	1	Right level IVb medial supraclavicular group
LN Level Vc Lateral Supraclavicular Group Left	LN_HN_VC_L	99VMS_STRUCTCODE	1	Left level Vc supraclavicular group
LN Level Vc Lateral Supraclavicular Group Right	LN_HN_VC_R	99VMS_STRUCTCODE	1	Right level Vc supraclavicular group
LN Level VIa Anterior Jugular Nodes	LN_HN_VIA	99VMS_STRUCTCODE	1	Level VIa anterior jugular nodes
LN Level VIb Prelaryngeal, Pretracheal, & Paratracheal Nodes	LN_HN_VIB	99VMS_STRUCTCODE	1	Level VIb prelaryngeal, pretracheal, & paratracheal nodes
LN Level VIIb Retro-styloid Nodes Left	LN_HN_VIIB_L	99VMS_STRUCTCODE	1	Left level VIIb retro-styloid nodes
LN Level VIIb Retro-styloid Nodes Right	LN_HN_VIIB_R	99VMS_STRUCTCODE	1	Right level VIIb retro-styloid nodes
Great Vessels	GreatVessels	99VMS_STRUCTCODE	1	Great Vessels
N2 Station 1: Highest Mediastinal Nodes Left	276928_L	99VMS_STRUCTCODE	1	Left highest mediastinal lymph node
N2 Station 1: Highest Mediastinal Nodes Right	276928_R	99VMS_STRUCTCODE	1	Right highest mediastinal lymph node
LN Supraclavicular Left	LN_B_S_L	99VMS_STRUCTCODE	1	Left supraclavicular
LN Supraclavicular Right	LN_B_S_R	99VMS_STRUCTCODE	1	Right supraclavicular
Chest Wall Left	50060_L	99VMS_STRUCTCODE	1	Left chest wall
Chest Wall Right	50060_R	99VMS_STRUCTCODE	1	Right chest wall
Group12: lymph nodes of the hepatoduodenal ligament (HDL)	LN_12_HDL	99VMS_STRUCTCODE	1	Lymph nodes in hepatoduodenal ligament
Hepatico-jejunal anastomosis	P1-5B858	99VMS_STRUCTCODE	1	Hepatojejunostomy
Pancreaticojejunal anastomosis	P1-5C83D	99VMS_STRUCTCODE	1	Pancreaticojejunostomy
Anal Sphincter Internal and External	AnalSphincters	99VMS_STRUCTCODE	1	Set of anal sphincters
Femoral Heads	FemoralHeads	99VMS_STRUCTCODE	1	Set of heads of femur
Femoral Necks	Femoral Necks	99VMS_STRUCTCODE	1	Set of neck of femur

LN Obturator Left	71830_L	99VMS_STRUCTCODE	1	Set of left obturator lymph nodes
LN Obturator Right	71830_R	99VMS_STRUCTCODE	1	Set of right obturator lymph nodes
Seminal Vesicle Proximal Part	SeminalVesProx	99VMS_STRUCTCODE	1	Proximal part of seminal vesicle
Femurs	Femurs	99VMS_STRUCTCODE	1	Set of femurs
Body	BODY	99VMS_STRUCTCODE	1	Body
Bolus	Bolus	99VMS_STRUCTCODE	1	Bolus
CTV High Risk	CTV_High	99VMS_STRUCTCODE	1	Clinical Target Volume High Risk
CTV Intermediate Risk	CTV_Intermediate	99VMS_STRUCTCODE	1	Target Volume Intermediate Risk
CTV Low Risk	CTV_Low	99VMS_STRUCTCODE	1	Clinical Target Volume Low Risk
CTV Primary	CTVp	99VMS_STRUCTCODE	1	Primary Clinical Target Volume
Fixation	Fixation	99VMS_STRUCTCODE	1	Fixation
GTV Nodal	GTVn	99VMS_STRUCTCODE	1	Nodal Gross Tumor Volume
GTV Primary	GTVp	99VMS_STRUCTCODE	1	Primary Gross Tumor Volume
Irrad Volume	Irrad Volume	99VMS_STRUCTCODE	1	Irradiated Volume
ITV	ITV	99VMS_STRUCTCODE	1	Internal Target Volume
Metabolic Tumor Volume	MTV	99VMS_STRUCTCODE	1	Metabolic Tumor Volume
PRV	PRV	99VMS_STRUCTCODE	1	Planning Organ-at-Risk Volume
PTV High Risk	PTV_High	99VMS_STRUCTCODE	1	Planning Target Volume High Risk
PTV Intermediate Risk	PTV_Intermediate	99VMS_STRUCTCODE	1	Planning Target Volume Intermediate Risk
PTV Low Risk	PTV_Low	99VMS_STRUCTCODE	1	Planning Target Volume Low Risk
PTV Primary	PTVp	99VMS_STRUCTCODE	1	Primary Planning Target Volume
Support	Support	99VMS_STRUCTCODE	1	Support
Treated Volume	Treated Volume	99VMS_STRUCTCODE	1	Treated Volume
Bowel Bag	7199_Space	99VMS_STRUCTCODE	1	Space occupied by Bowel

8.4 Grayscale Image Consistency

N/A

8.5 Standard Extended / Specialized / Private SOP Classes

This section describes the Standard Extended SOP Classes that are used in RT Image Suite.

Specialized/Private SOP classes are not supported by RT Image Suite application

SOP Class Name	SOP Class UID	Reference
RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	8.1.1.2
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	8.1.1.3
RT Dose	1.2.840.10008.5.1.4.1.1.481.2	8.1.1.4
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	8.1.1.5
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	8.1.1.6
Deformable Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.3	8.1.1.8
Real World Value Mapping Storage	1.2.840.10008.5.1.4.1.1.67	8.1.1.9
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	8.1.1.10
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	8.1.1.11
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	8.1.1.12
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	8.1.1.13
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	8.1.1.15
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	8.1.1.14
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	8.1.1.16

8.6 Private Transfer Syntaxes

N/A

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