



Secretariat:  
 MITA/NEMA  
 1300 North 17th Street, Suite 900  
 Arlington, VA 22209, USA  
 +1-703-841-3259  
[http://www.dicomstandard.org/  
 dicom@dicomstandard.org](http://www.dicomstandard.org/dicom@dicomstandard.org)

MINUTES  
 DICOM WG-06 Base Standard  
 September 9-13, 2019  
 MITA HQ  
 Arlington, VA

Presiding Officers: Bjorn Nolte, Siemens Healthineers, Chair  
 David Clunie, PixelMed, DICOM Editor  
 DICOM Secretariat Luiza Kowalczyk, MITA/NEMA

Present	First Name	Last Name	Organization	Voting Status	9Sept	10Sept	11-Sept	12Sept	13-Sept
Present	Nicholas	Bevins	AAPM	Observer		x	x		
Phone	Donald	Peck	AAPM	Observer		x	x		
Present	Paul	Seifert	Agfa HealthCare	Voting	x	x	x	x	x
Phone	James	Philbin	ACR	Voting	x	x	x	x	x
Phone	Emmanuel	Cordonnier	b<>com	Observer				x	x
Phone	Guillaume	Pasquier	b<>com	Observer				x	x
Phone	Bernard	Gibaud	Inserm	Observer				x	x
Phone	Christof	Schadt	Brainlab AG	Observer	x		x		x
Present	Kevin	O'Donnell	Canon	Voting	x	x	x	x	x
Phone	Jim	Percy	Elekta Inc.	Observer	x		x		x
Phone	Rob	Horn	Fairhaven Technologies	Voting	x	x	x	x	x
Present	Steven	Nichols	GE Healthcare	Alt. Voting	x	x	x	x	x
Present	Francisco	Sureda	GE Healthcare	Alt. Voting		x	x		
Phone	Ulrich	Busch	Individual	Observer	x	x	x		

Present	Nakano	Shinichi	JIRA	Alt. Voting	x	x	x	x	
Phone	Akihiro	Yomoda	JIRA	Voting	x	x	x		x
Phone	Harry	Solomon	Laitek	Observer	x				
Present	Luiza	Kowalczyk	MITA	Observer	x	x	x	x	x
Present	Lisa	Spellman	MITA	Alt. Voting	x	x	x	x	x
Present	Silvia	Winkler	Sigma soft	Observer		x	x	x	
Present	Jonathan	Halford	MUSC	Observer		x	x		
Present	Wim	Corbijn	Philips	Voting	x	x	x	x	x
Phone	David	Clunie	PixelMed Publishing	Voting	x	x	x		
Present	Bjorn	Nolte	Siemens Healthcare GmbH	Voting	x	x	x	x	x
Phone	Antje	Schroeder	Siemens Healthcare GmbH	Alt. Voting		x	x	x	
Phone	Elliot	Silver	Change Healthcare	Observer		x			
Phone	Brad	Genereaux	NVIDIA	Observer		x			
Phone	Uwe	Tronnier	CSIMD	Observer	x				
Phone	Sridhar	Balasubramanian	Nuance	Observer	x				
Phone	Yogalakshmi	Selvarajan	Philips	Observer		x	x	x	
Phone	Bruno	Laffin	Agfa HealthCare	Observer		x	x	x	
Phone	Lawrence	Tarbox	UAMS	Observer	x				
Phone	Bill	Wallace	Agfa HealthCare	Observer		x			

### Opening and Administrative

- The meeting was called to order at 8:30 a.m. on Monday, September 9, 2019.
- The minutes of the June WG-06 meeting were approved.
- The Secretary reviewed the antitrust rules and DICOM Patent Disclosure Policy.
- The agenda was approved with no changes.
- A document “How to prepare a supplement” was reviewed and updated.
  - Luiza is to schedule a t-con to finish the review.

### Report on Letter Ballots

#### 1. Supplement 208 DICOM Encapsulation of OBJ Models for 3D Manufacturing and Virtual Reality [WI 2017-04-E]

- Supplement 208 was approved for public comment last June under the condition that editors would make requested changes by WG06.

- Public Comment was distributed to DICOM Community on Wednesday, September 4, 2019 by DICOM Secretariat.
- Accepting Public Comments on Supplement 208 DICOM Encapsulation of OBJ Models for 3D Manufacturing and Virtual Reality by midnight Sunday, October 19, 2019.

## 2. CPack-102

- The official ballot was distributed to voting members of DICOM Standard Committee on May 28, 2019.
- The deadline to submit any votes and comments on **CPack-102 was Tuesday, July 16<sup>th</sup>, 2019.**
- The CPack-102 has passed the ballot with the following results:

<i>Ballot</i>	<i>Approve</i>	<i>Disapprove</i>	<i>Abstain</i>	<i>Comments</i>
CPack-102	18	1	4	14

- There have been few CPs t-cons so please read the minutes.
  - <https://www.dicomstandard.org/wgs/>
  - <http://dicom.nema.org/Dicom/minutes/WG-06/2019/>

### Report on Correction Proposals

- CPs spreadsheet can be found on the ftp server:
  - <ftp://medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/Wg06/2019/2019-06-03/CP-2019-09-09.xlsx>

**SECRETARY NOTE:** The excel spreadsheet gets updated after each CPs discussion. Make sure to look at the latest version.

## 3. September Voting Package

- 1887-Correct eyelid and supraorbital anatomy codes-**CANCELED.**

New Mar 2019: cp\_dac492\_eyelidsupraorbitalcodes; can be canceled since covered by CP 1808 in SNOMED update.

- 1479-Update PS3.4 for expanded Code Sequence – Not ready for the September Voting Package (CPack-103).
  - It will return for a review as a candidate for the November Voting Package (CPack-104)

### CPACK-103

- 1614-Add a bulkdata subresource to study, series and instance WADO-RS
- 1721 – Clarification of Distances in Ion Beams
- 1726- Add clarification note that C-FIND SCP should ignore
- 1777- Derivation of Photometric Interpretation in STOW-RS
- 1852 - Add code for bounding box for SR

- 1867- Add codes for AI visual explanation maps
- 1868- Update PS3.18 Status Codes to be correct HTTP
- 1869- Update PS3.18 Header Fields to include origin server and user agent permissions requirements
- 1871- Improve Notification Connections
- 1872- Improvements to Worklist Service
- 1885- Correct conflict in number of values between General Anatomy Optional and Required Macros causing conflict in DX introduced by CP 1744
- 1886 Add trans-rectal to ultrasound beam path context group
- 1888-Reverse sense of all other encoding based on VR to follow
- 1890 - Add more renal vessels
- 1891- Add generic echocardiography measurements missing from
- 1892- Correct code meanings for body surface area codes
- 1893 Fix inconsistent Relationship Content Constraints (SR IODs from Supplement 164)
- 1894- Add translocator protein tracers
- 1895- Add presentation address to file meta information for DULP and Web Services
- 1899- Number of Frames attribute should never have a value of zero
- 1900- WADO-RS Transfer Syntax to use when cannot be decompressed
- 1901- Return in query response what Transfer Syntax is available for retrieval
- 1902- Some IODs that need it are missing the Synchronization Module
- 1903- Add laterality parameter to TID 300
- 1904- Correct code for anatomical structure in CID 7150 and CID 9501
- 1905- Additional Category codes for CID 9502
- 1906- Add Laterality to Treatment Site Code
- 1907- UPS-RS Support for Query Only
- 1909- Add Institution and Admission attributes to UPS
- 1910- Add "all other attributes" row for Patient Demographics to UPS
- 1911- Add Reason For Requested Procedure Query Keys to UPS
- 1912- Correct Retired Attributes in PS3.15 E
- 1913 - Coding Scheme Version requires Coding Scheme Designator to be present

#### 4. Assigned

cp1733\_02\_wsianatomycodes.pdf – **Remains assigned.**

cp1861\_02 change JSON value type mapping IS and DS\_2019-06-25.docx - **November VP**

- **Action item:** Jim and Wim are to create an advisory text.

cp1862\_02\_remove Char Set from QIDO Response\_2019-06-25.docx- **November VP**

- **Action item:** Take this CP for a further discussion to JIRA representation to check if there is no impact on their side-Nakano Shinichi

1881\_01\_Correct in PS3.16 Size Specific Dose Estimation.doc - **November VP**

- Reassigned to Kevin O'Donnell.

- **Action item:** Check definitions-Kevin O'Donnell.

cp1889\_02\_newvrswebservicesandapi.pdf - **November VP**

cp1916\_01\_rs\_quality\_parameter.doc - **November VP**

cp1917\_01\_acceptable\_charset.doc-**November VP**

cp1918\_01\_rs\_compressed\_bulkdata.doc-**Remains assigned.** Reassigned to David Clunie.

## 5. New

CP#	Title	Submitted by & Assigned to	Discussion	State
1955	De-identification and datetime stamps in UIDs	Submitter David Clunie, Assignee David Clunie	Meeting: 2019-09-09 cp_dac515_DateTimeIn UID.pdf	New
1956	Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2019 INT Release	Submitter David Clunie, assignee David Clunie	Meeting: 2019-09-09 cp_dac516_02_ihtsdoJul 2019INTreleaseupdate.p df	New
1957	More replacements of DICOM codes for headings with LOINC	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac517_useLOINChe adingseverywhere.pdf	New
1958	Add Coronary Artery CT Fat Attenuation Index (FAI)	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac518_FAI.pdf	New
1959	Add codes for more biliary tree structures	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac519_biliaryanato my.pdf	New
1960	Correct some incorrect assignments of unilateral versus lateral vessels	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac520_incorrectuni versuslateralvessels.pdf	New
1961	Allow more general ultrasound report document titles	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac521_moregeneral usdocumenttitles.pdf	New

1962	Changes to Abomen-related anatomy concepts in SNOMED CT	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac523_snomedabdominalanatomychanges.pdf	New
1963	Add codes for selected laterality precoordinated anatomical structures	Submitter David Clunie Assignee David Clunie	Meeting: 2019-09-09 cp_dac524_selectedprecoordinatedanatomy.pdf	New
1964	Improve the definition of Pixel Spacing	Submitter Jeroen Medema Assignee Wim Corbijn	Meeting: 2019-09-09 cp_jm07_improve_definition_of_pixel_spacing.docx	New
1965	Update NTP profile in PS3.15	Submitter Rob Horn Assignee Rob Horn	Meeting: 2019-09-09 CP_rjh42-ntp-profile-update.doc	New
1966	Explicitly define the order of pitch and roll rotations	Submitter Kari Jyrkkälä Assignee Christof Schadt	Meeting: 2019-09-09 cp_RT135_02_OrderOfPitchAndRoll.doc	New
1967	Align Beam Type Attribute Description	Submitter Christof Schadt Assignee Christof Schadt	Meeting: 2019-09-09 cp_RT137_02_AlignBeamTypeAttributeDescription.doc	New
1968	Clarify term Verify in RT Beams Delivery Instruction	Submitter Christof Schadt Assignee Christof Schadt	Meeting: 2019-09-09 cp_RT138_01_ClarifyTermVerifyInRTBeamsDeliveryInstruction.docx	New
1969	RT Anatomic Prescription Color	Submitter Kari Jyrkkälä Assignee Christof Schadt	Meeting: 2019-09-09 cp_RT139_02_RtAnatomicPrescriptionColor.doc	New
1970	Clarifications of Modulated Scan Mode Type (300A,0309) and related examples	Submitter Stafan Engdahl Assignee Christof Schadt	Meeting: 2019-09-09 cp_RT140_02_ClarificationsForModulatedScanModeTypes.docx	New

1971	RT Ion Beams Correction for Scan Spot Size Record	Submitter Michael Moyers Assignee Christof Schadt	Meeting: 2019-09-09  cp_RT141_01_ScanSpotSizeRecord.doc	New
1972	Add Workitem Code for Emergency Treatment	Submitter Ulrich Busch Assignee Christof Schadt	Meeting: 2019-09-09  cp_RT142_01_WorkitemCodeForEmergencyTreatment.docx	New
1973	Different names used for the same UID	Submitter Silvia Winkler Assignee David Clunie	Meeting: 2019-09-09  cp_sw32_KeyObjectSelectionDocument.doc	New
No number	DICOM web exposing PHI in URL	Submitter Wim Corbijn Assignee N/A	<b>Meeting: 2019-09-09</b>  <b>cp_wc24_DICOMweb exposes PHI in URL.DOCX</b> <b>Wim will pursue WG-14 and WG-27 and return with the feedback.</b>	New
1974	Overlay usage with Multi-frame Image unclear	Submitter Wim Corbijn Assignee Wim Corbijn	<b>Meeting: 2019-09-09</b>  <b>cp_wc25_Clarify Overlay for Multiframe Image.docx</b>  <b>Harry and Wim should discuss this CP.</b>	New
1975	Active image region overlay	Submitter Sander Dekker Assignee Harry Solomon	Meeting: 2019-09-09  cp_wg12_overlay_05.docx	New

1976	CT Acquisition Details Sequence conditions based on ImageType for Multienergy CT	Submitter Till Hoenig Assignee Bjorn Nolte	Meeting: 2019-09-09  CPxxxx FrameType Reference.doc	New
1977	Correct Multi-energy Sequence Nesting	Submitter Till Hoenig Assignee Bjorn Nolte	Meeting: 2019-09-09  CPxxxx Multi-energy Sequence Nesting.doc	New
1978	Restore presentation state retrieval to PS3.18	Submitter Jim Philbin Assignee Jim Philbin	Meeting: 2019-09-09  cp_jfp73_retrieve_presentation_state.doc	New

### Report on Supplements

**SECRETARY NOTE:** All documents are uploaded on the ftp server in the directory of WG-06. Please refer to documents for more technical details.

<ftp://medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/Wg06/2019/2019-09-09/Sups>

#### 6. Supplement XXX Simplified SR in JSON for AI results

- Reviewed and discussed. (WG-23)
- It received a number “219”.

**Decision:**

- ❖ Sup 219 will return for a review (Pre-Public Comment) in November 2019.

#### 7. Supplement 202 Real-Time Video [WI 2016-12-D]

- Reviewed and discussed. (WG-13)

**Decision:**

- ❖ Sup 202 was approved for Final Text.

#### 8. Supplement 211 DICOMweb Support for the application/zip Media Type [WI 2018-09-C]

- Reviewed and discussed. (WG-27)

**Decision:**

- ❖ Sup 211 will return for a review (Pre-Public Comment) in November 2019.

#### 9. Supplement 212 XA Protocol Storage [WI 2018-09-A]

- Reviewed and discussed. (WG-02)

**Decision:**

- ❖ Sup 212 will return for a review (Pre-Public Comment) in November 2019.

#### 10. Supplement 214 Cone Beam CT in RDSR [WI 2015-12-D]

- Reviewed and discussed (WG-28)



**Decision:**

- ❖ Sup 214 will return for a review in (Pre-Public Comment) January 2020.
- ❖ Allocate 2-4 hours for a review in January 2020.

**11. Supplement 217 Neurophysiology Waveforms [WI 2018-09-D]**

- Reviewed and discussed.
  - \* re-texted remaining Open Issues and Closed Issues
  - \* encoding of the differential recordings (using Channel Source Modifier instead of Channel Reference SQ)
  - \* removed SRT Codes
  - \* using "Common term" of ISO/IEEE codes as Code Meaning (if possible - some codes do not have a "Common term" -> Open Issue)
  - \* some text changes in PS3.17 explanatory information

**Decision:**

- ❖ S. Winkler will make necessary updates to Sup 217, and it to L. Kowalczyk
- ❖ L. Kowalczyk will send the updated document to WG-06.
- ❖ L. Kowalczyk will schedule a t-con for a line by line review with WG-06.
  - The goal is to approve it for a Public Comment.
- ❖ Allocate 4-6 hours in January 2020, if possible.

**12. Supplement 209 DICOM Conformance Statement [WI 2017-04-F]**

- Reviewed and discussed. (WG-31)
- In Table 5.3-7 the Transform Column is very sparse, is a column the best way to document? Are Footnotes an option? For Tooling a column is better suited, therefore the decision is to keep the column.
- Table 5.3-8 (and many more throughout the document): Since Resource Path is defined in the standard, it may not be needed here. Perhaps put in some general section a link or information about the resource path.

Can the third column be used to indicate supported not supported?

If we completely remove third column, this is a duplication of the overview, need to decide where to document and which is the better format

Decision is to use third column for comments. A link to the standard which defines the Path will be added in the sub header rows.

- Have a disclaimer in the General Instructions Section , that colour/formatting depicting text that may have to be changed by the editor, is used for convenience of the user, however the standard is the normative text.

- Table 5.3-19: rather than copying the information from the DICOM standard put a link to the relevant sections in the DICOM standard above table
- Through the Q/R section describe handling of private attributes. For SCU list the ones you support, for SCP list the ones you support and say what you are doing when encountering unknown Private Attributes
- Should we remove SCANNED as a Query Value Source? It was decided in Dublin to keep it, therefore this comment is rejected.
- Use of EMPTY as Query Value for return Keys? Three options: empty cell, use EMPTY as keyword or N/A. Decision: keep EMPTY as a keyword and wait for public comment
- Section 5.2.7.3 Clarify instruction for behavior if C-Store RQ is not received, e.g. dealing with cases where the C-Move destination is a different AE.  
Decision: There is no additional documentation needed here, because C-STORE is done to a different AE anyway
- Create Section 6.4 for Security Configuration under 6.4.1 for Access Control and 6.4.2 Audit Log
- Audit Trail: Document tables organized by Originator, and Collector, add permanent text to explain in regards of configuration a relay is configured as an Originator and a Collector
- Figure 7.2-1 need to provide the same diagram for sequencing of cross AE communication happening. Add section 7.1.2 for Cross AE Sequencing of activities
- Do not remove tables with nothing even if nothing is supported (All tables in Section 8.4), add instructions accordingly, correct table numbering
- Table 8.5-2: Rewrite table to just include the profiles and a column to mark yes/no per receiver/sender and a reference to a details section for cipher suites
- Section c.1.2 Remove table and only keep sentences in red
- Section c.2.1 provide list: User Access, Access per Patient, Access per Doctor. May be through reference to other document (e.g. Security Manual).

**Decision:**

- Sup 209 will return for a review (Pre-Public Comment) in November 2019.
- Allocate 6 hours on the November agenda, if possible.

### **13. Supplement 176 Tomotherapeutic, Multiple Fixed Source and Robotic-Arm Treatment Modalities (2<sup>nd</sup> Gen.) [WI 2007-06-B]**

- Reviewed and discussed. (WG-07)

#### **Decision:**

- Sup176 was approved for Letter Ballot.
- It will return for a review (Pre-Final Text) in November 2019.

#### **Action item:**

- Make edits as requested-Christof

### **14. Supplement 199 RT Radiation Records (2<sup>nd</sup> Gen) [WIP 2007-06-B]**

- Reviewed and discussed. (WG-07)

#### **Decision:**

- ❖ It will return for a review (Pre-Public Comment) in November 2019.

### **15. HL7 Coordination**

- No update at this meeting. Next update will be scheduled in November of 2019.

#### **New Business**

#### **Future Meetings**

#### **SECRETARY NOTE:**

- Any international meeting of WG-06 will start at 9:00 a.m. local time instead of 8:30 a.m.

#### **In-Person 2019:**

- November 4-8, 2019, MITA HQ, Arlington, VA, USA

#### **CP t-cons 2019:**

- Monday, September 16, 2019, 10:00-12:00 US ET
- Tuesday, October 29, 2019, 10:00-12:00 USA ET

Dial in info: <http://workspaces.nema.org/dicom/Lists/Calendar/calendar.aspx>

#### **In-Person 2020: a**

- January 13-17, 2020, MITA HQ, Arlington, VA, USA
- March 30-April 3, 2020 Japan
- June 15-19, 2020, MITA HQ, Arlington, VA, USA
- August 31-September 4, 2020, MITA HQ, Arlington, VA, USA
- November 9-13, 2020, MITA HQ, Arlington, VA, USA

### **Next Meeting Agenda**

An agenda plan was prepared for the next meeting. It was posted as < Agenda-plan-DICOM-WG06-Sep-2019.xlsx in the September 2019 meeting folder.

#### **Supplements on the November Agenda:**

Sup 176, Sup 199, Sup 208, Sup 209, Sup 210, Sup 211, Sup 212, Sup 218, Sup 219, and Sup XXX Prostate Imaging SR. (PI-RADS SR), and HL7 Review.

<ftp://medical.nema.org/medical/Private/Dicom/WORKGRPS/Wg06/2019/2019-11-04/>

### **Adjournment**

The meeting recessed at 17:30 daily and resumed at 8.30 a.m. the next day. The meeting was adjourned at 12:00 local time on Friday, September 13, 2019.

Submitted by Luiza Kowalczyk, DICOM Secretary

Reviewed by Clark Silcox, Legal Counsel, 2019-10-10.