

MINUTES

DICOM WG-06 Base Standard

November 4-8, 2024

Hybrid (Face-to-Face & Remote) Meeting

Location: London Institute for Healthcare Engineering

Presiding Officers: Björn Nolte, Siemens Healthineers, Chair
David Clunie, PixelMed, DICOM Editor

DICOM Secretariat: Shayna Knazik, NEMA/MITA

Summary of decisions from this meeting

- CPack-128 was approved for Final Text amended as discussed (15 CPs).
- CPack-129 was approved for Letter Ballot (19 CPs).
- Supplement 241: Structural Heart SR Template was approved for Public Comment amended as discussed.
- A new Supplement on Eyecare Measurement Templates was presented for First Read and assigned the number 247.

1. Administrative

- a. The WG-06 Hybrid Face-to-Face & Remote Meeting was called to order on Monday, November 4, 2024 at 8:30am US Eastern.
- b. Staff reminded members of the [DICOM Patent Disclosure Policy](#) and [guidelines for conducting NEMA meetings](#).
- c. The agenda was reviewed and approved.
- d. The minutes from the August 2024 WG-06 meeting were reviewed and approved without objection or abstention.

2. Report on Letter Ballots

DSC Ballot	Ballot Closed	Approve	Disapprove	Abstain	Comments
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CPack-128	October 9, 2024	14	2	0	7
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a. **CPack-128**

- The official ballot was distributed to voting members of the DICOM Standard Committee on September 4, 2024 and closed on October 9, 2024.
- CPack-128 included the following Change Proposals (15 CPs):

CP #	Title
CP-2319	Enable multiple dose reference points in TIDs 10004 and 10007 & clarify conditions in TID 10007
CP-2342	Add Clinical Fraction Number to 1st Generation RT Objects
CP-2346	Ocular Region Imaged Module in Ophthalmic Tomography
CP-2370	Orientation guidance for vertical CT gantries
CP-2388	Extended Offset Table clarification
CP-2389	Define Fragment and Frame
CP-2393	Update CT Scanning Length Definition
CP-2396	Describe case where '¥' is a delimiter with a disclaimer
CP-2398	Correct inconsistent time point concepts
CP-2399	Correct Audit Message Schema Conflict
CP-2400	Add Mixed Ion Radiation Type and add Ion species information in control points
CP-2401	Ion Range Surface Compensator
CP-2402	Isodose levels for RT Dose visualization
CP-2404	Rephrase Reference Description
CP-2405	Add note clarifying DIMSE JWT and DICOMweb access token can be the same

- *David Clunie made a motion to approve CPack-128 for Final Text as amended. Wim Corbijn seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-128 was approved for Final Text amended as discussed.

b. **CPack-129 Letter Ballot**

CP #	Title
CP-2406	Clarify Series and Frame of Reference relationship for Whole Slide Microscopy Images
CP-2408	CID Entries which are inconsistent or incomplete
CP-2410	Formally define Attribute Value

CP-2411	Clarify Point Coordinates origin in Microscopy Bulk Simple Annotations
CP-2412	Add flag to whole slide microscopy images indicating tiles are nonoverlapping
CP-2413	Clarify Admitting Diagnosis meaning and add other types of diagnosis
CP-2414	Clarify location of ICC Profile when Optical Path Sequence present
CP-2415	Add PAXgene fixation system
CP-2416	Add support for FLIO Ophthalmic Photography
CP-2417	Note for ordering tags in XML representation
CP-2418	Remove Partial Content status code from some Responses
CP-2419	Clarify some aspects of UPS
CP-2420	Add missing Status Codes to DIMSE Services and further improve consistency
CP-2423	Add missing abbreviation "MPPS" to various Parts
CP-2424	Correct the Relax NG Compact Schema for the Native DICOM Model
CP-2429	Update ROI DateTime and ROI Observation DateTime
CP-2430	Add Examples of Ion Control Point Sequence for Arc Treatment Techniques
CP-2431	Remove LUT restrictions for Ophthalmic Tomography Images
CP-2432	Clarify Support of Mandatory Query Parameters in DICOMweb

- *David Clunie made a motion to approve CPack-129 for Letter Ballot. Björn Nolte seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-129 was approved for Letter Ballot (19 CPs).

3. Report on Change Proposals (CPs)

a. New CPs

Submitted file	Title	New CP #
cp_dac659	Add more neurodegenerative PET radiopharmaceuticals	CP-2457
cp_dac660	De-identification of Group 0004 data elements and DICOMDIR	CP-2458
cp_dac661	More data elements to de-identify	CP-2459
cp_dac662	Add more CID 4031 Common Anatomic Region concepts	CP-2460
cp_JIRA202401	Add rows to intended use of dose calibration in RDSR	CP-2461
cp_jm23	Harmonize definition of MPPS Retrieve SOP Class with MPPS SOP Class	CP-2462

cp_jm24	Add hyperlinks to texts that reference 'All [other] Attributes of' ...	CP-2463
cp_jr52	Clarify empty Value in multi-valued Data Element	CP-2464
cp_jr53	Unclear constraints on measurement units for Real World Value Mapping	CP-2465
cp_jr54	Remove footnotes from Relationship Content Constraints tables	CP-2466
cp_kod_UL	Add sub-template for UL Attenuation Imaging (ATI) measurements	CP-2467
cp_RT262	Clarification of UN Usage in RT Objects	CP-2468
cp_RT263	Salvage Details in RT Treatment Record and RT Ion Treatment Record	CP-2469
cpXXnb	Add organ dose ref authorities and attenuator categories, materials	CP-2470
CPxxxx_hb	Correct Shared FG SQ description and inconsistencies	CP-2471
cpxxxx_sjn_add	Add Related Fields column to C-FIND SCP Status Codes in PS3.2	CP-2472
cpxxxx_sjn_clarify	Clarify HTTP response codes for zero result in Search Transaction	CP-2473
cp_dac663	Add more standard color spaces	CP-2474
cp_kod_UL2	Add Text Findings to Indications in additional Ultrasound SR Templates	CP-2475
cp_iw	Handling of Coded Concepts retired from DICOM use	CP-2476
cp_jm25	Fix Requirement Type Final State Cells	CP-2477
cp_jm26	Clarify when what columns are relevant	CP-2478
cp_C.7.9.2	Correct and clarify Segmented Palette Color Lookup Table Data description	CP-2479

b. Assigned CPs

The following CPs were reviewed and decisions reached as shown. Note: Please upload the VP version (candidates for the January 2025 Voting Packet/CPack-130) to the [January 2025 meeting folder](#).

CP #	Title	Decision
CP-1570	Add dental visible light acquisition context information	Moved to January 2025 Voting Packet
CP-2340	Specify DICOMWeb security for conformance	Moved to January 2025 Voting Packet

CP-2409	Multiple Inconsistencies of DCM CodeMeanings in PS3.16 table D-1 versus CIDs	Moved to January 2025 Voting Packet
CP-2421	Fix inconsistent spelling and use of terms in Part 4	Moved to January 2025 Voting Packet
CP-2425	Generalize CTDI phantom options	Moved to January 2025 Voting Packet
<i>CP-2427</i>	<i>Add RT specific plan approvals</i>	<i>Remains assigned</i>
CP-2433	Correct PS 3.3 section C.20.3.1.3 Vector Grid Data memory layout	Moved to January 2025 Voting Packet
CP-2434	Add new IOL calculation formulas to Part16 CID 4236	Moved to January 2025 Voting Packet
CP-2436	Inconsistency in reference to RT Structure Sets for Planar ROI in TID 1410	Moved to January 2025 Voting Packet
CP-2437	Various Context Group corrections	Moved to January 2025 Voting Packet
CP-2438	Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2024 INT Release	Moved to January 2025 Voting Packet
CP-2439	Update DICOM to reflect changes in SNOMED Imaging Procedures	Moved to January 2025 Voting Packet
CP-2441	Remove the word 'codes' from diagrams	Moved to January 2025 Voting Packet
CP-2442	Harmonize the meaning of Failure Reasons	Moved to January 2025 Voting Packet
CP-2443	Add missing details to the definition of Template tables	Moved to January 2025 Voting Packet
<i>CP-2445</i>	<i>Add State of Definition to RT Structure Set</i>	<i>Remains assigned</i>
<i>CP-2446</i>	<i>Add Segment Characteristics Precedence to Structure Set</i>	<i>Remains assigned</i>

CP-2447	Pregnancy Status correct mismatch of VR and defined terms	Moved to January 2025 Voting Packet
CP-2448	Adapt SR Template Properties	Moved to January 2025 Voting Packet
CP-2449	<i>Add Description to TID 10002 Row 18</i>	<i>Remains assigned</i>
CP-2450	Remove Table 10.41-1 from X-Ray Image Modules	Moved to January 2025 Voting Packet
CP-2451	Add Attending Physician to Visit Admission Module	Moved to January 2025 Voting Packet
CP-2452	Add Estimated Delivery Date to TID 5008	Moved to January 2025 Voting Packet
CP-2453	Add FHIR canonical for DICOM UID Registry	Moved to January 2025 Voting Packet
CP-2454	Correct Studies Service tables in PS3.2 and PS3.18	Moved to January 2025 Voting Packet
CP-2455	Ethnic Group SH VR too short	Moved to January 2025 Voting Packet
CP-2456	General handling of known safe private data elements within private sequences	Moved to January 2025 Voting Packet

4. Report on Supplements

NOTE: All documents are uploaded to the meeting folder on the FTP server in the WG-06 directory. Please refer to those documents for more technical details. Contact the Secretariat for help accessing the FTP.

a. New Supplement on Eyecare Measurement Templates (WG-09)

- Harry Solomon led the group through a First Read of a new Supplement on Eyecare Measurement Templates, pursuant to Work Item 2024-09-A.
- *Björn Nolte moved to assign this Supplement a number and Wim Corbijn seconded the motion. The motion was approved without objection or abstention.*

- **DECISION:** A new Supplement on Eyecare Measurement Templates was presented for First Read and assigned the number 247.
- b. **New Supplement on Pixel Aligned Parametric Map (WG-09)**
- Harry Solomon showed a preliminary draft of this potential new supplement on Pixel Aligned Parametric Map, pursuant to Work Item 2023-11-A to get some feedback from WG-06. This will be reviewed with WG-31 and then rediscussed in WG-06.
 - This will return to WG-06 for a First Read in January 2025.
- c. **Supplement 233: Patient Model Gender Enhancements (WG-06)**
- Rob Horn presented Supplement 233: Patient Model Gender Enhancements in preparation for Letter Ballot. The group reviewed all Public Comments received.
 - The current draft is available here: <https://github.com/rjhorniii/dicom-sup233-wip>
 - Supplement 233 will return to WG-06 in January 2025.
- d. **Supplement 236: Waveform Presentation State (WG-32)**
- Silvia Winkler presented Supplement 236: Waveform Presentation State in preparation for Final Text. The group reviewed the Letter Ballot comments that have been received so far. The Letter Ballot closes on November 21, 2024.
 - Supplement 236 will return to WG-06 in January 2025.
- e. **Supplement 241: Structural Heart Procedural SR Template (WG-01/WG-12)**
- Steve Nichols presented Supplement 241: Structural Heart SR Template for in preparation for Public Comment. The PowerPoint overview and Supplement Checklist were reviewed.
 - *Wim Corbijn moved to approve Supplement 241 for Public Comment amended as discussed. The motion was seconded by Steve Nichols. The motion was approved without objection or abstention.*
 - **DECISION:** Supplement 241: Structural Heart SR Template was approved for Public Comment amended as discussed.
- f. **Supplement 245: RDSR Informative Annex (WG-28)**

- Francisco Sureda and Nick Bevins presented Supplement 245: RDSR Informative Annex in preparation for Public Comment. The group reviewed changes since their last visit in August 2024.
- Supplement 245 will return to WG-06 in January 2025.

g. **Supplement 246: DICOMweb Modality Services (WG-27)**

- Jeroen Medema and Dieter Krotz presented Supplement 246: DICOMweb Modality Services in preparation for Public Comment. The draft document and accompanying PowerPoint were reviewed.
- Supplement 246 will return to WG-06 in January 2025.

5. WG-20/HL7 Report

- Jonathan Whitby and Brian Bialecki presented updates from the DICOM WG-20/HL7 II group. For details on this report, their PowerPoint can be accessed in this meeting's folder on the FTP.
- Confluence Page: <https://confluence.hl7.org/display/IMIN/>
- Meeting cadence: January (virtual only), May (in-person only) and September (in-person only). They also hold biweekly teleconferences.
 - At their last in-person meeting on September 24-26, 2024 in Atlanta, Georgia, there was a joint imaging/FHIRcast Connectathon track: <https://confluence.hl7.org/display/FHIR/2024+-+09+FHIRcast+and+Imaging>
 - Their next meeting is virtual and will take place on January 27-31, 2025.
- The group is planning on adding a third Co-Chair, Ana Kostadinovska, which is allowable in HL7. However, Jonathan and Brian will run this by the DSC at their December meeting, and then would send out a call for any other competing volunteers for the role.
- FHIR Release 6 is now aiming for 2026. The intent is for almost all resources to be normative in this release. WG-20/HL7 II is working to get the ImagingStudy and ImagingSelection IGs ballot comments resolved. Both IGs are aiming to be normative in R6.
- The DICOM SR to FHIR Observation Mapping IG
 - Ballot comments are being worked through.
 - The final text version is likely to wait on FHIR R6 to include ImagingSelection improvements.
- Imaging ServiceRequest Profile
 - The Project Scope Statement (<https://jira.hl7.org/browse/PSS-2135>).

- This was reviewed by Orders and Observations WG and more work to follow DICOM SR IG STUI publication.
- h. Radiation Dose Report Summary IG Update: All requested AAPM changes have been agreed upon and applied. Still working with AAPM to confirm changes and withdraw their negative vote.

6. Deadlines for action items from this meeting

- a. For any supplements going out for comment/ballot that are also on the agenda for next meeting, the comment/ballot window of 5 weeks results in the following deadlines. Note to authors: please submit earlier if you want any time to resolve comments prior to the next WG-06 meeting.
 - Submit **Letter Ballot** drafts to Shayna by **November 18, 2024**.
 - Submit **Public Comment** drafts to Shayna by **November 25, 2024**.

7. WG-06 Meeting Schedule

- a. **2025 meetings:**
 - January 13-17, 2025
 - **Action:** The group will continue to look for a west coast location.
 - March 24-28, 2025: NEMA HQ
 - June 16-20, 2025: NEMA HQ
 - September 1-5, 2025: NEMA HQ
 - November 3-7, 2025: NEMA HQ
 - **Action:** Shayna will circulate calendar appointments for all 2025 meetings

8. Old/New Business

- Supplement Checklist: The group discussed and reworked the Supplement Checklist, which is reviewed at each stage prior to voting.
 - **Action:** the group will consider creating a template for the PowerPoint overview, as well as a design conventions/recipe book/style guide for supplement drafts.
- WG-06 Supplement workflow: The group agreed that supplement authors should be able to decide when the line-by-line review takes place. Prior to bringing it to WG-06 for review, WG-06 should encourage supplement authors to:
 - perform spell check/Grammarly check,
 - pay close looks at any mention of “should” and “may”,
 - provide a recap at the beginning of each the session, and

- try to keep supplements short so line-by-lines are doable (average is ~50 pages).

9. Adjournment

- The meeting was adjourned early (after two Supplements cancelled) at 5:00pm on Thursday, November 7, 2024.

10. Meeting Participants

Voting Members Present						
Company/ Organization	Represented by		Mon	Tue	Wed	Thu
ACR	Brian Bialecki	Voting		X		
Agfa HealthCare	Laura Peters	Voting	X	X	X	X
Canon Medical Systems USA	Kevin O'Donnell	Voting	X	X	X	X
Carl Zeiss Meditec	Detlev Hohmeier	Voting		X	X	X
Cincinnati Children's Hospital	Stephen Clark	Voting	X	X		
Fairhaven Technologies	Rob Horn	Voting	X	X	X	X
GE HealthCare	Steve Nichols	Voting	X	X	X	X
JIRA	Akihiro Yomoda	Alt. Voting	X	X	X	X
NEMA/MITA	Shayna Knazik	Voting	X	X	X	X
Philips	Wim Corbijn	Voting	X	X	X	X
PixelMed Publishing	David Clunie	Voting	X		X	X
Siemens Healthineers	Björn Nolte	Voting	X	X	X	X

Company/ Organization	Represented by		Mon	Tue	Wed	Thu
ACR	Brian Bialecki	Voting	X		X	X
Carl Zeiss Meditec	Detlev Hohmeier	Voting	X			
Cincinnati Children's Hospital	Stephen Clark	Voting			X	X
PixelMed Publishing	David Clunie	Voting		X		
Observers Present						
Company/ Organization	Represented by		Mon	Tue	Wed	Thu
AAPM	Nick Bevins	Obs.	X		X	
AAPM	Jim Percy	Obs.	X		X	X
American Academy of Ophthalmology	Harry Solomon	Obs.				X
Brainlab	Christof Schadt	Obs.			X	X
Canon Medical Systems USA	Jonathan Whitby	Obs.		X		
Carl Zeiss Meditec	David Flade	Obs.				X
Case Western Reserve University	Toni Magni	Obs.			X	
CSImed	Uwe Tronnier	Obs.	X	X	X	X
Dental Imaging Consultants	Peter Mah	Obs.			X	
DICOM Usergroup Austria	Silvia Winkler	Obs.	X	X	X	
Envista	Chris Bope	Obs.			X	

GE HealthCare	Helen Houle	Obs.			X	
GE HealthCare	Francisco Sureda	Obs.	X	X	X	
JIRA	Kinoshita Go	Obs.	X	X	X	X
Medical University of South Carolina (MUSC)	Jon Halford	Obs.		X		
Philips	Jeroen Medema	Obs.	X			X
Private Practice	Holly Moon	Obs.			X	
Self	Ulrich Busch	Obs.	X		X	X
Siemens Healthineers	Dieter Krotz	Obs.	X			
Siemens Healthineers	Ingo Wilkening	Obs.	X		X	
University of Maryland	Andrew Casertano	Obs.			X	

Prepared and submitted by Shayna Knazik