

# **MINUTES**

## **DICOM WG-06 Base Standard**

March 20-24, 2023  
Hybrid (Face2Face & Remote) Meeting

Location: NEMA Headquarters, Arlington, Virginia, USA

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

DICOM Secretariat: Shayna Knazik, MITA/NEMA

### **Summary of decisions from this meeting**

- CPack-120 was approved for Final Text with 6 Change Proposals (CPs)
- CPack-121 was approved for Letter Ballot with 10 Change Proposals (CPs)
- Supplement 231: Variable Modality LUT Presentation State was approved for Final Text.
- Supplement 237: 32-bit General ECG was approved for Letter Ballot.

#### **1. Administrative**

- a. With a quorum present, the January WG-06 Hybrid Face2Face & Remote Meeting was called to order at 9:05AM US Eastern Standard Time on Monday, March 20, 2023.
- b. Antitrust and patent statement was reviewed: Per DICOM bylaws, all discussions in this meeting, including those in the chat window, must abide by DICOM's antitrust and patent policies which are located on the DICOM website: <https://www.dicomstandard.org/patent>
- c. The agenda was reviewed and approved.

- d. The minutes from the January 2023 WG-06 meeting were reviewed and approved without objection or abstention.

## 2. Report on Letter Ballots

DSC Ballot	Ballot closed on	Approve	Disapprove	Abstain	Comments
CPack-120	March 1, 2023	15	0	1	5
Supplement 229	March 9, 2023	13	0	6	2
Supplement 231	March 10, 2023	12	0	4	3

### a. CPack-120

- The official ballot was distributed to voting members of the DICOM Standard Committee on January 25, 2023 and closed on March 1, 2023, 2023. CPack-120 included the following Change Proposals (6 CPs):

CP #	Title
CP-1776	Quote in multipart media type parameter
CP-2255	Add Silver to X-ray Filtration Macro
CP-2262	Add a code for Endocavitary Transducer to CID 12035
CP-2263	RT ROI Interpreted Type Section Clean Up
CP-2264	Add Gen 2 Termination Codes to Gen 1 Treatment Records
CP-2266	Add missing Resources to PS3.18 Annex H

- *David Clunie made a motion to approve CPack-120 for Final Text as amended. Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-120 was approved for Final Text as amended (6 CPs).

## 3. Report on Change Proposals

### a. Approved for Final Text post-Letter Ballot: CP-2209

- *David Clunie made a motion to approve CP-2209 for Final Text as amended. Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CP-2209 was approved for Final Text as amended.

### b. New CPs

Submitted file name	Title	New CP #
cp_dac619	Relax requirement to provide default Transfer Syntax if uncompressed encapsulated Transfer Syntax image is too large	CP-2280
cp_jr31	Remove references to retired IODs and other retired concepts	CP-2281
cp_jr32	Add Note on handling C-FIND-CANCEL request in Query/Retrieve Service Class	CP-2282
cp_jr33	Clarify use of Concept Name Code Sequence in Encapsulated Documents	CP-2283
cp_jr34	Remove remaining references to retired Curves and suffix retired sections	CP-2284
cp_jr35	Harmonize description of Directory Records and clarify their applicability	CP-2285
cp_kod_Post	Post-Coordinated Echo Property Code Fix	CP-2286
cp_NB_correct	Update mammography dose reference point code meaning <b>Action:</b> Shayna will let WG-28 know that WG-06 wants this item to be discussed WG-15.	CP-2287
cp_NB02_Table	Table timing description for Enhanced RDSR	CP-2288
cp_NB03_enhanced	Update to TID 10048 Description	CP-2289
cp_Position	PositionMeasuringDeviceUsed Enumeration	CP-2290
cp_rjh52	Consider FHIR in the list of coding schemes	CP-2291
cp_sjn_remove	Retire use of Warning header field in DICOMweb	CP-2292
cp_wc_07	Resolve Duplicate names for TIDs and a CID	CP-2293
cp_kod_Fix	Fix Non-Cardiac NM Acquisition Context	CP-2294
cp_xxxxxKVP	KVP attribute in CT Image Module may also be filled in MultiEnergy case	CP-2295
cp_RT216	Extend RT Structure Set Definitions	CP-2296
cp_RT222	Strengthen Dose Semantics of Dose References	CP-2297
cp_RT224	Synchronize 1st Generation BLD definitions	CP-2298
cp_RT225	Beam Hold Transition Trigger Source	CP-2299
cp_RT226	Extend 1st Gen to 2nd Gen Tolerance Value Mapping	CP-2300
cp_RT227	Add reference to Series in UPS Scheduled and Performed Procedure Information Modules	Unassigned

c. CPack-121 Letter Ballot

CP #	Title
CP-2204	Restore singlepart for all resources and clarify range requests
CP-2238	Add Reject Flag items in RDSR for X-Ray and CT

CP-2256	Drop 16-segment model of myocardium
CP-2258	Add manufacture date and installation date to Device and Equipment Identification
CP-2260	Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2022 INT Release
CP-2261	Clarify <b>Inventory</b> Production Rules
CP-2267	Correct inconsistencies in Mammography Image Type tables
CP-2268	Update Quantitative Diagnostic Imaging Procedure codes
CP-2271	Add First Gen References to Treatment Preparation IOD
CP-2272	Cleanup ROI Module

- *David Clunie made a motion to approve CPack-121 for Letter Ballot. Björn Nolte seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-121 was approved for Letter Ballot (10 CPs).

d. **Assigned CPs**

The following CPs were reviewed and decisions reached as shown.

Note: Please upload the VP version (candidates for the CPack-122/June 2023 Voting Package) in the [June 2023 meeting folder](#).

CP #	Title	Decision
CP-2095	Add "Measurements" to various Echo CIDs	Moved to June Voting Packet
CP-2209	Correct Table of Recommended Rescale Type Assignments for Multi-energy CT Image	David Clunie moved to approve CP-2209 for Final Text as amended. Seconded by Kevin O'Donnell. Motion approved.
CP-2217	Add CID for Radiation Dose Imaging Procedures	Moved to June Voting Packet
CP-2220	<i>Differentiate geometric types of CT imaging sources</i>	<i>Remains assigned</i>
CP-2270	Support of Empty and Multiple Value Matching Query in DICOMWeb	Moved to June Voting Packet
CP-2273	<i>Clarify whether zero length Type 3 Sequences are allowed or not</i>	<i>Remains assigned</i>
CP-2274	Correct the description of the storage commitment failure reasons	Moved to June Voting Packet
CP-2276	Update Interlock Codes for Ions	Moved to June Voting Packet
CP-2278	Support measurement of multiple amniotic sacs	Moved to June Voting Packet

CP-2279	Update text for Dimension Organization in Enhanced US Image Module usage	Moved to June Voting Packet
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#### 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 Work Item Proposal: Layer Segmentation (WG-09)**

- Harry Solomon presented a New Work Item Proposal (NWIP) to see if WG-06 had any major concerns before it is submitted to the DICOM Standard Committee (DSC) at their meeting next week. WG-06 had no immediate concerns so Harry will present this to DSC next week.
- If the NWIP is approved by DSC, Harry would like a First Read in June or August, depending the WG-06 agenda.

##### b. **Supplement 224: Service Discovery and Control (WG-23)**

- Brian Bialecki led the group through Supplement 224: Service Discovery and Control in preparation for Public Comment. The draft Supplement and its accompanying PowerPoint were reviewed.
- Supplement 224 will return to WG-06 in June.

##### c. **Supplement 228: DICOMweb API for Server Volumetric Rendering (WG-27)**

- Steve Nichols presented Supplement 228: DICOMweb API for Server Volumetric Rendering in preparation for Public Comment, along with a PowerPoint presentation.
- Supplement 228 will return to WG-06 in June, and requests four hours.

##### d. **Supplement 229: Photoacoustic Imaging IOD (WG-33)**

- Allison Bertrand, Brian Bialecki, Bryan Clingman, and Ben Cox presented Supplement 229: Photoacoustic Imaging IOD in preparation for Final Text. Letter Ballot comments were reviewed but were not able to finish a line-by-line review of the entire Supplement.
- Supplement 229 will return to WG-06 in June for 2 hours.

##### e. **Supplement 231: Variable Modality LUT Presentation State (WG-03)**

- Steve Nichols led the group through review of Supplement 231 on Adaptive Dynamic Range Softcopy Presentation State, along with its accompanying PowerPoint, in preparation for Final Text.
- *Wim Corbijn moved to approve for Sup231 for Final Text as amended and Kevin O'Donnell seconded. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 231: Variable Modality LUT Presentation State was approved for Final Text.

f. **Supplement 233: Patient Model Gender Enhancements**

- Rob Horn shared some strategy approaches that have changed since this Supplement was last at WG-06, in accordance to HL7 work. The current draft is available here: <https://github.com/rjhorniii/dicom-sup233-wip>

g. **Supplement 234: DICOMweb Storage Commitment (WG-27)**

- Jeroen Medema and Dieter Krotz led the group through a review of the draft Supplement on DICOMweb Storage Commitment and its accompanying PowerPoint presentation, in preparation for Public Comment.
- The Supplement was very close to being ready for Public Comment but still needed a review of the wording of two new Open Items, an updated PowerPoint overview, and the Supplement checklist.
- **Action:** Shayna will reach out to Supplement authors and WG-06 leader to identify a time in April for a teleconference to finalize the document and PowerPoint prior to PC circulation.

h. **Supplement 236: Structured Display for DICOM Waveforms (WG-32)**

- Silvia Winkler presented Supplement 236 on Structured Display for DICOM Waveforms in preparation for Public Comment. The draft Supplement and its accompanying PowerPoint were reviewed.
- This Supplement will return to WG-06 in June 2023.

i. **Supplement 237: 32-bit General ECG (WG-32)**

- Silvia Winkler presented the draft Supplement 237: 32-bit General ECG and its accompanying PowerPoint. All Public Comments were discussed.

- *Wim Corbijn moved to approve for Sup237 for Letter Ballot as amended and Kevin O'Donnell seconded. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 237: 32-bit General ECG was approved for Letter Ballot.

j. **Supplement 238 on Assertion Collection (WG-07)**

- Christof Schadt led the group through the draft Supplement 238 on Assertion Collection, including accompanying PowerPoint presentation, in preparation for Public Comment. The Supplement will return to WG-06 in June 2023.

**5. WG-20/HL7 II Report**

- a. Jonathan Whitby and WG-20 members joined the call to provide an update about WG-20/HL7 II activities. The DICOM SR to FHIR Resource Mapping IG was also reviewed.
- b. <https://build.fhir.org/ig/HL7/fhir-radiation-dose-summary-ig/>
- c. [https://docs.google.com/presentation/d/1KvG45WlUeh0HLAv0R26lwIPkSWU3hC7inb4kNrhVU1M/edit#slide=id.g10701192306\\_0\\_77](https://docs.google.com/presentation/d/1KvG45WlUeh0HLAv0R26lwIPkSWU3hC7inb4kNrhVU1M/edit#slide=id.g10701192306_0_77)
- d. Jonathan requested 2 hours in June.

**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. (Submit earlier if you want any time to resolve comments)
  - Submit **Public Comment** drafts to Shayna by **May 10, 2023**.
  - Submit **Letter Ballot** drafts to Shayna by **May 5, 2023**.

**7. WG-06 Meeting Schedule**

- a. Next meeting:
  - June 19-23, 2023 (note: June 19<sup>th</sup> will be remote, the rest of the week will be at Arlington)
- b. **2023 meetings:**
  - January 16-20, 2023
  - March 20-24, 2023

- June 19-23, 2023 (note: June 19<sup>th</sup> will be remote, the rest of the week will be at Arlington)
- August 28-September 1, 2023 (note: August 28<sup>th</sup> will be remote, the rest of the week will be at Arlington)
- November 6-10, 2023
  - **Action:** Björn and Shayna will continue to investigate possible European locations.

**c. 2024 meetings: members confirmed the 2024 meeting dates**

- January 8-12, 2024
- March 18-22, 2024
- June 3-7, 2024
- August 26-30, 2024
- November 4-8, 2024

**8. Old/New Business**

- None at this time

**9. Adjournment**

- a. The January 2023 WG-06 meeting was adjourned at 12:08pm US EDT on Friday, March 24, 2023.

**10. Meeting Participants**

Voting Members Present							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
AAPM/University of Arkansas for Medical Sciences	Lawrence Tarbox	Voting	X	X			
ACR	Brian Bialecki	Voting	X	X	X	X	X
Canon Medical Systems USA	Kevin O'Donnell	Voting	X	X	X	X	X
Carl Zeiss Meditec	Detlev Hohmeier	Voting	X	X	X	X	

CIMICS	Bryan Fan	Voting	X				
Fairhaven Technologies	Rob Horn	Voting	X	X	X	X	X
GE Healthcare	Steve Nichols	Voting	X	X	X	X	X
JIRA	Akihiro Yomoda	Alt. Voting	X	X	X	X	X
MITA/NEMA	Shayna Knazik	Voting	X	X	X	X	X
Philips	Wim Corbijn	Voting	X	X	X	X	X
PixelMed Publishing	David Clunie	Voting	X		X	X	
Siemens Healthineers	Björn Nolte	Voting	X	X	X	X	X
<b>Voting Members Absent</b>							
<b>Company/ Organization</b>	<b>Represented by</b>		<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>
AAPM/University of Arkansas for Medical Sciences	Lawrence Tarbox	Voting			X	X	X
Agfa	Paul Seifert	Voting	X	X	X	X	X
Carl Zeiss Meditec	Detlev Hohmeier	Voting					X
CIMICS	Bryan Fan	Voting		X	X	X	X
PixelMed Publishing	David Clunie	Voting		X			X
<b>Observers and Alternate Voting Members Present</b>							
<b>Company/ Organization</b>	<b>Represented by</b>		<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>
AAPM	Nick Bevins	Obs.				X	
American Academy of Ophthalmology	Harry Solomon	Obs.			X		

Brainlab	Christof Schadt	Obs.			X	X	
Canon Medical Systems USA	Jonathan Whitby	Obs.		X			
CSImed	Uwe Tronnier	Obs.	X	X	X	X	
DICOM Usergroup Austria	Silvia Winkler	Obs.	X	X			X
Elekta	Jim Percy	Obs.			X	X	
Individual	Ulrich Busch	Obs.	X		X	X	
Philips	Madhu Byalahalli Shivalinge Gowda	Obs.		X			
Philips	Jeroen Medema	Obs.		X			X
Radical Imaging	Bill Wallace	Obs.	X				
Seno Medical	Allison Bertrand	Obs.	X	X		X	X
Seno Medical	Bryan Clingman	Obs.		X		X	
Siemens Healthineers	Dieter Krotz	Obs.					X
University College London	Ben Cox	Obs.		X			

Prepared and submitted by Shayna Knazik  
Reviewed by Counsel 4/17/23