

MINUTES

DICOM WG-06 Base Standard

June 20-24, 2022
Hybrid (Face2Face & Remote) Meeting

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-116 was approved for Final Text with 22 Correction Proposals (CPs).
- A new Supplement on JPEG-XL Transfer Syntax was assigned the number 232.
- Supplement 223: Repository Query, Inventory IOD, and Related Services was approved for Final Text.
- Supplement 230: Update BCP Secure Communications Profiles was approved for Public Comment.
- Supplement 227: Ultrasound Shear Wave Elastography Structured Report was approved for Final Text.
- The ImagingSelection Resource was approved for submission to FHIR at Maturity Level 1.
- A Governance Revision Proposal to allow Public Comment and Letter Ballot periods to be 35 days was approved for submission to the DSC.

1. Administrative

- a. With a quorum present, the June WG-06 Hybrid Face2Face & Remote Meeting was called to order at 9:02AM US Eastern Time on Monday, June 20, 2022.
- 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 March 2022 WG-06 meeting were reviewed and approved without objection or abstention.

2. Report on Letter Ballots

DSC Ballot	Approve	Disapprove	Abstain	Comments
CPack-116	16	0	1	5
Supplement 209	12	0	3	4
Supplement 223	13	0	4	3
Supplement 227	15	0	4	4

a. CPack-116

- The official ballot was distributed to voting members of the DICOM Standard Committee on April 14, 2022 and closed on June 2, 2022. CPack-116 included the following CPs (22 CPs):

CP #	Title	Decision
CP-2062	Add Device UID to Contributing Equipment Sequence	Approved for Final Text
CP-2064	Code to reference a contributing processing algorithm	Approved for Final Text
CP-2144	Cleanup PS3.17 section AA to refer to IHE REM profile and figures	Approved for Final Text
CP-2162	Clarification of waveform filter attributes	Approved for Final Text
CP-2168	Abbreviated spelling of "SR Document IE"	Approved for Final Text
CP-2173	KOS Current Requested Procedure Evidence Sequence	Approved for Final Text
CP-2174	Clarify Photometric Interpretation of Legacy Converted images	Approved for Final Text
CP-2175	Correction of invalid module references in Softcopy Presentation State IODs	Approved for Final Text
CP-2176	Add Category of Finding to TID 1500	Approved for Final Text
CP-2177	Add Specimen Module to Microscopy Bulk Simple Annotations	Approved for Final Text
CP-2178	Clarify Microscopy Bulk Simple Annotations Coordinate Units	Approved for Final Text
CP-2180	Add Anatomy to Microscopy Bulk Simple Annotations	Approved for Final Text
CP-2181	Add keywords for Context Groups in PS3.16	Approved for Final Text
CP-2182	Simplification of RT ROI Observations	Approved for Final Text
CP-2183	Add used ROI to Registration	Approved for Final Text
CP-2184	Add Conceptual Volume to Structure Set	Approved for Final Text
CP-2186	Cleanup of Planning Risk Volume Code	Approved for Final Text
CP-2187	Describe usage of Configuration and Commissioning Keys To Radiation Generation Mode Macro	Approved for Final Text
CP-2188	Restore RESTful WebServices use case examples	Approved for Final Text
CP-2191	Correct errors in Audit Message example in Part 17	Approved for Final Text
CP-2192	Add digital certificate to de-identification profile	Approved for Final Text

CP-2193	Add Encapsulated Document to de-identification profile	Approved for Final Text
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- *David Clunie made a motion to approve CPack-116 for Final Text as amended. Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-116 was approved for Final Text as amended.

3. Report on Correction Proposals

a. New CPs

Submitted file name	Title	New CP #
cp_dac612	Remove retired OtherPatientIDs from ProposedStudySequence in Film Session	CP-2234
cp_dac613	Deciduous dentition should use structure of not entire concept	CP-2235
cp_dac614	Need to be able to select optical path in advanced blending presentation state	CP-2236
cp_dac615	Propagate VOI and Palette Color support from blending to advanced blending presentation state	CP-2237
cp_fs03	Add Reject Flag items in RDSR for X-Ray and CT	CP-2238
cp_hs	Institution Name is not Issuer of ID	CP-2239
cp_jr27	Fix inconsistencies regarding Storage SOP Class names and Related General SOP Classes	CP-2240
cp_jr28	Fix wrong reference to XML Schema for syntax of the Native DICOM Model	CP-2241
cp_jr29	Fix inconsistencies regarding IE names and add missing IE definitions	CP-2242
cp_nb	Add Source-based Reference Point to CID 10025	CP-2243
CP_RT202	Clarification for Number of RT Beam Limiting Device Openings	CP-2244
CP_RT203	Retire the Robotic Base Location Indicator	CP-2245
CP_RT209	Correct Radiotherapy Common Instance Specification	CP-2246
CP_RT210	Add Long Label to Ion Beam	CP-2247
CP_RT211	Fix discussion of incomplete RT Treatment Fraction	CP-2248
CP_RT212	Clarifications of Scan Spot Maps	CP-2249
CP_RT213	Update De-Identifier profiles for Source Frame of Reference UID	CP-2250
CP_scott1	Directory record types for the Approval and Procedure Protocol IEs are missing from the specification	CP-2251
cp_ups	Corrections to Worklist Service	CP-2252
cp_vanWijk	Image and Frame Type corrections to Enhanced MR Image Module	CP-2253
cp-relativeURI	Clarify relative URI usage in DICOMweb	CP-2254
cp_kod_Add	Add Silver to X-ray Filtration Macro	CP-2255
cp_kod_Drop	Drop 16-segment model of myocardium	CP-2256

cp_kod_Calibration	Expand equipment calibration information for quantitative pixel value analysis	CP-2257
cp_kod_AddManufacture	Add place to record date of manufacture of devices	CP-2258
cp_dac616	Correct Multi-frame image media types for web services	CP-2259

b. **CPack-117/June 2022 Voting Packet**

CP #	Title
CP-2148	Clarify audit trail messages
CP-2166	Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2021 INT Release
CP-2190	Clarify origin server behavior when includefield=all is passed in a query
CP-2194	Add Specimen and Container Type to Preparation Template
CP-2195	Add seed point for purpose of region
CP-2196	Add FHIR Coding Scheme URL Type
CP-2197	Add Clinical Trial Time Point Type Code Sequence to Study Module and extend Value Set
CP-2198	Correct row reference in Content Item Description of TID 10003
CP-2199	Fixes to Part 5 for recently added VRs OV, SV and UV (and regarding inconsistent and incomplete definitions)
CP-2200	Fix inconsistent names of extended Storage Service features
CP-2201	Fix wrong term "Basic Worklist Management SCP"
CP-2202	Clarifications and examples for Value Set Constraint field
CP-2203	Add References between 1st and 2nd Gen Rad IODs
CP-2205	Correction of confusing statement regarding implementation of Pixel Aspect Ratio for icons
CP-2206	Correct the media types for video in PS3.18

- *David Clunie made a motion to approve CPack-117 for Letter Ballot. Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-117 was approved for Letter Ballot (15 CPs).

c. **Assigned CPs**

The following CPs were reviewed and decisions reached as shown.

Note: Please upload the VP version (candidates for the CPack-118/September 2022 Voting Package) in the [September 2022 meeting folder](#).

CP #	Title	Decision
CP-2118	Fix wrong sentence in introduction of part 14, chapter 7	Moved to September Voting Packet
CP-2121	Add codes for more gadolinium contrast agents	Moved to September Voting Packet
CP-2185	Add Treatment Session UID to First Generation RT Objects and CT Image	Moved to September Voting Packet

CP-2189	Correct inconsistent Multi-Energy Image type conditions for Classic and Enhanced CT IODs	Moved to September Voting Packet
<i>CP-2204</i>	<i>Restore multipart bulkdata and clarify range requests</i>	<i>Remains assigned</i>
CP-2208	Include additional cardiovascular terms to Part 16	Moved to September Voting Packet
CP-2209	Correct Table C.11.1.1.2.1-1 Recommended Rescale Type Assignments for Multi-energy CT Image	Moved to September Voting Packet
CP-2210	Correction needed - CID 4231 Lens Status – Inactive SCT Code Value for Phakic	Moved to September Voting Packet
CP-2211	Add RPLD Glass dosimeter to Radiotherapeutic Dose Measurement device	Moved to September Voting Packet
CP-2212	Update PET Radiopharmaceuticals with SCT	Moved to September Voting Packet
CP-2213	Species Attributes conditions should be non-human not animal	Moved to September Voting Packet
CP-2214	Sub-pixel Resolution SCORD mapping to 3D RCS	Moved to September Voting Packet
CP-2215	Measurements and Categorical Statements on Patients, Studies and Series	Moved to September Voting Packet
CP-2216	Add Specimen Module to Presentation States	Moved to September Voting Packet
<i>CP-2217</i>	<i>Add CID for Radiation Dose Imaging Procedures</i>	<i>Remains assigned</i>
<i>CP-2218</i>	<i>Add Note in PS3.16 TID 10007 row 3</i>	<i>Remains assigned</i>
CP-2219	Add Note in PS3.16 to Table Position Codes	Moved to September Voting Packet
<i>CP-2220</i>	<i>Differentiate geometric types of CT imaging sources</i>	<i>Remains assigned</i> Action: <i>Shayna will put it on the next WG-21 agenda and solicit WG-02 input.</i>
CP-2221	Retirement of unused modules from RT Dose IOD	Moved to September Voting Packet
CP-2222	Add missing Treatment Site Modifier	Moved to September Voting Packet
CP-2223	Clarify Block Accessory Codes	Moved to September Voting Packet
CP-2224	Dose Calibration Conditions Verified Flag Clarification	Moved to September Voting Packet
CP-2225	Use correct IOD names in caption of their module tables	Moved to September Voting Packet
<i>CP-2226</i>	<i>Add Breast Segmentation Types Context Group</i>	<i>Remains assigned</i>
CP-2227	Add Application Entity Titles (AETs) to de-identification profile	Moved to September Voting Packet
CP-2228	Correct references to Content-Encoding and conditions arising from it	Moved to September Voting Packet
CP-2229	Support of new MLC types	Moved to September Voting Packet
CP-2230	Clarify uniqueness and labeling of Referenced Plan Overview	Moved to September Voting Packet

CP-2231	Fix Attribute wording for Brachy	Moved to September Voting Packet
CP-2232	Correct/add Body Part Examined Defined Terms in correspondence Table L-1	Moved to September Voting Packet
CP-2233	Switch to SNOMED CT code for Phantom	Moved to September 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 JPEG-XL Transfer Syntax (WG-04)

- Bill Wallace led the group through a First Read of a Supplement on JPEG-XL Transfer Syntax. This supplement aims to add support for JPEG-XL as a transfer syntax and as a DICOMweb-supported format.
- *Kevin O'Donnell moved to assign this Supplement a number and David Clunie seconded. The motion was approved without objection or abstention.*

DECISION: This Supplement was assigned the number 232.

b. Supplement 213: Second Generation Radiotherapy – Enhanced RT Image and Patient Position Acquisition Instruction (WG-07)

- Ulrich Busch led the group in a review of Supplement 213 in preparation for Final Text. Remaining open items and comments were discussed.
- Authors will not be able to join the September meeting so time will be reserved for the November meeting if needed.
- **Action:** Shayna will circulate a doodle poll to find 2 hours for a teleconference to finish the review.

c. Supplement 223: Repository Query, Inventory IOD, and Related Services (WG-33)

- Harry Solomon led the group through a review of Supplement 223 in preparation for Final Text. Letter Ballot comments and resolutions were reviewed. The Supplement Checklist was completed.
- *Wim Corbijn moved to approve Supplement 223 for Final Text pending amendments and Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*

DECISION: Supplement 223 was approved for Final Text as amended.

d. Supplement 227: Ultrasound Shear Wave Elastography Structured Report (WG-12)

- Kevin O'Donnell presented Supplement 227: Ultrasound Shear Wave Elastography Structured Report in preparation for Final Text. Discussion covered a review of the Letter Ballot comments received and all open items were closed.
- *Kevin O'Donnell moved to approve Supplement 227 for Final Text as amended and Steve Nichols seconded the motion. The motion was approved without objection or*

abstention.

DECISION: Supplement 227 was approved for Final Text as amended.

e. **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 of the high-level changes made since the January WG-06 meeting. The group will continue to review this document at the September WG-06 meeting.

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

- Allison Bertrand, Brian Bialecki, and Bryan Clingman presented Supplement 229 in preparation for Public Comment. Two PowerPoints were reviewed: one which highlighted the major changes to the draft since WG-06's review at the March meeting, and another which will accompany the Supplement when it is circulated for Public Comment.
- WG-33 requested two, 2-hour slots at the September WG-06 meeting.

g. **Supplement 230: Update BCP Secure Communications Profiles (WG-14)**

- Larry Tarbox and Rob Horn led the group through a review of Supplement 230: Update BCP Secure Communications Profiles, in preparation for Public Comment. Review included the Supplement's PowerPoint.
- *Kevin O'Donnell moved to approve for Sup230 for Public Comment as amended and Björn Nolte seconded. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 230 was approved for Public Comment.

h. **Supplement 231 on Adaptive Dynamic Range GSPS (WG-03)**

- Steve Nichols led the group through review of Supplement 231 on Adaptive Dynamic Range GSPS, along with its accompanying PowerPoint, in preparation for Letter Ballot.
- WG-03 requested one, 2-hour slot at the September WG-06 meeting.

5. WG-20/HL7 II Report on the FHIR ImagingSelection Resource

- a. Jonathan Whitby continued the review of the FHIR ImagingSelection Resource where we left off at the March WG-06 meeting.
- b. **Action:** revisit the draft WG-06/DICOM process for WG-20 FHIR resources at the September WG-06 meeting with specific consideration of the solicitation, collection & resolution of public comments during the Maturity 1-5 interval.
- c. Current maturity level process:

- WG-20 will seek WG-06 review of managed FHIR resources at the following stages:
 - Resource proposal: Depending on timing, may be before or after FHIR Management Group approval but prior to draft resource is added to the FHIR build. (Equivalent to DICOM First Read stage)
 - WG-06 proposed refinement: by default, before FHIR Management, send to WG-06 but emergency can be sent to the WG-06 Chair for more urgent review
 - Resource Maturity 1: Prior to updating resource maturity in build. (Equivalent to the state when a Supplement is released for DICOM Public Comment).
 - Maturity 1 means it may be of interest to people outside the WG that created, but with the expectation that it can change significantly.
 - Between Maturity level 1-5, not much WG-06 activity is needed.
 - Resource Maturity 5: Prior to updating resource maturity in build
 - Equivalent to "Letter Ballot", however WG-06 will consider Maturity 5 to be "Final Text" so it would be WG-20's judgement to bring any comments back to WG-06.
 - Unless there are major/substantive ballot comments, this should be the last time WG-06 needs to do a review.
 - Transition from Maturity 5 to Normative to follow HL7 balloting process (equivalent to DICOM Final Text)
 - Review Ballot comments in WG-06: we will review and approve and coordinate some notification in DICOM. Will put the obligation on WG-20 to bring any ballot comments of interest to WG-06.
 - WG-20 to notify DICOM membership of relevant ballots
- d. *Brian Bialecki made a motion to approve the ImagingSelection Resource to be submitted to FHIR by Jonathan Whitby as Maturity Level 1. Kevin O'Donnell seconded the motion. The motion was approved with no objections or abstentions.*
- e. The group requested one hour at the September WG-06 meeting on Friday morning.

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 results in the following deadlines. (Submit earlier if you want any time to resolve comments)
- Submit **Public Comment** drafts to Shayna by **July 22, 2022**.
 - Submit **Letter Ballot** drafts to Shayna by **July 18, 2022**.

7. Upcoming WG-06 Meetings

- a. Next meeting:
- September 12-16, 2022: In-person at Santa Chiara Hospital, Trento, Italy. A GotoMeeting will also be available for virtual participants. Logistics will be posted to the meeting folder on the FTP in the WG-06 directory.
 - November 14-18, 2022
- b. **2023 meetings:**
- January 9-13, 2023
 - March 20-24, 2023
 - June 19-23, 2023
 - August 28-September 1, 2023
 - November 6-10, 2023

8. Old/New Business

- a. WG-06 proposed a governance change to permit shortening the minimum Public Comment and Letter Ballot periods to 5 weeks. This is intended to better allow time for authors to

resolve comments when the supplement may be on the agenda for the next following WG-06 meeting. Given the speed and breadth of electronic ballot distribution, 5 weeks is considered to be adequate.

- *Brian Bialecki made a motion for WG-06 to support revision to the DICOM Governance as described in their draft and Kevin O'Donnell seconded the motion. The motion approved with no abstentions or objections.*
- **Action:** Shayna will get this on the agenda for the September DSC meeting and ask Carolyn to circulate the revision document with the agenda.

9. Adjournment

- The June 2022 WG-06 meeting was adjourned at 12:44pm US Eastern Time on Friday, June 24, 2022.

10. Meeting Participants

Voting Members Present							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
ACR	Brian Bialecki	Voting	X	X	X	X	X
Agfa	Paul Seifert	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	Robert Horn	Voting	X	X	X	X	X
GE Healthcare	Steven Nichols	Voting	X	X	X	X	X
JIRA	Akihiro Yomoda	Alt. Voting	X	X	X	X	X
Leica Biosystems	Jean Desire	Voting	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	X	X
Siemens Healthineers	Björn Nolte	Voting	X	X	X	X	X
Voting Members Absent							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
Carl Zeiss Meditec	Detlev Hohmeier	Voting					X
CIMICS	Bryan Fan	Voting		X	X	X	X
Konica Minolta Healthcare Americas	Michael Laconti	Voting	X	X	X	X	X
Leica Biosystems	Jean Desire	Voting					X
Observers and Alternate Voting Members							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
AAPM/University of Arkansas for Medical Sciences	Lawrence Tarbox	Obs.				X	
Canon Medical Systems USA	Jonathan Whitby	Obs.		X			
CIMICS	Lily Li	Alt. Voting	X				
CSImed	Uwe Tronnier	Obs.		X	X		
DICOM Usergroup Austria	Silvia Winkler	Obs.	X				
Elekta	Jim Percy	Obs.	X	X			
Fujifilm	Masao Murata	Obs.				X	
GE Healthcare	Jouke Numan	Obs.			X	X	
Individual	Ulrich Busch	Obs.	X	X	X		X
Laitek	Harry Solomon	Obs.			X	X	

MITA/NEMA	Carolyn Hull	Alt. Voting		X		X	
Radical Imaging	Bill Wallace	Obs.	X		X		
Seno Medical	Allison Bertrand	Obs.				X	X
Seno Medical	Bryan Clingman	Obs.				X	X
Siemens Healthineers	Ingo Wilkening	Obs.	X	X			

Prepared and submitted by Shayna Knazik
Reviewed by counsel 9/16/2022