

MINUTES

DICOM WG-06 Base Standard

November 8-12, 2021
Remote Meeting Replacing F2F

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-113 was approved for Final Text with 17 Correction Proposals (CPs).
- CPack-114 was approved for Letter Ballot with 17 CPs.
- Supplement 223 on Inventory IOD and Related Services was approved for a second Public Comment period.
- Supplement 225 on Multi-Fragment Video Transfer Syntax was approved for Letter Ballot.
- Supplement 227 on Ultrasound Elastography Structured Report was approved for Public Comment, but it will be circulated after the next WG-06 meeting in January 2022.

1. Administrative

- a. With a quorum present, the November WG-06 virtual meeting was called to order at 9:02AM US EST on Monday, November 8, 2021.
- b. Antitrust and patent statement reminder: 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 August/September 2021 WG-06 meeting were reviewed and approved.

2. Report on Letter Ballots

DSC Ballot	Approve	Disapprove	Abstain	Comments
CPack-113	19	0	0	6

a. **CPack-113 (August/September Voting Package)**

- i. The official ballot was distributed to voting members of the DICOM Standard Committee on September 8, 2021 and closed on October 27, 2021. CPack-113 included the following CPs (17 FTs):

CP #	Title	Decision
CP-1950	Add measurement codes for Cardiac Strain	Approved for Final Text
CP-2115	Per-segment multiple algorithms and creators	Approved for Final Text
CP-2116	More dates, times, datetimes and selector attributes need de-identification	Approved for Final Text
CP-2117	Add ICD-O-3 and ICD-10-CM as Coding Schemes	Approved for Final Text
CP-2119	PS3.7: Correct Annotation in (sub-)item negotiation figures	Approved for Final Text
CP-2120	Clarifications to de-identification	Approved for Final Text
CP-2122	Fix QIDO-RS user agent Query Parameter Requirement	Approved for Final Text
CP-2124	Provide two meanings for some EEG lead codes	Approved for Final Text
CP-2125	Add new EEG Leads	Approved for Final Text
CP-2126	Extend Source Pixel Plane Characteristics	Approved for Final Text
CP-2127	Clarify Origin of Device-Based FoR	Approved for Final Text
CP-2128	UV Mapping Module Corrections	Approved for Final Text
CP-2131	Correct Beam Modifier Coordinate System description	Approved for Final Text
CP-2132	Correct Patient Position Order table name	Approved for Final Text
CP-2133	Add CAD-RADS scores as coded values	Approved for Final Text
CP-2134	Harmonize description and clarify usage of "Referenced Imaging Agent Identifier" within TID 11022 and TID 11023	Approved for Final Text
CP-2137	PS3.18 Metadata is Dataset only and does not include Group 0002 File Meta Information	Approved for Final Text

- ii. **DECISION:** A motion was made by David Clunie and seconded Björn Nolte to approve CPack-113 for Final Text as amended. **APPROVED.**

3. Report on Correction Proposals

a. **New CPs**

Submitted file name	Title	New CP #
cp_dac592	Clarify Photometric Interpretation of Legacy Converted images	CP-2174

cp_vanWijk	Correction of invalid module references in Softcopy Presentation State IODs	CP-2175
cp_dac593	Add Category of Finding to TID 1500	CP-2176
cp_dac594	Add Specimen Module to Microscopy Bulk Simple Annotations	CP-2177
cp_dac595	Clarify Microscopy Bulk Simple Annotations Coordinate Units	CP-2178
cp_dac596	Add Pathology Annotation Codes	CP-2179
cp_dac597	Add Anatomy to Microscopy Bulk Simple Annotations	CP-2180
cp_dac598	Add keywords for Context Groups in PS3.16	CP-2181
cp_RT193	Simplification of RT ROI Observations	CP-2182
cp_RT194	Add used ROI to Registration	CP-2183
cp_RT195	Add Conceptual Volume to Structure Set	CP-2184
cp_RT196	Add Treatment Session UID to First Generation RT Objects and CT Image	CP-2185
cp_RT197	Cleanup of Planning Risk Volume Code	CP-2186
cp_RT198	Describe usage of Configuration and Commissioning Keys to Radiation Generation Mode Macro	CP-2187
CP-dk	Restore RESTful WebServices use case examples	CP-2188
cpnnn-01_allow	Correct inconsistent Multi-Energy image type conditions for Classic and Enhanced CT IODs	CP-2189
cpnnn-01_clarify	Clarify Origin server behavior	CP-2190
<i>cpnnn-01_correct-meta</i>	<i>Correct metadata and bulkdata media types in table 10.4.4-1</i>	<i>Made as an Editorial change -- not assigned a CP number</i>
cpnnn-01_correct-Part	Correct errors in Audit Message example in Part 17	CP-2191
cp_dac599	Add digital certificates to de-identification profile	CP-2192
cp_dac600	Add Encapsulated Document to de-identification profile	CP-2193
<i>cp_rjh45</i>	<i>Update profiles to reflect update to BCP-195</i>	<i>Not assigned a number—better suited as a Supplement</i>
<i>cp_wc36</i>	<i>Relax Contrast Requirements in Enhanced MR object</i>	<i>Rejected – not assigned a number</i>
<i>cpnnn-01_modality</i>	<i>Address handling of different image level Modality LUTs in GSPS</i>	<i>Not assigned a number—better suited as a Supplement. WG-03 and WG-16 to work together</i>

b. CPack-114/November 2021 Voting Packet

CP #	Title
CP-2129	Extend RT Segment Characteristics With Metal Alloy Concepts used for Implants
CP-2141	Add vertebra and intervertebral disk anatomy

CP-2142	Relax requirement for evidence sequences in legacy converted images
CP-2143	Correct code for microscope slide and add staining codes to example
CP-2145	Add Laterality to MWL
CP-2146	Add Procedure Code Context Groups
CP-2147	Relax requirement on discriminators and XML IDs in CDA
CP-2150	Add OAR to RT ROI Interpreted Type
CP-2152	Add Plan Overview parameters to RT Dose
CP-2153	Treatment Plan Update for 60601-2-1ED4 - Add Linac Calibration Parameters
CP-2154	Treatment Record Update for IEC 60601-2-1 ED4
CP-2155	Add Long Label to Beam
CP-2156	Add Block Slab Sequence in RT Ion Beans Treatment Record
CP-2157	Add Anatomic Region to RT Plan
CP-2158	Correction of unit for Fixation Light Polar Angle Tolerance
CP-2159	New Interlock Codes for RT
CP-2164	Add Research Resource Identifier (RRID) Coding Scheme

- i. **DECISION:** David Clunie made a motion to approve CPack-114 for Letter Ballot as amended (17 LBs). Wim Corbijn seconded the motion. **Motion approved.**

c. **Assigned CPs**

Note: Please upload the VP version (candidates for the CPack-115/January 2022 Voting Package) in the [Jan 2022 VP mtg folder](#).

CP #	Title	Decision
CP-1196	Add phantom-specific Total DLP Values to allow for Head and Body in same RDSR scope of accumulation	Moved to CPack-115/January Voting Packet
CP-1992	<i>Add implanted medical device related MR patient safety information</i>	<i>Remains assigned</i>
CP-2086	Relax requirement for Slice Thickness, Pixel Spacing and Imaged Volume Width/Depth/Height for Whole Slide Microscopy LABEL and OVERVIEW images	Moved to CPack-115/January Voting Packet
CP-2130	Referencing from UV Mapping Module	Moved to CPack-115/January Voting Packet
CP-2135	Add Acquisition and Pyramid Entities to Information Model, with UIDs and other Attributes	Moved to CPack-115/January Voting Packet
CP-2139	Corrected inconsistencies in JSON Data Model mapping from XML	Moved to CPack-115/January Voting Packet
CP-2140	Add basic and examination information of the patient for DICOM virtual film printing	Moved to CPack-115/January Voting Packet
CP-2151	Align RT Structure Set Codes with Segmentations	Moved to CPack-115/January Voting Packet
CP-2160	Move duplicate Code Meaning for Code Value 65801008 to list of synonyms	Moved to CPack-115/January Voting Packet
CP-2161	<i>Photogrammetric Model Enhancement of VL IODs</i>	<i>Remains assigned</i>

CP-2162	<i>Clarification of waveform filter attributes</i>	<i>Remains assigned</i>
CP-2163	Add "localhost" to CID 405	Moved to CPack-115/ January Voting Packet
CP-2165	Add indicator of control material on slide	Moved to CPack-115/ January Voting Packet
CP-2166	<i>Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2021 INT Release</i>	<i>Remains assigned</i>
CP-2167	Add more brain segmentation labels	Moved to CPack-115/ January Voting Packet
CP-2168	<i>Abbreviated spelling of "SR Document IE"</i>	<i>Remains assigned</i>
CP-2169	Move SCP rendering requirements from Part 3 to Part 4	Moved to CPack-115/ January Voting Packet
CP-2170	<i>Fix inconsistent use of name "Blending Presentation State"</i>	<i>Remains assigned</i>
CP-2171	Define use of Pixel Padding Value for PALETTE COLOR images	Moved to CPack-115/ January Voting Packet
CP-2172	Explanations on RT Radiation Usage and Intent	Moved to CPack-115/ January Voting Packet
CP-2173	<i>KOS Current Requested Procedure Evidence Sequence</i>	<i>Remains assigned</i>

4. Report on Supplements

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

a. Supplement 209: DICOM Conformance Statement (WG-31)

- i. Antje Schroeder presented Supplement 209 in preparation for Letter Ballot. Sup209 received numerous editorial and minor comments during the Public Comment period, and there were a few remaining comments that needed WG-06 input. The group was able to review the open issues but not all the minor edits that were made from Public Comments, so Sup209 will return to WG-06 in January.
- ii. Two, 2-hour slots were requested at the January 2022 WG-06 meeting to continue review before Letter Ballot. WG-31 would like to claim any extra sessions that may become available.

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

- i. Christof Schadt, Jim Percy, and Uli Busch led the group in a review of Supplement 213 in preparation for Letter Ballot. The group picked up with their line-by-line review of the draft since the August/September WG-06 meeting.
- ii. Review of Sup213 ended at page 38 of 60, and will resume in January 2022.

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

- i. Harry Solomon led the group through a review of Supplement 223 (draft 38). Harry began with a PowerPoint overview and discussed the following changes which were made since the WG-06 September meeting:

Post Public Comment revisions of Sup223

- WG-06 consensus (02 Sept 2021) that Sup 223 should include an IOD *and* a query mechanism supporting inventory production
 - Two appropriate approaches to disparate applications in a large ecosystem
 - Added Repository Query SOP Class with semantics enabling obtaining a complete inventory in a sequence of query transactions
 - Revised IOD Scope of Inventory to align with Query Key Attributes
 - Consolidating to a single, generic matching mechanism
- ii. It was decided that Sup223 will go out for a second Public Comment period since there were such substantive changes to the Supplement based on the Public Comments that were received.
 - iii. *Harry Solomon made a motion to approve Supplement 223 for a second round of Public Comments. Wim Corbijn seconded the motion. The motion was approved.*
DECISION: Supplement 223 on Inventory IOD and Related Services was approved for a second Public Comment period.
- d. **Supplement 225: Multi-Fragment Video Transfer Syntax (WG-04)**
- i. Bill Wallace presented Supplement 225 in preparation for Letter Ballot. Review of the Public Comments received began at the September WG-06 meeting but there wasn't time to finalize for LB, so the group picked up where discussion was left off.
 - ii. *Kevin O'Donnell made a motion to approve Supplement 225 for Letter Ballot. Wim Corbijn seconded the motion. The motion was approved.*
DECISION: Supplement 225 on Multi-Fragment Video Transfer Syntax was approved for Letter Ballot.
- e. **Supplement 227: Ultrasound Elastography Structured Report (WG-12)**
- i. Kevin O'Donnell presented Supplement 227 on Ultrasound Elastography Structured Report in preparation for Public Comment. The Supplement title was adjusted to include "ultrasound" as it was decided to deal with MR at a later time.
 - ii. Shayna alerted Kevin of the November 17th deadline to get PCs circulated in time for the January 2022 meeting. If he anticipates that he won't be able to get QIBA, etc. comments, he will present Sup227 at the March 2022 WG-06 meeting.
 - iii. *Björn Nolte made a motion to approve Supplement 227 for Public Comment. Wim Corbijn seconded the motion. The motion was approved.*
DECISION: Supplement 227 on Ultrasound Elastography Structured Report was approved for Public Comment.

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

- i. Steve Nichols presented Supplement 228 on web services for DICOM in preparation for Public Comment. The multi-volume selection and target resource sections were reviewed. The group provided feedback which Steve will incorporate before the next meeting.
- ii. Two, 2-hour slots were requested for the January WG-06 meeting.

b. **Reports from stakeholders**

a. **Update from WG-20 and HL7 Imaging Integration (Whitby/Lindop)**

- i. WG-20/HL7 holds weekly [teleconferences](#). Their next meeting will take place virtually on January 18-21, 2022.
- ii. FHIR ImagingStudy resource: maturity moving to 4 due to FHIR Connectathon testing: <https://jira.hl7.org/browse/FHIR-33985>
- iii. DICOM SR to FHIR Resource Mapping Implementation Guide will open in December and close January (registration to vote closes December 9th). WG-06 will reserve one, 2-hour session for a “First Read”. Project overview: <https://confluence.hl7.org/display/IMIN/Mapping+of+DICOM+SR+to+FHIR>
- iv. For information on other WG-20/HL7 II projects, see their slides on the FTP for this meeting or visit: <http://www.hl7.org/special/Committees/projman/searchableProjectIndex.cfm?FilterProjectSponsor=Imaging+Integration+Work+Group&FilterStatus=notArchived>

5. **Deadlines for action items from this meeting**

- a. Items ready for **Public Comment** must be submitted to Shayna by **November 17, 2021**. The 45-day PC period would open by November 19, 2021 and close on January 3, 2022 which would leave one week for authors to respond to comments before the next WG-06 meeting starting January 10, 2022.
- b. Items ready for **Letter Ballot** should be submitted to Shayna by **November 15, 2021**. Counsel review would take place November 15-19, 2021. The LB would open by November 19, 2021, and with the current 49-day requirement, would close on January 7, 2022, which leaves the weekend for authors to incorporate LB comments before the next WG-06 meeting starting January 10, 2022.

6. **Upcoming WG-06 Meetings**

a. **Next meeting –**

- i. January 10-14, 2022
 1. The agenda plan will be posted in the January 2022 meeting folder.
 2. Tentatively planning for a face-to-face meeting.
 3. **Action:** Shayna will send out the calendar appointment for this meeting and reserve a conference room at NEMA HQ.

b. **2022 meetings –**

- i. January 10-14, 2022
- ii. March 21-25, 2022
- iii. June 20-24, 2022
- iv. September 12-16, 2022
- v. November 14-18, 2022

7. Old/New Business

- a. None at this time.

8. Adjournment

- a. The November WG-06 virtual meeting was adjourned at 12:04pm US EST on Friday, November 12, 2021.

9. Meeting Participants

Voting Members Present							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
ACR	Brian Bialecki	Voting	X	X	X	X	
Canon Medical Systems USA	Kevin O'Donnell	Voting	X	X	X	X	X
CIMICS	Bryan Fan	Voting	X	X			X
Fairhaven Technologies	Robert Horn	Voting	X	X	X	X	X
GE Healthcare	Steven Nichols	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	X	
Siemens Healthineers	Björn Nolte	Voting	X	X	X	X	X
Voting Members Absent							

Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
ACR	Brian Bialecki	Voting					X
Agfa	Paul Seifert	Voting	X	X	X	X	X
Carl Zeiss Meditec AG	Régis Deshayes	Voting	X	X	X	X	X
CIMICS	Bryan Fan	Voting			X	X	
JIRA	Shinichi Nakano	Voting	X	X	X	X	X
Konica Minolta Healthcare Americas	Michael Laconti	Voting	X	X	X	X	X
PixelMed Publishing	David Clunie	Voting					X
Others Present (Alternate Voting and Observers)							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
Agfa	Bruce Laffin	Obs.			X		
Argentix Informatics	Elliot Silver	Obs.	X	X			
Brainlab	Christof Schadt	Obs.	X	X	X	X	X
Canada Health Infoway	Joan Harper	Obs.	X				
Canon Medical Systems USA	Jonathan Whitby	Obs.					X
CIMICS	Denan Lin	Alt. Voting			X		
CIMICS	Victoria Wang	Obs.	X	X	X		
CSImed	Uwe Tronnier	Obs.	X	X			
DICOM Usergroup Austria	Silvia Winkler	Obs.	X	X	X		

Elekta	Jim Percy	Obs.				X	
Fraunhofer Heinrich Hertz Institute	Jean-Claude Rosenthal	Obs.			X		
GE Healthcare	Hervé Hoehn	Obs.	X		X		
GE Healthcare	Chris Lindop	Obs.					X
GE Healthcare	Jouke Numan	Obs.		X		X	
ICCAS	Richard Bieck	Obs.			X		
ICT Group	Toine Van Wijk	Obs.	X	X		X	
Individual	Ulrich Busch	Obs.	X	X	X	X	X
JIRA	Akihiro Yomoda	Alt. Voting	X	X	X	X	X
Laitek	Harry Solomon	Obs.	X	X		X	
MITA/NEMA	Carolyn Hull	Alt. Voting	X				X
Radical Imaging	Bill Wallace	Obs.		X		X	
Siemens Healthineers	Antje Schroeder	Obs.	X		X		
VISUS	Marc Kämmerer	Obs.			X		

Prepared and submitted by Shayna Knazik
Reviewed by Counsel 1/14/22