



Secretariat: MITA/NEMA
 1300 North 17th Street, Suite 900
 Arlington, VA 22209, USA
www.dicomstandard.org
dicom@dicomstandard.org

MINUTES
DICOM WG-06 Base Standard
March 22-26, 2021
Remote Meeting Replacing F2F

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

DICOM Secretariat: Shayna Knazik, MITA/NEMA

Voting Members Present	Represented by		Mon	Tue	Wed	Thu	Fri
ACR	Brian Bialecki	Voting		X	X	X	X
Agfa	Paul Seifert	Voting	X	X	X	X	
Canon Medical Systems USA	Kevin O'Donnell	Voting	X	X	X	X	X
Carl Zeiss Meditec AG	Régis Deshayes	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
Konica Minolta Healthcare Americas	Michael Laconti	Voting			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							
ACR	Brian Bialecki	Voting	X				
Carl Zeiss Meditec AG	Régis Deshayes	Voting	X		X	X	X
Konica Minolta Healthcare Americas	Michael Laconti	Voting	X	X		X	X
Others Present (Alternate Voting Members and Observers)							
Company/ Organization	Represented by						
AAPM	Nick Bevins	Obs.			X	X	
AAPM	Donald Peck	Obs.				X	
Agfa	Bruno Laffin	Obs.		X	X		
Agfa	Bill Wallace	Obs.	X	X		X	
Argentix	Elliot Silver	Obs.	X	X	X	X	X
Brainlab	Christof Schadt	Obs.	X			X	
CSImed	Uwe Tronnier	Obs.	X	X		X	
DICOM Usergroup Austria	Silvia Winkler	Obs.	X	X		X	
Elekta	Jim Percy	Obs.	X	X		X	X
GE Healthcare	Hervé Hoehn	Obs.		X	X		
GE Healthcare	Francisco Sureda	Obs.				X	

Harvard University	Andrey Fedorov	Obs.		X			
Individual	Ulrich Busch	Obs.	X	X	X	X	X
Laitek	Fred Behlen	Obs.	X		X		X
Laitek	Harry Solomon	Obs.	X	X	X	X	X
MITA/NEMA	Carolyn Hull	Alt. Voting		X	X	X	X
Philips	Yogalakshmi Selvarajan	Obs.		X	X		
Siemens Healthineers	Antje Schröder	Obs.		X	X		
SIIM	Matthew Bishop	Obs.	X		X		X
Vital Images/Canon	Jonathan Whitby	Obs.	X				

1. Administrative

- a. **With a quorum present, the March WG-06 virtual meeting was called to order at 9:00AM US EDT on Monday, March 22, 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 January 2021 WG-06 meeting were reviewed and approved.

2. Report on Letter Ballots

<i>DSC Ballot</i>	<i>Approve</i>	<i>Disapprove</i>	<i>Abstain</i>	<i>Comments</i>
Supplement 214	14	0	0	3
Supplement 220	12	0	4	3
CPack-110	16	0	0	4

- a. **Supplement 214: Cone-beam CT Radiation Dose SR (WG-28)**
 - i. The official Letter Ballot was distributed to voting members of the DICOM Standard Committee (DSC) on February 2, 2021 and closed on March 23, 2021. The Sup214 Letter Ballot was **approved**.
- b. **Supplement 220: Prostate MRI Structured Reporting (WG-08)**

- i. The official Letter Ballot was distributed to voting members of the DICOM Standard Committee (DSC) on February 2, 2021 and closed on March 23, 2021. The Sup220 Letter Ballot was **approved**.

c. CPack-110 (January Voting Package)

- i. The official ballot was distributed to voting members of the DICOM Standard Committee on February 2, 2021 and closed on March 23, 2021. CPack-110 includes the following CPs:

CP #	Title	Decision
1227	Fix Estimated Dose Saving attribute	Approved for Final Text
1926	Remove Source Image Region from error conditions in 9.5.2.3	Approved for Final Text
1990	Clarify Semantics of CID 62 Imaging Agent Administration Phase Type concepts	Approved for Final Text
2016	Handling of injector events for entering / resuming from a programmed / manual hold state could not be protocolled within the Injector Event TID 11022	Approved for Final Text
2032	Casing of Bulkdata uri element name inconsistent for DICOM XML	Approved for Final Text
2052	Update to current reference for Cryptographic Message Syntax	Approved for Final Text
2059	Definition of an Acquisition Context Template for Routine Scalp EEG	Approved for Final Text
2060	Use of different Private Creators in different Data Sets (Sequence Items) in the same Instance	Approved for Final Text
2067	Add more specific tumor graft histologic types and sites	Approved for Final Text
2070	GSPS can only reference monochrome images	Approved for Final Text
2073	Clarify cipher requirements for TLS in BCP195 Profile	Approved for Final Text
2074	Incorrect action code for Treatment Machine Name	Approved for Final Text
2075	RT Radiation Record Set Corrections	Approved for Final Text
2078	Update DICOM to reflect changes in IHTSDO SNOMED CT-DICOM Subset for JUL 2020 INT Release	Approved for Final Text

- ii. **DECISION:** A motion was made to approve CPack-110 for Final Text as amended (14 FTs). **APPROVED.**

3. Report on Correction Proposals

a. Voting Packet: CPack-111

- i. **DECISION:** A motion was made to approve CPack-111 for Letter Ballot as amended (18 LBs). **APPROVED.**

CP #	Title
CP-2020	Correct Directory Content Example

CP-2040	Fix DICOMweb DICOM Media Types
CP-2069	DICOM Communication Model needs to be extended with RTC
CP-2077	Description of De-Identification attributes inconsistent
CP-2079	Allow a Brachy Applicator to reference an ROI
CP-2080	RT Accessory Device Clarifications
CP-2081	Clarify Instance Coercion DateTime
CP-2083	Add uncompressed encapsulated Transfer Syntax for encoding very large pixel data sets
CP-2084	Allow CONTAINER HAS OBS CONTEXT children of CONTAINERS
CP-2085	Revise description of Attribute Modality in Scheduled Procedure Step Module
CP-2087	Institution Name may be present otherwise in Person Identification Macro
CP-2088	More modification and interpretation related Attributes require de-identification
CP-2089	Correct definitions of image quality concepts
CP-2091	Correct Medication Concept Name Description
CP-2092	Update MAC Algorithms
CP-2093	Move CT Protocol Reference to Image Level
CP-2094	Add Measurement Report Image Library Description
CP-2096	Equipment Module for Non-Patient Objects

b. Assigned CPs/Voting Pack Candidates

Note: Please upload the VP version (candidates for the June 2021 Voting Package/CPack-112) in the [June 2021 VP mtg folder](#).

CP #	Title	Decision
2071	Clarify that Default Transfer Syntax can be rejected by an Association Acceptor	Moved to June 2021 Voting Packet.
2099	Clarify JPIP and Resource Category in DICOM Web Services Context	Moved to June 2021 Voting Packet.
2100	Clarify SMPTE Transfer Syntaxes for DICOM Web Services	Moved to June 2021 Voting Packet.
2101	Clarify multiple frames used as tiles in planar ROI	Moved to June 2021 Voting Packet.
2102	Add Whole Slide Microscopy Image Flavor of THUMBNAIL and retire LOCALIZER	Moved to June 2021 Voting Packet.
2103	Add Lymphoid Tissue Segmentation Type	Moved to June 2021 Voting Packet.
2104	Estimated Fetal Weight Discordance	Moved to June 2021 Voting Packet.
2105	ROI measurements for UL Shearwave	Moved to June 2021 Voting Packet as amended.
2106	Cleanup Delivery Rate Unit Description	Moved to June 2021 Voting Packet.
2107	Add repeated acquisition to TID 10003, 10013	Moved to June 2021 Voting Packet as amended.

2108	Add software grid terminology to CID 10017	Moved to June 2021 Voting Packet.
2109	Fix issues in Figure A-20 "Performed Imaging Agent Administration SR IOD Template Structure"	Moved to June 2021 Voting Packet.
2110	Clarify value multiplicity of TID 11003 ("Imaging Agent Administration Activity") throughout several instances of TID 11008 ("Imaging Agent Administration Phase")	Moved to June 2021 Voting Packet.
2111	Replacement codes for Yttrium microspheres and 99Tc ECD	Moved to June 2021 Voting Packet.
2112	Update procedure codes for prostate MRI	Moved to June 2021 Voting Packet.
2113	Update Specific Character Set defined term descriptions and references	Moved to June 2021 Voting Packet.
2128	Refactoring and extending left ventricular segment	Factored out of CP-1950. Moved to June 2021 Voting Packet.

c. New CPs

Submitted file name	Title	New CP #
cp_CSBL1_02	Add Spinal Anatomy Codes	CP-2114
cp_dac579	Per-segment multiple algorithms and creators	CP-2115
cp_dac580	More dates, times, datetimes and selector attributes need de-identification	CP-2116
cp_dac581	Add ICD-O-3 and ICD-10-CM as Coding Schemes	CP-2117
cp_deWit	Fix wrong sentence in introduction of part 14, chapter 7	CP-2118
cp_hb	PS3.7: Correct Annotation in (sub-)item negotiation figures	CP-2119
cp_hs	Add reference to LOINC-RSNA Radiology Playbook	Tabled for this cycle. Harry Solomon and David Clunie to discuss offline (more generic title and content and what to do about the SNOMED code).
cp_jm12	Clarifications to de-identification	CP-2120
cp_kod_AddGadolinium	Add codes for more gadolinium contrast agents	CP-2121
cp_kod_QIDOUserAgent	Fix QIDO-RS user agent Query Parameter Requirement	CP-2122
cp_KS	Correct incoherence about "Clean Structured Content" and "Clean descriptors option"	Merged with CP-2120
cp_sw_newEEGLeads	New EEG Leads	CP-2124
cp_sw_newEEGLeadMeanings	Two meanings for some EEG lead codes	CP-2125
cp_RT163	Extend Source Pixel Plane Characteristics	CP-2126

cp_RT168	Clarify Origin of Device-Based FoR	CP-2127
cp_RT169	UV Mapping Module Corrections	CP-2128
cp_RT170	Extend RT Segment Characteristics	CP-2129
cp_RT171	Referencing from UV Mapping Module	CP-2130
cp_RT172	Adjust changed text of CP-2058	CP-2131
cp_RT173	Correct Patient Position Order table name	CP-2132
cp_wc33	Add CAD-RADS scores as coded values	CP-2133
cp_ut	Harmonize description and clarify usage of "Referenced Imaging Agent Identifier" within TID 11022 and TID 11023	CP-2134
cp_dac582	Add Acquisition Entity and UID to Information Model	CP-2125
cp_dac583	Templates used as root sometimes	CP-2126
cp_dac584	PS3.18 Metadata is Dataset only and does not include Group 0002 File Meta Information	CP-2127

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 Schröder led the group through an overview review of Supplement 209 (version 0.2 of the document) in preparation for Public Comment. The group was able to review about half of the document, and will take WG-06 feedback to WG-31.
- ii. WG-31 requested two, 2-hour slots at the June WG-06 meeting.

b. Supplement 213: 2G-RT Enhanced RT Image and Acquisition Instruction (WG-07)

- i. Ulrich Busch, Jim Percy and Christof Schadt led the group in a review of Supplement 213 (version 15 of the document) in preparation for Public Comment.
- ii. WG-06 moved to approve Supplement 213 for Public Comment.
- iii. **DECISION:** Supplement 213 was approved as amended for Public Comment.

c. Supplement 214: Cone Beam CT in Radiation Dose SR (WG-28)

- i. Nick Bevins led the group through a review of Supplement 214 (version XX of the document) in preparation for Final Text. Comments received during the Letter Ballot period were reviewed.
- ii. All remaining open issues were addressed so WG-06 moved to approve Supplement 214 for Final Text.
- iii. **DECISION:** Supplement 214 was approved as amended for Final Text.

- d. **Supplement 220: Prostate MRI Structured Reporting (WG-08)**
 - i. Andrey Fedorov led the group through a review of Supplement 220 in preparation for Final Text. Comments received during the Letter Ballot period were discussed, but the group was not able to review comments that were sent on the last day of the Letter Ballot.
 - ii. Next steps: Björn and Shayna will reserve one, two-hour slot for Sup220 in June.

- a. **Supplement 222: Microscopy Bulk Simple Annotations Storage SOP Class (WG-26)**
 - i. David Clunie led the group through a review of version 14 of Supplement 222 and its accompanying slides. All Public Comments received were reviewed.
 - ii. All remaining open issues were addressed so WG-06 moved to approve Supplement 222 for Letter Ballot.
 - iii. **DECISION:** Supplement 222 was approved as amended for Letter Ballot.

- b. **Supplement 223: Inventory IOD and Related Services (WG-33)**
 - i. Harry Solomon led the group through a review of Supplement 223 (starting with version 22 at the beginning of the week and ending with version 23 on Friday) in preparation for Public Comment.
 - ii. Sup223 was first presented to WG-06 at the January meeting, and WG-33 held five, 1.5-hour teleconferences to address the feedback from WG-06. Harry reported that most were minor change with the exception of one major change to IOD: inventories included by reference.
 - iii. All remaining open issues were addressed so WG-06 moved to approve Supplement 223 for Public Comment. *Steve Nichols abstained.*
 - iv. **DECISION:** Supplement 223 was approved as amended for Public Comment.

5. Reports from stakeholders

- a. **Update from WG-20 and HL7 Imaging Integration (Whitby/Lindop)**
 - i. WG-20/HL7 holds [teleconferences](#) roughly every two weeks (11am ET every other Tuesday). Their next meeting will take place in late May 2021.
 - ii. Discussed current work including:
 - 1. Co-sponsoring 1392-FHIRcast: development in progress includes sharing results between applications and looking at alignment with FHIR subscriptions.
 - 2. FHIR ImagingStudy resource: currently at maturity level 3. Continuing to organize a FHIR Connectathon for testing. FHIR ImagingSelection resource: initial draft in progress. Working Group 06 members expressed interest in joining the calls when these items are discussed. Johnathan will alert WG-06 when FHIR ImagingStudy and FHIR ImagingSelection are on the agenda.
 - 3. Profiling imaging order workflow with the goal of a potential IG and/or IHE profile. WG-20 raised the encounter modelling gap with Orders and

Observations (OO) at their late January meeting and OO reported that they don't handle encounters. Johnathan plans to bring this item to their Patient Administration WG which does cover encounters.

4. Mapping between SR content and FHIR with the potential outcome of a FHIR addition to Part 20. The next step is to draft an Implementation Guide (IG). **Action:** Shayna to ask WG-21 to review technical content of HL7 re: imaging procedure radiation exposure project.
- iii. Rob asked about Johnathan if he can get "sex and gender for clinical use" and PIT8 on their agendas for future work. Jonathan will take these items back to WG-20/HL7.
- iv. For more information, visit: <http://www.hl7.org/Special/committees/imagemgt/>

6. Deadlines for action items from this meeting

- a. Items ready for **Public Comment** must be submitted to Shayna by **April 19, 2021** in order to have 45 days for the comment period before the next WG-06 meeting in June 2021.
- b. Items ready for **Letter Ballot** must be submitted to Shayna by **April 12, 2021** in order to meet the 49 days requirement (plus 1 week buffer for legal review) before the next WG-06 meeting in March 2021.

7. Upcoming WG-06 Meetings

- a. **2021 meetings –**
 - i. June 21-25, 2021
 1. The agenda plan is now posted in the June 2021 meeting folder.
 2. **Action:** Shayna to send out calendar appointment for June meeting
 - ii. August 30-September 3, 2021
 - iii. November 8-12, 2021
- 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

8. Old/New Business

- a. Public Comment and Letter Ballot Timing
 - i. The group discussed the increasing need for shorter Letter Ballots deadlines, which is currently 49 days. Most WG-06 meetings average 9 weeks in between, but the November to January gap is the trickiest at 8 weeks, plus challenges with the holidays. Shayna demonstrated that if we would like to provide Supplement authors with one week after meetings to incorporate WG-06

feedback, as well as give them a week after the ballot closes and before the preceding WG-06 meeting, there is not currently enough time with a 49 day period, plus a week for legal buffer.

- ii. **Action:** Shayna will draft an “ideal timeline” for an average 9-week cycle.

9. Adjournment

- a. The March WG-06 virtual meeting was adjourned at 2:04PM US EDT on Friday, March 26, 2021.

Prepared and submitted by Shayna Knazik, April 6, 2021

Reviewed by Counsel Peter Tolsdorf, April 12, 2021