

**MINUTES**  
**DICOM WG-06 Base Standard**  
**January 11-15, 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	X
Canon Medical Systems USA	Kevin O'Donnell	Voting	X	X	X	X	X
Carl Zeiss Meditec AG	Régis Deshayes	Voting		X		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
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
Others Present (Alternate Voting Members, Observers, Guests)							
Company/ Organization	Represented by		Mon	Tue	Wed	Thu	Fri
AAPM	Nick Bevins	Obs.	X		X		X
AAPM	Donald Peck	Obs.	X		X		X
Agfa	Bill Wallace	Obs.	X		X		
American College of Cardiology	Bruce Bray	Obs.	X				
Argentix	Elliot Silver	Obs.	X	X	X	X	X
Brainlab	Christof Schadt	Obs.	X	X		X	X
CSImed	Uwe Tronnier	Obs.	X			X	X
DICOM Usergroup Austria	Silvia Winkler	Obs.	X	X		X	X
Elekta	Jim Percy	Obs.	X	X		X	
GE Healthcare	Francisco Sureda	Obs.			X		X
Grafmedia	Pantelis Georgiadis	Obs.		X			X
Harvard University	Andrey Fedorov	Obs.		X		X	
Healthcare Tech Solutions	Keith Eklund	Obs.		X			
Laitek	Fred Behlen	Obs.		X			X
Laitek	Harry Solomon	Obs.	X	X	X		X

Individual	Ulrich Busch	Obs.	X	X	X	X	X
Mayo Clinic	Kenneth Persons	Obs.	X	X			
MITA/NEMA	Carolyn Hull	Alt. Voting					X
Nihon Kohden Corporation	Andrew Ehrenberg	Obs.	X				
SIIM	Matthew Bishop	Obs.		X	X		
SIIM	Cheryl Carey	Obs.		X	X		X
SuperSonic Imagine	Damien Lerat	Obs.	X		X	X	X
Vital Images/Canon	Jonathan Whitby	Obs.					X

**1. Administrative**

- a. The meeting was called to order. A quorum was present.
- b. DICOM Antitrust and Patent policies were reviewed.
- c. The agenda was reviewed and approved.
- d. The minutes from the November 2020 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 211	15	0	0	3
Supplement 212	14	0	1	2
CPack-109	15	0	2	5

**a. Supplement 211**

- i. The official Letter Ballot was distributed to voting members of the DICOM Standard Committee (DSC) on November 24, 2020 and closed on January 12, 2021. The Sup211 Letter Ballot was **approved**.

**b. Supplement 212**

- i. The official Letter Ballot was distributed to voting members of the DICOM Standard Committee (DSC) on November 24, 2020 and closed on January 12, 2021. The Sup212 Letter Ballot was **approved**.

**c. CPack-109 (November Voting Package)**

- i. The official ballot was distributed to voting members of the DICOM Standard Committee on November 25, 2020 and closed on January 13, 2021. CPack-109

includes the following CPs:

CP #	Title	Decision
1916	The grammar for the "quality" Query Parameter is wrong	Approved for Final Text
1917	Clarify Character Set handling	Approved for Final Text
1975	Active image region overlay	Approved for Final Text
2006	Originating Pixel Representation of Contours	Approved for Final Text
2014	Correct condition in TID 11020 row 11	Approved for Final Text
2023	Clarify missing numeric measurement value in SR	Approved for Final Text
2043	Update code for Procedure DateTime	Approved for Final Text
2044	Clarify spatial extent and inclusion of slices in Volumetric ROIs in SR	Approved for Final Text
2045	Use Content Item with Modifier Macro in Acquisition Context	Objections withdrawn. Approved for Final Text
2046	Extend CID 7601 Head and Neck Cancer Anatomic Sites	Approved for Final Text
2047	Add Couinaud Liver Segments	Approved for Final Text
2048	Harmonize Accession Number descriptions	Approved for Final Text
2049	Add Biliary Tract Code	Approved for Final Text
2050	More Deidentification Data Elements	Approved for Final Text
2051	Add more prostate anatomic concepts	Approved for Final Text
2053	Mammography CAD SR Value Types	Approved for Final Text
2054	Add role to 'shall also support'	Approved for Final Text
2055	Improve the description of service class specification	Approved for Final Text
2056	Replace deprecated LOINC codes, correcting typos, new fetal codes.	Approved for Final Text
2057	Device Alternate Identifier has wrong conditions	Approved for Final Text
2058	Enhance specification of Base Beam Coordinate System	Approved for Final Text
2061	Factor out Spacing Between Slices into Image Plane Module	Approved for Final Text
2063	Add code for geometric centerline	Approved for Final Text
2065	Update Part 10 definitions	Approved for Final Text
2066	Part 18 lacks DICOM Communication Model	Approved for Final Text

- ii. **DECISION:** A motion was made to approve CPack-109 for Final Text as amended (25 FTs). **APPROVED.**

## 1. Report on Correction Proposals

### a. Voting Packet: CPack-110

- i. **DECISION:** A motion was made to approve CPack-110 for Letter Ballot as amended (14 LBs). **APPROVED.**

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

**b. Assigned CPs/Voting Pack Candidates**

Note: Please upload the VP version (candidates for the March 2021 Voting Package/CPack-111) in the [March 2021 VP mtg folder](#).

CP #	Title	Decision
1614 and 2040	DICOMweb Resources and Media Types	The group cancelled CP-1614 and merged it with CP-2040. Moved CP-2040 to the March Voting Packet.
1636	Examples of Specific Character Set in Worklist	Remains assigned. <b>Action:</b> Kevin will consult with Antje/WG-31 and Chinese and Japanese colleagues.
1918	Clarify normative behavior for Compressed Bulkdata	Remains assigned
1950	Add measurement codes for Cardiac Strain	Remains assigned. <b>Action:</b> Kevin will make changes as recommended by the group.
2020	Correct Directory Content Example	Moved to March 2021 Voting Packet
2064	Code to reference a contributing processing algorithm	Remains assigned
2069	DICOM Communication Model needs to be extended with RTC	Moved to March 2021 Voting Packet
2077	Description of De-identification attributes inconsistent	Moved to March 2021 Voting Packet as amended
2079	Allow a Brachy Applicator to reference an ROI	Moved to March 2021 Voting Packet
2080	RT Accessory Device Clarifications	Moved to March 2021 Voting Packet
2081	Clarify Instance Coercion DateTime	Moved to March 2021 Voting Packet

2083	Add uncompressed encapsulated Transfer Syntax for encoding very large pixel data sets	Moved to March 2021 Voting Packet
2084	Allow CONTAINER HAS OBS CONTEXT children of CONTAINERS	Moved to March 2021 Voting Packet
2085	Revise description of Attribute Modality in Scheduled Procedure Step Module	Moved to March 2021 Voting Packet
2086	Relax requirement for Slice Thickness for Whole Slide Microscopy LABEL images	Remains assigned
2087	Institution Name may be present otherwise in Person Identification Macro	Moved to March 2021 Voting Packet
2088	More modification and interpretation related Attributes require de-identification	Moved to March 2021 Voting Packet
2089	Correct definitions of image quality concepts	Moved to March 2021 Voting Packet
2091	Correct Medication Concept Name definitions (DateTime is not an Identifier)	Moved to March 2021 Voting Packet
2092	Update MAC Algorithms	Moved to March 2021 Voting Packet as amended
2093	Move CT Protocol Reference to Image Level	Moved to March 2021 Voting Packet
2094	Add Measurement Report Image Library Description	Moved to March 2021 Voting Packet
2096	Equipment Module for Non-Patient Objects	Moved to March 2021 Voting Packet

c. **New CPs**

Submitted file name	Title	New CP #
cp_certified_timestamp	Correct and precise the definition of "Certified Timestamp"	CP-2098
cp_dac571	Clarify JPIP and Resource Category in DICOM Web Services Context	CP-2099
cp_dac572	Clarify SMPTE Transfer Syntaxes for DICOM Web Services	CP-2100
cp_dac573	Clarify multiple frames used as tiles in planar ROI	CP-2101
cp_dac574	Add Whole Slide Microscopy Image Flavor of THUMBNAIL and retire LOCALIZER	CP-2102
cp_dac575	Add Lymphoid Tissue Segmentation Type	CP-2103
cp_kod_FetalWeightDiscordanceValues	Estimated Fetal Weight Discordance	CP-2104
cp_kod_ROIMeasurementsForShearwave	ROI measurements for UL Shearwave	CP-2105
Cp_RT165_02	Cleanup Delivery Rate Unit Description	CP-2106
Cp_RT167_01	Correct Composite IOD Modules Overview	Completed as an editorial change
CP-ModuleTableOverview	Inconsistent optionalities in Composite Information Object Modules Overview - Waveforms	Completed as an editorial change

cp-add_repeat_reason_Irradiation	Add repeated acquisition to TID 10003, 10013	CP-2107 (merged with cp_conditional_repeat)
cp-add_software_grid	Add software grid terminology to CID 10017	CP-2108
cp-conditional_repeat_reason_CT	Add repeated acquisition to TID 10003, 10013	CP-2107 (merged with cp_repeat_reason)
cp_part16_Figure_A20	Fix issues in Figure A-20 “Performed Imaging Agent Administration SR IOD Template Structure”	CP-2109
cp_part16_Clarify_Value_Multiplication	Clarify value multiplicity of TID 11003 (“Imaging Agent Administration Activity”) throughout several instances of TID 11008 (“Imaging Agent Administration Phase”)	CP-2110
CP-CIMCIS-Bryan-Fan	Add [Proposed Study Sequence] to [Basic Film Session SOP Class] and add [Original Image Sequence] to [Basic Grayscale Image Box SOP Class]	<b>Action:</b> Rob Horn assigned to review the proposal, discuss with CIMCIS, and determine whether this should be handled as a CP or as a Supplement. It is not immediately clear which format suits the changes better. Then assigned as initial WG-06 editor for whichever format is best fit.
cp_dac576	Replacement codes for Yttrium microspheres and 99Tc ECD	CP-2111
cp_dac577	Update procedure codes for prostate MRI	CP-2112
cp_dac578	Update Specific Character Set defined term descriptions and references	CP-2113

## 2. 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 211: DICOMweb Retrieve via ZIP (WG-27)

- i. The group discussed the “Draft Letter Ballot—Edited” version of Supplement 211 and decided to send the document back to WG-27 for rework before Final Text due to overlap with CP-2040.
- ii. Bill Wallace requested one, two-hour slot at the March WG-06 meeting.

### b. Supplement 212: XA Protocol Storage (WG-02)

- i. Francisco Sureda led the group through a review of Supplement 212 (version LB+1). The Supplement received a thorough review at the November WG-06 meeting so there were very few remaining comments. All open issues were closed and WG-06 moved to approve Supplement 212 for Final Text.
  - ii. **DECISION:** Supplement 212 was approved as amended for Final Text.
- c. **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 13 of the document) in preparation for Public Comment.
  - ii. WG-07 requested two, 2-hour slots at the March WG-06 meeting.
- d. **Supplement 214: Cone Beam CT in Radiation Dose SR (WG-28)**
  - i. Nick Bevins and Donald Peck led the group through a review of Supplement 214 (version 48 of the document) in preparation for Letter Ballot. WG-28 noted that they paid special attention to the attenuator and filter sections based on comments received at the November WG-06 meeting.
  - ii. Nick was able to add Part 15, table E.3.4-1 content in between sessions so WG-06 moved to approve Supplement 214 for Letter Ballot.
  - iii. **DECISION:** Supplement 214 was approved as amended for Letter Ballot.
- e. **Supplement 220: MR Prostate Imaging SR (WG-08)**
  - i. Andrey Fedorov led the group through a review of Supplement 220. All remaining open items were addressed so WG-06 moved to approve Supplement 220 for Letter Ballot.
  - ii. **DECISION:** Supplement 220 was approved as amended for Letter Ballot.
- a. **Supplement 222: Whole Slide Microscopy Bulk Annotations (WG-26)**
  - i. David Clunie led the group through a line-by-line review of version 10 of Supplement 222 and its accompanying slides. All open issues were addressed so WG-06 moved to approve Supplement 222 for Public Comment.
  - iii. **DECISION:** Supplement 222 was approved amended for Public Comment.
- b. **Supplement 223: Archive Migration (WG-33)**
  - i. Harry Solomon led the group through a review of Supplement 223 in preparation for Public Comment.
  - ii. Harry will bring WG-06 comments back to WG-33 for further discussion and requested three, 2-hour slots at the March WG-06 meeting.

### 3. Reports from stakeholders

- a. **Update from WG-20 and HL7 Imaging Integration (Whitby/Lindop)**
  - i. WG-20/HL7 holds [teleconferences](#) roughly every two weeks. Their next meeting will take place in March 2021. They will also hold a joint meeting with WG-10 at the end of the month; January 25-29, 2021.

- ii. Discussed current work including:
  - 1. Co-sponsoring 1392-FHIRcast: still working through publication process
  - 2. FHIR ImagingStudy resource: continuing to organize a FHIR Connectathon.
  - 3. Profiling imaging order workflow with the goal of a potential IG and/or IHE profile. **Action:** WG-20 plan to raise the encounter modelling gap with Orders and Observations (OO) at their late January meeting.
  - 4. Mapping between SR content and FHIR with the potential outcome of a FHIR addition to Part 20: WG-20 spoke with WG-02 and WG-28 on some dose specifications and will continue to follow-up with OO. **Action:** WG-02 to continue to review technical content of HL7 re: imaging procedure radiation exposure project.
- iii. For more information, visit: <http://www.hl7.org/Special/committees/imagemgt/>

#### 4. Deadlines for action items from this meeting

- a. Items ready for **Public Comment** must be submitted to Shayna by **January 29, 2021** in order to have 45 days for the comment period before the next WG-06 meeting in March 2021.
- b. Items ready for **Letter Ballot** must be submitted to Shayna by **January 21, 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.

#### 5. Upcoming WG-06 Meetings

- a. **2021 meetings –**
  - i. March 22-26, 2021 –
    - 1. The agenda plan is posted in the March 2021 meeting folder.
    - 2. **Action:** Shayna to send out calendar appointment for March meeting
  - ii. June 21-25, 2021
  - iii. August 30-September 3, 2021
  - iv. November 8-12, 2021
- b. **2022 meetings –** dates for 2022 meetings were identified. **Action:** Shayna to reserve these dates on both the DICOM and HIT calendars.
  - 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

#### 6. Old/New Business

- a. Shayna asked the group how they would like to proceed with the distribution of Public Comments and Letter Ballots. There were many issues on the last Public Comment and Letter Ballot with the Higher Logic Software. The group agreed to revert back to the old process of the WG-06 Secretariat circulating PC's and LB's via email alone. PC's will still be accessible on the DICOM website. Shayna asked about that page of the website because there is an empty

column of the “past public comments supplements” table called “resolutions.” Kevin explained that was a goal for the future but hasn’t become procedure yet (to also post author’s responses to comments on the website).

- i. **Action:** Shayna to update the LB and PC email text and procedures in the Secretariat Handbook/ “Cookbook” to reflect this new process of email distribution.
- b. Elliot Silver noted that Releases of the DICOM Standard after 2019a were not on the FTP site. David and Kevin explained that before the Releases were on the DICOM website, they were posted on the FTP but that is no longer happening now that they are on the website.
  - i. **Action:** Shayna to make a folder on the FTP named “2019-and-later-is-on-http-server”

## 7. Adjournment

- a. The January WG-06 virtual meeting was called to order at 9:00AM US ET on Monday, January 11, 2021.
- b. The January WG-06 virtual meeting was adjourned at 1:00PM US ET on Friday, January 15, 2021.

Prepared and submitted by Shayna Knazik  
Reviewed by Counsel 3/17/21