

MINUTES

DICOM WG-06 Base Standard

June 19-23, 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-121 was approved for Final Text (9 CPs), with the exception of CP-2267
- CPack-122 was approved for Letter Ballot with 8 Change Proposals (CPs)
- Supplement 226: Confocal Microscopy was approved for Letter Ballot
- Supplement 228: DICOMweb API for Server Volumetric Rendering was approved for Public Comment
- Supplement 234: DICOMweb Storage Commitment was approved for Public Comment
- Supplement 235: HTJ2K Transfer Syntax was approved for Letter Ballot
- Supplement 237: General 32-bit ECG was approved for Final Text
- A new Supplement on Waveform Annotations SR was presented for First Read and was assigned the number 239
- A new Supplement on Heightmap Segmentation IOD and SOP Class was presented for First Read and assigned the number 240
- A new Supplement on Structural Heart SR Template was presented for First Read and assigned the number 241

1. Administrative

- a. With a quorum present, the WG-06 Hybrid Face2Face & Remote Meeting was called to order at 8:35AM US EDT on Monday, June 19, 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 March 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-121 | May 17, 2023 | 16 | 0 | 2 | 5 |
| Supplement 237 | June 16, 2023 | 11 | 0 | 4 | 1 |

a. CPack-121

- The official ballot was distributed to voting members of the DICOM Standard Committee on April 12, 2023 and closed on May 17, 2023. CPack-121 included the following Change Proposals (10 CPs):

| 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 Inventory Production Rules |
| CP-2267 | Correct inconsistencies in Mammography Image Type tables – Kevin O’Donnell will wordsmith |
| CP-2268 | Update Quantitative Diagnostic Imaging Procedure codes |
| CP-2271 | Add First Gen References to Treatment Preparation IOD |
| CP-2272 | Cleanup ROI Module |

- CP-2267 requires further wordsmithing and will return to WG-06 at the August meeting.
- *David Clunie made a motion to approve CPack-121 for Final Text as amended with the exception of CP-2267. Wim Corbijn seconded the motion. The motion was approved without objection or abstention.*

- **DECISION:** CPack-121 was approved for Final Text as amended (9 CPs), with the exception of CP-2267.

3. Report on Change Proposals

a. Approved for Final Text post-Letter Ballot: CP-2222

- *David Clunie made a motion to approve CP-2222 for Final Text as amended. Wim Corbijn seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CP-2222 was approved for Final Text as amended.

b. New CPs

| Submitted file name | Title | New CP # |
|----------------------|--|----------|
| cp_dac620 | Clarify applicability of RLE and JPEG 2000 Transfer Syntax to single bit images such as binary segmentations | CP-2301 |
| cp_dac621 | Clarify absence of padding between frames applies to single BitsStored multi-frame images encoded in Native format | CP-2302 |
| cp_dac622 | Clarify Frame Pixel Data Retrieve Response for single BitsStored multi-frame images encoded in Native format | CP-2303 |
| cp_group | Use the Group Number term correctly | CP-2304 |
| cp_jr36b | Clarify Matching of Key Attributes with a VR of IS or DS | CP-2305 |
| cp_jr37 | Fix inconsistencies regarding "Status"-related terms | CP-2306 |
| cp_kod_more | Rationalize and extent codes and strings for filter material | CP-2307 |
| cp_rjh53 | Clarify Creator Digital Signature Profile | CP-2308 |
| cp_RT233 | Add channel obstruction to Treatment Termination reasons | CP-2309 |
| cp_RT234 | Wording improvement for C.8.8.5.4 and use of Study in RTSS references | CP-2310 |
| cp_xxxx-Opt | Make Camellia support optional | CP-2311 |
| cp_yyyy-BCP | Address late-breaking change to BCP-195 | CP-2312 |
| cp_sjn | Correct Reference in Row 34e of TID 10003 | CP-2313 |
| cp_xxx Clarify Units | Clarify units of Vector Grid Data | CP-2314 |
| CPxxx_ClarifySingle | Clarify Single Conformance Statement in PS3.2 | CP-2315 |

| | | |
|-----------------------|--|---------|
| CPxxx_Reference | Include reference to DICOM Conformance Statement (DCS) into Annex N PS3.2 | CP-2316 |
| cp_UUU | Duplicate RP definition in RDSR | CP-2317 |
| cp_VVV | Cassette-Based X-Ray Total DAP | CP-2318 |
| cp_wg28fs | TID 10007 clarify conditions | CP-2319 |
| cp_kod_synthetic | Communication that data is synthetic | CP-2320 |
| cp_kod_intraoperative | Add a code for Intraoperative Transducer to CID 12035 | CP-2321 |
| CPxxx Vendor-specific | Record Vendor-specific | CP-2322 |
| New on-the-fly CP | Clarify matching behavior in query when specific character set value unsupported | CP-2323 |

c. **CPack-122 Letter Ballot**

| CP # | Title |
|---------|--|
| CP-2095 | Add "Measurements" to various Echo CIDs |
| CP-2217 | Add CID for Radiation Dose Imaging Procedures |
| CP-2270 | Support of Empty and Multiple Value Matching Query in DICOMWeb |
| CP-2274 | Correct the description of the storage commitment failure reasons |
| CP-2276 | Update Interlock Codes for Ions |
| CP-2277 | Remove Scan Spot Size from RT Ion Record |
| CP-2278 | Support measurement of multiple amniotic sacs |
| CP-2279 | Update text for Dimension Organization in Enhanced US Image Module usage |

- *David Clunie made a motion to approve CPack-122 for Letter Ballot. Kevin O'Donnell seconded the motion. The motion was approved without objection or abstention.*
- **DECISION:** CPack-122 was approved for Letter Ballot (8 CPs).

d. **Assigned CPs**

The following CPs were reviewed and decisions reached as shown.

Note: Please upload the VP version (candidates for the CPack-123/August 2023 Voting Package) in the [August 2023 meeting folder](#).

| CP # | Title | Decision |
|---------|--|-------------------------|
| CP-1636 | <i>Examples of Specific Character Set in Worklist</i> | <i>Remains assigned</i> |
| CP-2220 | <i>Differentiate geometric types of CT imaging sources</i> | <i>Remains assigned</i> |

| | | |
|---------|--|-------------------------------|
| CP-2280 | Relax requirement to provide default Transfer Syntax if uncompressed encapsulated Transfer Syntax image is too large | Moved to August Voting Packet |
| CP-2281 | Remove references to retired IODs and other retired concepts | Moved to August Voting Packet |
| CP-2282 | Add Note on handling C-FIND-CANCEL request in Query/Retrieve Service Class | Moved to August Voting Packet |
| CP-2283 | Clarify use of Concept Name Code Sequence in Encapsulated Documents | Moved to August Voting Packet |
| CP-2284 | Remove remaining references to retired Curves and suffix retired sections | Moved to August Voting Packet |
| CP-2285 | Harmonize description of Directory Records and clarify their applicability | Moved to August Voting Packet |
| CP-2286 | Post-Coordinated Echo Property Code Fix | Moved to August Voting Packet |
| CP-2288 | Table timing description for Enhanced RDSR | Moved to August Voting Packet |
| CP-2289 | Update to TID 10048 Description | Moved to August Voting Packet |
| CP-2290 | PositionMeasuringDeviceUsed Enumeration | Moved to August Voting Packet |
| CP-2293 | Resolve Duplicate names for TIDs and a CID | Moved to August Voting Packet |
| CP-2296 | Extend RT Structure Set Definitions | Moved to August Voting Packet |
| CP-2297 | Strengthen Dose Semantics of Dose References | Moved to August Voting Packet |
| CP-2298 | Synchronize 1st Generation BLD definitions | Moved to August Voting Packet |
| CP-2299 | Beam Hold Transition Trigger Source | Moved to August Voting Packet |
| CP-2300 | Extend 1st Gen to 2nd Gen Tolerance Value Mapping | Moved to August 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. Supplement NNN: Waveform Annotations SR (WG-32)

- Silvia Wikler led the group through a First Read of Supplement NNN on Waveform Annotations SR, pursuant to DICOM Work Item 2022-04-B. The document and its accompanying PowerPoint were reviewed.
 - *Björn Nolte moved to assign this Supplement a number and Wim Corbijn seconded the motion to approve.*
 - **DECISION:** The new Supplement on Waveform Annotations SR was presented for First Read and was assigned the number 239.
- b. Supplement NNN: Heightmap Segmentation IOD and SOP Class (WG-09)**
- Harry Solomon presented a new Supplement on Heightmap Segmentation IOD and SOP Class for a First Read pursuant to Work Item 2023-03-A.
 - *Kevin O'Donnell moved to assign this Supplement a number and Wim Corbijn seconded the motion to approve.*
 - **DECISION:** The new Supplement on Heightmap Segmentation IOD and SOP Class was presented for First Read and assigned the number 240.
- c. Supplement NNN: Structural Heart SR Template (WG-01/WG-12)**
- Steve Nichols presented a new Supplement on Structural Heart SR Template for a First Read pursuant to Work Item 2022-04-19-C.
 - *Wim Corbijn moved to assign this Supplement a number and Björn Nolte seconded the motion to approve.*
 - **DECISION:** The new Supplement on Structural Heart SR Template was presented for First Read and assigned the number 241.
- d. 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 August.
- e. Supplement 226: Confocal Microscopy (WG-19)**
- Liam Caffery presented Supplement 226: Confocal Microscopy in preparation for Letter Ballot. The draft Supplement and its accompanying PowerPoint were reviewed.
 - **Action to the group for the August meeting:** please review digital signature and directory records.

- *Wim Corbijn moved to approve for Sup226 for Letter Ballot as amended and the motion was seconded by Rob Horn. The motion was approved without objection or abstention.*
 - **DECISION:** Supplement 226: Confocal Microscopy was approved for Letter Ballot as amended.
- f. **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.
 - *Wim Corbijn moved to approve for Sup228 for Public Comment as amended and the motion was seconded by Kevin O'Donnell. The motion was approved without objection or abstention.*
 - **DECISION:** Supplement 228: DICOMweb API for Server Volumetric Rendering was approved for Public Comment as amended.
- g. **Supplement 229: Photoacoustic Imaging IOD (WG-33)**
- Allison Bertrand, Brian Bialecki, and Bryan Clingman presented Supplement 229: Photoacoustic Imaging IOD in preparation for Final Text. The group picked up where they left off on the line-by-line review of the entire Supplement.
 - *David Clunie moved to approve for Sup229 for Final Text as amended and Kevin O'Donnell seconded. The motion was approved without objection or abstention.*
 - **DECISION:** Supplement 229: Photoacoustic Imaging IOD was approved for Final Text as amended.
- h. **Supplement 233: Patient Model Gender Enhancements**
- Rob Horn presented Supplement 233: Patient Model Gender Enhancements in preparation for Public Comment. An accompanying PowerPoint was also reviewed. Sup233 will return to WG-06 in August, and requested two, 2-hour slots.
 - The current draft is available here: <https://github.com/rjhorniii/dicom-sup233-wip>
- i. **Supplement 234: DICOMweb Storage Commitment Service (WG-27)**

- Jeroen Medema and Dieter Krotz led the group through a review of Supplement 234 on DICOMweb Storage Commitment and its accompanying PowerPoint presentation, in preparation for Public Comment. Changes since presentation in March were reviewed.
- *Wim Corbijn moved to approve for Sup234 for Public Comment as amended and the motion was seconded by Kevin O'Donnell. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 234: DICOMweb Storage Commitment was approved for Public Comment as amended.

j. **Supplement 235: HTJ2K Transfer Syntax (WG-04)**

- Bill Wallace and Chris Hafey led the group through review of Supplement 235: HTJ2K Transfer Syntax, along with its accompanying PowerPoint, in preparation for Letter Ballot. The group reviewed all Public Comments received.
- *Kevin O'Donnell moved to approve for Sup235 for Letter Ballot as amended and the motion was seconded by Björn Nolte. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 235: HTJ2K Transfer Syntax was approved for Letter Ballot as amended.

k. **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.
- This Supplement will return to WG-06 in August 2023.

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

- Silvia Winkler presented the draft Supplement 237: General 32-bit ECG and its accompanying PowerPoint in preparation for Final Text. All Letter Ballot comments were discussed and remaining open items were closed.
- *Kevin O'Donnell moved to approve for Sup237 for Final Text as amended and Wim Corbijn seconded. The motion was approved without objection or abstention.*
- **DECISION:** Supplement 237: General 32-bit ECG was approved for Final Text as amended.

5. WG-20/HL7 II Report

- a. Jonathan Whitby joined the call to provide an update about WG-20/HL7 II activities. He announced that Chris Lindop (GE) has stepped down as WG-20/HL7 II Co-Chair and Brian Bialecki (ACR) has been appointed as the Interim Chair. For details on this report, Jonathan's PowerPoint can be accessed in this meeting's folder on the FTP. Their next face-to-face meeting is September 2023.
- b. The DICOM SR to FHIR Resource Mapping IG was reviewed:
<https://build.fhir.org/ig/HL7/fhir-radiation-dose-summary-ig/>
- c. Argonaut Imaging Access for SMART Apps is kicking off next week. Here is a link to a summary PowerPoint on that project:
https://docs.google.com/presentation/d/1KvG45WlUeh0HLAv0R26lwIPkSWU3hC7inb4kNrhVU1M/edit#slide=id.g10701192306_0_77
- d. Jonathan requested 2 hours in August, plus an extra slot if there are any available (for SR to FHIR Mapping).

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 **July 10, 2023**.
 - Submit **Letter Ballot** drafts to Shayna by **July 3, 2023**.

7. WG-06 Meeting Schedule

- a. Next meeting:
 - August 28-September 1, 2023
- b. **2023 meetings:**
 - January 16-20, 2023
 - March 20-24, 2023
 - June 19-23, 2023 (note: June 19th will be remote, the rest of the week will be at Arlington)
 - August 28-September 1, 2023
 - November 6-10, 2023
 - **Action:** Björn and Shayna will continue to investigate possible European locations.
- c. **2024 meetings:**
 - 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

- The June 2023 WG-06 meeting was adjourned at 11:18am US EDT on Friday, June 23, 2023.

10. Meeting Participants

| Voting Members Present | | | | | | | |
|------------------------------|-----------------|----------------|-----|-----|-----|-----|-----|
| Company/ Organization | 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 | Detlev Hohmeier | Voting | X | | 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 |

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|---|-----------------------|--------|------------|------------|------------|------------|------------|
| 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 |
| AAPM/University of Arkansas for Medical Sciences | Lawrence Tarbox | Voting | X | X | X | X | X |
| ACR | Brian Bialecki | Voting | | | X | | |
| Agfa | Paul Seifert | Voting | | | | | X |
| Carl Zeiss Meditec | Detlev Hohmeier | Voting | | X | | X | X |
| CIMICS | Bryan Fan | Voting | X | X | X | X | X |
| PixelMed Publishing | David Clunie | Voting | | | | | X |
| Observers and Alternate Voting Members Present | | | | | | | |
| Company/ Organization | Represented by | | Mon | Tue | Wed | Thu | Fri |
| Amazon Web Services | Chris Hafey | Obs. | | | X | | |
| American Academy of Ophthalmology | Harry Solomon | Obs. | | | X | | |
| Canon Medical Systems USA | Jonathan Whitby | Obs. | | X | | | |
| CSImed | Uwe Tronnier | Obs. | X | X | X | | |
| DICOM Usergroup Austria | Silvia Winkler | Obs. | X | X | | | X |
| Elekta | Jim Percy | Obs. | X | | X | | |
| ICT Group | Toine van Wijk | Obs. | X | | | | |

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|---------------------------|------------------|------|---|---|---|---|--|
| MITA | Carolyn Hull | Obs. | | X | | | |
| Philips | Jeroen Medema | Obs. | 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. | | | | | |
| Siemens Healthineers | Ingo Wilkening | Obs. | X | X | | | |
| University College London | Ben Cox | Obs. | | | | X | |
| University of Queensland | Liam Caffery | Obs. | X | | X | | |

Prepared and submitted by Shayna Knazik
Approved by Patrick Hope, 9/12/23