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MINUTES

WORKING GROUP TWENTY-ONE (Computed Tomography)

Version 1

Date & Time: Wednesday, November 23, 2022
12:00-1:30pm US Eastern Time

Presiding Officers: Till Hoenig, Co-Chair, Vendor
Shuai Leng, Co-Chair, User
wg21chairs@dicomstandard.org

Secretary: Shayna Knazik, DICOM/MITA

Voting Members Present:	**Represented by:**
AAPM/Mayo Clinic	Shuai Leng
AAPM	Kai Yang
Canon	Kevin O'Donnell
DICOM/MITA	Shayna Knazik
Johns Hopkins University	M. Mahesh
Philips	Shlomo Gotman
Siemens Healthineers	Till Hoenig

Voting Members Not Present:	**Represented by:**
*ACR	Paul Armstrong Hill
GE Healthcare	Steve Nichols
*PixelMed Publishing	David Clunie
*United Imaging Healthcare	Adam Chandler

*Not present at two consecutive meetings and therefore not counted for quorum during this tcon

Observers Present:	**Represented by:**
Samsung NeuroLogica	Ibrahim Bechwati
Sun Nuclear/Leo Cancer Care	Mike Courtney

1. **Opening**
   1.1. The meeting was called to order and a quorum was present. A new member was introduced, Mike Courtney, representing Sun Nuclear and Leo Cancer Care.

1.2. Reviewed DICOM antitrust and patent guidelines.
1.3. Agenda was reviewed and approved.
1.4. The minutes from 19 October 2022 were reviewed and approved.

2. WG-21 Correction Proposals (CPs) Status

CP#	Submission Date	Submitter	Affects DICOM Parts	Assignee	Status	Description
1749		O'Donnell		O'Donnell	Assigned	Clarify usage of Content Time
1915	2019-02-16	Hoenig	Part 3	Nolte	Suspended	Adapt definition of FocalSpot (0018,1190) to comply with IEC60336 section 8.3
<New>		Hoenig	Parts 3/16		New	Publicly document and specify vendor specific CT Image Quality Reference Parameter as a SQ
2189	2021-10-26	Nichols	Parts 3 and 17	Nichols	CPack-118	Add Multi-Energy Image type attribute to the Enhanced CT Image Storage SOP Class
2208	2022-01-06	Nichols	Part 16	Nichols	CPack-118	Include additional cardiovascular terms to Part 16
2209	2022-01-20	Hoenig	Part 3	Nolte	CPack-118	Correct Table C.11.1.1.2.1-1 Recommended Rescale Type Assignments for Multi-energy CT Image
2232	2022-03-21	Hoenig	Part 16	Nolte	CPack-118	Correct/add Body Part Examined Defined Terms in correspondence Table L-1
2233	2022-03-21	Hoenig	Part 16	Nolte	CPack-118	Switch to SNOMED Code for PHANTOM

3. CP-2209, Correct Table C.11.1.1.2.1-1 Recommended Rescale Type Assignments for Multi-energy CT Image, was sent back to WG-21 by WG-06

3.1. WG-06 reviewed CPack-118 Letter Ballot and received some comments on CP-2209 (Correct Table C.11.1.1.2.1-1 Recommended Rescale Type Assignments for Multi-energy CT Image). Instead of approving it for Final Text, it was sent back to WG-21 asking for clarification regarding different intercept/slope for 16 bits for HU.

3.2. Action: Till will make a few edits to the CP to consider adding a second row for VMI or modify the note to be clear about 12-bit versus 16-bit, as well as adding a paragraph to the rationale describing beyond -1,000 and very large numbers. Then he will send it to Kevin to check over before it goes back to WG-06 at their January meeting.

4. Follow-up from last teleconference regarding of Multi-energy Material Unit: CP initiated by Kari Jyrkkälä (Varian)

4.1. This is on hold until the Standard stabilizes. Then, it will be good to run by WG-28.

5. **Content Time and Acquisition Time clarification – Kevin O'Donnell/Shlomo Gotman**
   5.1. The group continued to clarify the definitions of Content Time (0008,0033) and Acquisition Time (0008,0032) which are currently ambiguous. An updated CP-1749 (edited by K. O'Donnell) is on the FTP. The group reviewed the current situation and Kevin will make the appropriate updates prior to the next WG-21 call.

6. **Additional public attribute for CT images, addressing the context "(User selectable) parameter that determines the tube current time product relevant for the image quality"**
   6.1. Still waiting for feedback from Canon and Philips, then Till and Shuai plan to hold a separate teleconference to discuss the next steps.

7. **Dose Management: Patient Protocol (Black Image) vs. RDSR**
   7.1. The group continued discussion of Kevin's draft Dose Display CP for IHE Rad which describes the "Summary Display Option" and the "EMR Extract Option".

8. **WG-06 requested WG-21 to review technical content of HL7 imaging procedure radiation exposure project**
   https://confluence.hl7.org/display/IMIN/Radiation+Dose+Summary+for+Diagnostic+Procedures+on+FHIR
   8.1. This will be incorporated based on what is finalized for item 6 (Dose Management: Patient Protocol (Black Image) vs. RDSR).

9. **Old/New Business**
   9.1. The group will discuss if it is possible to hold an in-person meeting for 2023.
   9.2. 4D imaging representation in classic IODs from WG-07 Radiotherapy – this remains dormant until WG-07 lets us know when it is ready to be discussed again.

10. **Upcoming meetings:**
    →WG-21 usually meets the 3rd Wednesday of each month at 12:00pm US Eastern. The next call would take place on December 21, 2022, from 12-1pm US EST.

11. **Adjournment:** the call was adjourned at 1:36pm US EST.

Prepared and submitted by Shayna Knazik
Legal Bezalel Stern 1-23-23