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

MINUTES

WORKING GROUP TWENTY-ONE (Computed Tomography)

Version 2

Date & Time: Wednesday, March 16, 2022
12:00-1:30pm US EST

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	Kai Yang
AAPM/Mayo Clinic	Shuai Leng
Canon	Kevin O'Donnell
DICOM/MITA	Shayna Knazik
Johns Hopkins University	Mahadevappa Mahesh
Philips	Shlomo Gotman
Siemens Healthineers	Till Hoenig

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

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

Others (Observers & Alt. Voting) Present:	**Represented by:**
Agiliad	Amol Patil, Observer
GE Healthcare	Steve Nichols, Observer

1. **Opening**
   → The teleconference was called to order and a quorum was present.
   → DICOM antitrust and patent guidelines were reviewed.
   → The agenda was reviewed and approved.

→ The minutes from February 23, 2022 were reviewed and approved by the group.

2. WG-21 Correction Proposals (CPs) Status

CP#	Submission Date	Submitter	Affects DICOM Parts	Assignee	Status	Description	Coded status
1915	2019-02-16	Hoenig	Part 3	Nolte	Suspended	Adapt definition of FocalSpot (0018,1190) to comply with IEC60336 section 8.3	n/a
2097		Hoenig	Part 3	Nolte		New ImageType(s) for Multi-energy CT Acquisition: ENERGY_VRPROP_WT (formerly treated in CP2010)	Terminate
1196	2011-11-30	D. Clunie	Part 3	D. Clunie	Letter Ballot	Add phantom-specific Total DLP Values to allow for Head and Body in same RDSR scope of accumulation	CPack-115
2189	2021-10-26	S. Nichols	Part 3		Assigned	Add Multi-Energy Image type attribute to the Enhanced CT Image Storage SOP Class	
<New>		Hoenig	Parts 3/16		New	Publicly document and specify vendor specific CT Image Quality Reference Parameter as a SQ	
<New>		Hoenig	Part 3	Nolte	New / submitted to WG-06	Correct Table C.11.1.1.2.1-1 Recommended Rescale Type Assignments for Multi-energy CT Image	
<New>		Hoenig	Part 16	Nolte	New	Switch to SNOMED Code for PHANTOM	

3. Additional public attribute for CT images, addressing the context "(User selectable) parameter that determines the tube current time product relevant for the image quality"

→We received vendor-specific parameters from United Imaging and we anticipate feedback from Canon. Vendors are kindly asked to provide information about already existing (private) tags for the listed parameters in the Comment column additionally. The User members agreed take a look/tidy up the spreadsheet once the vendors are done adding their parameters.

→Action Item: Kevin will add Canon specifics.

→Action Item: Shuai to coordinate the parameter consolidation

4. New CP to be initially discussed: "Correct/add Body Part Examined defined terms in correspondence table L-1"

→Content was aligned with D. Clunie (as suggested in last meeting). David brought in an additional aspect to switch to SCT code for Phantom. This will be handled in a separate CP, see item 5.

→ Action Item: Till will forward the CP to WG-06 (via B. Nolte) as there were no further comments by the group.

5. **New CP "Switch to SNOMED Code for PHANTOM"**
   →New CP was presented by Till and accepted by the group.
   →Action Item: Till will forward the CP to WG6 (via B. Nolte).

6. **Create a context group for calcium scoring – CP-2208 from Steve Nichols**
   →This was presented to WG-01 this week and it includes CT so Steve wanted to run it by this group. He is bringing this to WG-06 next week. The group reviewed and provided feedback.

7. **Image Type for MultiEnergy Enhanced CT images – CP-2189 from Steve Nichols**
   → This is another assigned CP. Steve circulated a questionnaire and the group reviewed the feedback. Action Item: Steve is going to reach out to United Imaging for their input.

SURVEY SUMMARY

	Siemens	GE	C
Data Acquisition			
ORIGINAL	Objective Image Family Material Quantification Family Material Visualization Family (Material Modified Image)	Objective Image Family Material Quantification Family Material Visualization Family (Material Modified Image)	
Image type grouping(s)	VMI/MAT_REMOVED/MAT_SPECIFIC VMI/ELECTRON_DENSITY/EFF_ATOMIC_NUM	VMI/MAT_SPECIFIC/MAT_REMOVED	
Retrospective Reconstruction			
ORIGINAL	same as Data Acquisition	same as Data Acquisition	
Image type grouping(s)	same as Data Acquisition	same as Data Acquisition	
DERIVED	Material Quantification Family Material Visualization Family	Material Visualization Family (Color)	
Image type grouping(s)	VMI/ Material Visualization Familiy (customer specific)		
Post Acquisition			
Networked to workstation, server or PACS	all	all	
Required for viewing	all	all	

8. **Supplement 182: Curved MPR (Steve Nichols)**
   →Steve is the editor of Supplement 228, *DICOMweb API for Server Volumetric Rendering*. There is a linkage between this Supplement and volumetric presentation states, one of which, curved MPR was never released (Supplement 182). Steve is checking with various workgroups to see if there is interest in picking up development of this Supplement, or if it should be cancelled. The group felt no clear need to continue Sup182. Sup228 will be discussed at WG-06 in June and Steve will continue to update WG-21 as things progress.

9. **Dose Management: Patient Protocol (Black Image) vs. RDSR**
   →Kevin was not able to work on this since the last meeting so he will report back on our next call.

10. **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

→This is related to item 9 so it will be moved to the next call. It was noted that AAPM participation is important on this due to the AAPM/ACR joint statement. Mahesh offered to take the lead on behalf of AAPM.

11. Old Business

→New CP by Siemens CT: "Extend Table E.3.10-1. Safe Private Attributes" – on standby while Siemens consolidates.

→Dose metrics display in fluoroscopy – on standby

12. Upcoming meetings:

→WG-21 usually meets the 3rd Wednesday of each month from 12-1pm US Eastern. The next call is scheduled to take place on **April 20, 2022 from 12:00-1:30pm US Eastern.**

13. Adjournment

→The call was adjourned at 1:13pm US Eastern Time.

Prepared and submitted by Shayna Knazik

Approved by Counsel 5/3/22