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| Description: Description: O:\LOGOS\DICOM\DICOM LOGO - MEDIUM.tif | **1300 North 17th Street, Suite 900 Arlington, VA 22209, USA**  **+1-703- 841-3281**  <https://www.dicomstandard.org/>  E-mail: [**dicom@medicalimaging.org**](mailto:dicom@medicalimaging.org) |

# ***MINUTES***

## **JOINT DICOM MEETING**

## **WORKING GROUP TWO (WG-02)**(Projection Radiography and Angiography)

## **WORKING GROUP TWENTY EIGHT (WG-28)**(Physics)

Version 1

**Logistics**: **June 4 to 6, 2018;** 09:00 to 17:00 (**Tconf** details hereafter)

**Czech Technical University**

Břehová 78/7, Praha 1-Staré Město

Prague, Czech Republic

**Presiding Officers:** Francisco Sureda, Chair WG-02

Annalisa Trianni, Co-ChairWG-28

Donald Peck, Co-ChairWG-28

**Secretary:** Alberto Torresin (EFOMP)

Shayna Knazik (AAPM)

**Voting Members Present Represented by**

AAPM Donald Peck

EFOMP, ESR Annalisa Trianni

GE Healthcare Francisco Sureda

AAPM Nick Bevins

PACS Health Steve Massey

Siemens Healthcare GmbH Heinz Blendinger

### Preliminary Events

* Members identified themselves and their employers.
* Members reviewed and approved the agenda.
* Members reviewed and approved the minutes from the previous WG-02/WG-28 meeting on Feb 19-21, 2018 inMiami, FL (USA):
  + <http://dicom.nema.org/Dicom/minutes/WG-02/2018/>
  + <http://dicom.nema.org/Dicom/minutes/WG-28/2018/>

### CP Review

* Members reviewed the advances of the CP’s discussed during the last meeting, and reviewed new CP’s related to the scope of WG-02 and WG-28.

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| Number | Name | Submitted | Assigned | Coded Status | Comments/Actions for WG-02 and WG-28 |
| **CP 1319** | Frame Of Reference Reliability | Francisco Sureda, et al. | Ulrich Busch | Assigned | Members reviewed and discussed this CP. **Action (Francisco Sureda): reach out to Ulrich to confirm the status of this CP.** |
| **CP 1716** | Add Protocol MWL Entry | O'Donnell | O'Donnell | Final Text | Members discussed the final text of this CP and confirmed that Kevin added “defined protocol sequence” in the description. Members were satisfied with the requested changes and have no further comments. |
| **CP 1718** | Encoding protocol dependence on device options | O'Donnell | O'Donnell | Assigned | Members reviewed and will continue to follow up. |
| **CP 1742** | Performed protocol code sequence | Clunie | Clunie | Final Text | Members reviewed the final text and have no further comments. |
| **CP 1768** | Correct PS3.17 Figure FFF.2.3-1: “Example of Usage of Photometric Interpretation” | Sureda | Clunie | Letter Ballot | Members discussed this CP and will continue to follow up. |
| **CP 1800** | Field of View Origin clarification needed | Wim Corbijn | Wim Corbijn | Assigned | (New to WG-06 in March.) Members reviewed proposed changes and discussed the email exchange between Francisco and Wim.Francisco Sureda sent Wim the group’s feedback:   1. Edit to Figure C.8-15 2. Edit to Figure C.8.19.6.4-1 3. Add examples with original image transformation and derived image transformation. |
| **CP 1807** | Corrections of Performed Storage Module | Sureda | O'Donnell | Assigned | (New to WG-06 in March.)Members reviewed the corrections of the Performed Storage Module and will continue to follow up. |

### Review Current Work Items and Supplements

* WG-28 members finished the review of WG-21 Supplement 188 on Multi-energy (ME) CT scanners and had no further comments to share with WG-21. No updates have been made to Supplement 210 since the last meeting.

### XA Protocol Storage (new supplement)

* Members reviewed the draft of the future supplement for **XA Protocol Storage** and will continue working on it to ensure consistency with the Sup121.
* The work in progress includes: (a) definition of the use cases related to the X-Ray Angiographic procedures, (b) description of the set of parameters and associated details of the angio protocols, (c) mapping between IT related items (Modality Worklist), Imaging settings and Protocol Storage.
* A new DICOM Work Item was submitted to the DSC in April for this supplement.The DSC members present provided positive feedback. However, it was not approved during that DSC meeting as some updates were requested before being resubmitted.
  + See DSC minutes at <http://dicom.nema.org/Dicom/minutes/Committee/2018/>
  + **Action (Francisco Sureda): email Kevin to get this work item on the WG-06 agenda.**
* The final definitions of the content from Section 3.8 of the DICOM Information Object was fixed. Specifically, the Reconstruction Protocol Elements will contain the post-processing protocol elements. The discussion was related to PS3.17 DICOM document "Explanatory Information.” Several examples were discussed to verify the consistency of the supplement.
* The document supXXX\_XA\_Protocol\_Storage\_Draft12 was adapted after the discussion. The draft 12 was discussed and was posted to the ftp folder.
* Once the XA Protocol Storage supplement is completed, members will discuss at a future meeting whether protocol storage options for other modalities should be investigated.

### RDSR Informative Annex (new supplement)

* Members reviewed the work-in-progress of the supplement to replace the Annex AA of Part 17. This supplement includes guidelines to encode the RDSR object on the different equipment configurations (Angio, Mammography, surgical mobile, CR/DR). It will cover various clinical scenarios (e.g. repeat/reject analysis) and data flows. Members will continue developing this new supplement at their next meeting.

### Radiation Dose Structured Reporting for Cone Beam CT (new supplement)

* Members reviewed the work-in-progress of the new supplement pursuant to DICOM Work Item 2015-12-D (Cone Beam CT-RDSR). This new supplement considers an Extended RDSR with the possibility to include CBCT and other modalities as well as further information that the equipment could provide.
* Nick Bevins presented a PowerPoint on the draft supplement at the WG-06 meeting in March with the goal of explaining the motivation of this new supplement and the necessity of the new integration connected with the P-RDSR document where all the dosimetric info should be integrated. When some concern was expressed about buy-in from other users and vendors, a conference call was organized for WG-07 (Radiotherapy), WG-21 (CT), WG-22 (Dentistry) and DICOM WG-02 and WG-28.
  + The conference call was held on May 14 to discuss further steps on a proposal on Cone Beam CT to the RDSR. Feedback from the other Working Groups was discussed and addressed during this meeting.
  + Feedback included that the supplement seemed complicated and some members of the other Working Groups questioned the necessity of it—particularly given the fact that this is an important effort whuch the IEC undertaking by pushing skin dose maps on vendors.Skin dose evaluation is important for real time evaluation in XR procedures; the description of the SK can be stored inside the PRDSR.
* Members discussed in detail the definition of a time window in relation to how vendors define and use it, and particularly how granular vendor reporting should be.
  + Time windows is one important step to define the new supplement on RDSR to increase the quality of the application of the standard. The implementation of the new RDSR standard must be harmonized from the user and manufacture prospective, with a careful definition of the time window.
  + The quality of information must be correlated with the criteria able to define the time window definition, but the quality must be defined. The IEC/FDA (the regulatory agencies) will drive the quality of the data concerning the time or position frame of windowing. Quality discussion and definition is mandatory where the accuracy of sampling data must be defined.
  + The real position for the different time window definition is needed, where the middle position can be approached between the two different time windows with specific accuracy. The start, middle, and end of the irradiation event must be stored and the appropriate accuracy.
  + The group needs to keep in mind that is not possible to substitute regulatory policies (from the IEC, for example) during the definition of the DICOM standard.
* The documents CBCT\_RDSR\_v8.pptx and WG-28\_supXXX\_draft\_Ext-RDSR\_Rev06.doc were reviewed with a point-by-point discussion. The DICOM structure TID eRDSRTxx was discussed in particular and approved.
* The final documents are stored into the DICOM website. Note: the group \*\*left off at Table T05B\*\*
* A new draft of the working document WG-28\_supXXX\_draft\_Ext-RDSR\_Rev07.doc x is now in meeting folder along with an updated version of the powerpoint Extended\_RDSR\_2v1.pptx.

### Follow –Up Topics

* IHE MAP Profile: Members will follow up the development of the new IHE Profile for Management of Acquisition Protocols (MAP) during their next meeting in Helsinki.
* IHE REM Profile: Members will follow up the current CP’s related to the IHE Profile for Radiation Exposure Monitoring (REM), and provide comments when appropriate during their next meeting in Helsinki. <ftp://ftp.ihe.net/Radiology/TF_Maintenance/>
* Review MRI Supplement 210 for Paradigm Protocol Storage: Members continue to monitor the progress of this supplement and have no new updates at this time.

### Reports from liaisons with other groups and organizations

* Annalisa Trianni and Heinz Blendinger had no new updates to report on the MITA X-Ray Interventional activities and on the IEC Interventional activities related to radiation dose reporting.

### New Work Items

* Members had no new work items to discuss at this time regarding possible new activities, including joint activities with other WG’s.

### Planned Meeting Dates in 2018

Members continue to define the calendar for 2018 and 2019 meetings:

* **September 2018** joint WG-02/28 meeting in Helsinki, Finland. Confirmed availability from September 19-21, 2018.
* **April 2019** joint WG-02/28 meeting in New York City, USA. Confirming availability for April 1-3, 2019.
* **June 2019** joint WG-02/28 meeting tentatively set for Sicily, Italy. Confirming availability for the first week in June.
* **October 2019** joint WG-02/28 meeting tentatively set for Paris, France.
* **2020 possible meeting locations:** Barcelona, Spain; San Francisco, USA; London, England

### New Business

* There was no new business to discuss.

### Adjourn

* The Joint DICOM Meeting of WG-02 and WG-28 was adjourned at 5:00pm on June 6, 2018.

Reviewed by counsel: CRS, July 2, 2018.