

MINUTES

MEETING NAME WG-32

MEETING PLACE/DIAL IN Via Zoom

DATE & TIME Thursday 21 July 2022
10:00– 11:00 US ET

PRESIDING OFFICERS Jonathan J. Halford, Medical University of South Carolina, User Co-Chair
 Andrew Ehrenberg, Nihon Kohden Corporation, Vendor Co-Chair

IFCN SECRETARIAT Catherine Lamoureux

DICOM SECRETARIAT Carolyn Hull

Present	First Name	Last Name	Organization	Voting Status
	Emmanuel	Cordonnier	b<>com	Voting
	Kevin	O'Donnell	Canon Medical Research USA, Inc.	Voting
	Felix	Rosenow M.D.	DGKN (German Society of Clinical Neurophysiology and Functional Imaging)	Voting
	Jan	Remi	Ludwig-Maximilians-University of Munich	Voting
Present	Ben	Brinkmann	Mayo Clinic	Voting
Present	Jonathan	Halford	Medical University of South Carolina	Voting
Present	Carolyn	Hull	MITA	Voting
Present	Andrew	Ehrenberg	Nihon Kohden Corporation	Voting
	Alan	Huang	Philips	Voting
	Wim	Corbijn van Willenswaard	Philips	Alt. Voting
	Jeroen	Medema	Philips	Alt. Voting
	David	Clunie	PixelMed Publishing	Voting
Present	Silvia	Winkler	Sigma Software Solutions	Voting
	Catherine	Lamoureux	Association Innovation and Management, Inc (AIM)	Observer
	Carol	Freysinger	Association Innovation and Management, Inc (AIM)	Observer
	Ana	Alves	CortexXus Inc.	Observer
	David	Alves	CortexXus Inc.	Observer
	Babak	Razavi	CortexXus Inc.	Observer

Present	Matt	Stead	Dark Horse Neuro, Inc.	Observer
	Andrea	Bigazzi	EB Neuro	Observer
	Gritsch	Gerhard	AIT Austrian Institute of Technology GmbH	Observer
	Mateo	Pratesi	EB Neuro	Observer
	Ignacio Ramírez	Paulino	Facultad de Ingeniería - Universidad de la República	Observer
	Sandor	Benizcky	Filadelfia	Observer
	Gardar	Thorvardsson	Kvikna / Stratus EEG	Observer
	Richard	Moberg	Moberg Research, Inc.	Observer
	Desire	Jean		Observer
Present	Jean	Gotman	Montreal Neurological Institute, McGill University	Observer
Present	Casey	Stengel	Neuralynx	Observer
	Bill	Antilla	Nihon Kohden Corporation	Observer
	Ryuzo	Mase	Nihon Kohden Corporation	Observer
Present	Koichiro	Matsumoto	Nihon Kohden Corporation	Observer
	Pedro Fernando	Arizpe Gomez	OFFIS e. V.	Observer
	Daniel	Crepeau	Dark Horse Neuro	Observer
	Andrey	Pirozhenko	Persyst	Observer
Present	Shane	Ponzikoff	Persyst	Observer
	Wouter	Potters	Amsterdam UMC, Netherlands	Observer
Present	Stefan	Rampp	University Klinikum Erlangen	Observer
	Dagmar	Krefting	University Medical Center Göttingen	Observer
	Marco	Rossi	University of Milan, Italy	Observer
	Gloria	Menegaz	University of Verona, Italy	Observer
	Matan	Oppenheim	Zebra Medical Vision	Observer

1 CALL TO ORDER AND REVIEW OF ANTI-TRUST RULES AND DICOM PATENT POLICY

The meeting was called to order at 10:05 AM. Participants were reminded that the [Guidelines for Conducting NEMA Meetings](#) and Patent Disclosure Policy are in effect and they may be found here: <https://www.dicomstandard.org/patent>.

2 WELCOME/ATTENDANCE/INTRODUCTION

Attendance was taken.

3 REVIEW AND APPROVE AGENDA

The agenda was reviewed and approved.

4 REVIEW MINUTES

The minutes of the 16 June 2022 meeting were reviewed and approved.

5 OLD BUSINESS

- Change Proposal (CP) 2162 (for changes to the Waveform Module for filtering during acquisition and AC/DC amp specification): DICOM WG-06 b and c reviews of the documents, during which all WG-06 members are requested to review the proposal took place on June 20th. Two companies responded, they made corrections to adjust the wording in the CP. Changes were made to waveform and high frequency characteristics. Document is now in final text and will be incorporated and released in the next version of the DICOM standard.
- Discussion of Waveform Structured Display Objects.

Silvia Winkler reported that she is working on creating a draft of this Supplement. She reported that the first read of the document will be on September 21st when WG-06 will meet in-person in Italy. A finalized version is not required for this meeting, but a rough draft of what is to be done is recommended, and it should be clear what is the intention of the document and what is to be standardized. This will be the first feedback that WG-32 will receive from WG-06 in regard to this project.

It was discussed that a smaller discussion group is needed to define the Waveform Structured Display Object. This project will focus on encoding the recording the filter for viewing waveform data, the montage for viewing waveform data, and annotation entry that will occur in the acquisition context (controlled or viewed by the neurophysiology technologist) during the study recording . A table could be created that allows the ability to store time-coded information about annotations, filter settings and montages used by the recording device and recording neurophysiology technologist. A subcommittee should be made within WG-32 to focus on this. Volunteers were requested in the meeting to serve in this subcommittee and Silvia Winkler, Stefan Rampp, Jon Halford, and Andrew Ehrenberg volunteered to work on creating an initial draft of a document for this project, to be reviewed later by all WG-32 members.

It was discussed that there would also need to be a draft of an **additional Display Object** which would provide support to recreate the view the doctor has when making annotations and the neurophysiology study report. There was discussion about DICOM structured reporting as it currently exists for imaging and other medical specialties and how existing structure for this in DICOM could be adapted at some later point for neurophysiology reports. But it was noted that this is not the focus of this supplement

project as it deals with report generation, but it could be a focus for future WG-32 DICOM development.

- **Transfer Syntax/Codec Development:** It was discussed that work needed to begin on a transfers syntax (codec) for compression, blocking, and indexing of neurophysiology waveform data, particularly for LTM and intracranial EEG data. It was discussed that current DICOM encoding for support of encapsulation of JPEG-2K and MPEG could serve as a model for development. It was decided that a WG-32 subcommittee would need for this project. During the meeting, a request for volunteers for this subcommittee was issued. Ben Brinkmann, Matt Stead, Jon Halford, and Andrew Ehrenberg volunteered for this subcommittee. Jon Halford agreed to begin working on an initial draft document for this DICOM Supplement.
- The LTM IOD Plan was screen-shared with the group. This document is saved as an addendum to the minutes.

6 NEW BUSINESS

- 32nd International Congress of Clinical Neurophysiology (ICCN 2022) will be in Geneva, Switzerland from September 4-8. DICOM WG-32 has been invited to present a symposium on Tuesday September 6 from 8:00 AM to 9:30 AM. This ICCN2022 conference is being planned as an in-person-only conference. For more details, please see: www.iccn2022.org
- Development of a plan for the transfer syntax (codec) for waveform data in DICOM will begin.
- Upcoming DICOM meeting September 16th in Montreux

7 DATE AND TIME OF NEXT MEETINGS

Thursday 18 August 2022 10:00-11:00am US ET

Tuesday 06 September 2022 12:00-3:00 local time.

DICOM WG-32 FTF meeting at the ICCN2022 conference in Geneva (please see: www.iccn2022.org). This WG-32 FTF meeting will be at the Hilton Geneva (no congress registration required). Lunch will be provided. The DICOM WG-32 symposium at ICCN2022 will be that morning on September 6 from 8:00am to 9:30am local time.

Thursday 18 October 2022 10:00-11:00am US ET

8. Adjourned 11:00AM US ET.

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<u>SUBMITTED BY</u>	Lamoureux, Catherine
<u>SUBMITTED ON</u>	8/17/22
<u>LEGAL APPROVAL</u>	8/18/22
<u>UPLOAD LOCATION</u>	Enter upload location.