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

MINUTES

MEETING NAME WG-32

MEETING PLACE/DIAL IN Via Zoom

DATE & TIME Thursday 20 March 2025
10:00– 11:00 AM Eastern Daylight Time (EDT)

PRESIDING OFFICERS Jonathan J. Halford,
Ralph H. Johnson VA Medical Center (Charleston, SC)
User Co-Chair
Andrew Ehrenberg, Nihon Kohden Corporation,
Vendor Co-Chair

IFCN SECRETARIAT Kim Zaiss

DICOM SECRETARIAT Shayna Knazik

Present	First Name	Last Name	Organization	Voting Status
	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
X	Ben	Brinkmann	Mayo Clinic	Voting
x	Jonathan	Halford	Medical University of South Carolina	Voting
x	Andrew	Ehrenberg	Nihon Kohden Corporation	Voting
	Alan	Huang	Philips	Voting
	Wim	Corbijn van Willenswaard	Philips	Alt. Voting
X	Justin	Dauwels	TU Delft	Voting
	Jeroen	Medema	Philips	Alt. Voting
x	Raymond	Kraskinski	Philips	Observer
	David	Clunie	PixelMed Publishing	Voting
	Silvia	Winkler	Sigma Software Solutions	Voting
	Ana	Alves	CortexXus Inc.	Observer
x	Giuseppe	Campobello	University of Messina	Observer
	David	Alves	CortexXus Inc.	Observer
	Babak	Razavi	CortexXus Inc.	Observer
	Matt	Stead	Dark Horse Neuro, Inc.	Observer
	Gritsch	Gerhard	AIT Austrian Institute of Technology GmbH	Observer
	Ignacio Ramírez	Paulino	Facultad de Ingeniería - Universidad de la República	Observer
	Sandor	Benizcky	Filadelfia	Observer
	Gardar	Thorvardsson	Kvikna / Stratus EEG	Observer

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

	Richard	Moberg	Moberg Research, Inc.	Observer
	Casey	Stengel	Neuralynx	Observer
	Bill	Antilla	Nihon Kohden Corporation	Observer
	Koichiro	Matsumoto	Nihon Kohden Corporation	Observer
	Andrey	Pirozhenko	Persyst	Observer
x	Shane	Ponzikoff	Persyst	Observer
X	Stefan	Rampp	University Klinikum Erlangen	Observer
	Dagmar	Krefting	University Medical Center Göttingen	Observer
	Gloria	Menegaz	University of Verona, Italy	Observer
x	Jonathan	Pfaff	Fraunhofer Heinrich Hertz Institute HHI	Observer
	Gary	Sullivan	ITU-Rapporteur	Observer
x	Kristian	Bernard Nilsen	Oslo University Hospital	Observer
X	NS	Nagarajan	GE Healthcare	Observer
	Bruno	Monnerat		Observer
x	Christof	Fersch	Dolby Germany	Guest
x	Heidi-Maria	Lehtonen	Dolby Germany	Guest

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

The meeting was called to order at 10:00 AM EDT. 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, motion to approve by JH and seconded by BB.

4. REVIEW MINUTES

The minutes of the 20 February 2025 meeting were reviewed, motion to approve by JH and seconded by AE.

5. OLD BUSINESS

- International Telecommunication Union Standardization Sector (ITU-T) Call for Proposals (CfP) for Biomedical Waveform Coding
    - Jonathan Pfaff (JP) reported that the next ITU-T VCEG workgroup meeting was in 10 days and the project was going well. Jon Halford (JH) asked JP to verify that DICOM will provide the compression quality metric value and the block temporal length and the codec will provide back the compressed data and a list of block

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

start times (for indexing). JP stated that this will be the way things work. JP stated that the codec is a mathematical specification but exactly how it works will depend on the application scenario. JP reported that the codec currently takes EDF and WAV as inputs but they would stay aware of which input formats are needed and were open to suggestions for other input formats if needed.

- Kristian Nilson (KN) asked if vendors will implement DICOM (and the ITU-T codec) and if third parties will create software to translate between vendor formats and DICOM. Benjamin Brinkmann (BB) and Andrew Ehrenberg stated whether vendors used DICOM as a primary recording would depend on whether DICOM works well with their particular software architecture. Christof Fersch (CF), also a member of ITU-T VCEG, mentioned that software is designed to be flexible. When creating two things to consider are 1) specifications and 2) software implementation. BB reported that the NIH came out with an RFA for standardization of wearable data and mentioned DICOM. BB stated that he planned on applying for this grant and that his lab had engineers who could handle creating software tools for translating some formats into DICOM and possibly for creating APIs that neurophysiology manufacturers could use implement DICOM input/output functions. Also possibly a small third party software company could be engaged to help with this.
- Ray Krasinski presented some powerpoint slides about potential use cases for DICOM for ECG and stated the Philips would consider using DICOM as a primary recording format as well as possibly providing input/output functions for DICOM. RK presented ECG Use Cases to the working group.
- KN reported that he is part of a research group that wants to collect EEG studies from many hospitals for training AI and DICOM is an important use case for this.
- BB pointed out that DICOM is not only a format for storing data but also a transmission protocol which makes it easy to transmit data between systems within hospitals, and this is an important use case for DICOM.

- Intracranial EEG IOD. Stefan Ramp (SR) presented on behalf of Silvia Winkler who was not present. SR presented about scheme for encoding of intracranial EEG sources based on the work of Stone et al. (Stone S, Madsen JR, Bolton J, Pearl PL, Chavakula V, Day E. A Standardized Electrode Nomenclature for Stereoelectroencephalography Applications. J Clin Neurophysiol. 2021 Nov 1;38(6):509-515. doi: 10.1097/WNP.0000000000000724.) This scheme addresses source naming for stereo EEG (SEEG) only and not macroelectrodes (like strips and grids). It was agreed that we needed to address macroelectrode source encoding as well as well as encoding of coordinate systems.

- Fundraising. JH noted that he is in negotiation with a few companies, however nothing is final at this time.

6. NEW BUSINESS

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

- No new business was presented.

7. DATE AND TIME OF NEXT MEETINGS

Thursday 17 April 2025	10:00- 11:00 am UD ET
Thursday 15 May 2025	10:00- 11:00 am UD ET