

# MINUTES

**MEETING NAME** WG-32

**MEETING PLACE/DIAL IN** Via Zoom

**DATE & TIME** Thursday 16 May 2024  
 10:00– 11:00 AM Eastern Daylight Time (EDT)

**PRESIDING OFFICERS** Jonathan J. Halford, Medical University of South Carolina,  
 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
	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
	Andrew	Ehrenberg	Nihon Kohden Corporation	Voting
	Alan	Huang	Philips	Voting
	Wim	Corbijn van Willenswaard	Philips	Alt. Voting
	Justin	Dauwels	TU Delft	Voting
	Jeroen	Medema	Philips	Alt. Voting
	David	Clunie	PixelMed Publishing	Voting
Present	Silvia	Winkler	Sigma Software Solutions	Voting
	Ana	Alves	CortexXus Inc.	Observer
Present	Guiseppe	Campobello	University of Messina	Observer
	David	Alves	CortexXus Inc.	Observer
	Babak	Razavi	CortexXus Inc.	Observer
	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
	Steve	Nichols	GE Healthcare	Observer
	Gardar	Thorvardsson	Kvikna / Stratus EEG	Observer
	Richard	Moberg	Moberg Research, Inc.	Observer
	Desire	Jean		Observer
	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
	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
Present	Jonathan	Pfaff	Fraunhofer Heinrich Hertz Institute HHI	Observer
	Gary	Sullivan	ITU-Rapporteur	Observer
Present	Kristian	Bernard Nilsen	Oslo University Hospital	Observer
	NS	Nagarajan	GE Healthcare	Observer
	Bruno	Monnerat		Observer

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

The meeting was called to order at 10:02 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, motion to approve by JH and seconded by BB.

#### 4. REVIEW MINUTES

The minutes of the 18 April 2024 meeting were reviewed, motion to approve by JH and seconded by SW.

## 5. OLD BUSINESS

- Silvia Winkler discussed Supplement 239 (SR for Waveform Annotations): Letter Ballot, has been sent out and closes May 20, 2024. She reviewed comments she received and will update the supplement with the new comments.
- Silvia Winkler discussed Supplement 236 (PR for montage and visualization filters): We discussed feedback we had received. SW discussed how WG-06 has specified that there should be two different IODs to encode this PR and data must be encoded EITHER with (1) An IOD representing the recording use case with MANDATORY montages and continuous montage activation timepoints. (2) An IOD with optional montages and montage activation timepoints for the other use cases.
  - Both IODs comprise simple text annotations, highlighted waveform segments, and display properties for annotations coming from the separate Annotation SR.
  - SW reviewed the neurophysiology section of Supplement 236 which will be reviewed again soon by WG-06.
- Codec for Biomedical waveforms
  - It was discussed that WG-32 begin work on a new IOD for LTM EEG and Sleep Monitoring which will incorporate a codec bitstream with blocking and indexing for rapid access during review. This is covered by the existing Sept 2022 waveform compression work item previously approved by WG-06. Jon Halford stated that he will try to begin working on a Microsoft Word document outlining possible approaches for blocking and indexing for this IOD and circulate to WG 32 by the June meeting
  - ITU-T call for proposals. Study group 16 document was released on 4.26.24 The group should have reviewed the call for proposals, which has not been delayed until Nov 2024.
  - Jon Halford asked Jonathan Pfaff about audio codecs, which have a clear licensing structure and are not royalty free. The question was asked if there are any 3rd party vendors that claim ownership. Jonathan Pfaff responded that licensing fees are not paid directly by clinical and research users. Licensing fees may apply for OEMs who want to implement codecs in hardware, such as for wearable devices. He stated that ITU-T makes an effort to make sure that clinical and research users have access to fee tools for encoding/decoding. It was discussed by Jonathan Halford and Jonathan Pfaff discussed how standardization is key to expanding markets even if codecs have some fees for OEMs, since those fees are not large and are usually structured as a per-device-sold charge.

- JH proposed submitting a manuscript to Clinical Neurophysiology on the ITU-T CfP to generate publicity for the project. JH stated he would write the manuscript and send to WG-32 members for review as co-authors. Kim Zaiss stated that IFCN could post an announcement on its website.
  
- Jon Halford proposed a WG-32 subcommittee be formed to work on encoding names of channels for intracranial EEG (iEEG) and magnetoencephography (MEG) data. Andrew Ehrenberg had previously suggested that the name “sensor” be used instead of “channel”. Ben Brinkmann suggested the name “Sensor Name and Location Subcommittee (SNALES)” be used. JH moved to create this new SNALES subcommittee of WG-32 with Stefan Rampp as chair. (SR had previously volunteered to chair this subcommittee in a previous WG-32 meeting). BB seconded the motion. The motion was carried without dissent from any attendees.
  
- WG-32 is planning an in-person meeting. Jon Halford mentioned again that a FTF WG-32 meeting is being planned on 07 December 2024 at the American Epilepsy Society Annual Conference in Los Angeles CA (AES2024). Information on this meeting can be found at: <https://aesnet.org/AES-annual-meeting>

## 6. NEW BUSINESS

- It was discussed that DICOM WG-32 will also plan to meet in person at the International Congress of Clinical Neurophysiology (ICCN) in 2026 in Cartagena, Columbia.

## 7. DATE AND TIME OF NEXT MEETINGS

Thursday 20 June 2024	10:00- 11:00 am US ET
Thursday 18 July 2024	10:00- 11:00 am UD ET