

MINUTES

Joint meeting of DICOM WG 01 Cardiac & Vascular & DICOM WG-12, 12 Ultrasound

Date and Time: Monday 29 April 2019 (moved from 22 April)
 10:00am – 11:30 am US ET

Presiding Officers:

WG-01 User co-chair: Bruce Bray, University of Utah
 WG-01 Vendor co-chair: Antje Schroeder, Siemens-Healthineers
 WG-12 User co-chair: Bruce Bray, University of Utah
 WG-12 Vendor co-chair: Sander Dekker, Cablon Medical

DICOM Secretariat Lisa Spellman, General Secretary, DICOM

WG 1 or 12	Member of both WGs	First Name	Last Name	Organization
WG12		Donald	Peck	AAPM
WG01&12	Present	Bruce	Bray	ACC/University of Utah Health Care
WG12		Terry	Dillon	Agfa HealthCare
WG12		Willy	Rose	Agfa HealthCare
WG01		Paul	Seifert	Agfa HealthCare
WG01&12		Ramona	Shirley	Agfa HealthCare
WG01&12		Paul	Varghese	American College of Cardiology
WG01		Mythreyi Bhargavan	Chatfield	American College of Radiology
WG01		Peter	Tilkemeier	American Society of Nuclear Cardiology (ASNC)
WG12		Emmanuel	Cordonnier	b<>com
WG01		Rami	Barti	Bar-Code Computers Ltd.
WG01		Minoru	Mashimo	Bard Electrophysiology - C.R. Bard
WG01		Mati	Amit	Biosense-Webster (ISRAEL) Ltd.
WG12		Jens	Rasmussen	B-K Medical ApS
WG12		Hugo	Robert	Bracco Diagnostics Inc.
WG12	Present	Kevin	O'Donnell	Canon Medical Research USA, Inc.
WG12		Kazuya	Akaki	Canon Medical Systems USA, Inc.
WG01		Satoshi	Oagawa	Cardiovascular Division, Department of Medicine

WG01		Neil	Weissman	Cardiovascular Research Foundation
WG12		Christy	Adams	Carestream Health, Inc.
WG12		Jay	Na	Carestream Health, Inc.
WG12		Jun	Sun	Carestream Health, Inc.
WG01		Bob	Baumgartner	Change Healthcare
WG12		Elliot	Silver	Change Healthcare
WG12		Edwood	Yiu	Change Healthcare
WG12		James	Rogers	Coastal Consulting Group, Ltd.
WG01		Katsu	Takenaka	Department of Laboratory Medicine
WG01		Kiyoshi	Yoshida	Division of Cardiology
WG01		Mitchell	Krucoff	Duke University Medical Center
WG01		Donald	Van Syckle	DVS Consulting, Inc.
WG12		Masao	Kobayashi	EBM Technologies Japan, Inc.
WG01		Johan	Wallhed	EPIQ Life Science AB
WG12		Marco	Maglione	Esaote
WG12	Present	Stefano	Pedri	Esaote
WG12		Luigi	Pampana-Biancheri	ESAOTE S.p.A.
WG01	Present	Nico	Bruining	European Society of Cardiology
WG01		Robert	Horn	Fairhaven Technologies
WG12		Wojtek	Grabski	Flux Inc.
WG12		John	Freeland	Freeland Systems
WG12		William	Hensen	FUJIFILM Sonosite, Inc.
WG01		Bob	Conway	GE Healthcare
WG12		Karl-Heinz	Fleischer	GE Healthcare
WG01		Brian	Nantz	GE Healthcare
WG01&12	Present	Steven	Nichols	GE Healthcare
WG12		Gopi	Pattaswamy	GE Healthcare
WG01		Francisco	Sureda	GE Healthcare
WG12		Brian	Lenz	GE Healthcare, Ultrasound
WG01		Gary	Tearney	Harvard Medical School
WG12		Bernard	Stumpf	Heartlab
WG01&12		Ravi	Managuli	Hitachi Healthcare Americas
WG01		Yoshikazu	Igeta	Hitachi Medical Corporation
WG12		Dai	Shinohara	Hitachi, Ltd. Healthcare Buisness Unit
WG12		Michel	Claudon	Hôpital d'Enfants - Hôpital Jeanne d'Arc
WG12		Jean-Yves	Meuwly	Hospices Cantonaux Centre hospitalier universitaire vaudois
WG01		Nitesh	Sawner	IGATE
WG01		Bonnie	Weienr	Imaging Core Lab Services
WG12		Karla	Patten	Independent Consultant

WG12		Leodan Vega	Izaguirre	Informatics Science University
WG01		Jörg	Riesmeier	IT Consultant
WG12		William	Shepherd	iVu Imaging Corporation
WG12		Varsha	Garg	Jaypee Institute of Information Technology
WG12		Karan	Grover	Jaypee Institute of Information Technology
WG12		Jaspreet	Singh	Jaypee Institute of Information Technology
WG12		Aditya	Jain	JIIT
WG12		Akshay	Sharma	JIIT
WG01		Jon	Elion	Jon Elion
WG01&12	Present	Harry	Solomon	Laitek
WG01&12		Douglas	Sluis	Laitek Inc.
WG01		Joel	Friedman	LightLab Imaging, Inc.
WG01		Robert	Steinbrecher	LightLab Imaging, Inc.
WG01&12		Monica	Mojica	Mark Twain Medical Center Dignity Health
WG01&12		Arvind	Thiagarajan	Matrixview USA Inc.
WG01		Fred	Kusumoto	Mayo Clinic
WG01		Charles	Thomas	Medical Imaging & Informatics Consultant
WG12		Rebecca	Trunnell Hyman	Merge Healthcare an IBM Company
WG01&12		Luiza	Kowalczyk	MITA
WG01&12	Present	Lisa	Spellman	MITA
WG01		Mariza	Foster	MRI + Radiology Centre
WG01		Brian	Lunt	MyXrayDose Ltd
WG01&12	Present	James	Thomas	Northwestern Memorial Hospital
WG12		Earl	Canfield	Philips
WG12		Haiyuan	Lu	Philips
WG12		Joe	Luszcz	Philips
WG01		Chris	Melo	Philips
WG12		Easwara	Moorthy	Philips
WG01		Ruud	van Silfhout	Philips
WG01&12		Miranda	Jacobson	Philips Volcano
WG01		Folkert	Tijdens	Pie Medical Imaging BV
WG01		Boudewijn	Verstraelen	Pie Medical Imaging BV
WG01&12		David	Clunie	PixelMed Publishing
WG12		Robert	Muratore	Quantum Now LLC
WG01&12		Rex	Kerr	rk-logix, inc
WG12		Angeline	Cosca	Sdmi
WG12		Allison	Bertrand	Seno Medical Instruments, Inc.
WG12		Bryan	Clingman	Seno Medical Instruments, Inc.
WG01		Tat-Jin	Teo	SensorCath Inc.

WG12		Dezheng (Bruce)	Li (Lee)	Shanghai United Imaging Healthcare
WG01		Shigeru	Saito	ShonanKamakura General Hospital
WG01		Heinz	Blendinger	Siemens Healthcare GmbH
WG01&12	Present	Antje	Schroeder	Siemens Healthcare GmbH
WG12		Neerja	Baru	Siemens Healthineers
WG12		Bryan	Brook	Siemens Healthineers
WG12		Jim	Chapman	Siemens Healthineers
WG12		Helene	Houle	Siemens Healthineers
WG12		Jan-Ulco	Kluiwstra	Siemens Healthineers
WG12		George	Ku	Siemens Healthineers
WG12		Ernest	Liu	Siemens Healthineers
WG12		Linda	Perez	Siemens Healthineers
WG12		Merv	Smith-Casem	Siemens Healthineers
WG12		Joel	Chabriais	Société Française de Radiologie
WG01		Byrd	Bryan	St. Jude Medical Inc.
WG01&12		Stephen	Vastagh	Standards Management Company
WG12		Damien	Lerat	SuperSonic Imagine
WG12		Jacques	Souquet	SuperSonic Imagine
WG01		Isao	Mori	Terumo Corporation
WG01&12	Present	Paul	Sovelius	The Advanced Surgical Visualization Consortium
WG12		Jens	Stockhausen	TOMTEC IMAGING SYSTEMS
WG12		Achim	Mayer	TomTec Imaging Systems, GmbH
WG12		Bernhard	Mumm	TomTec Imaging Systems, GmbH
WG12		Michael	Douglas	Toshiba America Medical Systems
WG12		Clare	Anderson	Trillium Technology, Inc.
WG12	Present	Sander	Dekker	UltraiQ
WG12		Bill	ZHANG	Ultrasonix Medical Corp
WG12		Andrew	Pokropek	University College London
WG12	Present	Zheng Feng	Lu	University of Chicago
WG12		Paul	Carson	University of Michigan Health System
WG12		Gregory	Ensing	University of Michigan Medical Center
WG01		John	Hirshfeld	University of Pennsylvania
WG01		Raymond	Bond	University of Ulster
WG12		David	Linker	University of Washington
WG12		Craig	Walker	VidiStar, LLC
WG12		Cristina	Suarez Mejias	Virgen del Rocio University Hospital
WG12		Jonathan	Whitby	Vital Images, Inc.
WG12		Joon Koo	Han	

1. Opening

- 1.1. Open and roll call.
- 1.2. Antitrust and DICOM patent policy review.
- 1.3. Agenda review and approval.
- 1.4. Minutes review: Since we didn't have many WG-01 & WG-12 members on today's call, the **WG-01** minutes from 26 March19 were posted in 29 April19 WG-01 meeting folder for review.
 - **WG-12** minutes from 25 March19 were posted in 29 April19 WG-12 meeting folder for review.
 - Both will be reviewed and approved at 20 May 19 meeting.

2. Status update: Election ballot for new industry and clinical co-chairs for WG-12 (Lisa)

- User: Bruce Bray, MD, FACC, University of Utah Health Sciences Center, elected.
- Vendor: Sander Dekker, Cablon Medical, elected.
- **Status:** The election period closed 8 April 2019. Lisa reported that both Bruce and Sander were elected. Congratulations to both of you and thank you for serving in these leadership roles.

3. MITA Ultrasound issues update (Lisa)

Holly Grosholz, MITA Government Relations, will join our May call to share an update on topics of interest to DICOM. So that members may prepare in advance, one of their projects is to draft a white paper about ultrasound remanufacturing issues which is based on a recent white paper published by MITA/NEMA about general remanufacturing issues related to medical devices.

We are invited to review and give feedback on the draft located in today's meeting folder.

- **Title:** MITA Ultrasound Remanufacturing Policy Paper as of 2019-04-23
- **Link to MITA/NEMA remanufacturing white paper:**
<https://www.nema.org/Standards/Pages/Considerations-for-Remanufacturing-of-Medical-Imaging-Devices.aspx>

4. Status update: Cardiac Strain Structured Reporting status update

4.1 Update review: Dr. Bray

https://docs.google.com/spreadsheets/d/1tYieA74Pa02Bc_PeyJ4c9cE7yNtBCgGxj2TC05uufBk/edit?ts=5c985624#gid=20667013

- This document was not reviewed today.

4.2 Update review: Kevin O'Donnell and Stefano Pedri

<https://docs.google.com/spreadsheets/d/11QJxE0ybHcmb7NDuGjfwfFxS2-0TnHdpK6ypzudZo6s/edit?usp=sharing>

- Kevin reviewed the worksheet. There was a discussion of measurement needs and differences
- See notes on the worksheet for details

Next steps: Kevin and Stefano felt they had enough feedback to continue working on the document

5. AAPM Quality Assurance elements NWIP status update (Sander)

- He has focused mainly on the pixel map which is a comprehensible item that might be the best way to learn how to add new data elements and to learn about working with IHE, AAPM, IEC, MITA, etc. to get the new data element in use by OEMs.

6. ACC/ASE Key Data Elements for Echo and IAC Accreditation Standards spreadsheet (Antje, Bruce)

- WG-1 item. There are opportunities for collaboration across SDO and professional groups including RSNA, ACC, AHA, ESC, and LOINC about standardizing measurements, encouraging this collaboration on the cardiac side should be a focus for this WG. **Note from today (29 April)** Bruce noted today that this has not been published, so can defer to May/June or later discussion

7. Review action items update from February tcon (Sander)

- A. **Do a CP for Transducer:** It was suggested to create a CP as in the next two weeks to submit to the March DICOM WG-06 meeting, get for Transducer TAG.
- **Lead:** Kevin offered to do a first pass to put into a CP template and send to Sander Dekker.
 - **Status update today 29 April:** Kevin has not had time to work on this yet. Will do so.

<Action 1> Kevin will write an initial draft and will submit to the group to have for the May tcon

- B. **AAPM: Action** - Classify the list of attributes into groups from Easy to High Benefit
- **Lead:** Dr. Lu and others from AAPM
 - **Status update today:** No update

- C. **An investigation task for LUT:** This requires a more detailed review:

- **Lead:** Dr. Lu explained how this info is used; define scenarios for creation, use, and variations, as the first pass, then experienced DICOM people can help. **Harry Solomon** offered to help F2F
- **Status update for today:** Dr. Lu is developing a timeline with Harry Solomon

<Action 2> Dr. Lu and Harry aim to have an update for the next tcon.

- D. **Pixel Map analysis** – First we need a physicist describe what they are unable to do today, then group, clarify, review existing tools and do a fit / gap analysis see how current tools able to handle.
- **Lead:** Sander Dekker
 - **Status update:** He wrote a use case and sent to subject matter experts for review. He has received comments and plans to contact MITA to get in touch with OEMs about the subject. Lisa will coordinate with him on this.
 - **Discussion/Question:** How to make this compatible for ultrasound?
 - **Possible option 1:** Incorporate this module into the Ultrasound Object Definition setoff attribute.
 - **Advantage:** Would be only one object to deal with and would be all needed to do these pixel ID tasks and quality measures. The problem with putting into object are the conformance claims, anytime would be optional conformance and might be more difficult to get attention since optional
 - **Possible option 2:** Could be specified as a separate object type
 - **Advantage:** Not have to mess with ultrasound object, the way DICOM has evolved, different types of info stored into different objects instead of trying to cram into one.
 - Model-wise it fits more into the original object, from a pure modeling point of view, for practicality, it might be best in original object, on the other hand, Harry points to the benefits of being outside the object.
 - Would be beneficial to pull in other end users including MITA Ultrasound Section. Since Holly is meeting with us on 20 May (re: item 3), we can update her at that time.

8. Old or New Business

- No other old or new business was presented.

9. Next meetings (Tcons – 4th Monday of each month, joint with WG-01)

Monday, May 20, 2019, 10:00-11:30 US ET

<https://global.gotomeeting.com/join/875013381>

Mon 24 June, 2019: Sander, Cannot, in middle of ASE meeting

Mon 29 July, 2019: 10:00-11:30am US ET

Mon 26 Aug, 2019: 10:00-11:30am US ET

<Action 4> Lisa to send Doodle to WG1 & WG12 chairs

F2F: No F2F meetings scheduled at this time.

10. Adjourn

The call adjourned at 11:35am US ET. Minutes prepared by Lisa Spellman, DICOM General Secretary.

Report reviewed by MITA/NEMA legal counsel. CRS, May 8, 2019.