

MINUTES

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

Date and Time: Monday 17 June 2019
 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
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	Present	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		Stefano	Pedri	Esaote
WG12		Luigi	Pampana-Biancheri	ESAOTE S.p.A.
WG01		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 Business Unit
WG12		Michel	Claudon	Hôpital d'Enfants - Hôpital Jeanne d'Arc
WG12		Jean-Yves	Meuwly	Hospices Cantonaux Centre hospitalier universitaire
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		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
Guest		Holly	Grosholtz	MITA, guest
WG01&12		Luiza	Kowalczyk	MITA
WG01&12		Lisa	Spellman	MITA
WG01		Mariza	Foster	MRI + Radiology Centre
WG01		Brian	Lunt	MyXrayDose Ltd
WG01&12		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	Present	Bryan	Brook	Siemens Healthineers
WG12		Jim	Chapman	Siemens Healthineers
WG12	Present	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	Cablon Medical B.V.
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. The agenda was approved with some minor modifications of order of discussion and a few items were split out. No new topics were added.
- 1.4. Minutes from 20 May 2019 were approved with minor edits.

2. AAPM Quality Assurance elements NWIP status update: (Sander)

A. Real World Value LUT

- **Lead:** Harry Solomon?
- At the 20 May tcon, Harry discussed Consistent Display. Today he reviewed Real World Value Lookup Tables (LUT). This presentation was posted in today's meeting folder prior to the tcon.
- Reviewed with discussion that included how to educate and motivate Vendors. What can we do to ensure best use case and to adopt?
- **Recommendation:** Create a survey asking: *What are you doing and what do you need? How do you support and how do you encode...?*
- For vendors, *what would motivate you to add to your product?*
- For end users, *are these kinds of lookup tables still relevant?* End users might find that machine learning might drive this as a use case and a purchase request for this feature.

<Action item 1> Create a survey asking user perspective on use cases to include:

- i. Ask how current encoding work.
- ii. Translate tech requirements back into originating use cases.

<Action item 2> Discuss with AAPM members during 2019 annual meeting to underline importance from a physics point of view.

- **Lead:** Harry Solomon will create draft survey (thank you, Harry, for accepting the arm twist).

B. Display LUT:

- **Lead:** Dr. Lu and Harry Solomon.
- Not discussed today.

C. **Pixel Map analysis:** Use case – have 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. Ask MITA for feedback and support on the subject.

- **Lead:** Sander Dekker
- **Status update:**
 - Harry gave a presentation, which is in today's meeting folder.
 - Harry drafted a CP to clarify use and add linkages.

<Action 3> Harry will make edits to the CP as requested.

D. CP for Transducer Serial Number:

- **Lead:** Kevin O'Donnell
- **Status update:** Kevin submitted the CP to WG-6 which assigned it number CP1951.
- It appears that most current generation probes transmit the probe type to the ultrasound cart but do not transmit an ID specific to the attached probe. Such changes to hardware/firmware can take significant time to roll out. Committee members are encouraged to help user sites and groups make the case for prioritizing this feature and communicate it to their vendors and/or the MITA Ultrasound section. In the meantime, Kevin will work with WG-6 on a standard way to store the attribute (there are several precedent approaches from which to choose).

E. Other tags on the AAPM proposed attributes list:

- **Lead:** Sander Dekker, Dr. Lu and others from AAPM
- **Status update:** This project is on hold until the Display LUT, PixelMap and Transducer S/N projects have been completed.

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

- This item continues to be on hold. Bruce/Antje will report when there is movement later in 2019.

4. Cardiac Strain Structured Reporting status update

Update review: Kevin O'Donnell and Stefano Pedri

- Bruce Bray gave a brief update.
- Rough draft of Global Longitudinal Strain CP which includes essentials from spreadsheet and additions to Simplified ECHO Template. Goal for ASE was to review spreadsheet with them, capture key concepts, ensure not missing anything major.
- Kevin not planning to attend ASE. Bruce Bray and Jim Thomas plan to attend so should be able to review with EACVI/ASE/Industry Strain Task Force and others.
- Goal is to raise end user community awareness and encourage them to request from the vendors. End users are interested to get Strain standardized across the community.
- **Next steps:**
 - a. Bruce will review at ASE with EACVI/ASE/Industry Strain Task Force this weekend and report at our July tcon.
 - b. Members are asked to please review at the link below. Look at the Measures tab in particular.
https://docs.google.com/spreadsheets/d/16Ndb_dKIVzYDfEwWHWuAqJr-yvcl2sFYLx65XshJERC/edit?usp=sharing

5. MITA Ultrasound tcon report

- Sander and Dr. Lu attended the MITA Ultrasound WG tcon held on 4 June.
- Most people on the call did not fully understand the Pixel Map Use Case, they proposed to make a more visual use case presentation to hopefully make easier to understand and especially easy to understand how it is clinically relevant.

6. **REMINDER: Sup 202 Real-Time Video - DICOM-RTV for Ultrasounds (Emmanuel Cordonnier)**

Review: Members are asked to please review and send comments.

- Clinical: The WG would like feedback from clinicians; surgery might also be a good candidate.
- Vendor: Please show this information to their product groups.
- Please send possible use cases and level of priority for this functionality.
- **Target deadline: 21 June 2019**

7. **Old or New Business**

- Roster: There was a brief discussion about the length of the attendance rosters at the beginning of each DICOM agenda. Was asked if non-attending members could be removed. It was noted that the purpose of the roster is not only to list attendance but to also show all members and observers. It was noted that these are quite long. This new model was implemented at the beginning of 2019 to see if we could get updates from attendees regarding members from their organizations. Secretariat would like to do an outreach to see if can get level of interest to remain and other updates. Lisa indicated will discuss at a future DICOM ExCom meeting.

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

Mon 29 July 2019: 10:00-11:30am US ET (Note back to regular time)

WG1 & WG12, 2019-07-29, 10:00-11:30am US ET

<https://global.gotomeeting.com/join/883590997>

Mon 26 Aug 2019: 10:00-11:30am US ET (Note back to regular time)

WG1 & WG12, 2019-08-26, 10:00-11:30am US ET

<https://global.gotomeeting.com/join/509788677>

F2F: No F2F meetings scheduled at this time.

9. **Adjourn**

Teleconference adjourned at 12:15 US PT. Report prepared by Lisa Spellman, DICOM General Secretary.

Report reviewed by MITA/NEMA legal counsel: Clark Silcox, July 29, 2019.