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Minutes-tcon

WG-07 Motion Management of
DICOM Working Group Seven
(Radiotherapy)
April 10, 2019

Present	First Name	Last Name	Organization	Voting Status
Present	Jim	Beck	Accuray Incorporated	Alt. Voting
Present	Bob	Pekarek	Accuray Incorporated	Voting
Present	Christof	Schadt	Brainlab AG	Voting
	Derek	Lane	Elekta Inc.	Observer
Present	Jim	Percy	Elekta Inc.	Alt. Voting
	Stuart	Swerdloff	Elekta Inc.	Voting
	Yuichi	Hirata	Hokkaido University	Observer
	Frederic	Dessy	IBA	Voting
Present	Harold	Beunk	ICT	Observer
Present	Ulrich	Busch	N/A	Voting
	Trent	van Arkel	LAP of America Laser Applications LLC	Observer
Present	Bruce	Rakes	Mevion Medical Systems, Inc.	Voting
Present	Luiza	Kowalczyk	MITA	Voting
	Lisa	Spellman	MITA	Voting
	Mark	Pepelea	Philips	Voting
	Stefan	Boman	RaySearch Laboratories AB	Voting
	Michael	Owens	RefleXion Medical	Observer
	Michael	Moyers	Shanghai Proton and Heavy Ion Center	Alt. Voting
	Jaco	Barnhoorn	TheraView Technology	Observer
	Scott	Hadley	University of Michigan	Observer
	Yulong	Yan	University of Texas Southwestern Medical Center	Alt. Voting
	Vladimir	Calahorrano	Varian Medical Systems Particle Therapy GmbH	Alt. Voting
	Kari	Jyrkkälä	Varian Medical Systems, Inc.	Observer
Present	Thomas	Schwere	Varian Medical Systems, Inc.	Alt. Voting
	Martin	von Siebenthal	Varian Medical Systems, Inc.	Alt. Voting
	Arun	Niranjan	Visionrt	Observer
	Ben	Waghorn	Visionrt	Observer

Presiding Officers of WG-07 MM Stuart Swerdloff & Bob Pekarek, Co-Chairs

1. Opening

1.The meeting started at 3:00 p.m. USA ET.

2.The agenda was reviewed and acknowledged.

3.The antitrust rules have been reminded.

4.The minutes of the previous meeting were reviewed and approved.

2. GatedUseCasev.4

During today's call the group reviewed and discussed the GatedUseCase v.4. This case is uploaded on the ftp server in the following meeting folder: ftp://medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/Wg07/WG07-MM/UseCases/Gated CT UseCaseV4.docx

One of the challenges experienced with addressing motion is the proper association across different CT series that are related to breathing phases. We discussed a possible means to address this challenge through the use of the Legacy Converted Enhanced CT Image IOD. A use case and workflow was proposed for discussion (see <document>).

An additional challenge discussed was the means to bind the breathing sinograph to the gating process.

Open questions for further discussion

1. How is the gating instructions related to the Radiation in 2nd generation RT objects? Document NN-6 sup. will need to address this.
2. How are instructions conveyed to the therapist performing the delivery as regards the gating?

Please open the document "Gated_CT_UseCaseV4", loot at the diagram, table and notes from today's meeting under the table C.8.15.2.

Reminder: All use cases are uploaded on the ftp server:
ftp://medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/Wg07/WG07-MM/UseCases

If anyone has any issues with uploading documents on the ftp server, please contact Luiza Kowalczyk at lkowalczyk@dicomstandard.org

3. Next Meetings

- Luiza to send a doodle survey to schedule a t-con during the week of May 13th 2019
  - Include Wednesday, May 22, 2019 in the doodle poll as an option too.

4. Adjournment

The meeting adjourned at 4:30 US ET.

Submitted by Luiza Kowalczyk, DICOM Secretary
Reviewed by Clark Silcox, Legal Counsel,

Attachment

Use Cases for Motion Management

1. None

Actors: none
Type of signal: none
DICOM support required: no

2. Compression

Actors: compression plate or body mask
Type of signal: none
DICOM support required: no

3. Breath Hold

Actors: spirometer, timer
Type of signal: gating
DICOM support required: yes

Description: In automatic breath holding, the spirometer measures the volume of air inhaled and when the desired volume is reached, sends a signal to begin the breath hold. The time to hold the breath after the desired volume is reached is set by the operator. The enable gating signal during treatment delivery is from the breath hold timing system, not from the spirometer.

4. Gating

Actors: pressure sensor
Type of signal: amplitude surrogate
DICOM support required: yes

5. Rescanning

Actors: none
Type of signal: none
DICOM support required: no

6. Phase Rescanning

Actors: pressure sensor
Type of signal: amplitude surrogate

DICOM support required: yes

7. Implanted Fiducial and Fluoroscopy

Actors: flat panel imager, x ray tube,
Type of signal: gating
DICOM support required: yes

Note: Position is calculated based upon image of fiducial, gating signal

Submitted by Luiza Kowalczyk, DICOM Secretariat
Reviewed by counsel: CRS, May 3, 2019.