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## Meeting Minutes

### DICOM WORKING GROUP SEVEN (RADIOTHERAPY)

<b>Meeting Location</b>	Online Meeting
<b>Dates and Times</b>	Feb. 29, 2024 9:00 – 13:00 EDT
<b>Presiding Officers</b>	Christof Schadt, Co-Chair Jim Percy, Co-Chair
<b>Secretary</b>	Shayna Knazik, NEMA

# Participants

Name	Affiliation	
Jim Percy	Elekta	X
Walter Bosch	AAPM	X
Yulong Yan	AAPM	X
Bruce Rakes	Mevion	X
Bob Pekarek	Accuray	X
Kari Jyrkkälä	Varian	X
Bruce Curran	AAPM	X
Ulrich Busch	Self	X
David Wikler	IBA	X
Christof Schadt	Brainlab	X
Marcus Bergman	Raysearch Labs	X
David Holst	Raysearch Labs	X

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## General

Meeting was called to order at 9:03am EST.

NEMA meeting rules apply. Walter Bosch and Yulong Yan were present for the entire meeting.

## Topics

The main purpose of the meeting was to continue work on assigned CPs.

### **1. CPs discussed on 2/28/2024: CP2344, CP2374**

- a. The definition of RT Patient Treatment Preparation Macro was moved.
- b. These CPs are ready for WG-06

### **2. CP-RT246 – Add Mixed Radiation Type (David)**

- a. CP adds Defined Term (MIXED\_ION) to Radiation Type (300A,00C6) in Ion Beam Sequence (300A,03A2) to allow both protons and non-hydrogen ion species in the same beam.
- b. Radiation Mass Number, Radiation Atomic Number, and Radiation Charge State are in the Ion Beam Sequence (Type 1C - if Radiation Type is ION). These attributes have been added to the Ion Control Point Sequence (Type 1C – if Radiation Type is MIXED\_ION). Parallel changes in RT Ion Beams Treatment Record IOD.
- c. CP-RT246 is ready for WG-06.

### **3. CP-RT247 – Add RT specific Plan Approvals (David)**

- a. CP adds RT Approvals Sequence in RT General Plan Module
- b. The driver for this CP is to convey plan approval status at the TDD in an unmanaged environment. (RT2 use case.). It support multiple approval signatures.
- c. It was acknowledged that this approach does not solve the general approval workflow problem. It requires new Instances for approved objects.
- d. Discussion of scope of approval. Approval of structure sets, ROIs, and doses was discussed.
- e. Discussion of a narrow, pragmatic solution for plan approval. Concern that proceeding with a narrow solution, such as this CP, undercuts implementation of a more general, extensible solution, e.g., using the Assertion Collection IOD later.
- f. Structure Set approval Use Cases (originally proposed by Marcus) were reviewed:
  - i. Multiple approval signatures
  - ii. Separate approval of individual ROIs
  - iii. Approval of (deformable) registrations
- g. ACTION: David to add Structure Set and Deformable Reg Use Case to CP.
- h. ACTION: Christof to confer with WG-06 and organize an ad hoc session to consider scope and solutions

4. **CP-RT248 – Ion Range Surface Compensator (Kari)**
  - a. A surface (triangle) mesh representation for surface compensators to be fabricated by a 3D printer is added. This surface mesh can be transcoded directly to STL format.
  - b. Conditions have been added to break applications expecting the existing compensator thickness map. Attribute conditions were reviewed and appear to be safe.
  - c. CP-RT248 is ready for WG-06.
  
5. **CP-RT249 – Isodose Levels For RT Dose Visualization (Kari)**
  - a. CP conveys recommended colors (CIE Lab values) for isodose displays
  - b. Dose Value (3004,0012) specifies Isodose level and is defined in Dose Units (3004,0002). Dose Value (3004,0012) is currently *Retired*. It will need to be reactivated.
  - c. CP-RT249 is ready for WG-06.
  
6. **CP2377 – Add Radiotherapy Workitem Codes To DCMR Context Groups (Yulong)**
  - a. Workitem codes for the type of MR Imaging to be used for patient positioning.
  - b. Yulong will continue work on this CP.
  
7. **CP2373 – Clarify Description related to Range Shifter Settings (David)**
  - a. David reviewed an updated revision of the CP with the group. Range Shifter and Lateral Spreading Device Setting are machine specific and are now required to be documented in the DICOM Conformance Statement. The CP guides new implementations without breaking existing implementations.
  - b. CP-2373 is ready for WG-06 (with final corrections by David).
  
8. ACTION: Jim to ask Shayna to delay the start of the next WG-07 call on Mar 6, 2024 by 30 min. to 9:30am EST. The agenda for Mar 6 to include further discussion of CPs, with time dedicated to Plan/structure/etc. Approval.

## Meetings Scheduled

- Dedicated calls for special topics are to be arranged by Shayna based on Doodle poll response
- CP sessions, four hours each
  - Mar 6, 2024, 9:30am – 1:00pm EST (backup: may cancel)
- CP Sessions
  - May 22, 2024, 9:00am – 1:00pm EDT
  - May 23, 2024, 9:00am – 1:00pm EDT
- Face-to-Face
  - June 10-14, 2024 at Brainlab in Chicago

Meeting was adjourned at 12:05pm EST