IHE-RO Technical Committee Conference Call
July 3, 2024
10:30 am – 11:50 pm ET

Technical Committee Chairs:
Scott Hadley, PhD, University of Michigan
David Wikler, IBA

Mission Statement: *The American Association of Physicists in Medicine American Society for Radiology Oncology (AAPM) supports a multi-society Task Force to undertake an initiative to promote the Integration of the Healthcare Enterprise (IHE) – Radiation Oncology (RO), fostering seamless connectivity and integration of radiotherapy equipment and the patient health information systems. The Task Force will include members from ASTRO, RSNA, AAPM, the American College of Radiology (ACR) and the Medical Imaging and Technology Alliance (MITA). In addition, members of the international community have also been invited to participate in IHE-RO. The IHE-RO Task Force, in close collaboration with radiotherapy product manufacturers, will develop appropriate integration profiles for radiation therapy and setup a demonstration of seamless communication among the full array of radiotherapy products.*

Attendance

Christof Schadt (Brainlab)
Jim Percy (Elekta)
Stina Svensson (Raysearch)
Thomas Schwere (Varian)
Yili Luo (United Imaging)
Jingjie Zhou (United Imaging)
Stefan Boman (Elekta)
Sanjay Bari (Elekta)
David Wikler (IBA)
Scott Hadley (UMich)
Walter Bosch (Wash U)
Jill Moton (AAPM)
Bruce Curran (VCU)
Harold Beunk (Demcon)

Minutes

I. Call to Order at 10:34am EDT

II. Review Agenda – The agenda was reviewed and adjusted.

III. Review Minutes
   a. Minutes from the June 20, 2024 TC teleconference were reviewed.
      i. Motion by Scott Hadley to approve; seconded by Jim Percy; approved without objection or abstention.

IV. Profiles Development and Testing
   a. MMRO-III CP (Referenced Image Sequence) [Jim] + DRRO CP (Referenced Image Sequence) [Walter]
      i. A Change Proposal to clarify wording of TF Vol2 section 3.17.4.12 Message Semantics and Attribute Note for the Referenced Image Sequence (0008,1140) in BRTO-II and DRRO was discussed.
      ii. ACTION: David to check with Mary Jungers regarding CP process and identification.
      iii. ACTION: Jim to save vers 2 of the MMRO-III CP in Box.
      iv. ACTION: Stina to Incorporate wording changes into DRRO rev 1.2.3 with changes tracked; David to include Profile document with tracked changes as CP.
      v. ACTION: David to organize Change Proposal Documents in IHERO TC Share folder in Box.
   b. DRRO CP (Study Level attributes for created instances) [Walter]
      i. The TF includes requirements for Instances created in BRTO-II
      ii. It was noted that closing a Study may have implications for billing for some users.
      iii. One approach is to create a new Study for new Instances. It is not clear that this will work for all use cases.

iv. Discussion was tabled pending further investigation.

c. BRTO-II testing question: Resampled/Combined CT Series Storage [RO-11] [Walter]
   i. **DECISION**: No need to continue testing of combining Multiple CT Series in the BRTO-II Contourer.
   ii. **DECISION**: Continue testing of variably-spaced CTs
   iii. **ACTION**: Judges to search for/synthesize variably-spaced CTs
   iv. Consider testing safe handling of CTs with gantry tilt, etc.

d. BRTO-II testing question: ROIs with excluded internal volumes (Contourer Actors) [Walter]
   i. It was noted that the edition of DICOM referenced by the BRTO-II Profile permits encoding of excluded internal volumes by either keyholing or XOR contours. Therefore, BRTO-II Contourer Actors can adhere to the Profile by producing XOR-encoded contours identified as Contour Geometric Type = CLOSED_PLANAR.
   ii. BRTO-II contour consumers must handle RT Structure Sets with Contour Geometric Type = CLOSEDPLANAR_XOR safely either (1) by rendering correctly as XOR or (2) by rejecting the data with appropriate warning..

e. BRTO-II CP for (CLOSEDPLANAR_XOR) [Jim]
   i. Jim has prepared a draft of this CP (see IHERO TC Share >> BRTO-II (Add COPLANAR_XOR as CP) >> IHE_Change_Proposal-add CLOSEDPLANAR_XOR option for BRTO-II.docx in Box).
   ii. **ACTION**: TC members to review the draft of the CP is in Box and provide feedback to Jim.

V. Topics for discussion at next meeting
   a. SMRT Sequence Diagram [Jingjie]
   b. BRTO-II CP for (CLOSEPLANAR_XOR) [Jim]
   c. DRRO CP (Referenced Image Series) [Stina]

VI. Meeting was adjourned at 12:02pm EDT

VII. Next meeting: July 18, 2024 at 10:30am ET (regular monthly teleconference)