IHE-RO Technical Committee
Face-to-Face Meeting
January 14-18, 2013

Technical Committee Chairs:
Bruce Curran, MS, ME
Chris Pauer, Accuray

IHERO Task Force Co-Chairs
Dick Fraass, Ph.D., FAAPM, FASTRO, FACR

Mission Statement: *The American Society for Radiology Oncology (ASTRO) has formed 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, American Association of Physicists in Medicine (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.*

In attendance

Name	Affiliation	Email	Mon 1/14	Tue 1/15	Wed 1/16	Thu 1/17	Fri 1/18
Bruce Curran	RI Hosp.	bcurran1@lifespan.org	X	X	X	X	X
Chris Pauer	Accuray	cpauer@accuray.com	X	X	X	X	X
Amber Sims	ASTRO	ambers@astro.org	X	X	X		
Walter Bosch	ATC/Wash. U.	bosch@wustl.edu	X	X	X	X	X
Koua Yang	Philips	koua.yang@philips.com	X	X	X	X	X
Sue Reilly	Elekta	sue.reilly@elekta.com	X	X	X	X	X
Uli Busch	Varian	ulrich.busch@varian.com	X	X	X	X	X
Eli Stevens	Mobius Medical	elis@doselab.com	X	X	X	X	X
Sanjay Bari	Elekta	sanjay.bari@elekta.com		X	X	X	X
Harold Beunk	ICT			W	W	W	

X = in person, W = via Webex

Minutes

I. Call to Order 1/14/2013 @ 8:30 ET – A quorum was declared.
   A. ACTION: Amber to create a 2013 IHE-RO TC Roster page on wiki.ihe.net by 1/28/13.

II. Attendance and Meeting Rules

III. Setting of Agenda
   A. Draft Agenda on www.ihe-ro.org/wiki
   B. Additional Topics
      i. Concept of Operation – companion document
      ii. Wiki Issues (early in week)
      iii. Clarify status of profiles
      iv. Medical Device Interoperability Coordination Council
      v. DPDW
      vi. RTSS
      vii. Machine Characterization
      viii. IHE-RO Leadership Meeting (mid-Feb) – how to make IHE-RO more visible
      ix. Testing infrastructure (archive).
      x. Connectathon Japan.

IV. Approval of Minutes from Dec. 20, 2012 IHE-RO Teleconference – approved without objection.

V. Updates and Reports
   A. Report of ASTRO, IHE-RO
      i. New IHE-RO Task Force leadership: Dick Fraass, John Buatti
      ii. New budget is in place. There is a new pricing structure: testing is now included in membership.
      iii. A contract is in process for IHE-RO Technical Support.
      iv. Draft RFPs have been created for DCOMP, ARTI, BRTO, MMRO-II profiles: to be discussed later at this meeting.
   B. Report on RT Stakeholders: An infrastructure for work on safety issues has been established. An error message document has been distributed. Work continues on prescription.
   C. Report on DICOM/WG-7 (Uli Busch)
      i. Last meeting in Dec 2012. Work included CPs for QAPV, Structure Templates. WG-7 is developing a CP for coding scheme for QAPV Structured Reports.
      ii. Text for Part 17 is to include a warning regarding transitivity issues in the use of well-known Frames of Reference.
      iii. Supplement 147 is nearing completion. The intent is to bring the supplement to Public Comment at the April 2013 WG-7 meeting.
      iv. A Brachytherapy sub-group has been established to develop 2nd Gen brachytherapy objects.
      v. WG-7 is developing a C-FIND-LATEST service (returns most recent instance of matching query keys) as a new feature for DICOM.
   D. ASTRO IHE-RO Leadership Meeting (planned for Feb 14, 2013) – Items for consideration
      i. Agenda to include physician engagement, efficiency, selecting/tracking Use Cases and preparing and update on profiles and efforts.
      ii. Progress still depends on market demands. IHE-RO helper needs better positioning and better connection to clinical workflow (bridge gap between Profile Actors and clinical functionality).

iii. Need to lay out expense budget.
iv. Need better communication between PC and TC on fine-tuning profiles. Commentary and feedback on Use Cases cold be done more efficiently.
v. Development of HL-7 Lexicon as important for future needs of RO.
vi. ACTION: Chris to send list of issues for inclusion in agenda to D. Fraass 1/14/13 Completed!

E. Medical Device Interoperability Coordinating Council (MDICC) – FDA-sponsored group has a Technical Landscape Team that seeks to catalog interoperability efforts.
i. AAMI-FDA Summit was held Oct. 2-3, 2012 in Herndon VA. A white paper from this meeting is available at http://aami.org/interoperability . Approx. 260 participants included representatives of HIMSS, IHE, NIST, …
ii. ACTION: Chris to respond to Richard Eaton and MDICC Technical Landscape Team by 1/28/13.

F. Connectathon Japan
i. IHE-J advertised that they would be testing IHE-RO Profiles in Oct 2012. Online results indicate testing of Archive and Dose Displayer Actors. It is not clear how testing was performed.
ii. Concern was expressed regarding the need for communication with IHE-RO TC to ensure adequate testing of IHE-RO Profiles is performed. This may be an issue of concern to all Domains regarding testing of Profiles by Deployment Committees.
iii. ACTION: Bruce to bring this concern to IHE Testing and Tools Committee at Jan 21 meeting.

G. Wiki Issues Discussion
i. Connectathon – Goal is to be ready for support of 2013 Connectathon
1. Introduction, FAQ, first steps, registration
2. Release, data use agreement
3. Exposing "tribal knowledge", how to get things done
4. Schedule, location, logistics
5. Example test data (with disclaimer that it is not complete test set)
6. Test tool links and instructions
7. Test process document
8. Previous results
9. Kudu (implementation targeted for 2014 connectathon) – training only takes place at European Connectathon
ii. Profile Development / Status / Nomenclature (abbreviations), "theory of operations", glossary
1. Sub-group sections, e.g., DPDW
iii. Migration of current BBS contents to new Wiki – Use (S)FTP site for documents with links on Wiki
iv. Discussion scheduled for Thursday 1/17

VI. Business

A. QAPV – Review of QAPV Supplement 1.8a [1/14/13 @ 1:25pm ET]
i. Removed "QA Matched Plan" from Glossary.
ii. Review of figure prepared by Eli to illustrate various scenarios involving Candidate Plans and QA Checked Plans.
iii. Lengthy discussion of rules for determining which QA Assessed Plans are to be compared with Candidate Plan in a Difference Checker and what to do if there

are multiple plan instances with the same SOP Instance UID in the set of QA Assessed Plans of the QCP.

iv. What should the QCP do if there is more than one QA Assessed Plan whose DICOM SOP Instance UID matches the Candidate Plan? DECISION:
    1. If *any* of the QA Assessed Plans do not match the dosimetric parameters of the Candidate Plan, then report *Critical Issue Found*.
    2. If *all* such QA Assessed Plans match the dosimetric parameters of the Candidate Plan, then report the most conservative (worst case) assessment of this set.

v. ACTION: Eli to update QAPV Supplement to reflect this decision. Completed.

B. QAPV (cont'd) [1/15/13 @ 8:30am ET]

i. Discussion of selection of QA Matched Plan subset in QCP.
    1. Consider requiring *either* matching SOP Instance UID in QA Checked Plan(s) *or* explicit linkage via Referenced RT Plan Sequence (300C,0002) in RT Plan.
    2. QCP Actor OPTIONS? Define QA Matched Plan set by
        a. Candidate Plan Instance UID
        b. Referenced RT Plan Sequence
        c. Dosimetrically equivalent plans ← may not be tenable

    Option (a) alone is probably not viable, since TMS routinely modify plans for (daily) changes in imaging. May be better to require *both (a) and (b).*
    3. ACTION: Chris to contact QAPV Vendors to assess viability of requiring *both* (a) and (b) and *not* (c). I.e., use explicit linkage via RT Plan Sequence (300C,0002) *instead* of dosimetric comparison to create set of QA Matched Plans by 1/28/13.
    4. Does RT Plan Relationship (300A,0055) = VERIFIED_PLAN work for this? → NO. We need to create a new defined term. Tentative suggestion: EQUIV_PLAN
    5. Open question: Does the Candidate Plan reference only *one* EQUIV_PLAN, i.e., the original plan from TPS (majority view) or *all* versions of plan? What requirements are there for QA Assessed Plans?
    6. ACTION: Chris to modify Structured Report to record the SOP Instance UIDs and MD5s (or internal index within QCP) of plans included in QA Matched Plans in the RT Treatment Plan Check Request Result Structured Report produced by the QCP by 2/4/13.
    7. Workflow assumptions for planning, verification, delivery:
        a. TPS creates plan, it is approved and sent to TMS
        b. Dosimetrist creates a verification plan from plan in TPS and loads it in QCP Difference Checker along with original plan
        c. TMS sends plan to TDD for delivery
            i. Plan sent unmodified → No change in Instance UID
            ii. Plan modified → New Instance UID

ii. QAPV Testing Considerations
    1. What should be tested?
        a. Communication – YES
        b. Plan Content – detect egregiously bad plans only (requires that the safety of assessed plans is known)

2. Test Procedure
    a. Start with a set of "good" plans
    b. Testers modify to create a mix of "safe" and "unsafe" plans
    c. Reference plans loaded into QCP as QA Assessed Plans with safe" or "unsafe" assessment (Difference Check only)
    d. Compare report with prior assessment (iii)

iii. Other Issues
1. "QA Assessed Plan" implies safety. For a Difference Checker, this may not be the case. Safety depends on *prior* assessment of the plan.
2. DECISION: The nature of the assessment is out of scope of the QAPV profile.
3. ACTION: Bruce to draft white paper to define Actor Options, implications for Friday AM. Include wording regarding nature of assessment. Completed!
4. ACTION: Chris to communicate changes to the Difference Check model to the QA vendors to check for any concerns or suggestions by 1/28/13.

C. TDW-II – Review of TDW-II Version 2, Revision 3 [1/15/13 @ 1:25pm]
i. Review of Optionality for Transactions in TDW-II Profile. It was noted that some required transactions (type R = must always be supported) may not always be performed. E.g., clarify wording for TDW-RO-XX7 to state that this transaction is always required, but may not always be performed.
ii. Retain text for Transaction TDW-RO-2 for now to improve readability. It will be removed later.
iii. Clean-up of errors and inconsistencies found by Sue and Sanjay. Changes are captured in the document.

D. MMRO-III [1/16/13 @ 8:45am ET]
i. Issues in MMRO and MMRO-II, identified at the Nov 2012 TC meeting, that are to be considered:
1. Requirement to define a primary image set (and restriction to CT as the primary)
    a. Objects (images, structures, doses) can be stored in *any* Frame of Reference. (Will require new version of Transaction MMRO-3.)
    b. Potential that no CTs exist.
    c. Can the Profile be defined to support any volumetric modality?
    d. Does support for specific modalities need to be specified as Profile Options?
    e. How does one handle multiple registrations between the same Frames of Reference? (Reference via SOP Common, etc.?)
2. Inclusion of Deformable Registration
    a. Scope too large for this Profile? Is this too much work at this time?
    b. Separate Profile, separate Actors in MMRO-III or optional Transaction for MMRO-III Actors?
3. Allowing registration of a Frame of Reference to itself to address incorrect hybrid scanner registrations
    a. The real issue is multiple patient positions in the same Frame of Reference. (patient motion/repositioning between acquisitions, 4D imaging)

b. Consensus that use of same-FoR SROs are needed. The RAD FUS Profile defines requirements similar to those for MMRO-III.

4. Defining behavior in case an image set is registered to a well-known FOR (e.g., for an atlas)
    a. Per WG-7 discussion in Dec 2012, the real issue is improper use of transitivity in spatial registration.
    b. DICOM WG-7 has created a CP to address this issue that adds wording to Part 3 warning of hazards in improper use of transitivity among registrations.
    c. The IHE-RO TC consensus is to follow the changes being put forward by WG-7, incorporating similar wording in the Profile. It may be useful for applications to indicate such warnings when Well-Known Frames of Reference are used.

5. Restricting the number of registrations within a spatial registration to just one.
    a. There was initial concern that multiple items in the Registration Sequence would be incompatible with the RAD FUS profile. This restriction appears to have been removed in the current FUS version (TI, dated 2006-04-13).
    b. See discussion in (4) above regarding transitivity.
    c. Consensus is now to allow multiple items in the Registration Sequence of a Spatial Registration Instance.
6. The RT Structure Set created on a registered image sets in the MMRO-I and II profile is limited to refer only to a single image set. In case multiple image sets have been registered to the referenced image set with different registrations, the Registered Display is not able to determine if the contours displayed to the user have been created on the image set combination currently displayed. (See MMRO-III_v1 Draft 2012-09-07).
7. Are new names needed for MMRO-III Actors?
8. Other issues
    a. Image Fusion FUS Profile (Trial Implementation as of 2006) was reviewed briefly. May include an identity transform to indicate base Frame of Reference. Transaction RAD-56 (Spatial Registration Stored) warrants further examination for use/adaptation in MMRO-III.
    b. There are additional Use Case possibilities involving 4D imaging and Image Guidance for treatment delivery. These Use Cases should be explored further to define their implications.
    c. The use of Spatial Registrations to specify patient repositioning may be out of scope for this profile. Further study is needed to determine if this Use Case can/should be included.
    d. Support for Bounding-Box specification in automated registrations requires a new Transaction to store Segmentation or Surface Segmentation instances. DICOM CP1268 is in preparation to define this.
    e. Should we include an optional Transaction for Fiducials.

ii. ACTION: Chris to ensure that next T-con is dedicated to MMRO-III. I.e., schedule T-con with interested parties to define the following:
    1. Requirements / architecture for Deformable Spatial Registsration
    2. Additional Use Cases involving 4D imaging, Image Guidance acquisition, and patient re-positioning.

Agenda (or apology by Christof) to be distributed by 2/18/13.

E. CT-Sim (1/16/13 @ 10:30am ET)
   i. Goals identified
      1. Primary: Communication of patient demographic information from TMS to CT Sim.
      2. Secondary: CT Sim receives scheduling information from TMS
   ii. Actors
      1. TMS/Order Filler/Performed Procedure Step Manager
      2. CT Sim
      3. Archive (is this needed?)
   iii. Transactions – need to check that requirements of the following RAD Transactions are consistent with this Use Case (if not, may need to create new Transactions):
      1. Query Modality Worklist (RAD-5)
      2. Modality PS in Progress (RAD-6)
      3. Modality PS Complete (RAD-7)
      4. Modality Images Stored (RAD-8)
      5. Storage Commitment (RAD-10)
   iv. Need to understand implications of RAD Transactions. ACTION: Sue to review RAD Transactions and prepare a summary for discussion of their use in this Profile. (Draft by Connectathon TC meeting).
   v. Need a Profile champion. ACTION: Bruce to contact Rishabh. Completed.

F. Machine Characterization (1/16/13 @ 1:30pm ET)
   i. MITA Sub-group on Machine Characterization
      1. Intent is to define format for machine description
      2. Participants to define scope and requirements
   ii. Machine configuration, not machine calibration
      1. Does not address beam modeling
      2. Includes energy, collimators, applicators, wedges, etc.
   iii. DICOM WG-28 Physics Advisory Group – RSNA 2012 DICOS presentation on device-centric data
   iv. ACTION: Koua to draft human-readable document describing treatment machines for ARTI testing based on XML files on BBS by 4/1/13.

G. DCOM (1/16/13 @ 2:00pm ET)
   i. Review of Dose Compositing Supplement_v1.2 (Draft for Final Text, 11/3/12)
   ii. Open Issues
      1. Can Transactions be described without explicit references to the specific Actors of this Profile (to facilitate their future re-use)?

a. ACTION: Bruce to ask IHE Testing and Tools Committee by 1/21/13 how we can re-use Transactions in new Profiles where the Actors have changed. Specifically, do they need to be re-named?

2. Use Derivation Code Sequce to indicate how the RT Dose Instance has been created from the source instances. The code table would need to be extended to cover the full extent of the derivations. Codes could indicate types of compositing (weighted, etc.) or strictly be a n annotation that compositing occurred.
   a. ACTION: Bruce and Walter to draft a DICOM CP to extend Derivation Code Table with Compositing Codes for next DICOM Meeting (2/25/13).
   b. ACTION: Bruce and Walter to make sure all answers to issues are integrated into DCOM Profile Text Completed.
   c. DCOM remains in Trial Implementation pending resolution of Codes. Decided to move to Final Text without changes.
3. ACTION: Remove reference to DICOM CP 938 in description of Dose Summation Type (2004,000A) data element. **Done**

H. TDW-II (1/16/13 @ 3:00pm ET)
   i. Reviewed Worklist Query table (1-1). Need resource to compare this table with section 4 of the DICOM standard. ACTION: Koua to review by mid-day on 1/17. Completed
   ii. Discussion on default character support in profiles. Most profiles have only ISO-9, but with patient name display requirements, ISO-IR 100 should most likely be the minimum standard for profiles going forward.
   iii. Even though profile says that Step State in query must be "SCHEDULED", other queries and responses on other states can be supported as long as the profile transactions and order are maintained.
   iv. Attributes and sequences that have to be returned must be specified in the c-find request, and should be empty.
   v. Could we support the TDD specify a specific patient in the C-Find request? Concern that current implementations of TMS's may not support specific matching on patients.
   vi. Currently profile lists an "IHERO" code for the content item for continuation. ACTION: Uli will pursue a standard code for the content item for the continuation text by 3/30/13.
   vii. ACTION: Uli to merge in discussion results from this meeting with new IHE template by 3/30/13.

I. ROIT (ROI Template) discussion (1/17/13 @ 8:30 ET)
   i. Change name to ROI Template (ROIT) Profile.
   ii. Concern was expressed that additional features, especially those that involve changes to TPS UI may slow implementation of the Profile. Need to assess cost to TPS, etc. manufacturers and decide whether to keep information that impacts UI and logic.
   iii. ACTION: Walter to move all Protocol ID information into a separate Protocol ROI template. Completed.

J. Wiki (1/1713 @ 9:30am ET)

i. ACTION: A letter is to be sent annually to CEO-level of companies involved in test to strongly encourage their involvement in the Connectathon as test partners whether or not they are actively testing their products.
ii. Wiki Content for Connectathon Support
    1. ACTION: [Due 2/8] FAQ, Link to Announcements (link to) Registration Forms, Generic list of actors prepping to test without companies identified, note on attendance (companies should plan to attend the *entire Connectathon* and bring approved actors regardless) and PACS support, Mechanics of wiki (how to upload, store files, link to files, make entries).
    2. ACTION: [Due 4/1] Place to put test tool results
    3. ACTION: [Due 3/1] Logistics: shipping, transportation, desiganiton of each vendors patient name, ID, what infrastructure info is needed for ach vendor to be ready for connectathon (machine names, patient naming/ID convention, etc.)
    4. ACTION: [Due 4/15] (on site): TCP/IP information, machine characterization, PACS location, name conventions for datasets, test procedure
    5. ACTION: [Due 4/15] (during testing): test scheduling

K. Test Tools (1/17/13 @ 1:30pm ET)
i. Review of RFP for Dose Compositing Test Tools
    1. Reference latest version of DCOM Profile. Need to make it available.
    2. ACTION: Bruce to check that DCOM version 1.3 is compatible with current Supplement Template and update DCOM entry to v1.3 on wiki.ihe.net by 1/28/13.
    3. ACTION: Walter to provide Glossary Items for DCOM Profile. Completed
    4. ACTION: Chris to update RFP (remove details and include link to Profile text) on wiki.ihe.net. Completed.
    5. Data are available from 2012 Connectathon, but must be checked for Profile adherence.
    6. Set response submission deadline of Feb. 8, 2013.
    7. Test tools to be delivered by April 1, 2013.
    8. ACTION: Walter to provide test data to Test Tool vendor by start of Test Tool contract.
    9. Test tools should check that Composite RT Dose instances adhere to Profile requirements for RT Dose Storage transactions.
    10. Test tools should provide for use of multiple test datasets.
ii. Review of RFP for BRTO, ARTI, MMRO-II Profile Test Tools
    1. Update to current version of DVTk and Windows OS (XP SP3, 7) both 32- and 64-bit
    2. Updates/bug fixes are needed to resolve reported errors in behavior of BRTO Test Tools. ACTION: Bruce to provide bug list. Done. ACTION: Chris to incorporate list of known bugs in BRTO RFP Appendix Completed.
    3. ARTI Profile was not finalized when current Test Tools were developed. ACTION: Bruce to make publie the current ARTI draft by 1/23/13.

4. Differences between ARTI and ARTI-II are minor. Much of the work on updating ARTI Test Tools is expected to benefit ARTI-II Test Tools development later.
5. It appears likely that the MMRO-II Test Tools can be created by modifying existing MMRO Test Tools. No major bugs were identified.
6. ACTION: Chris to modify the ARTI/BRTO/MMRO-II Test Tool RFP for approval by TC 1/18. Completed and reviewed!

L. DPDW (1/17/13 @ 3:30pm ET)
   i. Update on progress in IHE-RO DPDW sub-group and parallel efforts in DICOM WG-7 Patient Positioning group on Supp 160. Most of the transactions are expected to be worked out by the end of 2013.
   ii. The DPDW Profile is currently written in terms of 2nd Generation DICOM RT objects, but could be made compatible with 1st Gen objects by removing non-therapeutic information from RT Plans. (The IPDW Profile uses 1st Gen DICOM RT objects.)
   iii. Implementation of the DPDW Profile will likely take considerable time, since the Profile involves much new functionality and requires coordination between Actors.
   iv. DECISION: DPDW sub-group minutes to be published to AAPM BBS DPDW thread for now.

M. QAPV (1/17/13 @ 4:00pm ET)
   i. Discussion of the use of a RT Plan Relationship (300A,0055) Defined Term to assert dosimetric equivalence between a Candidate Plan and QA Assessed Plans in the QCP.
      1. Proposed use of RT Plan Relationship (300A,0055) Defined Term of "QAPV_EQUIVALENT"
      2. Equivalence relation can exist in either the Candidate Plan or members of the QA Assessed Plan set, or both. The QCP computes a list of dosimetrically equivalent plans
      3. Algorithm:
         a. Plans which match by SOP Instances UID or via EQUIVALENT Plan Reference are placed into the set of Matched Plans to be evaluated for dosimetric agreement with Candidate Plan.
         b. If there is a *dosimetric* disagreement between the Candidate Plan and any of the Matched plans, report a critical issue.
         c. Otherwise, report the least favorable prior assessment among the set of Matched Plans.
      4. ACTION: Eli to incorporate equivalent plan linkage and evaluation algorithm in Profile text for review on next QAPV call.

N. ROI Templates (1/18/13 @ 8:30am)
   i. Review of 1/17 version of ROI Template document
      1. Suggestion to include additional attributes. E.g., physical properties for Ion planning, or MC calculations. Done.
      2. Where should the ROI ID Code be put for clinical trials? Should this be the ROI ID code or Enhanced RT ROI ID Code Sequence (see CP RT31). Note that the latter is multi-valued.
      3. Question about whether to retain CT auto-segmentation parameters.

4. "ROI" vs "Segmentation". Changed names to ROI Dictionary and Protocol ROI List. Use ROI UID to reference ROIs across revisions of ROI Dictionaries. Move ROI Dictionary UID to top level of Protocol ROI List.
5. Removed SOP Common Coding information.
6. Protocol ROI Template contains ROIs for only one Protocol.

O. Connectathon
   i. Profiles expected to be tested
      1. ARTI
      2. BRTO
      3. DCOM
      4. MMRO-II
      5. TDW

P. Domain Pre-Testing
   i. No confirmation yet on availability of venue (PSI)
   ii. ACTION: Uli and Christof to determine location by end of April 2013

Q. Test Tools (1/18/13 10:25am ET)
   i. Review of Test Tools RFP documents modified by Chris for (a) DCOM and (b) BRTO, ARTI, MMRO-II Profiles. Minor changes recommended before forwarding to ASTRO for approval and distribution.

R. Connectathon Archive Support
   i. Discussion regarding rotating support for connectathon archive among Elekta, MIM, Candelis, Velocity
   ii. ACTION: (If necessary): Bruce to discuss with Elekta support issues regarding the Connectathon Archive by mid-February 2013.

S. TDW-II Character Set issues (1/18/13 @ 10:40 am ET)
   i. Profile includes statement: "At least the Default Character Set and ISO-IR 100 (Latin-1) shall be supported." However, it does not address Actor response if an unsupported Character Set is present in data received.
   ii. It was noted that a potentially greater problem is *partial* support of character sets in applications.
   iii. It was suggested to include a statement regarding character set support in Profiles going forward.

T. DCOM issue
   i. It was suggested that Source Image Sequence and Derivation codes be included in the the DCOM Profile to annotate composited doses.
      1. Indication that the dose was derived by compositing
      2. Purpose of inclusion of a dose in the composite
   ii. New codes are needed in DICOM and a change in the requirement of including this sequence in the Profile
      1. Would require re-testing of all DCOM Actors passed in 2012
      2. If started immediately, a CP for new codes could (optimistically) be in LB by Sept 2013

3. Other option is to approve DCOM as is and defer this change to a later (DCOM-II) revision.

iii. DECISION: Proceed with DCOM in its current form.

U. Wrap-Up, Action Item Review

i. Wiki Profile status table is http://www.ihe-ro.org/wiki/doku.php?id=doc:profiles

ii. Add to agenda for May 2013 (post-Connectathon TC meeting):

1. Connectathon results
2. Review TDW-II for Trial Implementation
3. ROI Templates

iii. DECISION: Final Text balloting for MMRO-II, ARTI, DCOM Profiles to be done via email.

iv. MMRO-II Status question

1. Volume 1 is a complete description of the new Profile
2. Volume II only includes the two new Transactions
3. Suggestion to make wording regarding the order of Registrations to avoid implication that registrations are ordered.

V. Future Meetings

i. Connectathon, May 6-11, 2013, Fairfax, VA; TC meeting May 13-14, 2013

ii. ASTRO Sept 22-25, 2013, Atlanta – TC meeting tentatively Sept 26-28, 2013

iii. Domain Pre-Testing, Oct 21-29, 2013 in Baden or Munich

VII. Adjourn – 11:55 am ET