IHE-RO Technical Committee
Face-to-Face
May 10-13, 2015 at 8:30-5:30 PM CET
Stockholm, Sweden

Technical Committee Chairs:
Scott Hadley, PhD
Chris Pauer, Accuray

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

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.*

Attendees:

Name	Affiliation	Email	5/10/15	5/11/15	5/12/15	5/13/15
Chris Pauer	Accuray	cpauer@accuray.com	X	X	X	X
Walter Bosch	Wash. Univ.	bosch@wustl.edu	X	X	X	X
Uli Busch	Varian	Ulrich.busch@varian.com	X	X	X	X
Koua Yang	Philips	koua.yang@philips.com	X	X	X	X
Sven Siekmann	Brainlab	Sven.siekmann@brainlab.com	X	X	X	X
Rickard Holmberg	RaySearch	Rickard.holmberg@raysearchlabs.com	X	X	X	X
Mikael Bertze	RaySearch	mikael.bertze@raysearchlabs.com	X	X	X	X
Marcel Wyss	Varian	Marcel.wyss@varian.com	X			
Stefan Boman	RaySearch	stefan.p.boman@raysearchlabs.com		X	X	X
Wouter Vreeman	ICT	wouter.vreeman@ict.nl			W	
Harold Beunk	ICT	Harold.Beunk@ict.nl			W	
Scott Hadley	UMich	swhadley@med.umich.edu			W	
Bruce Curran	VA	bcurran@mcvh-vcu.edu			W	
Jim Percy	Elekta	Jim.percy@elekta.com			W	
Eli Stevens	Mobius	elis@mobiusmed.com			W	
Mary Feng	UMich	maryfeng@med.umich.edu			W	
Dick Fraass	Cedars Sinai	Benedick.Fraass@cshs.org			W	
Suzanne Evans	Yale Univ.	suzanne.evans@yale.edu			W	

X = In person W = via Webex ()

Minutes:

I. Call to Order (May 10, 2015 at 9:10 am CEST)

a. Review Agenda – **Approved without objections**

b. Approval of minutes from March 2015 teleconference **– Approved without objections 5/11/15**

i. ACTION 150509: Chris to check with Rishabh regarding progress and prospects on CPRO/HIS Work Group.

c. Other broad topics to add.

d. Breakouts for advancing certain profiles

II. Topic 1: Level Set

a. Updates on IHE-RO activities

i. Planning, Oversight, Steering Committees

1. The IHE-RO PC is re-evaluating Use Cases and seeking champions to move them forward.
2. Other Updates - clinical input is needed for several Use Cases, including RXRO. This includes a survey of current clinical practice and workflow to define the scope, content to be communicated, and essential features.
3. ACTION 150501: Chris to send email to Scott Hadley, Sokny Lin, Suzanne Evens, Lawrence Marks, Dick Fraass regarding a call (Tues 5/12) to gather clinical input for RXRO - DONE
4. 141008- CP on D and * types. – Has been added to DICOM Content Template v. 1.1

ii. ASTRO, MITA, ROSSI – no news reported. RT Machine Characterization work (data structure definition) is in progress.

iii. DICOM

1. Sup 147 is in Public Comment until June 1, 2015. It is anticipated that this supplement will be approved for Trial Implementation in September 2015.
2. Sup 175 is expected to be ready for Public Comment by the end of 2015.
3. Sup 184 (Brachytherapy BDI) and 185 (Object Evaluation) are expected to be released for PC in June 2015.
4. Several CPs related to IHE-RO profiles are in development.
5. Companion objects are to be used for brachytherapy (and ion therapy) normalization/optimization.
6. Work on a brachytherapy planning Integration Profile is in progress.

iv. NEMA – 141006 RT-2 on Agenda… (Discussion in IHE-RO is awaiting release of this standard for public comment.)

b. Topic 2: Connectathon Update

i. Walter reviewed observations, issues, and preliminary results for the 2015 Spring Connectathon. TC endorsement of preliminary results to be discussed on Monday.

ii. ACTION 150502: Vendors to submit Test Tool Results to Walter by June 10, 2015. Connectathon results for vendors submitting after that date may not be included in the Spring 2015 release.

iii. Test Tools Issues – reviewed with ICT on 5/12/2015

1. MMRO-II Test Tool data has a structure set, which references a non-existent image instance – reported as issue #44.
2. The BRTO Test Tool requires contours on a particular image slice (not indicated in instructions) – reported as issue #45.
3. Test Tools proposes a Big-Endian Explicit Transfer Syntax, which has been retired from the standard.
4. All three BRTO scenarios use the same test data – reported as issue #46.
5. Test data for the BRTO Dose Displayer has only non-equidistant dose planes.

iv. Things to improve / change

1. Equidistant dose planes – all live testing to date has involved equidistant dose planes. Some Dose Displayers cannot handle non-equidistant dose planes. This issue should be addressed in a revision of the BRTO profile.

v. Regulatory Conformance Testing
   1. An ongoing communication between the DICOM Standards Committee and Chinese regulators regarding a new translation of DICOM into Chinese has raised the issue of whether the original English or the translation is to be the basis for regulatory compliance testing.
   2. IHE-RO may have a role to play in formal testing. It was noted that DICOM compliance itself does guarantee interoperable exchange. IHE addresses interoperability, but IHE-RO testing has involved pre-released software, which is not in line with the formal testing of final products for regulatory compliance.

vi. Release of Fall 2014 Connectathon results for those vendors who submitted Test Tool results
   1. ACTION 150524: Walter to work with ASTRO on release of Fall 2014 Connectathon Results.

[Break for lunch 12:30-1:30 pm CEST]

c. Topic 2.3: Specific and general value of IHE-RO testing
   i. At least two profile adherence issues were resolved during the week of testing.
   ii. Participants succeeded in transfer of data on a first attempt based on the use of Profile specification.
   iii. Adhering to a Profile facilitates troubleshooting.
   iv. The Connectathon is an opportunity for informal peer-to-peer testing and debugging. This venue is much more efficient for peer-to-peer testing than remote exchange.
   v. It was detected that an important mode of operation was not supported in RT Dose object, saving time in customer support. This rare, but relevant case had not been identified previously.
   vi. Common profiles and patterns make building of new solutions easier and faster.

d. Topic 2.4: Content of email to RT Prescription group was reviewed by TC, captured by Chris.

e. Topic 2.5: Action Catch All
   i. 141006 - Review Type indicator of attribute requirements for their profiles. The Type specification shall strictly follow the definition in the Technical Framework (see Section 2.2), with the addition of Type specifications established during this TC meeting: "D"=Display requirements only, and "-"=Attributes without additional requirements (included for readability) – Ongoing
   ii. ACTION 150503: Uli to add updated Type specification to the DICOM content definition. - DONE
   iii. 141007 - Check on usage of delivery duration limits in their treatment delivery systems, i.e., net (beam-on) versus total delivery times. – Done for all but CyberKnife.
   iv. ACTION 150504: Chris to check on Delivery Duration Limit on CyberKnife.
   v. 141011 - Vendors to test their applications to see if addition of the Frame of Reference UID and Position Reference Indicator at the top level of the RT Structure Set will break their applications – superceded by 150525
   vi. ACTION 150525: Sven to add Frame of Reference UID and Position Reference Indicator at the top level of an RT Structure Set (make a CT case and an MR case) and distribute to TC members for evaluation in their systems.
   vii. 141014 – Add a backlog section to the ihe-ro site.

f. Topic 3: RX – Further steps available now?
   i. Action 141023 – Chris to update ICRU reference in RXRO Clinical Impact Statement

g. Topic 4: Treatment Planning – Plan Content (TPPC)

i. Effective Wedge Angle is now required for Motorized Wedge.
ii. Add TPPC Optional Beam Modifier Attribute requirements section
iii. Dovetail with DICOM Gen 2 Trial Implementation
iv. 141025 - Add requirement that Treatment Machine Name (300A,00B2) be constant for all beams in TPPC – Completed Oct 2014
v. Updates, discussion?

h. Topic 5: Basic RT Objects – BRTO
i. High Resolution Contours
1. The group reviewed a CP for adding high-resolution RT Structure Sets to the BRTO profile. High-resolution structure sets use Attached Contours to denote axially adjacent contours and have image references only for contours that coincide with image planes.
2. Two optional transactions are to be added:
a. High-res Structure Set Retrieval (add to all Actors with Structure Set Retrieval)
b. High-res Structure Set Storage (add to all Actors with Structure Set Storage)
3. Low-resolution structure set information can be extracted from a high-res structure set by removing contours without image references and ignoring attached contour information.
4. Reliable detection of a high-resolution structure set was discussed. There are datasets whose interpretation is dependent on whether they are classified as high- or low-res. (This situation involves contours only on image planes and no attached contours.) Adding a high-resolution indicator attribute to the RT Structure Set IOD was discussed. This remains an open issue.
ii. It is believed that no Dosimetric Planners store RT Dose with non-equidistant dose planes. DECISION: require equidistantly spaced dose planes (with a dose plane spacing tolerance of 0.01 mm) in the BRTO Profile. (This requirement is to be incorporated in the BRTO-II Profile.)
iii. 141026 – Uli to draft a CP for BRTO to address preservation of the original equipment information for resampled images and combined Series.
iv. Geometric Planner – the continuing relevance of the Geometric Planner was discussed. Doubt was expressed that the Geometric Planner Actor is relevant to current RT workflow.
v. ACTION 150505: Scott Hadley to discuss relevance of BRTO Geometric Planner with IHE-RO PC.
vi. Support for high-res structure sets, removal of non-equidistant dose planes, and retirement (optional inclusion?) of the Geometric Planner will require a revision of the BRTO profile to BRTO-II.

[Adjourn for the day at 5:30pm CEST]
[Resume Monday May 11 at 8:55am CEST]

i. Topic 7: State of MMRO-III
i. MMRO-III has been approved for Public Comment, but has not yet been released.
ii. There is some confusion regarding nomenclature (“Primary”, “Secondary”, “Source”, “Registered”, “To”, “From”, etc.) for frames of reference related by the Spatial Registration IOD.
iii. DICOM defines “Registered” and “Source” Frames of Reference (see PS3.17, Figure O.1-1 “Registration of Image SOP Instances”).
1. The FoR of a Spatial Registration Instance is the “REGISTERED” FoR in DICOM.
2. The Identity Transform in the Spatial Registration Instance is to the “REGISTERED” FoR.
iv. The notation used to indicate the direction of registrations (i.e., direction of arrows) is not uniform across vendors. Concern was expressed that this is a source of confusion for users.

v. ACTION 150506: Vendors to consider whether the IHE-RO should define a common convention for displaying the direction of registrations to the user. To be discussed at next TC Tcon. (Chris to add to agenda.)

j. Topic 8: Treatment adjustments
   i. Treatment plans can be related to each other in a few ways
   ii. The current Referenced Plan Sequence in DICOM describes these in very general ways, but a tighter semantic is needed, that will actually change device behavior
   iii. Possible candidate for an IHE-RO profile
   iv. Issue 16 of TPPC
   v. Possible scenarios for alternative/replacement plans:
      1. Machine down, different plan for new machine, same Dosimetry
      2. Multiple machines, round-robin scheduling
      3. Machine beam characterization is modified, new plan for same intent
      4. Adaptive plan of the day/library
      5. Adaptive re-planning
   vi. Possible Scope:
      1. Communication between TPS and TMS
      2. Loading alternative/replacement plans into TMS
   vii. Approaches discussed
      1. Plan relationship in Referenced Plan Sequence may work for some scenarios, but there were concerns regarding the need to create new composite instances.
      2. The Key Object Selection IOD could be used to express the relationship between existing plan instances. KOS could work for both 1st and 2nd Gen RT in DICOM.
      3. Multiple concurrent plans may complicate the plan approval process/management.

k. Topic 9: DICOM Content Template
   i. 150111 - Clean up DICOM Content Template based suggestions of TC and create an example of an instantiated document – Completed 2/5/15
   ii. 150113 – Uli to draft CP to move DICOM General Module content definitions from TF Appendix to Volume 3, Chapter 7 using Uli's Draft of DICOM Content Templates and merge additional definitions from TDPC into the TF for Mar 1.
   iii. 150123 - Contact Kevin O. re status of CT Image Protocol at Mar 2015 WG-06 mtg.
   iv. The TPPC, TPIC, TDPC, TDIC, and CDEB Profiles are structured using the Content Templates.
   v. 150112 – Chris to present updated DICOM Content Template proposal and instantiated example to IHE Operations Committee
   vi. ACTION 150507: Chris to check on status of IHE review of Content Template and add this topic to the agenda of the next IHE Domain Coordination Committee on May 26, 2015.
   vii. DECISION: IPDW Profile (v. 2.0) to be put on hold until the DICOM Content Template and TDW-II are ready for publication. Current strategy is to include the DICOM Content Template in an updated Technical Framework and subsequently add template-structured Profiles.

l. Topic 9.5: Query/Retrieve
   i. Scope:
      1. What kinds of queries are supported?
      2. Specification for SCP query keys
      3. Support for Instance Level C-Move and C-Find
      4. Could be part of a larger Transport Profile to include Transfer Syntax, Media Files
   ii. ACTION 150508: Koua and Walter to create first draft for Oct 2015 TC meeting.

m. Topic 10: Segmentation Profile
   i. A white paper discussing techniques and best practices for transcoding between 1st and 2nd Gen RT segmentation is in preparation by Christof Schadt, et al. The content of this paper will be helpful in drafting the Segmentation Profile.
   ii. Segmentation Producer and Consumer Actors can be defined the following:

1. RT Structure Set (with high-resolution option)
2. RT Segment Annotation + Segmentation
3. RT Segment Annotation + Surface Segmentation
4. RT Segment Annotation + RT Structure Set

It may be possible to combine 2nd gen actors to a single producer and consumer pair with options

iii. An update of BRTO to BRTO-II is a first step toward development of a Segmentation Profile. Ultimately, the Segmentation, TPPC, and a Dose Content profile can replace the BRTO/BRTO-II profile.

iv. ACTION 150510: Sven to draft BRTO-II Profile proposal for the June 2015 TC T-con, to include high-res contours, equidistant doses, and optional Geometric planner. DICOM Content Template to be used where feasible.

[break for lunch 1:00-2:00pm CEST]

n. Topic 11:Consistent Dose for External Beam (CDEB) Review
   i. 150102 – Chris to contact Bridget re PC contact for CIS for Consistent Dose profile by Jan 30.
   ii. CDEB Draft
      1. Profile draft (v. 1.6, Feb 25, 2015) was reviewed by the TC
      2. Actors: Transactions
         a. Plan Producer (~TPS): Plan Storage
         b. Record Producer (~TDD): Plan Retrieval, Record Storage
         c. Dose Tracker (~TMS): Plan Retrieval, Record Retrieval
      3. Profile Options can specify requirements for inclusion of DICOM Modules.
   iii. ACTION 150526: Chris to add feedback from TC meeting to CDEB draft v. 1.6.

o. Topic 12: DPDW update
   i. Action 141013 - Chris to add issue in DPDW Profile draft to flag transaction [DPDW-211] to address other input objects for registration (fiducials, segmentations) – DONE.
   ii. The DPDW work group has been active with teleconferences. There are currently ~8 active members. Attempts to draw in addition imaging and positioning vendors continue.

p. Topic 2 (continued): Connectathon Update
   i. Walter presented results of Connectathon evaluations for TC endorsement
   ii. Members of the IHE-RO TC unanimously endorsed Spring 2015 Connectathon results, pending the outcome of IHE-RO Test Tool Results.

q. Topic 13.2: TPIC
   i. 150144 - Update RT Image definitions in TPIC and TDIC based on TPIC discussions – DONE.
   ii. Proposal to add an Enumerated Value of "OTHER" for Pixel Intensity Relationship (currently only LIN and LOG are allowed). Pending with WG-07 ACTION 150527: Uli to get CP RT-80 approved.
   iii. TPIC Profile (v. 1.6) was reviewed in preparation for Public Comment. Wording to describe transfer of DICOM instances between Producers and Consumers was reviewed and revised as version 1.7 (May 11, 2015).
   iv. The IHE-RO Technical Committee voted unanimously to release the TPIC Profile for Public Comment.
   v. ACTION 150511: Uli to incorporate changes to TPIC from TC review and post as v. 1.7.
   vi. ACTION 150512: Chris to alert IHE Domain Coordination Committee of IHE-RO's intent to publish the TPIC Profile for Public Comment and to forward a copy to IHE as appropriate.

r. Topic 13: Treatment Delivery – Plan Content (TDPC)
   i. TDPC Profile (v. 1.6) was reviewed in preparation for Public Comment.
   ii. Only one transaction is defined: RT Plan transfer (via C-Store) between Producer and Consumer.

iii. Type O+ is used to place additional conditions/constraints on the value of optional attributes (if present).
iv. The IHE-RO Technical Committee voted unanimously to release the TDPC Profile for Public Comment.
v. ACTION 150513: Uli to incorporate changes to TDPC from TC review and post as v. 1.7
vi. ACTION 150514: Chris to alert IHE Domain Coordination Committee of IHE-RO's intent to publish the TDPC Profile for Public Comment and to forward a copy to IHE as appropriate.

[Adjourn for the day at 5:00pm CEST]
[Resume Tuesday May 12 at 9:30 CEST]

s. Topic 13.5: TDIC
i. TDIC Profile (v. 1.2) was reviewed by the TC in preparation for Public Comment.
ii. Requirements for RT Image and CT Image IOD attributes in delivery state were reviewed. Details were recorded in the draft Profile. Changes were incorporated in version 1.2.
iii. The IHE-RO Technical Committee voted unanimously to release the TDIC Profile for Public Comment.
iv. ACTION 150515: Uli to incorporate changes to TDIC from TC review and post as v. 1.2
v. ACTION 150516: Chris to alert IHE Domain Coordination Committee of IHE-RO's intent to publish the TDIC Profile for Public Comment and to forward a copy to IHE as appropriate.

t. Topic 13.6: IHE attribute type requirements
i. Discussion of type "RC+"
1. In IHE this is an extension of DICOM requirements and the attribute shall be present when the condition is satisfied, i.e., is Type 1C, whereas the DICOM requirement may be 2 or 3.
2. If the condition is not fulfilled, the DICOM definitions apply. Note that this means that the attribute may be present/have a value also in case the condition does not apply.
ii. Type "D" = The requirements of DICOM are unchanged, but the attribute must be displayed.
iii. Type "-" = No IHE extension of the DICOM requirements is defined. The attribute is included to improve readability.
iv. The "*" is *always* added to sequences to denote that the sequence attribute itself is is not to be displayed. This notation does not apply to attributes of items within the sequence. Display requirements are specified explicitly for individual attributes within sequence items.

[break for lunch 12:35-1:35pm CEST]

u. Topic 14: BrachyTherapy and Ion IHE-RO efforts
i. Uli reviewed the first revision of a Brachytherapy Workflow (BWF) Profile.
1. This is similar to TDW, but must accommodate changes in plan parameters just prior to delivery. Applicator positioning verification is done locally at the delivery machine and is outside the scope of the Profile. Handling of treatment states is challenging.
2. Recording is done based on time using a Brachytherapy Treatment Record. HDR five-fraction treatments involve a single UPS which remains open across fractions. PDR treatments can span a day, with one record per pulse. There is no recording for LDR treatments.
3. The profile defines five transactions:
a. HDR Plan Storage
b. PDR Plan Storage
c. LDR Plan Storage
d. HDR Treatment Record Storage
e. PDR Treatment Record Storage
4. The profile specifies OPEN_NONPLANAR contours for Channels.
5. Dwell positions are represented as x,y,z coordinates in the RT Plan IOD.

6. Basic differences in the interpretation of the DICOM standard remain among brachytherapy vendors. E.g., definition of dwell position coordinates with respect to source geometry.
7. It was noted that ROI Contour Module and ROI Observation Module requirements will be needed in the DICOM Content Section to support this Profile.

ii. Uli updated the TC on activities of the Ion Work Group
1. DECISION: It is the recommendation of the IHE-RO TC that the Ion Sub-group be empowered and encouraged to proceed with development of an Ion Therapy Plan Content Profile.

v. Topic 15: ICT Update (Webex 3:30pm CEST)
i. Wouter Vreeman and Harold Beunk of ICT provided an update of the IHE-RO Test Tools
ii. Test Tool issues noted at the Connectathon were reviewed.
iii. ACTION 150517: Uli and Kari to provide regularly spaced ("equidistant planes") dose for the BRTO Dose Displayer and send to Walter. Walter to re-identify and forward to ICT.

w. Topic 17: Quality Assurance with Plan Veto - QAPV Review (Webex 4:30pm CEST)
i. Chris reviewed changes in the QAPV Draft Profile (v.1.22)
ii. Use of DICOM SR for reporting evaluation results has been replaced by an Object Evaluation Results IOD (Sup 185).
iii. Terminology change: "critical issue" in the QAPV context → denoted by "major issue" in DICOM Object Evaluation Results.
iv. It was noted that in the case of data corruption, the SOP Instance UID may not be sufficient to distinguish which copy of an object is being evaluated. A discussion of alternative means to reference the object being evaluated included the Hierarchical Series Instance Reference Macro. Topics included the utility and methods for distinguishing copies of a plan instance and the location on which it is stored.

x. Topic 15.5: Prescriptions (Webex 5:30pm CEST)
i. Prescription survey (Mary Feng, Scott Hadley). Survey to be sent out by the end of this week with two weeks response time:
1. What is your current state?
a. When is the prescription entered? (choices=before the planning starts, during the planning, after the plan is completed)
b. Who enters the prescription? (choices=physician, dosimetrist, physicist, other please specify)
c. When is the prescription signed by the doctor? (choices=before the planning starts, during the planning, after the plan is completed)
d. What is in the prescription? (See table)
e. Who needs/uses the information? (See table)
f. How do you use and differentiate between physician intent and prescription?... Do you have a separate treatment planning directive or place to communicate treatment planning goals? (yes, no) Please describe how these are handled in your clinic.
2. HOW WOULD YOU LIKE THIS TO LOOK IN THE FUTURE? Would you like more or less information in a prescription? (choices=more, less) Please elaborate. (free text box)

ii. The "prescription" has many roles: Planning/Treatment directive, Dose Prescription, Imaging Guideline, Plan Summary
iii. Other input from Mary Feng
1. *There are 4 levels of prescription: intent, simple, intermediate, complex. Problem: not every system can produce these 4 items. Also, this is really a continuum from a skeleton prescription to essentially a plan expressed in metrics. Where along the continuum should the prescription sit?*
2. ***Intent vs. prescription***
-Are they separate or different?

-How can we make it clear which is the most current version if revised but still keep other drafts?
-Keep in mind that intent is needed for insurance coverage of advanced technologies.
-DICOM prescription rules: 1st generation design: Prescription contained in the DICOM RT plan. Currently adding intent in a different section

3. ***Prescription***
-When is the prescription written? When is it finalized?
-What about state low? NY has a law that a signed prescription is in place prior to planning. This leads to many prescription revisions.

iv. ACTION 150518: Sven to send an edited version of the RXRO draft to participants on the Tues Webex. - DONE

[adjourn for the day May 12 at 6:30pm CEST]
[Resume Wed May 13 at 8:40 am CEST]

y. Topic 17: Quality Assurance with Plan Veto - QAPV Review (continued)
i. The group discussed retention and identification of plan instances which failed evaluation by a Quality Check Performer.
ii. If there is corruption of the plan contents without a change of instance UID, the evaluated copy of the plan is no longer uniquely identified by the instance UID. DICOM does not provide a means to distinguish multiple versions object instances.
iii. The SOP Instance UID of the Object Evaluation Report Instance could be used to identify the copy of the plan instance that was evaluated.
iv. ACTION 150519: Chris to investigate possible mechanisms for encapsulating entire DICOM (RT Plan) objects to preserve a copy of failed plans what was evaluated. This could be incorporated in DICOM Sup 185.
v. ACTION 150528: Uli to discuss with WG-06 identification of multiple instantiations/copies of SOP Instances in the context of Object Evaluation.

z. Topic 4: TPPC (continued)
i. Sven reviewed TPPC Profile draft 1.10 as adapted using the DICOM Content Template.
ii. The IHE-RO Technical Committee voted unanimously to release the TPPC Profile v. 1.10 for Public Comment.
iii. ACTION 150520: Sven incorporate changes to TPPC from TC review and post as v. 1.10 on the wiki.
iv. ACTION 150521: Chris to alert IHE Domain Coordination Committee of IHE-RO's intent to publish the TPPC Profile for Public Comment and to forward a copy to IHE as appropriate.

aa. Topic 5: Basic RT Objects – BRTO (continued)
i. Sven reviewed an updated CP (cp_high_resolution_structures_1.4.doc) for inclusion of high-resolution contours in RT Structure Set.
ii. Possible unintended consequences of introducing high-res structure sets were discussed. Propagation of plans, structure sets, and doses through TMS may require special care to maintain object linkages if low-resolution structure sets are extracted and instantiated for patient positioning.
iii. ACTION 150522: Uli to place the following items on the WG-07 agenda: (1) TPPC Issue #16 (use of Plan Relationship Seq or KOS to represent collection of plans which are treated in parallel. (2) Potential indicators for high-resolution structure sets.

bb. Topic 6: ROI Templates
i. Approaches to transport of ROI Templates
1. Value Set (IHE-ITI) have been proposed as a method for transporting ROI Templates. However, this profile is intended to distributed code lists and does not cover the scope needed for this use case.
2. Majority of the payload is DICOM

ii. Walter reviewed an outline of the content of the ROI Templates Profile.
iii. 150109 - Walter to add Publisher, Version and DICOM VR/VL info to ROIT Profile content. (cf . DICOM CT Protocols) - Done
iv. ACTION 150523: Walter to draft a Supplement for ROI Templates based on the CT Defined Procedure Module of the CT Defined Procedure IOD for the June 2015 WG-07 meeting.

cc. Topic 16: DCOM
i. Action 141012 - Update DCOM Transaction from Utilize Spatial Registration [RO-13] to Spatial Registration Retrieval [MMRO-III-2]. – Done

dd. Topic 18:Profile Statuses
i. MMRO-III is in preparation for submission to IHE for Public Comment
ii. TDW-II Update
1. ACTION 150529: Uli to re-work the UPS definition into a general, reusable definition (especially for IPDW, DPDW)
2. ACTION 150530: Uli to include references to CDEB in TDW-II
3. 150121 – Chris to review Section 9.5 (Security) in TDW-II

[break for lunch 1:00-2:00pm CEST]

ee. Topic 17: Fall Connectathon Planning
i. Prep registration for
1. Profiles to be tested
a. ARTI
b. MMRO-II
c. DCOM
d. BRTO
2. Informal – TDW, TPPC
3. Ion attendees should register as observers
ii. Timeline
1. Registration form prep with Crystal by June 30th
2. Registration and travel info to vendors by July 24th
3. Planning Instructions updated by Judges by Sept 7th
4. Confirm site availability ASAP
5. Vendors Registration deadline – August 24th
6. Judges - Test data for Connectathon prepared and distributed Sep 7th
7. Vendors prep initial plans prior to connectathon
8. Vendors exercise test tools, get results to Walter 4 weeks prior to Connectathon (Aug 24th)
iii. Actions
1. ACTION 150531: Chris to contact Sun Nuclear re site availability by May 20th
2. ACTION 150532: Chris, Crystal to prepare registration form by June 30th
3. ACTION 150533: Crystal to distribute registration and travel info to vendors by July 24th
4. ACTION 150534: Judges to update planning instructions by September 7th

ff. Topic 17: QAPV Review (continued)
i. Review of attribute requirements for Object Evaluation Results IOD

II. Future Meetings
z. IHE-RO Meetings
i. IHE-RO NA Connectathon – Sep 21-25, 2015, TC Mtg Sep 27-30, 2015, location TBD, tentatively Melbourne, FL.
ii. IHE-RO Meeting at ASTRO – Oct 21-24, 2015 in San Antonio, TX

aa. Other meetings through 2015
    i. AAPM July 12-17, 2015 in Anaheim, CA
    ii. DICOM WG-7 Jun 8-12, 2015 St. Louis, MO
    iii. DICOM WG-7 Jul 15-18 in Anaheim, CA
    iv. DICOM WG-7 Nov 2-6, 2015 location TBD
    v. World Congress on Medical Physics and Biomedical Engineering, Jun 7-12, 2015, Toronto
    vi. PTCOG May 18-23, 2015 in San Diego, CA

III. Adjournment at 4:15pm CEST