Minutes

Discrete Positioning and Delivery Workflow (DPDW)

Conference Call

December 16, 2014

11:00am – 12:30pm EST

DPDW Subgroup Chair:

Thomas Schwere, Varian Medical Systems  
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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.*

**In Attendance:**

Crystal Carter (ASTRO)

Luiza Kowalczyk (Medical Imaging)

Ulrich Busch (Varian)

Thomas Schwere (Varian)

Sanjay Bari (Elekta)

Martin Vonach (Brainlab)

Harold Beunk (ICT)

# Call to Order

The meeting was started at 11:00 EST.

# Transactions

While incorporating the changes for RO-DPD-223, T. Schwere wondered what synchronization mechanism is used between RO-DPD-201 (Retrieve Device Position Information) and the actual acquisition of the positioning information (e.g. RT Images). The group discussed this:

* Currently no synchronization is foreseen.
* In any case the acquired data is tagged with the position information (e.g. table top position in the RT Image) allowing the calculation of an absolute target position.
* The description of RO-DPD-201 should explicitly say that the device position information should be retrieved together with the acquisition of the positioning data as simultaneous as possible. However, this does still not guarantee that the couch is moved in between.
* Couch locking options were discussed:
  + RO-DPD-201 could implicitly lock the couch from any movement. This would require an additional transaction to unlock the couch again.
  + However, manual couch movements in case of emergency must always be possible.
  + RO-DPD-201 should be possible at any point in time and locking is not always desired.
  + Locking could also happen on a real-time I/F (similar to the monitoring scenario).
  + DPDW cannot change well-established workflows, e.g. off-center setup with a subsequent centering of the couch for a CBCT acquisition. Therefore locking of the couch seems to be problematic.
* Positioning data should be robust against couch movements.
* The group agreed on adding an open item for this to be discussed in the face-to-face meeting.

M. Vonach went through transaction RO-DPD-205:

* What UPS procedure code should be used for the RT Patient Position Correction? The group agreed on using 121722 "RT Patient Position Adjustment" from CID 9241 for that purpose.
* How to deal with procedures that are not supported by a particular performing device:
  + Support of a procedure is mainly based on the instruction (the UPS in general might be supported).
  + If a procedure/instruction is not supported the performing device shall set the UPS to CANCELED together with a reason for cancelation.
* Fig. 5.4-7: To reduce duplications (and probability of inconsistencies) consider using callouts to other diagrams.

# General Design Topics

## New Workflow Notification Service

Application Hosting Service:

H. Beunk is still working on the memo and will distribute it prior to the next meeting. The memo will be discussed in the next call.

# Face-to-Face Meeting

There are five participants so far.

# Other Business

## Next DPDW TCon

* Tuesday, January 27, 2014  
  11:00am – 12:30pm EST.

# Adjournment

The meeting was adjourned at 12:15 EST.

Appendix A: Administration and Process Information

Documents are published at the following locations. If you have problems in accessing the document, please contact the Chair ([ulrich.busch@varian.com](mailto:ulrich.busch@varian.com)).

## Process of Authoring:

Steps:

1. Download a local copy of the document from locations below
2. Open this copy and remove all change bars
3. Ensure, that Changes Bars are switched on
4. **Make your changes**
5. Provide the updated version to the Chair

## Location of Documents:

DPDW Subgroup Minutes

<http://wiki.ihe.net/index.php?title=RO_DPDW_WorkingGroup>

DPDW Profile

The DPDW Profile is an IHE-RO document.

The current version is available in the IHE-RO Org Wiki:

<http://www.ihe-ro.org/>

Please find the current document under this page:

<http://www.ihe-ro.org/doku.php?id=doc:profiles>

Supp 160

DICOM Supplement 160 (Patient Positioning and Workflow) in s DICOM WG-07 document.

The current version is available at the DICOM ftp server:

<ftp://d9-workgrps:goimagego@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG07/Supp160>

## Mailing List:

The mailing list for the DPDW subgroup is:

[iherodpdw2014@mail.aapm.org](mailto:iherodpdw2014@mail.aapm.org)

Appendix B: Task Assignments

Per end this TCon (2014-09-30).

| **No** | **TX / Area** | **Old Number** | **Title** | **Group** | **Owner** |
| --- | --- | --- | --- | --- | --- |
| 1 | ./. | ./. | Use Case Delivery-Device Independent Imaging |  | David Wikler |
| 2 | RO-DPD-200 | RO-DPD-01 | Worklist Query for Positioning Acquisition | Acquisition | Martin Vonach |
| 3 | RO-DPD-201 | RO-DPD-02 | Retrieve Device Position Information | Acquisition | Martin Vonach |
| 4 | RO-DPD-202 | RO-DPD-03 | Request RT Patient Position Correction | Correction | Martin Vonach |
| 5 | RO-DPD-203 | RO-DPD-04 | Store RT Patient Position Modification Instruction | Correction | Martin Vonach |
| 6 | RO-DPD-204 | RO-DPD-05 | Store RT Repositioning Results to Object Storage | Correction | Martin Vonach |
| 7 | RO-DPD-205 | RO-DPD-06 | Worklist Query for Repositioning | Correction | Martin Vonach |
| 8 | RO-DPD-206 | RO-DPD-07 | Notify on Radiation Delivery Status Change | Delivery | Thomas Schwere, Sanjay Bari |
| 9 | RO-DPD-207 | RO-DPD-08 | Retrieve RT Patient Position Correction Instruction | Correction | Martin Vonach |
| 10 | RO-DPD-208 | RO-DPD-09 | Subscribe/Unsubscribe to Treat UPS Status | UPS Notification | Thomas Schwere |
| 11 | RO-DPD-209 | RO-DPD-10 | Notify on Radiation State | Delivery | Thomas Schwere, Sanjay Bari |
| 12 | RO-DPD-210 | RO-DPD-11 | Retrieve Positioning Acquisition Results | Registration | Chris Pauers |
| 13 | RO-DPD-211 | RO-DPD-12 | Worklist Query for Positioning Registration | Registration | Chris Pauers |
| 14 | RO-DPD-212 | RO-DPD-13 | Worklist Query for Position Monitoring | Monitoring | Stephen Phillips |
| 15 | RO-DPD-213 | RO-DPD-16 | Store Monitoring Results to Object Storage | Monitoring | Stephen Phillips |
| 16 | RO-DPD-214 | RO-DPD-17 | UPS Final Update at Session Termination | Framework | Thomas Schwere, Sanjay Bari |
| 17 | RO-DPD-215 | RO-DPD-18 | UPS Completed / Cancelled at Session Termination | Framework | Thomas Schwere, Sanjay Bari |
| 18 | RO-DPD-216 | RO-DPD-19 | Indicate Ready for Monitoring | Monitoring | Stephen Phillips |
| 19 | RO-DPD-217 | RO-DPD-20 | Notify Device to start UPS | UPS Notification | Thomas Schwere, Sanjay Bari |
| 20 | RO-DPD-218 | RO-DPD-21 | Create Positioning Acquisition and Positioning Registration UPS | Workflow | Thomas Schwere |
| 21 | RO-DPD-219 | RO-DPD-22 | Create Treat UPS and Radiation Delivery Instruction for Continuation | Workflow | Thomas Schwere |
| 22 | RO-DPD-220 | RO-DPD-23 | Notify Treatment Session Actors on Starting Session | UPS Notification | Thomas Schwere, Sanjay Bari |
| 23 | RO-DPD-221 | RO-DPD-24 | Notify Device to stop UPS | UPS Notification | Thomas Schwere, Sanjay Bari |
| 24 | RO-DPD-222 | RO-DPD-25 | UPS Progress Update for Discrete non-Treatment Steps | UPS Notification | Thomas Schwere, Sanjay Bari |
| 25 | RO-DPD-223 | RO-DPD-26 | Worklist Query for Positioning Correction Reconciliation | Registration | Chris Pauers |
| 26 | RO-DPD-224 | RO-DPD-27 | External Verification | External Verification | Sanjay Bari |
| 27 | RO-DPD-225 | ./. | Notify Device to resume UPS | Monitoring | Stephen Phillips |
| 28 | RO-DPD-226 | ./. | Create new Positioning UPS | Monitoring | Stephen Phillips |
| 29 | RO-DPD-227 | ./. | UPS Final Update after Positioning Information Acquisition | Workflow |  |
| 30 | RO-DPD-228 | ./. | UPS Final Update after Treatment Interruption | Workflow | Thomas Schwere |