Minutes

Discrete Positioning and Delivery Workflow (DPDW)

Conference Call

April 26, 2022 10:00am – 11:25am ET

DPDW Subgroup Chair: Thomas Schwere, Varian Medical Systems (thomas.schwere@varian.com)

IHERO Task Force Co-Chairs Bruce Curran, MEng, FAAPM, FACMP, FACR Bridget Koontz, 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:

Jill Moton (AAPM)
Gergely Parditka (Brainlab)
Harold Beunk (Demcon)
Istvan Matyas (Siemens Healthineers)
Sanjay Bari (Elekta)
Bob Pekarek (Accuray)
David Wikler (IBA)
Bruce Rakes (Mevion)
Jon Treffert (RaySearch)
Ondrej Sevela (Advanced Oncotherapy)

1 Call to Order

The meeting was started at 10:00am ET.

2 General

- TDOR got voted to Public Comment in the IHE-RO TC call in 21 Apr 2022.
- The group discussed about what to work on next:
 - A. Add imaging use cases as extensions to TDW-II and/or IPDW:
 - Scheduled imaging conveyed in additional imaging UPS mainly providing a dedicated workitem code w/o any additional parameters (imaging instruction IODs are still missing in DICOM)
 - "Offline Review" of patient positioning, i.e. 2D/3D images and registrations/couch shifts. The planning committee mentioned big interest in the community for this use case.
 - B. Extend TDW-II with adaptive use cases
 - C. Extend TDW-II with patient setup use cases
 - D. Continue with DPDW use cases after meeting with new stakeholders/vendors at AAPM annual meeting in July
 - E. Add DICOMweb as an option to DICOM DIMSE in TDW-II to better support environments where systems are being moved from on-prem to cloud. The same approach is also being proposed in BQAW which Thomas quickly presented to the group (still works in progress).
 - F. FHIR vs. DICOM UPS for the workflow channel
 - New vendors might prefer to use FHIR as this is basically a restful http/JSON protocol and does not require any special DICOM knowledge.
 - Management systems are required to build up FHIR infrastructure for the 21st century cures act.
 - Still TDD vendors invested a lot in building up the DICOM UPS infrastructure to support TDW-II. And this journey will continue with TDOR.
 - Long term FHIR might be an additional protocol option for TDW-II transactions (see also presentation about VTI which Thomas quickly showed again: https://aapm.box.com/s/0ghj1d9batjhk5kdst8m3qlijaf0eqzl)
 - FHIRcast (see https://fhircast.org/) could be an option for exchanging context (and workflow steps) between TSM actor and companion actors inside the treatment room as a replacement for DICOM UPS.
- Next Steps:
 - A. Bruce to provide an overview in the next DPDW call about what information Mevion is using in the BDI to support setup and imaging use cases

3 Adjournment

The meeting was adjourned at 11:25am ET.

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 (thomas.schwere@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/Sup/Sup/Sup160 PatientPositioningAndWorkflow

Mailing List:

The mailing list for the DPDW subgroup is:

2022.iherodpdw@aapm.org