

# Minutes

## Discrete Positioning and Delivery Workflow (DPDW)

### Conference Call

October 19, 2021

10:00am – 11:30am ET

#### DPDW Subgroup Chair:

Thomas Schwere, Varian Medical Systems  
([thomas.schwere@varian.com](mailto: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)  
Thomas Schwere (Varian)

- Call to Order

The meeting was started at 10:00am ET.

## **1 Design Topics**

### **1.1. TDW Offline Recording**

The group spent the whole meeting duration for a lively discussion about the semantics of a “Treatment Session” and its associated “Treatment Session UID”.

- What is the scope of a treatment session?
- Should we differentiate between a scheduled treatment session and a performed treatment session?
- Is the continuation of a partially delivered session considered as a new treatment session/new treatment session UID? Does it depend on whether the patient left the treatment room or not?
- Session vs. fraction vs. appointment/charge.
- Most appropriate definition of a treatment session is a patient visit at the treatment machine, i.e. spanning the time/activities from entering the treatment room until leaving the treatment room. With that definition, a partially delivered fraction that got already closed and continuation is delivered while the patient did not leave the treatment room, this would still be considered a single session.
- The analogy to a Frame of Reference UID was brought up.
- Treatment Session UID was introduced in the IPDW/DPDW context for grouping/aggregating the different UPS types (image acquisition, image registration, patient position correction, treatment delivery) into a single scheduled session. The UPS Scheduled Start DateTime is not a strong enough concept for this grouping.
- In TDOR profile, the Treatment Session UID got introduced to allow the linking between offline recorded artifacts and their corresponding session representation in the TMS. That Treatment Session UID is assigned by the TMS, provided as part of the worklist/UPS to the TDD and finally reported in the Offline Recording UPS back to the TMS.
- Current TDW-II profile misses the grouping of multiple treatment UPS into a single session. A scenario for this would be continuation of fraction #2 together with full delivery of fraction #3 in a single session. Again, UPS Scheduled Start DateTime of the two UPS might be set identical. However, doing so would not allow anymore to define the order of the UPS within the session. The grouping concept using the Treatment Session UID might be introduced in a future version of TDW-II.
- We should not put too much specification around a treatment session, allowing the TMS vendors to freely define the scope of a session to fit their needs. In the end the TDD simply has to perform what it was requested to do.
- The existing definition of an RT Treatment Session and Treatment Session UID as introduced with DICOM 2<sup>nd</sup> gen does not fully fit with the semantics needed in TDOR profile.

#### **Decisions:**

- The TDOR profile should not specify the scope of a treatment session UID. In particular, it should leave it open if the continuation of a partially delivered fraction is to be done on

the same Treatment Session UID of the initially scheduled full fraction or on a new Treatment Session UID. This is left up to a specific TMS implementation.

- To not interfere with the DICOM 2<sup>nd</sup> gen definition, Treatment Session UID shall be renamed to “Scheduled Treatment Session UID”.
- There is no need to differentiate between a scheduled treatment session and a performed treatment session.

## **2 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](mailto: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](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/Sup160\\_PatientPositioningAndWorkflow](ftp://d9-workgrps:goimagego@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG07/Sup/Sup160_PatientPositioningAndWorkflow)

### **Mailing List:**

The mailing list for the DPDW subgroup is:

[2021.iherodpdw@aapm.org](mailto:2021.iherodpdw@aapm.org)