

DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-171
Status	New
Date of Last Update	8 April 25 March 1999
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Submission date	25 March 1999

Correction Number	CP-171
Log Summary: Add support for translation of Electronic Portal Imaging Devices (EPIDs)	
Type of Modification: Extension	Name of Standard PS 3.3-1998
Rationale for Correction:	
<p>The RT ImagePlan object provides a mechanism for specifying the coordinate system of the image acquired by an Electronic Portal Imaging Device (EPID), by specifying X-ray Image Receptor Angle (3002,000E), RT Image Orientation (3002,0010), and RT Image Position (3002,0012).</p> <p>However, some imaging devices EPIDs appear to allow a translation of the IEC X-RAY IMAGE RECEPTOR coordinate system, as described by IEC-1217. This needs to be modeled within DICOM.</p>	
Sections of document affected:	
<p>PS 3.3-1998 (Information Object Definitions), Section C.8.8.2 (RT Image Module) PS 3.6-1998 (Data Dictionary) Section 6 (Registry of DICOM data elements)</p>	
Correction Wording:	
<p>In DICOM PS 3.3-1998, Section C.8.8.2 (RT Image Module), Table C.8-34 (RT Image Module Attributes) add the following attribute immediately following RT Image Plane (3002,000C):</p> <p>X-Ray Image Receptor Translation (3002,000D) 32E Position in (x,y,z) coordinates of origin of IEC X-RAY IMAGE RECEPTOR System in the IEC GANTRY coordinate system (mm). Required if X ray image receptor translation is non zero in either x or y direction. See Note 2.</p> <p>In DICOM PS 3.3-1998, Section C.8.8.2 (RT Image Module), add the following note (as Note 2) after the existing note at the end of Table C.8-34 (RT Image Module Attributes):</p> <p>Notes: 2. The Z coordinate of the X-Ray Image Receptor Translation (3002,000D) will be equal to the Radiation Machine SAD (3002,0022) minus the RT Image SID (3002,0026). If the image receptor is further from the beam source than the machine isocenter, the Z coordinate will be negative (see IEC 12179).</p> <p>In DICOM PS 3.6-1998, Section 6 (Registry of DICOM data elements), add the following attribute:</p>	
(3002,000D)	X-Ray Image Receptor Translation DS 3

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Add support for translation of Imaging Devices
~~Electronic Portal Imaging Devices (EPIDs)~~

Date: 1999/03/25

Status: Assigned