DICOM Correction Proposal

Status	Final Text
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Correction Number CP1487
Log Summary: Add Display Origin Coordinates To RTPlan
Name of Standard PS3.3, PS3.6 2015c
Rationale for Correction: Users of Radiotherapy often want to use a origin and a axis labeling different than the one defined by the Frame of Reference to optimize the display of coordinates. E.g. the origin may be the crossing point on the setup lasers or center of the target and the axis labeling may follow the device coordinate system. Displaying such coordinates choosing allows the user to read image coordinates relative to a semantically interesting point. The transformation will only be used for display purposes and does not in any affect the Frame of Reference coordinates wherever used (e.g. isocenter coordinates). The CP proposes to have an option to define this origin in the RT Plan.
Correction Wording:

In PS3.3, section C.8.8.9 RT General Plan Module, add the following attribute.

C.8.8.9 RT General Plan Module

Table C.8-45—RT GENERAL PLAN MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
RT Plan Label	(300A,0002	1	User-defined label for treatment plan.
…			
Referenced RT Plan Sequence	(300C,0002)	3	Related instances of RT Plan. One or more items are permitted in this sequence.
>Include 'SOP Instance Reference Macro' Table 10-11			
>RT Plan Relationship	(300A,0055)	1	Relationship of referenced plan with respect to current plan. Defined Terms: PRIOR = plan delivered prior to current treatment ALTERNATIVE = alternative plan prepared for current treatment PREDECESSOR = plan used in derivation of current plan VERIFIED_PLAN = plan which is verified

			using the current plan. This value shall only be used if Plan Intent (300A,000A) is present and has a value of VERIFICATION CONCURRENT = plan that forms part of a set of two or more RT Plan instances representing a single conceptual 'plan', applied in parallel in one treatment phase
Frame of Reference to Displayed Coordinate System Transformation Matrix	**(0070,030B)**	**3**	**A 4x4 transformation matrix that transforms a coordinate of the Frame of Reference to a displayed coordinate system.** **Only rigid transformation matrices are permitted (see definition in Section C.20.2.1.2).** **Matrix elements shall be listed in row-major order.**

In PS 3.6, Section 6, add the following new attributes:

(0070,030B)	**Frame of Reference to Displayed Coordinate System Transformation Matrix**	**FrameOfReferenceToDisplayedCoordinateSystemTransformationMatrix**	**FD**	**16**