

DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-237
STATUS	
Date of Last Update	1/25/2001
Person Assigned	Harry Solomon
Submitter Name	Harry Solomon
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Correction Number CP-237	
Log Summary: Clarify Definition of Collimator Attributes	
Type of Modification Clarification	Name of Standard PS 3.3-2000
Rationale for Correction The X-Ray Collimator Module is unclear in its definition of the "edge" of the collimator.	
Sections of documents affected Modify PS 3.3, Section C.8.7.3, Table C.8-28, and add new subsection C.8.7.3.1.	
Correction Wording:	

**Table C.8-28
X-RAY COLLIMATOR MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
Collimator Shape	(0018,1700)	1	Shape(s) of the collimator. Enumerated Values: RECTANGULAR CIRCULAR POLYGONAL This multi-valued Attribute shall contain at most one of each Enumerated Value.
Collimator Left Vertical Edge	(0018,1702)	1C	Required if Collimator Shape (0018,1700) is RECTANGULAR. Location of the left edge of the rectangular collimator with respect to pixels in the image given as column. See C.8.7.3.1.1.
Collimator Right Vertical Edge	(0018,1704)	1C	Required if Collimator Shape (0018,1700) is RECTANGULAR. Location of the right edge of the rectangular collimator with respect to pixels in the image given as column. See C.8.7.3.1.1.

Collimator Upper Horizontal Edge	(0018,1706)	1C	Required if Collimator Shape (0018,1700) is RECTANGULAR. Location of the upper edge of the rectangular collimator with respect to pixels in the image given as row. See C.8.7.3.1.1.
Collimator Lower Horizontal Edge	(0018,1708)	1C	Required if Collimator Shape (0018,1700) is RECTANGULAR. Location of the lower edge of the rectangular collimator with respect to pixels in the image given as row. See C.8.7.3.1.1.
Center of Circular Collimator	(0018,1710)	1C	Required if Collimator Shape (0018,1700) is CIRCULAR. Location of the center of the circular collimator with respect to pixels in the image given as row and column.
Radius of Circular Collimator	(0018,1712)	1C	Required if Collimator Shape (0018,1700) is CIRCULAR. Radius of the circular collimator with respect to pixels in the image given as a number of pixels along the row direction.
Vertices of the Polygonal Collimator	(0018,1720)	1C	Required if Collimator Shape (0018,1700) is POLYGONAL. Multiple Values where the first set of two values are: row of the origin vertex; column of the origin vertex. Two or more pairs of values follow and are the row and column coordinates of the other vertices of the polygon collimator. Polygon collimators are implicitly closed from the last vertex to the origin vertex are and all edges shall be non-intersecting polygons. except at the vertices

C.8.7.3.1 X-Ray Collimator Attribute Descriptions

C.8.7.3.1.1 Collimator Vertical and Horizontal Edges

The Collimator Edge attributes specify the pixel row or column where the X-ray beam is fully obscured by the collimator. Thus an image which has been cropped to exclude the collimated pixels will have a Collimator Left Vertical Edge value of 0, a Collimator Right Vertical Edge value of 1 greater than the Number of Columns, a Collimator Upper Horizontal Edge value of 0, and a Collimator Lower Horizontal Edge value of 1 greater than the Number of Rows.