

## DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-237
STATUS	
Date of Last Update	5/11/2001
Person Assigned	Harry Solomon
Submitter Name	Harry Solomon
Submission date	12/19/2000

Correction Number CP-237	
Log Summary: Clarify Definition of Collimator Attributes	
Type of Modification	Name of Standard
Clarification	PS 3.3-2000
<p>Rationale for Correction</p> <p>The X-Ray Collimator Module is unclear in its definition of the "edge" of the collimator. Both the X-Ray Collimator Module and the Shutter Module are unclear in their definition of a polygon.</p>	
<p>Sections of documents affected</p> <p>Modify PS 3.3, Section C.7.6.1, Table C.7-17; Section C.8.7.3, Table C.8-28; and add new subsection C.8.7.3.1.</p>	
Correction Wording:	

**Table C.7-17  
DISPLAY SHUTTER MODULE**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>	<b>Attribute Description</b>
...			
Vertices of the Polygonal Shutter	(0018,1620)	1C	<p>Required if Shutter Shape (0018,1600) is POLYGONAL.</p> <p>Multiple Values where the first set of two values are:</p> <p style="padding-left: 40px;">row of the origin vertex column of the origin vertex</p> <p>Two or more pairs of values follow and are the row and column coordinates of the other vertices of the polygon shutter. Polygon shutters are implicitly closed from the last vertex to the origin vertex <b>are and all edges</b> shall be non-intersecting <b>except at the vertices</b> polygons.</p>

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

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>	<b>Attribute Description</b>
...			
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. <b>See C.8.7.3.1.1.</b>
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. <b>See C.8.7.3.1.1.</b>
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. <b>See C.8.7.3.1.1.</b>
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. <b>See C.8.7.3.1.1.</b>
...			

Vertices of the Polygonal Collimator	(0018,1720)	1C	<p>Required if Collimator Shape (0018,1700) is POLYGONAL.</p> <p>Multiple Values where the first set of two values are:</p> <p style="padding-left: 40px;">row of the origin vertex;</p> <p style="padding-left: 40px;">column of the origin vertex.</p> <p>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 <del>are</del> <b>and all edges</b> shall be non-intersecting <b>except at the vertices</b> polygons.</p>
--------------------------------------	-------------	----	--

### 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. If the left edge of the collimator is not seen in an image, the image shall have a Collimator Left Vertical Edge (0018,1702) value of 0; if the right edge of the collimator is not seen, the Collimator Right Vertical Edge (0018,1704) value shall be 1 greater than the value of the Columns (0028,0011) attribute; if the top edge of the collimator is not seen in an image, the image shall have a Collimator Upper Horizontal Edge (0018,1706) value of 0; if the bottom edge of the collimator is not seen in an image, the image shall have a Collimator Lower Horizontal Edge (0018,1708) value shall be 1 greater than the value of the Rows (0028,0010) attribute.