

DICOM Correction Item

Correction Number CP-439	
Log Summary: Clarification of Structures with Excluded Volumes in RT	
Type of Modification Clarification	Name of Standard PS 3 2003
Rationale for Correction: The RT Structure Set object does not describe well the methodology for formatting and transferring a single structure containing an excluded volume. The method defined by the working group during the design of the object allowed for this only by using a “keyhole” technique, such that a single contour could be used for such cases. This Change Proposal adds a informative section to Part 3 to clarify the “keyhole” technique as the defined method for representing such contours.	
Sections of documents affected PS 3.3, C.8.8.6 (ROI Contour Module)	
Correction Wording:	

In PS 3.3, Section C.8.8.6 (ROI Contour Module), modify the following element in Table C.8-38 (ROI Contour Module Attributes):

Attribute Name	Tag	Type	Attribute Description
>>Contour Data	(3006,0050)	1C	Sequence of (x,y,z) triplets defining a contour in the patient based coordinate system described in C.7.6.2.1.1 (mm). Required if Contour Sequence (3006,0040) is sent. See C.8.8.6.1 and C.8.8.6.3.

In PS 3.3, after Section C.8.8.6.2, add the following section:

C.8.8.6.3 Representing Inner and Outer Contours on an Image

When a single ROI describes an excluded inner volume, this can be encoded with a single contour, using a “keyhole” technique. In this method, an arbitrarily narrow channel is used to connect the outer contour to the inner contour, so that it is drawn as a single contour. An example of such a structure is shown in Figure C.8.8.6-1

Points in space lying along the path defined by the contour are considered to be inside the ROI.

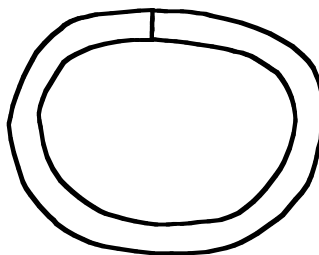


Figure C.8.8.6-1
 Example of ROI with excluded inner volume