

DICOM Correction Item

Correction Number CP- 1014	
Log Summary: Clarify Allowed Element ranges for Private Attributes	
Type of Modification	Name of Standard
Clarification	PS 3.5 - 2009
Rationale for Correction: Although the intent of PS 3.5 7.8.1 is clear, certain private element Tag ranges are not defined, and their status is technically ambiguous. In particular: 1) Whilst ranges gggg,0010-00FF and gggg,1000-FFFF are defined, gggg,0000-000F and gggg,0100-0FFF are not.	
Sections of documents affected PS 3.5 – 7.8.1	
Correction Wording:	

Modify PS 3.5 Section 7.8.1 as follows:

7.8.1 PRIVATE DATA ELEMENT TAGS

It is possible that multiple implementors may define Private Elements with the same (odd) group number. To avoid conflicts, Private Elements shall be assigned Private Data Element Tags according to the following rules.

- a) Private Creator Data Elements numbered (gggg,0010-00FF) (gggg is odd) shall be used to reserve a block of Elements with Group Number gggg for use by an individual implementor. The implementor shall insert an identification code in the first unused (unassigned) Element in this series to reserve a block of Private Elements. The VR of the private identification code shall be LO (Long String) and the VM shall be equal to 1.
- b) Private Creator Data Element (gggg,0010), is a Type 1 Data Element that identifies the implementor reserving element (gggg,1000-10FF), Private Creator Data Element (gggg,0011) identifies the implementor reserving elements (gggg,1100-11FF), and so on, until Private Creator Data Element (gggg,00FF) identifies the implementor reserving elements (gggg,FF00-FFFF).
- c) Encoders of Private Data Elements shall be able to dynamically assign private data to any available (unreserved) block(s) within the Private group, and specify this assignment through the blocks corresponding Private Creator Data Element(s). Decoders of Private Data shall be able to accept reserved blocks with a given Private Creator identification code at any position within the Private group specified by the blocks corresponding Private Creator Data Element.

- Notes:
1. The versions of this standard prior to V3.0 described shadow groups. These were groups with a group number one greater than the standard groups. Elimination of conflicts in Private Data Element Tags have made this distinction obsolete and this terminology has been retired.
 2. The versions of this standard prior to V3.0 specified private group element numbers (gggg,10FF-7FFF) reserved for manufacturers and private group element numbers (gggg, 8100-FFFF) reserved for users. Elimination of conflicts in Private Data Element Tags has made this distinction obsolete and this specification has been retired.

3. The requirements of this section do not allow any use of elements in the ranges (gggg,0001-000F) and (gggg,0100-0FFF) where gggg is odd.

- d) Elements with Tags (0001,xxxx), (0003,xxxx), (0005,xxxx), and (0007,xxxx) shall not be used.

Since each Item within a sequence is a self contained Data Set (see Section 7.5 on the nesting of Data Sets via Sequences of Items), any Item which contains Private Data Elements shall also have Private Creator Data Elements reserving blocks of Elements for those Private Data Elements. The scope of the reservation is just within the Item. Items do not inherit the Private Data Element reservations made by Private Creator Data Elements in the Data Set in which the Item is nested.

- Note:
1. If a sequence is itself a Private Data Element and the Items within the sequence also have Private Data Elements, then there will be Private Creator Data Elements both outside the sequence and within the sequence Items.
 2. Different Items may reserve the same block of Private Data Elements for different private creators. This is necessary to allow the nesting of Data Sets collected from multiple sources into folders.