

DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-145
STATUS	Assigned (pending waveform VR discussion)
Date of Last Update	1999/01/30
Person Assigned	David Clunie
Submitter Name	Herve Hoehn
Submission date	1998/08/20

Correction Number	CP-145
Log Summary: Curve Data Value Representation clarification	
Type of Modification	Name of Standard
Clarification	PS 3.5,3.6-1998
<p>Rationale for Correction</p> <p>Curve Data (50xx,3000) is specified in PS 3.3 C.10.2.1.4 to use the VR specified in Data Value Representation (50xx,0103) which as specified in PS 3.3 C.10.2.1.2 may be US,SS,FL,FD or SL.</p> <p>Curve Data (50xx,3000) is specified in PS 3.5 A.1 for Implicit VR to have a VR of OB but with its "component points" having a VR as specified in Data Value Representation (50xx,0103).</p> <p>Curve Data (50xx,3000) is specified in PS 3.5 A.2, A.3 and A.4 to have a VR as specified by the explicit VR field chosen from the allowable list defined in PS 3.3 C.10.2.1.2.</p> <p>Curve Data (50xx,3000) is specified in PS 3.6 to have a VR of OW/OB.</p> <p>These sections are conflict, and become an issue when an Explicit VR Transfer Syntax is used.</p> <p>The intent here seems to be to specify an Explicit VR the same as Data Value Representation (50xx,0103) when an Explicit VR Transfer Syntax is in use. For an Implicit VR Transfer Syntax, to encode the data as if it had a VR as specified in Data Value Representation (50xx,0103). Since the only Implicit VR Transfer Syntax available is Little Endian this has the same effect whether one considers a multi-byte integer or float is encoded as OB or whether it is written as a little endian multi-byte integer or float, ie. the least significant byte is encoded first in the stream.</p> <p>The proposed changes here clarify the intent and make PS 3.3, 3.5 and 3.6 consistent.</p>	
Sections of documents affected	
PS 3.5 A.1,A.2,A.3,A.4	
PS 3.6 Section 6	
Correction Wording:	

Amend PS 3.5-1998 Section A to revise RULES FOR (50xx,3000) VR.

A.1 DICOM IMPLICIT VR LITTLE ENDIAN TRANSFER SYNTAX

...

Data Element (50xx,3000) Curve Data has the Value Representation ~~OB~~
~~with its component points (n-tuples) having the Value~~
~~Representation~~ specified in Data Value Representation (50xx,0103) ~~+~~
~~The component points and~~ shall be encoded in Little Endian. **See**
the specification of the Curve Data Module in PS 3.3 for the
enumerated list of allowable VRs.

...

A.2 DICOM LITTLE ENDIAN TRANSFER SYNTAX (EXPLICIT VR)

...

Data Element (50xx,3000) Curve Data has the Value Representation specified in
Data Value Representation (50xx,0103) and shall be encoded in
Little Endian its Explicit VR Field. See the specification of the Curve
Data Module in PS 3.3 for the enumerated list of allowable VRs. ~~The~~
~~component points shall be encoded in Little Endian.~~

...

A.3 DICOM BIG ENDIAN TRANSFER SYNTAX (EXPLICIT VR)

...

Data Element (50xx,3000) Curve Data has the Value Representation specified in
Data Value Representation (50xx,0103) and shall be encoded in
Big Endian its Explicit VR Field. See the specification of the Curve Data
Module in PS 3.3 for the enumerated list of allowable VRs. ~~The component~~
~~points shall be encoded in Big Endian.~~

...

**A.4 TRANSFER SYNTAXES FOR ENCAPSULATION OF ENCODED PIXEL
DATA**

...

Data Element (50xx,3000) Curve Data has the Value Representation specified in
Data Value Representation (50xx,0103) and shall be encoded in
Little Endian its Explicit VR Field. See the specification of the Curve
Data Module in PS 3.3 for the enumerated list of allowable VRs. ~~The~~
~~component points shall be encoded in Little Endian.~~

...

Amend PS 3.6-1998 Section 6 to revise (50xx,3000) VR.

6 REGISTRY OF DICOM DATA ELEMENTS

(50xx,3000) Curve Data

~~OW/OB~~ 1
US or
SS or
FL or
FD or
SL