

Correction Number		CP-144 (Final Text)	
Log Summary: Audio Sample Data Value Representation clarification			
Type of Modification		Name of Standard	
Clarification		PS 3.3, 3.5-1998	
<p>Rationale for Correction</p> <p>Audio Sample Data (50xx,200C) is specified in PS 3.6 to have a VR of OW/OB.</p> <p>Audio Sample Data (50xx,200C) is specified in PS 3.3 C.10.3 to contain 8 or 16 bit two's complement values as specified in Audio Sample Format (50xx,2002).</p> <p>The description in PS 3.3 also specifies the byte order of 16 bit values which is inappropriate for big endian transfer syntaxes.</p> <p>It is not specified which VR to use under what circumstances. There are no rules in PS 3.5 as there are for curves, overlays and pixel data.</p> <p>The proposed changes here specify that the VR shall depend on Audio Sample Format (50xx,2002), and be OB if 8 bit values and OW if 16 bit.</p> <p>Since the only Implicit VR Transfer Syntax available is Little Endian this has the same effect whether one considers a 2 byte integer is encoded as OB or whether it is written as a little endian OW, i.e. the least significant byte is encoded first in the stream.</p>			
Sections of documents affected			
PS 3.3 C.10.3			
PS 3.5 A.1,A.2,A.3,A.4			
Correction Wording:			

Amend PS 3.3-1998 Section C.10.3 to remove byte order (50xx,200C).

C.10.3 Audio module

This Module defines Attributes that describe characteristics of audio curves.

Table C.10-3
AUDIO MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
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Audio Sample Format	(50xx,2002)	1	Format of the Audio Sample Data. Enumerated Values: 0000H = 16 bit 2's complement Stored LSB first , interleaved per channel: channel 0 sample 0, channel 1 sample 0, channel 0 sample 1, channel 1 sample 1 0001H = 8 bit 2's complement, interleaved per channel: channel 0 sample 0, channel 1 sample 0, channel 0 sample 1, channel 1 sample 1

Amend PS 3.5-1998 Section A to add new rules for (50xx,200C) VR.

A.1 DICOM IMPLICIT VR LITTLE ENDIAN TRANSFER SYNTAX

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Data Element (50xx,200C) Audio Sample Data has the Value Representation OB when AudioSample Format (50xx,2002) specifies 8-bit values, and OW encoded in Little Endian when 16 bit values are specified. See the specification of the Audio Module in PS 3.3.

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

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Data Element (50xx,200C) Audio Sample Data has the Value Representation OB when AudioSample Format (50xx,2002) specifies 8-bit values, and OW encoded in Little Endian when 16 bit values are specified. See the specification of the Audio Module in PS 3.3.

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

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Data Element (50xx,200C) Audio Sample Data has the Value Representation OB when AudioSample Format (50xx,2002) specifies 8-bit values, and OW encoded in Big Endian when 16 bit values are specified. See the specification of the Audio Module in PS 3.3.

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A.4 TRANSFER SYNTAXES FOR ENCAPSULATION OF ENCODED PIXEL DATA

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Data Element (50xx,200C) Audio Sample Data has the Value Representation OB when AudioSample Format (50xx,2002) specifies 8-bit values, and OW encoded in Little Endian when 16 bit values are specified. See the specification of the Audio Module in PS 3.3.