

DICOM Correction Item

Correction Number		CP-381
Log Summary: Defined Terms for Image Type in Enhanced MR		
Type of Modification	Name of Standard	
Clarification	PS 3.3 2003	
Rationale for Correction		
<p>The Enhanced MR object makes use of defined terms for the third value of Image Type and Frame Type in order to describe the “flavor” and “derived pixel contrast” of images and frames.</p> <p>Value 3 is particularly useful as a single place to obtain a value to display a meaningful entry in an image browser to indicate the overall “type” of the image(s) to the user using nomenclature that is in common use amongst technologists and physicians, rather than having to analyze the specific details of the pulse sequence parameters.</p> <p>The lists of defined terms are not exhaustive and initial experience suggests that some additional terms are necessary.</p> <p>The value of MIXED is prohibited for Value 3, yet since a multi-frame image may contain frames with different contrast weighting, a value of MULTIECHO to cover the common pattern of mixing PD and T2 weighted frames is required.</p>		
Sections of documents affected		
PS 3.3 C.8.13.3.1.1.3		
Correction Wording:		

C.8.13.3.1.1.3 Image Flavor

Value 3 is an overall representation of the image type. This value may be a summary of several other attributes or a duplication of one of the other attributes to indicate the most important aspect of this image. Value 3 Image Flavor is to be used with Value 4 Derived Pixel Contrast to indicate the nature of the image set.

Note: For example Value 3 = DIFFUSION together with Value 4 = NONE indicates that the image set was originally collected for DIFFUSION.
 If Value 3 = DIFFUSION together with Value 4 = DIFFUSION this indicates that the object contains DIFFUSION weighted post processed images.

Value 3 of Image Type (0008,0008) shall not be zero length.

Value 3 of Frame Type (0008,9007) may have the same value as found in Value 3 of Image Type (0008,0008), or may have a different value or may be of zero length.

The attribute value may not be MIXED as this value needs to be a summary of the primary purpose of the images, whether the frames have the same value or not.

Table C.8.13-7 specifies the Defined Terms for Value 3 for Image Type (0008,0008) and Frame Type (0008,9007).

**Table C.8.13-7
 IMAGE TYPE AND FRAME TYPE VALUE 3**

Defined Term Name	Defined Term Description
ANGIO_TIME	Angio time acquisition (peripheral vascular/carotid)
METABOLITE_MAP	Metabolite Maps from spectroscopy data
CINE	Cardiac CINE
DIFFUSION	Collected to show diffusion effects.
FLOW_ENCODED	Flow Encoded
FLUID_ATTENUATED	Fluid Attenuated T2 weighted
FMRI	Collected for functional imaging calculations.
LOCALIZER	Collected for the purpose of planning other images.
MAX_IP	Maximum Intensity Projection
MIN_IP	Minimum Intensity Projection
M_MODE	Image line over time
MOTION	Collected for looking at body motion
MULTIECHO	Multiple echoes with different contrast weighting (e.g. proton density and T2 weighted)
PERFUSION	Collected for the purposes of perfusion calculations.
PROTON_DENSITY	Proton density weighted
REALTIME	Real-time collection of single slices
STIR	Short Tau Inversion Recovery
STRESS	Cardiac stress image set
TAGGING	Images with superposition of thin saturation bands

TEMPERATURE	Images record temperature
T1	T1 weighted
T2	T2 weighted
T2_STAR	T2* weighted
TOF	Time Of Flight weighted
VELOCITY	Velocity encoded