

DICOM Correction Proposal Form

Correction Number		CP-259
Log Summary: Retire unused Photometric Interpretations		
Type of Modification	Name of Standard	
Retirement	PS 3.3 2001	
Rationale for Correction		
The HSV, ARGB and CMYK Photometric Interpretations are not used in any currently defined image object, are poorly defined, and cause confusion for implementors.		
Sections of documents affected		
PS 3.3 C.7.6, C.7.9		
Correction Wording:		

C.7.6.3 Image Pixel Module

Table C.7-9 specified the Attributes that describe the pixel data of the image.

**Table C.7-9
IMAGE PIXEL MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
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Red Palette Color Lookup Table Descriptor	(0028,1101)	1C	Specifies the format of the Red Palette Color Lookup Table Data (0028,1201) Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Green Palette Color Lookup Table Descriptor	(0028,1102)	1C	Specifies the format of the Green Palette Color Lookup Table Data (0028,1202) Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Blue Palette Color Lookup Table Descriptor	(0028,1103)	1C	Specifies the format of the Blue Palette Color Lookup Table Data (0028,1203) Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Red Palette Color Lookup Table Data	(0028,1201)	1C	Red Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.6 for further explanation.
Green Palette Color Lookup Table Data	(0028,1202)	1C	Green Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.6 for further explanation.
Blue Palette Color Lookup Table Data	(0028,1203)	1C	Blue Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.6 for further explanation.

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C.7.6.3.1 Image Pixel Attribute Descriptions

C.7.6.3.1.1 Samples Per Pixel

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For monochrome (gray scale) and palette color images, the number of planes is 1. For RGB and other three vector color models, the value of this attribute is 3. For ~~ARGB and other~~ four vector color models, the value of this attribute is 4.

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C.7.6.3.1.2 Photometric Interpretation

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~~HSV = Pixel data represent a color image described by hue, saturation, and value image planes. The minimum sample value for each HSV plane represents a minimum value of each vector. This value may be used only when Samples per Pixel (0028,0002) has a value of 3. Retired~~

~~ARGB = Pixel data represent a color image described by red, green, blue, and alpha image planes. The minimum sample value for each RGB plane represents minimum intensity of the color. The alpha plane is passed through Palette Color Lookup Tables. If the alpha pixel value is greater than 0, the red, green, and blue lookup table values override the red, green, and blue, pixel plane colors. This value may be used only when Samples per Pixel (0028,0002) has a value of 4. Retired~~

~~CMYK = Pixel data represent a color image described by cyan, magenta, yellow, and black image planes. The minimum sample value for each CMYK plane represents a minimum intensity of the color. This value may be used only when Samples per Pixel (0028,0002) has a value of 4. Retired.~~

C.7.6.3.1.3 Planar Configuration

Planar Configuration (0028,0006) indicates whether the color pixel data are sent color-by-plane or color-by-pixel. This Attribute shall be present if Samples per Pixel (0028,0002) has a value greater than 1. It shall not be present otherwise.

Enumerated Values:

000 = The sample values for the first pixel are followed by the sample values for the second pixel, etc. For RGB images, this means the order of the pixel values sent shall be R1, G1, B1, R2, G2, B2, ..., etc. ~~For HSV images, this means the order of the pixel values sent shall be H1, S1, V1, H2, S2, V2, ... etc. For ARGB images, this means the order of the pixel values sent shall be A1, R1, G1, B1, A2, R2, G2, B2, ... etc. For CMYK images, this means the order of the pixel values sent shall be C1, M1, Y1, K1, C2, M2, Y2, K2, ... etc.~~

001 = Each color plane shall be sent contiguously. For RGB images, this means the order of the pixel values sent is R1, R2, R3, ..., G1, G2, G3, ..., B1, B2, B3, etc. ~~For HSV images, this means the order of the pixel values sent is H1, H2, H3, ..., S1, S2, S3, ..., V1, V2, V3, etc. For ARGB images, this means the order of the pixel values sent is A1, A2, A3, ..., R1, R2, R3, ..., G1, G2, G3, ... B1, B2, B3... etc. For CMYK images, this means the order of the pixel values sent is C1, C2, C3, ..., M1, M2, M3, ..., Y1, Y2, Y3, ..., K1, K2, K3... etc.~~

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C.7.9 Palette Color Lookup Table Module

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Table C.7-22
PALETTE COLOR LOOKUP MODULE

Attribute Name	Tag	Type	Attribute Description
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Red Palette Color Lookup Table Descriptor	(0028,1101)	1C	Specifies the format of the Red Palette Color Lookup Table Data (0028,1201). Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Green Palette Color Lookup Table Descriptor	(0028,1102)	1C	Specifies the format of the Green Palette Color Lookup Table Data (0028,1202). Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Blue Palette Color Lookup Table Descriptor	(0028,1103)	1C	Specifies the format of the Blue Palette Color Lookup table Data (0028,1203). Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB . See C.7.6.3.1.5 for further explanation.
Palette Color Lookup Table UID	(0028,1199)	3	Palette Color Lookup Table UID. See C.7.9.1 for further explanation.
Red Palette Color Lookup Table Data	(0028,1201)	1C	Red Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB and segmented data is NOT used. See C.7.6.3.1.6 for further explanation.
Green Palette Color Lookup Table Data	(0028,1202)	1C	Green Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB and segmented data is NOT used. See C.7.6.3.1.6 for further explanation.
Blue Palette Color Lookup Table Data	(0028,1203)	1C	Blue Palette Color Lookup Table Data. Required if Photometric Interpretation (0028,0004) has a value of PALETTE COLOR or ARGB and segmented data is NOT used. See C.7.6.3.1.6 for further explanation.
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