

DICOM Correction Proposal

STATUS	Final Text
Date of Last Update	2017/09/18
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Correction Number	CP-1687
Log Summary: Allow Segmented Color LUT in Color Palette IOD	
Name of Standard	PS3.3 2017c
Rationale for Correction: Newly defined Color Palette IOD's are using the segmented LUT. This is currently not allowed as specified in Table C.7-22a Palette Color Lookup Table Macro Attributes Propose to remove this restriction.	
Correction Wording:	

Item #1: Amend PS3.3 C.7.9: Remove restriction on usage of Segmented LUTs for Color Palette IOD

C.7.9 Palette Color Lookup Table Module

Table C.7-22 specifies the Attributes that describe the Lookup table data for images with Palette Color photometric interpretation.

When the Palette Color Lookup Table Module is present in an Image IOD, the conditional requirements for the use of Palette Color Lookup Table Data (0028,1201-1203) and Segmented Palette Color Lookup Table Data (0028,1221-1223), described in Table C.7-22, shall take precedence over the conditional requirements described in the Image Pixel Module (see Section C.7.6.3). When the Palette Color Lookup Table Module is present in a Presentation State IOD ~~or Color Palette IOD~~, the Palette Color Lookup Table Data (0028,1201-1203) attributes are mandatory and the Segmented Palette Color Lookup Table Data (0028,1221-1223) shall not be present. **When the [Palette Color Lookup Table Module](#) is present in a Color Palette IOD, either the [Palette Color Lookup Table Data \(0028,1201-1203\)](#) or [Segmented Palette Color Lookup Table Data \(0028,1221-1223\)](#) Attributes may be used.**

When the Palette Color Lookup Table Module is present in a Color Palette IOD, the 3rd value of Palette Color Lookup Table Descriptor (0028,1101-1103) (i.e, the number of bits for each entry in the Lookup Table Data) shall be 8.

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Table C.7-22a. Palette Color Lookup Table Macro Attributes

Attribute Name	Tag	Type	Attribute Description
Red Palette Color Lookup Table Descriptor	(0028,1101)	1	Specifies the format of the Red Palette Color Lookup Table Data (0028,1201). See Section C.7.6.3.1.5 for further explanation.
Green Palette Color Lookup Table Descriptor	(0028,1102)	1	Specifies the format of the Green Palette Color Lookup Table Data (0028,1202). See Section C.7.6.3.1.5 for further explanation.

Attribute Name	Tag	Type	Attribute Description
Blue Palette Color Lookup Table Descriptor	(0028,1103)	1	Specifies the format of the Blue Palette Color Lookup table Data (0028,1203). See Section C.7.6.3.1.5 for further explanation.
Palette Color Lookup Table UID	(0028,1199)	3	Palette Color Lookup Table UID. See Section C.7.9.1 for further explanation.
Red Palette Color Lookup Table Data	(0028,1201)	1C	Red Palette Color Lookup Table Data. Required if segmented data is NOT used in an Image IOD or Color Palette IOD , or if the IOD is a Presentation State IOD or Color Palette IOD . See Section 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 segmented data is NOT used in an Image IOD, or if the IOD is a Presentation State IOD or Color Palette IOD . See Section 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 segmented data is NOT used in an Image IOD or Color Palette IOD , or if the IOD is a Presentation State IOD or Color Palette IOD . See Section C.7.6.3.1.6 for further explanation.
Segmented Red Palette Color Lookup Table Data	(0028,1221)	1C	Segmented Red Palette Color Lookup Table Data. Required if segmented data is used in an Image IOD or Color Palette IOD ; shall not be present in a Presentation State IOD or Color Palette IOD . See Section C.7.9.2 for further explanation.
Segmented Green Palette Color Lookup Table Data	(0028,1222)	1C	Segmented Green Palette Color Lookup Table Data. Required if segmented data is used in an Image IOD or Color Palette IOD ; shall not be present in a Presentation State IOD or Color Palette IOD . See Section C.7.9.2 for further explanation.
Segmented Blue Palette Color Lookup Table Data	(0028,1223)	1C	Segmented Blue Palette Color Lookup Table Data. Required if segmented data is used in an Image IOD or Color Palette IOD ; shall not be present in a Presentation State IOD or Color Palette IOD . See Section C.7.9.2 for further explanation.