

DICOM Correction Proposal

STATUS	Assigned
Date of Last Update	2016/05/30
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Submission Date	2016/03/29

Correction Number	CP-1626
Log Summary: Note on limitations of Presentation States	
Name of Standard PS3.3	
Rationale for Correction: In the current Grayscale, Pseudo-Color, and Blending Softcopy Presentation State IODs, the semantics are that the Modality LUT of the source input images is replaced by the single LUT / Rescale in the PS object. This has been problematic for acquisitions that vary the Modality LUT on a frame-by-frame basis (as allowed by the Standard). This is especially an issue for PET which is a prime target for Pseudo-Color and Blending SPS. A note is added to the IODs bringing attention of users of the Standard to this limitation.	
Correction Wording:	

Amend PS3.3 Section A.33

A.33.1.1 Grayscale Softcopy Presentation State IOD Description

The Grayscale Softcopy Presentation State Information Object Definition (IOD) specifies information that may be used to present (display) images that are referenced from within the IOD.

It includes capabilities for specifying:

- a. the output grayscale space in P-Values
- b. grayscale contrast transformations including modality and VOI LUT
- c. mask subtraction for multi-frame images
- d. selection of the area of the image to display and whether to rotate or flip it
- e. image and display relative annotations, including graphics, text and overlays

Note:

This IOD does not support presentation control for a set of images for which the modality LUT varies on a frame-by-frame basis. Other Presentation State IODs (standard or private) may support such images.

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A.33.3.1 Pseudo-color Softcopy Presentation State IOD Description

The Pseudo-Color Softcopy Presentation State Information Object Definition (IOD) specifies information that may be used to present (display) images that are referenced from within the IOD.

It includes capabilities for specifying:

- a. the output color space in PCS-Values
- b. grayscale contrast transformations including modality and VOI LUT
- c. a color palette to map the transformed grayscale values into pseudo-color
- d. mask subtraction for multi-frame images
- e. selection of the area of the image to display and whether to rotate or flip it
- f. image and display relative annotations, including graphics, text and overlays

Note:

This IOD does not support presentation control for a set of images for which the modality LUT varies on a frame-by-frame basis. Other Presentation State IODs (standard or private) may support such images.

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A.33.4.1 Blending Softcopy Presentation State IOD Description

The Blending Softcopy Presentation State Information Object Definition (IOD) specifies information that may be used to blend two sets of images that are referenced from within the IOD for the purpose of presentation (display).

It includes capabilities for specifying:

- a. the output color space in PCS-Values
- b. grayscale contrast transformations including modality and VOI LUT for both the underlying and superimposed image sets
- c. a color palette to map the transformed grayscale values of the superimposed image set into pseudo-color
- d. selection of the area of the blended images to display and whether to rotate or flip it
- e. image and display relative annotations, including graphics, text and overlays

Note:

This IOD does not support presentation control for a set of images for which the modality LUT varies on a frame-by-frame basis. Other Presentation State IODs (standard or private) may support such images.