Digital Imaging and Communications in Medicine (DICOM)

Supplement 133: Color Palette Storage, Query and Retrieval

DICOM Standards Committee, Working Group 6 Base Standard

1300 N. 17th Street, Suite 1752

Rosslyn, Virginia 22209 USA

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Scope and Field of Application

This Supplement to the DICOM Standard adds a mechanism to store, find and retrieve color palettes, independent of any patient-specific image instances.

The majority of applications that perform pseudo-coloring of single channel (grayscale) images make use of a number of pre-configured palettes, some of which are widely used and others of which are specific to vendors or sites or users. These palettes are rarely if ever actually stored with the patient-specific images themselves, nor do they need to be.

It is desirable to avoid having to configure every single installation of every single application each time a new palette is made available; further it is desirable to be able to share palettes for re-use, and to have standard names for standard palettes.

Accordingly this supplement specifies:

- a means of storing, finding and retrieving palettes as DICOM instances but which are not patient-specific

- a standard set of names and well-known SOP Instance UIDs for standard palettes and a description of their contents within the standard

The Hanging Protocol Service Classes provide a precedent to use as a template for the encoding and services required for the storage and retrieval of instances that do not have a patient-specific composite information model.

This document is a Supplement to the DICOM Standard. It is an extension to the following parts of the published DICOM Standard:

PS 3.2	Conformance
PS 3.3	Information Object Definitions
PS 3.4	Service Class Specifications
PS 3.6	Data Dictionary

Part 2 Addendum

Add the following to PS 3.2, Annex A:

Table A.1-2
UID VALUES

UID Value	UID NAME	Category
…		
1.2.840.10008.5.1.4.39.1	**Color Palette Storage**	**Transfer**
1.2.840.10008.5.1.4.39.2	**Color Palette Information Model – FIND**	**Query/Retrieve**
1.2.840.10008.5.1.4.39.3	**Color Palette Information Model – MOVE**	**Query/Retrieve**
1.2.840.10008.5.1.4.39.4	**Color Palette Information Model – GET**	**Query/Retrieve**

Part 3 Addendum

Add Section 7.8:

7.8 EXTENSION OF THE DICOM MODEL OF THE REAL-WORLD FOR COLOR PALETTES

The DICOM Model of the Real World is extended for Color Palettes with the addition of an entity that is separate from the rest of the DICOM Real World objects, as shown in Figure 7.8-1. A Color Palette is not associated with any specific objects in the existing DICOM Information model, because it is not associated with a specific patient. There is no hierarchy applied to Color Palette objects.

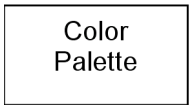

Figure 7.8-1 DICOM MODEL OF THE REAL WORLD – COLOR PALETTE

7.8.1 Color Palette Information Entity

A Color Palette entity specifies a color palette suitable for application to an image with a single channel of information (grayscale) to render it in color, i.e., pseudo-coloring.

Add column to Table A.1-2 for Color Palette IOD with modules as defined in Table A.X.3-1.

Insert the following sections in Part 3, Annex A Composite IODs

A.58 COLOR PALETTE INFORMATION OBJECT DEFINITION

A.58.1 Color Palette IOD Description

A Color Palette entity specifies a color palette suitable for application to a grayscale image.

A.58.2 Color Palette IOD Entity-Relationship Model

A Color Palette is not related to other Information Entities of the DICOM real-world model, as it is not associated with a specific patient. The E-R model for the Color Palette IOD is shown in Figure A.58.2-1.

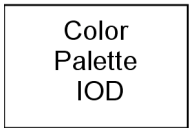

Figure A.58.2-1 COLOR PALETTE IOD E-R MODEL

A.58.3 Color Palette IOD Module Table

Table A.58.3-1 lists the modules that make up the Color Palette IOD.

Table A.58.3-1
COLOR PALETTE IOD MODULES

IE	Module	Reference	Usage
Color Palette	SOP Common	C.12.1	M
	Color Palette Definition	C.28.1	M
	Palette Color Lookup Table	C.7.9	M
	ICC Profile	C.11.15	M

Note: The number of bits for each entry in the Lookup Table Data is constrained in the Palette Color Lookup Table Module to be 8 in this IOD.

Amend the Content Identification macro to allow for alternate labels in different languages

10.9 CONTENT IDENTIFICATION MACRO

Table 10-12 describe the attributes for identifying a SOP Instance potentially created by a human user interacting with an application.

Table 10-12
CONTENT IDENTIFICATION MACRO

Attribute Name	Tag	Type	Attribute Description
Instance Number	(0020,0013)	1	A number that identifies this SOP Instance.
Content Label	(0070,0080)	1	A label that is used to identify this SOP Instance.
Content Description	(0070,0081)	2	A description of the content of the SOP Instance.
Alternate Content Description Sequence	**(0070,0087)**	**3**	**A sequence containing alternate descriptions suitable for presentation to the user, e.g., in different languages. One or more items may be present.** **Note: The values of Specific Character Set for the entire Dataset need to be sufficient to encode all Items of this sequence correctly, e.g., using a single value with broad support such as UTF-8, or multiple values with escape sequences.**
>Content Description	**(0070,0081)**	**1**	**An alternate description that is used to identify this SOP Instance.**
>Language Code Sequence	**(0008,0006)**	**1**	**The language in which the Content**

			Description (0070,0081) within this sequence item is written. A single Item shall be present.
>>Include Code Sequence Macro Table 8.8-1			**Defined Context ID is 5000**
Content Creator's Name	(0070,0084)	2	Name of operator (such as a technologist or physician) creating the content of the SOP Instance.
Content Creator's Identification Sequence	(0070,0086)	3	Identification of the person who created the ~~**real world value mapping**~~ **content**. Only a single item shall be present in this sequence.
> Include Person Identification Macro Table 10-1			

Insert the following section in Part 3, Annex C Information Module Definitions

C.28.1 Color Palette Definition Module

Table C.28.1-1 specifies the Attributes that describe and identify a Color Palette.

Table C.28.1-1
Color Palette Definition Module Attributes

Attribute Name	Tag	Type	Attribute Description
Include Content Identification Macro Table 10-12.			See C.28.1.1.1.

C.28.1.1 Attribute Descriptions

C.28.1.1.1 Content Identification

The Content Label (0070,0080) value is intended to be a short human-readable label for a palette, suitable for rendering in a pick-list for the user to choose from. For standard palettes with well-known SOP Instance UIDs, values for this attribute are pre-defined by the standard.

Descriptions of the palette may also be encoded. A means for providing alternate representations of descriptions for use in specific languages is also provided.

Amend the Palette Color Lookup Table Module to allow its use in the new IOD:

C.7.6.3.1.5 Palette Color Lookup Table Descriptor

…

When the Palette Color Lookup Table Descriptor (0028,1101-1103) are used as part of the Palette Color Lookup Table Module or the Supplemental Palette Color Lookup Table Module **in an Image or Presentation State IOD**, the third value shall be equal to 16.

When the Palette Color Lookup Table Descriptor (0028,1101-1103) are used as part of the Palette Color Lookup Table Module 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.

…

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.7.9, 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, 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.

Table C.7-22
PALETTE COLOR LOOKUP MODULE

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 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 C.7.6.3.1.5 for further explanation.
Blue Palette Color Lookup Table Descriptor	(0028,1103)	1	Specifies the format of the Blue Palette Color Lookup table Data (0028,1203). 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 segmented data is NOT used in an Image IOD, or if the IOD is a Presentation State IOD **or Color Palette IOD**. 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 segmented data is NOT used in an Image IOD, or if the IOD is a Presentation State IOD **or Color Palette IOD**. 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 segmented data is NOT used in an Image IOD, or if the IOD is a Presentation State IOD **or Color Palette IOD**. See C.7.6.3.1.6 for further explanation.
Segmented Red Palette Color	(0028,1221)	1C	Segmented Red Palette Color Lookup

Lookup Table Data			Table Data. Required if segmented data is used in an Image IOD; shall not be present in a Presentation State IOD **or Color Palette IOD**. See 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; shall not be present in a Presentation State IOD **or Color Palette IOD**. See 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; shall not be present in a Presentation State IOD **or Color Palette IOD**. See C.7.9.2 for further explanation.

C.7.9.1 Palette Color Lookup Table UID

This data element uniquely identifies a palette color lookup table set (red, green, blue).

Note: This can be used to avoid reloading a palette if a system already has that palette loaded without examining all the data entries in the palette.

If this Attribute is present in a Color Palette IOD, it shall have the same value as the SOP Instance UID.

…

Add Palette Directory Record to PS 3.3 Annex F:

Table F.3-3
DIRECTORY INFORMATION MODULE

Attribute Name	Tag	Type	Attribute Description
>Directory Record Type	(0004,1430)	1C	… Enumerated Values (see Section F.5): **PALETTE**

Table F.4-1
RELATIONSHIP BETWEEN DIRECTORY RECORDS

Directory Record Type	Section	Directory Record Types which may be included in the next lower-level directory Entity
(Root Directory Entity)	-	PATIENT, HANGING PROTOCOL, **PALETTE,** PRIVATE
…		
PALETTE	**F.5.36**	**PRIVATE**

Update Figure F.4-1 Basic Directory IOD Information Model: add Palette DR to the right of Hanging Protocol DR, as 0-n under "<includes>".

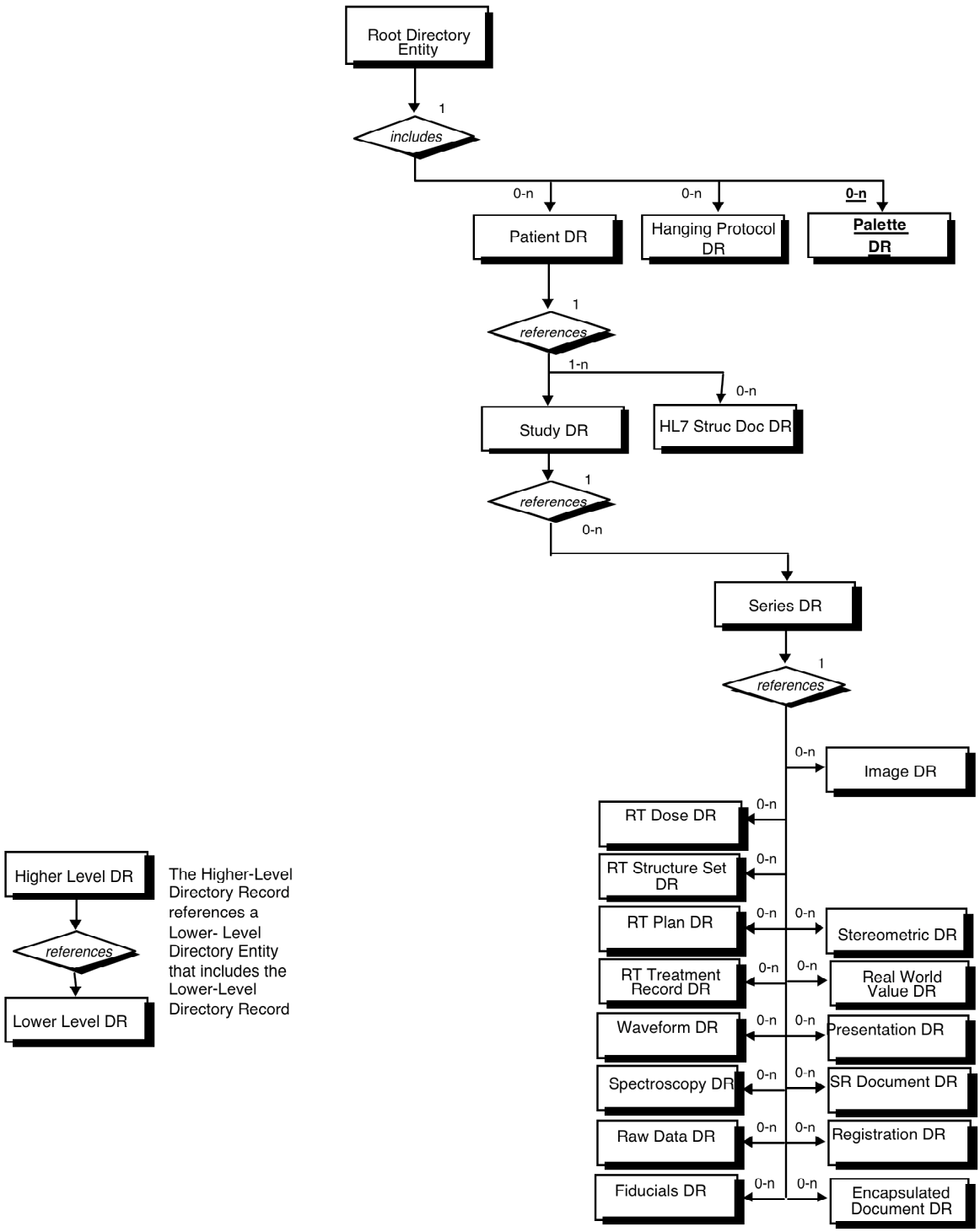

Figure F.4-1
BASIC DIRECTORY IOD INFORMATION MODEL

F.5.36 Palette Directory Record Definition

The Directory Record is based on the specification of Section F.3. It is identified by a Directory Record Type of Value “PALETTE”. Table F.5-36 lists the set of keys with their associated Types for such a Directory Record Type. The description of these keys may be found in the Modules related to the Color Palette IOD. This Directory Record shall be used to reference a Color Palette SOP Instance. This type of Directory Record may reference a Lower-Level Directory Entity which includes one or more Directory Records as defined in Table F.4-1.

Table F.5-36
PALETTE KEYS

Attribute Name	Tag	Type	Attribute Description
Specific Character Set	(0008,0005)	1C	Required if an extended or replacement character set is used in one of the keys
Content Label	(0070,0080)	1	A label that is used to identify the palette.
Content Description	(0070,0081)	2	A description of the content of the palette.
Any other Attribute of the Color Palette IOD		3	

Note: Because (0004,1511) Referenced SOP Instance UID in File may be used as a “pseudo” Directory Record Key (See Table F.3-3), it is not duplicated in this list of keys.

Part 4 Addendum

Add Color Palette Storage Media Storage SOP Class to Table I.4-1

I.4 MEDIA STANDARD STORAGE SOP CLASSES

SOP Class Name	SOP Class UID	IOD Specification
Color Palette Storage	1.2.840.10008.5.1.4.39.1	Color Palette IOD

Add the following Annex to PS 3.4

Annex W COLOR PALETTE STORAGE SERVICE CLASS

W.1 OVERVIEW

W.1.1 Scope

The Color Palette Storage Service Class defines an application-level class-of-service that allows one DICOM AE to send a Color Palette SOP Instance to another DICOM AE.

W.1.2 Service Definition

The Color Palette Storage Service Class consists of a single SOP Class: the Color Palette Storage SOP Class. It uses the Color Palette IOD that represents the Color Palette IE. This IOD is defined in PS 3.3. The Color Palette Storage Service Class uses the C-STORE DIMSE Service specified in PS 3.7. A successful completion of the C-STORE has the following semantics:

- Both the SCU and the SCP support Color Palette information.
- The Color Palette information is stored in some medium.
- For some time frame, the Color Palette information may be accessed.

Notes: 1. Support for the Color Palette Storage SOP Class does not imply support for the Color Palette Query/Retrieve Service Class.

2. The duration of the storage is also implementation dependent, but is described in the Conformance Statement of the SCP.

3. The Color Palette Storage SOP Class is intended to be used in a variety of environments: e.g., for workstations to transfer Color Palette SOP Instances to other workstations or archives, for archives to transfer Color Palette SOP Instances to workstations, etc.

W.2 ASSOCIATION NEGOTIATION

The Association negotiation rules as defined in PS 3.7 apply to the SOP Class of this Service Class. No SOP Class specific application information is used.

W.3CONFORMANCE OVERVIEW

The application-level services addressed by this Service Class definition are specified in a single SOP Class: Color Palette Storage SOP Class.

W.4COLOR PALETTE STORAGE SOP CLASS

This Section defines the SCU and SCP behavior for the Color Palette Storage SOP Class. The C-STORE DIMSE-C Service shall be the mechanism used to transfer Color Palette SOP Instances between peer DICOM AEs as desribed in PS 3.7.

W.4.1 Service Class User

The DICOM AE that claims conformance to this SOP Class as an SCU shall be capable of sending a Color Palette SOP Instance that meets the requirements of the Color Palette IOD. It shall be invoked by the SCU through the use of the DIMSE C-STORE request used in conjunction with this SOP Class.

The SCU shall include a Data Set with the Attributes as defined in the Color Palette IOD in PS 3.3.

The SCU shall recognize the status of the C-STORE service and take appropriate action based on the success or failure of the service. This SOP Class places no further requirements on what the SCU shall do other than that it shall distinguish between successful and failed C-STORE responses. This behavior shall be documented as part of the SOP Class Conformance Statement.

W.4.2 Service Class Provider

The DICOM AE that claims conformance to this SOP Class as an SCP shall receive a Color Palette SOP Instance through the use of the DIMSE C-STORE service used in conjunction with this SOP Class.

The SCP shall store and provide access to all Type 1, Type 2, and Type 3 Attributes defined in the Color Palette IOD, as well as any Standard Extended Attributes (including Private Attributes) included in the SOP Instance. The SCP may, but is not required to validate that the Attributes of the Color Palette SOP Instance meet the requirements of the Color Palette IOD. The SCP shall not modify the values of any Attributes in the Color Palette SOP Instance without assigning a new SOP Instance UID, except that the SCP may modify values of, or add, Type 3 and Private Attributes that do not change the semantics or interpretation of the Palette.

Note: E.g., an SCP may add values to Alternate Content Description Sequence (0070,0087), to provide an additional description in another language.

If a display device acting as an SCP applies a Color Palette to a set of images, all mandatory Color Palette and presentation intent attributes shall be applied.

The SCP shall return, via the C-STORE response primitive, the Response Status Code applicable to the associated request. By performing this service successfully, the SCP indicates that the Color Palette SOP Instance has been successfully stored. Table W.4-1 shows the response status values. General status code values and fields related to status code values are defined in PS 3.7.

Table W.4-1
C-STORE RESPONSE STATUS VALUES

Service Status	Further Meaning	Status Codes	Related Fields

Failure	Refused: Out of Resources	A700	(0000,0902)
	Error: Data Set Does Not Match SOP Class	A900	(0000,0901) (0000,0902)
	Error: Cannot Understand	C000	(0000,0901) (0000,0902)
Success		0000	None

Note: Status Codes are returned in DIMSE response messages (See PS 3.7). The code values stated in column "Status Codes" are returned in Status Command Element (0000,0900).

W.4.3 Color Palette Storage SOP Class UID

The Color Palette Storage SOP Class shall be uniquely identified by the Color Palette Storage SOP Class UID, which shall have a value “1.2.840.10008.5.1.4.39.1”.

W.4.4 Conformance Statement Requirements

An implementation may conform to the Color Palette Storage SOP Class as an SCU, SCP or both. The Conformance Statement shall be in the format defined in PS 3.2.

W.4.4.1 SCU Conformance Requirements

An implementation that conforms to the Color Palette Storage SOP Class as an SCU that is a creator of Color Palette SOP Instances shall state in its Conformance Statement:

- The optional Attributes that may be included in a Color Palette SOP Instance.
- The behavior of the SCU in the case of a successful C-STORE response status.
- The behavior of the SCU in each case of a failure C-STORE response status.

W.4.4.2 SCP Conformance Requirements

An implementation that conforms to the Color Palette Storage SOP Class as an SCP that interprets Color Palette SOP Instances for display shall state in its Conformance Statement:

- The optional Attributes of the Color Palette IOD that it is capable of interpreting and those that are not supported.
- The Image Storage SOP Classes for which application of the Color Palette Storage SOP Class is supported

An implementation that conforms to the Color Palette Storage SOP Class as an SCP shall state in its Conformance Statement:

- The behavior of the SCP in the case of a successful C-STORE operation, including the access method for a stored Color Palette SOP Instance, and the duration of the storage.
- The meaning of each case of a failure C-STORE response status, as well as appropriate recovery action.

Add the following Annex

Annex X COLOR PALETTE QUERY/RETRIEVE SERVICE CLASS

X.1 OVERVIEW

X.1.1 Scope

The Color Palette Query/Retrieve Service Class defines an application-level class-of-service that facilitates access to Color Palette composite objects.

X.1.2 Conventions

See Conventions for the Basic Worklist Management Service (K.1.2).

X.1.3 Query/Retrieve Information Model

In order to serve as an SCP of the Color Palette Query/Retrieve Service Class, a DICOM AE possesses information about the Attributes of a number of Color Palette composite SOP Instances. The information is organized into a Color Palette Information Model.

X.1.4 Service Definition

Two peer DICOM AEs implement a SOP Class of the Color Palette Query/Retrieve Service Class with one serving in the SCU role and one serving in the SCP role. SOP Classes of the Color Palette Query/Retrieve Service Class are implemented using the DIMSE-C C-FIND, C-MOVE and C-GET services as defined in PS 3.7.

The semantics of the C-FIND service are the same as those defined in the Service Definition of the Basic Worklist Management Service Class.

The semantics of the C-MOVE and C-GET services are the same as those defined in the Service Definition of the Query/Retrieve Service Class, with the exception that there is only one level of retrieval.

X.2 COLOR PALETTE INFORMATION MODEL DEFINITION

The Color Palette Information Model is identified by the SOP Class negotiated at Association establishment time. The SOP Class is composed of both an Information Model and a DIMSE-C Service Group.

The Color Palette Information Model is defined, with the Entity-Relationship Model Definition and Key Attributes Definition analogous to those defined in the Worklist Information Model Definition of the Basic Worklist Management Service.

X.3 COLOR PALETTE INFORMATION MODEL

The Color Palette Information Model is based upon a one level entity:

— Color Palette object instance

The Color Palette object instance contains Attributes associated with the Color Palette object IE of the Composite IODs as defined in PS 3.3.

X.4 DIMSE-C SERVICE GROUPS

X.4.1 C-FIND Operation

See the C-FIND Operation definition for the Basic Worklist Management Service Class (K.4.1), and substitute “Color Palette” for “Worklist. The “Worklist” Search Method shall be used.

The SOP Class UID identifies the Color Palette Information Model against which the C-FIND is to be performed. The Key Attributes and values allowable for the query are defined in the SOP Class definition for the Color Palette Information Model.

X.4.2 C-MOVE Operation

See the C-MOVE Operation definition for the Query/Retrieve Service Class (C.4.2). No Extended Behavior or Relational-Retrieve is defined for the Color Palette Query/Retrieve Service Class.

Query/Retrieve Level (0008,0052) is not relevant to the Color Palette Query/Retrieve Service Class, and therefore shall not be present in the Identifier. The only Unique Key Attribute of the Identifier shall be SOP Instance UID (0008,0018). The SCU shall supply one UID or a list of UIDs.

Note: More than one entity may be retrieved, using List of UID matching.

X.4.3 C-GET Operation

See the C-GET Operation definition for the Query/Retrieve Service Class (C.4.3). No Extended Behavior or Relational-Retrieve is defined for the Color Palette Query/Retrieve Service Class.

Query/Retrieve Level (0008,0052) is not relevant to the Color Palette Query/Retrieve Service Class, and therefore shall not be present in the Identifier. The only Unique Key Attribute of the Identifier shall be SOP Instance UID (0008,0018). The SCU shall supply one UID or a list of UIDs.

Note: More than one entity may be retrieved, using List of UID matching.

X.5 ASSOCIATION NEGOTIATION

See the Association Negotation definition for the Basic Worklist Management Service Class (K.5).

X.6 SOP CLASS DEFINITIONS

X.6.1 Color Palette Information Model

X.6.1.1 E/R Model

The Color Palette Information Model consists of a single entity. In response to a given C-FIND request, the SCP shall send one C-FIND response per matching Color Palette Instance.

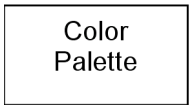

Figure X.6-1 COLOR PALETTE INFORMATION MODEL E/R DIAGRAM

X.6.1.2 Color Palette Attributes

Table X.6-1 defines the Attributes of the Color Palette Information Model:

Table X.6-1
Attributes for the Color Palette Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
SOP Common				
Specific Character Set	(0008,0005)	-	1C	This attribute is required if expanded or replacement character sets are used. See C.2.2.2 and C.4.1.1.
SOP Class UID	(0008,0016)	R	1	This attribute shall be retrieved with Single Value matching.
SOP Instance UID	(0008,0018)	U	1	This attribute shall be retrieved with Single Value matching.
Color Palette Definition				
Content Label	(0070,0080)	R	1	This attribute shall be retrieved with Single Value, Wild Card or Universal matching.
Content Description	(0070,0081)	-	2	
Content Creator's Name	(0070,0084)	-	2	
Alternate Content Description Sequence	(0070,0087)	-	3	
>Content Description	(0070,0081)	-	1	
>Language Code Sequence	(0008,0006)	-	1	
>>Code Value	(0008,0100)	-	1	
>>Coding Scheme Designator	(0008,0102)	-	1	
>>Coding Scheme Version	(0008,0103)	-	3	
>>Code Meaning	(0008,0104)	-	1	

X.6.1.3 Conformance Requirements

An implementation may conform to one of the Color Palette Information Model SOP Classes as an SCU, SCP or both. The Conformance Statement shall be in the format defined in PS 3.2.

X.6.1.3.1 SCU Conformance

X.6.1.3.1.1 C-FIND SCU Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes shall support queries against the Color Palette Information Model using the C-FIND SCU Behavior described for the Basic Worklist Management Service Class (see K.4.1.2 and X.4.1).

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCU shall state in its Conformance Statement whether it requests Type 3 Return Key Attributes, and shall list these Optional Return Key Attributes.

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCU shall state in its Conformance Statement how it makes use of Specific Character Set (0008,0005) when encoding queries and interpreting responses.

X.6.1.3.1.2 C-MOVE SCU Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCU shall support transfers against the Color Palette Information Model using the C-MOVE SCU baseline behavior described for the Query/Retrieve Service Class (see C.4.2.2.1 and X.4.2).

X.6.1.3.1.3 C-GET SCU Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCU shall support transfers against the Color Palette Information Model using the C-GET SCU baseline behavior described for the Query/Retrieve Service Class (see C.4.3.2.1 and X.4.3).

X.6.1.3.2 SCP Conformance

X.6.1.3.2.1 C-FIND SCP Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP shall support queries against the Color Palette Information Model using the C-FIND SCP Behavior described for the Basic Worklist Management Service Class (see K.4.1.3).

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP shall state in its Conformance Statement whether it supports Type 3 Return Key Attributes, and shall list these Optional Return Key Attributes.

An implementation that conforms to one of the the Color Palette Information Model SOP Classes as an SCP shall state in its Conformance Statement how it makes use of Specific Character Set (0008,0005) when interpreting queries, performing matching and encoding responses.

X.6.1.3.2.2 C-MOVE SCP Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP shall support transfers against the Color Palette Information Model using the C-MOVE SCP baseline behavior described for the Query/Retrieve Service Class (see C.4.2.3.1).

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP, which generates transfers using the C-MOVE operation, shall state in its Conformance Statement the Color Palette Storage Service Class SOP Class under which it shall support the C-STORE sub-operations generated by the C-MOVE.

X.6.1.3.2.3 C-GET SCP Conformance

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP shall support transfers against the Color Palette Information Model using the C-GET SCP baseline behavior described for the Query/Retrieve Service Class (see C.4.3.3.1).

An implementation that conforms to one of the Color Palette Information Model SOP Classes as an SCP, which generates transfers using the C-GET operation, shall state in its Conformance Statement the Color Palette Storage Service Class SOP Class under which it shall support the C-STORE sub-operations generated by the C-GET.

X.6.1.4 SOP Classes

The SOP Classes of the Color Palette Information Model in the Color Palette Query/Retrieve Service Class identify the Color Palette Information Model, and the DIMSE-C operations supported. The following Standard SOP Classes are identified:

SOP Class Name	SOP Class UID
Color Palette Information Model - FIND	1.2.840.10008.5.1.4.39.2
Color Palette Information Model - MOVE	1.2.840.10008.5.1.4.39.3
Color Palette Information Model - GET	1.2.840.10008.5.1.4.39.4

Part 6 Addendum

Add the following Data Elements to Part 6 Section 6 Registry of DICOM data elements:

Tag	Name	VR	VM
(0070,0087)	Alternate Content Description Sequence	SQ	1
(0008,0006)	Language Code Sequence	SQ	1

Add the following UID to Part 6 Annex A Registry of DICOM Unique Identifiers (UID):

UID Value	UID NAME	UID TYPE	Part
1.2.840.10008.5.1.4.39.1	Color Palette Storage	SOP Class	PS 3.4
1.2.840.10008.5.1.4.39.2	Color Palette Information Model – FIND	SOP Class	PS 3.4
1.2.840.10008.5.1.4.39.3	Color Palette Information Model – MOVE	SOP Class	PS 3.4
1.2.840.10008.5.1.4.39.4	Color Palette Information Model – GET	SOP Class	PS 3.4
1.2.840.10008.1.5.1	Hot Iron Color Palette SOP Instance	Well-known SOP Instance	PS 3.6
1.2.840.10008.1.5.2	PET Color Palette SOP Instance	Well-known SOP Instance	PS 3.6
1.2.840.10008.1.5.3	Hot Metal Blue Color Palette SOP Instance	Well-known SOP Instance	PS 3.6
1.2.840.10008.1.5.4	PET 20 Step Color Palette SOP Instance	Well-known SOP Instance	PS 3.6

Add the following new Annex to Part 6 Annex to define well-known palettes and their contents:

Annex B Well-known Color Palettes (Normative)

B.1 STANDARD COLOR PALETTES

Table B.1-1 lists the color palettes that are defined by the DICOM Standard.

Table B.1-1
Standard Color Palettes

Well-known SOP Instance UID	Content Label (0070,0080)	Content Description (0070,0081)	Section	URL of Reference Encoded Instance
1.2.840.10008.1.5.1	HOT_IRON	Hot Iron	B.1.1	ftp://medical.nema.org/Medical/Dicom/Palettes/hotiron.dcm
1.2.840.10008.1.5.2	PET	PET	B.1.2	ftp://medical.nema.org/Medical/Dicom/Palettes/pet.dcm
1.2.840.10008.1.5.3	HOT_METAL_BLUE	Hot Metal Blue	B.1.3	ftp://medical.nema.org/Medical/Dicom/Palettes/hotmetalblue.dcm
1.2.840.10008.1.5.4	PET_20_STEP	PET 20 Step	B.1.4	ftp://medical.nema.org/Medical/Dicom/Palettes/pet20step.dcm

B.1.1 Hot Iron Color Palette

B.1.1.1 Hot Iron Color Palette Description (Informative)

The Hot Iron color palette is often used in nuclear medicine applications to make differences in signal intensity (counts) more apparent to the human observer. A typical example is illustrated in Figure B.1.1.1-1.

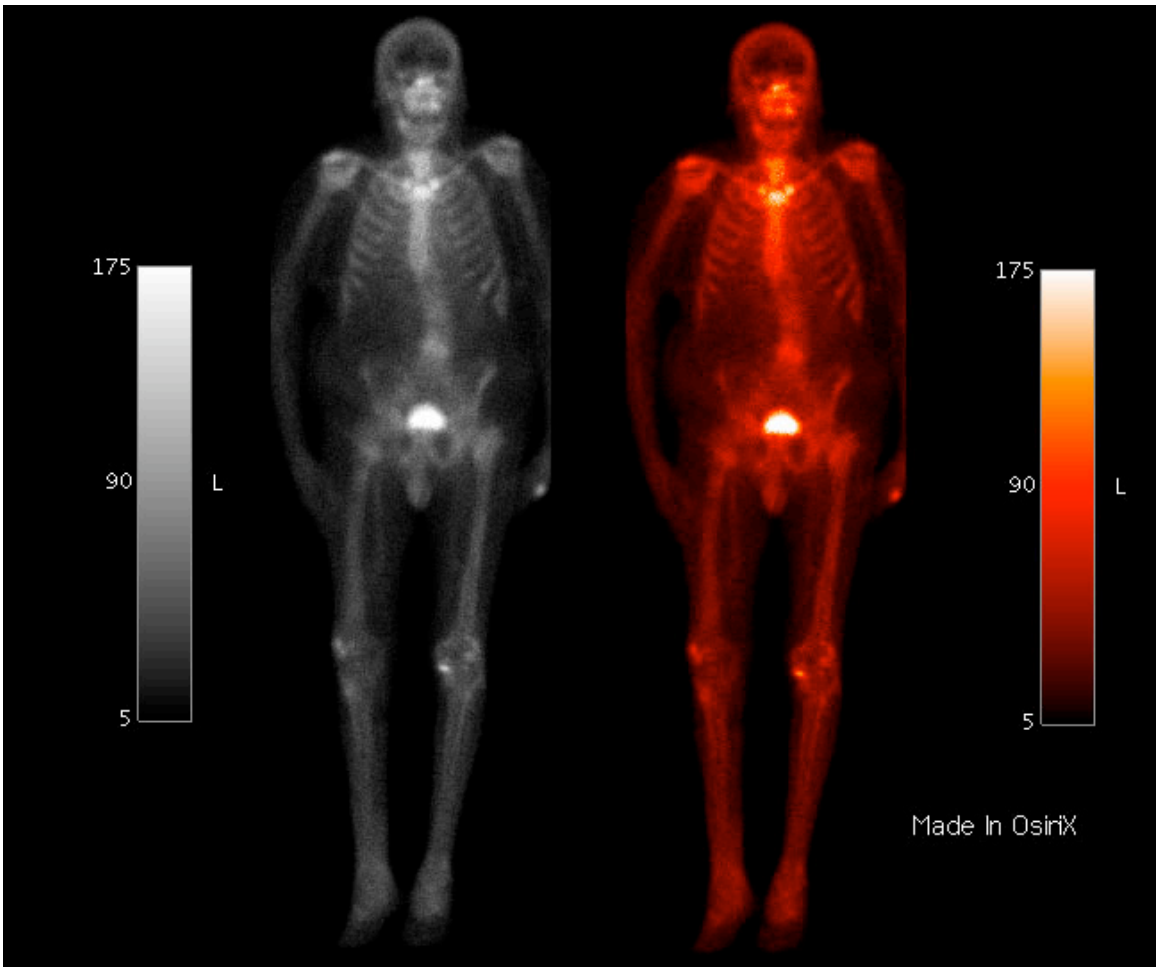

Figure B.1.1.1-1
Nuclear Medicine image with and without Hot Iron Palette applied.

B.1.1.2 Hot Iron Color Palette Definition

The ICC Profile shall define the sRGB space.

The value of Content Label (0070,0080) shall be “HOT_IRON”.

This color palette is defined to contain the values for Red Palette Color Lookup Table Descriptor (0028,1101), Green Palette Color Lookup Table Descriptor (0028,1102) and Blue Palette Color Lookup Table Descriptor (0028,1103) defined in Table B.1.1.2-1.

Table B.1.1.2-1
Hot Iron Color Palette Descriptor

Value 1 (Number of entries)	Value 2 (First value mapped)	Value 3 (Number of bits)
256	0	8

This color palette is defined to contain the values in Table B.1.1.2-2, where the values in the columns Red,Green and Blue are the values of the Red Palette Color Lookup Table Data (0028,1201), Green Palette Color Lookup Table Data (0028,1202) and Blue Palette Color Lookup Table Data (0028,1203), respectively.

Table B.1.1.2-2
Hot Iron Color Palette Data

Red	Green	Blue
0	0	0
2	0	0
4	0	0
6	0	0
8	0	0
10	0	0
12	0	0
14	0	0
16	0	0
18	0	0
20	0	0
22	0	0
24	0	0
26	0	0
28	0	0
30	0	0
32	0	0
34	0	0
36	0	0
38	0	0
40	0	0
42	0	0
44	0	0
46	0	0
48	0	0
50	0	0
52	0	0
54	0	0
56	0	0
58	0	0
60	0	0
62	0	0

64	0	0
66	0	0
68	0	0
70	0	0
72	0	0
74	0	0
76	0	0
78	0	0
80	0	0
82	0	0
84	0	0
86	0	0
88	0	0
90	0	0
92	0	0
94	0	0
96	0	0
98	0	0
100	0	0
102	0	0
104	0	0
106	0	0
108	0	0
110	0	0
112	0	0
114	0	0
116	0	0
118	0	0
120	0	0
122	0	0
124	0	0
126	0	0
128	0	0
130	0	0
132	0	0
134	0	0
136	0	0
138	0	0

140	0	0
142	0	0
144	0	0
146	0	0
148	0	0
150	0	0
152	0	0
154	0	0
156	0	0
158	0	0
160	0	0
162	0	0
164	0	0
166	0	0
168	0	0
170	0	0
172	0	0
174	0	0
176	0	0
178	0	0
180	0	0
182	0	0
184	0	0
186	0	0
188	0	0
190	0	0
192	0	0
194	0	0
196	0	0
198	0	0
200	0	0
202	0	0
204	0	0
206	0	0
208	0	0
210	0	0
212	0	0
214	0	0

216	0	0
218	0	0
220	0	0
222	0	0
224	0	0
226	0	0
228	0	0
230	0	0
232	0	0
234	0	0
236	0	0
238	0	0
240	0	0
242	0	0
244	0	0
246	0	0
248	0	0
250	0	0
252	0	0
254	0	0
255	0	0
255	2	0
255	4	0
255	6	0
255	8	0
255	10	0
255	12	0
255	14	0
255	16	0
255	18	0
255	20	0
255	22	0
255	24	0
255	26	0
255	28	0
255	30	0
255	32	0
255	34	0

255	36	0
255	38	0
255	40	0
255	42	0
255	44	0
255	46	0
255	48	0
255	50	0
255	52	0
255	54	0
255	56	0
255	58	0
255	60	0
255	62	0
255	64	0
255	66	0
255	68	0
255	70	0
255	72	0
255	74	0
255	76	0
255	78	0
255	80	0
255	82	0
255	84	0
255	86	0
255	88	0
255	90	0
255	92	0
255	94	0
255	96	0
255	98	0
255	100	0
255	102	0
255	104	0
255	106	0
255	108	0
255	110	0

255	112	0
255	114	0
255	116	0
255	118	0
255	120	0
255	122	0
255	124	0
255	126	0
255	128	4
255	130	8
255	132	12
255	134	16
255	136	20
255	138	24
255	140	28
255	142	32
255	144	36
255	146	40
255	148	44
255	150	48
255	152	52
255	154	56
255	156	60
255	158	64
255	160	68
255	162	72
255	164	76
255	166	80
255	168	84
255	170	88
255	172	92
255	174	96
255	176	100
255	178	104
255	180	108
255	182	112
255	184	116
255	186	120

255	188	124
255	190	128
255	192	132
255	194	136
255	196	140
255	198	144
255	200	148
255	202	152
255	204	156
255	206	160
255	208	164
255	210	168
255	212	172
255	214	176
255	216	180
255	218	184
255	220	188
255	222	192
255	224	196
255	226	200
255	228	204
255	230	208
255	232	212
255	234	216
255	236	220
255	238	224
255	240	228
255	242	232
255	244	236
255	246	240
255	248	244
255	250	248
255	252	252
255	255	255

B.1.2 PET Color Palette

B.1.2.1 PET Color Palette Description (Informative)

The PET color palette is often used in PET applications to pseudo-color the superimposed PET images when displayed fused with underlying CT images. A typical example is illustrated in Figure B.1.2.1-1.

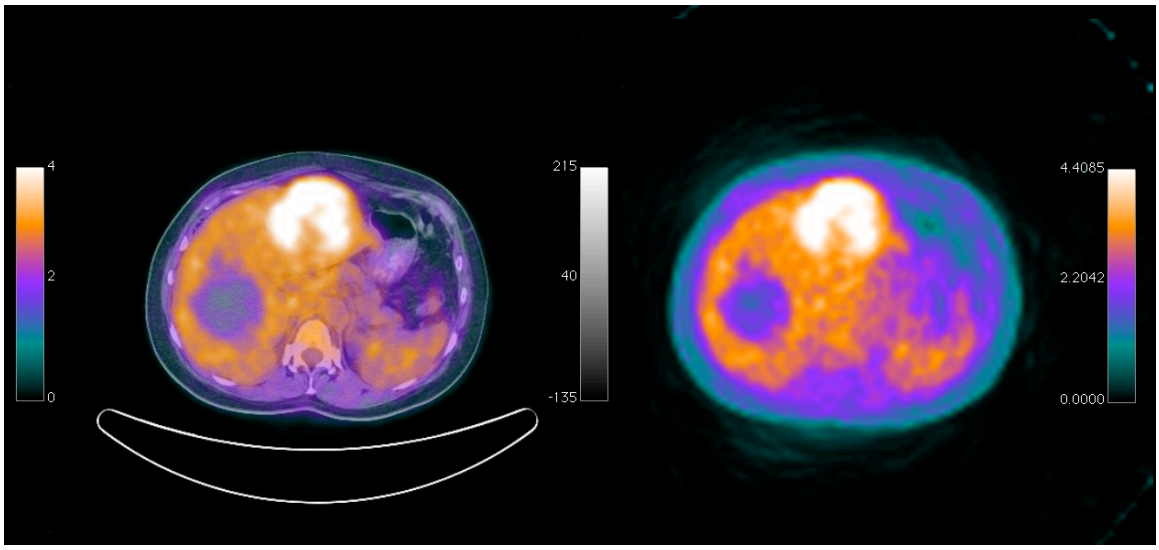

Figure B.1.2.1-1
PET image with PET Palette superimposed over grayscale CT image.

B.1.2.2 PET Color Palette Definition

The ICC Profile shall define the sRGB space.

The value of Content Label (0070,0080) shall be “PET”.

This color palette is defined to contain the values for Red Palette Color Lookup Table Descriptor (0028,1101), Green Palette Color Lookup Table Descriptor (0028,1102) and Blue Palette Color Lookup Table Descriptor (0028,1103) defined in Table B.1.2.2-1.

Table B.1.2.2-1
PET Color Palette Descriptor

Value 1 (Number of entries)	Value 2 (First value mapped)	Value 3 (Number of bits)
256	0	8

This color palette is defined to contain the values in Table B.1.2.2-2, where the values in the columns Red,Green and Blue are the values of the Red Palette Color Lookup Table Data (0028,1201), Green Palette Color Lookup Table Data (0028,1202) and Blue Palette Color Lookup Table Data (0028,1203), respectively.

Table B.1.2.2-2
PET Color Palette Data

Red	Green	Blue

0	0	0
0	2	1
0	4	3
0	6	5
0	8	7
0	10	9
0	12	11
0	14	13
0	16	15
0	18	17
0	20	19
0	22	21
0	24	23
0	26	25
0	28	27
0	30	29
0	32	31
0	34	33
0	36	35
0	38	37
0	40	39
0	42	41
0	44	43
0	46	45
0	48	47
0	50	49
0	52	51
0	54	53
0	56	55
0	58	57
0	60	59
0	62	61
0	65	63
0	67	65
0	69	67
0	71	69
0	73	71
0	75	73

0	77	75
0	79	77
0	81	79
0	83	81
0	85	83
0	87	85
0	89	87
0	91	89
0	93	91
0	95	93
0	97	95
0	99	97
0	101	99
0	103	101
0	105	103
0	107	105
0	109	107
0	111	109
0	113	111
0	115	113
0	117	115
0	119	117
0	121	119
0	123	121
0	125	123
0	128	125
1	126	127
3	124	129
5	122	131
7	120	133
9	118	135
11	116	137
13	114	139
15	112	141
17	110	143
19	108	145
21	106	147
23	104	149

25	102	151
27	100	153
29	98	155
31	96	157
33	94	159
35	92	161
37	90	163
39	88	165
41	86	167
43	84	169
45	82	171
47	80	173
49	78	175
51	76	177
53	74	179
55	72	181
57	70	183
59	68	185
61	66	187
63	64	189
65	63	191
67	61	193
69	59	195
71	57	197
73	55	199
75	53	201
77	51	203
79	49	205
81	47	207
83	45	209
85	43	211
86	41	213
88	39	215
90	37	217
92	35	219
94	33	221
96	31	223
98	29	225

100	27	227
102	25	229
104	23	231
106	21	233
108	19	235
110	17	237
112	15	239
114	13	241
116	11	243
118	9	245
120	7	247
122	5	249
124	3	251
126	1	253
128	0	255
130	2	252
132	4	248
134	6	244
136	8	240
138	10	236
140	12	232
142	14	228
144	16	224
146	18	220
148	20	216
150	22	212
152	24	208
154	26	204
156	28	200
158	30	196
160	32	192
162	34	188
164	36	184
166	38	180
168	40	176
170	42	172
171	44	168
173	46	164

175	48	160
177	50	156
179	52	152
181	54	148
183	56	144
185	58	140
187	60	136
189	62	132
191	64	128
193	66	124
195	68	120
197	70	116
199	72	112
201	74	108
203	76	104
205	78	100
207	80	96
209	82	92
211	84	88
213	86	84
215	88	80
217	90	76
219	92	72
221	94	68
223	96	64
225	98	60
227	100	56
229	102	52
231	104	48
233	106	44
235	108	40
237	110	36
239	112	32
241	114	28
243	116	24
245	118	20
247	120	16
249	122	12

251	124	8
253	126	4
255	128	0
255	130	4
255	132	8
255	134	12
255	136	16
255	138	20
255	140	24
255	142	28
255	144	32
255	146	36
255	148	40
255	150	44
255	152	48
255	154	52
255	156	56
255	158	60
255	160	64
255	162	68
255	164	72
255	166	76
255	168	80
255	170	85
255	172	89
255	174	93
255	176	97
255	178	101
255	180	105
255	182	109
255	184	113
255	186	117
255	188	121
255	190	125
255	192	129
255	194	133
255	196	137
255	198	141

255	200	145
255	202	149
255	204	153
255	206	157
255	208	161
255	210	165
255	212	170
255	214	174
255	216	178
255	218	182
255	220	186
255	222	190
255	224	194
255	226	198
255	228	202
255	230	206
255	232	210
255	234	214
255	236	218
255	238	222
255	240	226
255	242	230
255	244	234
255	246	238
255	248	242
255	250	246
255	252	250
255	255	255

B.1.3 Hot Metal Blue Color Palette

B.1.3.1 Hot Metal Blue Color Palette Description (Informative)

The Hot Metal Blue color palette is often used in nuclear medicine or PET applications to make differences in signal intensity (counts) more apparent to the human observer. A typical example is illustrated in Figure B.1.3.1-1.

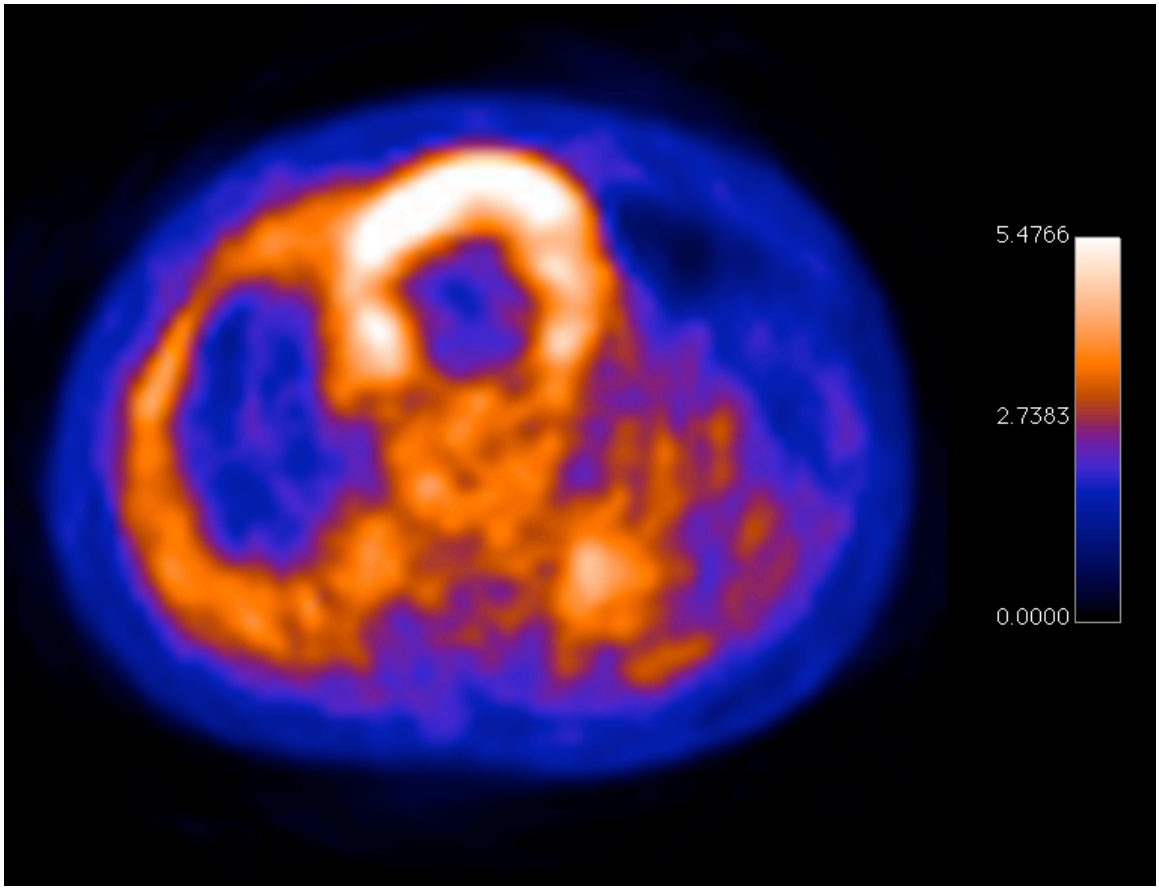

Figure B.1.3.1-1
PET image with Hot Metal Blue Palette applied.

B.1.3.2 Hot Metal Blue Color Palette Definition

The ICC Profile shall define the sRGB space.

The value of Content Label (0070,0080) shall be “HOT_METAL_BLUE”.

This color palette is defined to contain the values for Red Palette Color Lookup Table Descriptor (0028,1101), Green Palette Color Lookup Table Descriptor (0028,1102) and Blue Palette Color Lookup Table Descriptor (0028,1103) defined in Table B.1.3.2-1.

Table B.1.3.2-1
Hot Metal Blue Color Palette Descriptor

Value 1 (Number of entries)	Value 2 (First value mapped)	Value 3 (Number of bits)
256	0	8

This color palette is defined to contain the values in Table B.1.3.2-2, where the values in the columns Red,Green and Blue are the values of the Red Palette Color Lookup Table Data (0028,1201), Green Palette Color Lookup Table Data (0028,1202) and Blue Palette Color Lookup Table Data (0028,1203), respectively.

Table B.1.3.2-2
Hot Metal Blue Color Palette Data

Red	Green	Blue
0	0	0
0	0	2
0	0	4
0	0	6
0	0	8
0	0	10
0	0	12
0	0	14
0	0	16
0	0	17
0	0	19
0	0	21
0	0	23
0	0	25
0	0	27
0	0	29
0	0	31
0	0	33
0	0	35
0	0	37
0	0	39
0	0	41
0	0	43
0	0	45
0	0	47
0	0	49
0	0	51
0	0	53
0	0	55
0	0	57
0	0	59
0	0	61
0	0	63
0	0	65
0	0	67
0	0	69

0	0	71
0	0	73
0	0	75
0	0	77
0	0	79
0	0	81
0	0	83
0	0	84
0	0	86
0	0	88
0	0	90
0	0	92
0	0	94
0	0	96
0	0	98
0	0	100
0	0	102
0	0	104
0	0	106
0	0	108
0	0	110
0	0	112
0	0	114
0	0	116
0	0	117
0	0	119
0	0	121
0	0	123
0	0	125
0	0	127
0	0	129
0	0	131
0	0	133
0	0	135
0	0	137
0	0	139
0	0	141
0	0	143

0	0	145
0	0	147
0	0	149
0	0	151
0	0	153
0	0	155
0	0	157
0	0	159
0	0	161
0	0	163
0	0	165
0	0	167
3	0	169
6	0	171
9	0	173
12	0	175
15	0	177
18	0	179
21	0	181
24	0	183
26	0	184
29	0	186
32	0	188
35	0	190
38	0	192
41	0	194
44	0	196
47	0	198
50	0	200
52	0	197
55	0	194
57	0	191
59	0	188
62	0	185
64	0	182
66	0	179
69	0	176
71	0	174

74	0	171
76	0	168
78	0	165
81	0	162
83	0	159
85	0	156
88	0	153
90	0	150
93	2	144
96	4	138
99	6	132
102	8	126
105	9	121
108	11	115
111	13	109
114	15	103
116	17	97
119	19	91
122	21	85
125	23	79
128	24	74
131	26	68
134	28	62
137	30	56
140	32	50
143	34	47
146	36	44
149	38	41
152	40	38
155	41	35
158	43	32
161	45	29
164	47	26
166	49	24
169	51	21
172	53	18
175	55	15
178	56	12

181	58	9
184	60	6
187	62	3
190	64	0
194	66	0
198	68	0
201	70	0
205	72	0
209	73	0
213	75	0
217	77	0
221	79	0
224	81	0
228	83	0
232	85	0
236	87	0
240	88	0
244	90	0
247	92	0
251	94	0
255	96	0
255	98	3
255	100	6
255	102	9
255	104	12
255	105	15
255	107	18
255	109	21
255	111	24
255	113	26
255	115	29
255	117	32
255	119	35
255	120	38
255	122	41
255	124	44
255	126	47
255	128	50

255	130	53
255	132	56
255	134	59
255	136	62
255	137	65
255	139	68
255	141	71
255	143	74
255	145	76
255	147	79
255	149	82
255	151	85
255	152	88
255	154	91
255	156	94
255	158	97
255	160	100
255	162	103
255	164	106
255	166	109
255	168	112
255	169	115
255	171	118
255	173	121
255	175	124
255	177	126
255	179	129
255	181	132
255	183	135
255	184	138
255	186	141
255	188	144
255	190	147
255	192	150
255	194	153
255	196	156
255	198	159
255	200	162

255	201	165
255	203	168
255	205	171
255	207	174
255	209	176
255	211	179
255	213	182
255	215	185
255	216	188
255	218	191
255	220	194
255	222	197
255	224	200
255	226	203
255	228	206
255	229	210
255	231	213
255	233	216
255	235	219
255	237	223
255	239	226
255	240	229
255	242	232
255	244	236
255	246	239
255	248	242
255	250	245
255	251	249
255	253	252
255	255	255

B.1.4 PET 20 Step Color Palette

B.1.4.1 PET 20 Step Color Palette Description (Informative)

The PET 20 Step color palette is often used in PET applications to make differences in signal intensity (counts) more apparent to the human observer. A typical example is illustrated in Figure B.1.4.1-1.

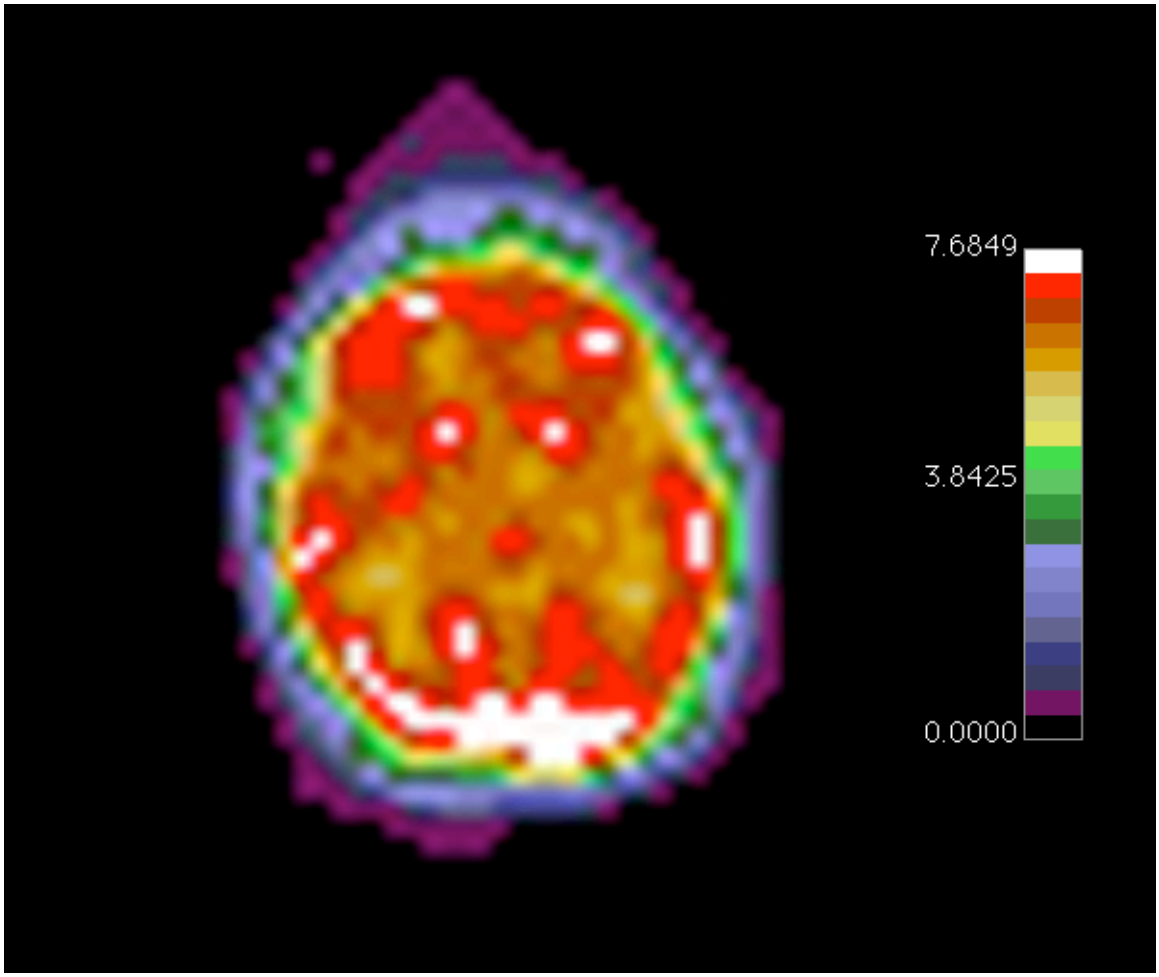

Figure B.1.4.1-1
PET image with PET 20 Step Palette applied.

B.1.4.2 PET 20 Step Color Palette Definition

The ICC Profile shall define the sRGB space.

The value of Content Label (0070,0080) shall be “PET_20_STEP”.

This color palette is defined to contain the values for Red Palette Color Lookup Table Descriptor (0028,1101), Green Palette Color Lookup Table Descriptor (0028,1102) and Blue Palette Color Lookup Table Descriptor (0028,1103) defined in Table B.1.4.2-1.

Table B.1.4.2-1
PET 20 Step Color Palette Descriptor

Value 1 (Number of entries)	Value 2 (First value mapped)	Value 3 (Number of bits)
256	0	8

This color palette is defined to contain the values in Table B.1.4.2-2, where the values in the columns Red,Green and Blue are the values of the Red Palette Color Lookup Table Data (0028,1201), Green Palette Color Lookup Table Data (0028,1202) and Blue Palette Color Lookup Table Data (0028,1203), respectively.

Table B.1.4.2-2
PET 20 Step Color Palette Data

Red	Green	Blue
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
96	0	80
48	48	80
48	48	80
48	48	80
48	48	80
48	48	80
48	48	80

48	48	80
48	48	80
48	48	80
48	48	80
48	48	80
48	48	80
48	48	80
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
48	48	112
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
80	80	128
96	96	176
96	96	176
96	96	176
96	96	176
96	96	176
96	96	176

96	96	176
96	96	176
96	96	176
96	96	176
96	96	176
96	96	176
96	96	176
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
112	112	192
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
128	128	224
48	96	48
48	96	48
48	96	48
48	96	48
48	96	48
48	96	48

48	96	48
48	96	48
48	96	48
48	96	48
48	96	48
48	96	48
48	96	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
48	144	48
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
80	192	80
64	224	64
64	224	64
64	224	64
64	224	64
64	224	64

64	224	64
64	224	64
64	224	64
64	224	64
64	224	64
64	224	64
64	224	64
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
224	224	80
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	208	96
208	176	64
208	176	64
208	176	64
208	176	64
208	176	64

208	176	64
208	176	64
208	176	64
208	176	64
208	176	64
208	176	64
208	176	64
208	176	64
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
208	144	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
192	96	0
176	48	0
176	48	0
176	48	0
176	48	0
176	48	0

176	48	0
176	48	0
176	48	0
176	48	0
176	48	0
176	48	0
176	48	0
176	48	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	0	0
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255
255	255	255

B.2 LOCALIZED STANDARD COLOR PALETTE DESCRIPTION VALUES

B.2.1 French

Table B.2.1-1
French Standard Color Palette Description Values

Content Label (0070,0080)	English Value of Content Description (0070,0081)	French Value of Content Description (0070,0081)
HOT_IRON	Hot Iron	Hot Iron
PET	PET	TEP
HOT_METAL_BLUE	Hot Metal Blue	Hot Metal Blue
PET_20_STEP	PET 20 Step	TEP Vingt étapes

Note: In France, the English terms for “Hot Iron” and “Hot Metal Blue” are used.

B.2.2 German

Table B.2.2-1
German Standard Color Palette Description Values

Content Label (0070,0080)	English Value of Content Description (0070,0081)	German Value of Content Description (0070,0081)
HOT_IRON	Hot Iron	Heisses Eisen
PET	PET	PET
HOT_METAL_BLUE	Hot Metal Blue	Heisses Metallblau
PET_20_STEP	PET 20 Step	PET 20 Schritte