

DICOM Correction Proposal

STATUS	Assigned
Date of Last Update	2019/06/03
Person Assigned	Ulrich Busch (ulrich.busch@bluewin.ch)
Submitter Name	Harry Solomon
Submission Date	2015/03/12

Correction Number	CP-1479
Log Summary:	Update PS3.4 for expanded Code Sequence
Name of Standard	PS3.4 - Edition 2018e
Rationale for Correction:	<p>Use of the Code Sequence in PS3.4 definitions need to be extended to support the introduction of Long Code / URL / URN values by CP1031.</p> <p>The extension to support Long Code Values and other attributes uses Macros and the following guidelines:</p> <ul style="list-style-type: none">- All attributes of the Code Macro of PS 3.3, Table 8.8-1. Code Sequence Macro Attributes like Coding Scheme Version (0008,0103) and others are included. All Attributes are optional unless otherwise stated in the following.- Code Value (0008,0100), Long Code Value (0008,0119), URN Code Value (0008,0120) are conditional required with the same conditions as in PS 3.3, Table 8.8-1. Code Sequence Macro Attributes- Coding Scheme Designator (0008,0102) and Coding Scheme Version (0008,0103) are conditional required as in PS 3.3, Table 8.8-1. Code Sequence Macro Attributes- Code Meaning as Return Key is generally made optional

Notes from earlier versions (will be removed in Voting Package):

Harry Solomon March 2015:

I just started on C and F. What do you think about this approach?

Just look at C.6.1.1.3 Study Level and F.7.2.1.1 Modality Performed Procedure Step Subset Specification

This is one approach. The tables are too different for one macro to fit all of Part 4. Even with custom macros for each section, the table size will shrink a bit.

I've already noticed that there are some oddities in MPPS, where the options do not match the requirements of codes, e.g., Code Meaning is shown as optional for both SCP and SCU (i.e., 3/3) for some codes and not others. I suspect a typo. These don't match the table, and I think we want to fix these typos at the same time. But it means pointing out these other changes.

Just a question before I put all the work in. Does this look like the right approach?

WG-06 Minutes March 2016 (no further Notes found):

2016-03 mtg: discussed and kept AS, er-assigned from HS to Rob Horn

2015-11-mtg: discussed SCP usage type designation. DC: nobody uses long codes in WL, RH: one who uses long codes will make sure the recipient can handle is. Discussed Canadian codes. 1C/1C is reasonable approach. HS-how to notify the community. DC: make a macro instead of replicating it.

March 18 2015: NEW

The proposals are not in CP. Use a macro.

2016-03 mtg: reassigned from HS to R Horn

2015-11 mtg: v-01. CMS deadline has been pushed out by at least a year. Need to wait for CMS promulgating form. Waiting for more clarity on payload required. (CDS-OAT)

2015-June mtg: wait for more work

Mar 23 2015: new

Ulrich Busch December 2018

Guidelines:

Certainly not one approach fits all.

As Unified Worklist uses service-specific macros, we could use macros per section where it helps to reduce size and documenting consistency. Otherwise spell it out where it does not make sense or is not possible.

Finally, the approach depends on how far we are able to synchronize the differences, which often seem arbitrary. If this is acceptable, macro approaches in some cases across services are indicated.

"New Macro n" below is written under the assumption that small arbitrary differences can be consolidated. The number of macros can be reduced further if more differences can be consolidated.

WG-06 2019-01-08

Try one Macro with several columns. Specify that columns apply as they are present. -> Done

Code Scheme Version: make all conditional. -> Done

Mark changes indirectly caused by macros specifically for internal WG-06 review. -> Done

Code Meaning: Matching Requirements are significant and cannot be changed -> Done

Code Meaning: Return keys can be all the same (optional) -> Done

U. Busch 2019-06-03

TODO: Check all previous conditions

All the following content until "Corrected Wording" are for pre-reviews only. This content will be removed in the VP version (unless there is interest to keep certain parts).

Overview over current use of Codes

Section	Content	Spec. Approach	Requirements	Macros used (No of Occurrences)
C.6.1	Query/Retrieve Patient Root	MRK	All optional	C.6-2a. (2)
C.6.2	Query/Retrieve Study Root	MRK	All optional	C.6-2a. (1)
F.7	Procedure Step N-CREATE etc.	2*SCU/SCP	Meaning Mandatory Meaning Optional	F.7.2-1a. (2) F.7.2-1c. (2) F.7.2-1e. (2)
F.8	Procedure Step N-GET	(SCU)/SCP	Meaning Mandatory Meaning Optional	XXX1-4a. (4)
K.6.1.2	Basic Worklist	MK/RK (MK)/RK	Meaning Mandatory Meaning Optional MK Optional	XXX1-2a. (2) XXX1-3a. (5) XXX1-4a. (2)
P.3.2.1	Application Event	SCU/SCP	Meaning Mandatory	XXX1-1a. (2)
Q.4.3.1	Relevant Patient Information	(MK)/RK	Meaning Mandatory	XXX1-3a. (1)
R.3.2.1	Instance Availability	SCU/SCP	Meaning Mandatory	XXX1-1a. (1)
U.6.1.2	Hanging Protocol	MK/RK	Meaning Mandatory MK Mandatory	XXX1-1a. (4)
V.6.1.2	Substance Prod. Charact.	(MK)/RK	Meaning Mandatory	XXX1-3a. (2)
V.6.2.2	Substance Approval	MK/RK	Meaning Mandatory MK Mandatory	F.7.2-1a. (1)
X.6.1	Color Palette	(MK)/RK	Meaning Mandatory	XXX1-3a. (1)
BB.6.1.2	Implant Templates	MK/RK	Meaning Mandatory MK Mandatory	XXX1-1a. (5)
CC.2.2.1	UPS Cancel Action Information	SCU/SCP	Meaning Mandatory	XXX1-1a. (1)
CC.2.4.1	UPS Cancel Event Report	(SCU)/SCP	Meaning Mandatory	XXX1-1a. (2)
CC.2.5.1	UPS Service Requirements Code Macro	SCU/SCP and MK/RK	Meaning Mandatory MK *: by enclosing sequence	Specific Macro already exists. Extended as needed

Column "Specification Approach":

MRK	Matching and Return Key specification combined
MK/RK	Matching Key and Return Key specified
(MK)/RK	Matching Key not specified Return Key specified
SCU/SCP	SCU / SCP specified with equal requirements
(SCU)/SCP	SCU not specified SCP requirements specified

Additional Observations (will be removed in Voting Package)

- Coding Scheme Version (0008,0103) is present or absent on an arbitrary basis

- Coding Scheme Version (0008,0103) is sometimes optional, sometimes conditional as “Required if the value of Coding Scheme Designator (0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously”
- Matching Key requirements on Code Meaning (0008,0104) differ supposing arbitrarily in K.6.1.2 Basic Worklist
- In most cases the code attributes take a considerable fraction of total rows of specification tables

Coloring:

The following coloring is intermediately used for more easier understanding:

Gray: Code Attributes present in current Standard Edition

Blue: Tables defining new Macros

Green: Invocation of new Macros

Yellow: Functional Changes / additions.

Pink: Question from an early version about inconsistencies

(will be removed in Voting Package)

Sections

DICOM Correction Proposal	1
XXX1 Code Entry Usage in Service Specifications	6
C. Query/Retrieve Service Class (Normative)	12
C.6.1.1.3 Study Level	12
C.6.1.1.5 Composite Object Instance Level	13
C.6.2.1.2 Study Level	13
F Procedure Step SOP Class	14
F.7.2.1.1 Modality Performed Procedure Step Subset Specification	14
F.8.2.1.1 Modality Performed Procedure Step Retrieve IOD Subset Specifications	19
K. Basic Worklist Management Service (Normative)	21
K.6.1.2.2 Modality Worklist Attributes	21
P. Application Event Logging Service Class (Normative)	25
P.3.2.1 Substance Administration Log Action Information	25
Q. Relevant Patient Information Query Service Class (Normative)	25
Q.4.3.1.2 Relevant Patient Information Attributes	25
R. Instance Availability Notification Service Class (Normative)	26
R.3.2.1.1 Attributes	26
U. Hanging Protocol Query/Retrieve Service Class	27
U.6.1.2 Hanging Protocol Attributes	27
V. Substance Administration Query Service Class (Normative)	28
V.6.1.2.2 Product Characteristics Query Attributes	28
V.6.2.2.2 Substance Approval Query Attributes	29
X. Color Palette Query/Retrieve Service Class	30
X.6.1.2 Color Palette Attributes	30
BB. Implant Template Query/Retrieve Service Classes	30
BB.6.1.2.1 Generic Implant Template Attributes	30
BB.6.1.2.2 Implant Assembly Template Attributes	32
CC. Unified Procedure Step Service and SOP Classes (Normative)	32
CC.2.2 Request UPS Cancel (N-ACTION)	32
CC.2.2.1 Action Information	33
CC.2.4 Report a Change in UPS Status (N-EVENT-REPORT)	33
CC.2.4.1 Event Report Information	33
CC.2.5 Create a Unified Procedure Step (N-CREATE)	34
CC.2.5.1 Unified Procedure Step Attribute Specification	34
CC.2.5.1.2 UPS Macros	34

Existing Tables

Table C.6-2. Study Level Keys for the Patient Root Query/Retrieve Information Model	12
Table C.6-4. Composite Object Instance Level Keys for the Patient Root Query/Retrieve Information Model....	13
Table C.6-5. Study Level Keys for the Study Root Query/Retrieve Information Model.....	13
Table F.7.2-1. Modality Performed Procedure Step SOP Class N-CREATE, N-SET and Final State Attributes	17
Table F.8.2-1. Modality Performed Procedure Step Retrieve SOP Class N-GET Attributes	19
Table K.6-1. Attributes for the Modality Worklist Information Model.....	21
Table P.3-2. Substance Administration Logging N-ACTION Information	25
Table Q.4-1. Attributes for the Relevant Patient Information Model	25
Table R.3.2-1. Instance Availability Notification SOP Class N-CREATE Attributes	26
Table U.6-1. Attributes for the Hanging Protocol Information Model	27
Table V.6-1. Attributes for the Product Characteristics Query Information Model	28
Table V.6-2. Attributes for the Substance Approval Query Information Model.....	29
Table X.6-1. Attributes for the Color Palette Information Model	30
Table BB.6-1. Attributes for the Implant Template Information Model.....	30
Table BB.6-2. Attributes for the Implant Assembly Template Information Model	32
Table CC.2.2-1. Request UPS Cancel - Action Information	33
Table CC.2.4-1. Report a Change in UPS Status - Event Report Information	33
Table CC.2.5-2a. UPS Code Sequence Macro	34

New Tables

Table XXX1-1a. Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning	6
Table XXX1-1b. Basic SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning.....	6
Table XXX1-2a. Enhanced SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support.....	7
Table XXX1-2b. Basic SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support.....	8
Table XXX1-3a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support.....	9
Table XXX1-3b. Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support	9
Table XXX1-4a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support	10
Table XXX1-4b. Basic SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support.....	11
Table C.6-2a. Enhanced Code Value Keys Macro	12
Table C.6-2b. Basic Code Value Keys Macro.....	12
Table F.7.2-1a. Modality Performed Procedure Step Enhanced Code Value Macro with no N-SET	14
Table F.7.2-1b. Modality Performed Procedure Step Simple Code Value Macro with no N-SET	14
Table F.7.2-1c. Modality Performed Procedure Step Enhanced Code Value Macro with N-SET	15
Table F.7.2-1d. Modality Performed Procedure Step Simple Code Value Macro with N-SET	15

Correction Wording:

Make the following changes to PS3.4:

XXX1 Code Entry Usage in Service Specifications

The following Macros specify the usage of the Attributes corresponding to the representation of Coded Entry by the Table 8.8-1. Code Sequence Macro Attributes. The columns of the following Macros apply as they are present in the tables where the Macro is invoked.

Table XXX1-1a. Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type</u> <u>SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<i>Include Table XXX1-1b. "Basic SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"</i>				
<u>Equivalent Code Sequence</u>	<u>(0008.0121)</u>	<u>3/3</u>	<u>Q</u>	<u>3</u>
<i>>Include Table XXX1-1b. "Basic SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"</i>				

Table XXX1-1b. Basic SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type</u> <u>SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Code Value</u>	<u>(0008.0100)</u>	<u>1C/1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length is 16</u> <u>characters or less,</u> <u>and the code value</u> <u>is not a URN or URL.</u>	<u>RC</u> <u>Required if the code</u> <u>value length is 16</u> <u>characters or less,</u> <u>and the code value is</u> <u>not a URN or URL.</u>	<u>1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length is 16</u> <u>characters or less,</u> <u>and the code value is</u> <u>not a URN or URL.</u>
<u>Coding Scheme Designator</u>	<u>(0008.0102)</u>	<u>1C/1C</u> <u>Shall be present if</u> <u>Code Value</u> <u>(0008.0100) or Long</u> <u>Code Value</u> <u>(0008.0119) is</u> <u>present. May be</u> <u>present otherwise.</u>	<u>RC</u> <u>Required if Code</u> <u>Value (0008.0100) or</u> <u>Long Code Value</u> <u>(0008.0119) is</u> <u>present. May be</u> <u>present otherwise.</u>	<u>1C</u> <u>Shall be present if</u> <u>Code Value</u> <u>(0008.0100) or Long</u> <u>Code Value</u> <u>(0008.0119) is</u> <u>present. May be</u> <u>present otherwise.</u>

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Coding Scheme Version</u>	<u>(0008.0103)</u>	<u>1C/1C</u> <u>Required if the value of Coding Scheme Designator (0008.0102) is present and is not sufficient to identify the Code Value (0008.0100) or Long Code Value (0008.0119) or URN Code Value (0008.0120) unambiguously. May be present otherwise.</u>	<u>=</u>	<u>3</u>
<u>Code Meaning</u>	<u>(0008.0104)</u>	<u>1/1</u>	<u>=</u>	<u>3</u>
<u>Long Code Value</u>	<u>(0008.0119)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>RC</u> <u>Required if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>1C</u> <u>Required if the code value length over 16 characters, and the code value is not a URN or URL.</u>
<u>URN Code Value</u>	<u>(0008.0120)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>RC</u> <u>Required if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>1C</u> <u>Require if the code value length over 16 characters, and the code value is a URN or URL.</u>
<u>Mapping Resource</u>	<u>(0008.0105)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>
<u>Mapping Resource UID</u>	<u>(0008.0118)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>
<u>Context Group Version</u>	<u>(0008.0118)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>
<u>Context Group Extension Flag</u>	<u>(0008.010B)</u> <u>)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>
<u>Context Group Local Version</u>	<u>(0008.0107)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>
<u>Context Group Extension Creator UID</u>	<u>(0008.010D)</u> <u>)</u>	<u>3/3</u>	<u>=</u>	<u>3</u>

Table XXX1-2a. Enhanced SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<i>Include Table XXX1-2b. "Basic SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support"</i>				
<u>Equivalent Code Sequence</u>	<u>(0008.0121)</u>	<u>3/3</u>	<u>Q</u>	
<i>>Include Table XXX1-2b. "Basic SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support"</i>				

Table XXX1-2b. Basic SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Code Value</u>	<u>(0008,0100)</u>	<u>3/1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	<u>0</u>	<u>1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>3/1C</u> <u>Shall be present if Code Value (0008,0100) or Long Code Value (0008,0119) is present. May be present otherwise.</u>	<u>0</u>	<u>1C</u> <u>Shall be present if Code Value (0008,0100) or Long Code Value (0008,0119) is present. May be present otherwise.</u>
<u>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>3/1C</u> <u>Required if the value of Coding Scheme Designator (0008,0102) is present and is not sufficient to identify the Code Value (0008,0100) or Long Code Value (0008,0119) or URN Code Value (0008,0120) unambiguously. May be present otherwise.</u>	<u>0</u>	<u>3</u>
<u>Code Meaning</u>	<u>(0008,0104)</u>	<u>3/1</u>	<u>0</u>	<u>3</u>
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>3/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>0</u>	<u>1C</u> <u>Required if the code value length over 16 characters, and the code value is not a URN or URL.</u>
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>3/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>0</u>	<u>1C</u> <u>Required if the code value length over 16 characters, and the code value is a URN or URL.</u>
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>3/3</u>	<u>0</u>	<u>3</u>
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>0</u>	<u>3</u>
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>0</u>	<u>3</u>

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u> }	<u>3/3</u>	<u>0</u>	<u>3</u>
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>3/3</u>	<u>0</u>	<u>3</u>
<u>Context Group Extension Creator UID</u>	<u>(0008,010D)</u> }	<u>3/3</u>	<u>0</u>	<u>3</u>

Table XXX1-3a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<i>Include Table XXX1-3b. "Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"</i>				
<u>Equivalent Code Sequence</u>	<u>(0008,0121)</u>	<u>-/3</u>	<u>:</u>	
<i>>Include Table XXX1-3b. "Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"</i>				

Table XXX1-3b. Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Code Value</u>	<u>(0008,0100)</u>	<u>-/1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	<u>:</u>	<u>1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1C</u> <u>Shall be present if Code Value (0008,0100) or Long Code Value (0008,0119) is present. May be present otherwise.</u>	<u>:</u>	<u>1C</u> <u>Shall be present if Code Value (0008,0100) or Long Code Value (0008,0119) is present. May be present otherwise.</u>

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Coding Scheme Version</u>	<u>(0008.0103)</u>	<u>-1C</u> <u>Required if the value of Coding Scheme Designator (0008.0102) is present and is not sufficient to identify the Code Value (0008.0100) or Long Code Value (0008.0119) or URN Code Value (0008.0120) unambiguously. May be present otherwise.</u>	<u>=</u>	<u>3</u>
<u>Code Meaning</u>	<u>(0008.0104)</u>	<u>-1</u>	<u>=</u>	<u>3</u>
<u>Long Code Value</u>	<u>(0008.0119)</u>	<u>-1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>=</u>	<u>1C</u> <u>Required if the code value length over 16 characters, and the code value is not a URN or URL.</u>
<u>URN Code Value</u>	<u>(0008.0120)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>=</u>	<u>1C</u> <u>Required if the code value length over 16 characters, and the code value is a URN or URL.</u>
<u>Mapping Resource</u>	<u>(0008.0105)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Mapping Resource UID</u>	<u>(0008.0118)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Context Group Version</u>	<u>(0008.0118)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Context Group Extension Flag</u>	<u>(0008.010B)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Context Group Local Version</u>	<u>(0008.0107)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Context Group Extension Creator UID</u>	<u>(0008.010D)</u>	<u>-3</u>	<u>=</u>	<u>3</u>

Table XXX1-4a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Include Table XXX1-4b. "Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"</u>				
<u>Equivalent Code Sequence</u>	<u>(0008.0121)</u>	<u>-3</u>	<u>=</u>	
<u>>Include Table XXX1-4b. "Basic SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"</u>				

Table XXX1-4b. Basic SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Code Value</u>	<u>(0008,0100)</u>	<u>-1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length is 16</u> <u>characters or less,</u> <u>and the code value</u> <u>is not a URN or URL.</u>	<u>Q</u>	<u>1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length is 16</u> <u>characters or less,</u> <u>and the code value is</u> <u>not a URN or URL.</u>
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-1C</u> <u>Shall be present if</u> <u>Code Value</u> <u>(0008,0100) or Long</u> <u>Code Value</u> <u>(0008,0119) is</u> <u>present. May be</u> <u>present otherwise.</u>	<u>Q</u>	<u>1C</u> <u>Shall be present if</u> <u>Code Value</u> <u>(0008,0100) or Long</u> <u>Code Value</u> <u>(0008,0119) is</u> <u>present. May be</u> <u>present otherwise.</u>
<u>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>-1C</u> <u>Required if the value</u> <u>of Coding Scheme</u> <u>Designator</u> <u>(0008,0102) is</u> <u>present and is not</u> <u>sufficient to identify</u> <u>the Code Value</u> <u>(0008,0100) or Long</u> <u>Code Value</u> <u>(0008,0119) or URN</u> <u>Code Value</u> <u>(0008,0120)</u> <u>unambiguously.</u> <u>May be present</u> <u>otherwise.</u>	<u>:</u>	<u>3</u>
<u>Code Meaning</u>	<u>(0008,0104)</u>	<u>-3</u>	<u>:</u>	<u>3</u>
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>-1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length over 16</u> <u>characters, and the</u> <u>code value is not a</u> <u>URN or URL.</u>	<u>Q</u>	<u>1C</u> <u>Required if the code</u> <u>value length over 16</u> <u>characters, and the</u> <u>code value is not a</u> <u>URN or URL.</u>
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>1C/1C</u> <u>Shall be present if</u> <u>the code value</u> <u>length over 16</u> <u>characters, and the</u> <u>code value is a URN</u> <u>or URL.</u>	<u>Q</u>	<u>1C</u> <u>Required if the code</u> <u>value length over 16</u> <u>characters, and the</u> <u>code value is a URN</u> <u>or URL.</u>
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>-3</u>	<u>:</u>	<u>3</u>
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>-3</u>	<u>:</u>	<u>3</u>
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>-3</u>	<u>:</u>	<u>3</u>
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u>	<u>-3</u>	<u>:</u>	<u>3</u>

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type</u> <u>SCU/SCP</u>	<u>Matching Key Type</u>	<u>Return Key Type</u>
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>-3</u>	<u>=</u>	<u>3</u>
<u>Context Group Extension</u> <u>Creator UID</u>	<u>(0008,010D</u> <u>)</u>	<u>-3</u>	<u>=</u>	<u>3</u>

C. Query/Retrieve Service Class (Normative)

...

C.6.1.1.3 Study Level

Table C.6-2a. Enhanced Code Value Keys Macro with Optional Keys

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type</u>
<i>Include Table C.6-2b</i>		
<u>Equivalent Code Sequence</u>	<u>(0008,0121)</u>	<u>O</u>
<i>>Include Table C.6-2b</i>		

Table C.6-2b. Basic Code Value Keys Macro with Optional Keys

<u>Attribute Name</u>	<u>Tag</u>	<u>Requirement Type</u>
<u>Code Value</u>	<u>(0008,0100)</u>	<u>O</u>
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>O</u>
<u>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>O</u>
<u>Code Meaning</u>	<u>(0008,0104)</u>	<u>O</u>
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>O</u>
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>O</u>
<u>Context Identifier</u>	<u>(0008,010e)</u>	<u>O</u>
<u>Context UID</u>	<u>(0008,0117)</u>	<u>O</u>
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>O</u>
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>O</u>
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>O</u>
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u>	<u>O</u>
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>O</u>
<u>Context Group Extension Creator UID</u>	<u>(0008,010D)</u>	<u>O</u>

Table C.6-2. Study Level Keys for the Patient Root Query/Retrieve Information Model

<u>Attribute Name</u>	<u>Tag</u>	<u>Type</u>
...		
Procedure Code Sequence	(0008,1032)	O

Attribute Name	Tag	Type
>Code Value	(0008,0100)	O
>Coding Scheme Designator	(0008,0102)	O
>Coding Scheme Version	(0008,0103)	O
>Code Meaning	(0008,0104)	O
>Include Table C.6-2a "Enhanced Code Value Keys Macro with optional Keys"		
...		

C.6.1.1.5 Composite Object Instance Level

Table C.6-4. Composite Object Instance Level Keys for the Patient Root Query/Retrieve Information Model

Attribute Name	Tag	Requirement Type
...		
Alternate Representation Sequence	(0008,3001)	O
>Series Instance UID	(0020,000E)	O
>SOP Class UID	(0008,1150)	O
>SOP Instance UID	(0008,1155)	O
>Purpose of Reference Code Sequence	(0040,A170)	O
>Code Value	(0008,0100)	O
>Coding Scheme Designator	(0008,0102)	O
>Coding Scheme Version	(0008,0103)	O
>Code Meaning	(0008,0104)	O
>Include Table C.6-2a "Enhanced Code Value Keys Macro with optional Keys"		
Related General SOP Class UID	(0008,001A)	O
Concept Name Code Sequence	(0040,A043)	O
>Code Value	(0008,0100)	O
>Coding Scheme Designator	(0008,0102)	O
>Coding Scheme Version	(0008,0103)	O
>Code Meaning	(0008,0104)	O
>Include Table C.6-2a "Enhanced Code Value Keys Macro with optional Keys"		
...		

C.6.2.1.2 Study Level

Table C.6-5. Study Level Keys for the Study Root Query/Retrieve Information Model

Attribute Name	Tag	Requirement Type
...		
Procedure Code Sequence	(0008,1032)	O

Attribute Name	Tag	Requirement Type
>Code Value	(0008,0100)	Q
>Coding Scheme Designator	(0008,0102)	Q
>Coding Scheme Version	(0008,0103)	Q
>Code Meaning	(0008,0104)	Q
>Include Table C.6-2a "Enhanced Code Value Keys Macro with optional Keys"		
Name of Physician(s) Reading Study	(0008,1060)	O

F Procedure Step SOP Class

F.7.2.1.1 Modality Performed Procedure Step Subset Specification

Table F.7.2-1a. Modality Performed Procedure Step Enhanced Code Value Macro with no N-SET

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<i>Include Table F.7.2-1b "Modality Performed Procedure Step Simple Code Value Macro with no N-SET"</i>				
Equivalent Code Sequence	(0008,0121)	3/3	Not allowed	
<i>>Include Table F.7.2-1b "Modality Performed Procedure Step Simple Code Value Macro with no N-SET"</i>				

Table F.7.2-1b. Modality Performed Procedure Step Simple Code Value Macro with no N-SET

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
Code Value	(0008,0100)	1C/1C Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.	Not allowed	
Coding Scheme Designator	(0008,0102)	1/1	Not allowed	
Coding Scheme Version	(0008,0103)	3/3	Not allowed	
Code Meaning	(0008,0104)	1/1	Not allowed	
Long Code Value	(0008,0119)	1C/1C Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.	Not allowed	
URN Code Value	(0008,0120)	1C/1C Shall be present if the code value length	Not allowed	

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
		<u>over 16 characters, and the code value is a URN or URL.</u>		
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>3/3</u>	<u>Not allowed</u>	
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>Not allowed</u>	
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>Not allowed</u>	
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u>	<u>3/3</u>	<u>Not allowed</u>	
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>3/3</u>	<u>Not allowed</u>	
<u>Context Group Extension Creator UID</u>	<u>(0008,010D)</u>	<u>3/3</u>	<u>Not allowed</u>	

Table F.7.2-1c. Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, mandatory Meaning

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<i>>Include Table F.7.2-1d "Modality Performed Procedure Step Simple Code Value Macro with N-SET, mandatory Meaning"</i>				
<u>Equivalent Code Sequence</u>	<u>(0008,0102)</u>	<u>3/3</u>	<u>3/3</u>	
<i>>Include Table F.7.2-1d "Modality Performed Procedure Step Simple Code Value Macro with N-SET, mandatory Meaning"</i>				

Table F.7.2-1d. Modality Performed Procedure Step Simple Code Value Macro with N-SET, mandatory Meaning

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<u>Code Value</u>	<u>(0008,0100)</u>	<u>1C/1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	<u>3C/1C</u> <u>May be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>1/1</u>	<u>1/1</u>	
<u>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Code Meaning</u>	<u>(0008,0104)</u>	<u>1/1</u>	<u>1/1</u>	
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>3C/1C</u> <u>May be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>1C/1C</u>	<u>3C/1C</u>	

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
		<u>Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>May be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Extension Creator UID</u>	<u>(0008,010D)</u>	<u>3/3</u>	<u>3/3</u>	

Table F.7.2-1e. Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, optional Meaning

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<i>>Include Table F.7.2-1f "Modality Performed Procedure Step Simple Code Value Macro with N-SET, optional Meaning"</i>				
<u>Equivalent Code Sequence</u>	<u>(0008,0102)</u>	<u>3/3</u>	<u>3/3</u>	
<i>>Include Table F.7.2-1f "Modality Performed Procedure Step Simple Code Value Macro with N-SET, optional Meaning"</i>				

Table F.7.2-1f. Modality Performed Procedure Step Simple Code Value Macro with N-SET, optional Meaning

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<u>Code Value</u>	<u>(0008,0100)</u>	<u>1C/1C</u> <u>Shall be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	<u>3C/1C</u> <u>May be present if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>	
<u>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>1/1</u>	<u>1/1</u>	
<u>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Code Meaning</u>	<u>(0008,0104)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	<u>3C/1C</u> <u>May be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>	

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>1C/1C</u> <u>Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	<u>3C/1C</u> <u>May be present if the code value length over 16 characters, and the code value is a URN or URL.</u>	
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Version</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Extension Flag</u>	<u>(0008,010B)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Local Version</u>	<u>(0008,0107)</u>	<u>3/3</u>	<u>3/3</u>	
<u>Context Group Extension Creator UID</u>	<u>(0008,010D)</u>	<u>3/3</u>	<u>3/3</u>	

Table F.7.2-1. Modality Performed Procedure Step SOP Class N-CREATE, N-SET and Final State Attributes

EDITORIAL: Green highlights are from Revision 03, March 2016 and certainly are related to the comment of "mopoo"

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
...				
Performed Procedure Step Relationship				
Scheduled Step Attribute Sequence	(0040,0270)	1/1	Not allowed	
...				
>Requested Procedure Code Sequence	(0032,1064)	3/3	Not allowed	
>>Code Value	<u>(0008,0100)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Coding Scheme Designator	<u>(0008,0102)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Coding Scheme Version	<u>(0008,0103)</u>	<u>3/3</u>	<u>Not allowed</u>	
>>Code Meaning	<u>(0008,0104)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Include Table F.7.2-1a "Modality Performed Procedure Step Enhanced Code Value Macro with no N-SET"				

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
>Requested Procedure Description	(0032,1060)	2/2	Not allowed	
>Scheduled Procedure Step ID	(0040,0009)	2/2	Not allowed	
>Scheduled Procedure Step Description	(0040,0007)	2/2	Not allowed	
>Scheduled Protocol Code Sequence	(0040,0008)	2/2	Not allowed	
>>Code Value	<u>(0008,0100)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Coding Scheme Designator	<u>(0008,0102)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Coding Scheme Version	<u>(0008,0103)</u>	<u>3/3</u>	<u>Not allowed</u>	
>>Code Meaning	<u>(0008,0104)</u>	<u>1/1</u>	<u>Not allowed</u>	
>>Include Table F.7.2-1a "Modality Performed Procedure Step Enhanced Code Value Macro with no N-SET"				
...				
Performed Procedure Step Information				
...				
Procedure Code Sequence	(0008,1032)	2/2	3/2	
>Code Value	<u>(0008,0100)</u>	<u>1/1</u>	<u>1/1</u>	
>Coding Scheme Designator	<u>(0008,0102)</u>	<u>1/1</u>	<u>1/1</u>	
>Coding Scheme Version	<u>(0008,0103)</u>	<u>3/3</u>	<u>3/3</u>	
>Code Meaning	<u>(0008,0104)</u>	<u>3/3</u>	<u>3/3</u>	
>>Include Table F.7.2-1e. Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, optional Meaning				
Reason For Performed Procedure Code Sequence	(0040,1012)	3/3	3/3	
>Code Value	<u>(0008,0100)</u>	<u>1/1</u>	<u>1/1</u>	
>Coding Scheme Designator	<u>(0008,0102)</u>	<u>1/1</u>	<u>1/1</u>	
>Coding Scheme Version	<u>(0008,0103)</u>	<u>3/3</u>	<u>3/3</u>	
>Code Meaning	<u>(0008,0104)</u>	<u>1/1</u>	<u>1/1</u>	
>>Include Table F.7.2-1c "Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, mandatory Meaning"				
Performed Procedure Step End Date	(0040,0250)	2/2	3/1	1
Performed Procedure Step End Time	(0040,0251)	2/2	3/1	1
Comments on the Performed Procedure Step	(0040,0280)	3/3	3/3	

Commented [rjh1]: Is this a mistake? It sure looks like a typo.

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Requirement Type Final State (see Note 1)
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)	3/3	3/3	
>Code Value	(0008,0100)	1/1	1/1	
>Coding Scheme Designator	(0008,0102)	1/1	1/1	
>Coding Scheme Version	(0008,0103)	3/3	3/3	
>Code Meaning	(0008,0104)	1/1	1/1	
>Include Table F.7.2-1c "Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, mandatory Meaning"				
Image Acquisition Results				
Modality	(0008,0060)	1/1	Not allowed	
Study ID	(0020,0010)	2/2	Not allowed	
Performed Protocol Code Sequence	(0040,0260)	2/2	3/2	
>Code Value	(0008,0100)	1/1	1/1	
>Coding Scheme Designator	(0008,0102)	1/1	1/1	
>Coding Scheme Version	(0008,0103)	3/3	3/3	
>Code Meaning	(0008,0104)	3/3	3/3	
>Include Table F.7.2-1e. Modality Performed Procedure Step Enhanced Code Value Macro with N-SET, optional Meaning				
...				

Note

1. The requirement for the final state is that which applies at the time that the Performed Procedure Step Status (0040,0252) is N-SET to a value of COMPLETED or DISCONTINUED, as described in Section F.7.2.2.2. It is only described if it is different from the SCP requirement for the N-CREATE.
2. The Performed Series Sequence (0040,0340) may not be empty (zero length) at the time that the Performed Procedure Step Status (0040,0252) is N-SET to a value of COMPLETED or DISCONTINUED. In other words a Series must exist for every Performed Procedure Step, though it may contain no Images or Non-Image Composite objects, if none were created, as described in Section F.7.2.2.2.
3. Attributes (0040,1006) Placer Order Number/Procedure and (0040,1007) Filler Order Number/Procedure were previously defined in DICOM. They are now retired (see PS3.3-1998).
4. Attributes (0040,2006) and (0040,2007) were previously defined in DICOM. They are now retired (see PS3.3-1998).
5. Only Attributes that are specified in a SOP Instance at N-CREATE may later be updated through the N-SET. If an SCU wishes to use the PPS Discontinuation Reason Code Sequence (0040,0281), it must create that Attribute (zero-length) during MPPS N-CREATE.
6. The Radiation Dose Module was previously defined in DICOM. This is now retired (see PS3.3-2017c).

F.8.2.1.1 Modality Performed Procedure Step Retrieve IOD Subset Specifications

Table F.8.2-1. Modality Performed Procedure Step Retrieve SOP Class N-GET Attributes

Attribute Name	Tag	Requirement Type (SCU/SCP)
...		
Performed Procedure Step Relationship		
Scheduled Step Attributes Sequence	(0040,0270)	3/1
...		
>Requested Procedure Code Sequence	(0032,1064)	-/3
<u>>>Code Value</u>	<u>(0008,0100)</u>	<u>-/1</u>
<u>>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1</u>
<u>>>Code Meaning</u>	<u>(0008,0104)</u>	<u>-/1</u>
<u>>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"</u>		
Adding Coding Scheme Version as 1C		
>Requested Procedure Description	(0032,1060)	-/2
>Requested Procedure ID	(0040,1001)	-/2
>Scheduled Procedure Step ID	(0040,0009)	-/2
>Scheduled Procedure Step Description	(0040,0007)	-/2
>Scheduled Protocol Code Sequence	(0040,0008)	-/2
<u>>>Code Value</u>	<u>(0008,0100)</u>	<u>-/1</u>
<u>>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1</u>
<u>>>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>-/3</u>
<u>>>Code Meaning</u>	<u>(0008,0104)</u>	<u>-/3</u>
<u>>>Include Table XXX1-4a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support"</u>		
...		
Performed Procedure Step Information		
...		
Procedure Code Sequence	(0008,1032)	3/2
<u>>Code Value</u>	<u>(0008,0100)</u>	<u>-/1</u>
<u>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1</u>
<u>>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>-/3</u>
<u>>Code Meaning</u>	<u>(0008,0104)</u>	<u>-/3</u>
<u>>>Include Table XXX1-4a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support"</u>		
Comments on the Performed Procedure Step	(0040,0280)	3/3
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)	3/2
<u>>Code Value</u>	<u>(0008,0100)</u>	<u>-/1</u>
<u>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1</u>
<u>>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>-/3</u>

Attribute Name	Tag	Requirement Type (SCU/SCP)
>Code Meaning	(0008,0104)	-3
>Include Table XXX1-4a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support"		
Image Acquisition Results		
...		
Performed Protocol Code Sequence	(0040,0260)	3/2
>Code Value	(0008,0100)	-1
>Coding Scheme Designator	(0008,0102)	-1
>Coding Scheme Version	(0008,0103)	-3
>Code Meaning	(0008,0104)	-3
>Include Table XXX1-4a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support"		
...		

K. Basic Worklist Management Service (Normative)

K.6.1.2.2 Modality Worklist Attributes

Table K.6-1. Attributes for the Modality Worklist Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
Scheduled Procedure Step				
Scheduled Procedure Step Sequence	(0040,0100)	R	1	The Attributes of the Scheduled Procedure Step shall only be retrieved with Sequence Matching. The Scheduled Procedure Step Sequence shall contain only a single Item.
...				
>Scheduled Protocol Code Sequence	(0040,0008)	O	1C	Either the Scheduled Procedure Step Description (0040,0007) or the Scheduled Protocol Code Sequence (0040,0008) or both shall be supported by the SCP. The Scheduled Protocol Code Sequence contains one or more Items.
>>Code Value	(0008,0100)	<u>O</u>	<u>1</u>	
>>Coding Scheme Version	(0008,0103)	<u>O</u>	<u>3</u>	

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
>>Coding Scheme Designator	(0008,0102)	<u>0</u>	<u>1</u>	
>>Code Meaning	(0008,0104)	<u>0</u>	<u>3</u>	
>>Include Table XXX1-2a. "Enhanced SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support"				
Adding Coding Scheme Version as 1C				
>>Protocol Context Sequence	(0040,0440)	-	3	The Protocol Context Sequence and its Items shall not be used for matching
>>>Value Type	(0040,A040)	-	1	
>>>Concept Name Code Sequence	(0040,A043)	-	1	
>>>>Code Value	(0008,0100)	-	<u>1</u>	
>>>>Coding Scheme Designator	(0008,0102)	-	<u>1</u>	
>>>>Coding Scheme Version	(0008,0103)	-	<u>3</u>	
>>>>Code Meaning	(0008,0104)	-	<u>1</u>	
>>>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
>>>DateTime	(0040,A120)	-	1C	Required if Value Type (0040,A040) is DATETIME.
>>>Person Name	(0040,A123)	-	1C	Required if Value Type (0040,A040) is PNAME.
>>>Text Value	(0040,A160)	-	1C	Required if Value Type (0040,A040) is TEXT.
>>>Concept Code Sequence	(0040,A168)	-	1C	Required if Value Type (0040,A040) is CODE.
>>>>Code Value	(0008,0100)	-	<u>1</u>	
>>>>Coding Scheme Designator	(0008,0102)	-	<u>1</u>	
>>>>Coding Scheme Version	(0008,0103)	-	<u>3</u>	
>>>>Code Meaning	(0008,0104)	-	<u>1</u>	
>>>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
>>>Numeric Value	(0040,A30A)	-	1C	Required if Value Type (0040,A040) is NUMERIC.
>>>Measurement Units Code Sequence	(0040,08EA)	-	1C	Required if Value Type (0040,A040) is NUMERIC.
>>>>Code Value	(0008,0100)	-	<u>1</u>	
>>>>Coding Scheme Designator	(0008,0102)	-	<u>1</u>	
>>>>Coding Scheme Version	(0008,0103)	-	<u>3</u>	
>>>>Code Meaning	(0008,0104)	-	<u>1</u>	

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
>>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
...				
Scheduled Specimen Sequence	(0040,0500)	O	3	One or more Items may be returned in this Sequence.
>Container Identifier	(0040,0512)	O	1	
>Container Type Code Sequence	(0040,0518)	-	2	Zero or one Item shall be returned in this Sequence.
>>Code Value	(0008,0100)	:	1	
>>Coding Scheme Designator	(0008,0102)	:	1	
>>Coding Scheme Version	(0008,0103)	:	3	
>>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
...				
Requested Procedure				
...				
Requested Procedure Code Sequence	(0032,1064)	O	1C	The Requested Procedure Description (0032,1060) or the Requested Procedure Code Sequence (0032,1064) or both shall be supported by the SCP. The Requested Procedure Code Sequence shall contain only a single Item.
>Code Value	(0008,0100)	O	1	
>Coding Scheme Designator	(0008,0102)	O	1	
>Coding Scheme Version	(0008,0103)	O	3	
>Code Meaning	(0008,0104)	O	3	
>Include Table XXX1-2a. "Enhanced SCU/SCP Code Entry Macro with optional SCU Support, optional Matching Key Support"				
...				
Patient Demographic				
Patients Birth Date	(0010,0030)	O	2	
Patient's Sex	(0010,0040)	O	2	
Patient's Primary Language Code Sequence	(0010,0101)	O	3	The languages that can be used to communicate with the patient. If returned, the Patient's Primary Language Code Sequence shall contain one or more Items. The items are ordered by preference (most preferred language to least preferred language).

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
>Code Value	(0008,0100)	<u>Q</u>	<u>1</u>	
>Coding Scheme Designator	(0008,0102)	<u>Q</u>	<u>1</u>	
>Code Meaning	(0008,0104)	:	<u>1</u>	Code Meaning shall not be used as Matching Key.
>>Include Table XXX1-4a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support				
Adding Coding Scheme Version as 1C				
>Patient's Primary Language Modifier Code Sequence	(0010,0102)	O	3	A modifier for a Patient's Primary Language. Can be used to specify a national language variant. If returned, the Patient's Primary Language Modifier Code Sequence shall contain only a single Item.
>>Code Value	(0008,0100)	<u>Q</u>	<u>1</u>	
>>Coding Scheme Designator	(0008,0102)	<u>Q</u>	<u>1</u>	
>>Code Meaning	(0008,0104)	:	<u>1</u>	Code Meaning shall not be used as Matching Key.
>>Include Table XXX1-4a. Enhanced SCU/SCP Code Entry Macro with no SCU Support, optional Meaning for SCP, optional Matching Key Support				
Adding Coding Scheme Version as 1C				
...				
Patient Medical				
...				
Pertinent Documents Sequence	(0038,0100)	O	3	Pertinent Documents Sequence shall be retrieved with Universal Matching only
>Referenced SOP Class UID	(0008,1150)	-	1	
>Referenced SOP Instance UID	(0008,1155)	-	1	
>Purpose of Reference Code Sequence	(0040,A170)	-	2	
>>Code Value	(0008,0100)	:	<u>1</u>	
>>Coding Scheme Designator	(0008,0102)	:	<u>1</u>	
>>Code Meaning	(0008,0104)	:	<u>1</u>	
>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
Adding Coding Scheme Version as 1C				
...				

P. Application Event Logging Service Class (Normative)

P.3.2.1 Substance Administration Log Action Information

Table P.3-2. Substance Administration Logging N-ACTION Information

Action Type Name	Action Type ID	Attribute Name	Tag	Requirement Type SCU/SCP	
Record Substance Administration Event	1	...			
		Administration Route Code Sequence	(0054,0302)	2/2	
		>Code Value	(0008,0100)	1/1	
		>Coding Scheme Designator	(0008,0102)	1/1	
		>Code Meaning	(0008,0104)	1/1	
		>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"			
		Substance Administration Parameter Sequence	(0044,0019)	3/3	
		> All Attributes of the Substance Administration Parameter Sequence		3/3	
		Operator Identification Sequence	(0008,1072)	1/1	
		>Person Identification Code Sequence	(0040,1101)	1/1	
		>>Code Value	(0008,0100)	1/1	
		>>Coding Scheme Designator	(0008,0102)	1/1	
		>>Code Meaning	(0008,0104)	1/1	
		>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"			
		...			

Q. Relevant Patient Information Query Service Class (Normative)

Q.4.3.1.2 Relevant Patient Information Attributes

Table Q.4-1. Attributes for the Relevant Patient Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
...				

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
Structured Information (SR Document Content Module)				
Observation DateTime	(0040,A032)	-	1	
Value Type	(0040,A040)	-	1	See Section Q.4.3.1.2.1.
Concept Name Code Sequence	(0040,A043)	-	1	See Section Q.4.3.1.2.1.
>Code Value	(0008,0100)	-	1	
>Coding Scheme Designator	(0008,0102)	-	1	
>Coding Scheme Version	(0008,0103)	-	1C	Required if the value of Coding Scheme Designator (0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously.
>Code Meaning	(0008,0104)	-	1	
>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
>All other Attributes of the Concept Name Code Sequence				
...				

R. Instance Availability Notification Service Class (Normative)

R.3.2.1.1 Attributes

Table R.3.2-1. Instance Availability Notification SOP Class N-CREATE Attributes

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)
Specific Character Set	(0008,0005)	1C/1C (Required if an extended or replacement character set is used)
All other Attributes of SOP Common Module		3/3
Referenced Performed Procedure Step Sequence	(0008,1111)	2/2
>Referenced SOP Class UID	(0008,1150)	1/1
>Referenced SOP Instance UID	(0008,1155)	1/1
>Performed Workitem Code Sequence	(0040,4019)	2/2
>>Code Value	(0008,0100)	1/1

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)
>>Coding Scheme Designator	(0008,0102)	1/1
>>Code Meaning	(0008,0104)	1/1
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"		
Adding Coding Scheme Version as 1C		
>>All other Attributes from Performed Workitem Code Sequence		3/3
...		

U. Hanging Protocol Query/Retrieve Service Class

U.6.1.2 Hanging Protocol Attributes

Table U.6-1. Attributes for the Hanging Protocol Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
...				
Hanging Protocol Definition				
...				
Hanging Protocol Definition Sequence	(0072,000C)	R	1	This Attribute shall be retrieved with Sequence or Universal matching.
>Modality	(0008,0060)	R	2	This Attribute shall be retrieved with Single Value or Universal matching.
>Anatomic Region Sequence	(0008,2218)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.
>>Code Value	(0008,0100)	<u>R</u>	<u>1</u>	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>>Coding Scheme Designator	(0008,0102)	<u>R</u>	<u>1</u>	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>>Coding Scheme Version	(0008,0103)	=	<u>3</u>	
>>Code Meaning	(0008,0104)	=	<u>1</u>	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
>Laterality	(0020,0060)	R	2	This Attribute shall be retrieved with Single Value or Universal matching.
>Procedure Code Sequence	(0008,1032)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
>>Code Value	(0008,0100)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>>Coding Scheme Designator	(0008,0102)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>>Coding Scheme Version	(0008,0103)	:	3	
>>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
>Reason for Requested Procedure Code Sequence	(0040,100A)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.
>>Code Value	(0008,0100)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>>Coding Scheme Designator	(0008,0102)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>>Coding Scheme Version	(0008,0103)	:	3	
>>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Number of Priors Referenced	(0072,0014)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
Hanging Protocol User Identification Code Sequence	(0072,000E)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.
>Code Value	(0008,0100)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Coding Scheme Designator	(0008,0102)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Coding Scheme Version	(0008,0103)	:	3	
>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
...				

V. Substance Administration Query Service Class (Normative)

V.6.1.2.2 Product Characteristics Query Attributes

Table V.6-1. Attributes for the Product Characteristics Query Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark/Matching Type
Product Package Identifier	(0044,0001)	R	1	Shall be retrieved with Single Value Matching only.
Product Type Code Sequence	(0044,0007)	-	1	
>Code Value	(0008,0100)	-	1	
>Coding Scheme Designator	(0008,0102)	-	1	
>Code Meaning	(0008,0104)	-	1	
>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
Adding Coding Scheme Version as 1C				
Product Name	(0044,0008)	-	1	
Product Expiration DateTime	(0044,000B)	-	2	
Product Parameter Sequence	(0044,0013)	-	2	
>Value Type	(0040,A040)	-	1	
>Concept Name Code Sequence	(0040,A043)	-	1	
>>Code Value	(0008,0100)	-	1	
>>Coding Scheme Designator	(0008,0102)	-	1	
>>Code Meaning	(0008,0104)	-	1	
>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				
Adding Coding Scheme Version as 1C				
...				

V.6.2.2.2 Substance Approval Query Attributes

Table V.6-2. Attributes for the Substance Approval Query Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark/Matching Type
...				
Substance Administration				
Administration Route Code Sequence	(0054,0302)	R	1	Shall be present as a Matching Key in the Query.
>Code Value	(0008,0100)	R	1	
>Coding Scheme Designator	(0008,0102)	R	1	
>Code Meaning	(0008,0104)	-	1	
>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				

Description / Module	Tag	Matching Key Type	Return Key Type	Remark/Matching Type
Adding Coding Scheme Version as 1C				
...				

Administration Route Code Sequence (0054,0302) shall be present as a Matching Key in the Query, and a single Item shall be present in that Sequence with Code Value (0008,0100) and Coding Scheme Designator (0008,0102) as Matching Keys.

X. Color Palette Query/Retrieve Service Class

X.6.1.2 Color Palette Attributes

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

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
Color Palette Definition				
...				
Alternate Content Description Sequence	(0070,0087)	-	3	
>Content Description	(0070,0081)	-	1	
>Language Code Sequence	(0008,0006)	-	1	
>>Code Value	(0008,0100)	=	<u>1</u>	
>>Coding Scheme Designator	(0008,0102)	=	<u>1</u>	
>>Coding Scheme Version	(0008,0103)	=	<u>3</u>	
>>Code Meaning	(0008,0104)	=	<u>1</u>	
>>Include Table XXX1-3a. "Enhanced SCU/SCP Code Entry Macro with no SCU Support, no Matching Key Support"				

BB. Implant Template Query/Retrieve Service Classes

BB.6.1.2.1 Generic Implant Template Attributes

Table BB.6-1. Attributes for the Implant Template Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
...				

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
Implant Template				
Implant Target Anatomy Sequence	(0068,6230)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.
>Anatomic Region Sequence	(0008,2218)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>>Code Value	(0008,0100)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>>Coding Scheme Designator	(0008,0102)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Adding Coding Scheme Version as 1C				
Implant Regulatory Disapproval Code Sequence	(0068,62A0)	R	2	This Attribute shall be retrieved with Sequence or Universal matching.
>Code Value	(0008,0100)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>Coding Scheme Designator	(0008,0102)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Adding Coding Scheme Version as 1C				
Material Code Sequence	(0068,63A0)	R	1	This Attribute shall be retrieved with Sequence or Universal matching.
>Code Value	(0008,0100)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>Coding Scheme Designator	(0008,0102)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>
>Code Meaning	(0008,0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Adding Coding Scheme Version as 1C				
Coating Materials Code Sequence	(0068,63A4)	R	1	This Attribute shall be retrieved with Sequence or Universal matching.
>Code Value	(0008,0100)	R	1	<u>This Attribute shall be retrieved with Single Value or Universal matching.</u>

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
>Coding Scheme Designator	(0008.0102)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Code Meaning	(0008.0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Adding Coding Scheme Version as 1C				

BB.6.1.2.2 Implant Assembly Template Attributes

Table BB.6-2. Attributes for the Implant Assembly Template Information Model

Description / Module	Tag	Matching Key Type	Return Key Type	Remark / Matching Type
...				
Implant Assembly Template				
Implant Assembly Template Name		R	1	Shall be retrieved with Single Value, Wild Card, or Universal Matching.
Manufacturer	(0008,0070)	R	1	Shall be retrieved with Single Value, Wild Card, or Universal Matching.
Procedure Type Code Sequence	(0076,0020)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Code Value	(0008.0100)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Coding Scheme Designator	(0008.0102)	R	1	This Attribute shall be retrieved with Single Value or Universal matching.
>Code Meaning	(0008.0104)	:	1	
>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"				
Adding Coding Scheme Version as 1C				
...				

CC. Unified Procedure Step Service and SOP Classes (Normative)

CC.2.2 Request UPS Cancel (N-ACTION)

This operation allows an SCU that does not control a given Unified Procedure Step (UPS) instance to request to the SCP that the instance be canceled. This operation shall be invoked by the SCU through the DIMSE N-ACTION Service.

CC.2.2.1 Action Information

Table CC.2.2-1. Request UPS Cancel - Action Information

Action Type Name	Action Type ID	Attribute Name	Tag	Requirement Type SCU/SCP	
Request UPS Cancel	2	Reason For Cancellation	(0074,1238)	3/1	
		Procedure Step Discontinuation Reason Code Sequence	(0074,100e)	3/1	
		<u>>Code Value</u>	<u>(0008,0100)</u>	<u>1/1</u>	
		<u>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>1/1</u>	
		<u>>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>1C/1C</u> Required if the value of Coding Scheme Designator (0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously	
		<u>>Code Meaning</u>	<u>(0008,0104)</u>	<u>1/1</u>	
		<u>>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"</u>			
		Contact URI	(0074,100a)	3/1	
Contact Display Name	(0074,100c)	3/1			

CC.2.4 Report a Change in UPS Status (N-EVENT-REPORT)

...

CC.2.4.1 Event Report Information

Table CC.2.4-1. Report a Change in UPS Status - Event Report Information

Event Type Name	Event Type ID	Attribute Name	Tag	Req. Type SCU/SCP
UPS State Report	1	Procedure Step State	(0074,1000)	-/1
		Input Readiness State	(0040,4041)	-/1
		Reason For Cancellation	(0074,1238)	-/3
		Procedure Step Discontinuation Reason Code Sequence	(0074,100e)	-/3
		<u>>Code Value</u>	<u>(0008,0100)</u>	<u>-/1</u>
		<u>>Coding Scheme Designator</u>	<u>(0008,0102)</u>	<u>-/1</u>
		<u>>Coding Scheme Version</u>	<u>(0008,0103)</u>	<u>-/1C</u> Required if the value of Coding Scheme Designator

Event Type Name	Event Type ID	Attribute Name	Tag	Req. Type SCU/SCP
				<u>(0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously</u>
		>Code Meaning	(0008,0104)	-1
		>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"		
UPS Cancel Requested	2	Requesting AE	(0074,1236)	-1
		Reason For Cancellation	(0074,1238)	-1C Required if provided in the triggering N-ACTION
		Procedure Step Discontinuation Reason Code Sequence	(0074,100e)	-1C Required if provided in the triggering N-ACTION
		>Code Value	(0008,0100)	-1
		>Coding Scheme Designator	(0008,0102)	-1
		>Coding Scheme Version	(0008,0103)	-1C Required if the value of Coding Scheme Designator (0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously
		>Code Meaning	(0008,0104)	-1
		>Include Table XXX1-1a. "Enhanced SCU/SCP Code Entry Macro with SCU Support, Matching Key Support and Mandatory Meaning"		
		...		

CC.2.5 Create a Unified Procedure Step (N-CREATE)

...

CC.2.5.1 Unified Procedure Step Attribute Specification

...

CC.2.5.1.2 UPS Macros

Table CC.2.5-2a. UPS Code Sequence Macro

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Final State	Req. Type N-GET (SCU/SCP)	Match Key Type	Return Key Type	Remark/Matchin g Type
Code Value	(0008,0100)	<u>1C/1C</u>	<u>1C/1C</u>		<u>-/1C</u>	*	<u>1C</u>	Code Value shall be retrieved with Single Value Matching. <u>Required if the code value length is 16 characters or less, and the code value is not a URN or URL.</u>
Coding Scheme Designator	(0008,0102)	1/1	1/1		-/1	*	1	Coding Scheme Designator shall be retrieved with Single Value Matching.
Coding Scheme Version	(0008,0103)	1C/1C	1C/1C		-/1	-	1C	Required if the value of Coding Scheme Designator (0008,0102) is not sufficient to identify the Code Value (0008,0100) unambiguously.
Code Meaning	(0008,0104)	1/1	1/1		-/1	-	1	Code Meaning shall not be used as Matching Key.
<u>Long Code Value</u>	<u>(0008,0119)</u>	<u>1C/1C</u>	<u>1C/1C</u>		<u>-/1C</u>	<u>*</u>	<u>1C</u>	<u>Long Code Value shall be retrieved with Single Value Matching. Shall be present if the code value length over 16 characters, and the code value is not a URN or URL.</u>
<u>URN Code Value</u>	<u>(0008,0120)</u>	<u>1C/1C</u>	<u>1C/1C</u>		<u>-/1C</u>	<u>*</u>	<u>1C</u>	<u>URN Code Value shall be retrieved with Single Value Matching. Shall be present if the code value length over 16 characters, and the code value is a URN or URL.</u>
<u>Mapping Resource</u>	<u>(0008,0105)</u>	<u>3/3</u>	<u>3/3</u>		<u>-/3</u>	<u>:</u>	<u>3</u>	
<u>Mapping Resource UID</u>	<u>(0008,0118)</u>	<u>3/3</u>	<u>3/3</u>		<u>-/3</u>	<u>:</u>	<u>3</u>	

Attribute Name	Tag	Req. Type N-CREATE (SCU/SCP)	Req. Type N-SET (SCU/SCP)	Final State	Req. Type N-GET (SCU/SCP)	Match Key Type	Return Key Type	Remark/Matching Type
<u>Context Group Version</u>	<u>(0008.0118)</u>	<u>3/3</u>	<u>3/3</u>		<u>-3</u>	<u>:</u>	<u>3</u>	
<u>Context Group Extension Flag</u>	<u>(0008.010B)</u>	<u>3/3</u>	<u>3/3</u>		<u>-3</u>	<u>:</u>	<u>3</u>	
<u>Context Group Local Version</u>	<u>(0008.0107)</u>	<u>3/3</u>	<u>3/3</u>		<u>-3</u>	<u>:</u>	<u>3</u>	
<u>Context Group Extension Creator UID</u>	<u>(0008.010D)</u>	<u>3/3</u>	<u>3/3</u>		<u>-3</u>	<u>:</u>	<u>3</u>	