

## DICOM Correction Proposal

STATUS	Letter Ballot
Date of Last Update	2024/06/03
Person Assigned	David Clunie <dclunie@dclunie.com>
Submitter Name	Jörg Riesmeier <dicom@jriesmeier.com>
Submission Date	2023-12-05

Correction Number	CP-2384
Log Summary: Change name of Status Code 0107H to clarify it is a Warning	
Name of Standard PS3.2, PS3.4, PS3.7	
<p>Rationale for Correction:</p> <p>The meaning of the Status Code “0107H” is currently defined as “Attribute list <i>error</i>”, although this code is associated with the Status Class “Warning” (see PS3.7 Annex C and Section C.4.2). The term “error” is misleading. It is, therefore, proposed to replace it by “warning”. This does not change the meaning of the code, but makes it clearer to the reader of the Standard that it refers to a warning rather to an error (which might otherwise be confused with the Status Class “Failure”).</p> <p><i>Editorial change:</i> In PS3.2, the names (“Further Meaning”) associated with the various Status Codes are rather inconsistent, i.e., they often deviate from the official names and/or spelling in PS3.7. This CP tries to fix most of them, but it makes sense to harmonize the spelling throughout the Standard text (e.g., by semi-automatic means). Also see “TODO” later in this document.</p>	
Correction Wording:	

*Change PS3.2 Section N.7.3.2.2.1 to N.7.3.2.2.4*

### N.7.3.2.2.1 SCU of the Modality Performed Procedure Step SOP Class - N-CREATE

Table N.7-12 lists the Status Codes that the SCU of the Modality Performed Procedure Step SOP Class supports for the N-CREATE message and defines the application behavior when encountering the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.]*

*[In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-12. Status Codes for N-CREATE of the Modality Performed Procedure Step SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute Value <del>O</del> ut of <del>R</del> ange	0116	
	Attribute <del>L</del> ist <del>E</del> rror <u>warning</u>	0107	
Failure	No <del>S</del> uch Attribute	0105	

Service Status	Further Meaning	Status Code	Behavior
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	<del>Attribute Value Out of Range</del>	<del>0116</del>	
	Invalid SOP Instance	0117	
	No <del>S</del> such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not <del>A</del> authorized	0124	
	Duplicate <del>I</del> nvocation	0210	
	Unrecognized <del>O</del> peration	0211	
	Mistyped <del>A</del> argument	0212	
	Resource Limitation	0213	
-	Other status codes	anything else	

#### N.7.3.2.2.2 SCU of the Modality Performed Procedure Step SOP Class - N-SET

Table N.7-13 lists the Status Codes that the SCU of the Modality Performed Procedure Step SOP Class supports for the N-SET message and defines the application behavior when encountering the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.]*

*In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-13. Status Codes for N-SET of the Modality Performed Procedure Step SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute Value <del>O</del> ut of <del>R</del> ange	0116	
	Attribute <del>L</del> ist <del>E</del> rror <u>warning</u>	0107	
Failure	No <del>S</del> such Attribute	0105	
	Invalid Attribute Value	0106	

Service Status	Further Meaning	Status Code	Behavior
	<del>Processing Failure – Performed Procedure Step Object may no longer be updated</del>	<del>0110</del>	
	Processing Failure	0110	
	<del>Attribute Value Out of Range</del>	<del>0116</del>	
	Invalid SOP Instance	0117	
	No <del>S</del> such SOP Class	0118	
	Class-Instance <del>C</del> onflict	0119	
	Missing Attribute Value	0121	
	Refused: Not <del>A</del> authorized	0124	
	Duplicate <del>I</del> nvocation	0210	
	Unrecognized <del>O</del> peration	0211	
	Mistyped <del>A</del> argument	0212	
	Resource Limitation	0213	
-	Other status codes	anything else	

#### N.7.3.2.2.3 SCP of the Modality Performed Procedure Step SOP Class - N-CREATE

Table N.7-14 lists the Status Codes that the SCP of the Modality Performed Procedure Step SOP Class supports for the N-CREATE message and defines conditions in which the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific Status Codes. For each other status code used add a row to the table.]

**Table N.7-14. Status Codes for N-CREATE of the Modality Performed Procedure Step SOP Class - SCP**

Service Status	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute Value <del>O</del> ut of <del>R</del> ange	0116	
	Attribute <del>L</del> ist <del>E</del> rror <del>warning</del>	0107	
Failure	Duplicate <del>I</del> nvocation	0210	
	Duplicate SOP Instance	0111	
	Invalid Attribute Value	0106	
	<del>Attribute Value Out of Range</del>	<del>0116</del>	
	Invalid SOP Instance	0117	
	Missing Attribute	0120	

Service Status	Further Meaning	Status Code	Condition
	Missing Attribute Value	0121	
	Mistyped <del>A</del> argument	0212	
	No <del>S</del> such Attribute	0105	
	No <del>S</del> such SOP Class	0118	
	Processing Failure	0110	
	Resource Limitation	0213	
	Unrecognized <del>O</del> operation	0211	
	Refused: Not <del>A</del> authorized	0124	

#### N.7.3.2.2.4 SCP of the Modality Performed Procedure Step SOP Class - N-SET

Table N.7-15 lists the Status Codes that the SCP of the Modality Performed Procedure Step SOP Class supports for the N-SET message and defines conditions in which the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific Status Codes. For each other status code used add a row to the table.]

**Table N.7-15. Status Codes for N-SET of the Modality Performed Procedure Step SOP Class - SCP**

Service Status	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute Value <del>O</del> ut of <del>R</del> ange	0116	
	Attribute <del>L</del> ist <del>Error</del> warning	0107	
Failure	No <del>S</del> such Attribute	0105	
	Invalid Attribute Value	0106	
	<del>Processing Failure – Performed Procedure Step Object may no longer be updated</del>	<del>0110</del>	
	Processing Failure	0110	
	<del>Attribute Value Out of Range</del>	<del>0116</del>	
	Invalid SOP Instance	0117	
	No <del>S</del> such SOP Class	0118	
	Class-Instance <del>C</del> onflict	0119	
	Missing Attribute Value	0121	
	Refused: Not <del>A</del> authorized	0124	
	Duplicate <del>I</del> nvocation	0210	

Service Status	Further Meaning	Status Code	Condition
	Unrecognized <del>O</del> operation	0211	
	Mistyped <del>A</del> argument	0212	
	Resource Limitation	0213	

Change PS3.2 Section N.7.3.2.3.1.1

#### N.7.3.2.3.1.1 SCU of the UPS Push SOP Class - N-CREATE

Table N.7-16 lists the Status Codes that the SCU of the UPS Push SOP Class supports for the N-CREATE message and defines the application behavior when encountering the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.*

*In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-16. Status Codes for N-CREATE of the UPS Push SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	The UPS was created as requested	0000	
Warning	The UPS was created with modifications	B300	
	Attribute Value <del>O</del> out of <del>R</del> range	0116	
	Attribute <del>L</del> ist <del>E</del> rror <u>warning</u>	0107	
Failure	Duplicate invocation	0210	
	No such Attribute	0105	
	Invalid Attribute Value	0106	
	<del>Attribute List Error</del>	<del>0107</del>	
	Processing <del>f</del> ailure	0110	
	Duplicate SOP Instance	0111	
	Invalid SOP Instance	0117	
	No such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not <del>A</del> authorized	0124	
	Unrecognized operation	0211	

Service Status	Further Meaning	Status Code	Behavior
	Mistyped argument	0212	
	Resource <del>I</del> Limitation	0213	
	Failed: The provided Value of UPS State was not "SCHEDULED".	C309	
-	Other status codes	anything else	

*Change PS3.2 Section N.7.3.2.3.1.3*

#### N.7.3.2.3.1.3 SCU of the UPS Push SOP Class - N-GET

Table N.7-18 lists the Status Codes that the SCU of the UPS Push SOP Class supports for the N-GET message and defines the application behavior when encountering the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.*

*In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-18. Status Codes for N-GET of the UPS Push SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Requested optional Attributes are not supported-	0001	
	<b><u>Attribute list warning</u></b>	<b><u>0107</u></b>	
Failure	Class- <del>i</del> Instance conflict	0119	
	<b><u>Attribute List error</u></b>	<b><u>0107</u></b>	
	Duplicate invocation	0210	
	Mistyped argument	0212	
	Invalid <del>ObjectSOP</del> <del>i</del> Instance	0117	
	No such SOP Class	0118	
	No such SOP Instance	0112	
	Processing <del>f</del> Failure	0110	
	Resource <del>I</del> Limitation	0213	
	Unrecognized operation	0211	
	Refused: Not <del>A</del> authorized	0124	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307	

Service Status	Further Meaning	Status Code	Behavior
-	Other status codes	anything else	

Change PS3.2 Section N.7.3.2.3.2.2 to N.7.3.2.3.2.3

#### N.7.3.2.3.2.2 SCU of the UPS Pull SOP Class - N-GET

Table N.7-20 lists the Status Codes that the SCU of the UPS Pull SOP Class supports for the N-GET message and defines the application behavior when encountering the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.*

*In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-20. Status Codes for N-GET of the UPS Pull SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Requested optional Attributes are not supported-	0001	
	<b><u>Attribute list warning</u></b>	<b><u>0107</u></b>	
Failure	Class- <del>i</del> Instance conflict	0119	
	<b><u>Attribute List error</u></b>	<b><u>0107</u></b>	
	Duplicate invocation	0210	
	Mistyped argument	0212	
	Invalid <del>Object</del> <b>SOP i</b> Instance	0117	
	No such SOP Class	0118	
	No such SOP Instance	0112	
	Processing <del>f</del> <b>Failure</b>	0110	
	Resource <del>i</del> <b>Limitation</b>	0213	
	Unrecognized operation	0211	
	Refused: Not <del>A</del> <b>authorized</b>	0124	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307	
-	Other status codes	anything else	

#### N.7.3.2.3.2.3 SCU of the UPS Pull SOP Class - N-SET

Table N.7-21 lists the Status Codes that the SCU of the UPS Pull SOP Class supports for the N-SET message and defines the application behavior when encountering the listed Status Codes.

[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.

In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]

**Table N.7-21. Status Codes for N-SET of the UPS Pull SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Requested optional Attributes are not supported-	0001	
	Coerced invalid Values to valid Values	B305	
	Attribute Value <del>Out of Range</del>	0116	
	Attribute <del>List Error</del> <b>Warning</b>	0107	
Failure	Class- <del>i</del> Instance conflict	0119	
	Duplicate invocation	0210	
	Invalid Attribute Value	0106	
	Mistyped argument	0212	
	Missing Attribute Value	0121	
	No such Attribute	0105	
	<del>Attribute List error</del>	<del>0107</del>	
	No such SOP Class	0118	
	No such SOP Instance	0112	
	Processing <del>f</del> Failure	0110	
	Resource <del>I</del> Limitation	0213	
	Unrecognized operation	0211	
	Refused: Not <del>A</del> authorized	0124	
	Failed: The UPS is not in the "IN PROGRESS" state	C310	
	Failed: The correct Transaction UID was not provided	C301	
	Failed: The UPS may no longer be updated	C300	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307	
-	Other status codes	anything else	



**N.7.3.2.3.3.2 SCU of the UPS Watch SOP Class - N-GET**

Table N.7-24 lists the Status Codes that the SCU of the UPS Watch SOP Class supports for the N-GET message and defines the application behavior when encountering any the listed Status Codes.

*[Describe the behavior of the application when it receives any of the Status Codes listed in the table below, e.g., displaying and logging the error code or retrying the request. For each additional status code supported add a row to the table.]*

*In the "Other status codes" row document the behavior of the application in case it encounters an unknown status code.]*

**Table N.7-24. Status Codes for N-GET of the UPS Watch SOP Class - SCU**

Service Status	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Requested optional Attributes are not supported-	0001	
	<u>Attribute list warning</u>	<u>0107</u>	
Failure	Class- <del>i</del> Instance conflict	0119	
	<del>Attribute List error</del>	<del>0107</del>	
	Duplicate invocation	0210	
	Mistyped argument	0212	
	Invalid <del>Object</del> <u>SOP</u> <del>i</del> Instance	0117	
	No such SOP Class	0118	
	No such SOP Instance	0112	
	Processing <del>f</del> Failure	0110	
	Resource <del>i</del> Limitation	0213	
	Unrecognized operation	0211	
	Refused: Not <del>A</del> authorized	0124	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307	
-	Other status codes	anything else	

**H.2.4 Usage Specifications**

The building blocks of SOP Classes are Modules and DIMSE Services. The Modules contain related Attributes, which are Mandatory(M) or Optional (U). The usage may be different for the SCU and SCP. The usage is specified as a pair of letters: the former indicating the SCU usage, the latter indicating the SCP usage.

DIMSE Service Group may be Mandatory (M) or Optional (U) as specified in Section 5.4 of this Part.

The meaning and behavior of the usage specification for Attributes for the Print Management Service Class are:

**M/M** The SCU shall provide a value for the Attribute. If the SCU does not supply a value, the SCP shall return a Failure status ("Missing Attribute," code 0120H). The SCP shall support at least one value of the Attribute. If the SCP does not support the value specified by the SCU, it shall return a Failure status ("Invalid Attribute Value," code 0106H).

**-/M** The SCU's usage of the Attribute is undefined. The SCP shall support at least one value of the Attribute.

**U/M** The SCU may provide a value for the Attribute. If the SCP does not support the value specified by the SCU, it shall return either a Failure status ("Invalid Attribute Value", code 0106H) or return a Warning status ("Attribute Value out of range", code 0116H). In the case of Warning status, the SCP will apply the default value as defined in the SCP Conformance Statement.

**U/U** The SCU may provide a value for the Attribute. If the SCP does not support the value specified by the SCU, but does support the Attribute, it shall return either a Failure status ("Invalid Attribute Value", code 0106H) or a Warning status ("Attribute Value out of range", code 0116H). In the case of Warning status, the SCP will apply the default value as defined in the SCP Conformance Statement.

If the SCP does not support the Attribute specified by the SCU, it shall return either a Failure status ("No such Attribute", code 0105H) or return a Warning status ("Attribute list **errorwarning**", code 0107H). In the case of Warning status, the behavior of the SCP is defined in the SCP Conformance Statement.

If the usage type designation is modified by a "C" (e.g., MC/M) the specification stated above shall be modified to include the requirement that the Attribute shall be supported if the specified condition is met.

### Change PS3.4 Section KK.2.2.3

## KK.2.2.3 Service Class Provider Behavior

Upon receipt of the N-ACTION request, the SCP shall return, via the N-ACTION response primitive, the N-ACTION Response Status Code applicable to the associated request (see Table KK.2.2.3-1). A success status conveys that the SCP has successfully received the request. A warning status conveys that the SCP has successfully received the request, but might not process some of the requested parameters. A failure status conveys that the SCP is not processing the request.

For Action Type "Initiate" (Action Type ID = 11), the SCP shall return a failure status 0212H (Mistyped argument) if the SCP does not support all of the character sets identified in Specific Character Set (0008,0005), or all of the matching mechanisms identified in Extended Matching Mechanisms (0008,040F), or the identified Inventory Level (0008,0403); additional explanation may be returned in Error Comment (0000,0902). The SCP shall return a warning status B010H if one or more of the Key Attributes specified in the Scope of Inventory Sequence (0008,0400) are not supported for matching, and shall return the list of unsupported Attributes in Attribute Identifier List (0000,1005).

**Table KK.2.2.3-1. N-ACTION Response Status Values**

Service Status	Further Meaning	Status Codes	Related Fields
Failure	Processing Failure	0110	(0000,0902)
	Refused: Not authorized	0124	(0000,0902)
	Mistyped argument - one of the parameters supplied has not been agreed for use	0212	(0000,0902)
	Resource Limitation	0213	(0000,0902)
	Other failure status as specified in Section 10.1.4.1.10 "Status" in PS3.7		

Service Status	Further Meaning	Status Codes	Related Fields
Warning	Attribute list <del>error</del> <b>warning</b> - One or more of Key Attributes are not supported for matching	<b>B010</b>	(0000,1005)
Success	Success	0000	

Note

See Section E.1 "Registry of DICOM Command Elements" in PS3.7 for definition of the Related Fields.

If the SCP conveys a success or warning status for Action Type "Initiate" (Action Type ID = 11), it shall initiate production of an Inventory and periodic status reporting in accordance with the parameters of the Scope of Inventory Sequence (0008,0400) and Inventory Level (0008,0403) provided in the N-ACTION request. The Inventory SOP Instance(s) produced to satisfy the N-ACTION request shall include the Transaction UID (0008,1195). The Scope of Inventory in the produced Inventory SOP Instances shall include only those Key Attributes that were supported for matching. Any value provided by the SCU for Inventory Purpose (0008,0401) shall be included in the produced Inventory SOP Instances.

The produced Inventory SOP Instance(s) may include existing Inventory SOP Instances by reference in the Incorporated Inventory Instance Sequence (0008,0422). Existing Inventory SOP Instances that contribute to satisfying the N-ACTION request may be included by reference, but since they were not produced in response to the request, they would not contain its Transaction UID (0008,1195), and may have a different Scope of Inventory, or Inventory Purpose (0008,0401).

Note

1. See Section YYYY.3.3 "Inventory Instance Tree" in PS3.17.
2. An existing Inventory SOP Instance included by reference might have no Transaction UID (0008,1195) if its creation was not initiated by a transaction of the Inventory Creation SOP Class.
3. An Inventory SOP Instance may be produced that is solely a "wrapper" for an existing Inventory SOP Instance included by reference. The produced Inventory SOP Instance establishes the Content Date (0008,0023), Content Time (0008,0033), and Inventory Purpose (0008,0401) for the Inventory, and links it to the Transaction UID (0008,1195).

The SCP shall produce at least one Inventory SOP Instance (at the root of the tree of referenced SOP Instances) upon reaching the COMPLETE state.

If the SCP encounters a failure when producing the Inventory, it may attempt to complete the encoding into an Inventory SOP Instance of Study records already obtained, and set Inventory Completion Status (0008,0426) in that SOP Instance to "FAILURE".

If the SCP conveys a success status for Action Type "Request Status" (Action Type ID = 12), it shall initiate sending an N-EVENT-REPORT with Event Type "Inventory Status" (Event Type ID = 12).

Note

The N-EVENT-REPORT may be sent on the same or a different Association as the N-ACTION request (see Section KK.1.3.1).

If the SCP conveys a success status for Action Type "Cancel" (Action Type ID = 13), it shall stop production of the Inventory associated with the Transaction UID (0008,1195). If the Cancel request includes Retain Instances (0008,0415) with value "N", the SCP may delete any Inventory SOP Instances associated with the Transaction UID (0008,1195). If the Cancel request includes Retain Instances (0008,0415) with value "Y", the SCP shall complete the encoding into an Inventory SOP Instance of Study records already obtained, and set Inventory Completion Status (0008,0426) to "CANCELED". Some Study records may be only partially complete at the time of the Cancel request, e.g., not all the subsidiary Series and Instance records had been compiled. Whether such partial Study records are completed and included in the Inventory SOP Instance is implementation specific. Partial Study records shall not be included in an Inventory.

If the SCP conveys a success status for Action Type "Pause" (Action Type ID = 14), it shall pause production of the Inventory associated with the Transaction UID (0008,1195). The SCP may complete any processing necessary to reach a stable state for pausing the Inventory production to allow efficient resumption.

If the SCP conveys a success status for Action Type "Resume" (Action Type ID = 15), it shall resume production of the Inventory associated with the Transaction UID (0008,1195).

Note

The SCP may return an error status Refused: Not authorized (0124H) or Resource Limitation (0213H) if the conditions that caused the Pause have not been corrected and the production is not resumed.

*Change PS3.4 Section CC.2.6.4*

## CC.2.6.4 Status Codes

Table CC.2.6-1 defines the status code values that might be returned in a N-SET response. General status code values and fields related to status code values are defined for N-SET DIMSE Service in PS3.7.

**Table CC.2.6-1. N-SET Response Status Values [for Set Unified Procedure Step Information]**

Service Status	Further Meaning	Status Code
Success	The requested modification of the Attribute Values is performed	0000
Warning	Requested optional Attributes are not supported.	0001
	Coerced invalid values to valid values	B305
Failure	Failed: The UPS is not in the "IN PROGRESS" state	C310
	Failed: The correct Transaction UID was not provided	C301
	Failed: The UPS may no longer be updated	C300
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307

*Change PS3.7 Section 10.1.2.1.9*

### 10.1.2.1.9 Status

This parameter contains the error or success notification for the operation. It shall be included by the performing DIMSE Service User in any response/confirmation. The following types of status may occur (see also Annex C):

- Attribute list **errorwarning** (0107H) - one or more Attribute Values were not read because the specified Attribute was not recognized. The Attribute Values that could be read are returned.
- Class-Instance conflict (0119H) - the specified SOP Instance is not a member of the specified SOP Class.
- Duplicate invocation (0210H) - the Message ID (0000,0110) specified is allocated to another notification or operation.
- Invalid SOP Instance (0117H) - the SOP Instance UID specified implied a violation of the UID construction rules.
- Mistyped argument (0212H) - one of the parameters supplied has not been agreed for use on the Association between the DIMSE Service Users.
- No such SOP Class (0118H) - the SOP Class was not recognized.
- No such SOP Instance (0112H) - the SOP Instance was not recognized.
- Processing Failure (0110H) - a general failure in processing the operation was encountered.
- Resource Limitation (0213H) - the operation was not performed due to resource limitation.
- Success (0000H) - successful operation.

- Unrecognized operation (0211H) - the operation is not one of those agreed between the DIMSE Service Users.
- Refused: Not authorized (0124H) - the DIMSE Service User was not authorized to invoke the operation
- Warning (Status value is Service Class specific): not all optional attributes were returned by DIMSE Service User
- Failed (Status value is Service Class specific): DIMSE Service User failed to complete the operation

#### *Change PS3.7 Section 10.1.3.1.9*

##### **10.1.3.1.9 Status**

This parameter contains the error or success notification for the operation. It shall be included by the performing DIMSE Service User in any response/confirmation. The following types of status may occur (see also Annex C):

- Class-Instance conflict (0119H) - the specified SOP Instance is not a member of the specified SOP Class.
- Duplicate invocation (0210H) - the Message ID (0000,0110) specified is allocated to another notification or operation.
- Invalid Attribute Value (0106H) - the Attribute Value specified was out of range or otherwise inappropriate.
- Attribute Value out of range (0116H) - the Attribute Value specified was out of range or otherwise inappropriate. The Attribute Values that could be modified were modified.
- Mistyped argument (0212H) - one of the parameters supplied has not been agreed for use on the Association between the DIMSE Service Users.
- Invalid SOP Instance (0117H) - the SOP Instance UID specified implied a violation of the UID construction rules.
- Missing Attribute Value (0121H) - a required Attribute Value was not supplied.
- No such Attribute (0105H) - the Tag for the specified Attribute was not recognized.
- Attribute list **error/warning** (0107H) - one or more Attribute Values were not modified because the specified Attributes were not recognized. The Attribute Values that could be modified were modified.
- No such SOP Class (0118H) - the SOP Class was not recognized.
- No such SOP Instance (0112H) - the SOP Instance was not recognized.
- Processing Failure (0110H) - a general failure in processing the operation was encountered.
- Resource Limitation (0213H) - the operation was not performed due to resource limitation.
- Success (0000H) - successful operation.
- Unrecognized operation (0211H) - the operation is not one of those agreed between the DIMSE Service Users.
- Refused: Not authorized (0124H) - the DIMSE Service User was not authorized to invoke the operation.
- Failed (Status value is Service Class specific): the operation was not performed as certain conditions for operation were not met
- Warning (Status value is Service Class specific): the operation was performed partially or with modified conditions

#### *Change PS3.7 Section 10.1.5.1.6*

##### **10.1.5.1.6 Status**

This parameter contains the error or success notification for the operation. It shall be included by the performing DIMSE Service User in any response/confirmation. The following type of status may occur (see also Annex C):

- Duplicate invocation (0210H) - the Message ID (0000,0110) specified is allocated to another notification or operation.
- Duplicate SOP Instance (0111H) - the new managed SOP Instance Value supplied by the invoking DIMSE Service User was already registered for a managed SOP Instance of the specified SOP Class.

- Invalid Attribute Value (0106H) - the Attribute Value specified was out of range or otherwise inappropriate.
- Attribute Value out of range (0116H) - the Attribute Value specified was out of range or otherwise inappropriate. The SCP will apply a default value or will not include the attribute in the created instance.
- Invalid SOP Instance (0117H) - the SOP Instance UID specified implied a violation of the UID construction rules.
- Missing Attribute (0120H) - a required Attribute was not supplied.
- Missing Attribute Value (0121H) - a required Attribute Value was not supplied and a default value was not available.
- Mistyped argument (0212H) - one of the parameters supplied has not been agreed for use on the Association between the DIMSE Service Users.
- No such Attribute (0105H) - the Tag for the specified Attribute was not recognized.
- Attribute list **errorwarning** (0107H) - one or more specified Attributes were not recognized and not included in the created instance.
- No such SOP Class (0118H) - the SOP Class was not recognized.
- Processing Failure (0110H) - a general failure in processing the operation was encountered.
- Resource Limitation (0213H) - the operation was not performed due to resource limitation.
- Success (0000H) - successful operation.
- Unrecognized operation (0211H) - the operation is not one of those agreed between the DIMSE Service Users.
- Refused: Not authorized (0124H) - the DIMSE Service User was not authorized to invoke the operation.
- Failed (Status value is Service Class specific): no instance was created by the DIMSE Service User
- Warning (Status value is Service Class specific): the DIMSE Service User created an Instance but did not perform all specified operations

*For reference PS3.7 Annex C*

## C Status Type Encoding (Normative)

The following sections define the encoding for the Status Types supported by the DIMSE services. The applicability and semantics for each Status Type (i.e., Attribute list **errorwarning**, etc.) are defined in the DIMSE Services. Each Status Type is categorized in a Status Class and represents certain Status Meaning within the Status Class.

### Note

The Status (0000,0900) Command Element is required for all Status Types.

All Status Codes are assigned according to the following Status Class convention:

Success	0000
<b>Warning</b>	0001 or <b>Bxxx</b> or <b>0107</b> or 0116
Failure	Axxx or Cxxx or 01xx (except 0107 and 0116) or 02xx
Cancel	FE00
Pending	FF00 and FF01

Status Codes with values 01xx and 02xx are reserved for assignment by DICOM Standard. These Status codes have standard status meanings for DIMSE Services that shall not be modified by a Service Class definition or an implementation.

Status Codes with values Axxx, Bxxx, and Cxxx may be assigned by the DICOM Standard or by an implementation according to the definition of a Service Class in PS3.4.

Implementations shall not use Status Codes with values not listed in the table above.

*Change PS3.7 Section C.4*

## C.4 Warning Status Class

Statuses in this Status Class convey that the operation/notification has completed, but an **error/deviation** was detected **that is reported as a warning**. The semantics and behavior of these Statuses are defined in PS3.4.

### C.4.1 Warning

Status Field	Tag	VR	VM	Description of Field
Status	(0000,0900)	US	1	Confirmation status of the operation. The value of this required field is Service Class specific and defined in PS3.4.
Offending Element	(0000,0901)	AT	1-n	This optional field contains a list of the elements in which the error was detected.
Error Comment	(0000,0902)	LO	1	This optional field contains an application-specific text description of the error detected.

### C.4.2 Attribute list ~~error~~warning

Status Field	Tag	VR	VM	Description of Field
Affected SOP Class UID	(0000,0002)	UI	1	This optional field contains the SOP Class UID for which Attributes were not recognized.
Status	(0000,0900)	US	1	Confirmation status of the operation. The value of this required field shall be set to 0107H.
Affected SOP Instance UID	(0000,1000)	UI	1	This optional field contains the UID of the SOP Instance for which Attributes were not recognized.
Attribute Identifier List	(0000,1005)	AT	1-n	This optional field contains an Attribute Tag for each Attribute that was not recognized.

### C.4.3 Attribute Value out of range

Status Field	Tag	VR	VM	Description of Field
Status	(0000,0900)	US	1	Confirmation status of the operation. The value of this required field shall be set to 0116H.
Modification List/Attribute List	(no tag)	-	-	Optionally contains the application specific Data Set to only encode the invalid Attribute Values conveyed in the Modification List of the N-SET-RQ or the Attribute List of the N-CREATE-RQ.