Digital Imaging and Communications in Medicine (DICOM)

Supplement 158: Retirement of General Purpose Worklist and Procedure Step

DICOM Standards Committee, Working Group 6 Base Standard
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Scope and Field of Application

This Supplement to the DICOM Standard retires various features that have not been used widely in an interoperable manner, or have been superceded by more robust services.

Specifically, this Supplement retires the following Services, SOP Classes, IODs and Modules:

1. General Purpose Scheduled Procedure Step
2. General Purpose Performed Procedure Step
3. General Purpose Worklist Query
4. General Purpose Worklist Management Meta SOP Class

Retirement does not imply that these features cannot be used. The reader is referred to earlier editions of the Standard. However, the DICOM Standards Committee will not maintain the documentation of retired features. The use of the retired features is deprecated in new implementations, in favor of those alternatives remaining in the standard (i.e. the Unified Procedure Step SOP Classes).

The DICOM Standard will not reuse Data Element tags and UIDs for a different purpose that would conflict with retired services.
Amend PS 3.2. Annex A.1 Conformance Statement Overview by italicizing and annotating the retired rows as follows:

Table A.1-2
UID VALUES

<table>
<thead>
<tr>
<th>UID Value</th>
<th>UID NAME</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.31</td>
<td>Modality Worklist Information Model – FIND</td>
<td>Workflow Management</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.1</td>
<td>General Purpose Worklist Information Model – FIND <strong>(Retired)</strong></td>
<td>Workflow Management</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.2</td>
<td>General Purpose Scheduled Procedure Step SOP Class <strong>(Retired)</strong></td>
<td>Workflow Management</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.3</td>
<td>General Purpose Performed Procedure Step SOP Class <strong>(Retired)</strong></td>
<td>Workflow Management</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32</td>
<td>General Purpose Worklist Management Meta SOP Class <strong>(Retired)</strong></td>
<td>Workflow Management</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.33</td>
<td>Instance Availability Notification SOP Class</td>
<td>Workflow Management</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Amend PS 3.3 7.3.1.3 as follows:

7.3.1.3 IMAGING SERVICE REQUEST
An Imaging Service Request is a set of one or more Requested Procedures selected from a list of Procedure Types. An Imaging Service Request is submitted by one authorized imaging service requester to one authorized imaging service provider in the context of one Service Episode. An Imaging Service Request includes pertinent specific and general information. Each instance of an Imaging Service Request carries the information common to one or more Requested Procedures requested at the same moment. An Imaging Service Request may be associated with one or more Visits that occur within the same Service Episode. The existence of an Imaging Service Request will typically result in the creation of one or more Imaging Service Reports and the distribution of Imaging Service Reports to one or more destinations.

In the context of the Modality Worklist the information provided by the Imaging Service Request aims at performing one or more imaging procedures, i.e. at acquiring new images. In the context of the General Purpose Worklist the information provided by the Imaging Service Request supports a more general kind of request, e.g. reporting, requesting an image processing procedure on an existing examination, etc.

Amend PS 3.3 7.3.1.10-12 as follows:
7.3.1.10  GENERAL PURPOSE SCHEDULED PROCEDURE STEP (RETIRED)

Retired. See PS 3.3 2011.

A General Purpose Scheduled Procedure Step is an arbitrarily defined scheduled unit of service, that is specified by the Procedure Plans of one or more Requested Procedures. A General Purpose Scheduled Procedure Step prescribes one Workitem that describes the procedure step to be performed. A General Purpose Scheduled Procedure Step involves applications, human resources, location, and time resources (e.g., start time, stop time, duration).

Notes:
1. In this section, application is the generic term used to designate software applications and pieces of devices.
2. The status of a general Purpose Scheduled Procedure Step must not be confused with the status of the Requested Procedure or Imaging Service Request to which it belongs. One General Purpose Scheduled Procedure Step may be completed, but that does not imply that also the related Requested Procedure has reached its completion.

A General Purpose Scheduled Procedure Step contains references to Composite SOP Instances or Performed Procedure Steps, which denote the information to be used for the performance of the General Purpose Scheduled Procedure Step.

7.3.1.11  GENERAL PURPOSE PERFORMED PROCEDURE STEP (RETIRED)

Retired. See PS 3.3 2011.

A General Purpose Performed Procedure step is an arbitrarily defined unit of service that has actually been performed (not just scheduled). Normally, it corresponds to one General Purpose Scheduled Procedure step, but real-world conditions may dictate that what is actually performed does not correspond exactly with what was requested or scheduled.

Note: For example, two or more General Purpose Scheduled Procedure Steps, Requested Procedures, or Imaging Service Requests may have been generated by different Referring Physicians but may be satisfied by a single General Purpose Performed Procedure Step at the discretion of a Performing Physician or Operator. Alternatively, a single General Purpose Scheduled Procedure step may need to be satisfied by multiple General Purpose Performed Procedure Steps on different types or instances of equipment, due to clinical need or failure conditions, or over extended periods of time.

It contains information describing the type of procedure actually performed.

A Requested Procedure results in the creation of zero or more General Purpose Performed Procedure Steps.

A General Purpose Scheduled Procedure Step results in the creation of zero or more General Purpose Performed Procedure Steps.

The General Purpose Performed Procedure Step contains information about its state.

It contains information describing the performance of the general-purpose procedure step of a procedure.

The General Purpose Performed Procedure step contains references to zero or more Composite SOP Instances that have been created as part of the procedure step.
7.3.1.12  WORKITEM (RETIRED)

Retired. See PS 3.3 2011.

A Workitem is one of the tasks prescribed by a Procedure Plan to perform an instance of a Requested Procedure. Each General Purpose Scheduled Procedure Step will contain exactly one Workitem. The code identifying a Workitem instance would be selected from a catalog of workitem types, for example with the value of Image Processing or Interpretation.

Amend PS 3.3 7.3.1.13 as follows:

7.3.1.13  Clinical Document

A Clinical Document is a part of the medical record of a patient. A Clinical Document is a documentation of clinical observations and services and has the following characteristics:

- Persistence - A clinical document continues to exist in an unaltered state, for a time period defined by local and regulatory requirements.
- Stewardship - A clinical document is maintained by an organization entrusted with its care.
- Potential for authentication - A clinical document is an assemblage of information that is intended to be legally authenticated.
- Context - A clinical document establishes the default context for its contents.
- Wholeness - Authentication of a clinical document applies to the whole and does not apply to portions of the document without the full context of the document.
- Human readability - A clinical document is human readable.

Note: This definition is from ANSI/HL7 CDA R1.0-2000, and HL7 v3 CDA R2-2005.

Clinical Documents may provide significant context for the performance of imaging and related procedures, e.g., patient clinical history, pre-imaging-procedure lab test results, or patient advance medical directives.

Clinical Documents may be associated with Service Episodes, Service Requests, Requested Procedures, or other entities subsidiary to the Patient in the Real-World Model. Such associations are not explicitly modeled for the purposes of the Modality-IS or General Purpose Worklist contexts.

Clinical Documents are one sub-class of the class of healthcare Structured Documents; Structured Documents, in general, are not necessarily related to a patient. Structured Documents may be used for imaging procedure operational instructions, e.g., in product labeling, Procedure Plans, or patient care plans.

Notes:
1. The format and semantics of Structured Documents, including Clinical Documents, are defined outside the scope of the DICOM Standard (e.g., by HL7). DICOM provides the means to reference Structured Documents within the Modality-IS and General Purpose Worklist contexts.
2. The general class of Structured Documents is not modeled in the Real-World Model; only specific sub-classes, e.g., Clinical Documents, are modeled.
Replace PS 3.3 7.4 with the following:

7.4 EXTENSION OF THE DICOM MODEL OF THE REAL-WORLD FOR THE GENERAL PURPOSE WORKLIST (RETIRED)
Retired. See PS 3.3 2011.

Replace PS 3.3 B.22 & B.23 with the following:

B.22 GENERAL PURPOSE SCHEDULED PROCEDURE STEP INFORMATION OBJECT DEFINITION (RETIRED)
Retired. See PS 3.3 2011.

B.23 GENERAL PURPOSE PERFORMED PROCEDURE STEP INFORMATION OBJECT DEFINITION (RETIRED)
Retired. See PS 3.3 2011.

Replace PS 3.3 C.4.18 through C.4.22 with the following:

C.4.18 General Purpose Scheduled Procedure Step Relationship Module (RETIRED)
Retired. See PS 3.3 2011.

C.4.19 General Purpose Scheduled Procedure Step Information Module (RETIRED)
Retired. See PS 3.3 2011.

C.4.20 General Purpose Performed Procedure Step Relationship Module (RETIRED)
Retired. See PS 3.3 2011.

C.4.21 General Purpose Performed Procedure Step Information Module (RETIRED)
Retired. See PS 3.3 2011.

C.4.22 General Purpose Results (RETIRED)
Retired. See PS 3.3 2011.

Amend the Table C.7-5a and the notes beneath it as follows:
C.7.3.1 General Series Module

Table C.7-5a specifies the Attributes that identify and describe general information about the Series within a Study.

### Table C.7-5a

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referred Procedure Sequence</td>
<td></td>
<td>3</td>
<td>Uniquely identifies the Performed Procedure Sequence Instance to which the Series is related (e.g. a Modality or General Purpose Performed Procedure Sequence Instance). Only a single Item is permitted in this sequence.</td>
</tr>
</tbody>
</table>

>Include SOP Instance Reference Macro Table 10-11

| ...                             |           |      |                                                                                       |

Notes:

1. If **any the Modality or General Purpose** Performed Procedure Step SOP Class is supported as an SCU by a Storage SCU, the SCU is strongly encouraged to support the attribute Referred Procedure Step Sequence (0008,1111). This attribute references the Performed Procedure Step SOP Instance, and extraction of this Attribute from a Composite Instance may allow retrieval of the Performed Procedure Step SOP Instance.

2. If the Storage SCU does not conform to **any the Modality or General Purpose** Performed Procedure Step SOP Class, it is still advisable to include the attributes Performed Procedure Step Start Date (0040,0244), Performed Procedure Step Start Time (0040,0245) and Performed Procedure Step Description (0040,0254) into the Composite Instances.

Amend the Table C.7-5c as follows:

C.7.3.3 Enhanced Series Module

Table C.7-5c Table specifies the Attributes that identify and describe general information about the Series within a Study.

Note: This table contains a subset of the attributes of General Series Module (Table C.7-5a) but the Type designation is changed into Type 1. Including this module in an IOD overwrites the Type designation of the General Series Module.

### Table C.7-5c

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series Number</td>
<td>(0020,0011)</td>
<td>1</td>
<td>A number that identifies this Series. Notes:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. The value of this attribute should be unique for all series in a study created on the same equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Because series can be created on more than one equipment, it can not be guaranteed that the value of Series Number (0020,0011) is</td>
</tr>
</tbody>
</table>
Referenced Performed Procedure Step Sequence (0008,1111) 1C

Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).

Only a single Item shall be included in this sequence.

Required if a Modality-Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.

>Include SOP Instance Reference Macro Table 10-11

Amend the Table C.8-37 as follows:

C.8.8.1 RT Series Module

There exist significant differences in the manner in which RT objects as compared to diagnostic objects. An RT object can be one of several types, and a series of a given object type may be created over a temporal span of several weeks. The RT Series Module has been created to satisfy the requirements of the standard DICOM Query/Retrieve model while including only those attributes relevant to the identification and selection of radiotherapy objects.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data. Enumerated Values: RTIMAGE = RT Image RTDOSE = RT Dose RTSTRUCT = RT Structure Set RTPLAN = RT Plan RTRECORD = RT Treatment Record See C.8.8.1.1.</td>
</tr>
<tr>
<td>Series Instance UID</td>
<td>(0020,000E)</td>
<td>1</td>
<td>Unique identifier of the series.</td>
</tr>
<tr>
<td>Series Number</td>
<td>(0020,0011)</td>
<td>2</td>
<td>A number that identifies this series.</td>
</tr>
<tr>
<td>Series Description</td>
<td>(0008,103E)</td>
<td>3</td>
<td>Description of the series.</td>
</tr>
<tr>
<td>Series Description Code Sequence</td>
<td>(0008,103F)</td>
<td>3</td>
<td>A coded description of the Series. Only a single Item is permitted in this sequence.</td>
</tr>
</tbody>
</table>

>Include Code Sequence Macro Table 8.8-1 No Baseline Context ID is defined.

Operators’ Name (0008,1070) 2 Name(s) of the operator(s) supporting the Series.

Referenced Performed Procedure Step Sequence (0008,1111) 3 Uniquely identifies the Performed Procedure Step SOP Instance to which the
Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).
One or more items are permitted in this sequence.

Include ‘SOP Instance Reference Macro’ Table 10-11

Request Attributes Sequence (0040,0275) 3 Sequence that contains attributes from the Imaging Service Request.
One or more Items are permitted in this sequence.

Include Request Attributes Macro Table 10-9 No Baseline Context ID is defined

Include Performed Procedure Step Summary Macro Table 10-16 No Baseline Context ID is defined

Amend the Table C.8-68 as follows:

C.8.11.1 DX Series Module

The Digital X-Ray IODs use the General Series module described in section C.7.3.1, specialized by the DX Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of projection Digital X-Ray.

Table C.8-68

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
</table>
| Modality                                 | (0008,0060) | 1    | Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: DX, PX, IO, MG
See section C.7.3.1.1.1 for further explanation. |
| Referenced Performed Procedure Step Sequence | (0008,1111) | 1C   | Uniquely identifies thePerformed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).
Only a single Item shall be included in this sequence.
Required if the Modality Performed Procedure Step SOP Class, General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series. |
Amend the Table C.8-76b as follows:

Table C.8-76b
ENHANCED MAMMOGRAPHY SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: MG See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

For Reason for Requested Procedure Code
Sequence (0040,100A) the Baseline Context IDs are 6051 and 6055. No Baseline Context IDs are defined for other Attributes.

Note: For example, Requested Procedure Code Sequence (0040,100A) may be used to convey whether the images in the Series were taken for screening or diagnostic purposes.

Amend the Table C.8.12.3-1 as follows:

C.8.12.3 VL Whole Slide Microscopy Series Module

Table C.8.12.3-1 specifies attributes for the VL Whole Slide Microscopy Series Module, including specialization of attributes in the General Series Module for use in the VL Whole Slide Microscopy Series Module.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: SM See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include 'SOP Instance Reference Macro' Table 10-11

Amend the Table C.8-101 as follows:

C.8.13.6 MR Series Module

The MR IODs use the General Series module described in section C.7.3.1, specialized by the MR Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of MR device.
Table C.8-101 specifies the Attributes that identify and describe general information about the MR Series.

Table C.8-101
MR SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance).</td>
</tr>
<tr>
<td>Step Sequence</td>
<td></td>
<td></td>
<td>Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class, General Purpose Performed Procedure Step SOP Class, or was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

Amend the Table C.8-113 as follows:

C.8.15.1 CT Series Module
The CT IODs use the General Series module described in section C.7.3.1, specialized by the CT Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of CT device.

Table C.8-113 specifies the Attributes that identify and describe general information about the CT Series.

Table C.8-113
CT SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See section C.7.3.1.1.1 for further explanation.</td>
</tr>
</tbody>
</table>
Referenced Performed Procedure Step Sequence | (0008,1111) | 1C | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related. (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance).

Only a single Item shall be included in this sequence.

Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported and was involved in the creation of this Series.

>Include SOP Instance Reference Macro Table 10-11

---

Amend the Table C.8.17.6-1 as follows:

4. **C.8.17.6 Ophthalmic Tomography Series Module**

Table C.8.17.6-1 specifies the Attributes that identify and describe general information about the Ophthalmic Tomography Series.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: OPT See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Series Number</td>
<td>(0020,0011)</td>
<td>1</td>
<td>A number that identifies this Series.</td>
</tr>
</tbody>
</table>
| Referenced Performed Procedure Step Sequence | (0008,1111) | 1C | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance).

Only a single Item shall be included in this sequence.

Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported and was involved in the creation of this Series.

>Include 'SOP Instance Reference Macro' Table 10-11
Amend the Table C.8.19.1-1 as follows:

### C.8.19.1 XA/XRF Series Module

The XA/XRF X-Ray IODs use the General Series module described in section C.7.3.1, specialized by the XA/XRF Series Module, to describe the DICOM Series Entity specified in A.47 and A.48. It is defining what constitutes a Series for the context of projection XA/XRF device.

Table C.8.19.1-1 specifies the Attributes that identify and describe general information about the XA/XRF Series.

#### Table C.8.19.1-1

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: XA, RF. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Series Number</td>
<td>(0020,0011)</td>
<td>1</td>
<td>A number that identifies this Series.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class, General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

-Amend the Table C.8.20-1 as follows:

### C.8.20.1 Segmentation Series Module

Table C.8.20-1 defines the general Attributes of the Segmentation Series Module.

#### Table C.8.20-1

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Modality Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enumerated Value:</td>
</tr>
</tbody>
</table>
Series Number (0020,0011) 1 A number that identifies this Series

Referenced Performed Procedure Step Sequence (0008,1111) 1C Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose-Performed-Procedure Step SOP). Only a single Item shall be included in this sequence.

Required if a Performed Procedure Step SOP Class was involved in the creation of this Series the SOP Instance was created in a workflow managed with the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class.

>Include ‘SOP Instance Reference Macro’ Table 10-11

2 Amend the Table C.8.22-1 as follows:

4 C.8.22.1 Enhanced PET Series Module
The Enhanced PET IODs use the General Series module described in section C.7.3.1, specialized by the Enhanced PET Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of PET device.

8 Table C.8.22-1 specifies the Attributes that identify and describe general information about the Enhanced PET Series.

10 Table C.8.22-1
ENHANCED PET SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: PT See section C.7.3.1.1.1 for further explanation.</td>
</tr>
</tbody>
</table>
Referenced Performed Procedure Step Sequence | (0008,1111) | 1C | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported or was involved in the creation of this Series.

>Include ‘SOP Instance Reference Macro’ Table10-11

---

2 Amend the Table C.8.24.1-1 as follows:

---

4 C.8.24.1 Enhanced US Series Module


Table C.8.24.1-1

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: US, IVUS. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class or General Purpose Performed Procedure Step SOP Class is supported or was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include ‘SOP Instance Reference Macro’ Table 10-11

---

...
Amend the Table C.8.25.1-1 as follows:

### C.8.25.1 Lensometry Measurements Series Module

The Lensometry Measurements IODs use the General Series module described in section C.7.3.1, specialized by the Lensometry Measurements Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of Ophthalmic device.

Table C.8.25.1-1 specifies the Attributes that identify and describe general information about the Lensometry Measurements Series.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: LEN. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality, General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include 'SOP Instance Reference Macro' Table 10-11

Amend the Table C.8.25.2-1 as follows:

### C.8.25.2 Autorefractio Measurements Series Module

The Autorefractio Measurements IODs use the General Series module described in section C.7.3.1, specialized by the Autorefractio Measurements Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of Ophthalmic device.

Table C.8.25.2-1 specifies the Attributes that identify and describe general information about the Autorefractio Measurements Series.
### Table C.8.25.2-1
AUTOREFRACTION MEASUREMENTS SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: AR. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related. Only a single Item shall be included in this sequence. Required if a Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include ‘SOP Instance Reference Macro’ Table 10-11

4 Amend the Table C.8.25.3-1 as follows:

6 **C.8.25.3** Keratometry Measurements Series Module
The Keratometry Measurements IODs use the General Series module described in section C.7.3.1, specialized by the Keratometry Measurements Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of Ophthalmic device.

Table C.8.25.3-1 specifies the Attributes that identify and describe general information about the Keratometry Measurements Series.

### Table C.8.25.3-1
KERATOMETRY MEASUREMENTS SERIES MODULE ATTRIBUTES

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: AR. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
</tbody>
</table>
| Referenced Performed Procedure Step Sequence | (0008,1111) | 1C   | Uniquely identifies the Performed Procedure Step SOP Instance to which the
Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).
Only a single Item shall be included in this sequence.
Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.

>Include 'SOP Instance Reference Macro' Table 10-11

2 Amend the Table C.8.25.4-1 as follows:

4 C.8.25.4 Subjective Refraction Measurements Series Module

The Subjective Refraction Measurements IODs use the General Series module described in section C.7.3.1, specialized by the Subjective Refraction Measurements Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of Ophthalmic device.

Table C.8.25.4-1 specifies the Attributes that identify and describe general information about the Subjective Refraction Measurements Series.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: SRF. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include 'SOP Instance Reference Macro' Table 10-11
Amend the Table C.8.25.5-1 as follows:

C.8.25.5  Visual Acuity Measurements Series Module

The Visual Acuity Measurements IODs use the General Series module described in section C.7.3.1, specialized by the Visual Acuity Measurements Series Module, to describe the DICOM Series Entity described in A.1.2.3, and to define what constitutes a Series for the context of Ophthalmic device.

Table C.8.25.5-1 specifies the Attributes that identify and describe general information about the Visual Acuity Measurements Series.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: VA See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
</tbody>
</table>

>Include ‘SOP Instance Reference Macro’ Table 10-11

Amend the Table C.8.25.13-1 as follows:

C.8.25.13  Ophthalmic Axial Measurements Series Module

Table C.8.25.13-1 specifies the Attributes that identify and describe general information about the Ophthalmic Axial Measurements Series.
## Table C.8.25.13-1

**OPHTHALMIC AXIAL MEASUREMENTS SERIES MODULE ATTRIBUTES**

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
</table>
| Modality       | (0008,0060)  | 1    | Type of equipment that originally acquired the data used to create the measurements in this Series.  
Enumerated Values:  
OAM  
See section C.7.3.1.1 for further explanation. |

| Referenced Performed Procedure Step Sequence | (0008,1111) | 1C   | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related *(e.g., a Modality or General Purpose Performed Procedure Step SOP Instance)*.  
Only a single Item shall be included in this sequence.  
Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series. |

>Include ‘SOP Instance Reference Macro’ Table 10-11

---

4 Amend the Table C.8.25.15-1 as follows:

6 **C.8.25.15 Intraocular Lens Calculations Series Module**

Table C.8.25.15-1 specifies the Attributes that identify and describe general information about the Intraocular Lens Calculations Series.

## Table C.8.25.15-1

**INTRAOCULAR LENS CALCULATIONS SERIES MODULE ATTRIBUTES**

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
</table>
| Modality       | (0008,0060)  | 1    | Specific equipment on which the software that performed the calculations in this Series resides.  
Enumerated Values:  
IOL  
See section C.7.3.1.1 for further explanation. |
Referenced Performed Procedure Step Sequence | (0008,1111) | 1C | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).
Only a single Item shall be included in this sequence.
Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.

>Include ‘SOP Instance Reference Macro’ Table 10-11

2 Amend the Table C.8.26.1 as follows:

4 C.8.26.1 Visual Field Static Perimetry Measurements Series Module

Table C.8.26.1-1 specifies the Attributes that identify and describe general information about the Visual Field Static Perimetry Measurements Series.

Table C.8.26.1-1

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the measurements in this Series. Enumerated Values: OPV See section C.7.3.1.1.1 for further explanation.</td>
</tr>
</tbody>
</table>
| Referenced Performed Procedure Step Sequence | (0008,1111) | 1C | Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g. a Modality or General-Purpose Performed Procedure Step SOP Instance).
Only a single Item shall be included in this sequence.
Required if the Modality Performed Procedure Step SOP Class, or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.

>Include ‘SOP Instance Reference Macro’ Table 10-11

...
### C.8.27.1 Intravascular OCT Series Module

Table C.8.27.1-1 specifies the Attributes that identify and describe general information about the Intravascular Optical Coherence Tomography Series.

#### Table C.8.27.1-1
**INTRAVASCULAR OCT SERIES MODULE ATTRIBUTES**

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality</td>
<td>(0008,0060)</td>
<td>1</td>
<td>Type of equipment that originally acquired the data used to create the images in this Series. Enumerated Values: IVOCT. See section C.7.3.1.1.1 for further explanation.</td>
</tr>
<tr>
<td>Series Number</td>
<td>(0020,0011)</td>
<td>1</td>
<td>A number that identifies this Series.</td>
</tr>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>1C</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance to which the Series is related (e.g., a Modality or General-Purpose Performed Procedure Step SOP Instance). Only a single Item shall be included in this sequence. Required if the Modality or General Purpose Performed Procedure Step SOP Class is supported was involved in the creation of this Series.</td>
</tr>
<tr>
<td>&gt;Referenced SOP Class UID</td>
<td>(0008,1150)</td>
<td>1</td>
<td>Uniquely identifies the referenced SOP Class.</td>
</tr>
<tr>
<td>&gt;Referenced SOP Instance UID</td>
<td>(0008,1155)</td>
<td>1</td>
<td>Uniquely identifies the referenced SOP Instance.</td>
</tr>
<tr>
<td>Presentation Intent Type</td>
<td>(0008,0068)</td>
<td>1</td>
<td>Identifies the intent of the images that are contained within this Series. Enumerated Values: FOR PRESENTATION FOR PROCESSING</td>
</tr>
</tbody>
</table>

Amend the Table C.17-1 as follows:

#### C.17.1 SR Document Series Module

Table C.17-1 defines the Attributes of the SR Document Series. A Series of SR Documents may contain any number of SR Documents.

Note: Series of SR Documents are separate from Series of Images or other Composite SOP Instances. SR Documents do not reside in a Series of Images or other Composite SOP Instances.
### Table C.17-1

**SR DOCUMENT SERIES MODULE ATTRIBUTES**

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Tag</th>
<th>Type</th>
<th>Attribute Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referenced Performed Procedure Step Sequence</td>
<td>(0008,1111)</td>
<td>2</td>
<td>Uniquely identifies the Performed Procedure Step SOP Instance for which the Series is created. Zero or one item shall be included in this sequence. Notes: 1. The Performed Procedure Step referred to by this Attribute is the Step during which this Document is generated. 2. If this Document is generated during the same Modality or General Purpose Performed Procedure Step as the evidence in the current interpretation procedure, this attribute may contain reference to that Modality or General Purpose-Performed Procedure Step. 3. This Attribute is not used to convey a reference to the evidence in the current interpretation procedure. See Current Requested Procedure Evidence Sequence (0040,A375). 4. This Sequence may be sent zero length if the Performed Procedure Step is unknown.</td>
</tr>
</tbody>
</table>

>Include ‘SOP Instance Reference Macro’ Table 10-11
**PS 3.4 Changes:**

Insert the Procedure Step SOP definitions in PS 3.4 Section 3.9 as shown and alphabetize

**Related General SOP Class:**

3.9 DICOM Service Class Definitions

The following definitions are commonly used in this Part of the DICOM Standard:

**Combined Print Image:** a pixel matrix created by superimposing an image and an overlay, the size of which is defined by the smallest rectangle enclosing the superimposed image and overlay.

**DICOM Information Model:** an Entity-Relationship diagram which is used to model the relationships between the Information Object Definitions representing classes of Real-World Objects defined by the DICOM Application Model.

**DICOM Application Model:** an Entity-Relationship diagram used to model the relationships between Real-World Objects which are within the area of interest of the DICOM Standard.

**Meta Service-Object Pair (SOP) Class:** a pre-defined set of SOP Classes that may be associated under a single SOP for the purpose of negotiating the use of the set with a single item.

**Performed Procedure Step SOP Class:** any SOP Class that encodes the details about the performance of a procedure step.

**Performed Procedure Step SOP Instance:** an instance of a Performed Procedure Step SOP Class. Note that all UPS instances are instances of the UPS Push SOP Class which is capable of encoding details about the performance of a procedure step (in addition to details about the scheduled procedure step) and thus qualify as an instance of a Performed Procedure Step SOP Class.

**Preformatted Grayscale Image:** an image where all annotation, graphics, and grayscale transformations (up to and including the VOI LUT) expected in the printed image have been burnt in or applied before being sent to the SCP. It is a displayable image where the polarity of the intended display is specified by Photometric Interpretation (0028,0004).

**Preformatted Color Image:** an image where all annotation, graphics, and color transformations expected in the printed image have been burnt in or applied before being sent to the SCP.

**Real-World Activity:** that which exists in the real world which pertains to specific area of information processing within the area of interest of the DICOM Standard. Such a Real-World Activity may be represented by one or more computer information metaphors called SOP Classes.

**Real-World Object:** that which exists in the real world upon which operations may be performed which are within the area of interest of the DICOM Standard. Such a Real-World Object may be represented through a computer information metaphor called a SOP Instance.

**Related General SOP Class:** a SOP Class that is related to another SOP Class as being more generalized in terms of behavior defined in the standard, and which may be used to identically encode an instance with the same attributes and values, other than the SOP Class UID. In particular, this may be the SOP Class from which a Specialized SOP Class (see PS3.2) is derived.

**Service Class User:** the role played by a DICOM Application Entity (DIMSE-Service-User) which invokes operations and performs notifications on a specific Association.
**Service Class Provider**: the role played by a DICOM Application Entity (DIMSE-Service-User) which performs operations and invokes notifications on a specific Association.

**Service Class**: a collection of SOP Classes and/or Meta SOP Classes which are related in that they are described together to accomplish a single application.

**Service-Object Pair (SOP) Class**: the union of a specific set of DIMSE Services and one related Information Object Definition (as specified by a Service Class Definition) which completely defines a precise context for communication of operations on such an object or notifications about its state.

**Service-Object Pair (SOP) Instance**: a concrete occurrence of an Information Object that is managed by a DICOM Application Entity and may be operated upon in a communication context defined by a specific set of DIMSE Services (on a network or interchange media). A SOP Instance is persistent beyond the context of its communication.

**Related General SOP Class**: a SOP Class that is related to another SOP Class as being more generalized in terms of behavior defined in the standard, and which may be used to identically encode an instance with the same attributes and values, other than the SOP Class UID. In particular, this may be the SOP Class from which a Specialized SOP Class (see PS3.2) is derived.

---

Replace PS 3.4 F.1.6 & F.1.7 with the following:

**F.1.6**  General Purpose Scheduled Procedure Step Management States *(RETIRED)*
Retired. See PS 3.4 2011.

**F.1.7**  General Purpose Performed Procedure Step Management States *(RETIRED)*
Retired. See PS 3.4 2011.

---

Amend PS 3.4 F.2 as follows:

**F.2 CONFORMANCE OVERVIEW**

The application-level services addressed by this Service Class Definition are specified via the following distinct SOP Classes:

- a. Modality Performed Procedure Step SOP Class
- b. Modality Performed Procedure Step Notification SOP Class
- c. Modality Performed Procedure Step Retrieve SOP Class
- d. General Purpose Scheduled Procedure Step SOP Class
- e. General Purpose Performed Procedure Step SOP Class

Each SOP Class operates on a subset of the Modality Performed Procedure Step IOD, **General Purpose Scheduled Procedure Step IOD, or General Purpose Performed Procedure Step IOD** and specifies the Attributes, operations, notifications, and behavior applicable to the SOP Class. Conformance of Application Entities shall be defined by selecting one or more of the Study and Study Component Management SOP and Meta SOP Classes. For each SOP Class conformance requirements shall be specified in terms of the Service Class Provider (SCP) and the Service Class User (SCU).
Replace PS 3.4 F.10 & F.11 with the following:

**F.10** GENERAL PURPOSE SCHEDULED PROCEDURE STEP SOP CLASS (RETIRED)

Retired. See PS 3.4 2011.

**F.11** GENERAL PURPOSE PERFORMED PROCEDURE STEP SOP CLASS (RETIRED)

Retired. See PS 3.4 2011.

Amend PS 3.4 K.3 as follows:

**K.3** WORKLIST INFORMATION MODEL

Each Worklist Information Model is associated with one SOP Class. The following Worklist Information Model is defined:

- Modality Worklist Information Model
- General Purpose Worklist Information Model

Replace PS 3.4 K.6.2 as follows:

**K.6.2** General Purpose Worklist SOP Class (RETIRED)

Retired. See PS 3.4 2011.

Replace PS 3.4 K.8 as follows:

**K.8** GENERAL PURPOSE WORKLIST EXAMPLE (INFORMATIVE) (RETIRED)

Retired. See PS 3.17 2011.

Amend PS 3.4 P.2 as follows:

**P.2** PROCEDURAL EVENT LOGGING SOP CLASS DEFINITION

The Procedural Event Logging SOP Class allows SCUs to report to an SCP the events that are to be recorded in a Procedure Log SOP Instance, as described in PS3.3. This allows multiple devices participating in a Study to cooperatively construct a log of events that occur during that Study.

The multiple procedural events reported through this SOP Class are related by Patient ID, Study Instance UID, Study ID, and/or Performed Location. The mechanism by which multiple devices obtain these shared identifiers is not defined by this SOP Class.

Note: The Modality Worklist or General Purpose Worklist UPS SOP Classes may be used for this purpose. For simple devices that cannot support worklist SOP classes, the SCP may be able
to use Performed Location, or the SCU AE Title, to relate the use of the device to a particular
procedure.

The SCP may also provide for recording events for which the SCU does not provide identifiers for
matching. The mechanism by which the SCP determines the association of such an unidentified
event with the log for a specific procedure is not defined by this SOP Class.

Note: The network address and/or AE Title of the SCU may be used to identify the device as a
participant in a particular procedure.

**Amend PS 3.4 R.1.1 as follows:**

Once the SCU has provided notification about availability of the SOP Instances, the SCP may use
that information in directing further workflow, such as in populating the Input Information
Sequence and Relevant Information Sequence when forming General Purpose Scheduled a
Unified Procedure Step. These types of policies are outside the scope of this Standard, however,
the SCP is required to document these policies in its Conformance Statement.
PS 3.5 Changes:

Modify Section 10.8 as shown:

10.8 TRANSFER SYNTAX FOR JPIP REFERENCED PIXEL DATA

Two Transfer Syntaxes are specified for JPIP Referenced Pixel Data.

The persistence of the references in objects transferred with one of these transfer syntaxes is not defined. That is, applications should make no assumptions as to the timeframe when the referenced pixel data will be available. Due to the indeterminate time that the URL remains valid, it may be inappropriate to cache the URL. Because the pixel data may not have been retrieved in its entirety or full fidelity, it may be inappropriate to use this transfer syntax for the purpose of permanent storage or to reference such instances in Storage Commitment, Modality Performed Procedure Step and General Purpose Performed Procedure Step service classes.

These transfer syntaxes shall not be used for media storage defined by PS 3.10.
For final text, PS 3.6 data elements that are used only in retired modules are flagged as retired.

6 Registry of DICOM data elements

Note: For attributes that were present in ACR-NEMA 1.0 and 2.0 and that have been retired, the specifications of Value Representation and Value Multiplicity provided are recommendations for the purpose of interpreting their values in objects created in accordance with earlier versions of this standard. These recommendations are suggested as most appropriate for a particular attribute; however, there is no guarantee that historical objects will not violate some requirements or specified VR and/or VM.

<table>
<thead>
<tr>
<th>Tag</th>
<th>Name</th>
<th>Keyword</th>
<th>VR</th>
<th>VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0040,4001)</td>
<td>General Purpose Scheduled Procedure Step Status</td>
<td>GeneralPurposeScheduledProcedureStepStatus</td>
<td>CS</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4002)</td>
<td>General Purpose Performed Procedure Step Status</td>
<td>GeneralPurposePerformedProcedureStepStatus</td>
<td>CS</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4003)</td>
<td>General Purpose Scheduled Procedure Step Priority</td>
<td>GeneralPurposeScheduledProcedureStepPriority</td>
<td>CS</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4004)</td>
<td>Scheduled Processing Applications Code Sequence</td>
<td>ScheduledProcessingApplicationsCodeSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4006)</td>
<td>Multiple Copies Flag</td>
<td>MultipleCopiesFlag</td>
<td>CS</td>
<td>RET</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0040,4015)</td>
<td>Resulting General Purpose Performed Procedure Steps Sequence</td>
<td>ResultingGeneralPurposePerformedProcedureStepsSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4016)</td>
<td>Referenced General Purpose Scheduled Procedure Step Sequence</td>
<td>ReferencedGeneralPurposeScheduledProcedureStepSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0040,4022)</td>
<td>Relevant Information Sequence</td>
<td>RelevantInformationSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4023)</td>
<td>Referenced General Purpose Scheduled Procedure Step Transaction UID</td>
<td>ReferencedGeneralPurposeScheduledProcedureStepTransactionUID</td>
<td>UI</td>
<td>RET</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0040,4031)</td>
<td>Requested Subsequent Workitem Code Sequence</td>
<td>RequestedSubsequentWorkitemCodeSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
<tr>
<td>(0040,4032)</td>
<td>Non-DICOM Output Code Sequence</td>
<td>NonDICOMOutputCodeSequence</td>
<td>SQ</td>
<td>RET</td>
</tr>
</tbody>
</table>
Retire the following UIDs in PS 3.6 Table A-1

<table>
<thead>
<tr>
<th>UID Value</th>
<th>UID NAME</th>
<th>UID TYPE</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.1</td>
<td>General Purpose Worklist Information Model – FIND (Retired)</td>
<td>SOP Class</td>
<td>PS 3.4</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.2</td>
<td>General Purpose Scheduled Procedure Step SOP Class (Retired)</td>
<td>SOP Class</td>
<td>PS 3.4</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32.3</td>
<td>General Purpose Performed Procedure Step SOP Class (Retired)</td>
<td>SOP Class</td>
<td>PS 3.4</td>
</tr>
<tr>
<td>1.2.840.10008.5.1.4.32</td>
<td>General Purpose Worklist Management Meta SOP Class (Retired)</td>
<td>Meta SOP Class</td>
<td>PS 3.4</td>
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<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Modify the following Context Groups in PS 3.6 Table A-3 as shown:

<table>
<thead>
<tr>
<th>Context UID</th>
<th>Context Identifier</th>
<th>Context Group Name</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.840.10008.6.1.531</td>
<td>9231</td>
<td>General Purpose Workitem Definition</td>
</tr>
<tr>
<td>1.2.840.10008.6.1.532</td>
<td>9232</td>
<td>Non-DICOM Output Types</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PS 3.15 Changes:

Modify A.5.3.10 as shown:

A.5.3.10 Query
This message describes the event of a Query being issued or received. The message does not record the response to the query, but merely records the fact that a query was issued. For example, this would report queries using the DICOM SOP Classes:

a. Modality Worklist
b. **UPS Pull General Purpose Worklist**
c. **UPS Watch**
d. Composite Instance Query

Modify Table E.1-1 (Application Level Confidentiality Profile Attributes) as follows:
Change the value in the “Retired (from PS3.6)” column from N to Y for attributes:
- Referenced General Purpose Scheduled Procedure Step Transaction UID (0040,4023)
**PS 3.16 Changes:**

Modify TID 3100 as shown:

**TID 3100 Procedure Action**

The Procedure Action Template is intended for the recording of the beginning or end of procedure steps or action items in a procedure. The level of granularity of the recorded events is not specified, and may vary between institutions, or even be at multiple levels within a single procedure log. There is no requirement for the real-world procedure step or action item recorded with this template to end before another one begins; there may be overlapping or simultaneous procedure steps or action items.

This log entry template may be used to record the start or stop of timers.

Other recorded events in the procedure may be linked to a particular step or action item by Procedure Action ID (see TID 3010 Log Entry Qualifiers).

<table>
<thead>
<tr>
<th>NL</th>
<th>Relation with Parent</th>
<th>Value Type</th>
<th>Concept Name</th>
<th>VM</th>
<th>Req Type</th>
<th>Condition</th>
<th>Value Set Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>CODE</td>
<td>DCID (3421) Procedure Action</td>
<td>1</td>
<td>M</td>
<td></td>
<td>BCID (3405) Procedure Action Values</td>
</tr>
<tr>
<td>2</td>
<td>&gt;</td>
<td>TEXT</td>
<td>EV (121124, DCM, &quot;Procedure Action ID&quot;)</td>
<td>1</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>&gt;</td>
<td>PNAME</td>
<td>BCID (7453) Performing Roles</td>
<td>1-n</td>
<td>U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>&gt;</td>
<td>NUM</td>
<td>EV (121128, DCM, &quot;Procedure Action Duration&quot;)</td>
<td>1</td>
<td>U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>&gt;</td>
<td>INCLUDE</td>
<td>DTID (3010) Log Entry Qualifiers</td>
<td>1</td>
<td>U</td>
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<td></td>
</tr>
<tr>
<td>6</td>
<td>&gt;</td>
<td>UIDREF</td>
<td>EV (121126, DCM, &quot;Performed Procedure Step SOP Instance UID&quot;)</td>
<td>1</td>
<td>MC</td>
<td>IFF aDICOM Modality or General Purpose Performed Procedure Step SOP Class is used to provide status of the Procedure Step</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>&gt;</td>
<td>UIDREF</td>
<td>EV (121127, DCM, &quot;Performed Procedure Step SOP Class UID&quot;)</td>
<td>1</td>
<td>MC</td>
<td>IFF aDICOM Modality or General Purpose Performed Procedure Step SOP Class is used to provide status of the Procedure Step</td>
<td></td>
</tr>
</tbody>
</table>
Retitle CID 9231 as shown:

CID 9231 General Purpose Workitem Definition

Context ID 9231
General Purpose Workitem Definition

Type: Extensible Version: 20020904

<table>
<thead>
<tr>
<th>Coding Scheme Designator (0008,0102)</th>
<th>Code Value (0008,0100)</th>
<th>Code Meaning (0008,0104)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCM</td>
<td>110001</td>
<td>Image Processing</td>
</tr>
<tr>
<td>DCM</td>
<td>110002</td>
<td>Quality Control</td>
</tr>
<tr>
<td>DCM</td>
<td>110003</td>
<td>Computer Aided Diagnosis</td>
</tr>
<tr>
<td>DCM</td>
<td>110004</td>
<td>Computer Aided Detection</td>
</tr>
<tr>
<td>DCM</td>
<td>110005</td>
<td>Interpretation</td>
</tr>
<tr>
<td>DCM</td>
<td>110006</td>
<td>Transcription</td>
</tr>
<tr>
<td>DCM</td>
<td>110007</td>
<td>Report Verification</td>
</tr>
<tr>
<td>DCM</td>
<td>110008</td>
<td>Print</td>
</tr>
<tr>
<td>DCM</td>
<td>110009</td>
<td>No subsequent Workitems</td>
</tr>
<tr>
<td>DCM</td>
<td>110013</td>
<td>Media Import</td>
</tr>
</tbody>
</table>

Delete CID 9232:

CID 9232 Non-DICOM Output Types

Context ID 9232
Non-DICOM Output Types

Type: Extensible Version: 20020904

<table>
<thead>
<tr>
<th>Coding Scheme Designator (0008,0102)</th>
<th>Code Value (0008,0100)</th>
<th>Code Meaning (0008,0104)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCM</td>
<td>110010</td>
<td>Film</td>
</tr>
<tr>
<td>DCM</td>
<td>110011</td>
<td>Dictation</td>
</tr>
<tr>
<td>DCM</td>
<td>110012</td>
<td>Transcription</td>
</tr>
</tbody>
</table>

Modify the following entries in Annex D as shown:

Annex D DICOM Controlled Terminology Definitions (Normative)

This Annex specifies the meanings of codes defined in DICOM, either explicitly or by reference to another part of DICOM or an external reference document or standard.
<table>
<thead>
<tr>
<th>Code Value</th>
<th>Code Meaning</th>
<th>Definition</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>121126</td>
<td>Performed Procedure Step SOP Instance UID</td>
<td>SOP Instance UID of a <strong>DICOM Modality-Performed Procedure Step (MPPS)</strong> or General Purpose Performed Procedure Step (GPPPS)</td>
<td></td>
</tr>
<tr>
<td>121127</td>
<td>Performed Procedure Step SOP Class UID</td>
<td>SOP Class UID for a <strong>DICOM Modality-Performed Procedure Step (MPPS)</strong> or General Purpose Performed Procedure Step (GPPPS) Service</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PS 3.17 Changes:

Amend PS 3.17 AA.3.4 as shown:

AA.3.4 Dose Reporting Workflow Management
The dose reporting workflow may be managed using the same DICOM services used for managing the imaging workflow. These services include Modality Worklist (MWL) and Performed Procedure Step (MPPS), and General Purpose Worklist (GP-WL), Scheduled Procedure Step (GP-SPS), and Performed Procedure Step (GP-PPS) services.

In particular, a Dose Report produced for an Acquisition Modality Performed Procedure Step can be identified in the MPPS Referenced Non-Image Composite SOP Instance Sequence (0040,0220). Dose Report post-processing tasks may be scheduled and monitored using the GP-WL, GP-SPS, and GP-PPS services.

Replace PS 3.17 DD.2 with the following:

DD.2 GENERAL PURPOSE WORKLIST EXAMPLE (INFORMATIVE) (RETIRIED)

Retired. See PS 3.17 2011.