

1	Status	Letter Ballot
2	Date of Last Update	2018/11/11
3	Person Assigned	David Clunie
4		mailto:dclunie@dclunie.com
5	Submitter Name	David Clunie
6		mailto:dclunie@dclunie.com
7	Submission Date	2018/04/05

8	Correction Number CP-1817	
9	Log Summary: Replace uses of "data set" that do not refer to the PS3.5 defined meaning	
10	Name of Standard	
11	PS3.3	
12	Rationale for Correction:	
13	DICOM has always had a specific meaning for "Data Set" meaning the list of Data Elements encoded per PS3.5.	
14	In some places "data set" has been used to refer to other meanings; most of these can be replaced with appropriate alternatives.	
15	The "Data Set Identification Macro" (referenced from some Ophthalmology Modules) and its corresponding Data Element names is	
16	more problematic, since the Data Elements cannot be renamed.	
17	Correction Wording:	

Amend DICOM PS3.3 as follows (changes to existing text are bold and underlined for additions and ~~struckthrough~~ for removals):

3 Definitions

For the purposes of this Standard the following definitions apply.

3.5 DICOM Data Structures and Encoding

This Part of the Standard makes use of the following terms defined in PS3.5 :

Data Set See PS3.5 .

3.17 Multi-dimensional Definitions

Fiducial A fiducial is some unique feature or landmark suitable as a spatial reference or correlation between similar objects. The fiducial may contribute to the definition of the origin and orientation of a chosen coordinate system. Identifying fiducials in different collections of data sets is a common means to establish the spatial relationship between similar objects.

3.X1 Miscellaneous Definitions

Externally Sourced Data Set A collection of data that has been obtained from or is defined by an entity separate from the system creating an object.

10.18 Externally Sourced Data Set Identification Macro

Table 10-22 describes the Attributes for the identification of an ~~e~~Externally ~~s~~Sourced ~~d~~Data ~~s~~Set.

Table 10-22. Externally Sourced Data Set Identification Macro Attributes

Attribute Name	Tag	Type	Attribute Description
Data Set Name	(0024,0306)	1	The name assigned to the <u>Externally Sourced</u> d Data s Set.
Data Set Version	(0024,0307)	1	The software version identifier assigned to the <u>Externally Sourced</u> d Data s Set.
Data Set Source	(0024,0308)	1	Source of the <u>Externally Sourced</u> d Data s Set. E.g., the name of the manufacturer, researcher, university, etc.
Data Set Description	(0024,0309)	3	Description of the <u>Externally Sourced</u> d Data s Set.

C.8.26.4 Visual Field Static Perimetry Test Measurements Module

Table C.8.26.4-1. Visual Field Static Perimetry Test Measurements Module Attributes

Attribute Name	Tag	Type	Attribute Description
Screening Baseline Measured Sequence	(0024,0122)	1C	Information about the starting luminance screening values. One or more Items shall be included in this Sequence. Required if the value for Screening Baseline Measured (0024,0120) is YES.
>Include Table 10-22 " <u>Externally Sourced Data Set Identification Macro Attributes</u> "			

A.1.2.15 Raw Data IE

The Raw Data IE defines the Attributes that describe a **collection of data sets** that may be used for further processing to produce image data or other data.

Note

For example, raw data may be used with CT and MR systems to reconstruct sets of images or for MR to reconstruct spectroscopic data. The format of the raw data is vendor specific.

A.59.1 Enhanced US Volume IOD Description

Image objects of different types may be created from a 3D Ultrasound image acquisition, illustrated in Figure A.59-1. It can be seen that there are two different types of data related to 3D image acquisition: 3D volume data **sets** and several kinds of 2D image derived from the volume data **set**.

Replace old Figure A.59-1:

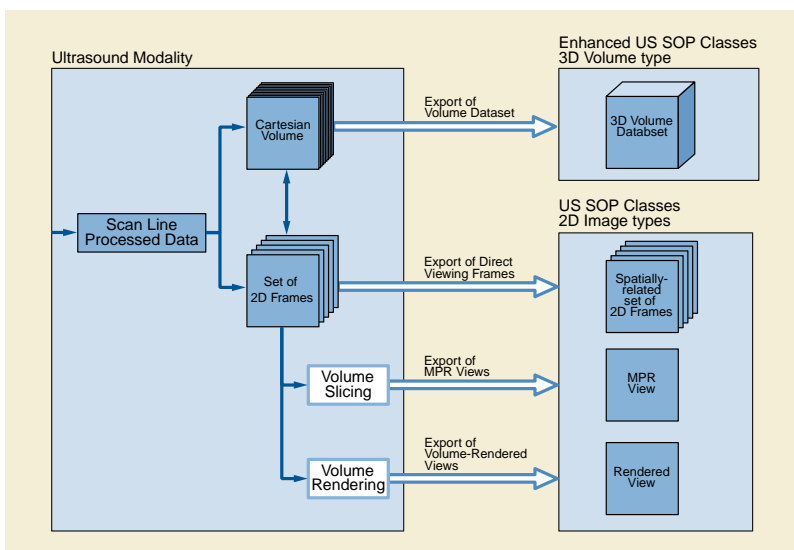
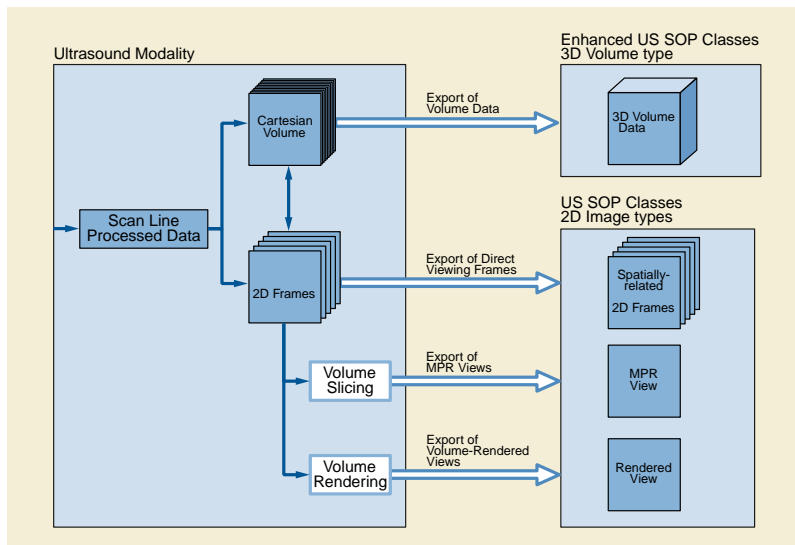


Figure A.59-1. Types of 3D Ultrasound Source and Derived Images (Informative)

with new Figure A.59-1 that has "set" removed from "data set":



1 **Figure A.59-1. Types of 3D Ultrasound Source and Derived Images (Informative)**

2 The 3D volume data **set** (the diagonally shaded box in Figure A.59-1) contains a Cartesian volume or two or more temporally related
 3 Cartesian volumes. 3D volume data **sets-are-is** exchanged using the Enhanced US Volume SOP Class, and **are-is** suitable for sub-
 4 subsequent Multi-Planar Reconstruction and rendering operations. Within each Enhanced US Volume instance, each Cartesian volume
 5 consists of a set of parallel planes, and each plane consists of one or more frames each of a single data type. All Cartesian volumes
 6 have the same spacing between adjacent planes.

7 Most acquisition devices construct the Cartesian volume by resampling data from a different acquisition geometry. The method of
 8 generation of the Cartesian volume, its relationship to spatially-related 2D frames (whether the volume was created from spatially-
 9 related frames, or spatially-related frames extracted from the Cartesian volume), and the algorithms used for Multi-Planar Reconstruction
 10 and rendering operations are outside the scope of this standard.

11 The 2D image types represent collections of frames that are derived from the volume data **set**, namely 3D rendered views (projections),
 12 separate Multi-Planar Reconstructed (MPR) views, or **sets-collections** of spatially-related source frames, either parallel or oblique
 13 (the cross-hatched boxes in Figure A.59-1). The Ultrasound Image and Ultrasound Multi-frame Image IODs are used to represent
 14 these derived images. See Section A.6 for the Ultrasound Image IOD description or Section A.7 for the Ultrasound Multi-frame Image
 15 IOD description.

16 **Note**

17 See PS3.17 Annex PP for an informative discussion on the use of these objects for the exchange of 3D ultrasound volume
 18 data.

19 ...

20 **A.59.3.1.1 Associated Physiological Waveforms**

21 ...

22 In the case of gated acquisition in which information from multiple events (such as ECG beats) are used to create sub-volumes that
 23 are "spliced" or "interleaved" together to form the volume data **set**, the Excluded Intervals Module describes the timing of each of the
 24 constituent sub-volumes for correlation with the physio waveform.

25 **C.8.8.15.15 Source Model ID**

26 The Source Model ID (300A,021B) ties together the physical source properties. The creator of the plan has used this ID to select the
 27 radioactive source model for the plan. An example would be the name of the used TG-43 data **set**.

C.8.8.25 RT Ion Beams Module

Table C.8.8.25-1. RT Ion Beams Module Attributes

Attribute Name	Tag	Type	Description
>>Scan Spot Meterset Weights	(300A,0396)	1C	A data set of Meterset weights corresponding to scan spot positions. The order of weights matches the positions in Scan Spot Positions (300A,0394). The sum contained in all Meterset weights shall match the difference of the cumulative Meterset weight of the current control point to the following control point. Required if Scan Mode (300A,0308) is MODULATED or MODULATED_SPEC. See Section C.8.8.25.8.

C.8.26.5 Visual Field Static Perimetry Test Results Module

Table C.8.26.5-1. Visual Field Static Perimetry Test Results Module Attributes

Attribute Name	Tag	Type	Attribute Description
Results Normals Sequence	(0024,0064)	1C	Information that represents the statistically normal results for patients from a referenced data base. Only a single Item shall be included in this Sequence. Required if Visual Field Test Normals Flag (0024,0063) is YES.
>Include Table 10-22 " <u>Externally Sourced</u> Data Set Identification Macro Attributes"			

C.8.28.2 Ophthalmic Thickness Map Module

Table C.8.28.2-1. Ophthalmic Thickness Map Module Attributes

Attribute Name	Tag	Type	Attribute Description
Ophthalmic Thickness Mapping Normals Sequence	(0022,1443)	1C	Identifies the data set used for mapping values from a normative data base. Required if Ophthalmic Thickness Map Type Code Sequence (0022,1436) contains an Item with the value or (111931, DCM, "Thickness deviation category from normative data") or (111932, DCM, "Thickness deviation from normative data"). May be present otherwise. Only a single Item shall be included in this Sequence.
>Include Table 10-22 " <u>Externally Sourced</u> Data Set Identification Macro Attributes"			

C.8.30.3 Corneal Topography Map Analysis Module

Table C.8.30.3-1. Corneal Topography Map Analysis Module Attributes

Attribute Name	Tag	Type	Attribute Description
Corneal Topography Mapping Normals Sequence	(0046,0210)	1C	Identifies the data set used for corneal topography mapping values from a normative data base. Required if a normative data base was used. Only a single Item shall be included in this Sequence.
<i>>Include Table 10-22 "Externally Sourced Data Set Identification Macro Attributes"</i>			

C.10.9.1.4.5 Channel Minimum and Maximum Value

Channel Minimum Value (5400,0110) and Channel Maximum Value (5400,0112) Attributes may be used to send the analog-to-digital converter limits (i.e., the clipping levels).

Note

These values do not represent the maximum and minimum values in the **encoded** data **set**, but rather the valid range of values.

For reference DICOM PS3.5

3 Definitions

3.10 DICOM Data Structures and Encoding Definitions

The following definitions are commonly used in this Standard:

Data Set: Exchanged information consisting of a structured set of Attribute values directly or indirectly related to Information Objects. The value of each Attribute in a Data Set is expressed as a Data Element. A collection of Data Elements ordered by increasing Data Element Tag number that is an encoding of the values of Attributes of a real world object.