DICOM Change Proposal

STATUS	Final Text
Date of Last Update	2025-11-11
Person Assigned	Björn Nolte
Submitter Name	Ingo.Wilkening@siemens-healthineers.com
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Change Number	CP-2490
Log Summary: Changes from Sup190 are not fully reflected in PS3.17 samples	
Name of Standard PS3.17 2025d	

Rationale for Change:

1) Sup 190 Volume Rendering Volumetric Presentation States made several changes to PS3.3.
Its changes to "**Table C.11.23-1330 VOLUMETRIC PRESENTATION STATE RELATIONSHIP MODULE ATTRIBUTES**" added new sequence 0070,120A) Volumetric Presentation Input Set Sequence, with:

Volumetric Presentation Input Set Sequence (0070,120A)
>Volumetric Presentation Input Set UID (0070,1209)
>Presentation Input Type (0070,1202)
>Referenced Image Sequence (0008,1140)
>Referenced Spatial Registration Sequence (0070,0404)

The already existing Volumetric (0070,1201) Presentation State Input Sequence was reduced, effectively some attributes were moved from (0070,1201) to (0070,120A):

Volumetric Presentation State Input Sequence (0070,1201)
~~>Presentation Input Type (0070,1202)~~
~~>Referenced Image Sequence (0008,1140)~~
~~>Referenced Spatial Registration Sequence (0070,0404)~~

~~> Compositing Rendering Method (0070,1206)~~ was retired.

That breaking change has influence on the sample in PS3.17, XXX.3.8.3 Encoding Details.
It should appear in Sup 190 – but it is not.
Without doing that, **Table XXX.3.8-1. Volumetric Presentation State Relationship Module Recommendations** has following deficits:

- (0070,120A) is missing, including its attributes in the sequence (see above)
- (0070,1201) still includes (0070,1202), (0008,1140), (0070,0404) – where they no longer belong

2) Samples in PS3.17 should at least cover the Type 1 fields in the IOD/modules description.
This is suggested, as a developer may want to take PS3.17 as a model for prototype implementation.
Some attributes are not mentioned in the **Table XXX.3.8-1. Volumetric Presentation State Relationship Module Recommendations**. **This is especially for the new introduced <u>(0070,1209) Volumentric Presentation Input Set UID</u>** – which references between both sequences (0070,1201) and (0070,120A).

3) References from PS3.17 to the IOD/module descriptions in PS3.3 may be helpful to the reader.

4) PS3.17, **Table XXX.3.8-3 Volumetric Presentation State Display Module Recommendations** has descriptions which may be improved. Set "1" is the CT. Set "2" is the PET.

Edititorial: "XXX" is an already existing chapter in PS3.17. "XXX" is not to be replaced.

Change Wording:

Change PS3.17, section XXX.3.8.3.1 Volumetric Presentation State Relationship Module Recommendations

XXX.3.8.3.1 Volumetric Presentation State Relationship Module Recommendations

<u>The recommendations in this section follows the description in Section C.11.23 Volumetric Presentation State Relationship Module in PS3.3.</u>

Table XXX.3.8-1. Volumetric Presentation State Relationship Module Recommendations

Attribute Name	Tag	Comment
Volumetric Presentation Input Set Sequence	**(0070,120A)**	**Contains two items: one for the CT volume input set and one for the PET volume input set.**
>ITEM 1		
>Volumetric Presentation Input Set UID	**(0070,1209)**	**Generate UID 1 (for the CT input set)**
>Presentation Input Type	**(0070,1202)**	**Set to "VOLUME".**
>Referenced Image Sequence	**(0008,1140)**	**Set reference(s) to the image(s) that make(s) up the CT input volume.**
>Referenced Spatial Registration Sequence	**(0070,0404)**	**Set to reference the Spatial Registration instance which registers the CT input to the VPS RCS.**
>ITEM 2		
>Volumetric Presentation Input Set UID	**(0070,1209)**	**Generate UID 2 (for the PT input set)**
>Presentation Input Type	**(0070,1202)**	**Set to "VOLUME".**
>Referenced Image Sequence	**(0008,1140)**	**Set reference(s) to the image(s) that make(s) up the PET input volume.**
>Referenced Spatial Registration Sequence	**(0070,0404)**	**Set to reference the Spatial Registration instance which registers the PET input to the VPS RCS.**
Volumetric Presentation State Input Sequence	(0070,1201)	Contains two items: one for the CT volume input and one for the PET volume input.
>ITEM 1		
~~**>Presentation Input Type**~~	~~**(0070,1202)**~~	~~**Set to "VOLUME".**~~
~~**>Referenced Image Sequence**~~	~~**(0008,1140)**~~	~~**Set reference(s) to the image(s) that make(s) up the CT input volume.**~~
~~**>Referenced Spatial Registration Sequence**~~	~~**(0070,0404)**~~	~~**Set to reference the Spatial Registration instance which registers the CT input to the VPS RCS.**~~
>Volumetric Presentation Input Number	**(0070,1207)**	**Set to "1" - for the first item**
>Volumentric Presentation Input Set UID	**(0070,1209)**	**Use the above generated UID 1 (for the CT input set)**
>Window Center	(0028,1050)	Set either Window Center and Window Width or VOI LUT Sequence (0028,3010).
>Window Width	(0028,1051)	
>Crop	(0070,1204)	Set to "NO".
>ITEM 2		
~~**>Presentation Input Type**~~	~~**(0070,1202)**~~	~~**Set to "VOLUME".**~~

~~**>Referenced Image Sequence**~~	~~**(0008,1140)**~~	~~**Set reference(s) to the image(s) that make(s) up the PET input volume.**~~
~~**>Referenced Spatial Registration Sequence**~~	~~**(0070,0404)**~~	~~**Set reference to the Spatial Registration instance which registers the PET input to the VPS RCS.**~~
>Volumetric Presentation Input Number	**(0070,1207)**	**Set to "2" - for the second item**
>Volumentric Presentation Input Set UID	**(0070,1209)**	**Use the above generated UID 2 (for the PET input set)**
>Window Center	(0028,1050)	Set either Window Center and Window Width or VOI LUT Sequence (0028,3010).
>Window Width	(0028,1051)	
>Crop	(0070,1204)	Set to "NO".
Global Crop	(0070,120B)	Set to „NO“

Change PS3.17, section XXX.3.8.2.3 Volumetric Presentation State Display Module Recommendations

XXX.3.8.2.3 Volumetric Presentation State Display Module Recommendations

The recommendation in this section follows the module description in PS3.3, section C.11.27 MPR Volumetric Presentation State Display Module.

Table XXX.3.8-3. Volumetric Presentation State Display Module Recommendations

Attribute Name	Tag	Comment
[…]		
> ITEM 1		
[…]		
>>Input Set Index	(0070,1804)	Set to "1" for the anatomy view **- this is the CT input set.** **For reference, see Table XXX.3.8-1, Item 1, Volumetric Presentation State Input Sequence (0070,1201) > Input Number (0070,1207) = "1".**
[…]		
ITEM 2		
[…]		
>>Input Set Index	(0070,1804)	Set to "2" for the functional view **- this is the PET input set.** **For reference, see Table XXX.3.8-1, Item 2, Volumetric Presentation State Input Sequence (0070,1201) > Input Number (0070,1207) = "2".**

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