

DICOM Correction Proposal

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Date of Last Update	2024-03-21
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Submission Date	2024-01-02

Correction Number	CP-2385
Log Summary: Fix inconsistent names of Transfer Syntaxes	
Name of Standard	PS3.11
Rationale for Correction:	<p>Throughout DICOM PS3.11, the names of the Transfer Syntaxes are not consistent with the official names associated with the Transfer Syntax UIDs according to PS3.6. This results in a wrong use of terms, e.g. in DICOM Conformance Statements (at least when based on the "old" DCS template according to DICOM PS3.2-2022d Annex A). In this context, there are also other inconsistencies that are proposed to be fixed with this CP, e.g. in relation to the difference between Application Profile and profile class.</p> <p><i>Editorial change:</i> The spelling of defined terms such as "Application Profile" should be harmonized in this Part of the DICOM Standard, i.e. written with capital initial letters. The same is true for terms like "SOP Instance", "Transfer Syntax", "File-set Creator", "File-set Updater", "File-set Reader", etc.</p>
Correction Wording:	

Change PS3.11 Section A.3.1

A.3.1 SOP Classes and Transfer Syntaxes

This Application Profile is based on the Media Storage Service Class (see PS3.4).

SOP Classes and corresponding Transfer Syntaxes supported by this Application Profile are specified in the Table A.3-1.

Table A.3-1. STD-XABC-CD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14 {s[Selection v[alue 1]}) 1.2.840.10008.1.2.4.70	Mandatory	Mandatory	Optional

Commented [JR1]: Is there a good reason for using the IOD name instead of the SOP Class name (as announced in the section title and in the text before the table)? Also the next column ("SOP Class UID") refers to the SOP Class rather than the IOD.

The use of IOD vs. SOP Class names is rather inconsistent throughout this Part of the DICOM Standard. This should be fixed (if possible).

Note

1. This Application Profile does not allow the use of the X-Ray Angiographic Bi-Plane Image Object. Bi-plane acquisitions must therefore be transferred as two single plane SOP instances. A future Application Profile that permits X-Ray Angiographic Bi-Plane Image Object transfer is under development.
2. This Application Profile includes only the X-Ray Angiographic Image SOP Instances. It does not include Standalone Curve, Modality LUT, VOI LUT, or Overlay SOP Instances.

Commented [JR2]: SOP Instance?
Commented [JR3]: Still true or outdated?

Change PS3.11 Section B.3.1

B.3.1 SOP Classes and Transfer Syntaxes

This Application Profile Class is based on the Media Storage Service Class (see PS3.4).

SOP Classes and corresponding Transfer Syntaxes supported by this Application Profile are specified in Table B.3-1.

Table B.3-1. STD-XA1K-CD and STD-XA1K-DVD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement (see Note)
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) (Selection Value 1) 1.2.840.10008.1.2.4.70	Mandatory	Mandatory	Optional
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Lossy , Baseline Sequential with Huffman Coding (Process 1) 1.2.840.10008.1.2.4.50	Optional for DVD; Disallowed for CD	Mandatory for DVD; Disallowed for CD	Undefined for DVD; Disallowed for CD
X-Ray Angiographic Image	1.2.840.10008.5.1.4.1.1.12.1	JPEG Extended (Process 2 & 4); Default Transfer Syntax for Lossy JPEG 12-Bit Image Compression (Process 4 only) 1.2.840.10008.1.2.4.51	Optional for DVD; Disallowed for CD	Mandatory for DVD; Disallowed for CD	Undefined for DVD; Disallowed for CD
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory	Optional
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional	Optional

Commented [JR4]: It is proposed to be more specific regarding the affected Application Profiles. This will facilitate both reading the DICOM Standard and using the correct identifiers in the DICOM Conformance Statement.
 There are Conformance Statement where the "profile class" identifier was used instead of the one for the respective Application Profiles.
 However, there are classes that contain many Application Profiles, so the list might get rather long.
 Alternatively, the identifier of a profile class could be highlighted by some means, e.g. using a suffix of "-xxx". For example: STD-XA1K-xxx or STD-GEN-DVD-xxx.

Commented [JR5]: Not sure whether it makes sense to use the long name according to PS3.6 Table A-1. Also see previous row.

Note

1. The FSU requirement is not defined for STD-XA1K-DVD profile.

- The Standalone Overlay, Standalone Curve and Detached Patient Management SOP Classes were formerly defined in these profiles, but have been retired. The Grayscale Softcopy Presentation State Storage **SOP Class** has been added as the preferred mechanism for conveying annotations.

Change PS3.11 Section C.3.1

C.3.1 Abstract SOP Classes and Transfer Syntaxes

Application Profiles in this class, STD-US, shall support the appropriate Information Object Definitions (IOD) and Transfer Syntaxes for the Media Storage SOP Class in the following table. In the role of FS-Updater or FS-Creator, the application can choose one of the three possible Transfer Syntaxes to create an IOD SOP Instance. In the role of FS-Reader, an application shall support all Transfer Syntaxes defined for the respective STD-US Application Profile.

Table C.3-1. Ultrasound SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name	Transfer Syntax UID
DICOM Media Storage Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed	1.2.840.10008.1.2.1 (see Section in PS3.10)
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian Uncompressed	1.2.840.10008.1.2.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	RLE Lossless Image Compression	1.2.840.10008.1.2.5
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian Uncompressed	1.2.840.10008.1.2.1
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	RLE Lossless Image Compression	1.2.840.10008.1.2.5
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50

- Commented [JR6]: Remove?
- Commented [JR7]: The terms "FS-Updater", "FS-Creator" and "FS-Reader" are only used in chapter C. All occurrences should be replaced by the official terms, either abbreviated or not.
- Commented [JR8]: "STD-US" does not identify an Application Profile but a class of profiles (see PS3.11 Section 8 subsection X.1).
- Commented [JR9]: Use "STD-US" (name of the profile class)?
- Commented [JR10]: In this case, the SOP Class names are used in the column fields, but the header still refers to the IOD.

C.3.1.1 Ultrasound Single and Multi-frame Pixel Formats Supported

The Application Profiles of the STD-US application-profile class requires that all ultrasound image objects only be stored using the values described in PS3.3 the US Image Module and the specializations used for the Ultrasound Single and Multi-Frame IODs.

In the role of FS-Updater or FS-Creator the application can choose any of the supported Photometric Interpretations described in PS3.3 the US Image Module to create an IOD SOP Instance. In the role of FS-Reader, an application shall support all Photometric Interpretations described in PS3.3 the US Image Module.

Table C.3-2 describes restrictions on the use of various Transfer Syntaxes with the supported Photometric Interpretations for both single and multi-frame images.

- Commented [JR11]: Add a hyperlink to the definition in PS3.3.
- Commented [JR12]: Add a hyperlink.
- Commented [JR13]: Add a hyperlink.

Table C.3-2. Defined Photometric Interpretation and Transfer Syntax Pairs

Photometric Interpretation Value	Transfer Syntax Name	Transfer Syntax UID
MONOCHROME2	Uncompressed Explicit VR Little Endian	1.2.840.10008.1.2.1

Photometric Interpretation Value	Transfer Syntax Name	Transfer Syntax UID
	RLE Lossless Image Compression	1.2.840.10008.1.2.5
RGB	Uncompressed Explicit VR Little Endian	1.2.840.10008.1.2.1
	RLE Lossless Image Compression	1.2.840.10008.1.2.5
PALETTE COLOR	Uncompressed Explicit VR Little Endian	1.2.840.10008.1.2.1
	RLE Lossless Image Compression	1.2.840.10008.1.2.5
YBR_FULL	RLE Lossless Image Compression	1.2.840.10008.1.2.5
YBR_FULL_422	Uncompressed Explicit VR Little Endian	1.2.840.10008.1.2.1
	JPEG Lossy Baseline (Process 1)	1.2.840.10008.1.2.4.50

Change PS3.11 Section C.3.3.2

C.3.3.2 File Component IDs

Note

File Component IDs should be created using a random number filename to minimize File Component ID collisions as described in PS3.12. The FS-~~Updater~~ should check the existence of a Component ID prior to creating that ID. Should an ID collision occur, the FS-~~Updater~~ should try another ID.

Commented [JR14]: Does it make sense that a section consists of a "Note" only?

Change PS3.11 Section D.3.1

D.3.1 SOP Classes and Transfer Syntaxes

These Application Profiles ~~is~~ are based on the Media Storage Service Class (see PS3.4).

Table D.3-1. STD-GEN SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
Composite Image & Stand-alone Storage	See PS3.4	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Defined in Conformance Statement	Defined in Conformance Statement	Optional

Commented [JR15]: Not sure whether to list all Application Profiles from PS3.11 Table D.1-1.

That means: STD-GEN-CD, STD-GEN-DVD-RAM, STD-GEN-SEC-CD, STD-GEN-SEC-DVD-RAM, STD-GEN-BD, STD-GEN-SEC-BD.

This would avoid confusion with Application Profiles starting with the same prefix ("STD-GEN") such as STD-GEN-DVD-JPEG (see PS3.11 Annex H).

Commented [JR16]: Use the same text as in Table H.3-1? That means: "Composite IODs for which a Media Storage SOP Class is defined in PS3.4"

The SOP Classes and corresponding Transfer Syntax supported by these Application Profiles are specified in the Table D.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR17]: Move this sentence in front of the referenced table?

Commented [JR18]: Is this still valid for the "new" DCS template according to PS3.2 Annex N?

Change PS3.11 Section E.3.1

E.3.1 SOP Classes and Transfer Syntaxes

These Application Profiles are based on the Media Storage Service Class (see PS3.4).

SOP Classes and corresponding Transfer Syntaxes supported by these Application Profiles are specified in the Table E.3-1.

Table E.3-1. STD-CTMR SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement (see Note 1)
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
CT Image	1.2.840.10008.5.1.4.1.1.2	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) $\{s[Selection \ vValue 1]\}$ 1.2.840.10008.1.2.4.70	Optional	Mandatory	Optional
CT Image	1.2.840.10008.5.1.4.1.1.2	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory	Optional
MR Image	1.2.840.10008.5.1.4.1.1.4	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) $\{s[Selection \ vValue 1]\}$ 1.2.840.10008.1.2.4.70	Optional	Mandatory	Optional
MR Image	1.2.840.10008.5.1.4.1.1.4	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory	Optional
Secondary Capture Image (Grayscale)	1.2.840.10008.5.1.4.1.1.7	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) $\{s[Selection \ vValue 1]\}$ 1.2.840.10008.1.2.4.70	Optional	Mandatory	Optional
Secondary Capture Image (Grayscale)	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory	Optional
Secondary Capture Image (Palette Color)	1.2.840.10008.5.1.4.1.1.7	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) $\{s[Selection \ vValue 1]\}$ 1.2.840.10008.1.2.4.70	Optional	Optional	Optional
Secondary Capture Image (Palette Color)	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional	Optional
Grayscale Softcopy	1.2.840.10008.5.1.4.1.1.11.1	Explicit VR Little Endian Uncompressed	Optional	Optional	Optional

Commented [JR19]: This is the name of the profile class. List all Application Profiles instead?

Commented [JR20]: Monochrome?

Commented [JR21]: Does JPEG Lossless really make sense for palette color images?

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement	FSU Requirement (see Note 1)
Presentation State		1.2.840.10008.1.2.1			
X-Ray Radiation Dose SR	1.2.840.10008.5.1.4.1.1.88.67	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional	Optional

Note

1. The FSU requirement is not defined for the STD-CTMR-DVD profile.
2. The Detached Patient **m**Management SOP Class was formerly defined in these profiles, but has been retired.

Change PS3.11 Section G.3.1

G.3.1 SOP Classes and Transfer Syntaxes

This Application Profile is based on the Media Storage Service Class (see PS3.4).

Table G.3-1. STD-GEN-MIME SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional
Composite Image & Stand-alone Storage	See PS3.4	Defined in Conformance Statement	Defined in Conformance Statement	Defined in Conformance Statement

Commented [JR22]: Use the same text as in Table H.3-1?

The SOP Classes and corresponding Transfer Syntaxes supported by this Application Profile are specified in the Table G.3-1. The supported Storage SOP Class(es) and Transfers Syntax(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR23]: Move in front of the table?

Commented [JR24]: See above comment on "new" DCS template.

Change PS3.11 Section G.3.1

H.3.1 SOP Classes and Transfer Syntaxes

The is Application Profiles is are based on the Media Storage Service Class (see PS3.4).

Table H.3-1. STD-GEN-DVD and STD-GEN-SEC-DVD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14) (S [Selection vValue 1]) 1.2.840.10008.1.2.4.70	Defined in Conformance Statement	Mandatory for -JPEG profiles for all SOP Classes defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossy , Baseline Sequential with Huffman Coding (Process 1) 1.2.840.10008.1.2.4.50	Defined in Conformance Statement	Mandatory for -JPEG profiles for all SOP Classes defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Extended (Process 2 & 4): Default Transfer Syntax for Lossy JPEG 12 Bit Image Compression (Process 4 only) 1.2.840.10008.1.2.4.51	Defined in Conformance Statement	Mandatory for -JPEG profiles for all SOP Classes defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression (Lossless Only) 1.2.840.10008.1.2.4.90	Defined in Conformance Statement	Mandatory for -J2K profiles for all SOP Classes defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression 1.2.840.10008.1.2.4.91	Defined in Conformance Statement	Mandatory for -J2K profiles for all SOP Classes defined in Conformance Statement

The SOP Classes and corresponding Transfer Syntaxes supported by these Application Profiles are specified in the Table H.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR25]: See above.

Change PS3.11 Section I.3.1

I.3.1 SOP Classes and Transfer Syntaxes

The Application Profiles is are based on the Media Storage Service Class (see PS3.4).

Table I.3-1. STD-DVD-MPEG2-MPML and STD-DVD-SEC-MPEG2-MPML SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG2 <u>Main Profile @ Main Level Image Compression</u> 1.2.840.10008.1.2.4.100	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement

The SOP Classes and corresponding Transfer Syntax supported by these Application Profiles are specified in the Table I.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR26]: See above.

Change PS3.11 Section J.3.1

J.3.1 SOP Classes and Transfer Syntaxes

The Application Profiles is based on the Media Storage Service Class (see PS3.4).

Table J.3-1. STD-GEN-USB, STD-GEN-SEC-USB, STD-GEN-MMC, STD-GEN-SEC-MMC, STD-GEN-CF, STD-GEN-SEC-CF, STD-GEN-SD and STD-GEN-SEC-SD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement	FSU Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14 {s[Selection vValue 1]}) 1.2.840.10008.1.2.4.70	Defined in Conformance Statement	Mandatory for - JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1) 1.2.840.10008.1.2.4.50	Defined in Conformance Statement	Mandatory for - JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Extended (Process 2 & 4): Default Transfer Syntax for Lossy JPEG 12 Bit Image Compression (Process 4 only) 1.2.840.10008.1.2.4.51	Defined in Conformance Statement	Mandatory for - JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression (Lossless Only) 1.2.840.10008.1.2.4.90	Defined in Conformance Statement	Mandatory for _ J2K profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression 1.2.840.10008.1.2.4.91	Defined in Conformance Statement	Mandatory for _ J2K profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

The SOP Classes and corresponding Transfer Syntaxes supported by these Application Profiles are specified in the Table J.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR27]: See above.

Change PS3.11 Section K.3.1

K.3.1 SOP Classes and Transfer Syntaxes

The Application Profile STD-DEN-CD shall support the SOP Classes and Transfer Syntaxes in the following table.

Commented [JR28]: Use the same text as for other Application Profiles (see above)?

Table K.3-1. Dental Abstract STD-DEN-CD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory
Basic Structured Display Storage	1.2.840.10008.5.1.4.1.1.1.131	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional
Grayscale Softcopy Presentation State	1.2.840.10008.5.1.4.1.1.1.11.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Optional

Note

The Digital X-Ray Image Storage and Digital Intra-oral X-Ray Image Storage _For Presentation SOP Classes can also be used for scanned film.

A File-Set Creator (**FSC**) shall support at least one of the specified image storage SOP Classes.

Change PS3.11 Section L.3.1

L.3.1 STD-GEN-ZIP-MAIL and STD-GEN-SEC-ZIP-MAIL Abstract SOP Classes and Transfer Syntaxes

Applications interchanging data under the STD-GEN-ZIP-MAIL and STD-GEN-SEC-ZIP-MAIL profiles shall support the Information Object Definitions (IOD) and Transfer Syntaxes for the Media Storage SOP Class specified in Table L.3-1.

Commented [JR29]: Remove?

Table L.3-1. STD-GEN-ZIP-MAIL and STD-GEN-SEC-ZIP-MAIL SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory
Composite Image & Stand-alone Storage	See PS3.4	Defined in Conformance Statement	Defined in Conformance Statement	Defined in Conformance Statement

Commented [JR30]: See above comment.

Equipment claiming conformance to these Application Profiles shall list the subset of Media Storage SOP Classes and Transfer Syntaxes that it supports in its Conformance Statement.

Change PS3.11 Section L.4.1

L.4.1 STD-DTL-SEC-ZIP-MAIL Abstract SOP Classes and Transfer Syntaxes

Applications interchanging data under the STD-DTL-SEC-ZIP-MAIL profile shall support the Information Object Definitions (IOD) and Transfer Syntaxes for the Media Storage SOP Class specified in Table L.3-2. File-Set Creators for the STD-FTL-SEC-ZIP-MAIL shall support at least one of the optional IODs.

Commented [JR31]: Remove?

Table L.3-2. STD-DTL-SEC-ZIP-MAIL Abstract SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory
Digital Intra-oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Optional	Mandatory

Change PS3.11 Section M.3.1

M.3.1 SOP Classes and Transfer Syntaxes

These Application Profiles are based on the Media Storage Service Class with the Interchange Option (see PS3.4).

Commented [JR32]: This is the first time, this option is explicitly mentioned. That means, it is not listed in similar section above.

Table M.3-1. STD-GEN-BD and STD-GEN-SEC-BD SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax Name and UID	FSC Requirement	FSR Requirement	FSU Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossless Non-Hierarchical, First-Order Prediction (Process 14 (Selection Value 1)) 1.2.840.10008.1.2.4.70	Defined in Conformance Statement	Mandatory for all JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1) 1.2.840.10008.1.2.4.50	Defined in Conformance Statement	Mandatory for all JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG Extended (Process 2 & 4); Default Transfer Syntax for Lossy JPEG 12-Bit Image Compression (Process 4 only) 1.2.840.10008.1.2.4.51	Defined in Conformance Statement	Mandatory for all JPEG profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression (Lossless Only) 1.2.840.10008.1.2.4.90	Defined in Conformance Statement	Mandatory for all J2K profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	JPEG 2000 Image Compression 1.2.840.10008.1.2.4.91	Defined in Conformance Statement	Mandatory for all J2K profiles for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG2 Main Profile @ Main Level 1.2.840.10008.1.2.4.100	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

Also, the "Interchange Option" does not seem to be defined anymore in the current edition of the DICOM Standard (see DICOM PS3.4-2022e).

Commented [JR33]: List all Application Profiles from PS3.11 Table M.1-1 explicitly?

Commented [JR34]: Not sure whether it makes sense to use the long name according to PS3.6 Table A-1. Also see previous row.

Commented [JR35]: Only for -MPEG2 profiles?

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement	FSU Requirement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG2 Main Profile @ High Level 1.2.840.10008.1.2.4.101	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG-4 AVC/H.264 High Profile / Level 4.1 1.2.840.10008.1.2.4.102	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG-4 AVC/H.264 BD-compatible High Profile / Level 4.1 1.2.840.10008.1.2.4.103	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

Commented [JR36]: See above.

Commented [JR37]: Only for -MPEG4 profiles?

Commented [JR38]: See above.

The SOP Classes and corresponding Transfer Syntaxes supported by these Application Profiles are specified in the Table M.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR39]: See above comment.

Change PS3.11 Section N.3.1

N.3.1 SOP Classes and Transfer Syntaxes

These Application Profiles are based on the Media Storage Service Class with the Interchange Option (see PS3.4).

Commented [JR40]: See above comment.

Table N.3-1. STD-GEN-BD-MPEG4-LV42 and STD-GEN-SEC-BD-MPEG4-LV42 SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement	FSU Requirement
Basic Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian Uncompressed 1.2.840.10008.1.2.1	Mandatory	Mandatory	Mandatory
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG-4 AVC/H.264 High Profile / Level 4.2 For 2D Video 1.2.840.10008.1.2.4.104	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG-4 AVC/H.264 High Profile / Level 4.2 For 3D Video 1.2.840.10008.1.2.4.105	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

Information Object Definition	SOP Class UID	Transfer Syntax <u>Name</u> and UID	FSC Requirement	FSR Requirement	FSU Requirement
Multi-frame Composite IODs for which a Media Storage SOP Class is defined in PS3.4	See PS3.4	MPEG-4 AVC/H.264 Stereo High Profile / Level 4.2 1.2.840.10008.1.2.4.106	Defined in Conformance Statement	Mandatory for all SOP Classes defined in Conformance Statement	Defined in Conformance Statement

The SOP Classes and corresponding Transfer Syntaxes supported by these Application Profiles are specified in the Table N.3-1. The supported Storage SOP Class(es) shall be listed in the Conformance Statement using a table of the same form.

Commented [JR41]: See above comment.