DICOM Correction Proposal

Status: Assigned
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Person Assigned: David Clunie
dclunie@dclunie.com
Submitter Name: Mario Degenhardt
mario.degenhardt@brainlab.com
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CORRECTION NUMBER: CP-1267

Log Summary: Video streams are independent and may not span instances

Name of Standard
PS 3.5 2011

Rationale for Correction:
Videos to be encoded in DICOM may be too large for one instance and may need to be split, but each instance must be independent and playable without dependence on other (previous) instances.
Further, the manner in which such separate instances are related is not specified in the standard, but a note is added to suggest that mechanisms such as grouping into the same Series, and references to earlier instances using Referenced Image Sequence may be used

Correction wording:

Amend PS 3.05:

8.2.6 MPEG2 MP@HL IMAGE COMPRESSION
...
One fragment shall contain the whole MPEG2 bit stream.

Notes: 1. If a video stream exceeds the maximum length of one fragment (approximately 4 GB), it may be sent as multiple SOP Instances, but each SOP Instance must contain an independent and playable bit stream, and not depend on the encoded bit stream in other (previous) instances. The manner in which such separate instances are related is not specified in the standard, but mechanisms such as grouping into the same Series, and references to earlier instances using Referenced Image Sequence may be used.
2. This constraint limits the length of the compressed bit stream to no longer than $2^{32}$ - 2 bytes.

8.2.7 MPEG-4 AVC/H.264 High Profile / Level 4.1 Video Compression
...
One fragment shall contain the whole MPEG-4 AVC/H.264 bit stream.

Note: If a video stream exceeds the maximum length of one fragment (approximately 4 GB), it may be sent as multiple SOP Instances, but each SOP Instance must contain an independent and playable bit stream, and not depend on the encoded bit stream in other (previous) instances. The manner in which such separate instances are related is not specified in the standard, but mechanisms such as grouping into the same Series, and references to earlier instances using Referenced Image Sequence may be used.