## DICOM Correction Proposal Form

<table>
<thead>
<tr>
<th>Correction Number</th>
<th>CP 213</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Summary: DX Image Storage Clarifications</td>
<td></td>
</tr>
<tr>
<td>Type of Modification: Clarification</td>
<td>Name of Standard</td>
</tr>
<tr>
<td></td>
<td>PS 3.4 - 2000</td>
</tr>
</tbody>
</table>

Rationale for Correction: The DX Image Storage contains two SOP Classes one FOR PRESENTATION that is defined as a baseline and an optional SOP Class FOR PROCESSING. This raise a few questions that if the standard doesn’t answer it in a clarification it can lead to different interpretation and implementation that might reside with interoperability problems among different DX Image Storage implementers. This Coupling of the FOR PROCESSING SOP Class with the FOR PRESENTATION need to be clarified such as to answer the following questions:

1. Can an SCU negotiate for the FOR PROCESSING SOP Class without negotiating for the FOR PRESENTATION SOP Class. The answer is “yes”.

2. How can the SCP check whether or not the SCU supports the baseline FOR PRESENTATION SOP class is supported when only the FOR PROCESSING SOP class is negotiated. The answer is twofold: the SCU is always required to support the baseline, and there is no way for the SCP to check this in real-time.

Sections of document affected:
PS 3.4-2000  B.5.1.1

Correction Wording:
See below.
B.5.1.1 Digital X-Ray Image Storage SOP Classes

The Digital X-Ray Image Storage - For Presentation SOP Class shall use the DX IOD with an Enumerated Value of FOR PRESENTATION for Presentation Intent Type (0008,0068).

The Digital X-Ray Image Storage - For Processing SOP Class shall use the DX IOD with an Enumerated Value of FOR PROCESSING for Presentation Intent Type (0008,0068).

An SCU or SCP of the Digital X-Ray Image Storage - For Processing SOP Class shall also support the Digital X-Ray Image Storage - For Presentation SOP Class.

Notes:
1. The intent of this requirement is to ensure a useful level of interoperability by avoiding the situation where an SCU might support only the Digital X-Ray Image Storage - For Processing SOP Class and an SCP only the Digital X-Ray Image Storage - For Presentation SOP Class, or vice versa. The burden is therefore to support the Digital X-Ray Image Storage - For Presentation SOP Class as a “baseline”.
2. The term “support” is used in this section in the sense that an SCU or SCP must be capable of sending or receiving the For Presentation SOP Class. There is no intent to imply that an SCU must always send an instance of the For Presentation SOP Class when an instance of the For Processing SOP Class is sent.

Nor is there any intent to imply that during Association establishment, that a Presentation Context for the For Presentation SOP Class has to be proposed by the initiator. However, an association acceptor may reject a For Presentation SOP Class Presentation Context if it accepts a For Processing SOP Class Presentation Context, and prefers that SOP Class, in which case it may no longer be able to “pass on” the object later as an SCU unless it is able to generate a For Presentation object.

It is not possible for an SCP to determine from proposed Presentation Contexts whether or not an SCU “supports” (is capable of sending) both For Processing and For Presentation SOP Class Instances. Such a determination requires a priori knowledge of the information contained in the Conformance Statement for the SCU, as well as how the SCU is configured and operated. An SCU that supports both SOP Classes may well choose to only propose one or the other during Association establishment, depending on which Instances it actually intends to send over that particular association (although the SCU must be capable of sending instances of the For Presentation SOP Class if the SCP does not accept the For Processing).

The intent of the requirement is that if an SCU is only capable of sending the For Presentation SOP Class, any SCP will be guaranteed to be able to receive it. Conversely, if an SCP is only capable of receiving the For Presentation SOP Class, any SCU will be guaranteed to be able to send it.