Add keywords to data dictionary

DICOM Correction Item

Correction Number: CP-850
Log Summary: Add keywords to data dictionary

Type of Modification: Correction
Name of Standard: PS 3.6, 3.7 2008

Rationale for Correction

Many tools and toolkits for DICOM data make use of keywords rather than full descriptions or group and element tags for convenience, to increase readability and to reduce error. It is desirable for there to be a common definition and form of keywords maintained in the standard.

Sections of documents affected
PS 3.6 Sections 6, 7 and 8
PS 3.7 Annex E

Correction Wording:

Instruction to the editor for each table in PS 3.6 Sections 6, 7 and 8 and PS 3.7 Annex E:

- add a column entitled “Keyword” to the table
- for each element in the table, insert text in the Keyword column derived from the text in the Name column (Message Field column in PS 3.7) such that:
  - white space and punctuation is removed (e.g., “View Number” becomes “ViewNumber”)
  - words are capitalized (e.g., “Number of Stages” becomes “NumberOfStages”) except when the capitalization indicates a unit modifier and is significant (e.g. “Exposure Time in ms” becomes “ExposureTimeInms”)
  - singular/plural alternative forms are made plural (e.g., “Physician(s) of Record” becomes “PhysiciansOfRecord”)
  - possessive indication is elided without losing plurality consistent with specified value multiplicity (e.g., “Patient’s Name” becomes “PatientName” (VM=1) but “Operators’ Name” becomes “OperatorsName” (VM=1-n)
  - non-alpha numeric characters are replaced with an appropriate alternative (e.g., “μ” becomes “u” such that “Exposure Time in μS” becomes “ExposureTimeInuS”)
  - subscripts and superscripts are made normal style (e.g., “Reference Pixel X₀” becomes “ReferencePixelX0”)

For example:

<table>
<thead>
<tr>
<th>Tag</th>
<th>Name</th>
<th>Keyword</th>
<th>VR</th>
<th>VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0008,0001)</td>
<td>Length to End</td>
<td>LengthToEnd</td>
<td>UL</td>
<td>1  RET</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------</td>
<td>--------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0008,0005)</td>
<td>Specific Character Set</td>
<td>SpecificCharacterSet</td>
<td>CS 1-n</td>
<td></td>
</tr>
<tr>
<td>(0008,0008)</td>
<td>Image Type</td>
<td>ImageType</td>
<td>CS 2-n</td>
<td></td>
</tr>
<tr>
<td>(0008,0010)</td>
<td>Recognition Code</td>
<td>RecognitionCode</td>
<td>CS 1 RET</td>
<td></td>
</tr>
</tbody>
</table>