**DICOM Correction Proposal Form**

**Correction Number**: CP-947

**Log Summary**: Define explicitly calendar system

**Type of Modification**: Clarification

**Name of Standard**: P.S 3. – 2008

**Rationale for Correction:**

The DICOM standard has implicitly used Gregorian system and this should be made explicit.

Note that the use of the Gregorian Calendar in DICOM does not imply any constraint on the way the date will be displayed to the final user.

**Sections of documents affected**

PS 3.5, 6.2, Table 6.2-1

**Correction Wording**:

**Table 6.2-1  
DICOM VALUE REPRESENTATIONS**

<table>
<thead>
<tr>
<th>VR Name</th>
<th>Definition</th>
<th>Character Repertoire</th>
<th>Length of Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA</td>
<td>Date</td>
<td>“0”–“9”, Default Character Repertoire</td>
<td>8 bytes fixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the context of a Query with range matching (see PS3.4), the length is 18 bytes maximum.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DT</td>
<td>Date Time</td>
<td>“0”.“9”, “+”, “-”, “.”, and the SPACE character of Default Character Repertoire</td>
<td>26 bytes maximum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the context of a Query with range matching (see PS3.4), the length is 54 bytes maximum.</td>
<td></td>
</tr>
</tbody>
</table>
&ZZXX is an optional suffix for offset from Coordinated Universal Time (UTC), where & = “+” or “-”, and ZZ = Hours and XX = Minutes of offset.

The year, month, and day shall be interpreted as a date of the Gregorian calendar system.

A 24-hour clock is used. Midnight shall be represented by only "0000" since "2400" would violate the hour range.

The Fractional Second component, if present, shall contain 1 to 6 digits. If Fractional Second is unspecified the preceding ",," shall not be included. The offset suffix, if present, shall contain 4 digits. The string may be padded with trailing SPACE characters. Leading and embedded spaces are not allowed.

A component that is omitted from the string is termed a null component. Trailing null components of Date Time indicate that the value is not precise to the precision of those components. The YYYY component shall not be null. Non-trailing null components are prohibited. The optional suffix is not considered as a component.

A Date Time value without the optional suffix is interpreted to be in the local time zone of the application creating the Data Element, unless explicitly specified by the Timezone Offset From UTC (0008,0201).

UTC offsets are calculated as "local time minus UTC". The offset for a Date Time value in UTC shall be +0000.

Notes:
1. The range of the offset is -1200 to +1400. The offset for United States Eastern Standard Time is -0500. The offset for Japan Standard Time is +0900.
2. The RFC 2822 use of -0000 as an offset to indicate local time is not allowed.
3. A Date Time value of 195308 means August 1953, not specific to particular day. A Date Time value of 19530827111300.0 means August 27, 1953, 11:13 a.m. accurate to 1/10th second.
4. The Second component may have a value of 60 only for a leap second.
5. The offset may be included regardless of null components; e.g., 2007-0500 is a legal value.