

DICOM Correction Proposal Form

Tracking Information - Administration Use Only	
Correction Proposal Number	CP-154_01
STATUS	Assigned
Date of Last Update	1999/03/22
Person Assigned	Cor Loef
Submitter Name	Cor Loef
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Correction Number	CP-154
Log Summary: Multibyte Character set clarifications	
Type of Modification	Name of Standard
Clarification	PS 3.3,3.5-1998
<p>Rationale for Correction</p> <p>The default character repertoire or the character repertoire specified by value 1 of Attribute Specific Character Set (0008,0005) may be extended using the Code Extension techniques specified by ISO/IEC 2022. The related Specific Character Sets shall be specified by value 2 to n of the Attribute Specific Character Set (0008,0005). ISO/IEC introduces the concepts code elements (G0,G1,G2 and G3) and the area in which the code elements are invoked GL or GR).</p> <p>There are certain restrictions in DICOM. One of these restrictions is that the Graphic Character sets G0 and G1 shall be invoked in GL and GR respectively, Code elements G0 and G1 always have shift status, and code elements G2 and G3 are not used.</p> <p>So far so good.</p> <p>The questions arise when we take a look at tables C.12-3 and C.12-4 in PS3.3. Defined terms for character sets are specified here, and also one ESC sequence and one code element per ISO registration number.</p> <p>Question 1: What is the meaning and intent of this table? Does this table specify the assumed initial states, or does this table also list the allowed ESC sequences?</p> <p>If this table list the allowed ESC sequence, then there's a conflict with PS3.5 Annex H in which additional ESC sequences are used to designate the character sets to other code elements. E.g. ISO-IR 87 and ISO-IR 159 may be designated to G1, and table C.12-4 only lists code element G0 for this character set. In this case Annex H should be corrected.</p> <p>If this table list only the ESC sequences for the initial state, then an additional note would be helpful to make implementers aware that the list in the table is not exhaustive, and more details</p>	

may be found in PS3.5, and ISO/IEC 2022.

In case this is the intent, example H.3.1 in PS3.5 Annex H can be made much simpler, because one could designate ISO-IR 87 only once to the G1 code element, and keep ISO-IR 6 in the G0 code element. No switching would be needed in front of and after the “=” and “^” characters.

Which bring me to the second question:

Question 2: In PS3.5 section 6.1.2.5.3. the requirement is defined that the default character repertoire shall be active in some listed instances. But what is meant by: “the default character repertoire”? Is this both the G0 and G1 code element, or just the G0 code element?

This should be clearly defined.

Sections of documents affected

PS 3.3, section C.12.1.1.2

PS 3.5, section 6.1 and Annex H

Correction Wording:

Amend PS 3.3 and PS3.5 depending on answers to above questions

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