

DICOM Correction Proposal

STATUS	Assigned
Date of Last Update	2026/05/08
Person Assigned	steven.nichols@gehealthcare.com
Submitter Name	Jouke Numan (jouke.numan@gehealthcare.com)
Submission Date	2025/05/27

Correction Number	CP-2537
Log Summary: Clarify character repertoire wording and update related character set tables	
Name of Standard	PS3.2, PS3.3, PS3.5
<p>Rationale for Correction:</p> <p>This CP clarifies wording related to Character Repertoires and Graphic Characters and updates related character set tables for consistency. It avoids changing the treatment of Control Characters beyond the specific clarifications included in the change wording.</p> <p>June 2026</p> <ul style="list-style-type: none"> Undo changes in Table 6.2-1. DICOM Value Representations Revert definition changes in PS3.5 Section 3.10 Kept the basic technical updates, including table updates and related cleanup. Simplified and clarified Section 6.1.2 wording to improve logical flow and readability for non-native English speakers.) 	
<p>Correction Wording:</p> <p><include proposed change below, following guidelines for formatting of changes in supplements></p>	

Update PS3.2, Table N.1-15. Supported Specific Character Sets as follows:

Table N.1-15. Supported Specific Character Sets

Defined Term	IANA	Description
Single-Byte Character Sets without Code Extensions		
ISO-IR 6 none	ISO-646 or US-ASCII	Default Character Repertoire
<i>ISO_IR 100</i>	<i>ISO-8859-1</i>	<i>Latin Alphabet No.1 (West Europe)</i>
Single-Byte Character Sets with Code Extension		
<i>ISO 2022 IR 6</i>		Default Character Repertoire
<i>ISO 2022 IR 100</i>		<i>Latin Alphabet No. 1 (West Europe)</i>
Multi-Byte Character Sets without Code Extensions		
<i>ISO_IR 192</i>	<i>UTF-8</i>	<i>Unicode in UTF-8 Level 3</i>

Defined Term	IANA	Description
GB18030	GB18030	GB18030-2000 (P.R China Norm GB18030)
Multi-Byte Character Sets with Code Extensions		
ISO 2022 IR 87	ISO-2022-JP	Japanese JIS X 0208
ISO 2022 IR 149	ISO-2022-KR	Korean

Kommentiert [SN1]: cp2354

6 **Update PS3.2, Section N.5.7 Specific Character Sets as follows:**

7 N.5.7 Specific Character Sets

8 See Section N.1.7 for supported Values for Specific Character Set (0008,0005).

9 Generic configuration for Specific Character Sets is covered in Section N.6.1. Service specific configuration for Specific
10 Character Sets is addressed in respective subsections of Section N.6.2 or Section N.6.3.

11 *[Describe behaviors such as the whether your product sends value 1, e.g.:]*

12 This product omits Value 1 of Specific Character Set (0008,0005) when multiple values are present. Per PS3.5, the
13 empty Value 1 indicates usage of ISO 2022 IR 6.

14 *[Describe the presentation of the characters to a user, i.e., capabilities, font limitations and/or substitutions of
15 characters.]*

16 *[If your product supports display/editing of non-default Character Sets, fill in the following table, otherwise remove the
17 following table and introductory text.]*

18 <Product> supports displaying character sets beyond the default eCharacter rRepertoire (ISO-IR 6) for all displayed
19 attributes.

20 <Product> supports editing character sets beyond the default eCharacter rRepertoire (ISO-IR 6) for the attributes
21 listed in Table N.5-164a

22 **Correct ISO standard URI's in ISO references and add new references for IR 58, 87, 149 and 159 in
23 PS3.3 Section 2.1:**

24 2.1 International Organization for Standardization (ISO) and 25 International Electrotechnical Commission (IEC)

26 ...

27 [ISO IR 13] ISO. 1975. *Registration - The Japanese KATAKANA graphic set of characters.* [http://](http://www.itsec.ipsj.or.jp/iso-ir/https://standards.iso.org/iso-iec/tr/2375/ed-1/en/013.pdf)
28 [www.itsec.ipsj.or.jp/iso-ir](http://www.itsec.ipsj.or.jp/iso-ir/https://standards.iso.org/iso-iec/tr/2375/ed-1/en/013.pdf) <https://standards.iso.org/iso-iec/tr/2375/ed-1/en/013.pdf>.

29 [ISO IR 14] ISO. 1975. *Registration - The Japanese Roman graphic set of characters.* [http://www.itsec.ipsj.or.jp/](http://www.itsec.ipsj.or.jp/iso-ir/https://standards.iso.org/iso-iec/tr/2375/ed-1/en/014.pdf)
30 [iso-ir https://standards.iso.org/iso-iec/tr/2375/ed-1/en/014.pdf](https://standards.iso.org/iso-iec/tr/2375/ed-1/en/014.pdf) .

31 **[ISO IR 58] ISO. 1980. *Registration - Chinese Character Set Chinese Standard GB 2312-80.***
32 <https://standards.iso.org/iso-iec/tr/2375/ed-1/en/058.pdf>

33 **[ISO IR 87] ISO. 1984. *Registration - Japanese Character Set JIS C 6226-1983.*** [https://standards.iso.org/iso-](https://standards.iso.org/iso-iec/tr/2375/ed-1/en/087.pdf)
34 [iec/tr/2375/ed-1/en/087.pdf](https://standards.iso.org/iso-iec/tr/2375/ed-1/en/087.pdf)

35 [ISO IR 100] ISO. 1986. *Registration - Right-hand Part of the Latin Alphabet Nr. 1.* [http://www.itsec.ipsj.or.jp/iso-ir](http://www.itsec.ipsj.or.jp/iso-ir/https://standards.iso.org/iso-iec/tr/2375/ed-1/en/100.pdf)
36 <https://standards.iso.org/iso-iec/tr/2375/ed-1/en/100.pdf>.

37 [ISO IR 101] ISO. 1986. *Registration - Right-hand Part of the Latin Alphabet Nr. 2.* [http://www.itsec.ipsj.or.jp/iso-ir](http://www.itsec.ipsj.or.jp/iso-ir/https://standards.iso.org/iso-iec/tr/2375/ed-1/en/101.pdf)
38 <https://standards.iso.org/iso-iec/tr/2375/ed-1/en/101.pdf>.

- 39 [ISO IR 109] ISO. 1986. *Registration - Right-hand Part of the Latin Alphabet Nr. 3.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/109.pdf>.
- 40
- 41 [ISO IR 110] ISO. 1986. *Registration - Right-hand Part of the Latin Alphabet Nr. 4.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/110.pdf>.
- 42
- 43 [ISO IR 126] ISO. 1986. *Registration - Right-hand Part of the Latin/Greek alphabet.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/126.pdf>.
- 44
- 45 [ISO IR 127] ISO. 1986. *Registration - Right-hand Part of Latin/Arabic alphabet.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/127.pdf>.
- 46
- 47 [ISO IR 138] ISO. 1987. *Registration - Latin/Hebrew alphabet.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/138.pdf>.
- 48
- 49 [ISO IR 144] ISO. 1988. *Registration - Cyrillic Part of the Latin/Cyrillic Alphabet.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/144.pdf>.
- 50
- 51 [ISO IR 148] ISO. 1988. *Registration - Right-hand Part of Latin alphabet No. 5.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/148.pdf>.
- 52
- 53 **[ISO IR 149] ISO. 1988. *Registration - Korean Graphic Character Set, Korean Standard KSC 5601-1987.***
- 54 **<https://standards.iso.org/iso-iec/tr/2375/ed-1/en/149.pdf>**
- 55 **[ISO IR 159] ISO. 1991. *Registration - Supplementary Japanese Graphic Character Set for Information***
- 56 ***Interchange.* <https://standards.iso.org/iso-iec/tr/2375/ed-1/en/159.pdf>**
- 57 [ISO IR 166] ISO. 1992. *Registration - Thai Character Set.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/166.pdf>.
- 58
- 59 [ISO IR 192] ISO. 1996. *Registration - UCS Transformation Format (UTF-8), implementation level 3, without standard return.* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/192.pdf>.
- 60
- 61 [ISO IR 203] ISO. 1998. *Registration - European supplementary Latin set ("Latin 9").* <http://www.itscj.ipsj.or.jp/iso-ir-https://standards.iso.org/iso-iec/tr/2375/ed-1/en/203.pdf>
- 62

63 **Remove "Number of characters" column from PS3.3 Table C.12-2:**

64 **Table C.12-2. Defined Terms for Single-Byte Character Sets Without Code Extensions**

65

Character Set Description	Defined Term	ISO Registration Number	<u>Number of Characters</u>	Code Element	Character Set
Default Character Repertoire	none	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 1	ISO_IR 100	ISO-IR 100	<u>96</u>	G1	[ISO IR 100] [ISO/IEC 8859-1]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 2	ISO_IR 101	ISO-IR 101	<u>96</u>	G1	[ISO IR 101] [ISO/IEC 8859-2]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 3	ISO_IR 109	ISO-IR 109	<u>96</u>	G1	[ISO IR 109] [ISO/IEC 8859-3]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 4	ISO_IR 110	ISO-IR 110	<u>96</u>	G1	[ISO IR 110]

Character Set Description	Defined Term	ISO Registration Number	<u>Number of Characters</u>	Code Element	Character Set
					[ISO/IEC 8859-4]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Cyrillic	ISO_IR 144	ISO-IR 144	<u>96</u>	G1	[ISO IR 144] [ISO/IEC 8859-5]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Arabic	ISO_IR 127	ISO-IR 127	<u>96</u>	G1	[ISO IR 127] [ISO/IEC 8859-6]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Greek	ISO_IR 126	ISO-IR 126	<u>96</u>	G1	[ISO IR 126] [ISO/IEC 8859-7]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Hebrew	ISO_IR 138	ISO-IR 138	<u>96</u>	G1	[ISO IR 138] [ISO/IEC 8859-8]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 5	ISO_IR 148	ISO-IR 148	<u>96</u>	G1	[ISO IR 148] [ISO/IEC 8859-9]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 9	ISO_IR 203	ISO-IR 203	<u>96</u>	G1	[ISO IR 203] [ISO/IEC 8859-15]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]
Japanese	ISO_IR 13	ISO-IR 13	<u>94</u>	G1	[ISO IR 13] [JIS X 0201]: Katakana
		ISO-IR 14	<u>94</u>	G0	[ISO IR 14] [JIS X 0201]: Romaji
Thai	ISO_IR 166	ISO-IR 166	<u>98</u>	G1	[ISO IR 166] [TIS 620-2533]
		ISO-IR 6	<u>94</u>	G0	[ISO 646]

66 Remove "Number of characters" column from PS3.3 Table C.12-3:

Table C.12-3. Defined Terms for Single-Byte Character Sets with Code Extensions

Character Set Description	Defined Term	Standard for Code Extension	ESC Sequence	ISO Registration Number	<u>Number of Characters</u>	Code Element	Character Set
Default Character Repertoire	ISO 2022 IR 6	ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 1	ISO 2022 IR 100	ISO 2022	ESC 02/13 04/01	ISO-IR 100	<u>96</u>	G1	[ISO IR 100] [ISO/IEC 8859-1]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 2	ISO 2022 IR 101	ISO 2022	ESC 02/13 04/02	ISO-IR 101	<u>96</u>	G1	[ISO IR 101] [ISO/IEC 8859-2]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 3	ISO 2022 IR 109	ISO 2022	ESC 02/13 04/03	ISO-IR 109	<u>96</u>	G1	[ISO IR 109] [ISO/IEC 8859-3]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 4	ISO 2022 IR 110	ISO 2022	ESC 02/13 04/04	ISO-IR 110	<u>96</u>	G1	[ISO IR 110] [ISO/IEC 8859-4]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Cyrillic	ISO 2022 IR 144	ISO 2022	ESC 02/13 04/12	ISO-IR 144	<u>96</u>	G1	[ISO IR 144] [ISO/IEC 8859-5]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Arabic	ISO 2022 IR 127	ISO 2022	ESC 02/13 04/07	ISO-IR 127	<u>96</u>	G1	[ISO IR 127] [ISO/IEC 8859-6]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Greek	ISO 2022 IR 126	ISO 2022	ESC 02/13 04/06	ISO-IR 126	<u>96</u>	G1	[ISO IR 126] [ISO/IEC 8859-7]

Character Set Description	Defined Term	Standard for Code Extension	ESC Sequence	ISO Registration Number	<u>Number of Characters</u>	Code Element	Character Set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Hebrew	ISO 2022 IR 138	ISO 2022	ESC 02/13 04/08	ISO-IR 138	<u>96</u>	G1	[ISO IR 138] [ISO/IEC 8859-8]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 5	ISO 2022 IR 148	ISO 2022	ESC 02/13 04/13	ISO-IR 148	<u>96</u>	G1	[ISO IR 148] [ISO/IEC 8859-9]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Latin alphabet No. 9	ISO 2022 IR 203	ISO 2022	ESC 02/13 06/02	ISO-IR 203	<u>96</u>	G1	[ISO IR 203] [ISO/IEC 8859-15]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]
Japanese	ISO 2022 IR 13	ISO 2022	ESC 02/09 04/09	ISO-IR 13	<u>94</u>	G1	[ISO IR 13] [JIS X 0201]: Katakana
		ISO 2022	ESC 02/08 04/10	ISO-IR 14	<u>94</u>	G0	[ISO IR 14] [JIS X 0201]: Romaji
Thai	ISO 2022 IR 166	ISO 2022	ESC 02/13 05/04	ISO-IR 166	<u>88</u>	G1	[ISO IR 166] [TIS 620-2533]
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	<u>94</u>	G0	[ISO 646]

68 **Update PS3.3 Table C.12-4 to Remove "Number of characters" column from table and add**
69 **references in "Character Set" column:**

70 **Table C.12-4. Defined Terms for Multi-Byte Character Sets with Code Extensions**
71

Character Set Description	Defined Term	Standard for Code Extension	ESC Sequence	ISO Registration Number	<u>Number of Characters</u>	Code Element	Character Set
Japanese	ISO 2022 IR 87	ISO 2022	ESC 02/04 04/02	ISO-IR 87	<u>942</u>	G0	[ISO IR 87] [JIS X 0208]: Kanji

99 6.1 Support of Character Repertoires

100 Values that are text or character strings can be composed of Graphic and Control Characters. The Graphic Character
101 set, independent of its encoding, is referred to as a Character Repertoire. Depending on the native language context
102 in which Application Entities wish to exchange data using the DICOM Standard, different Character Repertoires will be
103 used. The Character Repertoires supported by DICOM are:

- 104 • [ISO 646] 7-bit code character set
- 105 • [ISO/IEC 8859] 8-bit single-byte coded graphic character sets

106 **Update PS3.5 6.1.2 Graphic Characters as follows:**

107 6.1.2 Graphic Characters

108 A Character Repertoire, or character set, is a defined collection of Graphic Characters, specified It specifies the
109 characters that may be used, independently of their the encoding used to represent them.

110 6.1.2.1 Default Character Repertoire

111 The dDefault Character repertoire for character strings in DICOM shall be the Basic G0 Set of the International
112 Reference Version of [ISO 646] (ISO-IR 6). See Annex E for a table of the DICOM dDefault Character repertoire and
113 Permissible Control Characters-its encoding.

114 Note

115 This Basic G0 Set is identical with the common character set of [ISO/IEC 8859].

116 **Update PS3.5 Section 6.1.2.3 Encoding of Character Repertoires, as follows:**

117 6.1.2.3 Encoding of Character Repertoires

118 The 7-bit Default Character Repertoire can be replaced for use in Value Representations SH, LO, ST, LT, PN, UC and
119 UT with one of the single-byte codesSingle-Byte Character Sets defined in PS3.3.

120 **Add C0 set to Initial Designation and reference to IR-1 and IR-6 in PS3.5 Section 6.1.2.5. as**
121 **follows:**

122 6.1.2.5.4 Levels of Implementation and Initial Designation

123 a. Attribute Specific Character Set (0008,0005) not present:

- 124 • 7-bit code
- 125 • Implementation level: [ISO/IEC 2022] Level 1 - Elementary 7-bit code (code-level identifier 1)
- 126 • Initial designation:
 - 127 • [ISO-IR 6] (ASCII) as G0.
 - 128 • [ISO-IR 1] (C0 set from [ISO 646]) as C0.

129 • Code Extension shall not be used.

130 b. Attribute Specific Character Set (0008,0005) single Value other than "ISO_IR 192", "GB18030" or "GBK":

- 131 • 8-bit code
- 132 • Implementation level: [ISO/IEC 2022] Level 1 - Elementary 8-bit code (code-level identifier 11)
- 133 • Initial designation:
 - 134 • One of the [ISO/IEC 8859] defined character sets, the 8-bit code table [TIS 620-2533], or the 8-bit code
 - 135 table of [JIS X 0201] specified by Value 1 of Specific Character Set (0008,0005), as G0 and G1.
 - 136 • [ISO-IR 1] (C0 set from [ISO 646]) as C0.

- 137 • Code Extension shall not be used.
- 138 c. Attribute Specific Character Set (0008,0005) multi-valued:
 - 139 • 8-bit code
 - 140 • Implementation level: [ISO/IEC 2022] Level 4 - Redesignation of Graphic Character Sets within a Code (code-
 - 141 level identifier 14)
 - 142 • Initial designation:
 - 143 - One of the [ISO/IEC 8859] defined character sets, the 8-bit code table [TIS 620-2533], or the 8-bit code
 - 144 table of [JIS X 0201] specified by Value 1 of Specific Character Set (0008,0005), as G0 and G1. If Value
 - 145 1 of Specific Character Set (0008,0005) is empty, ISO-IR 6 (ASCII) is assumed as G0, and G1 is
 - 146 undefined.
 - 147 - **[ISO-IR 1] (C0 set from [ISO 646]) as C0.**
 - 148 • All character sets specified in the various Values of Attribute Specific Character Set (0008,0005), including Value
 - 149 1, may participate in Code Extension.
- 150 d. Attribute Specific Character Set (0008,0005) single Value "ISO_IR 192", "GB18030" or "GBK":
 - 151 • variable length code
 - 152 • Implementation level: not specified (not compatible with [ISO/IEC 2022])
 - 153 • Initial designation: as specified by Value 1 of Specific Character Set (0008,0005)
 - 154 • Code Extension shall not be used.

155 **Update PS3.5 Section 6.1.3 Control Characters, as follows:**

156 **6.1.3 Control Characters**

157 Textual data that is interchanged may require some formatting information. Control Characters are used to indicate
 158 formatting, but their use in DICOM is kept to a minimum since some machines may handle them inappropriately. [ISO
 159 646] and ISO 6429:1990 define Control Characters. As shown in Table 6.1-1 below, only a subset of five Control
 160 Characters from the C0 set shall be used in DICOM for the encoding of Control Characters in text strings.

161 **Table 6.1-1. DICOM Control Characters and Their Encoding**

Acronym	Name	Coded Value
LF	Line Feed	00/10
FF	Form Feed	00/12
CR	Carriage Return	00/13
ESC	Escape	01/11
TAB	Horizontal Tab	00/09

163 The ESC character shall be used only for [ISO/IEC 2022] character set control sequences, in accordance with
 164 Section 6.1.2.5.

165 In text strings (Value Representation ST, LT, or UT) a new line shall be represented as CR LF.

166 Note

- 167 1. Some machines (such as UNIX based machines) may interpret LF (00/10) as a new line. In such cases,
 168 it is expected that the DICOM format is converted to the correct internal representation for that machine.
- 169 2. In previous editions of the Standard (see PS3.5-2015a), the TAB character was not listed as a Control
 170 Character.

171 3. Control Characters are not part of the Default Character Repertoire defined in Section 6.1.2.1,
 172 because a Character Repertoire contains only Graphic Characters. The DICOM Default Character
 173 Repertoire is the Basic G0 Set of ISO 646 / ISO-IR 6. Their permitted use in text strings is specified
 174 by the applicable Value Representation.

175 Update PS3.5 Section E as follows:

176 **E DICOM Default Character Repertoire**
 177 **and Permissible Control Characters**
 178 **(Normative)**

179
 180 The **Default Character Repertoire** for character strings in DICOM is the Basic G0 Set of the International Reference
 181 Version of [ISO 646] (ISO IR-6). In addition, the Control Characters LF, FF, CR, TAB and ESC are supported. These
 182 **Control Characters** are a subset of the C0 set defined in [ISO 646] and ISO 6429:1990.

183 The byte encoding of the Default Character Repertoire is pictured in Table E-1. This table can be used to derive both
 184 ISO column/row byte values and hex values for encoded representations (see Section 6.1.1).

185 **Table E-1. DICOM Default Character Repertoire Encoding and Permissible Control**
 186 **Characters**
 187

					b ₈	0	0	0	0	0	0	0	0	0
					b ₇	0	0	0	0	1	1	1	1	
					b ₆	0	0	1	1	0	0	1	1	
					b ₅	0	1	0	1	0	1	0	1	
b ₄	b ₃	b ₂	b ₁			00	01	02	03	04	05	06	07	
0	0	0	0	00				SP	0	@	P	`	p	
0	0	0	1	01				!	1	A	Q	a	q	
0	0	1	0	02				"	2	B	R	b	r	
0	0	1	1	03				#	3	C	S	c	s	
0	1	0	0	04				\$	4	D	T	d	t	
0	1	0	1	05				%	5	E	U	e	u	
0	1	1	0	06				&	6	F	V	f	v	
0	1	1	1	07				'	7	G	W	g	w	
1	0	0	0	08				(	8	H	X	h	x
1	0	0	1	09		TAB		)	9	I	Y	i	y
1	0	1	0	10		LF		*	:	J	Z	j	z	
1	0	1	1	11			ESC	+	;	K	[	k	{

					b₆	0	0	0	0	0	0	0	0
					b₇	0	0	0	0	1	1	1	1
					b₈	0	0	1	1	0	0	1	1
					b₅	0	1	0	1	0	1	0	1
b₄	b₃	b₂	b₁			00	01	02	03	04	05	06	07
1	1	0	0	12		FF		,	<	L	\	|	|
1	1	0	1	13		CR		-	=	M	]	m	}
1	1	1	0	14				.	>	N	^	n	~
1	1	1	1	15				/	?	O	_	o	

188 **Remove escape sequences for Code Elements not permitted in PS3.3 from PS3.5 Table H.1-1.**
189 **Change bolded table contents to normal font.**

190 **Table H.1-1. ISO/IEC 2022 Escape Sequence for ISO-IR 13 and ISO-IR 14**
191

	ISO-IR 14	ISO-IR 13
G0 set	ESC 02/08 04/10	ESC 02/08 04/09
G1 set	ESC 02/09 04/10	ESC 02/09 04/09

192 **Add escape sequence Table to PS3.5 Section H.1.2:**

193 **H.1.2 JIS X 0208**

194 [JIS X 0208] has the following code element:

- 195 • ISO-IR 87: Japanese kanji (ideographic), hiragana (phonetic), and katakana (phonetic) characters (94² characters,
196 2-byte).

197 **The Escape Sequence for ISO/IEC 2022 is shown for reference in Table H.1-Y (for the Defined**
198 **Terms, see PS3.3).**

199 **Table H.1-Y. ISO/IEC 2022 Escape Sequence for ISO-IR 87**
200

	ISO-IR 87
G0 set	ESC 02/04 04/02

201 **Note**

- 202 **1. The Escape Sequence for the designation function G0-DESIGNATE 94-SET, has first I byte 02/04**
203 **and second I byte 02/08. There is an exception to this: The second I byte 02/08 is omitted if the**
204 **Final Byte is 04/00, 04/01 or 04/02. See ISO/IEC 2022.**
- 205 **2. Defined Term ISO 2022 IR 87 for the Value of the Specific Character Set (0008,0005) only supports**
206 **the G0 set for ISO-IR 87. See PS3.3.**

207 **Update PS3.5 Section H.1.3. Remove irrelevant ISO-IR 87 column, G1 row and related notes.**
208 **Change bolded table contents to normal font.**
209

210 **H.1.3 JIS X 0212**

211 [JIS X 0212] has the following code element:

- 212 • ISO-IR 159: Supplementary Japanese kanji (ideographic) characters (94² characters, 2-byte)

213 The Escape Sequence for ISO/IEC 2022 is shown for reference in Table H.1-2 (for the Defined
214 Terms, see PS3.3)

215 **Table H.1-2. ISO/IEC 2022 Escape Sequence for ISO-IR 87 and ISO-IR 159**

	<u>ISO-IR 87</u>	ISO-IR 159
G0 set	<u>ESC 02/04 04/02</u>	ESC 02/04 02/08 04/04
<u>G1 set</u>	<u>ESC 02/04 02/09 04/02</u>	<u>ESC 02/04 02/09 04/04</u>

217 **Note**

218 **1. The Escape Sequence for the designation function G0-DESIGNATE 94-SET, has first I**
219 **byte 02/04 and second I byte 02/08. There is an exception to this: The second I byte**
220 **02/08 is omitted if the Final Byte is 04/00, 04/01 or 04/02. See ISO/IEC 2022.**

221 **2. Defined Term ISO 2022 IR 87159 for the Value of the Specific Character Set (0008,0005) only**
222 **supports the G0 set for ISO-IR 87, and Defined Term ISO 2022 IR 159 supports the G0 set**
223 **for ISO-IR 159. See PS3.3.**

224 **Add reference to ISO IR 87 in "Character Set Purpose of Use" column in PS3.5 Table H.3.1:**

225 **Table H.3-1. Character Sets and Escape Sequences Used in Example 1**

Character Set Description	Component Group	Value of (0008,0005) Defined Term	ISO Registration Number	Standard for Code Extension	ESC Sequence	Code Element	Character Set: Purpose of Use
Japanese	First: Single-byte	Value 1: none	ISO-IR 6			GL	[ISO 646]
	Second: Ideographic	Value 2: ISO 2022 IR 87	ISO-IR 87	ISO 2022	ESC 02/04 04/02	GL	[ISO IR 87] [JIS X 0208]: Japanese kanji, hiragana, katakana
		Value 1: none	ISO-IR 6	ISO 2022	ESC 02/08 04/02	GL	[ISO 646] for delimiters
	Third: Phonetic	Value 2: ISO 2022 IR 87	ISO-IR 87	ISO 2022	ESC 02/04 04/02	GL	[ISO IR 87] [JIS X 0208]: Japanese hiragana, and katakana
		Value 1: none	ISO-IR 6	ISO 2022	ESC 02/08 04/02	GL	[ISO 646] for delimiters

226 **Update PS3.5 Section I.1 as follows. Change bolded table contents to normal font.**

227 **I.1 Character Sets For The Korean Language in DICOM**

228 [KS X 1001] (registered as ISO-IR 149) is used as a Korean character set in DICOM. This character set is the one most
 229 broadly used for the representation of Korean characters. It can be encoded by [ISO/IEC 2022] code extension
 230 techniques, and is registered in [ISO 2375] **as [ISO IR 149]**.

231 The Escape Sequence is shown for reference in Table I.1-1 (see PS3.3)

232 **Table I.1-1. ISO/IEC 2022 Escape Sequence for ISO-IR 149**
 233

ISO-IR 149	
G0 set	ESC 02/04 02/08 04/03
G1 set	ESC 02/04 02/09 04/03

234 **PS3.5 Table I.3-1. Add [ISO IR 149] reference in "Character set Purpose of Use" column:**

235 **Table I.3-1. Character Sets and Escape Sequences Used in the Examples**
 236

Character Set Description	Component Group	Value of (0008,0005) Defined Term	ISO Registration Number	Standard for Code Extension	ESC Sequence	Code Element	Character Set: Purpose of Use
Korean	First: Single-byte	Value 1: none	ISO-IR 6			GL	[ISO 646]
	Second: Ideographic	Value 1: none	ISO-IR 6			GL	[ISO 646]: For delimiters
		Value 2: ISO 2022 IR 149	ISO-IR 149	ISO 2022	ESC 02/04 02/09 04/03	GR	[ISO IR 149] [KS X 1001]: Hangul and Hanja
	Third: Phonetic	Value 1: none	ISO-IR 6			GL	[ISO 646]: For delimiters
		Value 2: ISO 2022 IR 149	ISO-IR 149	ISO 2022	ESC 02/04 02/09 04/03	GR	[ISO IR 149] [KS X 1001]: Hangul and Hanja

237 **Update PS3.5 Section J. Add reference to "[ISO/IEC 10646]" and mention GBK as a character set**
 238 **for which ISO 2022 Character set replacement is not allowed.**

239 **J Character Sets and Person Name**
 240 **Value Representation using Unicode**
 241 **UTF-8, GB18030 and GBK (Informative)**

242 The Unicode UTF-8 character set [ISO/IEC 10646] and the [GB 18030] character set may be used for multiple
 243 languages. Some of these languages may also be encoded using other character sets that are defined elsewhere
 244 in the DICOM Standard. As Unicode UTF-8, and [GB 18030] and [GBK] encodings do not allow [ISO/IEC 2022]
 245 character set replacement, these must be used for all strings in a single SOP Instance. This may have implications
 246 for the character set selected for the encoding of the SOP Instance.

247 **Update PS3.5 Table K.1-1 as follows:**

248 **Table K.1-1. ISO/IEC 2022 Escape Sequence for ISO-IR 58**
 249

	ISO-IR 58
G0 set(ASCII)	ESC 02/08 04/02
G1 set	ESC 02/04 02/09 04/01

250 **Note**

251 **ISO-IR 58 is only used as a G1 set in DICOM.**

252 **Update PS3.5 Table K.3-1 Add "[ISO IR 58]" reference and rename "ISO 2022 CN" to "[GB2312]"**

253 **Table K.3-1. Character Sets and Escape Sequences used in the Examples of Person**
 254 **Name**
 255

Character Set Description	Component Group	Value of (0008,0005) Defined Term	ISO registration number	Standard for Code Extension	ESC Sequence	Code Element	Character Set: Purpose of Use
Chinese	First: Alphabetic (English name)	Value 1: none	ISO-IR 6			G0	[ISO 646]
	Second: Ideographic	Value 1: ISO 2022 IR 58	ISO-IR58	ISO 2022	ESC 02/04 02/09 04/01	G1	ISO 2022 CN:[ISO IR 58] [GB2312] Chinese
	Third: Phonetic	Value 1: none	ISO-IR 6	ISO 2022	ESC 02/08 04/02	G0	[ISO 646]: For delimiters

256