

# Specification ICC.1:2010 (Profile version 4.3.0.0)

Image technology colour management — Architecture, profile format,  
and data structure

## Cumulative Errata List

April 29, 2019

### Critical Technical Errors

Item #	Clause	Location	Correction
1	9.2.1	Table 25 Column 2 Row 7	Change "Table 22" to "Table 23"
2	10.9	In second paragraph under Table 41	Change " $1,0/(m^1)$ " to " $1,0/(m-1)$ "
3	10.9	In second paragraph under Table 41	Change " $m$ is 255" to " $m$ is 256"
4	10.14.1	Table 52	In the row corresponding to Byte positions 12 to 15, change "Field length" from "2" to "4".
5	10.16	Table 65	In second line of each row in the "Function type" column change the greater-than symbol ">" following the "X" to the less than symbol "<". (4 places)
6	10.19	Table 72, Rows 7, 8, 9, 10 Column 4	Change leading "43" to "44"
7	10.16	Table 65, Row 5, Column 2	Change $Y = aX + b + c$ to $Y = (aX + b)^e + e$
8	6.3.4.3	Following Table 16	Add: NOTE 1 Due to limited numerical precision, Y encoded as 114 (0072h) does not exactly match L* encoded as 8 (08h).
9	6.3.4.3	Following Table 16	Add: NOTE 2 Perceptual transforms developed to meet ICC specifications prior to version 4.0 frequently use zero to represent the black point, and thus do not conform to this specification. Such transforms should be adjusted by scaling the black point as needed. The white point should remain unchanged and all other values should be mapped linearly in XYZ. The following equations can be used for the adjustment of such a transform to the above PCS encoding. $X_p = X_t \cdot (1 - X_b/X_i) + X_b$ $Y_p = Y_t \cdot (1 - Y_b/Y_i) + Y_b$ $Z_p = Z_t \cdot (1 - Z_b/Z_i) + Z_b$ where: $X_t, Y_t, Z_t$ = original PCS XYZ value in the transform $X_b, Y_b, Z_b$ = XYZ values for the PCS perceptual black point ( $X = 0,003357, Y = 0,003479, Z = 0,002869$ ) $X_i, Y_i, Z_i$ = XYZ values of the PCS white point ( $X = 0,9642, Y = 1,0000, Z = 0,8249$ ) $X_p, Y_p, Z_p$ = the adjusted PCS XYZ value
10	10.5	Table 34	Change "If $n = 1$ , the field length is 1" to "If $n = 1$ , the field length is 2 bytes"

N.B. Item #7 correction was itself in error in previous versions of this errata list.

N.B. Items #8 and 9 corrections reinstate Notes 1 and 2 which were inadvertently removed from ICC.1:2010.

## Technical Errors

Item #	Clause	Location	Correction
1	0.5	Title of Fig 3 c)	Change "Using a lutBToAType model" to "Using a lutAToBType model".
2	0.5	Title of Fig 3 d)	Change "Using a lutBToAType model" to "Using a lutAToBType model".
3	0.5	Title of Fig 3 e)	Change "Using a lutBToAType model" to "Using a lutAToBType model".
4	0.8	C) in Figure 5	Channel number of Output device space"n" should be changed to "m".
5	7.2.11, B.1, B.5		Delete "GIF" from clause 7.2.11 and clause B.1 and delete clause B.5
6	6.2.1	Par 4 and Note 2	Change "colorimetric intent image state tag" to "colorimetricIntentImageStateTag"
7	7.2.6	Table 19, 2nd column	The signatures for "XYZ " and "Lab " are missing a trailing blank.
8	9.1	Last paragraph	Change "The DtoB3 and BtoD3 tags" to " The DtoB3Tag and BtoD3Tag"
9	9.1	Last paragraph	Change "in the DtoB3 and BtoD3 tags." to " in the DtoB3Tag and BtoD3Tag."
10	9.2.20	Fifth paragraph	Change "The scene colorimetry can result" to " The scene colorimetry estimates can result"
11	9.2.20	Fifth paragraph	Change "viewing conditions tag" to "viewingConditionsTag"
12	9.2.20	Note 2	Change "viewing conditions tag" to "viewingConditionsTag"
13	9.2.41	Note	Change "see also 8.2.11" to "7.2.11"
14	10.13	Table 51 2 <sup>nd</sup> row	Change " 'mluc' (0x6D6C7563) type signature" to " 'mluc' (6D6C7563h) type signature"
15	10.19	Table 72, Row 7	Change 'DN' to 'DN ' (add 2 spaces)
16	D.2.2	Par 1	Change "7.3.3" to "6.3.3"
17	D.3	Par 4	Change "7.3.2" to "6.3.2"
18	D.5	Par 2	Change "7.3" to "6.3"
19	D.6.1	Par 5	Change "3.1" to "3.1.1"
20	D.6.1	Par 6	Change "3.16" to "3.1.16"
21	D.6.3	Par 1	Change "step one" to "step a"
22	Matrix Mult	Throughout	Change blank box to "dot"
23	0.5	Title of Fig 2 c)	Change "Using a lutAToBType model" to "Using a lutBToAType model".
24	0.5	Title of Fig 2 d)	Change "Using a lutAToBType model" to "Using a lutBToAType model".
25	0.5	Title of Fig 2 e)	Change "Using a lutAToBType model" to "Using a lutBToAType model".
26	6.3.2.2	Last three lines	Delete from 6.3.2.2 and insert following equation 9 in 6.3.2.3
27	10.8	Table 37, Row 17	Change value of field length from 4 to 2
28	10.8	Table 37, Row 18	Change value of field length from 4 to 2
29	10.21	First paragraph	Change "Table 22" to "Table 18"