INTERNATIONAL STANDARD ISO/IEC 24787:2010
TECHNICAL CORRIGENDUM 1

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Information technology — Identification cards — On-card biometric comparison

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Cartes d'identification — Comparaison biométrique sur cartes

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 24787:2010 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

Throughout the document

Replace

compact format

with

card format

Replace

On-card comparison

with

On-card biometric comparison

ICS 35.240.15

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Replace

Off-card comparison

with

Off-card biometric comparison

Replace

Work-sharing on-card comparison

with

Work-sharing on-card biometric comparison

Replace

System-on-card comparison

with

System-on-card biometric comparison

Page 9, Clause 7.1.3.1, Table 1, Column 3, Row 10

Replace

See Table 5

with

See Table 3

Page 10, Clause 7.1.3.2, Table 2, Column 4, Row 4

Replace

Biometric data handling information

with

Feature handling indicator

Page 10, Clause 7.1.3.2, Table 2, Column 3, Row 7

Replace

See Table 5

with

See Table 3

Page 12, Clause 7.1.4.1.1, Second paragraph

Replace

The maximal score of the comparison can be determined or the comparison return can return positive result as soon as the threshold has been passed.

with

The maximal score of the comparison can be determined or alternatively the comparison return can return positive result as soon as the acceptance threshold has been passed.

Page 13, Clause 7.1.4.4, Title of Figure 5

Replace

Figure 5 – Example of sharing references and biometric references

with

Figure 5 – Example of sharing configurations and biometric references

Page 13, Clause 7.1.4.4, Second paragraph, Lines 2 and 3

Replace

(in either compact or expanded format as per ISO/IEC 7816-4)

with

(in either card or record format as per ISO/IEC 7816-4)

Page 21, B.1 a)

Replace

a) Using the biometric reference as a global element. This includes the following situations:

   1) Card with a single application that uses on-card biometric comparison

   2) Card with multiple applications that use on-card biometric comparison with a single comparison configuration (i.e. same threshold, same retry counter, etc.). In this case, if one application blocks the on-card biometric comparison mechanism, then all applications using the same verification mechanism will be affected. On the other hand, if one application has a successful verification, then for all applications the retry counter will be reset.

with

a) Using the comparison configuration data as a global element. This includes the following situations:

   1) Card with a single application that uses on-card biometric comparison

   2) Card with multiple applications that use on-card biometric comparison with a single comparison configuration (i.e. same threshold, same retry counter, etc.). In this case, if one application blocks the on-card biometric comparison mechanism, then all applications using the same verification mechanism will be affected. On the other hand, if one application has a successful verification, then for all applications the retry counter will be reset.

Page 21, B.1 b)

Replace

b) Using the biometric reference as a local element. This case includes the following situations:

   1) Each application has its own biometric reference structure, including the biometric reference data, configuration data such as thresholds and maximum value for the retry counter, retry counter, etc.

   2) All applications only share the same biometric reference data, but each application has its own configuration data (comparison configuration data), which includes the different thresholds, retry counter, etc.

with

b) Using the comparison configuration data as a local element. This case includes the following situations:

   1) Each application has its own biometric reference structure, including the biometric reference data, configuration data such as thresholds and maximum value for the retry counter, retry counter, etc.

   2) All applications only share the same biometric reference data, but each application has its own configuration data (comparison configuration data), which includes the different thresholds, retry counter, etc.

Page 21, Annex B, Table B.1

Replace

	SP1: Global Comparison Configuration Data	SP2: Local Comparison Configuration Data
a.1	X	
a.2	X	
b.1	X	
b.2		X

with

	SP1: Global Comparison Configuration Data	SP2: Local Comparison Configuration Data
a.1	X	
a.2	X	
b.1		X
b.2		X

Page 24, Table C.2

Replace

Tag Biometric Reference	Length of Data Object	Tag Biometric Data Standardized	Length of minutiae data	Minutiae data
0x7F2E	L+2	0x81	L	

with

Tag Biometric data	Length of Data Object	Tag Biometric Data Standardized	Length of minutiae data	Minutiae data
0x7F2E	L+2	0x81	L	

And also append the following note below Table C.2:

NOTE   In Table C.2, the reason for using the tag '7F2E' is because the value field contains a constructed biometric data object. The constructed biometric data object begins with the tag '0x81', followed by the actual biometric data value. Another potential implementation is to use the tag '5F2E' to encapsulate biometric data as primitive object explicitly.

Page 25, Annex C, first line below Figure C.1

Replace

The minutiae are scaled to metric units and compressed into the compact format for on-card biometric use.

with

The minutiae are scaled to metric units and compressed into the compact card format for on-card biometric comparison use.

Page 25, Annex C, Second paragraph after Figure C.1

Insert

"25" at the beginning of the data block to correct the minutiae data extracted from Figure C.1.

Page 25, Annex C, Fourth paragraph

Replace

Format type 6 from ISO/IEC 19794-2 was used to encode the minutiae. The minutia positions are at the ridge skeleton bifurcation points and the ridge skeleton end points. This is in analogy with ground truth as used by a manual fingerprint examiner and common practice with most vendors of fingerprint algorithms. Every minutia is represented by a triplet of bytes. The first minutia has horizontal position 0x5D, vertical position 0x69, type bifurcation and orientation are stored in 0x2D.

with

Format type 6 of format owner '0101' from ISO/IEC 19794-2 was used to encode the minutiae excluding any extended data. The minutia positions are at the ridge skeleton bifurcation points and the ridge skeleton end points. This is in analogy with ground truth as used by a manual fingerprint examiner and common practice with most vendors of fingerprint algorithms. Every minutia is represented by a triplet of bytes. The first minutia has horizontal position 0x25, vertical position 0x5D, type ridge end bifurcation and orientation 205° are stored in 0x69.

Page 25, Annex C, Fifth paragraph

Replace

A total of 35 minutiae were detected, which results in a total minutiae size of 3x35 = 105 bytes, hexadecimal 0x69.

with

A total of 38 minutiae were detected, which results in a total minutiae size of 3x38 = 114 bytes, hexadecimal 0x72.

Page 26, Annex C, Figure C.2, first block, below "Lc"

Replace

"0x6D"

with

"0x77"

Page 26, Annex C, Figure C.2, second block

Replace

Tag Biometric data	Length of Data Object	Tag Biometric Data Standardized	Length of minutiae data	Minutiae data
0x7F2E	0x6B	0x81	0x69	

with

Tag Biometric data	Length of Data Object	Tag Biometric Data Standardized	Length of minutiae data	Minutiae data
0x7F2E	0x74	0x81	0x72	

Page 26, Annex C, Figure C.2, third block

Insert

0x25 at the beginning of the data block.

Page 26, Annex C, First paragraph below Figure C.2, First line (Total command)

Replace

0x00 0x21 0x00 0x00 0x6D 0x7F 0x2E 0x6B 0x81 0x69 0x25 0x5D 0x69 0x2D 0xA1 0x43 0x2F

with

0x00 0x21 0x00 0x00 0x77 0x7F 0x2E 0x74 0x81 0x72 0x25 0x5D 0x69 0x2D 0xA1 0x43 0x2F