INTERNATIONAL STANDARD ISO/IEC 19794-5:2011/Amd.2:2015
TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION • МЕЖДУНАРОДНАЯ ЭЛЕКТРОТЕХНИЧЕСКАЯ КОМИССИЯ • COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

Information technology — Biometric data interchange formats —

Part 5:
Face image data

AMENDMENT 2: XML encoding and clarification of defects

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Formats d'échange de données biométriques —

Partie 5: Données d'image de la face

AMENDEMENT 2: Codage XML et précisions concernant les défauts

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 19794-5:2011/Amd.2:2015 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

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Replace row of R-173 in Table A.1 with the following row

R-173	5.10.7	**3D Capture Device Technology Identifier** In analogy to the Capture Device Technology Identifier field in the 2D Image Information block, where the source of the 2D data can be coded, the (1 byte) 3D Capture Device Technology Identifier field should be used to indicate the type of the source that was used to acquire the 3D data.	3C	O-1	Y	Y	Y		Y[3)]			

Insert the following text as extension to Annex A.3

Table A.6 – Conformance Test Assertions for XML Encodings of all Image Types

Test Number	Section	Requirement ID	Level	Field Name	Operator	Operand	Test Note	Status	Supported Range	IUT Support	Test Result
T-154	Representation Data	R-37	2	"CaptureDeviceTechnologyID"	EQ	"TechnologyID2D"		M			
T-155	3D Supplemental Data	R-173	2	"CaptureDeviceTechnologyID"	EQ	"TechnologyID3D"		O			
T-156	Image Information Block	R-115	2	"ImageFormat"	NEQ	"unspecified"		M			

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Add the following text to bullet "temporal semantics" in Annex F

See table F.16 on how to do this.

Add the following text to Annex F, bullet "change of definitions"

- "temporal synchronicity": due to the definition of a "short" value in the XML standard (xs:short), positive or negative values are now directly set, i.e., the two's compliant systems are merged into a single one. A value of 8000_{HEX} is now to be given as -32768.

Insert the following table as Table F.16 to Annex F of ISO/IEC 19794-5, AMD-2

Table F.16 – Guideline on how to derive Temporal Semantics (informative)

Value	Guideline
0000_{HEX} (one representation present)	The Representations element holds just one Representation.
0001_{HEX} (two or more representations with unspecified temporal semantics)	The Representations element holds more than one Representation.
0002_{HEX} (two or more representations taken at irregular intervals during a single session)	The values for CaptureDateAndTime of the Representation elements differ more than 65534 ms (see Note 2 of Table 3 and Note below).
0003_{HEX} (two or more representations taken in multiple sessions)	The values for CaptureDateAndTime of the Representation elements differ more than 65534 ms plus a reasonable period for a session (see Note below).
$0004_{HEX} \leq FFFE_{HEX}$ (number of milliseconds between sequential representations)	The number of milliseconds is the differences between the respective CaptureDateAndTime values.
$FFFF_{HEX}$ (temporal sequence at irregular intervals)	If the representations in the XML are ordered by means of their CaptureDateAndTime values and the difference between two representations is more than 65534 ms, this temporal semantics (0x0005) applies.

Replace in Table A.4 the following words

- "PointMap" with "Point Map" (2 replacements)

Replace XSD in Annex F by the following XSD

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns="http://standards.iso.org/iso-iec/19794/-5/ed-2/amd/2"
```

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```
xmlns:cmn="http://standards.iso.org/iso-iec/19794/-1/ed-2/amd/2"
targetNamespace="http://standards.iso.org/iso-iec/19794/-5/ed-2/amd/2"
elementFormDefault="qualified" attributeFormDefault="unqualified">
      <!--Permission is hereby granted, free of charge in perpetuity, to any person
obtaining a copy of the Schema, to use, copy, modify, merge and distribute free of
charge, copies of the Schema for the purposes of developing, implementing,
installing and using software based on the Schema, and to permit persons to whom
the Schema is furnished to do so, subject to the following conditions:
THE SCHEMA IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED,
INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A
PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT
HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION
OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE
SCHEMA OR THE USE OR OTHER DEALINGS IN THE SCHEMA.
In addition, any modified copy of the Schema shall include the following notice:
THIS SCHEMA HAS BEEN MODIFIED FROM THE SCHEMA DEFINED IN ISO/IEC 19794-5, AND
SHOULD NOT BE INTERPRETED AS COMPLYING WITH THAT STANDARD. -->
      <xs:import namespace="http://standards.iso.org/iso-iec/19794/-1/ed-2/amd/2"
schemaLocation="19794-1_ed2_amd2.xsd"/>
      <xs:complexType name="ExpressionMaskType">
            <xs:sequence>
                  <xs:element name="Neutral" type="xs:boolean"/>
                  <xs:element name="Smile" type="xs:boolean"/>
                  <xs:element name="RaisedEyebrows" type="xs:boolean"/>
                  <xs:element name="LookingAway" type="xs:boolean"/>
                  <xs:element name="Squinting" type="xs:boolean"/>
                  <xs:element name="Frowning" type="xs:boolean"/>
                  <xs:element name="VendorSpecific" type="xs:boolean"/>
            </xs:sequence>
      </xs:complexType>
      <xs:complexType name="FaceImageType">
            <xs:annotation>
                  <xs:documentation>root element</xs:documentation>
            </xs:annotation>
            <xs:sequence>
                  <xs:element name="Version" type="cmn:VersionType"/>
                  <xs:element name="Representations">
                        <xs:complexType>
                              <xs:sequence>
                                    <xs:element name="Representation"
type="FaceImageRepresentationType" maxOccurs="65535"/>
                              </xs:sequence>
                        </xs:complexType>
                  </xs:element>
            </xs:sequence>
            <xs:attribute ref="cmn:SchemaVersion" use="required"/>
      </xs:complexType>
      <xs:complexType name="FaceImageCaptureDeviceType">
            <xs:sequence>
                  <xs:element name="DeviceModelID" type="cmn:RegistryIDType"/>
                  <xs:element name="CaptureDeviceTechnologyID">
                        <xs:complexType>
                              <xs:choice>
                                    <xs:element name="TechnologyID2D"
type="CaptureDeviceTechnologyID2DType"/>
                                    <xs:element name="TechnologyID3D"
type="CaptureDeviceTechnologyID3DType"/>
                              </xs:choice>
                        </xs:complexType>
                  </xs:element>
            </xs:sequence>
      </xs:complexType>
      <xs:complexType name="FaceImageInformationType">
            <xs:sequence>
```

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