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Information technology — Biometric data interchange formats —

Part 7: Signature/sign time series data

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

Partie 7: Données de série chronologique de signature/signe

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Contents

Page

Foreword ... **iv**
1 Scope ... **1**
2 Conformance ... **1**
3 Normative references ... **2**
4 Terms and definitions ... **2**
5 Abbreviated terms ... **4**
6 Conventions ... **4**
6.1 Coordinate system ... 4
6.2 Octet and bit order ... 4
6.3 Registered format type identifiers ... 4
7 Channels ... **5**
7.1 General ... 5
7.2 Pen tip position channels: X, Y, Z ... 6
7.3 Pen tip velocity channels: VX, VY ... 6
7.4 Pen tip acceleration channels: AX, AY ... 6
7.5 Time channel: T ... 6
7.6 Time difference channel: DT ... 6
7.7 Pen tip force channel: F ... 6
7.8 Pen tip switch state channel: S ... 7
7.9 Pen orientation channels: TX, TY, A, E, R ... 7
8 Full format ... **8**
8.1 Record organisation ... 8
8.2 General header ... 9
8.3 Record body ... 10
9 Compact format ... **16**
9.1 Record organisation ... 16
9.2 Comparison algorithm parameters template ... 17
9.3 Embedment in a CBEFF data structure ... 18
9.4 Record body ... 19
10 Compression format ... **19**
10.1 Record organisation ... 19
10.2 General header ... 20
10.3 Record body ... 20
Annex A (normative) **Conformance testing methodology** ... **23**
Annex B (informative) **Best practices** ... **Data acquisition** ... **71**
Annex C (informative) **ASN.1 specification of the compact format** ... **72**
Annex D (informative) **Signature/sign coding examples** ... **75**
Bibliography ... **77**

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 19794-7 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

This second edition revises the first edition (ISO/IEC 19794-7:2007). Clauses 7 and 8 have been technically revised and it has been amended by Clause 10 and Annex A. It also incorporates the Technical Corrigendum ISO/IEC 19794-7:2007/Cor.1:2009.

ISO/IEC 19794 consists of the following parts, under the general title *Information technology — Biometric data interchange formats*:

— *Part 1: Framework*

— *Part 2: Finger minutiae data*

— *Part 3: Finger pattern spectral data*

— *Part 4: Finger image data*

— *Part 5: Face image data*

— *Part 6: Iris image data*

— *Part 7: Signature/sign time series data*

— *Part 8: Finger pattern skeletal data*

— *Part 9: Vascular image data*

— *Part 10: Hand geometry silhouette data*

— *Part 11: Signature/sign processed dynamic data*

— *Part 14: DNA data*

The following part is under preparation:

— *Part 13:Voice data*

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Information technology — Biometric data interchange formats —

Part 7: Signature/sign time series data

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1 Scope

This part of ISO/IEC 19794 specifies data interchange formats for signature/sign behavioural data captured in the form of a multi-dimensional time series using devices such as digitizing tablets or advanced pen systems. The data interchange formats are generic, in that they may be applied and used in a wide range of application areas where handwritten signs or signatures are involved. No application-specific requirements or features are addressed in this part of ISO/IEC 19794.

This part of ISO/IEC 19794 contains

— a description of what data may be captured,

— three data formats for containing the data: a full format for general use, a compression format capable of holding the same amount of information as the full format but in compressed form, and a compact format for use with smart cards and other tokens that does not require compression/decompression but conveys less information than the full format, and

— examples of data record contents and best practices in capture.

Specifying which of the format types and which options defined in this part of ISO/IEC 19794 are to be applied in a particular application is out of scope; this needs to be defined in application-specific requirements specifications or application profiles.

It is advisable that cryptographic techniques be used to protect the authenticity, integrity, and confidentiality of stored and transmitted biometric data; yet such provisions are beyond the scope of this part of ISO/IEC 19794.

This part of ISO/IEC 19794 also specifies elements of conformance testing methodology, test assertions, and test procedures as applicable to this part of ISO/IEC 19794. It establishes test assertions on the structure and internal consistency of the signature/sign time series data formats defined in this part of ISO/IEC 19794 (type A level 1 and 2 as defined in ISO/IEC 19794-1:2011/Amd.1), and semantic test assertions (type A level 3 as defined in ISO/IEC 19794-1:2011/Amd.1).

The conformance testing methodology specified in this part of ISO/IEC 19794 does not establish:

— tests of other characteristics of biometric products or other types of testing of biometric products (e.g. acceptance, performance, robustness, security),

— tests of conformance of systems that do not produce data records claimed to conform to the requirements of this part of ISO/IEC 19794.

2 Conformance

A biometric data record conforms to this part of ISO/IEC 19794 if it satisfies the format requirements with respect to its structure, with respect to relations among its fields, and with respect to relations between its fields and the underlying input that are specified within clauses 6–10 of this part of ISO/IEC 19794.

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