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Biometrics interoperability profiles — Best practices for slap tenprint captures

Profils biométriques interopérables — Recommandations pour les captures de 10 doigts à plat

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

It has been adopted from the European Technical Specification, CEN/TS 16428:2012, *Biometrics Interoperability profiles — Best Practices for slap tenprint captures*.

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Biometrics interoperability profiles — Best practices for slap tenprint captures

1 Scope

The main goal of this Technical Specification is to give guidelines to follow during the acquisition process of slap tenprints in order to obtain fingerprints with the best quality possible within acceptable time constraints.

Non-cooperative users are out of the scope of this Technical Specification.

When using ten-fingerprint sensors, it is fundamental to know how to use them and how to proceed during the acquisition. This Technical Specification describes how to capture fingerprints correctly by specifying best practices for slap tenprint captures.

It gives guidance on the following topics:

1) recommendations on the hardware of the fingerprint sensor and its deployment;

2) recommendations on user guidance;

3) recommendations on the enrolment process including a sample workflow;

4) recommendations for developers and system integrators on application software;

5) recommendations on processing, compression and coding of the acquired fingerprint images;

6) recommendations on operational issues and data logging;

7) recommendations on the evaluation of a solution and its components.

Although this Technical Specification primarily focuses on reaching optimal data quality for enrolment purposes, the recommendations given here are applicable for other purposes. All processes which rely on good quality tenprint slaps can take advantage of the best practices reported here.

2 Sensor hardware requirement

Image quality should comply with the quality specifications from ISO/IEC 19794-4 [1]. EBTS V 8.002:2008 [6], Annex F, corresponds to ISO/IEC 19794-4:2011, B.1, and BSI TR-03121 [5] corresponds to ISO/IEC 19794-4:2011, B.3.

NOTE 1 This Technical Specification considers optical sensors based on the principle of total internal reflection. However, this does not mean that other technologies cannot be used for tenprint enrolment purposes. As soon as sufficient experiences are available and recommendations can be given on emerging technologies, they will be included in a future version of this document.

The sensor device should provide methods for re-calibration in the field by qualified service staff if the device technically supports it.

It is recommended that the compliance of a sensor device to the applicable quality standard can be verified at any time in the operational environment.

NOTE 2 The need for calibration or re-calibration depends on the sensor technology and calibration might not be necessary for all devices.

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