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Information technology — Guidelines for slap tenprint fingerprintture

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

This first edition cancels and replaces ISO/IEC TS 20027:2015, which has been technically revised.

The main changes compared to the previous edition are as follows:

— Clauses 2 and 3 have been added according to the ISO/IEC Directives, Part 2;

— in 5.2, a new example of ways to give feedback has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The slap tenprint capture process captures multiple slap images which contain all ten fingerprints.

Slap fingerprints, or “simultaneous plain impressions”, are simply multiple flat fingerprints captured at the same time.

A single slap image contains four fingerprints from one hand, so two slap images contain eight fingerprints.

A third slap image is captured containing the two thumbprints, so three slap images contain all ten fingerprints.

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1 Scope

This document provides guidelines to follow during the acquisition process of slap tenprints in order to obtain fingerprints of the best quality possible within acceptable time constraints.

Non-cooperative users are out of the scope of this document.

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

It gives recommendations on the following topics:

1) hardware of the fingerprint sensor and its deployment;

2) user guidance;

3) enrolment process including a sample workflow;

4) application software for developers and system integrators;

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

6) operational issues and data logging;

7) evaluation of a solution and its components.

Although this document 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.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 2382-37, *Information technology — Vocabulary — Part 37: Biometrics*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-37 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

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