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SIST-TS CEN/TS 18214:2026

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Profil uporabe po ISO/IEC 39794-4 za podatke o slikah prstnih odtisov v strojno berljivih potovalnih dokumentih

ISO/IEC 39794-4 application profile for finger image data in machine-readable travel documents

Anwendungsprofil nach ISO/IEC 39794-4 für Fingerabdrucksbilder in maschinenlesbaren Reisedokumenten

Profil d'application pour les données d'image du doigt dans les documents de voyage lisibles par machine

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TECHNICAL SPECIFICATION
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ISO/IEC 39794-4 application profile for finger image data in machine-readable travel documents

Anwendungsprofil nach ISO/IEC 39794-4 für
Fingerabdruckbilder in maschinenlesbaren
Reisedokumenten

This Technical Specification (CEN/TS) was approved by CEN on 1 December 2025 for provisional application.

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European foreword

This document (CEN/TS 18214:2025) has been prepared by Technical Committee CEN/TC 224 “Personal identification and related personal devices with secure elements, systems, operations and privacy in a multi sectorial environment”, the secretariat of which is held by AFNOR.

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Introduction

To meet newly emerging requirements and to avoid compatibility issues in future, ISO/IEC JTC 1/SC 37 developed the ISO/IEC 39794 series of standards defining extensible biometric data interchange formats capable of including possible extensions in a structured manner. The eighth edition of ICAO Doc 9303 “Machine readable travel documents” (MRTDs) moves from using the first edition of the ISO/IEC 19794 series for encoding biometric reference data to using the ISO/IEC 39794 series for this purpose. To support the transition to the extensible biometric data interchange format, ISO/IEC JTC 1/SC 17 developed an ICAO TR “ISO/IEC 39794-5 application profile for eMRTDs” [1] specifying how to use ISO/IEC 39794-5 [2] for the mandatory face image data stored in electronic MRTDs (eMRTDs).

According to ICAO Doc 9303, storage of fingerprint and iris image data in eMRTDs is optional. In electronic identity documents issued by several countries, however, fingerprint image data are mandatory in addition to face image data [3] [4]. Therefore, this document specifies how to use ISO/IEC 39794-4 for fingerprint image data stored in eMRTDs. This document follows the same approach as the ICAO TR “ISO/IEC 39794-5 application profile for eMRTDs” by restricting optional elements and permitted values. The encoding specified in this document takes precedence over the encoding examples in ISO/IEC TR 49794:2022 [5].

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1 Scope

The eighth edition of ICAO Doc 9303 progresses from using the first edition of the ISO/IEC 19794 series for encoding biometric reference data in electronic machine-readable travel documents to using the ISO/IEC 39794 series for this purpose. This document specifies how to use ISO/IEC 39794-4 for fingerprint image data stored in electronic machine-readable travel documents.

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 39794-1, *Information technology — Extensible biometric data interchange formats — Part 1: Framework*

ISO/IEC 39794-4:2019,¹ *Information technology — Extensible biometric data interchange formats — Part 4: Finger image data*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 39794-1 and ISO/IEC 39794-4 apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Symbols and abbreviated terms

For the purposes of this document, the following symbols and abbreviations apply:

ASN.1	Abstract Syntax Notation One
BCD	binary-coded decimal
BDB	biometric data block
eMRTD	electronic MRTD
LDS	logical data structure
MRTD	machine-readable travel document
PAD	presentation attack detection

5 Constraints to tagged binary fingerprint image data blocks

5.1 Overview

The ISO/IEC 39794 series uses extensible ASN.1 modules to specify biometric data blocks (BDBs). The BDBs are encoded using the tagged binary encoding scheme, which results from application of the ASN.1 Distinguished Encoding Rules (DER) to the ASN.1 module.

¹ As impacted by ISO/IEC 39794-4:2019/Amd.1:2023