

First edition
2021-03

Information technology — Extensible biometric data interchange formats —

Part 6: Iris image data

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

Partie 6: Données d'image de l'iris



Reference number
ISO/IEC 39794-6:2021(E)

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Published in Switzerland

This is a preview of "ISO/IEC 39794-6:2021". Click here to purchase the full version from the ANSI store.

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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.

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

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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 purpose of this document is to define an International Standard for the exchange of iris image extensible information. This document contains a specific definition of iris image record attribute data elements, record's tagged binary and XML encoding extensible formats for storing and transmitting the iris image and certain attribute data elements, and conformance criteria.

Currently, the exchange of iris information between equipment from different vendors can be achieved using images of the eye. While some applications can successfully operate with full size uncompressed rectilinear images, there are others for which this is expensive in terms of storage and bandwidth. This document therefore also defines compact representations.

Biometric data interchange formats enable the interoperability of different biometric systems. The first generation of biometric data interchange formats was published between 2005 and 2007 in the first edition of the ISO/IEC 19794 series. From 2011 onwards, the second generation of biometric data interchange formats has been published in the second edition of the established parts and the first edition of some new parts of ISO/IEC 19794. In the second generation of biometric data interchange formats, new useful data elements such as those related to biometric sample quality have been added, the header data structures have been harmonized across all parts of the ISO/IEC 19794 series, and an XML encoding has been added in addition to the binary encoding.

In anticipation of the future need for additional data elements and in order to avoid future compatibility issues, ISO/IEC JTC 1/SC 37 has developed the ISO/IEC 39794 series as a third generation of biometric data interchange formats, defining extensible biometric data interchange formats capable of including future extensions in a defined way. Extensible specifications in ASN.1 (Abstract Syntax Notation One) and the Distinguished Encoding Rules of ASN.1 form the basis for encoding biometric data in binary tag-length-value formats. XML schema definitions form the basis for encoding biometric data in XML (Extensible Markup Language).

[Annex A](#) specifies the ASN.1 schema and XML schema of the formal structure description to which tagged binary encoded and XML encoded iris image extensible records are to conform (respectively).

[Annex B](#) provides sample iris image extensible record encodings. [Annex C](#) includes normative assertions for testing conformance of iris image extensible records. Finally, [Annex D](#) gives recommendations on iris image capture.