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Part 1: Methods and procedures

*Technologies de l'information — Test de conformité pour l'interface
de programmation d'applications biométriques (BioAPI) —*

Partie 1: Méthodes et procédures



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Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
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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).

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

This second edition cancels and replaces the first edition (ISO/IEC 24709-1:2007), which has been technically revised.

A list of all parts in the ISO/IEC 24709 series can be found on the ISO website.

Introduction

This document defines a conformance testing methodology for ISO/IEC 19784-1. It specifies three conformance testing models that enable conformance testing of each of the following BioAPI components: an application, a framework, or a BSP. It also specifies an assertion language that is used for the definition of test assertions. Actual test assertions for each of the BioAPI components are defined in the subsequent parts of the ISO/IEC 24709 series.

This document also contains informative guidelines regarding general concepts related to establishing and administering a BioAPI conformance assessment and certification program. These informative guidelines identify the types of activities, responsibilities, services, and documentation recommended for conducting conformity assessment and certification of BioAPI-conformant implementations. Further, this document provides informative guidelines for establishing a complete conformity assessment methodology for BioAPI specification.

[Clause 6](#) describes the general test method and conformance testing models for BioAPI.

[Clause 7](#) defines the assertion language, based on XML, used for definition of conformance test assertion.

[Clause 8](#) defines the elements of the assertion language.

[Clause 9](#) specifies the use of the standard BioAPI interface functions of BioAPI in conformance testing.

[Clause 10](#) defines the built-in variables of the assertion language.

[Clause 11](#) defines the test log using XML syntax.

[Clause 12](#) defines the test report using XML syntax.

[Clause 13](#) describes the general concept and structure of a BioAPI conformance test suite.

[Annex A](#) defines the XML schema of the assertion language.

[Annex B](#) defines the ASN.1 schema of the assertion language.

[Annex C](#) defines the XML schema for the test log.

[Annex D](#) describes a primer of a BioAPI test method implementation, including elements of the conformance test process and description of the test categories.

[Annex E](#) provides the relationship diagrams for the assertion language.

The Bibliography references a number of standards organizations, including ISO, IEC, NIST, IEEE and other organizations, that have published a number of documents and white papers related to conformity assessment in general and conformance testing in particular.

NOTE Rather than make normative references to these documents, this document incorporates appropriate excerpts of their text, in some cases paraphrasing the text or adapting the provisions to the specific circumstances. Therefore, these documents are listed in the Bibliography or are referred in the body text explicitly as appropriate.