INTERNATIONAL STANDARD

ISO/IEC 30106-2

First edition
2016-03-15

Information technology — Object oriented BioAPI —

Part 2: Java implementation

Technologies de l'information — Objet orienté BioAPI —

Partie 2: Mise en oeuvre Java

Reference number
ISO/IEC 30106-2:2016(E)

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Foreword

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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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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/TC JTC1, *Information technology*, Subcommittee SC 37, *Biometrics*.

ISO/IEC 30106 consists of the following parts, under the general title *Information technology — Object oriented BioAPI*:

- *Part 1: Architecture*
- *Part 2: Java implementation*
- *Part 3: C# implementation*

Introduction

In this part of ISO/IEC 30106, an application programming interface expressed in Java language is specified. Java is intended to be a simple, general-purpose, object oriented programming language that is aimed at enabling programmers to quickly build a wide range of applications for multiple platforms.

This Java implementation allows an easy use of Java BSPs, Java-based application servers or Java applets. Therefore, it is the best way to write desktop and web applications/services and this specification provides an advanced and well-designed remote framework.

Although the best practices of Java programming states that variables should be written in smallcase letters, in the case of symbols, such as BSP or BFPs, it has been kept as uppercase letters.

Information technology — Object oriented BioAPI —

Part 2:
Java implementation

1 Scope

This part of ISO/IEC 30106 specifies an interface of a BioAPI Java framework and BioAPI Java BSP, which will mirror the corresponding components, specified in ISO/IEC 30106-1. The semantic equivalent of this standard is maintained in this part of ISO/IEC 30106.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 30106–1, *Information technology — BioAPI for object oriented programming languages — Part 1: Architecture*

3 BioAPI Java package structure

The BioAPI Java interface will be divided into several packages. The following is the package structure:

- package org.bioapi: contains functionality to manage units, BSPs, BFPs, the Framework and Applications;
- package org.bioapi.data: contains all the data structures.

3.1 Package org.bioapi

3.1.1 Package description

This package contains all the components responsible for managing and executing the functionality of BioAPI. Component Registry interface is also defined in this package.

3.1.2 Structure

The description of this namespace is given explaining a bottom-up structure. In Clause 4, the interfaces needed to be implemented for each of the Unit types are explained. It is important to note that such interfaces do not refer to an implemented class by itself, as the accessible class will either be the Biometric Service Provider (BSP) or the Biometric Function Provider (BFP), but the specifications in such clause are common to the methods and properties to be added to the implemented BSP and/or BFP classes.

This will be followed by the specification of the implementation of the BFP (Clause 5) and BSP (Clause 6) interfaces. These two interfaces provide the lower layer interoperability level, equivalent to the SPI and BFPI interfaces in ISO/IEC 19784-1.

The higher layer of interoperability level is provided by the specification of the Framework (Clause 7, with the Framework Interface and the Component Registry) and the Application interaction (Clause 8,