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Information Technology — Object oriented BioAPI —

Part 2:
Java implementation

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO/IEC 30106-2 was prepared by Technical Committee ISO/TC JTC1, *Information Technology*, Subcommittee SC 37, *Biometrics*.

This second/third/... edition cancels and replaces the first/second/... edition (), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

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 the standard 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 is the best way to write desktop and web applications/services and this specification provides an advanced and well designed remote framework.

NOTE 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

The proposed standard will specify 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 document.

2 BioAPI Java Package Structure

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

- Package org.bioapi: Contains functions for the attach sessions and managing units.
- Package org.bioapi.data: Contains all the data structures.

2.1 Package org.bioapi

2.1.1 Package description

This package contains all the components responsible for managing and executing the functionality of BioAPI, either in a Framework-free deployment or when an OO BioAPI Framework is used. Component Registry interface is also defined in this package.

2.1.2 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 they accessible class will be either 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.