American National Standard

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Information technology — Biometric application programming interface — Part 1: BioAPI specification, Amendment 1: BioGUI specification

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Foreword

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Amendment 1 to ISO/IEC 19784-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

It defines a new version of BioAPI (BioAPI 2.1) that:

a) extends and improves the "application-controlled GUI" feature of BioAPI;

b) produces alignment between BioAPI and ISO/IEC 19785-1:2006, *Information technology — Common Biometric Exchange Formats Framework — Data element specification*

c) provides for other standards to modify BioAPI framework behaviour to support the use of biometric service providers (BSPs) that are remote from the controlling applications.

Introduction

With this amendment, ISO/IEC 19784-1 specifies two versions of BioAPI: 2.0 and 2.1. All the provisions that apply only to one version of BioAPI (either 2.0 or 2.1) are labeled as such.

The main difference of BioAPI 2.1 from BioAPI 2.0 is the support it provides for BioGUI. BioGUI stands for "BioAPI Graphical User Interface". The functionality specified in this amendment enables an application to control the display of graphics at enrollment, verification and identification as an alternative to using the graphical user interface provided by BSPs.

Secondly, BioAPI 2.1 also aligns the values of the type definition BioAPI_BIR_BIOMETRIC_TYPE with those specified in ISO/IEC 19785-1:2006.

Thirdly, it provides additional functions and parameters that are redundant in a purely local implementation of BIoAPI, but which enable other standards (interworking standards - see 4.29) to modify the behaviour of a BioAPI framework to support interactions between an application and remote BSPs.

Finally, it provides improvements to some of the functions and parameters defined for BioAPI 2.0, particularly in relation to support for tenprint capture, the electronic capture of ten human fingerprints.

This amendment redefines (in the specificaton of BioAPI 2.1) portions of the BioAPI 2.0 specification that define BioAPI types, macros, functions and callback functions (particularly those related to the application-controlled GUI feature) with a new set of definitions that provide more functionality. Some of the old BioAPI 2.0 definitions are completely replaced by new definitions (with the same or with different names), while others are extended by the addition of one or more parameters. Some types and functions are entirely new in BioAPI 2.1.

The resulting specification is expected to better meet the needs of biometric applications that wish to have full control of the user interface during enrollment, verification and identification, that need to be able to work with remote BSPs, or that need added functionality for interaction with local BSPs.