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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 29268.1-2012

**Information technology -- Biometric performance testing and
reporting -- Part 1: Principles and framework**

信息技术 生物特征识别性能测试和报告 第1部分：原则与框架

(English Translation)

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Foreword

GB/T 29268 "Information technology - Biometric performance testing and reporting" is divided into the following seven sections.

- Part 1. Principles and Framework;
- Part 2. Test methods and technology scene evaluation;
- Part 3. Modal specific tests;
- Part 4. Interoperability performance testing;
- Part 5. biometric access control system scene evaluation;
- Part 6. Test methods of performance evaluation;
- Part 7. biometric identification card alignment algorithm testing.

This section GB/T 29268 Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with the international standard ISO/IEC 19795-1:2006 "Information technology - Biometric performance testing and the first part of the report. Principles and Framework. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 27025-2008 testing and calibration laboratories General requirements (ISO/IEC 17025, IDT) Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part of the National Information Technology Standardization Technical Committee

(SAC/TC28) and focal points.

This section drafted by. China Electronics Standardization Institute, Chinese Academy of Sciences Institute of Automation.

Introduction

This section only deals with scientific biometric systems and devices related to "technical performance testing." Objective technical performance testing is to determine the error rate and the response speed of the system and equipment, the aim is to understand and predict the biometric system errors in the practical application of Rates and throughput. Error Rate contain false acceptance rate and false rejection rate, but also includes registration failure rate and characteristics of the entire test set acquisition failure rate. Throughput refers to the number of users that can be processed per unit of time, depending on the computing speed and the speed of human-computer interaction. These tests Cape Over for all biometric systems and devices. Based on technical performance tests for specific devices, such as a fingerprint scanner image quality the amount of the test is not within the scope of this part of the consideration.

Technical performance testing is just one form of biometric testing. Other types of tests are not within the scope of this part of the consideration, include.

- Reliability, availability and serviceability;
- Security and confidentiality, including vulnerabilities;
- Compliance;
- safety;
- Human factors, including user acceptability;
- Price;
- Compliance with privacy regulations.

Above other types of testing methods and philosophical issues being a member of the broad international community considered.

The purpose of this section is to regulate the technology best suited to the requirements of the implementation of the performance test and the best scientific operations. This is necessary, because from the biometric device testing technical documentation a brief summary of the past 20 years can be seen in a variety of test protocols exist A number of conflicts and contradictions. Even the same organization carried out several attempts, each attempt to use a different approach. Not only because of the different the test objectives and test data corresponding to different testing protocols, but also because there is no standard test protocols can be established.

Performance testing of biometric technology can be divided into three categories. technology assessment, program or action. Each type of test required Different protocols, and produce different types of results. Even one and the same type of test, because there are a variety of biometric located Equipment, sensors, supplier instructions, data collection methods, applications, and testers collection, making it impossible to produce accurate and consistent measurement Test protocol. Other parts of this standard will provide specific recommendations and requirements of different development and test protocols. And this part of the concepts and principles it is widely used in a variety of test conditions.

Information technology - Biometric performance testing and reporting Part 1. Principles and Framework

1 Scope

GB/T 29268 in this section.

- General provisions of biometric system performance testing principles, including the prediction error rate and recognition speed and comparative performance and sexual You are able to meet specific requirements;
- Predetermined performance biometric identification system;
- Requirements test methods, data recording and reporting of results;
- Provide a description of the development and testing of the framework agreement, to help avoid due to inappropriate data collection or analysis procedures cause the deviation of the test results, as well as to help achieve the best performance in the field is estimated at the same price, and improve the application of test results Understanding of the scope.

This section applies to the testing laboratory based biometric systems and algorithms for performance testing. The measurement and analysis system output horsepower with the score and decision-making results without biometric algorithm or the potential use of people involved in the distribution system.

Because the user is deliberately avoided in the biometric identification system generated errors are outside the scope (for example, take the initiative to leave Take those).

2 Compliance

In order to comply with the provisions of this section, biometric performance testing should be carried out planning, implementation and reporting in accordance with the requirements of this section.

3 Normative References

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO/IEC 17025 General requirements for testing and calibration laboratories
(General requirements for the competence of testing and calibration laboratories)

4 Terms and Definitions

The following terms and definitions apply to this document.

4.1 Biometric data

4.1.1

Sample

Biometric sensor or biometric information acquired data.