



# **Biometric Standard - Vocabulary for Testing**

**SIA BIO-01-1993.02(R2000.06)**

Sponsor  
**Security Industry Association**

Copyright © 1993-2000 SIA

**Publication Order Number: 14041**

---



## Biometric Standard – Vocabulary for Testing

---

### FOREWORD

This standards document is published by the Security Industry Association (SIA) and was developed and adopted by a consensus of industry volunteers in accordance with SIA's standards development policies and procedures. It is intended to facilitate product compatibility and interchangeability, to reduce misunderstandings between manufacturers and purchasers, and to assist purchasers in obtaining the proper products to fulfill their particular needs.

The existence of this or any SIA standards document shall not prevent any SIA member or non-member from manufacturing, selling, or using products not conforming to this or any SIA standard. SIA standards are voluntary. SIA encourages the use of this document but will not take any action to ensure compliance with this or any other SIA Standard.

SIA assumes no responsibility for the use, application or misapplication of this document. Industry members using this document, particularly those having participated in its development and adoption, are considered by SIA to have waived any right they might otherwise have had to assert claims against SIA regarding the development process of this standard.

Although some SIA standards establish minimum performance requirements, they are intended neither to preclude additional product features or functions nor to act as a maximum performance limit. Any product the specifications of which meet the minimum requirements of a SIA standard shall be considered in compliance with that standard. Any product the specifications of which exceed the minimum requirements of a SIA standard shall also be considered in compliance with the standard, provided that such product specifications do not exceed any maximum requirements set by the standard. SIA standards are not intended to supersede any recommended procedures set by a manufacturer for its products.

SIA reserves the right to revise this document at any time. Because SIA policy requires that every standard be reviewed periodically and be either revised, reaffirmed, or withdrawn, users of this document are cautioned to obtain and use the most recent edition of this standard. Current information regarding the revision level or status of this or any other SIA standard may be obtained by contacting SIA.

Requests to modify this document are welcome at any time from any party, regardless of membership affiliation with SIA. Such requests, which must be in writing and sent to the address set forth below, must clearly identify the document and text subject to the proposed modification and should include a draft of proposed changes with supporting comments. Such requests will be considered in accordance with SIA's standards development policies and procedures.

Written requests for interpretations of a SIA standard will be considered in accordance with SIA's standards development policies and procedures. While it is the practice of SIA staff to process an interpretation request quickly, immediate responses may not be possible since it is often necessary for the appropriate standards subcommittee to review the request and develop an appropriate interpretation.

Requests to modify a standard, requests for interpretations of a standard, or any other comments are welcome and may be sent to:

**Standards**  
**Security Industry Association**  
**635 Slaters Lane, Suite 110**  
**Alexandria, VA, 22314**  
E-mail:  
**Standards@SIAOnline.org**

This document is owned by the Security Industry Association and may not be reproduced, in whole or part, without the prior written permission from SIA.

## Biometric Standard – Vocabulary for Testing

---

### ACKNOWLEDGMENTS

The project to develop a standard vocabulary for use in testing and evaluating biometric products was initiated in 1987 by the International Biometric Association (IBA) Standards Committee. In 1989, the Committee became affiliated with the Security Industry Association (SIA) and changed its name to “SIA Biometric Standards Sub-Committee”.

SIA gratefully acknowledges the efforts of the many volunteers from the security industry that helped the Subcommittee to develop this standard.

The IBA Biometric Standards Committee had the following members during 1987-1989:

Chairman of the IBA Standards Committee:

Rod Beatson (1987 – 1989)  
Edward C. Driscoll (1988 – 1989)

Contributing Members of the IBA Standards Committee:

Arlen Remnitz  
Conrad S. Banner  
Joseph Barry  
Robert Hammond  
Richard Hudak  
Stuart Jolly  
Howard Koenig  
Russ Maxwell  
Gary Poock  
Dennis Porter  
Robert M. Stock  
Peter Stropparo

The SIA Biometric Standards Subcommittee had the following members during 1989-1992:

Chairman of the SIA Biometric Standards Subcommittee:

Conrad Banner

Contributing Members of the SIA Standards Biometric Subcommittee:

Rod Beatson  
Charles Colbert  
Jay Cornish  
Anthony English  
Joseph P. Freeman  
Randall Hawks, Jr.  
James P. Holmes  
Francis E. Torpey  
Robert Voosen

SIA also gratefully recognizes the efforts of the SIA Biometric Standards Subcommittee members who were significant contributors to the 2000 Revision:

Chairman of the SIA Standards Committee:

ADT ..... William N. Moody

## Biometric Standard – Vocabulary for Testing

---

### Chairman of the SIA Biometrics Standards Subcommittee:

Iriscan, Inc. .... Jerry Williams

### Contributors to the 2000 Revisions:

PIDEAC ..... Charles Colbert, Phd., PE  
biometric identification, Inc. .... David Gittelson

### SIA Staff Administrators:

Wadei Powell  
L. Virginia Williams

### Open industry vote, ballots cast by the following companies: (80% approval in ballots cast)

ADT ..... Samuel S. Wen  
Advanced Technology Associates ..... David S. Terrett  
ALOA Education ..... David M. Lowell  
C&K Systems ..... Chuck Burns  
Caddx Controls ..... Frank Clark  
CHPA Consulting Engineers ..... Tim Tadlock  
Datastrip, Inc. .... Stephen M. Hunt  
Dolph & Associates ..... Robert Dolph  
Iriscan ..... Gerald O. Williams  
J. Markowitz Consultants ..... Judith Markowitz  
J. P. Freeman Co., Inc. .... Joe Freeman  
Tesa Entry Systems, Inc. .... Jon Payne  
Underwriters Laboratories, Inc. .... Lou Chavez

## Biometric Standard – Vocabulary for Testing

---

### REVISION HISTORY

The following are changes made to this document listed by revision.

---

#### FEBRUARY 1993 BASELINE

Original Publication

---

#### JUNE 2000 REVISION

- Added several new terms and definitions to section 3.2
- Document facelift to current style/conventions of SIA Standards

Biometric Standard – Vocabulary for Testing

Table of Contents

1.0 Introduction & Scope ..... 1

    1.1 Introduction ..... 1

    1.2 Scope ..... 1

2.0 Conventions & Definitions ..... 2

    2.1 Conventions ..... 2

        2.1.1 Terms Defined Elsewhere in this Document .....2

    2.2 Definitions ..... 2







# Biometric Standard - Vocabulary for Testing

Copyright © 1993 – 2000 Security Industry Association

---

## 1.0 INTRODUCTION AND SCOPE

---

### 1.1 Introduction

Biometric products represent a new and emerging technology which may be unfamiliar to many people. The advent of any new technology brings with it new terms which need definition and the application of pre-existing terms in new ways which needs clarification. This standard sets forth the terms most frequently used by representatives of the biometric industry and provides their biometric-specific definitions.

This standard does not include testing methodologies and procedures. They will be the subjects of subsequent standards.

---

### 1.2 Scope

This standard establishes the terminology to be used in connection with the testing and evaluation of biometric technology products; and defines the terms to be used in connection with the testing and evaluation of biometric technology products.

The purpose of this standard is to provide a glossary of terms and definitions which are meaningful and useful to individuals and entities engaged in: (i) the solicitation, evaluation, purchase, and/or use of biometric products; (ii) the research and development, manufacture, distribution, sale, or importation of biometric products; and/or (iii) the development of specifications for, and methods of,

testing and evaluating the performance characteristics and accuracy of biometric products.

This standard is applicable to all biometric technologies, including those based on fingerprints, hand geometry, eye/retina scanning, voice prints, signature/handwriting, and keystroking.

---

## 2.0 CONVENTIONS AND DEFINITIONS

---

### 2.1 Conventions

#### 2.1.1 Terms Defined Elsewhere in This Document

Whenever a term is used in a definition and that term is also defined elsewhere in this standard, it is underlined. For example, "biometric sample" is defined as "A representation of a biometric, which can be used as input to a biometric identification device. Both "biometric" and "biometric identification device" have been underlined because they are defined somewhere else in the standard.

---

### 2.2 Definitions

**aberrant data:** Test data which is found to be anomalous and to have an irregular meaning in the context of that trial.

**acceptance threshold score:** The score on a biometric "match/no match" scale chosen to differentiate impostors from authentics.