



BSI Standards Publication

Biometrics multilingual vocabulary based upon the English version of ISO/IEC 2382-37:2012

National foreword

This British Standard is the UK implementation of EN 17054:2019.

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English Version

Biometrics multilingual vocabulary based upon the English version of ISO/IEC 2382-37:2012

Vocabulaire multilingue de la biométrie basé sur
la version anglaise de l'ISO/IEC 2382-37:2012

Mehrsprachiges biometrisches Vokabular, basierend
auf der englischen Fassung der ISO/IEC 2382-37:2012

This European Standard was approved by CEN on 1 March 2018.

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European foreword

This document (EN 17054:2019) has been prepared by Technical Committee CEN/TC 224 “Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2019 and conflicting national standards shall be withdrawn at the latest by November 2019.

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Introduction

The main purpose of this European Standard is to provide a systematic description of the concepts in the subject field of biometrics and to clarify the use of the terms in this subject field. The subject field of biometrics is broken down into sub-fields.

This European Standard is addressed to biometrics standardizers, and to users of these standards.

Terms defined in this document are to be understood in the subject field of biometrics. When terms exist in various subject fields, the current subject field may be indicated in angle brackets.

Words in **bold** are defined in this document. Words that are not in bold are to be understood in their natural language sense. The authority for natural language use of terms in this document is the Concise Oxford English Dictionary (COD), Thumb Index Edition (tenth edition, revised, 2002). Words used in their natural language sense are considered out-of-scope for further definition in this document.

EXAMPLE

candidate

<biometrics> **biometric reference identifier** of a **biometric reference** in the **biometric reference database** determined to be similar to the **biometric probe**

candidate

<politics> person who applies for a job or is nominated for election

NOTE When using terms defined with a qualifier (for example, “biometric xxx”), it should be normal to include the qualifier on the first occurrence of the term in every paragraph, but to omit it on subsequent occurrences of that term within the same paragraph. In broader contexts, where the qualifier (in this case, ‘biometric’) is clearly understood, then the qualifier might be omitted completely.

The terms in this European Standard are listed in a systematic order under a number of general headings.

The layout follows the directions given in ISO 10241. Thus, the elements of an entry appear in the following order:

- Entry number (mandatory)
- Preferred term(s) (mandatory)
- Admitted term(s) (mandatory)
- Deprecated term(s)
- Definition
- Example(s)
- Note(s)

To clarify in which grammatical context a term is defined the following indicators are used: (n) for a noun, (v) for a verb and (adj) for an adjective.

The alphabetical index includes preferred and admitted terms.

1 Scope

This document establishes a systematic description of the concepts in the field of biometrics pertaining to recognition of human beings and reconciles variant terms in use in pre-existing biometric standards against the preferred terms, thereby clarifying the use of terms in this field.

Excluded from the scope of this document are concepts (represented by terms) from information technology, pattern recognition, biology, mathematics, etc. Biometrics uses such fields of knowledge as a basis.

In principle, mode specific terms are outside the scope of this document.

Words in **bold** are defined in this document. Words that are not in bold are to be understood in their natural language sense. The authority for natural language use of terms in this document is the Concise Oxford English Dictionary (COD), Thumb Index Edition (tenth edition, revised, 2002). Words used in their natural language sense are considered out-of-scope for further definition in this document.

2 Normative references

There are no normative references in this document.

3 Biometric vocabulary

3.1 General concept terms

37.01.01

biometric (adj)

of or having to do with **biometrics**

NOTE The use of **biometric** as a noun, to mean for example, **biometric characteristic**, is deprecated.

EXAMPLE 1 Incorrect usage #1: ICAO resolved that face is the **biometric** most suited to the practicalities of travel documents.

EXAMPLE 2 Correct usage #1: ICAO resolved that face recognition is the **biometric mode** most suited to the practicalities of travel documents.

EXAMPLE 3 Incorrect usage #2: The **biometric** recorded in my passport is a facial image.

EXAMPLE 4 Correct usage #2: The **biometric characteristic** recorded in my passport is a facial image.

37.01.02

biometric characteristic

biometric (deprecated)

biological and behavioural characteristic of an individual from which distinguishing, repeatable **biometric features** can be extracted for the purpose of **biometric recognition**

EXAMPLE Examples of **biometric characteristics** are: Galton ridge structure, face topography, facial skin texture, hand topography, finger topography, iris structure, vein structure of the hand, ridge structure of the palm, retinal pattern, handwritten signature dynamics, etc.

Note 1 to entry: Biological and behavioural characteristics are physical properties of body parts, physiological and behavioural processes created by the body and combinations of any of these.

Note 2 to entry: Distinguishing does not necessarily imply individualization.

37.01.03 biometric recognition biometrics

automated recognition of individuals based on their biological and behavioural characteristics

Note 1 to entry: In the field of **biometrics** (as defined in this document), "Individual" is restricted in scope to refer only to humans.

Note 2 to entry: The general meaning of **biometrics** encompasses counting, measuring and statistical analysis of any kind of data in the biological sciences including the relevant medical sciences.

Note 3 to entry: **Biometric recognition** encompasses **biometric verification** and **biometric identification**.

Note 4 to entry: Automated recognition implies that a machine based system is used for the recognition either for the full process or assisted by a human being.

Note 5 to entry: Biological and behavioural characteristics cannot be completely separated which is why the definition uses 'and' instead of 'and/or'. For example, a fingerprint image results from the biological characteristics of the finger ridge patterns and the behavioural act of presenting the finger.

Note 6 to entry: Use of 'authentication' as a synonym for "**biometric verification** or **biometric identification**" is deprecated; the term **biometric recognition** is preferred.

3.2 Biometric system terms

37.02.01 biometric capture subsystem

biometric capture device and any sub-processes required to execute a biometric capture process

EXAMPLE In some systems, converting a signal from a **biometric characteristic** to a **captured biometric sample** may include multiple components such as a camera, photographic paper, printer, digital scanner, ink and paper.

NOTE A **biometric capture subsystem** can consist of only a single **biometric capture device**.

37.02.02 biometric identification system

system that aims to perform **biometric identification**

37.02.03 biometric system

system for the purpose of the **biometric recognition** of individuals based on their behavioural and biological characteristics

NOTE A **biometric system** will contain both **biometric** and non-biometric components.

37.02.04 biometric verification system

system that aims to perform **biometric verification**

37.02.05 mode

combination of a **biometric characteristic** type, a sensor type and a processing method

Note 1 to entry: The processing algorithm may contain multiple methods, details of which may not be externally apparent. Thus a **biometric system** is considered as using one processing method, until it is otherwise specified.

Note 2 to entry: Determining what constitutes a single type of sensor, processing method or **biometric characteristic** will depend on convention. For example, current convention is that images of ridge patterns from both thumbs and fingers constitute a single **biometric characteristic** type, i.e., fingerprints. With respect to sensors, infrared and optical bandwidth sensors are considered different types, but optical bandwidth sensors are considered a single type despite imaging red, green and blue bandwidths.