

M1/02-00193

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2002-08-21	Proposer: ISO/IEC JTC 1/SC 37
Secretariat: USA	ISO/IEC JTC 1 N XXXX

A **proposal for a new work item** shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC xxxxx, Information Technology, Biometrics - Harmonized Vocabulary
Scope: This International Standard defines the terms used in the field of biometrics. This standard is to be used as a normative reference to other ISO/IEC JTC 1/SC 37 standards.
Purpose and justification - See separate Annex A
Programme of work If the proposed new work item is approved , which of the following document(s) is (are) expected to be developed? <input checked="" type="checkbox"/> X <input type="checkbox"/> a single International Standard <input type="checkbox"/> a multi-part International Standard consisting of ..4... parts <input type="checkbox"/> an amendment or amendments to the following International Standard(s) <input type="checkbox"/> a technical report , type
Relevant documents to be considered. SC 37 NPs
Co-operation and liaison SC 17, IEC TC 1
Preparatory work offered with target date(s) CD attached
Signature: Will the service of a maintenance agency or registration authority be required?NO..... - If yes, have you identified a potential candidate? - If yes, indicate name Are there any known requirements for coding?NO..... -If yes, please specify on a separate page Are there any known requirements for cultural and linguistic adaptability?YES..... - If yes, please specify on a separate page (See Annex B) Does the proposed standard concern known patented items?NO..... - If yes, please provide full information in an annex

Comments and recommendations of the JTC 1 Secretariat - attach a separate page as an annex, if necessary

Comments with respect to the proposal in general, and recommendations thereon: It is proposed to assign this new item to JTC 1/SC 37
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Voting on the proposal - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

Date of circulation: YYYY-MM-DD	Closing date for voting: YYY-MM-DD	Signature of JTC 1 Secretary: Lisa A. Rajchel
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NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA		
Criterion	Validity	Explanation
A Business Requirement		
A.1 Market Requirement	Essential <input checked="" type="checkbox"/> Desirable <input type="checkbox"/> Supportive <input type="checkbox"/>	Required by users of biometrics for an understanding of the technologies.
A.2 Regulatory Context	Essential <input type="checkbox"/> Desirable <input type="checkbox"/> Supportive <input checked="" type="checkbox"/> Not Relevant <input type="checkbox"/>	Will assist in providing an understanding of biometric technologies
B. Related Work		
B.1 Completion/Maintenance of current standards	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	This standard will be updated as new work items are accepted and standards developed
B.2 Commitment to other organisation	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No commitment has been made to date,
B.3 Other Source of standards	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	ISO/IEC Guide 2, ISO/IEC 2382, IEC 60050, IEC 60068-5-2
C. Technical Status		
C.1 Mature Technology	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Biometrics technologies require a harmonized vocabulary that can be utilized as a normative reference for standards in that field of work.
C.2 Prospective Technology	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Future biometric technologies would use this standard as a normative reference.
C.3 Models/Tools	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
D. Conformity Assessment and Interoperability		
D.1 Conformity Assessment	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

D.2 Interoperability	Yes ___ No <u>X</u>	
E. Other Justification		The absence of maintenance of ISO/IEC 2382 and the demise of JTC 1/SC 1 creates a vacuum for vocabulary issues within JTC 1/SC 37.

ANNEX A

Purpose and justification

The need for this International Standard arises from the rapidly increasing usage of biometric technologies for individual identification, typically for safety, security, and licensing applications. The demise of JTC 1/SC 1 (Vocabulary) has created a vacuum in the sense that SC 31 standards can no longer refer to a common JTC 1 document for terms and definitions.

The absence of a common vocabulary creates confusion in the marketplace and inhibits international understanding and international trade.

The purpose of this International Standard is to provide standardized terms and definitions for those unique to the biometric marketplace and to provide harmonized definitions with those pre-existing terms shared by multiple fields of endeavors. The result of such a standard is to provide a means for suppliers to communicate the features and attributes of their products in a common manner and enable purchasers to have a common understanding of the technologies at hand.

ANNEX B

Cultural and Linguistic Adaptability

While this Harmonized Vocabulary standard will be initially prepared in English, other National Bodies have already indicated that this standard will be translated into their native languages. Such native language translations could also be offered to ISO/IEC.

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Biometric Vocabulary

Application Profiles

Conforming subsets or combinations of base standards used to provide specific functions.

Application profiles identify the use of particular options available in base standards, and provide a basis for the interchange of data between applications and interoperability of systems.

Base Standards

Fundamental and generalized procedures. They provide an infrastructure that can be used by a variety of applications, each of which can make its own selection from the options offered by them.

Core

The approximate center of the fingerprint pattern as defined for the various pattern types

Filtering

Partitioning a database through the use of either overall characteristics such as fingerprint pattern, or of exogenous information about the user not discernible from the biometric patterns such as sex, age or race.

Friction Ridge

The ridges present on the skin of the fingers and toes, the palms and soles of the feet, which makes contact with an incident surface under normal touch. On the fingers, the unique patterns formed by the friction ridges make up *fingerprints*.

Identification

A one-to-many comparison of the currently collected fingerprint sample(s) with a set of previously collected finger records to determine the identity of the person being imaged.

Live-Scan Print

A fingerprint image that is produced by scanning or imaging a live finger to generate an image of the friction ridges

Minutia (single) Minutiae (pl)

Friction ridge characteristics that are used to individualize a fingerprint. *Minutiae* occur at points where a single *friction ridge* deviates from an uninterrupted flow. Deviation may take the form of ending, division, or a more complicated "composite" type.

Resolution

The number of pixels (picture elements) per unit distance in the image of the fingerprint

Ridge Bifurcation

The point at which a *friction ridge* splits into two ridges or, alternatively, where two separate *friction ridges* combine into one

Ridge Ending

The point at which a *friction ridge* terminates or, alternatively, begins. A *ridge ending* is surrounded on three sides by valley.

Valley

The area surrounding a *friction ridge*, which does not make contact with an incident surface under normal touch; the area of the finger between two friction ridges.

Verification

A one-to-one comparison of the currently collected fingerprint sample(s) with a previously collected finger record associated with the claimed identity being verified.

Binary

Binary refers to black and white images. The data bit is either on or off.

Color

A continuous tone image that has more than one component.

Continuous Tone Image

An image whose components have more than one bit per sample.

Gray Scale

A continuous tone image that has one component.

JPEG

JPEG is the proposed compression standard for continuous tone images. It was published in 1993 as ISO 10918-1 and ITU-TT.81. It was produced by the Joint Photographic Experts Group.

Pixel

A pixel is a picture element – one on an n by m matrix of picture elements, where n is across (horizontal) and m is down (vertical).

Still Image (Digital)

A set of two-dimensional arrays of data.

TIFF (Tagged Image File Format)

Industry accepted practice for storing image information.

CBEFF – Common Biometric Exchange File Format.

A data format specifically for exchanging biometric data. It provides for the encompassing of any biometric type into a standard format.