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ISO/IEC JTC 1
Information Technology

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Document Type: Proposed NP

Document Title: SC 37 Proposed New Work Item for ISO/IEC 29794 – Biometric Sample Quality, Part 6 – Iris Image

Document Source: SC 37 Secretariat

Reference:

Document Status: This document is circulated to JTC 1 National Bodies for concurrent review. If the JTC 1 Secretariat receives no objections to this proposal by the due date indicated, we will so inform the SC 37 Secretariat.

Action ID: ACT

Due Date: 2009-06-10

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ISO/IEC JTC 1/SC 37 N 3088

2009-03-10

ISO/IEC JTC 1/SC 37 Biometrics

Document Type: NP text for ballot

Document Title: Proposed New Work Item for ISO/IEC 29794 – Biometric Sample Quality, Part 6 – Iris Image

Source: US National Body

Document Status: This document is circulated to SC 37 National Bodies for NP ballot. Please submit your vote via the online balloting system.

Action ID: VOTE

Due Date: **2009-06-08**

No. of Pages:

PROPOSAL FOR A NEW WORK ITEM

| | |
|---|--|
| Date of presentation of proposal: 2008-02-16 | Proposer: ISO/IEC JTC 1/SC 37 |
| Secretariat: ANSI | ISO/IEC JTC 1 N XXXX ISO/IEC JTC 1/SC XX N 3088 |

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.

| |
|---|
| Title ISO/IEC 29794 – Biometric Sample Quality, Part 6 – Iris Image |
| Scope (and field of application) The Part 6 of ISO/IEC 29794, iris image sample quality document intends to: <ul style="list-style-type: none">• define the terms and methods used to characterize and test the biometric quality of iris images and• identify relevant quantitative methods useful in the formation, interpretation and the utility assessment of iris image quality metrics Outside the scope are <ul style="list-style-type: none">• performance assessment of specific quality algorithms and• standardization of specific quality algorithms |
| Purpose and justification The assessment of biometric sample quality through the formation of quality metrics can be used to estimate the resulting identification accuracy in the framework of a given biometric system. With proper use quality metrics can enhance the functionality of a biometric system. For example they can provide feedback regarding the integrity of collected biometric data during the identification process or gauge the interoperability of a given biometric sample to another. The purpose of the proposed ISO/IEC 29794-6 standard is to define terms and quantitative methodologies relevant to the characterization and testing of iris images used in biometric identification. ISO/IEC 19784-1 and ISO/IEC 19785-1 standards allocate a quality field and specify a quality score range applicable to iris images with a qualitative foundation. ISO/IEC 19794-6 includes an informative annex covering the subject of iris image capture and provides image quality guidelines. However these standards do not contain specific content to guide the quantitative formation of iris image quality metrics or the interpretations of such metrics. This proposed document does not advocate a specific method as a standard quality metric but rather aims to extend and refine the content in the informative annex in the ISO/IEC 19794-6 to guide the formation, interpretation, and utility assessment of iris image quality metrics. |

Programme of work

If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed?

- ☒ a single International Standard
☐ more than one International Standard (expected number:)
☐ a multi-part International Standard consisting of parts
☐ an amendment or amendments to the following International Standard(s)
☐ a technical report , type

And which standard development track is recommended for the approved new work item?

- ☐ a. Default Timeframe
☐ b. Accelerated Timeframe
☒ c. Extended Timeframe

Relevant documents to be considered: SC 37 ISO/IEC 29794-1 Biometric Sample Quality – Framework, SC37 ISO/IEC 19794-6 Biometric data interchange formats – Iris image data

Co-operation and liaison: SC 37 Working Group 3

Preparatory work offered with target date(s): BD? WD? – Jan 2009?

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

Does the proposed standard concern known patented items?No.....

- If yes, please provide full information in an annex

Are there any known accessibility requirements and/or dependencies (see:

<http://www.jtc1access.org>)?.....NO

-If yes, please specify on a separate page

Are there any known requirements for cultural and linguistic adaptability?.....NO.

-If yes, please specify on a separate page

Comments and recommendations of the JTC 1 or SC 37 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/WG 3

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: 2009-03-10 | Closing date for voting: 2009-06-08 | Signature of Secretary: |
|------------------------------------|--|-------------------------|

| 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"/> | |
| A.2 Regulatory Context | Essential <input type="checkbox"/> Desirable <input type="checkbox"/> Supportive <input checked="" type="checkbox"/> Not Relevant <input type="checkbox"/> | |
| B. Related Work | | |
| B.1 Completion/Maintenance of current standards | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| B.2 Commitment to other organisation | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| B.3 Other Source of standards | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| C. Technical Status | | |
| C.1 Mature Technology | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| C.2 Prospective Technology | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| C.3 Models/Tools | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| D. Conformity Assessment and Interoperability | | |
| D.1 Conformity Assessment | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| D.2 Interoperability | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| E. Adaptability to Culture, Language, Human Functioning and Context of Use | | |
| E.1 Cultural and Linguistic Adaptability | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| E.2 Adaptability to Human Functioning and Context of Use | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| F. Other Justification | | |

Notes to Proforma

A. Business Relevance. That which identifies market place relevance in terms of what problem is being solved and or need being addressed.

A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.

A.2 Technical Regulation. If a Regulatory requirement is deemed to exist - e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard - the proposer shall identify this here.

B. Related Work. Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.

B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.

B.2 External Commitment. Groups, bodies, or for external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.

B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.

C. Technical Status. The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.

C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.

C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.

C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

D. Conformity Assessment and Interoperability Any other aspects of background information justifying this NP shall be indicated here.

D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.

D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan

E. Adaptability to Culture, Language, Human Functioning and Context of Use

NOTE: The following criteria do not mandate any feature for adaptability to culture, language, human functioning or context of use. The following criteria require that if any features are provided for adapting to culture, language, human functioning or context of use by the new Work Item proposal, then the proposer is required to identify these features.

E.1 Cultural and Linguistic Adaptability. Indicate here if cultural and natural language adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.

ISO/IEC TR 19764 (Guidelines, methodology, and reference criteria for cultural and linguistic adaptability in information technology products) now defines it in a simplified way:

“ability for a product, while keeping its portability and interoperability properties, to: be internationalized, that is, be adapted to the special characteristics of natural languages and the commonly accepted rules for their use, or of cultures in a given geographical region; take into account the usual needs of any category of users, with the exception of specific needs related to physical constraints”

Examples of characteristics of natural languages are: national characters and associated elements (such as hyphens, dashes, and punctuation marks), writing systems, correct

transformation of characters, dates and measures, sorting and searching rules, coding of national entities (such as country and currency codes), presentation of telephone numbers and keyboard layouts. Related terms are localization, jurisdiction and multilingualism.

E.2 Adaptability to Human Functioning and Context of Use. Indicate here whether the proposed standard takes into account diverse human functioning and diverse contexts of use. If so, indicate how it is addressed in your project plan.

NOTE:

Human functioning is defined by the World Health Organization at <http://www3.who.int/icf/beginners/bg.pdf> as:

In ICF (International Classification of Functioning, Disability and Health), the term functioning refers to all body functions, activities and participation.

Content of use is defined in ISO 9241-11:1998 (*Ergonomic requirements for office work with visual display terminals (VDTs) – Part 11: Guidance on usability*) as:

<<Users, tasks, equipment (hardware, software and materials), and the physical and societal environments in which a product is used.>>

Guidance for Standard Developers to address the needs of older persons and persons with disabilities).

F. Other Justification Any other aspects of background information justifying this NP shall be indicated here.