



Biometrics and Standardization

Presentation to BioSec 2nd Open Workshop,
19th and 20th January, 2005



COPRAS is an FP6 Specific Support Action Project with clear goals

- Stimulate interaction & exchange between FP6 projects in calls 1, 2 & 3 and standardisation groups
- Act as a facilitating platform for projects wishing to upgrade their deliverables through standardisation
- Prepare generic information on RTD/standards interfacing guiding those proposing or evaluating future projects
- Start: 1st February 2004
- End: 31st January 2007

COPRAS' roots lie with European standardisation bodies & the ICTSB

Collaborative group of organisations concerned with standardization and related activities in ICT



Standards bodies		ERTICO	EBU	EICTA	Industry Groups
		Radicchio	ATM Forum	ECBS	
	CEN	W3C	ECMA International	OASIS	
	CENELEC	The Open Group	TeleManagement Forum	DVB	
	ETSI		Internet Society	OMG	



COPRAS was initiated by the 3 European Standards Organisations together with W3C and The Open Group, but backed by the ICTSB

COPRAS and BIOSEC

- BIOSEC was selected as relevant by COPRAS
- Attended COPRAS Kick-Off meeting on 14 October 2004
- A detailed standardization action plan will not be produced
- Information exchange process on relevant standardization activities
 - CEN/ISSS e-Authentication Workshop
 - ISO/IEC JTC SC37 Biometrics
 - CEN/ISSS Focus Group on Biometrics

ISO/IEC JTC1/SC37

Permanent members

- Biometrics
- Chairman: Fernando Podio, National Institute of Standards and Technology; Secretariat: ANSI
- P-members AUSTRALIA, CANADA, CHINA, CZECH REPUBLIC FINLAND, FRANCE, GERMANY, IRELAND, ITALY, JAPAN, REPUBLIC OF KOREA, MALAYSIA, NETHERLANDS, NEW ZEALAND, NORWAY, RUSSIAN FEDERATION, SINGAPORE, REPUBLIC OF SOUTH AFRICA, SWEDEN, SWITZERLAND, UNITED KINGDOM, and USA.
- O-members AUSTRIA, DENMARK, HUNGARY, ISRAEL, POLAND

SC37 Working Groups

- **WG 1 : Harmonized Biometric Vocabulary and Definitions**
 - Convener: Rene McIver - Canada
- **WG 2 : Biometric Technical Interfaces**
 - Convener: Young-Bin Kwon - Korea
- **WG 3 : Biometric Data Interchange Formats**
 - Convener: Axel Munde - Germany
- **WG 4 : Profiles for Biometric Applications**
 - Convener: Mike Hogan - USA
- **WG 5 : Biometric Testing and Reporting**
 - Convener: Bob Carter - UK
- **WG 6 : Cross Jurisdictional and Societal Aspects**
 - Convener: Mario Savastano - Italy

Some details on each Working Group

- Source: presentation by Nicolas Delvaux (Chairman of the CEN/ISSS Focus Group on Biometrics and Head of French delegation to SC37) to the ICTSB/NISSG meeting on 12 October 2004

WG1 – Harmonized Biometric Vocabulary

- Create a document of terms and definitions to be used throughout SC37 International Standards.
- Define a process for accepting or developing terms and definitions based on appropriate ISO/IEC standards.
- Identify sources of terms and definitions for possible use in an SC37 vocabulary (e.g., those drawn from existing standards, as well as other sources).
- Minimize ambiguity in terms and definitions in SC37 Standards arising from differences in cultures and languages.
- Identify and enlist the support and participation of experts to promote and progress the objectives and activities of SC 37/WG 1.

WG2 – Biometric Technical Interfaces

To consider the standardization of all necessary interfaces and interactions between biometric components and sub-systems, including the possible use of security mechanisms to protect stored data and data transferred between systems. To consider the need for a reference model for the architecture and operation of biometric systems in order to identify the standards that are needed to support multi-vendor systems and their application.

- BioAPI – Biometric Application Programming Interface
 - Part 1: BioAPI specification
 - Part 2: BioAPI Archive function Provider Interface
- BioAPI – Conformance testing
 - Part 1: Methods and procedures
 - Part 2: Tests assertions
- Biometric Inter working Protocol
- CBEFF, Common Biometric Exchange Framework Format
 - Part 1: Data Element Specification
 - Part 2: Registration Authority
- TR on multi-modal fusion

WG3 – Biometric Data Interchange Formats

To consider the standardisation of the content, meaning, and representation of biometric data formats which are specific to a particular biometric technology. To ensure a common look and feel for Biometric Data Structure standards, with notation and transfer formats that provide platform independence and separation of transfer syntax from content definition.

WG3 - projects

- A multi-part standard
 - Part 1: Framework
 - Part 2: Finger Minutiae
 - Part 3: Finger Pattern Spectral
 - Part 4: Finger Image
 - Part 5: Face Image
 - Part 6: Iris Image
 - Part 7: Signature/Sign behavioural
 - Part 8: Finger Pattern Skeletal
 - Part 9: Finger Vein Pattern

WG4 – Biometric Functional Architecture & Related Profiles

Develop a biometric functional architecture and related profiles that bind together the various biometric-related base standards in a manner consistent with functional blocks of operation of biometric systems. These profiles will identify the pertinent biometric-related base standards. They will also define which optional fields of the base standards shall be used, as well as how to set the configurable parameters, in order to achieve interoperability within a set of pre-defined constraints.

WG4 - Projects

- A multi-part standard
 - Part 1: Reference Architecture
 - Part 2: Verification & Identification in a highly secure environment
 - Part 3: Verification of Seafarer's

WG5 – Biometric Testing & Reporting

- To create testing and reporting methodologies and metrics that cover biometric technologies, systems and components as related to recognition of humans.
- To encourage studies and submissions of new work items related to biometric testing and reporting.
- To develop Working Drafts for approved projects on biometric testing and reporting.
- To maintain close liaison with SC27 - IT security techniques with regard to biometrics.
- To maintain close liaison with SC17 – Cards and personal identification with regard to biometrics.
- To respond to proposals submitted to SC 37 for biometric testing and reporting.
- To identify and enlist the support and participation of experts to promote and progress the objectives and activities of SC 37/WG 5.

- A multi-part standard
Performance Testing & Reporting
 - Part 1: Principles & Framework
 - Part 2: Testing Methodologies
 - Part 3: Specific Test Programmes
 - Part 4: Specific Testing Methodologies

WG6 – Cross-Jurisdictional & Societal Aspects

- Standardization in the field of cross-jurisdictional and societal aspects in the application of ISO/IEC biometrics standards.
- Within this context, the terms of reference includes the support of design and implementation of biometric technologies with respect to:
 - accessibility
 - health and safety
- support of legal requirements and acknowledgement of cross-jurisdictional and societal considerations pertaining to personal information
- specification and assessment of government policy are excluded from the scope of WG6.

CEN/ISSS Focus Group on Biometrics – main objective

- to support the interchange of knowledge and understanding among European NSBs, active in JTC1/SC37.
- to optimize the impact from European NSB experts on the JTC1/SC37 work
- to identify opportunities for further work (i.e. European specific requirements)
- to create awareness on biometrics standards developments outside the existing SC37 delegations
- to ensure effective information flow towards relevant IST projects as well as organisations and governments active in biometrics other than specifically in standards activities.
- Open to all interested parties – no membership fee

Focus Group – work plan for 2005

- Report - introductory material to the technologist
- Report -advise to the user (especially, policy maker and SME)
- Report - European specific requirements in Biometrics standardization work
- Quarterly informative sessions spread over Europe
- A grant proposal has been submitted to DG ENTR to fund these activities

Next meetings

- SC 37 Plenary and WG meetings: 27 June – 5 July 2005, South Africa
- Focus Group meeting – 26 January 2005 - Brussels



Thank you for your attention!

<http://www.ictsb.org>

<http://www.copras.org>

<http://www.cenorm.be/iss>

http://www.uninfo.polito.it/FG_Biometric/default.htm

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THE *Open* GROUP

