

English Version

Full body photography

Photographie du corps entier

Ganzkörperfotografie

This Technical Specification (CEN/TS) was approved by CEN on 6 February 2017 for provisional application.

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Contents	Page
European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative reference.....	6
3 Terms and definitions	6
4 Abbreviated terms.....	7
5 Conformance.....	8
6 Data structures.....	8
6.1 Body Tree concept	8
6.2 Camera images	8
6.3 Metadata.....	9
6.3.1 General.....	9
6.3.2 Pose Angle – Yaw	9
6.3.3 Pose angle encoding.....	10
7 Recommendations for Full Body Photography Systems	11
7.1 Architecture	11
7.2 Usability and accessibility.....	11
7.3 Practical applications	11
7.4 Photograph sets	12
7.4.1 General.....	12
7.4.2 Gait recognition	12
7.4.3 Image recognition	14
8 Full body photography.....	14
8.1 Full body image technical requirements.....	14
8.1.1 General.....	14
8.1.2 Example full body photographs	14
8.2 Full body photography session	16
8.2.1 Typical workflow for full body photography session	16
8.2.2 Full body photograph content requirements.....	17
9 Photo studio recommendations for full body photography	17
9.1 General.....	17
9.2 Recommended camera orientation.....	18
9.3 Recommended positioning and distance between camera and subject	18
9.4 Recommended focusing settings.....	19
9.5 Recommended white balance settings.....	19
9.6 Recommended backdrop design	19
9.6.1 General.....	19
9.6.2 Example configurations for a photo studio.....	20
10 Photography Use Cases	21
10.1 General.....	21
10.2 Photographic System Baseline Use Cases.....	21

11	Image Acquisition Measurement Methods	23
11.1	General	23
11.2	Exposure metering at various spots on a subject	24
11.3	Standard Test Chart Setup.....	24
11.3.1	The ISO 12233 Test Chart.....	25
11.3.2	Grey scale, colour checking and EN 61966-8 test charts.....	26
11.4	Measurement preparations and analysis	26
11.4.1	General	26
11.4.2	Preparations.....	27
11.4.3	Analysis	27
11.4.4	Camera image dynamic range checking	28
11.4.5	Lighting checking.....	28
11.4.6	Background checking.....	28
12	Summary.....	29
	Bibliography	30

European foreword

This document (CEN/TS 17051:2017) has been prepared by Technical Committee CEN/TC 224 “Personal identification, electronic signature and cards and their related systems and operations”, the secretariat of which is held by AFNOR.

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Introduction

Most countries around the world are provided with identification systems for law enforcement and border control. Many of these systems are not limited to face recognition purposes. To be consistent in such deployments and processes, technical documents, guidelines and best practice recommendations are being developed by different groups. However, these documents are primarily focused on travel document systems and the technical and operational issues to be considered when planning and deploying such systems in Europe. Full body recognition is the biometric mode used as a secondary mode in addition to face recognition or for forensic purposes. Face recognition is the biometric mode suited to the practicalities of travel documents.

There is little guidance covering the full body imaging for cross-border interoperability or law enforcement services. There is a need for guidance for the use of high quality digital cameras and video surveillance devices for full body photography. This Technical Specification is not restricted to body image data. For example, it may be possible to extract iris images in some scenarios where high resolution cameras are used or body silhouette data for gait recognition when low resolution cameras are in use.

1 Scope

This Technical Specification is intended to provide a Full Body Image Format for pattern recognition services and applications requiring the exchange of full body image data. Its typical applications include:

- a) human examination of high resolution full body images;
- b) human verification of identity based on full body images;
- c) computer automated full body identification;
- d) computer automated full body verification.

To enable applications on a wide variety of devices, including devices that have limited data storage, and to improve image recognition accuracy, ISO/IEC 19794 standards are followed regarding not only data format, but also scene constraints (lighting, pose, expression, etc.), photographic properties (positioning, camera focus, etc.), and digital image attributes (image resolution, image size, etc.).

A specific biometric profile for cross-border interoperability is required for full body photographs. Full body photography standardization is required to get good quality database images for identification and verification using video surveillance and other similar system generated images. At the moment, border guards take full body photographs using local practices for enrolment, verification, identification and watch list identification.

ISO 22311:2012 [10] specifies a common output file format that can be extracted from the video-surveillance contents collection systems to perform necessary processing. ISO/IEC 30137 [8] specifies data formats for storing, recording and transmitting biometric information acquired via a video surveillance system. The EN 62676 series [11] defines video surveillance systems for use in security applications.

The purpose of this Technical Specification is to provide expert guidance (i.e. best practices) for the photography of full body, especially when the resulting images are to be used for purposes of identification and verification, either by automated recognition systems or by human viewers.

2 Normative reference

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 61966-8, *Multimedia systems and equipment - Colour measurement and management - Part 8: Multimedia colour scanners*

ISO 12233, *Photography — Electronic still picture imaging — Resolution and spatial frequency responses*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

biometric verification

process of confirming a biometric claim through biometric comparison

[SOURCE: ISO/IEC 2382-37]