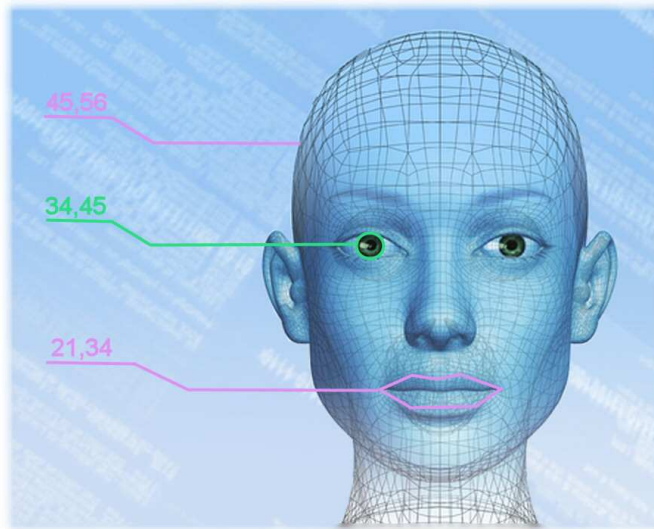


BioICAO Cloud

Face detection and verification
against international standards



BioICAO Cloud enables the compliance verification of a face image with ISO/IEC 19794-5 standard.

ISO/IEC 19794-5, according to the specifications released by *International Civil Aviation Organization (ICAO)*, enforces several requirements that face images must comply with in order to be used in MRTD (Machine Readable Travel Documents) such as e-passports, visas, id-cards.

BioICAO Cloud quickly and precisely detects a face in a digital image, verifies its compliance with the standard and crop a face according to *Token* format, that can be used in a variety of applications requiring face identification (manually with operator or automatically with the support of a face recognition algorithm).

Technical specification

Features

- Standard ISO/IEC 1974-5
- Analysis for ICAO photo compliancy
- Returns token format photo
- JPEG and JPEG2000 output formats

Performance

- High availability
- Reliable and configurable
- Fast response
- Secure and protected
- Usage statistics

Interface and development

- Simple REST API interface
- JSON and Swagger documentation



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International standards

BioICAO Cloud allows to check compliance with ICAO specifications and with quality parameters specified by ISO/IEC 19794-5 standard. As example:

- Image focus (to discard out of focus blurred images)
- Correct illumination (as chromatic tone and exposure)
- Resolution (to avoid pixelated images due to image resize)
- Presence of objects that can hide the face (dark glasses, scarfs...)
- Neutral facial expression

Image formats

BioICAO Cloud works with JPEG images. The returned *token face* image could be saved in JPEG2000 format, recognized as a standard for image storage on digital documents.

High availability

The web service is supported by a geographically distributed, fault tolerant cluster of servers, to provide a continuous (99.95%) service.

Reliable and configurable

BioICAO Cloud has been developed to evaluate photo of people from many different ethnic groups. The evaluation errors for focus and illumination balance are two to three times lower than competitor products. For custom applications where a parameter should not be evaluated (as could be the presence of an hat or veil), it is possible to diminish the parameter evaluation.

Fast response

BioICAO Cloud is fast, also when compared with native applications, thanks to the computational power of its cluster of servers.

Safe and protected

Using HTTPS and a customizable key, the connection is safe against improper use and middle man attacks. BioICAO Cloud is aware of privacy importance and never saves submitted images.

Usage statistics

At programmable times (daily, weekly or monthly) the service will send a report on the number of images elaborated and with the performance of BioICAO Cloud in the given time.

Integration and Development

With its simple API REST interface it is possible to use the service from any device. JSON and Swagger documentation enables any developer to integrate the service with the preferred programming language.

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