

FACE R IDENTITY MANAGEMENT SYSTEM™

Cloud-powered Facial Recognition



FIMS



**DELIVERING ADVANCED
3D FACIAL RECOGNITION
AND FACIAL IDENTITY
MANAGEMENT SOLUTIONS**

Identity and Verification Mobilized

The Animetrics FaceR™ Identity Management System (FIMS) is a centralized storage and management system for advanced 3D facial recognition powered by Animetrics' FaceR technology. Accurate identity resolution is mission critical in law enforcement, security and military intelligence, and the need for quicker and more precise facial identifications is more prominent than ever. FIMS gives organizations the capability to leverage Animetrics' powerful biometric facial technology and develop a new generation of mobile security and video surveillance applications that are delivered into the field in real time for fast, efficient and precise identity resolution.

FIMS Applications

- Mobile identity resolution and surveillance — military, intelligence, national/homeland security
- Investigative use and criminal screening — law enforcement, private security and investigations

As a cloud-based solution, FIMS allows police, military, private security, civil defense and other personnel to build, store and access a database of subjects' facial images easily from a variety of web connected endpoints, including smartphones. The Animetrics FIMS Cloud provides the ultimate web service for facial recognition systems and provides centralized management of these highly distributed, remote-based, "one-to-many" identity searches. Powerful FaceR technology transforms flat 2D images into 3D avatars, creating unique facial

signatures, which are then analyzed and matched against the stored images enrolled in the database.

FIMS Cloud

- Facial recognition for smartphones and web connected digital devices
- Real-time in the field ID processing
- Real-time watch list search
- Advanced face biometrics for uncontrolled facial imagery
- Highly scalable
- Facial database fault tolerance

Scalable, High Performance, Cloud-Powered Facial Recognition

FIMS' web-based architecture utilizes Animetrics' FaceR facial recognition biometric technology, converting 2D images or video to accurate 3D renderings, which can be viewed from any angle. FIMS Cloud makes those avatars – 3D facial signatures – available to credentialed users via any mobile, fixed digital video or photo device with standards-based web connectivity. This powerful combination brings the most advanced facial recognition and comparison technology available to personnel in the field, for faster and more accurate results.

By using a cloud-based model for the storage, management and access of 3D biometric templates, FIMS not only eliminates the need for costly on-premises storage, but provides a reliable and secure central store that can be accessed by any number of end devices at any given time, making it instantly scalable.

FIMS Cloud Features

- Web Services Server
- Open, Secure Web Application Platform and Development tools
- Accurate and fast ID management
- Web connected — supports all IP video cameras, digital cameras and web cameras
- Mobile connected — supports iPhone and Android devices
- Broad Integration with most watch list databases
- Broad application support
 - Covert security and video surveillance
 - Mobile security/face recognition
- Distributed and Extensible Cloud-based architecture

FIMS (FaceR Identity Management Solution) PHOTOS GALLERIES ENROLL RECOGNIZE SETUP LOGOUT: animetrics

Monitor

DoorCam

2012-09-13 17:24:21 2012-09-13 15:02:59 2012-09-13 14:59:56 2012-09-13 14:57:16 2012-09-13 14:35:13

Outgoing

2012-09-13 16:29:03 2012-09-13 15:44:51 2012-09-13 14:59:28 2012-09-13 14:47:18 2012-09-13 13:02:09

Incoming

2012-09-13 14:44:20 2012-09-13 14:35:13 2012-09-13 14:29:09 2012-09-13 14:24:50 2012-09-13 14:23:20

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FIMS Monitoring Multi-Camera Sources

Technical Specs

IMAGE PROCESSING, FACE DETECTION

- Frontal images: both eyes visible
- Face Rotation (Pose): up to 45 degrees left, right on Y axis up to 20 degrees up, down on X axis up to 15 degrees left, right on Z axis
- Saliency requirements: minimum 64 pixels between eye centers
- Face to image size ratio 1:8

CAMERAS — COTS

- Digital sensors, IP cameras, smartphones
 - Tested IP cameras: Axis, Sony, Panasonic, Fuji, Nikon
 - Tested smartphones: iPhone, Android devices
- Facial biometric template (Animetrics Face Signature, afs):
 - 2D and 3D facial biometric data: 6K bytes per image

Animetrics FACEngine™ Technology

Animetrics' FACEngine technology is the engine behind all of Animetrics' facial recognition and face creation systems. FACEngine is an integrated facial recognition technology that is designed to render accurate and useful 3D avatars from 2D images and video, even if the 2D image is not "straight on." The FACEngine 3D model is generated through a combination of an a priori mathematical model of faces, advanced image analysis and feature extraction, and advanced techniques for deriving precise pose (or rotation) estimates from an input image.

FACEngine technology can be tightly integrated into third party applications using the FaceR Animetrics90 SDK.

More Face Biometric Applications

Animetrics also offers face biometric identification products as smartphone applications that leverage the company's patented FaceR technology and can provide fast and accurate facial recognition identification with one-to-many searches of a watch list database. Animetrics FaceR Mobile ID app is available now for any size watch list database and Animetrics' FIMS (FaceR Identity Management System) service is also available as a cloud service or as a server license.

Contact Animetrics to find out more: Email info@animetrics.com or call (603) 447-5600 ext. 2041.



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