



FaceSDK™ : Enterprise Grade Solution for Face Recognition

About us

Luxand, Inc. is a private hi-tech company formed in 2007. Luxand research activities began with Artificial Intelligence and biometric identification technologies, allowing the company to develop a complete set of tools and libraries to perform fully automatic recognition of human faces and facial features.

Today, the company provides a broad range of facial feature recognition solutions. The company's products and technologies are used by biometric identification and security companies, banks, the entertainment industry, medical and cosmetic industry, at online entertainment portals, chat rooms, and movie Web sites around the globe.



What is FaceSDK?

FaceSDK is a high-performance, multi-platform face recognition, identification and facial feature detection solution. Serving software developers worldwide, FaceSDK is a perfect way to empower Web, desktop and mobile applications with face-based user authentication, automatic face detection and recognition.

Compatible with 32- and 64-bit desktop environments and mobile platforms including iOS and Android, FaceSDK is easy to integrate with new or existing projects, enabling developers to create a wide variety of applications. The system detects entire faces and individual facial features, recognizes faces in still images and in real-time video streams, and allows the creation of a wide range of applications from simple automatic red-eye removal tools to biometric login solutions.

Technology

FaceSDK enables Microsoft Visual C++, C#, Objective C, VB, Java and Delphi developers to build 32-bit and 64-bit applications for Web, Windows, Linux, macOS, iOS and Android with face recognition and face-based biometric identification functionality.

Our customers greatly appreciate how well the API is thought-out, and how easy it is to integrate the solution into their projects. We carefully designed FaceSDK architecture in order to speed up and simplify integration. Every little feature is demonstrated in a working sample that can be copied and used in your own project. FaceSDK supports the widest range of platforms and development environments including Windows/Linux 32/64 bit, macOS 64-bit, Android and Apple iOS systems. Supported development environments include Microsoft Visual C++, C#, Objective C, VB.NET, VB6, Java, Delphi, C++Builder, Xcode (iOS), Eclipse ADT (Android) and Android Studio (Android). Comprehensive documentation is available to help developers understand every little feature, setting and option.

Features

- **FACE RECOGNITION**
Stable face recognition robust to lighting conditions
- **LIVE VIDEO RECOGNITION**
Self-learning AI recognizes persons with a couple of function calls
- **FACE DETECTION**
Fast and precise face detection in stills and videos
- **70 FACIAL FEATURES**
Detection of 70 facial features, smooth facial feature tracking in video
- **FACIAL EXPRESSIONS**
Automated expression recognition (blink, smile) in stills and videos
- **GENDER AND AGE RECOGNITION**
Automated gender and age recognition in stills and videos
- **IP CAMERAS SUPPORT**
Support for every webcam on the market, including MJPEG-compatible IP cameras
- **PARALLEL PERFORMANCE**
Multi-threaded performance offers additional performance benefits on today's multi-core CPU's

Why FaceSDK?

- Supports Microsoft Visual C++, C#, Java, Objective-C, VB, Delphi and other environments
- Not a remote API: No internet connection required
- Always within your app (or your own server)
- Tons of samples for every feature
- Comprehensive documentation
- SDK architecture is well thought-out
- 200+ scientific papers published in renowned magazines are using and referencing FaceSDK

FaceSDK Tracker API

Self-Learning AI Tracks and Recognizes Faces in Live Video Streams in Real Time

FaceSDK Tracker API offers developers a powerful, self-learning AI for implementing real-time face identification and tracking in live video streams.

- Implement automated face tracking in live video streams with a simple function call
- No pre-defined templates and no subject enrollment required
- Automatically assign unique identifiers or set specific names to different faces
- Track moving subjects and receive programmed alerts on subject re-appearance
- Constant self-learning and re-training greatly improves recognition rates as the same face appears at various angles and lighting conditions

Applications

Our customers have successfully built security monitoring, access control and surveillance systems based on FaceSDK. There are numerous entertainment products and services making use of FaceSDK to create real-time animations.

- **Time & attendance:** FaceSDK provides quick, efficient and reliable facial recognition, allowing to build highly efficient time and attendance control systems.
- **Access control:** High-performance, precise facial recognition allows building efficient access control systems based solely on personnel biometric properties and requiring no PIN entry or secure keys.
- **Secure authentication:** The SDK provides highly reliable biometric identification based on live video recognition with extremely low false positive rates, allowing to build secure authentication systems for multiple applications.
- **Photo/video search:** Highly optimized still and video-based face recognition and identification enables near real-time search through huge photo and video libraries.
- **Facial effects:** FaceSDK has long been used by the entertainment industry to create products and services applying a wide range of facial effects. This includes augmented reality and digital mirror apps, virtual makeup, aging, and a lot more.
- **Facial animation:** FaceSDK can be used to build animated 3D models of human faces based on a single still image. Animated avatars, talking face apps and many other applications can be built for all supported mobile, desktop and Web platforms.

R&D:

Luxand, Inc. has its own research and development lab. Scientists, researchers and developers working in the research lab design next-generation technologies that can not only recognize faces and facial features, but automatically build highly realistic 3D models. With the help of these models, one can animate and transform faces as demonstrated in popular projects such as: PhotoSmileys.com, MakeMeBabies.com, In20Years.co, PicTreat.co, MakeMeZombie.com, as well as a number of projects for the mobile entertainment industry.

Many technologies developed by Luxand are protected by U.S. Patents: 8,265,410 (Automatic Correction and Enhancement of Facial Images); 8,842,889 (System and Method for Automatic Face Recognition); 8,879,804 (System and Method for Automatic Detection and Recognition of Facial Features); 9,314,692 (Method Of Creating Avatar From User Submitted Image).

We made substantial contributions to academic research and development. Our tools and technologies were used and referenced [in over 200 papers](#) published in renowned scientific magazines.



We are trusted by:

With our powerful technologies, flexible conditions and affordable prices, we are proud to work with many well-known companies. Our customers include Universal Pictures, LG, Philips, Fujitsu, Citrix, NEC Asia Pacific, Diebold, Boeing, Unilever, P&G, PACCAR, Ford, Danone, FIS, Havas Worldwide, Badoo, U.S. Department of Defence Cyber Crime Center, Florida Department of Corrections, Singapore Ministry of Home Affairs, Banco Azteca (Mexico), Kyoto Institute of Technology, Korea National Forensic Service, and Comando Generale dell'Arma dei Carabinieri (Italy).



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