Gemalto Cogent LFIS SDKs

Gemalto Cogent Live Face Identification System (LFIS) SDKs are powerful software development kits that allow developers to create applications that use 1:1 photo match, 1:N photo match, as well as face capture and identification using live videos. The SDKs are available on multiple platforms including Windows, Linux, and Android, making it easy to integrate with other devices such as gates, kiosks, ATMs, smartphones, tablets, cars, and other embedded systems. LFIS SDKs support Liveness detection, when using compatible 3D and IR cameras, to prevent spoofing attacks. Demo applications are available for each SDK.
Gemalto Cogent LFIS Check SDK

LFIS Check SDK allows 1:1 face matching using either 2 photos or a photo and a live video feed. When using a photo and a live video feed, the SDK allows for the automatic capture of a short video to locate and extract the face, simplifying the image capture process for the developer and the end-user. A typical use case is to check that a person is the owner of an ID document.

Features include:
- Face detection and template extraction from one image (e.g. the printed image from a driver’s license, passport data page, or any other ID document with a photo)
- Perform ICAO quality checks on facial images (30 items supported)
- Face capture from a live camera video feed from a USB camera or IP camera
- 1:1 (one to one) match between two images
- Local or remote mode: matching can be either done locally by the SDK, or remotely by connecting to an LFIS server
- Ability to connect to an LFIS server for enrollment and/or search the server’s watchlist
- Advanced passive liveness detection using 3D camera or IR camera

The LFIS Check demo application showcases the LFIS Check SDK as well as the Gemalto document reader SDK, integrating 1:1 matching with Gemalto document readers. The application locates and retrieves the face from the ID card, driver’s license, passport, or any other ID document that has a printed photo and then compares this image with the face image captured from a live video feed into the application.

Gemalto Cogent LFIS Verify SDK

LFIS Verify SDK enables end-users to do 1:N (one to few) matching using a local database. A typical use case is to identify a person that wants to access a building.

Features include:
- All features included in the LFIS Check SDK
- 1:N face matching which searches an image against a local watchlist and returns a candidate list
- Locates and extracts face from a camera’s live video feed to search against the local database
- Automatically maintain a local database for enrollment and deletion
- Automatic synchronization between the local database with the LFIS server database (optional)

The LFIS Verify demo application is available for Android smartphones and demonstrates the listed features using the phone’s embedded camera and showcases enrollment, capture, 1:1 match, 1:N match, and identification.

System Specifications and Performance

- Windows 7+ 32/64bits compatible (*Win10 may be required for some 3D cameras). Program languages are C, C++, Java and .NET.
- Linux 2.6+ 64bits compatible (*Ubuntu 16/18 may be required for some 3D cameras). Program languages are C, C++, Java.
- Android 4.4+ compatible (*6.0+ is requested by embedded SDK). Program languages are C, C++, Java.
- IR camera support 850nm to 940nm wavelength light.
- The local database for the LFIS Verify SDK can support up to 100K enrolled faces.
- Less than 1 second for face identification using a minimal two cores Intel i3 CPU.