ZKTECO CV PRODUCTS SDK SELECTION GUIDE

1. Customization Service

Dear customers, ZKTeco provides customization service base on CV hardware, CV firmware, CV SDK and access control software, If you find that our CV devices, firmware or software do not meet your daily requirements, please contact technicians first to give feedback on relevant issues, If your suggest is accepted, we will support this feature in subsequent versions. If not, you can choose to pay for customization. We will arrange for R&D personnel and technical personnel to dock this service.

Customized services will be charged according to our workload. Please send the requirements to the docking technicians or business personnel. They will contact the relevant personnel for evaluation. Welcome to inquire.

If you have communicated with technicians and still need integrated development, please read the following introduction first to avoid delaying your R&D process due to wrong selection, also to understand differences between all types of SDK provided by ZKTeco and theirs before buying them. (ZKTeco's SDK and API are much more than that, but the space is limited. Here we will only introduce the related SDK of CV products. For other SDK products, please contact the technical support or business personnel for docking. They will give further answers). Hope you develop successful.

2. Android Device EDK

This EDK is used in ZKTeco visible facial recognition hardware equipment. Customers can develop their own APP on related hardware and equipment to fully meet customer business needs.

This EDK mainly operates the hardware of Wiegand, RS485, RS232, relay, LED and so on. EDK includes

Document: ZKTeco_ZSM7X0_Platform_EDK_for_Android_V1.0.0-EN.pdf

DEMO: Hardware interface usage include Simple Wiegand, RS485, RS232, Access control, Relay, Police report and so on;

Interface document: ZK Android.jar

Supported equipment: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21, FaceKiosk-H13A/B/C, SpeedFace-V5, SpeedFace-H5, FaceDepot-7A, FaceDepot-7B, G4, Horus

New agreement: first release

Recommended applications: Third-party APP adds to ZKTeco hardware functions, such as punch card, Wiegand, R485 transmission, gate magnet, relay, alarm control and other functions.

This SDK is charged, due to difficult develop and its close relationship with hardware. It is not recommended to apply. If you need it, please contact business personnel.

For the first purchase, upgrade purchase, technical service, etc., please refer to the table below.

For the corresponding material code and price, please consult ZKTeco's local business personnel:

CV Device EDK (Android) (3rd Party Can Develop Their APP)	F20030051	CV Android Device EDK (Does not include support). One year free protocol upgrade. Supported Hardware: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21, SpeedFace-V5, SpeedFace-H5, FaceDepot-7A, FaceDepot-7B	First purchase, specific price, please consult business
	F20040089	Upgrade the Device EDK after one year. (Does not include support).	(Agreement to buy more than one year)
	F20040090	Technical Support 3 man-days Package (Does not include SDK). Note: 1.This package will come with 3 man-days technical support 2.If end user needs more technical support man-days, they should purchase the support as package 3.For the SDK, ZKTeco do not offer any free online technical support. 4.This package does not contain SDK, merely providing technical support.	Purchasing Technical Service Support

Visible Light Algorithm

This SDK is mainly used for customers to use visible face recognition algorithm on our hardware platform. After purchasing CV Android Device EDK, customers will include this SDK by default, and do not need to apply for purchase alone.

Supported equipment: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21, FaceKiosk-H13A/C, SpeedFace-V5, SpeedFace-H5, FaceDepot-7A, FaceDepot-7B, G4, Horus

New agreement: first release

Characteristic description: Visible face recognition capacity of 10,000 (1:N), Aging, Gender analysis;

Recommended applications: Third-party APP can expand third-party application business based on ZKTeco hardware equipment, using visible face recognition technology, such as membership identification, data query, advertising push, fast attendance, fast access control and other functions for third-party applications.

This SDK is charged, due to difficult develop and its close relationship with hardware. It is not recommended to apply. If you need it, please contact business personnel.

Summary of ZKTeco CV Android Device EDK and ZKTeco CV Android Algorithm SDK:

Those SDK is designed for integration of facial recognition into enterprise applications for ZKTeco Android devices.

Live face detection. A conventional face identification system can be tricked by placing a photo in

front of the camera. Face verification SDK is able to prevent this kind of security breach by determining whether a face in a video stream is "live" or a photograph. The liveness detection can be performed in passive mode, when the engine evaluates certain facial features, and in active mode, when the engine evaluates user's response to perform actions like blinking or head movements.

Face image quality determination. A quality threshold can be used during face enrollment to ensure that only the best quality face template will be stored into database.

3. Time & Attendance (T&A) PUSH SDK

This SDK is used to connect third-party software to the ZKTeco attendance device.

This SDK is the previous T&A PUSH SDK plus the newly released A I PUSH SDK module. It can be considered as the latest version of T&A PUSH SDK. So if customers have purchased T&A PUSH SDK before, they need to support new visible attendance equipment, they can consider updating the SDK. If customers do not purchase visible equipment and want to use other updating functions, they can also choose to upgrade the SDK.

Supported equipment: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21, SpeedFace-V5, SpeedFace-H5, FaceDepot-7A, FaceDepot-7B, G4.

Compatibility Standalone Time & Attendance Devices with Linux, such as iClock Series / IN Series / KF Series / MB Series / P Series / Silk Series / S Series / UA Series / uFace Series / VF Series / A Series/B Series/T Series/U Series/X Series,etc.

New agreement:

1. Adding visible face comparison protocol;

2. Support communication encryption;

3. Online registration card, face, palm-print;

4. Background verification;

5. Online upgrade; (Some of the above functions are not supported, continuous optimization)

Recommended applications: Customers can develop third-party attendance and simple access control software (B/S or C/S) based on ZKTeco hardware and ZKTeco APP.

This SDK is charged, please contact the business personnel order to purchase (customers who have purchased T&A PUSH for less than one year before need to upgrade the latest version free of charge, customers who have not purchased T&A PUSH for more than one year need to pay upgrade fees, and customers who have never purchased T&A PUSH need to purchase this agreement at full price first).

For the first purchase, upgrade purchase, technical service, etc., please refer to the table below. For the corresponding material code and price, please consult ZKTeco's local business personnel:

CV T&A PUSH SDK (3rd Party Can Develop Their Software)	F20030052	CV T&A PUSH SDK (include facial recognition api) (Does not include support). One year free protocol upgrade. Supported Hardware: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21	First purchase, specific price, please consult business
	F20040089	Upgrade the protocol version after one year. (Does not include support).	(Agreement purchase more than one year)
	F20040090	Technical Support 3 man-days Package (Does not include SDK). Note: 1.This package will come with 3 man-days technical support 2.If end user needs more technical support man-days, they should purchase the support as package 3.For the SDK, ZKTeco do not offer any free online technical support. 4.This package does not contain SDK, merely providing technical support.	Purchasing Technical Service Support

4. Access Control (AC) PUSH SDK

This SDK is used to connect third-party software to ZKTeco access control device.

This SDK is the former AC PUSH SDK plus the newly released AIPUSH SDK module, which can be regarded as the latest version of the AC PUSH SDK. So if the customer has purchased the AC PUSH SDK before, and now needs to support the new visible access control equipment, you can consider updating the SDK. If the customer does not purchase the visible equipment and wants to use other updating functions, you can also choose to upgrade the SDK.

Supported equipment: FaceDepot-7A, FaceDepot-7B, SpeedFace-V5, SpeedFace-H5, G4

Compatibility Standalone Access Control Devices with Linux, such as ProFace X / inBio Pro Series / C3 Pro Series / Green Label Series/ F18-S/ F19-S/ New F21/ New F21 Lite/ New Multibio 800-H,etc.

Additional protocols:

1. Adding visible face comparison protocols; 2. Supporting communication encryption;

Recommended applications: Customers can develop third-party attendance and advanced access control software (B/S or C/S) based on ZKTeco hardware and ZKTeco APP.

This SDK is charged, please contact the commercial order to purchase (customers who have purchased AC PUSH for less than one year before need to upgrade the latest version free of charge, customers who have not purchased AC PUSH for more than one year need to pay the upgrade fee, and customers who have never purchased AC PUSH need to purchase this agreement at full price).

For the first purchase, upgrade purchase, technical service, etc., please refer to the table below.

For the corresponding material code and price, please consult ZKTeco's local business personnel:

CV AC PUSH SDK (3rd Party Can Develop Their Software)	F20030053	CV AC PUSH SDK (include facial recognition api) (Does not include support). One year free protocol upgrade. Supported Hardware: FaceDepot-7A, FaceDepot-7B, SpeedFace-V5, SpeedFace-H5	First purchase, specific price, please consult business
	F20040089	Upgrade the protocol version after one year. (Does not include support).	Upgrade SDK (agreement purchase more than one year)
	F20030043	Technical Support 3 man-days Package (Does not include SDK). Note: 1.This package will come with 3 man-days technical support 2.If end user needs more technical support man-days, they should purchase the support as package 3.For the SDK, ZKTeco do not offer any free online technical support. 4.This package does not contain SDK, merely providing technical support.	Purchasing Technical Service Support

5. Facial Camera SDK (Compatibility AC PUSH SDK)

This SDK is used for third-party software to connect ZKTeco to face capture or compare cameras.

SDK includes: SDK documents, configuration documents, so libraries and DLL files

Supported equipment: FI710

New agreement: first release

Characteristic description: Visible face recognition capacity of 20,000 (1:N)

Recommended applications: Customers can develop third-party face recognition related software based on hardware equipment above ZKTeco (no sense of attendance, no sense of access control, no sense of monitoring, early warning).

This SDK is free. Please contact business or technical personnel for it.

For SDK purchases, technical services, etc., please refer to the table below. For the corresponding material codes and prices, please consult ZKTeco's local business personnel:

Camera SDK (3rd Party Can Develop Their Device or Software)	F20030054	Face Camera SDK (Does not include support).	First purchase, specific price, please consult business

		Technical Support 3 man-days Package	Purchasing Technical
	F20040090	(Does not include SDK). Note: 1.This package will come with 3 man-days technical support 2.If end user needs more technical support man-days, they should purchase the support as package 3.For the SDK, ZKTeco do not offer any free online technical support. 4.This package does not contain SDK, merely providing technical support.	Service Support

6. BioServer API

This API is used for third-party software, APP, server and other business software to connect ZKTeco to BioServer 2. It is the SDK (RESTful API) of BioServer 2. The SDK supports 50,000 visible face recognition (1:N), and the recognition speed can reach 50 faces per second.

Supported equipment: BioServer 2

New agreement: first release

Characteristic description: Visible face recognition capacity of 50,000 (1:N), Aging, Gender analysis;

Recommended applications: This SDK can provide visible facial recognition background comparison function for ZKTeco hardware devices or third-party hardware devices, such as background comparison server for FC series capture cameras, as well as background comparison server for FaceKiosk, SpeedFace and FaceDepot series machines (from 10,000 capacity to 50,000 capacity), and as algorithm server for third-party software. For facial algorithm services. (Integrating with existing applications such as stores, hospitals, airports, schools, etc.);

This SDK is free. Please contact business or technical personnel for it.

For SDK purchases, technical services, etc., please refer to the table below. For the corresponding material codes and prices, please consult ZKTeco's local business personnel:

CV BioServer API (Facial Recognition) (3rd Party Can Develop Their Device or Software)	F20030055	Facial Recognition (1:N Capacity: 30,000), Gender Analysis, Age Analysis (Does not include support).	First purchase, specific price, please consult business
Development Assistance Service	F20040090	Technical Support 3 man-days Package (Does not include SDK). Note: 1.This package will come with 3 man-days technical support 2.If end user needs more technical support man-days, they should purchase the support as package	Purchasing Technical Support Services

	3.For the SDK, ZKTeco do not offer any free online technical support. 4.This package does not contain SDK, merely providing technical support.	

Appendix 1: Product Key Technologies Primer

Hardware: FaceKiosk-V43, FaceKiosk-V32, FaceKiosk-H32, FaceKiosk-H21

Algorithmic features: facial detection, recognition and other capabilities, but also for age and gender analysis

Equipment positioning: attendance, access control, advertising, visitors, project integration

Collaboration software: ZKBioSecurity，ZKBioTime

System version: Android 7.1.2
RAM/ROM: 4G/32G

Capacity: 10,000 visible light face recognition（1:N）

➢ Commonly used attendance, access control equipment, personalized needs can be linked to ZKTeco technical support customization (APP, PUSH protocol or software can be customized);
➢ Third-party software wishes to support the above machines, please apply for CV T&A PUSH SDK.
➢ Third-party APP wants to run on the above machines, please apply for CV Android Device EDK and CV Android Algorithm SDK

Description Third parties can develop applications such as ordering, advertising, shopping mall navigation based on this hardware, or companies with mature applications can integrate ZKTeco facial visible light algorithm based on this platform.

Hardware: FaceKiosk-H13A/C , FaceDepot-7A, FaceDepot-7B, SpeedFace-V5, SpeedFace-H5, G4, Horus

Algorithmic features: facial detection, recognition and other capabilities, but also for age and gender analysis

Equipment positioning: attendance, access control, visitors, project integration

Collaboration software: ZKBioSecurity，BioTime

System version: Android 5.1.1
RAM/ROM: 4G/8G
Capacity: 6,000-10,000 (1:N) visible light face recognition.

➢ Commonly used attendance, access control equipment, personalized needs can be linked to ZKTeco technical support customization (APP, PUSH protocol or software can be customized);
➢ Third-party software wishes to support the above machines, please apply for CV AC PUSH SDK;
➢ Third-party APP wants to run on the above machines, please apply for CV Android Device EDK

and CV Android Algorithm SDK

Description: Third parties can develop channels, access control and other applications based on this hardware, or companies with mature applications can integrate ZKTeco facial visible light algorithm based on this platform.

Hardware: FI710 camera

Algorithmic features: facial detection, recognition and other capabilities.

Equipment positioning: integration of access control, trajectory, security, sensor-less identification, etc.

Collaboration software: ZKBioSecurity

Operation system : Linux

Interface types: AC PUSH SDK

SDK support platform: Linux，Windows

Capacity: 20,000 (1:N) light face recognition.

➢ Commonly used attendance, access control, trajectory tracking, senseless experience and other projects, personalized needs can be linked to ZKTeco technology support customization;

➢ Third-party software wishes to dock with the above machines, please apply for CV Camera SDK or CV AC PUSH SDK;

CV Camera SDK is free and more powerful, but it is difficult to develop. CV AC PUSH SDK charges for personnel and template data, but it is less difficult to develop, and it has fast integration speed with software that supports PUSH protocol.

Hardware: BioServer 2 comparison server

Algorithmic features: facial detection, recognition and other capabilities, but also for age, gender analysis, 30,000 capacity (1:N)

Equipment positioning: With the facial grabbing camera for background comparison (16 road grabbing cameras can be connected), with visible facial recognition and attendance equipment expansion, as a third-party comparison server for project integration.

Collocation software: ZKBioSecurity

System version: Linux

API interface type: RESTful

API support platform: Linux, Windows, Android, etc.

Capacity: 50,000 (1:N) visble light face recognition.

➢ Used in products and solutions that require background comparison, personalized requirements can be customized with ZKTeco technology support (PUSH protocol or software can be customized);

➢ Third-party software wants to use the centrally controlled facial visible light algorithm, buy BioServer 2 and apply for CV BioServer API integration.

Appendix 2: After-Sales Services

1. All SDK sales only provide documents and simple DEMO, not free technical support services. If you need ZKTeco to provide integrated development guidance, please purchase Technical Support 3 man-days Package. ZKTeco will arrange for R&D personnel to provide 3 working days of technical support. If you need more support, please buy more than once.

2. An SDK (EDK, API) application is only allowed to be sent to a terminal development client (NDA signatory). It is not allowed to disclose relevant information. All unauthorized replications do not provide BUG repair, technical solutions, protocol upgrade, protocol customization and service purchase, while retaining the right of recourse. (Avoid illegal distribution and replication to multiple customers, resulting in a sharp increase in technical services at Headquarters, but only a single licensing fee). All SDKs please login to the information sharing platform for application;

3. Local technical support receives customer feedback from SDK BUG, and technicians will contact firmware development solutions (Linux and Android devices, please contact separately, firmware research and development will contact PUSH communication group to solve), that is, technical support does not have the latest version of SDK, nor does it provide technical support services, only provide purchase guidance and problem transfer;

Dear customers, if you have read this guide carefully, any doubts, please contact our technical support and business personnel, they will further help you analyze your actual needs, so as to give the best solution.

Please download and review the latest version of this brochure before making an order.

BioCV Product and Solution Division

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