
Passport Reader SDK User Manual

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Chapter 1 SDK Introduction

1.1 SDK copyright

The SDK copyright is reserved. Without our authorization, it is not allowed to use the SDK.

1.2 SDK Operating Environment

This SDK can be invoked in the Linux system of GCC version not less than 4.8.5. The accompanying QT demo needs to be run in GCC version 4.8.5 or higher.

Note: Chinese path is not supported in Linux.

The computer configuration cannot lower than: Core i5(CPU), 2G(memory).

1.3 SDK File List

- Demo files: Demonstration programs.
- Lib files: recognition engine related files.
- Helpdoc files: SDK development documents and development considerations.
- Samples: Simple call example of C++ language.

Chapter 2 Instructions

2.1 Device Introduction

The APIs described in this document can apply to devices such as PR series, AR series, and KR series. All the above series support automatic classification, that is, a random piece of device under such series can scan multiple and various ID documents, including passports, visa, driving license, IDs, diversified passes and so on. The physical picture is shown at figure 2.1.



PR series



AR series



KR series

Figure 2.1 Device Model

Main functions of this hardware including support the chip reading of second generation ID card, e-passport and the UV illumination.

Model No.	Chip reading of Chinese ID	Epassport chip reading	Visible and IR illumination	UV illumination	Resolution (Pixel)
TH-PRXXX	optional	optional	√	optional	2048×1536
EPRXXX	optional	optional	√	optional	2048×1536
PSPRXXX	optional	optional	√	optional	2048×1536
TH-ARXXX	optional	optional	√	optional	2048×1536 2592×1944
QR5000	optional	optional	√	optional	2048×1536 2592×1944
KRXXX	optional	optional	√	optional	2048×1536 2592×1944

Figure 2.1 Main functions of passport reader

2.2 SDK Development Procedures

2.2.1 Recognition Processes

As shown by figure 2.2.1, it is the standard procedures to call the APIs.

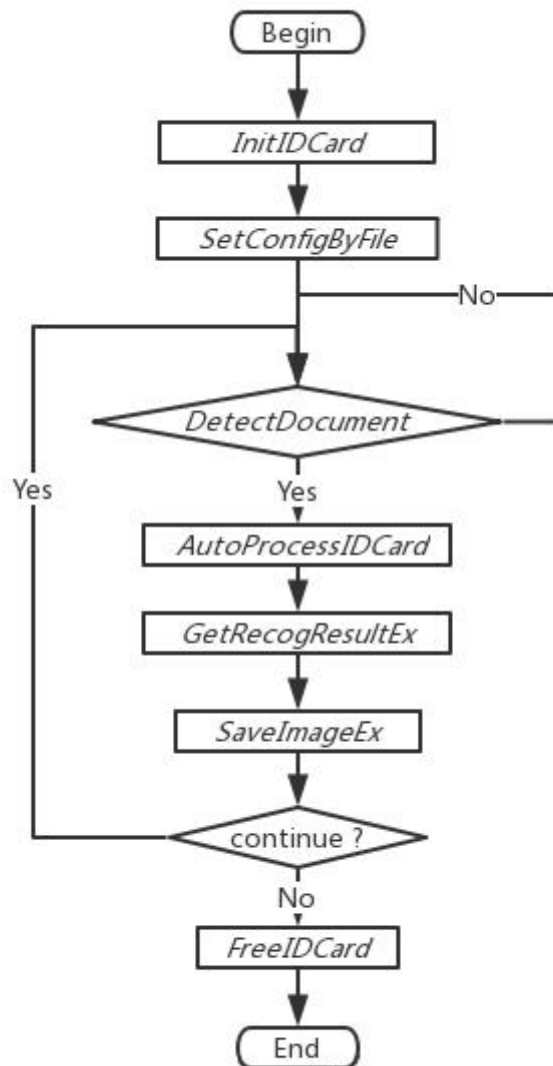


Figure 2.2.1 Procedures to scan the ID documents

2.2.2 Sample program

In order to help users to understand invoke API method, user manual and sample

program are provided for reference. API documents and sample program are stored

under the disk directory “Samples” and “Helpdoc”.

Chapter 3 Program Interface

SDK export interface dynamic library is libIDCard.so, code system has adapt Unicode.

3.1 Common Interface

3.1.1 Initialize and release recognition engine

3.1.1.1 Initialize the recognition engine

Description	Initialize the recognition engine	
Prototype	int InitIDCard(LPCWSTR lpUserID,int nType, LPCWSTR lpDirectory);	
Parameter	lpUserID	User ID provided by manufactor to verify authorization.
	nType	Each bit symbolizes a type of recognition engine. If the bit is “1”, recognition engine is loaded correspondingly; if it’s “0”, it means not loading. Bit0 means the recognition engine for the business card. Other bits remain unused.
	lpDirectory	Path for recognition engine files
Return value	0	Initialization succeed
	1	Authorization ID is incorrect
	2	Device initialization is failed
	3	Recognition engine initialization is failed
	4	Authorization files are not found
	5	Recognition engine is failed to load templates
	6	Chip reader initialization is failed

3.1.1.2 Release recognition engine

Description	Release recognition engine
Prototype	void FreeIDCard();
Parameter	None
Return value	None

3.1.2 Detect whether the ID document is placed, document recognition and acquire recognition results

3.1.2.1 Detect if the ID document has been placed or not

Prototype	int DetectDocument();	
Parameter	None	
Return Value	-1	The core engine has not been initialized
	0	Cannot detect if the ID document is placed or not
	1	Detect the ID document is placed in
	2	Detect the ID document was taken out

3.1.2.2 Scan ID documents

Description	When the placed ID document has been detected, this interface can be called to start recognition.	
Prototype	int AutoProcessIDCard(int& nCardType);	
	nCardType	[Output] “1” means the ID documents has chips. “2” means the ID documents do not have chips. “4” means the ID documents has barcode. “5” means the ID documents has chips and barcode. “6” means the ID documents do not have chips, but detected barcode.
Return Value	> 0	Successfully return the main types of the document
	-1	Did not set up the valid document types that participate in the automatic classification.
	-2	Image capturing is failed.
	-3	Image cutting is failed.
	-4	Classification is failed, and did not find the matched

		template.
	-5	Classification is failed, and did not set up the valid document types.
	-6	Classification is failed and recognition rejected.
	-7	To read the chip information is successful, but page recognition is failed.
	-8	To read the chip information is failed, but page recognition is successful.
	-9	The page recognition and chip reading are both failed
	Other	Recognition is failed.

3.1.2.3 Acquire recognition field name

Prototype	int GetFieldNameEx (int nAttribute,int nIndex,LPWSTR lpBuffer,int& nBufferLen);	
Parameter	nAttribute	0: To acquire the chip information To acquire OCR field result from the page
	nIndex	For field index, please refer to appendix B.
	lpBuffer	Buffer areas to store the results
	nBufferLen	[Input] buffer size [Output] length for recognition results
Return Value	0	Succeed
	-1	Recognition engine is failed to be initialized.
	-2	Such property does not exist.
	1	Buffer areas is too small and "nBufferLen" can be used to adjust the storage room.
	2	Recognition is failed
	3	The field symbolized by "nIndex" does not exist.

3.1.2.4 Acquire recognition field result

Prototype	int GetRecogResultEx (int nAttribute,int nIndex,LPWSTR lpBuffer,int& nBufferLen);	
Parameter	nAttribute	0: To acquire the chip information 1: To acquire OCR result from the page
	nIndex	For field index, please refer to appendix B.
	lpBuffer	Buffer areas to store the results
	nBufferLen	[Input] buffer size [Output] length for recognition results
Return Value	0	Succeed
	-1	Recognition engine is failed to be initialized.
	-2	Such property does not exist.
	1	Buffer areas is too small and “nBufferLen” reverse back the storage room.
	2	Recognition is failed
	3	The field represent by “nIndex” does not exist.

3.1.2.5 Acquire the origin of results

Prototype	int GetResultTypeEx(int nAttribute,int nIndex);	
Parameter	nAttribute	0: to acquire the chip field value 1: To acquire OCR fields from page
	nIndex	For field index, please refer to appendix B
Return Value	0	The Origin is from the chip
	1	The origin is from the OCR field of page VIZ area
	2	The result origins are export from VIZ area
	3	The origin is from the OCR field of page MRZ area
	4	The result origins are from other MRZ fields

3.3.2.6 Acquire the recognition result confident

Prototype	int GetFieldConfEx(int nAttribute,int nIndex);	
Parameter	nAttribute	0: the origin is from chip data 1: the origin is from OCR result of the page
	nIndex	Please refer to Appendix B for field index
Return Value	0 ~ 100	If confidence is lower than 30, and this field is reliable

3.1.2.7 Acquire the ID documents name

Prototype	int GetIDCardName(LPCTSTR lpBuffer, int&nBufferLen);	
Parameter	lpBuffer	The Buffer is used to save document name
	nBufferLen	[Input] "lpBuffer" is used to adjust buffer size [Output] Length of ID document name
Return Value	0	Succeed
	Others	Failed
Note	If the current language is set as Chinese, the document type is returned in Chinese; if the current language is set as English, the English name is returned	

3.1.2.8 Acquire the sub-type of the ID document

Prototype	int GetSubID();	
Parameter	None	
Return Value	> 0	Sub-types of ID documents
	-1	Did not acquire the sub-types of ID documents
Note	After successfully calling the API "AutoProcessIDCard", and then call this API to acquire the sub-types of ID documents	

3.1.2.9 Save specified images to specified paths

Prototype	int SaveImageEx (LPCWSTR lpFileName,int nType);	
Parameter	lpFileName	When Saving images to local files, its filename must be "jpg" "bmp" "tif" and other formats cannot be supported
	nType	For the types of image saving, "bit0~bit4" symbolize white image, IR image, UV image, page portrait and chip portrait; If the bit is "1", it means saving images, "0" means not saving
Return Value	0	Succeed
	Others	If the API calling is failed, "bit0~bit4" symbolizes if the corresponding images are saved successfully. If the bit is "1", it means image saving is failed, if "0", it means image saving is successful
Note	If the chip reading is failed, the chip portrait cannot be saved. When there is only one type of image needs to be saved, the filename for image saving must be consistent with parameter "lpFileName". When more than one type of images need to be saved, the filename should add "IR" "UV" "Head" "HeadEc" and the suffix remains unchanged	

3.1.3 Barcode reading related API

3.1.3.1 Set barcode recognition

Prototype	void SetBarCodeMode(bool bBarCodeMode, bool bCellPhoneBarCodeCheck);	
Parameter	bBarCodeMode	"True" means barcode recognition is successful. "false" means barcode recognition is failed.
	bCellPhoneBarCodeCheck	"True" means it can detect the phone barcode. "false" means it cannot detect the phone barcode.
Return Value	None	

Note	This API must be called first before calling “AutoProcessIDCard” if a barcode needs to be recognized.
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3.1.3. 2 Acquire the numbers of recognized barcodes

Prototype	int GetBarcodeCount();	
Parameter	None	
Return Value	>= 0	The numbers of scanned barcodes
	< 0	Failed

3.1.3.3 Acquire barcode recognition results

Prototype	int GetBarcodeRecogResult(int nIndex,LPWSTR lpBuffer,int& nBufferLen,LPWSTR lpResultType, int& nResultTypeLen);	
Parameter	nIndex	Barcode index starts from “0”.
	lpBuffer	Barcode recognition results
	nBufferLen	Length for Barcode recognition results
	lpResultType	Barcode types
	nResultTypeLen	Length for barcode types
Return Value	0	Succeed
	-1	Buffer area for “lpResult” or “lpResultType” is too small.
	-2	Recognition is failed
	-3	“nIndex” index does not exist.
Note	Be able to recognize one dimensional codes and QR codes.	

3.1.4 Normal set up recognition option

There are two ways to set up the recognition options. One is to import the configuration file through the API “SetConfigByFile”, and the other is to set up respective scanning options by calling the API.

If using the first method, after modifying the configuration files, simply call the API “SetConfigByFile” to import all the scanning options at once. For the contents and format of the configuration files, please refer to the configuration files that come with the installation package. Its location is in the “lib” folder under the installation directory, and the filename is “IDCardConfig.ini”.

If using the second way, the API needs to be called once for each scanning option.

3.1.4.1 Import configuration

Description	To load ID document recognition options from configuration files	
Prototype	int SetConfigByFile(LPCWSTR lpConfigFile);	
Parameter	lpConfigFile	The full path for configuration files
Return Value	0	Successfully load the configurations
	-1	The configuration files or configuration formats are incorrect.

3.1.4.2 Set languages

Description	To set up the languages that the core engine adopts.	
Prototype	int SetLanguage(int nLangType);	
Parameter	nLangType	For language types, “0” means “Chinese” and “1” means “English”.
Return value	0	Succeed
	1	Failed

3.1.4.3 Set image types

Prototype	void SetSaveImageType(int nImageType);	
Parameter	nImageType	For the types of image saving, “bit0~bit4” symbolize white image, IR image, UV image, page portrait and chip portrait; If the bit is “1”, it means capturing images, if “0”,

		it means not capturing.
Return Value	None	

3.1.4.4 Set if the page recognition is performed

Prototype	void SetRecogVIZ(bool bRecogVIZ);	
Parameter	bRecogVIZ	<p>“True” means page recognition is performed.</p> <p>“False” means page recognition is not performed.</p>
Return Value	None	

3.1.4.5 Set if the chip data can be recognized

Prototype	void SetRecogDG(int nDG);	
Parameter	nDG	<p>From bit1 to bit 16, each bit represents a data group. If the bit is set to “1”, it means the corresponding data group is recognized.”0” means not recognizing any data.</p> <p>“Bit1” means “DG1”.</p> <p>“Bit2” means “DG2”</p> <p>... ..</p> <p>“Bit16” means “DG 16”</p>
Return Value	None	

3.1.4.6 Set whether to parse MRZ in the chip

Prototype	void SetAnalyseMRZ(bool bAnalysis);	
Parameter	bAnalysis	<p>“True” means parse MRZ.</p> <p>“False” means not parse MRZ.</p>

Return Value	None
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3.1.4.7 Empty document types that participates in automatic classification

Description	Empty document types that participates in automatic classification
Prototype	<code>void ResetIDCardID();</code>
Parameter	None
Return Value	None

3.1.4.8 Set ID document types that participates in the automatic classification

Description	Set up or increase the number of ID document types that participates in the automatic classification. You can only set one type of document when calling the API once. When you want to recognize multiple documents, you can call API by multiple times in succession to accumulate.	
Prototype	<code>int AddIDCardID(int nMainID,int nSubID[],int nSubIDCount);</code>	
Parameter	nMainID	Document types that participates in automatic classification
	nSubID	A list of ID document sub-types that participate in automatic classification. If the "nSubIDCount" value is "1" and the first element value in the "nSubID" is "0", then all sub-types can participate in automatic classification
	nSubIDCount	The number of ID document sub-types that participates in the automatic classification
Return Value	0	Succeed
	Others	Failed

3.1.5 Acquire device related information

3.1.5.1 Acquire the device serial No.

Prototype	<code>int GetDeviceSN</code>
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	(LPCWSTR lpBuffer,int nBufferLen);	
Parameter	lpBuffer	The Buffer is used to save the serial No.
	nBufferLen	“lpBuffer” buffer size, the maximum cannot exceed 16, and “16” is the recommended size.
Return Value	0	Succeed
	1	The device has not been successfully loaded.
	2	This device cannot support this operation.

3.1.5.2 Acquire device model

Prototype	BOOL GetCurrentDevice (LPCWSTR lpBuffer,int nBufferLen);	
Parameter	lpBuffer	The Buffer is used to save the serial NO.
	nBufferLen	“lpBuffer” buffer capacity, calculated by “wchar_t”, suggest set not less than 64.
Return Value	true	Succeed
	false	Failed

3.1.6 Other Interfaces

3.1.6.1 Acquire the SDK version No.

Prototype	BOOL GetVersionInfo (LPCWSTR lpBuffer, int nBufferLen);	
Parameter	lpBuffer	Buffer area to save core engine version NO.
	nBufferLen	“lpBuffer” means the size of buffer area.
Return Value	TRUE	Succeed
	FALSE	Failed

3.1.6.2 Check if the device has been connected to computer host

Prototype	int CheckDeviceOnlineEx ();
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Parameter	None	
Return Value	1	The device has been connected to computer host and also been successfully initialized.
	2	The device has been lost connection(no connection to the computer host)
	3	If the device has been lost connection to computer host, the core engine needs to be re-initialized(InitIDCard).

3.1.6.3 Set signal lights

Prototype	int SetIOStatus (int nIOType,bool bOpen);	
Parameter	nIOType	Signal light NO.: “5” means ready light “6” means error light “7” means warning light
	bOpen	“true”means turning on signal light. “false” means turning off the signal light.
Return Value	0	Succeed
	1	The device has not been initialized.
	2	This device cannot support this operation.
	3	The parameter is illegal.
	4	Failed.

3.1.6.4 Buzzer Warning

Prototype	int BuzzerAlarm(int nDuration,);	
Parameter	nDuration	Buzzer sound duration is calculated by milliseconds.
Return Value	0	Succeed
	-1	The device has not been initialized.

	-2	This device cannot support this operation.
--	----	--

3.1.6.5 Capture image to internal storage

Prototype	int AcquireImage(int nImageSizeType);	
Parameter	nImageSizeType	<p>ID Document size:</p> <p>“0” represents a full-page image, in which no image rotation operation is performed;</p> <p>“1” represents an image of the first generation ID card, that is, the physical size and placement of the document are the same as the first generation ID card. This type includes the first generation ID card, driving license, and vehicle license. In this mode, the document image is automatically rotated;</p> <p>“2” represents the image of the second generation ID card, that is, the physical size and placement of the document are the same as the second generation ID card. This type includes the back side of the second-generation ID card, the front side of second generation ID card, the front side of home-entry permit, the back side of the home-entry permit, and the Hong Kong permanent identity card. In this mode, the document image is automatically rotated;</p> <p>“3” represents the image of the passport type, that is, the physical size and placement of the document are the same as the passport. This type includes passports, visas, Mainland Travel Permit for Taiwan Residents, Exit-Entry Permit (EEP) to HK / Macau, and China Mainland Residents Travel Permit to Taiwan. In this mode, the document image is automatically rotated;</p> <p>“4” The image representing the type of China PLA Officer Card, ie the physical size and placement of the document is the same as China PLA Officer Card. This type currently only contains China PLA Officer Card. In this mode, the document image is automatically rotated;</p> <p>“5” represents the image of Chinese Household Register, that is, the physical size and placement of</p>

		<p>the document are the same as Chinese Household Register. This type currently only contains Chinese Household Register. In this mode, the document image is automatically rotated;</p> <p>“6” represents the image of boarding pass. This type only includes boarding passes. In this mode, the document image is automatically rotated;</p> <p>“7” represents Inhabitants ID of a border area portrait page;</p> <p>“8” represents Inhabitants ID of a border area information page;</p> <p>“20” represents the image of the custom type size. If you use this method, you need to set up the size of the captured image first, see 3.5.2. By default, the size of the custom type image is the full page. It is important to note that the image will not be automatically rotated.</p> <p>“21” represents an image of the original size, in which the black edge, tilt correction and cropping processing are automatically performed on the captured image. When the automatic sorting function is used, this method can help acquire the image size.</p>
Return Value	0	Succeed
	1	Failed
	2	The device is not online
	3	The parameter is illegal
	4	Failed
Note	After the image is successfully captured into the internal storage, the file can be saved to disk by calling the API “SaveImageEx interface”.	

3.2 Special APIs

3.2.1 Initialize and release core engine

3.2.1.1 Initialize core engine for specified device model.

Prototype	int InitIDCardEx(LPCWSTR lpUserID,int nType,LPCWSTR lpDirectory,LPCWSTR lpDeviceName);	
Parameter	lpUserID	User ID provided by manufactor to certify authorization.
	nType	Each bit symbolizes a type of recognition engine. If the bit is "1", recognition engine is loaded correspondingly; if "0", it means not loading. Bit0 means the recognition engine for the business card. Other bits remain unused
	lpDirectory	Path for saving this Dynamic library files
	lpDeviceName	Device model
Return Value	0	The initialization is succeed
	1	ID authorization is not correct
	2	The device initialization is failed
	3	Core engine initialization is failed
	4	The license file has not been found
	5	The core engine load the templates is failed
	6	Card reader initialization is failed

3.2.1.2 Specify the initialize core of the device serial number

Prototype	int InitIDCardSN(LPCWSTR lpUserID,int nType,LPCWSTR lpDirectory,LPCWSTR lpDeviceSN);	
Parameter	lpUserID	User ID, provided by manufactor Corporation, to check the authority document.
	nType	Each bit denote as a kind of recognition engine, 1 bit denote upload response recognition engine, 0 means not. Bit0 means business card recognition core.

		Other bit was not used currently.
	lpDirectory	The store path of the dynamic library.
	lpDeviceSN	Device serial number
Return Value	0	Successful initialization
	1	Incorrect authorization ID
	2	Device initialize is failed
	3	Initialize core is failed
	4	Authorization document not found
	5	Recognition Core upload template is failed
	6	Initialize card reader is failed

3.2.2 Setting recognition options

3.2.2.1 Setting recognition rejection sign

Description	Setting recognition rejection sign refer to a certain document	
Prototype	<pre>int SetIDCardRejectType (int nMainID,bool bSet);</pre>	
Parameter	nMainID	Document type
	bSet	Rejection or not
Return Value	0	Succeed
	Other	Failed

3.2.2.2 Set whether to read document chip

Prototype	<pre>int SetRecogChipCardAttribute(int nReadCard);</pre>	
Parameter	nReadCard	0 means not read the chip 1 means read the chip
Return Value	0	Succeed
	Other	Failed

Note	This interface only refer to device with chip reading function. Only after initialize the device can this interface be called.
------	--

3.2.2.3 Set whether to re-scan by white image

Prototype	void ReRecogMRZbyVI(bool bFlag);	
Parameter	bFlag	True means setting this function; false means not.
Return Value	None	
Note	Re-scan the white light MRZ part, only set once (Used under infrared image MRZ part not clear enough lead to classification failed situation)	

3.2.2.4 Setting whether to remove the background

Prototype	void SetBGSubtraction (int nBGSub);	
Parameter	nBGSub	bit0: Whether remove the white light background or not bit1: Whether remove the infrared light background or not bit2: Whether remove the ultraviolet light background or not Each bit value take 1 means remove the background, 0 means not remove the background
Return Value	None	
Note	Suitable for AR, KR, QR model without cover situation. Call this interface can improve captured image effect.	

3.2.2.5 Setting captured image resolution

Prototype	BOOL SetAcquireImageResolution(int nResolutionX,int nResolutionY);	
Parameter	nResolutionX	Capture image horizontal resolution
	nResolutionY	Capture image vertical resolution
Return Value	TRUE	Succeed
	FALSE	Failed

Note	<p>If customer need to scan the captured image, please don't change the default image resolution, otherwise it will cause recognition rate decline or can't recognized. Only if customer don't need to recognize the captured image, this interface can be called.</p> <p>TH-PRXXX serial device provide 300 megapixel (2048×1536) image, TH-PRXXX serial device and KR serial device provide 300 megapixel (2048×1536) and 500 megapixel (2592×1944) image.</p>
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3.2.2.6 Setting captured image exposure value

Prototype	void SetAcquireImageExposureTime (int nLightType,int nModel);	
Parameter	nLightType	Must take value 4, refer to ultraviolet light
	nModel	0: factory settings 1: Dark 2: Convention 3: Bright
Return Value	0	Setting succeed
	-1	Device not support this function
	-2	Incorrect parameter
Note	1. This interface only support settings for ultraviolet light, parameter nLightType must take value 4; 2. Only suitable for TH-AR, QR, and KR device, don't use it unless special situation.	

3.2.3 Security feature related interface

3.2.3.1 Detect whether the document has ultraviolet stagnancy feature

Prototype	void CheckUVDull(bool bForceAcquire, int nReserve);	
Parameter	bForceAcquire	1:enforce capture ultraviolet image 0: System will judge whether to capture the ultraviolet image
	nReserve	Reserve, just transmit 0

Return Value	0	Detect ultraviolet stagnancy feature
	-1	System not initialized
	-2	Device not support this function
	-3	Image capture failed
	-4	Fake document

3.2.3.2 Setting whether the document has ultraviolet fiber feature

Prototype	int FibreDetect(bool bAcquireImage);	
Parameter	bAcquireImage	true Restart capture image false If there is any image in the internal storage, then don't restart capture
Return Value	< 0	Detection failed
	>= 0	Ultraviolet fiber number detection
Note	This function only suitable for passport currently.	

3.2.3.3 Obtain ultraviolet fiber location information

Prototype	int GetFibrePos(int nIndex,int& nLeft,int& nTop,int& nRight, int& nBottom);	
Parameter	nIndex	Ultraviolet fiber index
	nLeft	Ultraviolet fiber left pixel
	nTop	Ultraviolet fiber upper pixel
	nRight	Ultraviolet fiber right pixel
	nBottom	Ultraviolet fiber lower pixel
Return Value	0	Succeed
	Other	Failed

Note	This function only suitable for passport currently. Once detected the document has ultraviolet fiber feature on FibreDetect interface, can this interface be called.
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3.2.3.4 Detect whether the document is copy or not

Prototype	int GetImageSourceType(int nMainID,int nScale,bool bAcquireImage);	
Parameter	nMainID	Document main ID
	nScale	The front 3 bit refer to different document category, bit take value 1 means differentiate, 0 means not differentiate bit0: Copy document differentiate bit1: Color copy document differentiate bit2: Screenshot image differentiate
Return Value	0	Original document
	> 0	bit0: Copy document bit1: Color copy document bit2: Screenshot image
	< 0	Detection failed
Note	Only support second-generation ID card currently.	

3.2.4 Other interface

3.2.4.1 Specify document type recognition interface

Description	Recognize the image according to parameter specified document type.	
Prototype	int RecogIDCardEX (int nMainID,int nSubID);	
Parameter	nMainID	Document main ID
	nSubID	Document subsidiary ID
Return Value	> 0	Recognition succeed, return value is document main type

	-1	Classify failed
	-2	Location failed
	-3	Recognition failed
	-4	No right load image
	-5	Corresponding template not found
	-6	Reject recognition(Unreliable recognition content)
	-7	Cropping failed

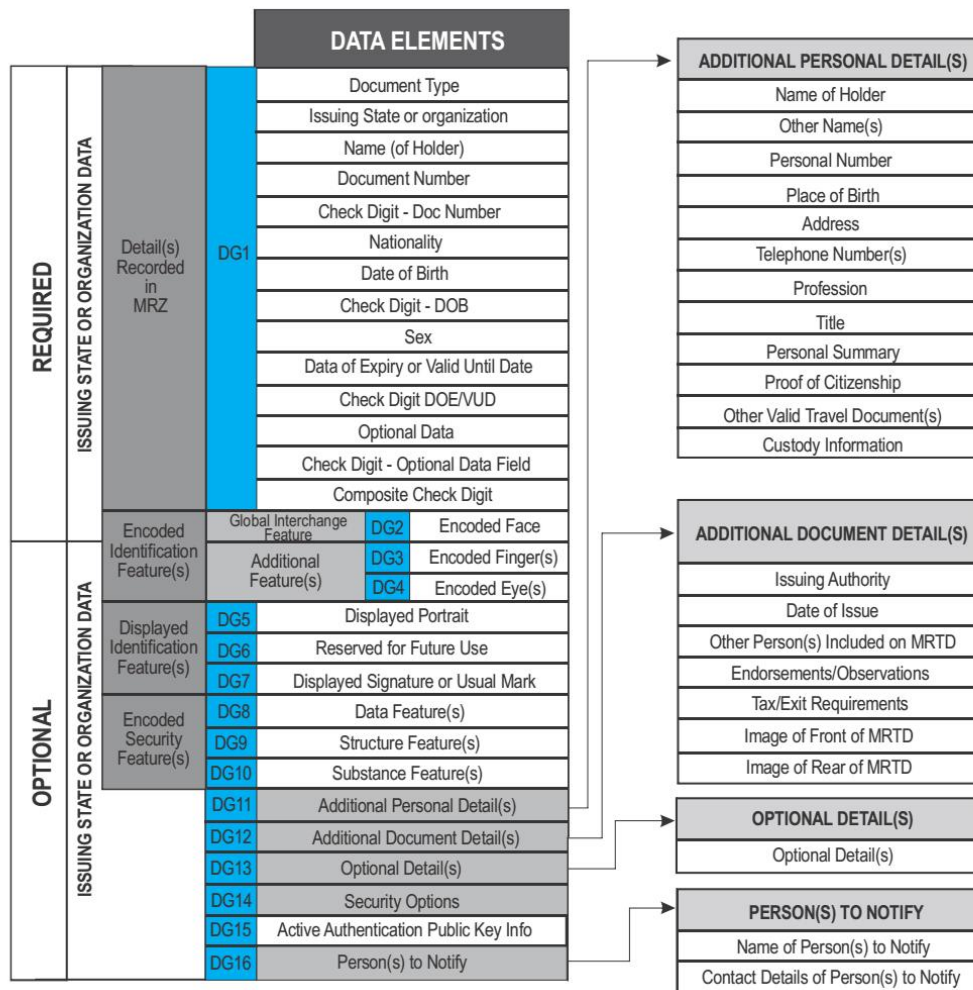
3.2.4.2 DataGroup Obtain specified DataGroup information from e-passport chip

Prototype	int GetDataGroupContent(int nDGIndex, bool bRawData, unsigned char* lpBuffer, int& nLength);	
Parameter	nDGIndex	Data grouping index, 1~16 refer to DG1~DG16 respectively. Check the Six Chapter appendix for data grouping information.
	bRawData	Whether to return the original data from the chip, true means output original information, false output analyzed information.
	lpBuffer	Used to store data grouping information.
	nLength	[Input] means the size of the lpBuffer. [Output] means the length of the data grouping information.
Return Value	0	Succeed
	Other	Failed

Chapter 4 Appendix

4.1. Appendix A

Electronic chip data grouping



Attention:

1. Currently the document chip stored information only include DG1, DG2, DG11, DG12
2. Each country or district may store different information, if the DG's content is empty, it's normal phenomenon.

4.2 Appendix B Document type and field explanation

4.2.1 Document main type

For each type of document, there is a MAINID, which remains unchanged. Even if new document type was added, the original document MAINID will keep the same.

This version SDK supports the following documents:

Document type			Document MAINID (Decimal notation)
Resident identification card-photo page			2
Resident identification card-issuing authority page			3
Temporary identification card			4
Vehicle drivers license			5
Vehicle registration certificate			6
Military identification 1998 version			7
Soldier identification 1998 version			8
Machine readable document	Passport size	Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) 2005version	9
		Travel passes for Taiwan residents to enter or leave the mainland 1992 version-photo page	10
		Mainland residents travel to and from Taiwan 1992 version-photo page	11
		visa	12
		passport	13
	Card size	Travel permit for Hong Kong and Macao residents to and from the mainland-photo page	14

	Travel permit for Hong Kong and Macao residents to and from the mainland -MRZ page	15
Registration card for permanent residence		16
Seaman's Certificate 2009 version-photo page		17
Military identification 1998 version-photo page (support passport reader)		18
Military identification 1998 version-information page (support passport reader)		19
Officers card 2006 version-photo page		20
Officers card 2006 version-information page		21
Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) 2014 version-photo page		22
Border area entry-exit permit 2014 version-photo page		23
The Chinese People's Liberation Army Driving license 2010 version		24
Travel passes for Taiwan residents to enter or leave the mainland 2015 version-photo page		25
Travel passes for Taiwan residents to enter or leave the mainland 2015 version -MRZ page		26
The Chinese People's Liberation Army Driving license 2012 version		27
Mainland residents travel to and from Taiwan 2017 version-photo page		29
Vehicle registration certificate vice page		30
Residence permit for Hong Kong, Macao and Taiwan residents-photo page		31
Residence permit for Hong Kong, Macao and Taiwan residents-issuing authority page		32
Permanent residence card for foreigners 2017 version-photo page		33
Taiwan (Jin Ma Peng) Entry and exit permit 2015 version-photo page		34
Taiwan residence permit-photo page		35
Vietnam entry and exit permits		36
Residence permit(Guangdong, Guangxi, Dongguan)-photo page		1000

Hong Kong identity card-photo page	1001
Boarding pass(Camera device don't support boarding pass recognition currently)	1002
Border area entry-exit permit 2005 version-photo page	1003
Border area entry-exit permit 2005 version-information page	1004
Macao identity card-photo page	1005
Claim certificate (scanner supported)	1006
Lawyer license-issuing authority page	1007
Lawyer license-photo page	1008
Road transportation IC card of People's Republic of China	1009
Business card	1010
Organization Code Certificate	1011
Shenzhen special economic zone residence permit 2015 version-photo page	1013
Inner Mongolia Autonomous Region People's court work permit	1018
Inner Mongolia Autonomous Region Work permit for procuratorial organs	1019
Social security card(Beijing, Chongqing)-photo page	1021
Marine crew health certificate-photo page	1022
Marine crew health certificate-issuing authority page	1023
Maritime crew training certificate-photo page	1024
Maritime crew training certificate-issuing authority page	1025
Marine crew competency certificate-photo page	1026
Marine crew competency certificate-issuing authority page	1027
Zhejiang province temporary residence permit-photo page	1029
National health insurance card	1030
Taiwan identity card-photo page	1031
Taiwan identity card -MRZ page	1032
English Name	1035
Shenmei group work permit	1037

Xiamen social security card-photo page	1039
Taiwan driving license	1040
Malaysia identity card-photo page	2001
USA California driving license	2002
New Zealand driving license	2003
Singapore identity card	2004
TD-2 type machine readable travel document	2006
TD-1 type machine readable travel document	2009
Indonesia identity card	2010
Thailand identity card	2011
Thailand driving license	2012
Mexico electoral certificate-photo page	2013
Mexico electoral certificate -MRZ page	2014
Sweden driving license	2020
Malaysia driving license	2021
Singapore work permit 2017 version-photo page	2023
Singapore work permit 2017 version-fingerprint page	2025
Singapore driving license	2031
Indonesia driving license	2041
Japan driving license	2051
Barcode	10000

4.2.2 Chip field index

For ICAO Doc 9303 standard passport or electronic travel document. Index 1-12 is the information read directly from the chip. Index 13-24 is the information parsed from RFID MRZ. The contents of index 13-24 need to turn on the parsing chip MRZ function to obtain (see 3.1.4.6 for details).reading the chip field index is listed in the following table.

Index	Field name (Chinese)	Field name (English)
0	保留	Reserve
1	MRZ1	MRZ1

2	MRZ2	MRZ2
3	MRZ3	MRZ3
4	本国姓名	NationalName
5	其它姓名	OtherName
6	出生日期	BirthDay
7	出生地点	BirthPlace
8	签发日期	IssueDay
9	签发机关	Authority
10	个人号码	Personal NO.
11	地址	Address
12	RFID MRZ	RFID MRZ
13	(MRZ)证件类型	(MRZ)Identification type
14	(MRZ)证件号码	(MRZ)ID Number
15	(MRZ)英文姓名	(MRZ)English name
16	(MRZ)出生日期	(MRZ)Date of Birth
17	(MRZ)有效期至	(MRZ)Date of Expiry
18	(MRZ)性别	(MRZ)Sex
19	(MRZ)签发国籍代码	(MRZ)Issuing country code
20	(MRZ)持证人国籍代码	(MRZ)Nationality code
21	(MRZ)中文姓名	(MRZ)Chinese name
22	(MRZ)身份证件号码	(MRZ)ID card number
23	(MRZ)身份号码(扩展)	(MRZ)ID Number(Expanded)
24	(MRZ)换证次数	(MRZ)Renewal times

4.2.3 Field definition of each document

For each document, there are many projects needs to be recognized. The following table explained each document recognition project's index.

Document name	Document ID	Index	Field
Resident identification card-photo	2	0	Reserve

page		1	Name
		2	Gender
		3	Nationality
		4	Birthday
		5	Address
		6	Citizen identification number
Resident identification card-issuing authority page	3	0	Reserve
		1	Issuing authority
		2	Expiry Date (Including issuing date and valid period)
		3	Issuing date
		4	Valid until
Temporary identification card	4	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Birthday
		5	Address
		6	Citizen identification number
		7	Issuing authority
		8	Expiry Date
		9	Issuing date
		10	Valid until
Vehicle drivers license Explanation: driver license (1) expired, didn't add template	5	0	Reserve
		1	Identification number
		2	Name
		3	Gender

		4	Address
		5	Birthday
		6	Issue Date
		7	Class
		8	Valid From
		9	Valid for
		10	Expiry Date
Vehicle registration certificate	6	0	Reserve
		1	License plate number
		2	Vehicle type
		3	Holder
		4	Address
		5	Brand model
		6	Vehicle identification number
		7	Engine number
		8	Registration date
		9	Issue Date
		10	Application
Military identification 1998 version	7	0	Reserve
		1	Number
		2	Name
		3	Birthday
		4	Gender
		5	Birthplace
		6	Nationality
		7	Department
		8	Job

		9	Title
		10	Licence-issuing authority
		11	Issue Date
		12	Valid for
Soldier identification 1998 version	8	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Birthplace
		5	Recruitment date
		6	Age
		7	Department
		8	Number
		9	Licence-issuing authority
		10	Issue Date
Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) 2005 version	9	0	“W”Type mark, show up in the MRZ, type “W”
		1	Identification number MRZ (MRZ output)
		2	Chinese Name
		3	English Name
		4	Gender
		5	Birthday
		6	Expiry Date
		7	Issuing country code
		8	English surname
		9	English first name

		10	MRZ1
		11	MRZ2
		12	Holder nationality code
		13	Identification number (Direct recognition)
		14	Birthplace
		15	Issuing place
		16	Issuing date
Travel passes for Taiwan residents to enter or leave the mainland 1992 version-photo page	10	0	Document type, show up in the MRZ, type "T"
		1	Identification number MRZ (MRZ output)
		2	Chinese Name
		3	English Name
		4	Gender
		5	Birthday
		6	Expiry Date
		7	Issuing country code
		8	English surname
		9	English first name
		10	MRZ1
		11	MRZ2
		12	Holder nationality code
		13	The document number from VIZ
		14	ID number
		15	Date of Issue
		16	Issue times(MRZ)
		17	Address

		18	Occupation/title
		19	Issue times(VIZ)
		20	The code of place of issue
Mainland residents travel to and from Taiwan 1992 version-photo page	11	0	Type mark, show up in the MRZ, type "T"
		1	Identification number MRZ (MRZ output)
		2	Chinese Name
		3	English Name
		4	Gender
		5	Birthday
		6	Expiry date
		7	Issuing country code
		8	English surname
		9	English first name
		10	MRZ1
		11	MRZ2
		12	Holder nationality code
		13	Document number
		14	Identification number
		15	Issuing date
		16	Issuing frequency
		17	Address
		18	Job
Visa	12	0	Visa type, the type show up in the MRZ
		1	Machine readable zone output number(MRZ output)

		2	Domestic name
		3	English name
		4	Gender
		5	Birthday
		6	Expiry date
		7	Issuing country code
		8	English surname
		9	English first name
		10	MRZ1
		11	MRZ2
		12	Holder nationality code
		13	Document number
		14	Passport number/Pass number(direct recognition)
		15	Issuing place
		16	Issuing date
		17	Note
		18	Travel time
		19	Residence purpose
		20	Visit date
		21	Departure date
		22	Stay day
		23	Visa type
Passport	13	0	Passport type (the type show up in the MRZ)
		1	Passport number MRZ (MRZ output)
		2	Domestic name (Page

	recognition)
3	English name
4	Gender
5	Birthday
6	Expiry date
7	Issuing country code
8	English surname
9	English first name
10	MRZ1
11	MRZ2
12	Holder nationality code
13	passport number (direct identification)
14	birth place(Chinese passport only)
15	Issue place(Chinese passport only)
16	Issue date(Chinese passport only)
17	RFID MRZ
18	OCR MRZ
19	Birth place pinyin(Chinese passport only)
20	Issue place pinyin(Chinese passport only)
21	ID number (Taiwan and Korean passports only)
22	National name pinyin OCR

		23	Gender OCR
		24	Licensee Nationality code OCR
		25	ID card number OCR
		26	Birth date OCR
		27	Valid until OCR
		28	Issuing authority OCR
		29	Domestic surname
		30	Domestic first name
	Note	Passport number is recommended to obtain from index 1, which is passport number MRZ(MRZ export)	
Travel permit for residents of Hong Kong and Macao to mainland – photo page	14	0	Reserve
		1	ID number
		2	Chinese name
		3	English name
		4	Gender
		5	Birth date
		6	This certificate is valid until
		7	English surname
		8	English firstname
		9	Hong kong and Macau ID number
		10	Issue date
		11	Validity period
		12	Issue authority
		13	Renewal number
		14	Other name

Travel permit for residents of Hong Kong and Macao to mainland – MRZ page	15	0	document type, the type that appear in machine readable code is C
		1	ID number
		2	Chinese name
		3	English name
		4	Gender
		5	Birth date
		6	Valid until
		7	English surname
		8	English first name
		9	MRZ1
		10	MRZ2
		11	MRZ3
		12	Issue country code
		13	ID card number
		14	Renewals Times
Resident population registration cards	16	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Birth Date
		5	ID card
Seafarer certificate 2009 edition-photo page	17	0	certificate type
		1	Passport number from MRZ
		2	Country name
		3	English Name
		4	Gender

		5	Birth date
		6	Valid until
		7	Issue country code
		8	English surname
		9	English first name
		10	MRZ1
		11	MRZ2
		12	Certificat holder nationality code
		13	Passport number
		14	Birth place
		15	Issue Authority
		16	Issue date
Military officer license 1998 edition – photo page	18	0	Reserve
		1	Number
		2	Issue Authority
		3	Issue Date
		4	Valid Until
Military officer license 1998 edition – information page	19	0	Reserve
		1	Name
		2	Birth Date
		3	Gender
		4	Birth Place
		5	Nationality
		6	Department
		7	Duty
		8	Title
Police officer card 2006 edition-photo	20	0	Reserve

page		1	Name
		2	Public Security Bureau
		3	Police Officer Number
Police officer card 2006 edition-information page	21	0	Reserve
		1	Name
		2	Gender
		3	Blood Group
		4	Birth Date
		5	Duty
		6	Title
		7	Valid until
Exit-Entry Permit for travelling to and from Hongkong and Macau	22	0	Reserve
		1	Certificate number
		2	Chinese Name
		3	English Name
		4	Birth Date
		5	Gender
		6	Valid until
		7	Issue Date
		8	MRZ1
		9	MRZ2
		10	MRZ3
		11	Issue Date
		12	Valid until
Border area entry and exit pass 2014 edition-photo page	23	0	Reserve
		1	Country Name
		2	English Name

		3	Gender
		4	Birth Date
		5	ID number
		6	Career
		7	Issue Date
		8	Valid until
		9	Address
		10	MRZ1
		11	MRZ2
		12	certificate Type
		13	MRZ Issue country coder
		14	MRZ English Name
		15	MRZ Certificate Number
		16	MRZ Nationality Code
		17	MRZ Birth Date
		18	MRZ Gender
		19	MRZ validity until
Chinese People's Liberation Army vehicle driver license	24	0	Reserve
		1	Name
		2	Gender
		3	Certificate Number
		4	Blood Type
		5	Birth Date
		6	Department
		7	Driving permit model
		8	Initial Issue Date
		9	Issue Date
		10	Valid until

Mainland travel permit for Taiwan residents 2015 edition-photo page	25	0	Reserve
		1	Chinese Name
		2	English Name
		3	Birth Date
		4	Gender
		5	Valid until
		6	Issue Place
		7	Certificate Number
		8	Issue Times
		9	Issue Authority
Mainland travel permit for Taiwan residents 2015 edition-MRZ page	26	0	Certificate Type
		1	Certificate Number
		2	Chinese Name
		3	English Name
		4	Gender
		5	Birth Date
		6	Valid until
		7	English Surname
		8	English First Name
		9	MRZ1
		10	MRZ2
		11	MRZ3
		12	ID Number
		13	Renewals Times
Chinese People's Liberation Army driving license 2012 edition	27	0	Reserve
		1	Organizaiton
		2	License Plate Number
		3	Brand Model

		4	Vehicle Color
		5	Engine Model
		6	Frame Model
		7	Manufacture Date
Travel Permit for Mainlanders to Enter and Exit Taiwan	29	0	Reserve
		1	Certificate Number
		2	Chinese Name
		3	English Name
		4	Birth DNate
		5	Gender
		6	Valid until
		7	Issue Place
		8	MRZ1
		9	MRZ2
		10	MRZ3
		11	Issue Authority
Motor vehicle driving license secondary page	30	0	Reserve
		1	Plate Number
		2	File Number
		3	Driving license identification code
Hongkong,Macao and Taiwan Residence Permit-photo page	31	0	Reserve
		1	Name
		2	Gender
		3	Birth
		4	Address
		5	ID unmber
Hongkong,Macao and Taiwan Residence Permit-Issue authority	32	0	Reserve
		1	Issue Authority

page		2	Validity Period
		3	Issue Date
		4	Valid until
		5	Pass Number
Foreigner Permanent Resident Identity card 2017 editon-photo page	33	0	Reserve
		1	English Name
		2	Chinese Name
		3	Gender
		4	Birth
		5	Nationality
		6	Issue Authority
		7	English Issue authority
		8	Citizen ID number
		9	Valid until
		10	Englih Surname
		11	English First Name
Taiwan Area (Jin mapeng) Entry and Exit License 2015 edition-photo page	34	0	Reserve
		1	ID Number
		2	Name
		3	Birth
		4	Validity Date
		5	Taiwan Address
		6	Permit Number
		7	Issue Date
		8	Gender
		9	Birth Date
Resident Permit(Guangdong, Guangxi and Dongguan)-photo	1000	0	Reserve
		1	Name

page		2	Gendr
		3	Nationality
		4	Birth
		5	Address
		6	Citizen ID number
		7	Issue Date
		8	Validity Period
		9	certificate Number
		10	Serve Place
		11	Country or place
		12	Birth Place
Hong Kong citizen identity card – photo page	1001	0	Reserve
		1	Chinese Name
		2	Pinyin Name
		3	Gender
		4	Birth Date
		5	Issue Date
		6	ID Number
		7	Symbol Mark
		8	Chinese Code
		9	Code Translation
		10	Code correction name
Boarding Pass(photograph equipment not support boarding pass certificate now)	1002	0	Reserve
		1	Name
		2	Flight
		3	Arrival station
		4	Date
		5	Seat Number

Border area entry and exit pass 2015 edition-photo page	1003	0	Reserve
		1	Certificate Number
		2	Name
		3	Gender
		4	Birth Date
		5	ID Number
		6	MRZ1
		7	MRZ2
Border area entry and exit pass 2015 edition-information page	1004	0	Reserve
		1	Name
		2	Gender
		3	Birth date
		4	ID Number
		5	Address
Macao Resident Identify Card-photo page	1005	0	Reserve
		1	Chinese Name
		2	Pinyin Name
		3	Gender
		4	BirthD ate
		5	Issue Date
		6	Valid until
		7	ID Number
		8	First Issue
		9	Chinese Code
		10	Code Translation
Receiving certificate	1006	0	Reserve
		1	Acceptance Number
		2	Name

		3	Citizen ID Number
Lawyer License-Issue authority page	1007	0	Reserve
		1	Practice Institution
		2	Practice Certificate Type
		3	Practice Certificate Number
Lawyer License-photo page	1008	0	Reserve
		1	Licensee
		2	Gender
		3	ID Number
People's Republic of China Road Transport IC card	1009	0	Reserve
		1	User Name
		2	Vehicle Number Plate
		3	Vehicle Type
		4	Brand Type
		5	Issue Authority
		6	Road Transport Certificate Number
		7	Issue Date
Business card	1010	0	Name
		1	Title
		2	Mobile
		3	Company
		4	Address
		5	Phone
		6	Fax
		7	Phone
		8	Website
		9	E-mail

Organization code certificate	1011	0	Reserve
		1	Code
		2	Organization name
		3	Organization type
		4	Address
		5	Validity Period
		6	Issue Authority
		7	Registration Number
Shenzhen Special Economic Zone Resident Permit	1013	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Issue Date
		5	Address
		6	Citizen ID number
Inner Mongolia Autonomous Region People's Court Work Permit	1018	0	Reserve
		1	Name
		2	Title
		3	Number
		4	Issue Date
		5	Validity Period
Inner Mongolia Autonomous Region Procuratorial Office Work Permit	1019	0	Reserve
		1	Name
		2	Nationality
		3	Birth date
		4	Duty
		5	Department
		6	Title

		7	Valid until
Social Security Card	1021	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Birth date
		5	Social Security Number
		6	Card Number
		7	Issue Date
		8	Valid until
		9	Bank Card Number
Sea boat crew health certificate-photo page	1022	0	Reserve
		1	Holder Name
		2	Holder Pinyin Name
		3	Nationality
		4	Birth Date
		5	Gender
		6	Department
		7	Certificate Number
		8	Valid until
		9	Issue Date
		10	Print Number
Sea boat crew health certificate-Issue authority page	1023	0	Reserve
		1	Issue Authority
		2	Chief Examiner Signature
		3	Issue Authority
Sea boat crew training certificate-photo page	1024	0	Reserve
		1	Holder Name

		2	Holder Pinyin Name
		3	Nationality
		4	Birth Date
		5	Gender
		6	Certificate Number
		7	Issue Date
		8	Certificate Name Column
		9	Issue Date
		10	Valid until
		11	Print Number
Sea boat crew training certificate-Issue authority page	1025	0	Reserve
		1	Name of officially authorized official
		2	Authorized organ
		3	Certificate name
		4	Issue date
		5	Valid until
Sea boat crew training certificate-photo page	1026	0	Reserve
		1	Holder's Name
		2	Holder's pinyin Name
		3	Nationality
		4	Birth Date
		5	Gender
		6	Certificate Number
		7	Valid until
		8	Issue Date
		9	Duty
		10	Level

		11	Trial Limit
		12	Printing Number
Sea boat crew training certificate-Issue authority page	1027	0	Reserve
		1	Name of officially authorized official
		2	Authorized organ
		3	Title
		4	Trial limit
Zhejiang Temporary Residence Permit-photo page	1029	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Citizen ID card
		5	Current Living Address
Taiwan National Health Insurance card	1030	0	Reserve
		1	Name
		2	ID Card Number
		3	Birth Date
		4	Card Number
Taiwan ID card-photo page	1031	0	Reserve
		1	Name
		2	Gender
		3	Birth Date
		4	Issue Date
		5	Unified Numbers
Taiwan ID card-barcode page	1032	0	Reserve
		1	Father
		2	Mother

		3	Spouse
		4	Servicing
		5	Birth place
		6	Address
		7	Number
English Name (Import Identification only)	1035	0	Reserve
		1	English Name
Shenmei Group Work Permit	1037	0	Reserve
		1	Name
		2	Department
		3	Number
Xiamen Social Security Card-photo page	1039	0	Reserve
		1	Name
		2	Gender
		3	Card number
		4	Insurance Number
		5	ID card
Taiwan Area Driving License	1040	0	Reserve
		1	Name
		2	Gender
		3	Birth Date
		4	Issue Date
		5	Driver License Number
		6	Address
		7	Validity Period
		8	Jurisdiction Number
		9	Driver liense Type

Malaysian ID card-photo page	2001	0	Reserve
		1	Citizen ID Card Number
		2	Name
		3	Gender
		4	Birth Date
		5	Nationality
		6	Address
American California Driver's License	2002	0	Reserve
		1	Driver License Number
		2	Last Name
		3	First Name
		4	Gender
New Zealand driver's license	2003	0	Reserve
		1	Last Name
		2	First Name
		3	Birth Date
		4	Issue Date
		5	ID Driver License ID
		6	Expiry Date
Singapore ID card	2004	0	Reserve
		1	Name
		2	Gender
		3	Nationality
		4	Birth Date
		5	Birth Country
		6	ID Card Number
TD-2 machine readable travel document	2006	0	Reserve
		1	MRZ1

		2	MRZ2
TD-1 Machine Readable Travel Document	2009	0	Certificate Type
		1	ID card Number
		2	Issue Country Code
		3	English Name
		4	Gender
		5	Birth Date
		6	Valid until
		7	English Surname
		8	English First Name
		9	MRZ1
		10	MRZ2
		11	MRZ3
		12	Country Code(Native)
		13	ID card Number(Extension)
Indonesian ID card	2010	0	Reserve
		1	ID card Number
		2	Name
		3	Birth Date
		4	Birth Place
		5	Gender
		6	Area
		7	country of citizenship
		8	Nationality
		9	Blood Type
		10	Address
Thailand National ID Card	2011	0	Reserve

		1	First Name
		2	Last Name
		3	Birth date
		4	Issue Date
		5	Valid until
		6	ID card Number
Thailand driver's license	2012	0	Reserve
		1	Name
		2	Driver's License Number
		3	Date of Birth
		4	Issue Date
		5	Valid until
Mexican Voter Card-photo page	2013	6	ID card Number
		0	Reserve
		1	Father's Surmane
		2	Mother's Surname
		3	Name
		4	Street and Number
		5	Colony and Zip Code
		6	City and State
		7	Voter Code
		8	Identity Unique Identifier
		9	Gender
		10	Age
Mexican Voter card back ABC	2014	11	Birth Date
		0	Reserve
		1	Identity Unique Identifier
		0	Reserve
Swedish driver's license	2020	0	Reserve

		1	First Name
		2	Last Name
		3	Birth Date
		4	Issue Date
		5	Valid until
		6	Certificate Number
		7	Social Security Card Number
Malaysia driver's license	2021	0	Reserve
		1	Name
		2	Nationality
		3	Citizen ID Card Number
		4	Certificate Type
		5	Valid until
		6	Address
Singapore driver's license	2031	0	Reserve
		1	Driver's License Number
		2	Name
		3	Birth Date
		4	Issue Date
		5	Valid until
Indonesian driver's license	2041	0	Reserve
		1	Name
		2	Gender
		3	Address
		4	City
		5	Birth Date
		6	Height
		7	Job

		8	ID card Number
		9	Valid until
Japanese driver's license	2051	0	Reserve
		1	Name
		2	Birth Date
		3	Residence
		4	Delivery
		5	Valid until
		6	Exemption conditons,etc.