Instruction Manual

AlprSDK_JNI Interface

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Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure

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About the Manual

This manual introduces the operations of AlprSDK _JNI product.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	**Description**
Bold font	Used to identify software interface names e.g. **OK**, **Confirm**, **Cancel**
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	**Description**
< >	Button or key names for devices. For example, press <OK>
[ ]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols

Convention	Description

	This implies about the notice or pays attention to, in the manual
	The general information which helps in performing the operations faster
	The information which is significant
	Care taken to avoid danger or mistakes
	The statement or event that warns of something or that serves as a cautionary example.

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Version	Update time	Update contents
1.0.1.24	2018-08-24	Ported from the Windows version, remove video related APIs, etc.
1.0.1.25	2018-11-02	1. Add a local device search interface (function 3-1). 2. Add a video stream callback registration interface (function 5-3-4). 3. Add a video stream open interface (function 6-1). 4. Add a video stream to close the interface (6-2). 5. Added video width acquisition interface (function 11-8-1). 6. Add a video stream information setting interface (function 11-8-2). 7. Add a video stream information acquisition interface (function 11-8-3).
1.0.1.26	2018-11-08	1. Added camera zoom control interface (function 11-3). 2. Added camera focus control interface (function 11-3).

1.0.1.27	2018-12-28	1. Update recovery device parameter interface (function 11-4-5) 2. Added device network parameter interface (function 11-4-12) 3. Added P2P server address interface (function 11-4-13) 4. Added OSD control interface (function 11-4-14) 5. Added Ftp setting interface (function 11-4-15) 6. New device time interface (function 11-4-16) 7. Added auxiliary output interface (function 11-12) 8. Added P2P reconnection mechanism interface (function 11-13)
1.0.1.28	2019-01-10	1. Added device system time interface (function 11-4-14-2) 2. Added device parameter interface (Function 11-2-6)
1.0.1.29	2019-01-18	1. Update device network parameter interface support for p2p (11-4-10) 2. Update the device interface to support p2p (11-3-3) 3. Update recovery device interface support for p2p (11-4-5) 4. Update device time interface support for p2p (11-4-14) 5. Update OSD control interface support for p2p (11-4-12) 6. Update Get device parameter interface support for p2p

		(11-2-6) 7. Added video day and night switching interface (11-4-15)

1 Brief introduction

1.1 About Our Product

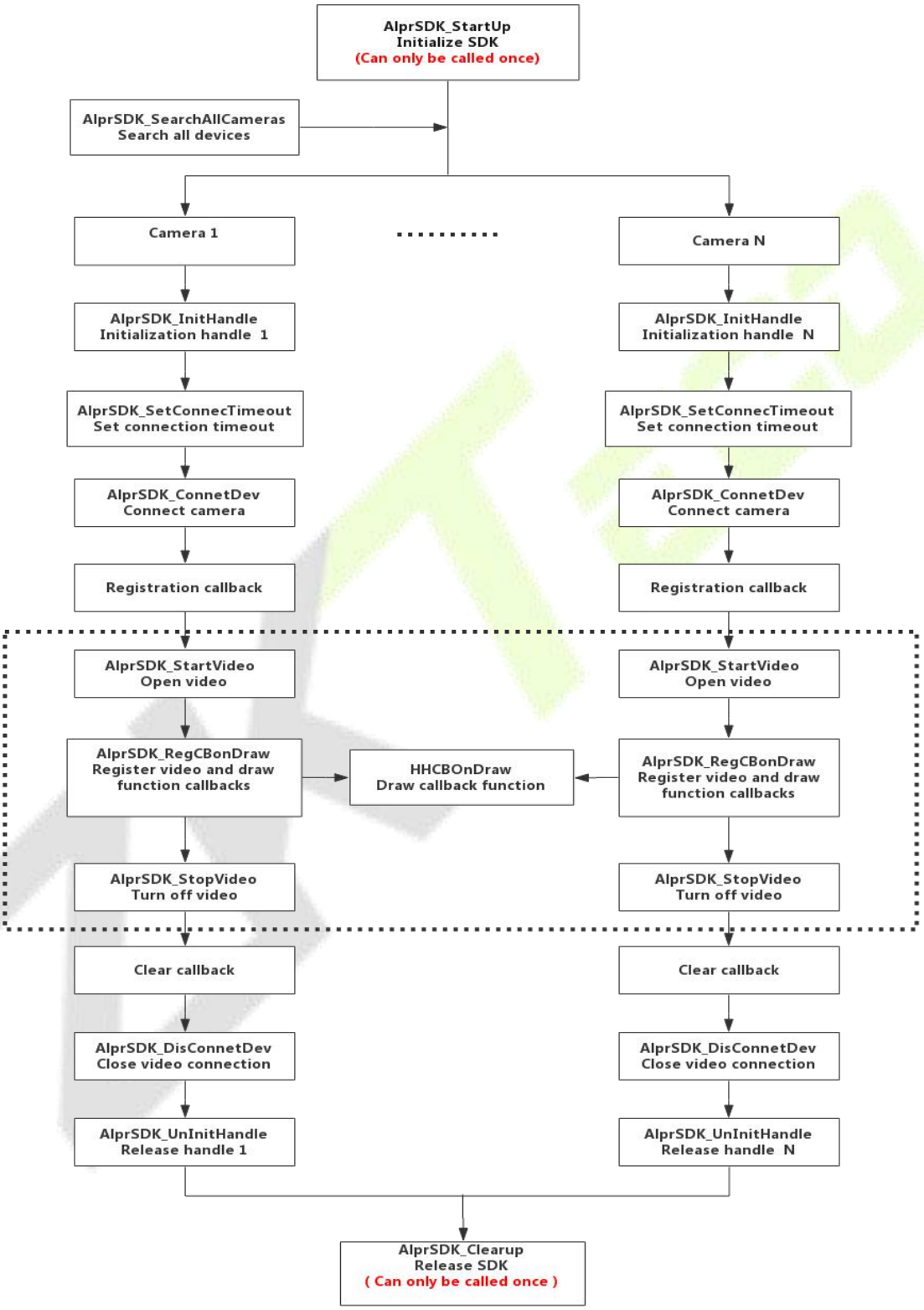
From the perspective of a developer, the key design objective of **AlprSDK** is compatibility and the ease of execution.

This Reference Manual contains the product development documentation for developers that describes the functions provided by the SDK and its related usage, which eases the development environment. In the following sections all the required information on how to integrate **AlprSDK** into a third-party application is provided.

1.2 Features

- **License Plate:** Gets the license plate, license plate image and the time to capture images by registering the license plate callback function.
- **Device Status:** Obtains the status of the online device, auxiliary camera, and the switch by registering the device status callback function.
- **Record**: Gets the real-time records by registering the record callback function.
- **Manual Capture**: Register manual capture callback. Call start capture function, can trigger callback.
- **Data management:** Support black and white list data management.
- **Remote control:** Supports remote opening function.
- **Display control:** Supports for transparent transmission: control of language and display

1.3 Programming Model



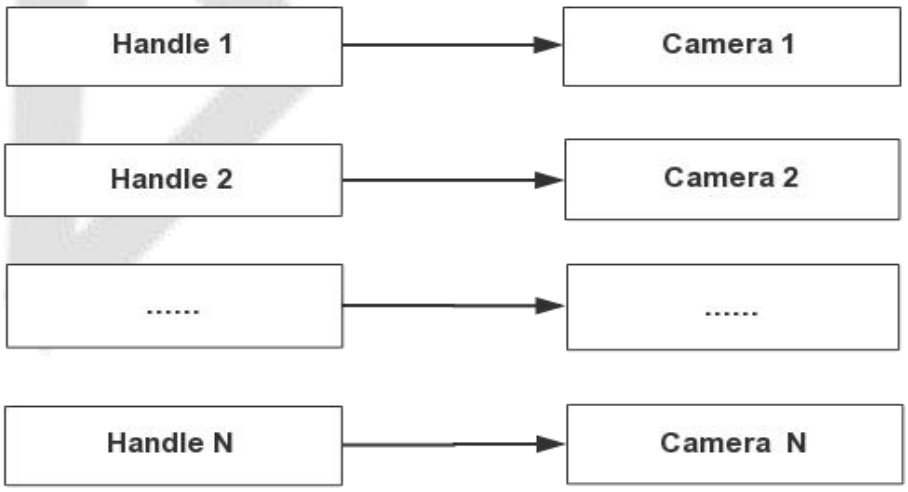
Note:

- License plate camera use: AlprSDK_CreateRecogAllInfoTask (the license plate callback function).
- Parking camera use: AlprSDK_CreateCarSpaceTask (parking callback function).
- Video-related interfaces are not supported on linux systems.

Callback function considerations

- SDK interface functions cannot be called in this type of function
- The total function call time cannot exceed 100ms
- There cannot be a sleep function

1.4 About the value of Handle



Notes for Functions Containing Handle :

- Software management allocation, one handle id corresponds to one device.
- If multiple videos need to be played at the same time, handle has a value ranging from 0 to 18. if no video needs to be played, handle has a value ranging from 0 to 1024
- This function is called in a multithreaded concurrent environment. if it is the same Handle id, the upper layer needs lock protection.

2 AlprSDK Architecture

2.1 Supported Platform

Operating System	SDK Package Path	Demo Package Path
Windows 32- or 64-bit system	license plate business SDK secondary development package /SDK/ windows / java/dll	License plate business SDK secondary development package/SDK/windows/java
Linux 32- or 64-bit system	license plate business SDK secondary development package/SDK/windows/linux /dll	license plate business SDK secondary development package/SDK/linux/java

Note:

- Windows provides 32-bit SDK and 64-bit SDK, which is compatible with 64-bit systems and Video preview interface is not supported under 64-bit SDK. And the demo package provides C++ and C# source code.
- The SDK of Linux does not contain a video preview interface. But using the BS service architecture, the video preview plug-in can be called into the browser.
- This SDK document describes the commonly used function structure descriptions in detail. For other structure definitions, please refer to AlprSDK.h.

3 Brief introduction

Our AlprSDK_JNI document includes all features that define the functions and related usage of the SDK and simplifies the development process.

3.1 Initialization of the SDK

This function contains the tasks of loading AlprSDK to the application process space and creating an instance.

Parameter	Description
AlprSDK_Startup	Initialize the SDK and specify the path to the log file.

3.2 Search for Local Devices

3.2.1 Search for Local Devices

This function facilitates in searching all the available/connected Camera Devices

Parameter	Description
AlprSDK_SearchAllCameras	Initialize window handle.
DevFindCallback	(local) device search callback class.

3.3 Initialization handle

3.3.1 Initialization of the Window Handle

Generally simplified as hWnd is a unique identifier assigned to each created window by Windows. This function performs the task to initialize the Window handles based on the availability of the devices.

Parameter	Description
AlprSDK_InitHandle	Initialize window handle.
AlprSDK_InitVideoHandle	Initialize window handle, supports window video playback
AlprSDK_InitVideoIntHandle	Initialize window handle.

3.4 Device Connections

The following functions initiates the basic connection operations.

3.4.1 Set Connection Timeout

This function set the amount of time a connection waits to time out by using the Connect Timeout or Connection Timeout keywords in the connection string.

Function	Description
AlprSDK_SetConnectTimeout	This function sets the connection timeout.

3.4.2 Connect to Device

This function obtains the available device information and connects all the searched devices.

Function	Description
AlprSDK_ConnectDev	This function connects the available camera devices

3.4.3 Send HeartBeat

This function triggers a periodic signal generated by the device to indicate normal operation.

Usually a heartbeat is sent between devices at a regular interval in the order of seconds.

Function	Description
AlprSDK_SendHeartBeat	This function sends the heartbeat signals to get the device connection status.

3.5 Callback Functions

A callback function is a function that is passed as an argument to another function, to be "called back" at a later time.

3.5.1 License Plate Recognition

This function processes the License Plate Recognition callback function settings.

Function	Description
AlprSDK_CreateRecogAllInfoTask	License plate callback function settings.
AlprSDK_ClearRecogAllInfoTask	This function processes to clear the License Plate

	Callback function.
RecogAllInfoCallback	License plate recognition information callback class.

3.5.2 Capture Image

This function processes the capturing of the Vehicle images.

Function	Description
AlprSDK_CreateCaptureJpgCallback	Registered device grab callback
AlprSDK_ClearCaptureJpgCallback	Device grab callback clean-up
DeviceCaptureCallback	Image data capture and recall class
AlprSDK_CaptureJpg	The device captures the image, and returns it through a callback

3.5.3 Device Status Callback functions

The below functions processes to notify the status of the Device.

Function	Description
AlprSDK_CreateDevStatusCallback	Registered device status callback
AlprSDK_ClearDevStatusCallback	Clear device status callback
DevStatusCallback	Device status callback class

3.5.4 Device Connection Status Callback functions

Function	Description
AlprSDK_SetDevConnStatusCallBack	Register device connection status callback
DevConnStatusCallback	Device connection status callback delegate class

3.5.5 Wiegand Card Data Callback functions

This function processes to get the Wiegand card data information

Function	Description
AlprSDK_CreateWiegandDataCallback	Weigand data callback
AlprSDK_ClearWiegandDataCallback	Clear the Wiegand card data callback.
WiegandDataCallback	Get the Wiegand card number callback class.

3.5.6 Video Callback functions

The following functions initializes the video and sets the essential video configurations

Function	Description
AlprSDK_CreateEZStreamDataCB	Register video stream callback
AlprSDK_ClearEZStreamDataCB	Clear stream data callback (aware platform)
StreamDataCallBack	Video stream callback class.

3.6Video connection

This function processes to power on and off the video.

Function	Description
AlprSDK_StartVideo	Turn on video stream callback
AlprSDK_StopVideo	Turn off video stream callback

3.7Close connection

This function processes to disconnect the Camera Devices.

Function	Description
AlprSDK_DisConnectDev	Disconnect the device

3.8Release handle

This function processes to release the Device handles.

Function	Description
AlprSDK_UnInitHandle	Release handle.

3.9Release SDK

This function processes to release from the SDK.And can only be called once

Function	Description
AlprSDK_Cleanup	Close AlprSDK and release related resources

3.10 Other Interface Functions

3.10.1 Recognition Area

The below functions initialize and set up the recognition area, and the virtual coil area.

Function	Description
AlprSDK_SetRoiEx	Set the identification area (extension)
AlprSDK_GetRoiEx	Get the identification area (extension)
AlprSDK_SetVirtualCoil	Set the virtual coil area
AlprSDK_GetVirtualCoil	Get the virtual coil area

3.10.2 Device Information

Function	Description
AlprSDK_GetDeviceFunList	Get the features supported by the device
AlprSDK_GetDevLicenseInfo	Get device license information
AlprSDK_GetDevVerInfo	Get device version information
AlprSDK_GetDevSN	Get device encryption information
AlprSDK_SetDevSN	Set up device encryption information
AlprSDK_GetDeviceParam	Get device parameters

3.10.3 Device Control Functions

The below functions process the Gateway control, Zoom control, Focus control, and the Device restart operations.

Function	Description
AlprSDK_OpenGate	Open the gate
AlprSDK_ControlZoom	Zoom control
AlprSDK_ControlFocus	Focus control
AlprSDK_RebootDevice	Restart the device

3.10.4 Information Parameter Settings

Gate Parameter Settings:

Function	Description
AlprSDK_SetGateCfg	Set the configuration parameters of the gate.
AlprSDK_GetGateCfg	Obtain gate configuration parameters

Camera Identification Parameter Settings:

Function	Description
AlprSDK_SetAlprCfg	Set identification parameters
AlprSDK_GetAlprCfg	Get identification parameters

AlprSDK_SetNAlprCfg	Set identification parameters（Expand）.
AlprSDK_SetOfflineParam	Set Offline Parameters
AlprSDK_GetOfflineParam	Get offline parameters

Basic Parameters:

Function	Description
AlprSDK_SetBaseParam	Set basic parameters
AlprSDK_GetBaseParam	Get basic parameters

SD Card Operation Settings:

Function	Description
AlprSDK_OperateSDCard	Operation SD card

Restore Device Parameters:

Function	Description
AlprSDK_ResetFactory	Restore device parameters

Device Information Settings:

Function	Description

AlprSDK_SetDevInfo	Set up device information
AlprSDK_GetDevInfo	Get device information

Motion Detection Settings:

Function	Description
AlprSDK_StartMDThrDetect	Start detection of movement detection threshold
AlprSDK_GetMDThreshold	Start detection of movement detection threshold

Country Code Settings:

Function	Description
AlprSDK_SetCountryCode	Set up a country code which used in identify algorithm

Image List Settings:

Function	Description
AlprSDK_GetImageList	Gets the current picture list (not supported for the time being).

Device Network Parameter Settings:

Function	Description

AlprSDK_SetNetworkParam	Set network parameters
AlprSDK_GetNetworkParam	Get network parameters

P2P Server Address Settings:

Function	Description
AlprSDK_SetP2PServerAddress	Set the P2P server address

OSD Control Settings:

Function	Description
AlprSDK_SetOSD	Setting up OSD
AlprSDK_GetOSD	Get the OSD

FTP Settings:

Function	Description
AlprSDK_SetFtpClientCfg	Set FtpClient configuration parameters
AlprSDK_GetFtpClientCfg	Get FtpClient configuration parameters.

Device Time Settings:

Function	Description
AlprSDK_SetSysTime	Set device system time
AlprSDK_GetSysTime	Get device system time

Video Parameter Settings:

Function	Description
AlprSDK_SetVideoParam	Set video day and night switching parameters
AlprSDK_GetVideoParam	Get video day and night switching parameters

3.10.5 License Plate Information Management

Function	Description
AlprSDK_AddPlateListExt	Additional license plate information.(if there is a duplicate license plate, it will be replaced directly)
AlprSDK_DelPlateListExt	Delete license plate information
AlprSDK_ExportPlateListExt	Export license plate information
AlprSDK_ClearPlateListExt	Clear white / black / fixed car list data

3.10.6 Data Delivery Management

Function	Description

AlprSDK_GetDeviceDataCount	Gets the number of data bars for the device
AlprSDK_GetDeviceData	Get device data
AlprSDK_SetDeviceData	Send data to the device
AlprSDK_ClearDeviceData	Clear a table

3.10.7 RS485 Communication Settings

Function	Description
AlprSDK_CommTransparentTransfer	RS485 transparent transmission
AlprSDK_SetDColorDLineSCNParam	Set the default parameters for two-color dual-line screen

3.10.8 Video Stream Settings

Function	Description
AlprSDK_GetVideoSize	Get the video size
AlprSDK_SetVideoConfig	Set up video stream information.

3.10.9 Auxiliary Out and P2P Settings

Function	Description

AlprSDK_OpenAuxOut	Turn on auxiliary output
AlprSDK_EnableP2PReconnect	Turn on P2P reconnection (valid only for P2P connections)
AlprSDK_DisableP2PReconnect	Turn off P2P reconnection (valid only for P2P connections)

4 AlprSDK Functions

4.1 AlprSDK_Startup

Function

```
public native static int AlprSDK_Startup(String path);
```

Description

Initialize the SDK and specify the path to the log file.

Parameters

Parameter	Description
`String path`	**In**: License file path.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

Method parameter String path is to specify the location of the Log and self.pem files. You can specify the location other than the Android platform, but you must pass in the "" null character.

Example: Specify location:

```
int ret = -1;
ret = AlprSDK.AlprSDK_Startup("/storage/emulated/legacy/down/");

System.out.println("AlprSDK_Startup Ret = " + ret);
```

Example: Does not specify a location:

```
int ret = -1;
ret = AlprSDK.AlprSDK_Startup("");

// Note: you cannot pass in null
System.out.println("AlprSDK_Startup Ret = " + ret);
```

4.2 AlprSDK_InitHandle

Function

```
public native static int AlprSDK_InitHandle(int nHandleID);
```

Description

Initialize window handle. However, video playback is not supported.

Parameters

Parameter	Description
int nHandleID	**In**: Number of handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code..

4.3 AlprSDK_InitVideoHandle

Function

```
public native static int AlprSDK_InitVideoHandle
(
    int nHandleID,
    JFrame hVideoWnd
);
```

Description

Initialize window handle and support window video playback.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of handles
`JFrame hVideoWnd`	**In**: A window handle of type JFrame

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

A handle can only be initialized once; at the same time, it can support up to 40 devices, that is, 40 screens.

can get the video on the form and play it on the JFrame form.

4.4AlprSDK_InitVideoIntHandle

Function

```
public native static int AlprSDK_InitVideoIntHandle
(
    int nHandleID,
    int hVideoWnd
);
```

Description

Initialize window handle.

Parameters

Parameter	Description
int nHandleID	**In**: Number of handles
int hVideoWnd	**In**: An integer

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

A handle can only be initialized once. Handle can be allocated by software, one handle is connected to a camera.

4.5 AlprSDK_SearchAllCameras

Function

```
  public native static int AlprSDK_SearchAllCameras
(
   int nHandleID,
   DevFindCallback devFindCb
);
```

Description

Search for local devices.

Parameters

Parameter	Description

`int nHandleID`	**In**: Number of handles
`DevFindCallback devFindCb`	**In**: Callback class

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

You need to obtain root privileges, and this interface is temporarily not supported on the Android platform. You can only search for devices on the same network segment in the LAN.

Example:

```
int ret = -1;
DevFindCallback devFindCb = new DevFindCallback();
ret = AlprSDK.AlprSDK_SearchAllCameras(0, devFindCb);
System.out.println("AlprSDK_SearchAllCameras ret = " + ret);
```

4.6 DevFindCallback

Function

```
public class DevFindCallback {

    public short deviceType;
```

```
        public String devName;
        public String ip;
        public String macAddr;
        public int portWeb;
        public int portListen;
        public String subMask;
        public String gateway;
        public String multiAddr;
        public String dnsAddr;
        public int multiPort;
        public int channelNum;
        public int findCount;
        public long deviceID;
        public void CALLBACK() {
        System.out.println("CALLBACK");
        System.out.println("ip:" + ip);
    }
};
```

Description

Local device search callback.

Parameters

Parameter	Description
`public short deviceType`	Digital Video Server Machine Type
`public String devName`	Device name
`public String ip`	Device ip
`public String macAddr`	Device Mac address
`public int portWeb`	Web port
`public int portListen`	Listening port

public String subMask	Submask
public String gateway	Gateway
public String multiAddr	multicast address
public String dnsAddr	DNS address
public int multiPort	Multicast port
public int channelNum	port number
public int findCount	Number of found
public long deviceID	Device id

4.7 AlprSDK_SetConnectTimeout

Function

```
public native static int AlprSDK_SetConnectTimeout
(
   int nHandleID,
   int nTimeout
);
```

Description

Set connection timeout.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
int nTimeout	**In:** Timeout (in milliseconds)

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.8 AlprSDK_ConnectDev

Function

```
public native static int AlprSDK_ConnectDev
(
    int nHandleID,
    DEVINFO devInfo,
    int clientType
);
```

Description

Connecting device.

Parameters

Parameter	Description

`int nHandleID`	**In:** Number of Handles
`DEVINFO devInfo`	**In:** Device link information
`int clientType`	**In:** Connection Type

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.9 AlprSDK_SendHeartBeat

Function

```
public native static int AlprSDK_SendHeartBeat(int nHandleID);
```

Description

Send a heartbeat and trigger a device connection status callback.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

The SDK already supports automatic heartbeat transmission. There is no need to manually call this API.

Calling this API will trigger device state and device connection state callback.

4.10 AlprSDK_CreateRecogAllInfoTask

Function

```
int AlprSDK_CreateRecogAllInfoTask
(
                    int     nHandleID,
    RecogAllInfoCallback    callback
);
```

Description

Create license plate recognition callback.

Parameters

Parameter	Description

int nHandleID	**In:** Number of Handles
RecogAllInfoCallback callback	**In:** Callback delegate class.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

After calling this API, when the camera recognizes the license plate information, it will automatically call back the method in the callback object.

4.11 RecogAllInfoCallback

Function

```
public class RecogAllInfoCallback {
    private RECOG_ALL_INFO recogResult;
    private IRecogAllInfoCallback recogAllInfo;
    public RecogAllInfoCallback(IRecogAllInfoCallback recogAllInfo) {
        recogResult = new RECOG_ALL_INFO();
         this.recogAllInfo = recogAllInfo;
    }
    public void CALLBACK() {
```

```
        if (recogAllInfo != null) {
            recogAllInfo.recogAllInfoCallback(recogResult);
        }
        }
    };
```

Description

License plate callback function .

Parameters

Parameter	Description
`private RECOG_ALL_INFO recogResult`	Callback class definition
`private IRecogAllInfoCallback recogAllInfo`	Callback method definition

Remarks:

The member variable recogResult is used to receive the return value from the JNI callback.

Example:

```
RecogAllInfoCallback recogAllCb = new RecogAllInfoCallback();
ret = AlprSDK.AlprSDK_CreateRecogAllInfoTask(0, recogAllCb);
System.out.println("AlprSDK_CreateRecogAllInfoTask ret = " + ret);
```

4.12 IRecogAllInfoCallback

Function

```
public interface IRecogAllInfoCallback {
```

```
    public void recogAllInfoCallback(RECOG_ALL_INFO recogAllInfo);
};
```

Description

License plate callback function .

4.13 AlprSDK_ClearRecogAllInfoTask

Function

```
public native static int AlprSDK_ClearRecogAllInfoTask(int nHandleID);
```

Description

License plate callback function clean-up.

Parameters

Parameter	Description
int nHandleID	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code

4.14 AlprSDK_CreateCaptureJpgCallback

Function

```
public native static int AlprSDK_CreateCaptureJpgCallback
(
    int nHandleID,
    IDeviceCaptureCallback callback
);
```

Description

Registered device grab callback.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DeviceCaptureCallback callback	**In:** Capture callback delegate class

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

After registering the callback using this interface, use the int AlprSDK_CaptureJpg (int nHandleID)

method to trigger the capture callback

Example:

How to grab a picture:

```
DeviceCaptureCallback deviceCaptureCallback = new DeviceCaptureCallback();
ret = AlprSDK.AlprSDK_CreateCaptureJpgCallback(0, deviceCaptureCallback);
System.out.println("AlprSDK_CreateCaptureJpgCallback ret = " + ret);

ret = AlprSDK.AlprSDK_CaptureJpg(0);
System.out.println("AlprSDK_CaptureJpg Ret = " + ret);
```

4.15 DeviceCaptureCallback

Function

```
public class DeviceCaptureCallback {

    private byte[] buf;
    private int len;
    private IDeviceCaptureCallback deviceCaptureCb;
    public DeviceCaptureCallback(IDeviceCaptureCallback deviceCaptureCb) {
     this.deviceCaptureCb = deviceCaptureCb;
    }
    public void CALLBACK() {
     if (deviceCaptureCb != null) {
         deviceCaptureCb.deviceCaptureCallback(buf, len);
```

```
    }
    }
};
```

Description

Image data capture callback class

Parameters

Parameter	Description
`private byte[] buf`	Picture data
`private int len`	Picture data length
`private IDeviceCaptureCallback deviceCaptureCb`	Image data capture callback interface

4.16 IDeviceCaptureCallback

Function

```
public interface IDeviceCaptureCallback {
    public void deviceCaptureCallback(byte[] buf, int len);
};
```

Description

Image data capture callback interface.

4.17 AlprSDK_ClearCaptureJpgCallback

Function

```
public native static int AlprSDK_ClearCaptureJpgCallback(int nHandleID);
```

Description

Device grab callback clean-up.

Parameters

Parameter	Description
`int nHandleID`	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.18 AlprSDK_CaptureJpg

Function

```
public native static int AlprSDK_CaptureJpg(int nHandleID);
```

Description

（You need to register a callback before calling）The device grabs the diagram, grabs the current picture directly, and returns it through a callback

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

You need to register a callback before calling this interface.

Please use the int AlprSDK_CreateCaptureJpgCallback(int nHandleID, DeviceCaptureCallback callback) interface to register the callback.

Example:

How to grab a picture:

```
DeviceCaptureCallback deviceCaptureCallback = new DeviceCaptureCallback();
ret = AlprSDK.AlprSDK_CreateCaptureJpgCallback(0, deviceCaptureCallback);
System.out.println("AlprSDK_CreateCaptureJpgCallback ret = " + ret);

ret = sdk.AlprSDK_CaptureJpg(0);
System.out.println("AlprSDK_CaptureJpg Ret = " + ret);
```

4.19 AlprSDK_CreateDevStatusCallback

Function

```
 public native static int AlprSDK_CreateDevStatusCallback
(
                  int nHandleID,
    DevStatusCallback callback
);
```

Description

Registered device status callback.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DevStatusCallback callback	**In:** callback function

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

Call:

1. When the first connection is successful, the heartbeat state 0.
2. Firmware will continue to compare the current state, if the state is always the same, every 10 seconds callback, if the state is different, immediately callback.
3. After the server refuses to connect, the heartbeat state is-997.
4. After the network reconnects, the heartbeat state 0.
5. Triggers the callback after manually calling the callback.

4.20DevStatusCallback

Function

```
public class DevStatusCallback {
    private DevStatus devStatus;
    private IDevStatusCallback devStatusCb;
    public DevStatusCallback(IDevStatusCallback devStatusCb) {
    devStatus = new DevStatus();
    this.devStatusCb = devStatusCb;
}
public void CALLBACK() {
```

```
        devStatusCb.devStatusCallback(devStatus);
    }
};
```

Description

Device state callback class.

Parameters

Parameter	Description
`private DevStatus devStatus`	Equipment status parameters
`private IDevStatusCallback devStatusCb`	private IDevStatusCallback devStatusCb

Remarks:

The member variable devStatus is used to receive the device status return value from the JNI callback.

4.21 IDevStatusCallback

Function

```
public interface IDevConnStatusCallback {
    public void devConnStatusCallback(int handleId, int status);
}
```

Description

State callback interface.

4.22AlprSDK_ClearDevStatusCallback

Function

```
public native static int AlprSDK_ClearDevStatusCallback(int nHandleID);
```

Description

Clear device status callback.

Parameters

Parameter	Description
int nHandleID	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.23AlprSDK_SetDevConnStatusCallBack

Function

```
int AlprSDK_SetDevConnStatusCallBack
(
                    int    nHandleID,
DevConnStatusCallback    callback
);
```

Description

Register device connection status callback.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DevConnStatusCallback callback	**In:** Callback function delegate class

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

Call:

1. When the first connection is successful, the state 0.
2. Firmware will continue to compare the current state, if the state is always the same, every 10 seconds

callback, if the state is different, immediately callback.

3. Callback after the server refuses to connect, state-997.
4. Callback after network reconnection, state 0

4.24 DevConnStatusCallback

Function

```
public class DevConnStatusCallback {


    private int handleId;
    private int status;
    private IDevConnStatusCallback devConnStatusCb;
    public DevConnStatusCallback(IDevConnStatusCallback devConnStatusCb) {
        this.devConnStatusCb = devConnStatusCb;
    }
    public void CALLBACK() {
        if (devConnStatusCb != null) {
          devConnStatusCb.devConnStatusCallback(handleId, status);
        }
    }
};
```

Description

Device Connection Status Callback Delegate Class.

Parameters

Parameter	Description
`private int handleId`	The number of the handle
`private int status`	Connection Status (0: Not Connected, 1: Connected)
`private IDevConnStatusCallback devConnStatusCb`	State callback function

4.25IDevConnStatusCallback

Function

```
public interface IDevConnStatusCallback {
   public void devConnStatusCallback(int handleId, int status);
}
```

Description

State callback interface.

4.26AlprSDK_CreateWiegandDataCallback

Function

```
public native static int AlprSDK_CreateWiegandDataCallback
(
    int nHandleID,
    WiegandDataCallback callback
);
```

Description

Create Wigan Card Data Callback.

Parameters

Parameter	Description
`int nHandleID`	The number of the handle
`WiegandDataCallback callback`	Callback function delegate class

4.27 WiegandDataCallback

Function

```
public class WiegandDataCallback {

    public WiegandData wiegandData;

    public void CALLBACK() {
        System.out.println("wiegandData:" + wiegandData.toString());
    }
};
```

Description

Wiegand card data callback.

Parameters

Parameter	Description
`public WiegandData wiegandData`	Wigan card data

4.28AlprSDK_ClearWiegandDataCallback

Function

```
public native static int AlprSDK_ClearWiegandDataCallback(int nHandleID);
```

Description

Clear the Wiegand card data callback.

Parameters

Parameter	Description
int nHandleID	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.29AlprSDK_CreateEZStreamDataCB

Function

```
public native static int AlprSDK_CreateEZStreamDataCB
(
                    int    nHandleID,
    StreamDataCallBack    callback
);
```

Description

Register video stream callback.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
StreamDataCallBack callback	**Out:** Callback class

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

After registering the callback using this interface, use the int AlprSDK_StartVideo (int nHandleID); method to start the video.

Using the int AlprSDK_StopVideo (int nHandleID); method to stop video.

Example

How to grab a video stream:

```
StreamDataCallBack steamDateCb = new StreamDataCallBack();
ret = AlprSDK.AlprSDK_CreateEZStreamDataCB(0, steamDateCb);
System.out.println("AlprSDK_CreateEZStreamDataCB ret = " + ret);

ret = AlprSDK.AlprSDK_StartVideo(0);
System.out.println("AlprSDK_StartVideo ret = " + ret);

try {
    Thread.sleep(5000);
} catch (InterruptedException e) {
    e.printStackTrace();
}

ret = AlprSDK.AlprSDK_StopVideo(0);
System.out.println("AlprSDK_StopVideo ret = " + ret);
```

4.30StreamDataCallBack

Function

```
public class StreamDataCallBack {
    private byte[] bytes;
    private int nBytesLen;
    private IStreamDataCallBack streamCb;
    public StreamDataCallBack(IStreamDataCallBack streamCb) {
     this.streamCb = streamCb;
         bytes = null;
        nBytesLen = -1;
    }
    private void CALLBACK() {
     if (streamCb != null) {
         streamCb.streamDataCallback(bytes, nBytesLen);
     }
    }
};
```

Description

Video stream callback class.

Parameters

Parameter	Description
private byte[] bytes	Video stream data
private int nBytesLen	Data size
private IStreamDataCallBack streamC	Video stream callback interface

4.31 IStreamDataCallBack

Function

```
public interface IStreamDataCallBack {
  public void streamDataCallback(byte[] bytes, int nBytesLen);
}
```

Description

Video stream callback interface.

4.32 AlprSDK_ClearEZStreamDataCB

Function

```
public native static int AlprSDK_ClearEZStreamDataCB(int nHandleID);
```

Description

Clear stream data callback.

Parameters

Parameter	Description
int nHandleID	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.33 AlprSDK_StartVideo

Function

```
public native static int AlprSDK_StartVideo(int nHandleID);
```

Description

Turn on video stream callback.

Parameters

Parameter	Description
int nHandleID	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

Before calling this function, you need to register a video stream callback, see the instructions for the int AlprSDK_CreateEZStreamDataCB (int nHandleID, StreamDataCallBack callback) method.

4.34 AlprSDK_StopVideo

Function

```
public native static int AlprSDK_StopVideo(int nHandleID);
```

Description

Turn off video stream callback.

Parameters

Parameter	Description
`int nHandleID`	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code

Remarks

Before calling this function, you need to register a video stream callback, see the instructions for the int AlprSDK_CreateEZStreamDataCB (int nHandleID, StreamDataCallBack callback) method.

4.35 AlprSDK_DisConnectDev

Function

```
Private native static int AlprSDK_DisConnectDev(int nHandleID);
```

Description

Disconnect the device.

Parameters

Parameter	Description
`int nHandleID`	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.36AlprSDK_UnInitHandle

Function

```
public native static int AlprSDK_UnInitHandle(int nHandleID);
```

Description

Release handle.

Parameters

Parameter	Description
`int nHandleID`	Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.37AlprSDK_Cleanup

Function

```
public native static int AlprSDK_Cleanup();
```

Description

Close AlprSDK and release related resources.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.38AlprSDK_SetRoiEx

Function

```
public native static int AlprSDK_SetRoiEx
(
    int nHandleID,
    XPoint[] rgnRoi
);
```

Description

Set the identification area (extension).

Parameters

Parameter	Description
`int nHandleID;`	**In:** Number of Handles
`XPoint[] rgnRoi;`	**In:** A Quadrilateral region composed of four coordinate points

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.39AlprSDK_GetRoiEx

Function

```
public native static int AlprSDK_GetRoiEx
(
        int    nHandleID,
    XPoint[]   rgnRoi
);
```

Description

Get the identification area (extension)

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
XPoint[] rgnRoi	**Out:** A Quadrilateral region composed of four coordinate points

Returns

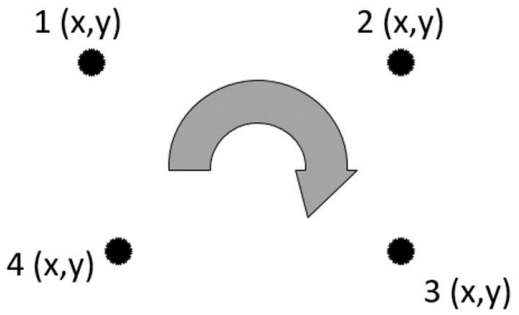
Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

The four points are ordered clockwise in the coordinate system



4.40 AlprSDK_SetVirtualCoil

Function

```
public native static int AlprSDK_SetVirtualCoil
(
    int   nHandleID,
   XPoint[]   rgnRoi
);
```

Description

Set the virtual coil area.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles
`XPoint[] rgnRoi`	**In:** A Quadrilateral region composed of four coordinate points

Returns

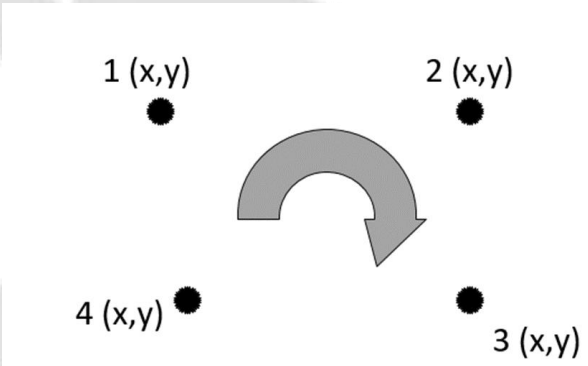
Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

The four points are ordered clockwise in the coordinate system



4.41 AlprSDK_GetVirtualCoil

Function

```
public native static int AlprSDK_GetVirtualCoil
(
          int   nHandleID,
    XPoint[]   rgnRoi
);
```

Description

Get the virtual coil area.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles
`XPoint[]  rgnRoi`	**Out:** A Quadrilateral region composed of four coordinate points

Returns

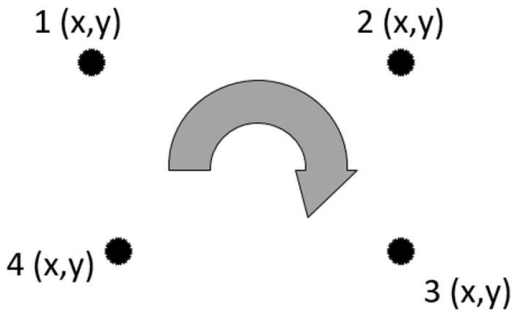
Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks:

The four points are ordered clockwise in the coordinate system



4.42 AlprSDK_GetDeviceFunList

Function

```
public native static int AlprSDK_GetDeviceFunList
(
        int nHandleID,
       byte[] devFunList,
        int len
);
```

Description

Get the features supported by the device.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles

byte[] devFunList	**Out:** The upper layer allocates a buf of 256 bytes, and the meaning of the value corresponding to each byte: When the byte of the 0th byte is 1: the entry record increases the admission information, and the first byte is 1: the fleet mode, the second When the byte is 1, the license plate list information is expanded, etc
int len	**In:** Upload fixed to 256

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Example:

```
byte[] devFunList = new byte[256];
ret = AlprSDK.AlprSDK_GetDeviceFunList(0, devFunList, devFunList.length);
System.out.println("AlprSDK_GetDeviceFunList Ret: " + ret);
for (int i = 0; i < devFunList.length; i++)
{
    System.out.print(Integer.toBinaryString(devFunList[i]));
    if (i != devFunList.length - 1)
    {
        System.out.print(",");
    }
}
System.out.println();
```

4.43 AlprSDK_GetDevLicenseInfo

Function

```
public native static int AlprSDK_GetDevLicenseInfo
(
            int     nHandleID,
    DevLicense      devLicense
);
```

Description

Get device license information.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DevLicense devLicense	**Out:** License related information

4.44 AlprSDK_GetDevVerInfo

Function

```
public native static int AlprSDK_GetDevVerInfo
(
            int   nHandleID,
    DEV_VER_INFO  devVerInfo
);
```

Description

Get device version information.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DEV_VER_INFO devVerInfo	**Out:** Device version information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.45 AlprSDK_GetDevSN

Function

```
 public native static int AlprSDK_GetDevSN
(
     int   nHandleID,
     DEVSN    devSN
);
```

Description

Get device encryption information.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DEVSN devSN	**Out:** Device encryption information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.46 AlprSDK_SetDevSN

Function

```
public native static int AlprSDK_SetDevSN
(
      int     nHandleID,
    DEVSN     devSN
);
```

Description

Set up device encryption information.

Parameters

Parameter		Description
int	nHandleID	**In:** Number of Handles
DEVSN	devSN	**Out:** Device encryption information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.47 AlprSDK_GetDeviceParam

Function

```
public native static int AlprSDK_GetDeviceParam
(
            int   nHandleID,
    DeviceParam   deviceParam
);
```

Description

Get device parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
DeviceParam deviceParam	**Out:** Device parameters

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.48 AlprSDK_OpenGate

Function

```
public native static int AlprSDK_OpenGate(int nHandleID);
```

Description

Open the gate.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.49 AlprSDK_ControlZoom

Function

```
public native static int AlprSDK_ControlZoom
(
    int nHandleID,
    ZoomCtlPara zoomCtlPara,
```

```
    int ifStop
);
```

Description

Zoom control.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles
`ZoomCtlPara zoomCtlPara`	**In:** Zoom control parameters
`int ifStop`	**In:** Whether to stop 0--no 1--yes

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Example

```
ZoomCtlPara zoomCtlPara = new ZoomCtlPara();
for (int i = 0; i < 100; i++) {
    zoomCtlPara.cmd = 0;
    zoomCtlPara.stepSpeed = 1;
    ret = AlprSDK.AlprSDK_ControlZoom(0, zoomCtlPara, 0);
```

```
    System.out.println("Emulate click down AlprSDK_ControlZoom ret = " + ret);
    try {
        Thread.sleep(80);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
    ret = AlprSDK.AlprSDK_ControlZoom(0, zoomCtlPara, 1);


    try {
        Thread.sleep(80);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
System.out.println("Emulate click up AlprSDK_ControlZoom ret = " + ret);
}

for (int i = 0; i < 100; i++) {
    zoomCtlPara.cmd = 1;
    zoomCtlPara.stepSpeed = 1;
    ret = AlprSDK.AlprSDK_ControlZoom(0, zoomCtlPara, 0);


    System.out.println("Emulate click down AlprSDK_ControlZoom ret = " + ret);
    try {
        Thread.sleep(80);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
    ret = AlprSDK.AlprSDK_ControlZoom(0, zoomCtlPara, 1);


    try {
        Thread.sleep(80);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
    System.out.println("Emulate click up AlprSDK_ControlZoom ret = " + ret);
}
```

4.50AlprSDK_ControlFocus

Function

```
public native static int AlprSDK_ControlFocus
(
            int     nHandleID,
    FocusCtlPara    focusCtlPara,
            int     ifStop
);
```

Description

Focus control.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
FocusCtlPara focusCtlPara	**In:** Focus control parameters
int ifStop	**In:** Whether to stop 0--no 1--yes

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Example

Description: The following example simulates a mouse button click operation

```
FocusCtlPara focusCtlPara = new FocusCtlPara();
for (int i = 0; i < 100; i++)
{
    focusCtlPara.cmd = 0;
    focusCtlPara.stepSpeed = 1;
    ret = AlprSDK_ControlFocus(0, focusCtlPara, 0); // Simulate mouse button press

    try {
        Thread.sleep(30);
    } catch (InterruptedException e) {
        e.printStackTrace();
    }
    ret = AlprSDK_ControlFocus(0, focusCtlPara, 1); // Simulate mouse button
release
    System.out.println("AlprSDK_ControlFocus ret = " + ret);
}

for (int i = 0; i < 100; i++)
{
   focusCtlPara.cmd = 1;
   focusCtlPara.stepSpeed = 1;
   ret = AlprSDK_ControlFocus(0, focusCtlPara, 0);  // Simulate mouse button press
   try {
      Thread.sleep(30);
   } catch (InterruptedException e) {
       e.printStackTrace();
   }
   ret = AlprSDK_ControlFocus(0, focusCtlPara, 1);  // Simulate mouse button
release
   System.out.println("AlprSDK_ControlFocus ret = " + ret);
}.
```

4.51 AlprSDK_RebootDevice

Function

```
public native static int AlprSDK_RebootDevice(int nHandleID);
```

Description

Restart the device.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.52 AlprSDK_SetGateCfg

Function

```
public native static int AlprSDK_SetGateCfg
(
            int    nHandleID,
    GATE_CONFIG    gateCfg
);
```

Description

Set the configuration parameters of the gate.

Parameters

Parameter	Description
`int nHandleID`	**In:** Number of Handles
`GATE_CONFIG  gateCfg`	**In:** Configuration parameters of gate

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.53 AlprSDK_GetGateCfg

Function

```
public native static int AlprSDK_GetGateCfg
```

```
(
    int nHandleID,
    GATE_CONFIG gateCfg
);
```

Description

Obtain gate configuration parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
GATE_CONFIG gateCfg	**In:** Configuration parameters of gate

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.54 AlprSDK_SetAlprCfg

Function

```
public native static int AlprSDK_SetAlprCfg
(
            int    nHandleID,
    ALPR_CONFIG    alprCfg
);
```

Description

Set identification parameters.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
ALPR_CONFIG alprCfg	**In**: Identification parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.55 AlprSDK_GetAlprCfg

Function

```
public native static int AlprSDK_GetAlprCfg
(
            int    nHandleID,
    ALPR_CONFIG    alprCfg
);
```

Description

Get identification parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
ALPR_CONFIG alprCfg	**In:** Identification parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.56AlprSDK_SetNAlprCfg

Function

```
public native static int AlprSDK_SetNAlprCfg
(
        int   nHandleID,
    NAlprCfg   nAlprCfg
);
```

Description

Set identification parameters(Expand). Not available for Chinese version firmware.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
NAlprCfg alprCfg	**In:** Identification parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

Support for European firmware only.

4.57 AlprSDK_GetNAlprCfg

Function

```
public native static int AlprSDK_GetNAlprCfg
(
        int   nHandleID,
    NAlprCfg   nAlprCfg
);
```

Description

Get identification parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
NAlprCfg alprCfg	**In:** Identification parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

Support for European firmware only.

4.58AlprSDK_SetOfflineParam

Function

```
public native static int AlprSDK_SetOfflineParam
(
            int   nHandleID,
    OfflineParam  OfflineParam
);
```

Description

Set Offline Parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
OfflineParam OfflineParam	**In:** Offline charge parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.59AlprSDK_GetOfflineParam

Function

```
public native static int AlprSDK_GetOfflineParam
(
            int   nHandleID,
    OfflineParam  OfflineParam
);
```

Description

Get offline parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
OfflineParam OfflineParam	**In:** Offline charge parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.60AlprSDK_SetBaseParam

Function

```
int AlprSDK_SetBaseParam
(
            int     nHandleID,
    BASE_PARAM     baseParam
);
```

Description

Set basic parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
BASE_PARAM baseParam	**In:** Basic parameters（Whether the identification area and virtual coil are displayed）

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Structure

COUNTRY_CODE

Parameters

Parameter	Description
CA = 1	Canada
US = 1	US
KZ = 7	Kazakhstan
RU = 7	Russia
EG = 20	Egypt
ZA = 27	South Africa
GR = 30	Greece
NL = 31	Netherlands
BE = 32	Belgium
FR = 33	France
ES = 34	Spain
IT = 39	Italy
UK = 44	UK
RO = 40	Romania
CH = 41	Switzerland
AT = 43	Austria
DK = 45	Denmark

SE = 46	Sweden
NO = 47	Norway
PL = 48	Poland
PE = 51	Peru
MX = 52	Mexico
CU = 53	Cuba
AR = 54	Argentina
BR = 55	Brazil
CL = 56	Chile
CO = 57	Colombia
VE = 58	Venezuela
MY = 60	Malaysia
AU = 61	Australia
ID = 62	Indonesia
PH = 63	Philippines
NZ = 64	New Zealand
SG = 65	Singapore
TH = 66	Thailand
JP = 81	Japan
KR = 82	Korea
VN = 84	Vietnam
CN = 86	China

TR = 90	Turkey
IND = 91	India
PK = 92	Pakistan
AF = 93	Afghanistan
LK = 94	Sri Lanka
MM = 95	Myanmar
IR = 98	Iran
MA = 210	Morocco
EH = 210	Western Sahara
DZ = 213	Algeria
TN = 216	Tunisia
LY = 218	Libya
GM = 220	Gambia
SN = 221	Senegal
MR = 222	Mauritania
ML = 223	Mali
GN = 224	Guinea
CI = 225	Côte d'Ivoire
BF = 226	Burkina Faso
NE = 227	Niger
TG = 228	Togo
BJ = 229	Benin

MU = 230	Mauritius
LR = 231	Liberia
SL = 232	Sierra Leone
GH = 233	Ghana
NG = 234	Nigeria
TD = 235	Chad
CF = 236	Central African Republic
CM = 237	Cameroon
CV = 238	Cape Verde
ST = 239	Sao Tome and Principe
GQ = 240	Equatorial Guinea
GA = 241	Gabon
CD = 242	Congo
CG = 242	Democratic Republic of the Congo
AO = 244	Angola
GW = 245	Guinea-Bissau
SD = 249	Sudan
RW = 250	Rwanda
ET = 251	Ethiopia
SO = 252	Somalia
DJ = 253	Kyrgyzstan

KE = 254	Kenya
TZ = 255	Tanzania
UG = 256	Uganda
BI = 257	Burundi
MZ = 258	Mozambique
ZM = 260	Zambia
MG = 261	Madagascar
RE = 262	Reunion
ZW = 263	Zimbabwe
NA = 264	Namibia
MW = 265	Malawi
LS = 266	Lesotho
BW = 267	Botswana
SZ = 268	Swaziland
KM = 269	Comoros
YT = 269	Mayotte
ER = 291	Eritrea
AW = 297	Aruba
HU = 336	Hungary
DE = 349	Germany
PT = 351	Portugal
LU = 352	Luxembourg

IE = 353	Ireland
IS = 354	Iceland
AL = 355	Albania
MT = 356	Malta
CYP = 357	Cyprus
FI = 358	Finland
BG = 359	Bulgaria
LT = 370	Lithuania
LV = 371	Latvia
EE = 372	Estonia
MD = 373	Moldova
AM = 374	Armenia
BY = 375	Belarus
AD = 376	Andorra
UA = 380	Ukraine
RS = 381	Serbia
ME = 382	Montenegro
HR = 385	Croatia
SI = 386	Slovenia
BA = 387	Bosnia and Herzegovina
MK = 389	Macedonia
VA = 396	Vatican

CZ = 420	Czech Republic
SK = 421	Slovakia
BZ = 501	Belize
GT = 502	Guatemala
SV = 503	El Salvador
HN = 504	Honduras
NI = 505	Nicaragua
CR = 506	Costa Rica
PA = 507	Panama
HT = 509	Haiti
GP = 590	Guadeloupe
BO = 591	Bolivia
GY = 592	Guyana
EC = 593	Ecuador
GF = 594	French Guiana
PY = 595	Paraguay
MQ = 596	Martinique
SR = 597	Suriname
UY = 598	Uruguay
AN = 599	Netherlands Antilles
GU = 671	Guam
TL = 670	East Timor

BN = 673	Brunei Darussalam
NR = 674	Nauru
PG = 675	Papua New Guinea
TO = 676	Tonga
SB = 677	Solomon Islands
VU = 678	Vanuatu
FJ = 679	Fiji
CK = 682	Cook Islands
WS = 685	Samoa
KI = 686	Kiribati
NC = 687	New Caledonia
TV = 688	Tuvalu
PF = 689	French Polynesia
FM = 691	Micronesia
MH = 692	Marshall Islands
KP = 850	North Korea
HK = 852	Hong Kong
MO = 853	Macau
KH = 855	Cambodia
LA = 856	Laos
BD = 880	Bangladesh
TW = 886	Taiwan

MV = 961	Maldives
LB = 962	Lebanon
JO = 963	Jordan
SY = 964	Syria
IQ = 965	Iraq
KW = 966	Kuwait
SA = 967	Saudi Arabia
YE = 968	Yemen
OM = 969	Oman
PS = 970	Palestine
AE = 972	United Arab Emirates
IL = 973	Israel
BH = 974	Bahrain
QA = 975	Qatar
BT = 976	Bhutan
MN = 977	Mongolia
NP = 978	Nepal
TJ = 992	Tajikistan
TM = 993	Turkmenistan
AZ = 994	Azerbaijan
GE = 995	Georgia
KG = 996	Djibouti

UZ = 998	Uzbekistan
BB = 1809	Barbados
BS = 1809	Bahamas
PR = 1809	Puerto Rico
DO = 1809	Dominican Republic
GD = 1809	Grenada
LC = 1809	Saint Lucia
VC = 1809	Saint Vincent
TT = 1809	Trinidad and Tobago
JM = 1809	Jamaica
VG = 1809	British Virgin Islands

4.61 AlprSDK_GetBaseParam

Function

```
public native static int AlprSDK_GetBaseParam
(
            int     nHandleID,
    BASE_PARAM      baseParam
);
```

Description

Get basic parameters.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
BASE_PARAM baseParam	**In:** Basic parameters（Whether the identification area and virtual coil are displayed）

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.62AlprSDK_OperateSDCard

Function

```
public native static int AlprSDK_OperateSDCard
(
                int   nHandleID,
                int   nOpType,
```

```
    SDCardCapacity    sdCardCapacity
);
```

Description

Operation SD card.

Parameters

Parameter	Description
int nHandleID	**In:** Number of Handles
int nOpType	**In**: Mount SD card, 1--unload SD card, 2-format SD card, 3--get SD card capacity
SDCardCapacity sdCardCapacity	**In**: SD card capacity information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.63 AlprSDK_ResetFactory

Function

```
public native static int AlprSDK_ResetFactory
(
    int nHandleID,
    int resetType
);
```

Description

Restore device parameters.

Parameters

Parameter	Description
`int nHandleID`	**In:**Number of Handles
`int resetType`	**In:** Restart Type. 0: Recovery Technical Parameters, 1: Recovery Network Parameters, 2: Recovery All Parameters.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.64 AlprSDK_SetDevInfo

Function

```
 public native static int AlprSDK_SetDevInfo
(
        int     nHandleID,
    DEVINFO     devInfo
);
```

Description

Set up device information.

Parameters

Parameter	Description
int nHandleID	Number of Handles
DEVINFO devInfo	Device information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.65 AlprSDK_GetDevInfo

Function

```
public native static int AlprSDK_GetDevInfo
(
        int    nHandleID,
    DEVINFO    devInfo
);
```

Description

Get device information.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
DEVINFO devInfo	**out**: Device Information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.66AlprSDK_StartMDThrDetect

Function

```
public native static int AlprSDK_StartMDThrDetect(int nHandleID);
```

Description

Start detection of movement detection threshold.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.67AlprSDK_GetMDThreshold

Function

```
public native static int AlprSDK_GetMDThreshold(int nHandleID);
```

Description

Start detection of movement detection threshold.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.68AlprSDK_GetNetworkParam

Function

```
public native static int AlprSDK_GetNetworkParam
(
            int  nHandleID,
```

```
    NetworkParam  networkParam
);
```

Description

Get network parameters.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles.
`NetworkParam  networkParam`	**In**: Network parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.69AlprSDK_SetCountryCode

Function

```
public native static int AlprSDK_SetCountryCode
(
    int nHandleID,
    int nCountryCode
);
```

Description

Set up a country code which used in identify algorithm.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles.
`int nCountryCode`	**In:** Country code, see the following table COUNTRY_CODE

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

It is not recommended and is not valid in most cases. If you want to switch countries, use the upgrade package tool.

Structure

COUNTRY_CODE

Description

Country Code

Parameters

Parameter	Description
CA=1	Canada
US=1	US
KZ=7	Kazakhstan
RU=7	Russia
EG=20	Egypt
ZA=27	South Africa
GR=30	Greece
NL=31	Netherlands
BE=32	Belgium
FR=33	France
ES=34	Spain
IT=39	Italy
UK=44	UK

RO=40	Romania
CH=41	Switzerland
AT=43	Austria
DK=45	Denmark
SE=46	Sweden
NO=47	Norway
PL=48	Poland
PE=51	Peru
MX=52	Mexico
CU=53	Cuba
AR=54	Argentina
BR=55	Brazil
CL=56	Chile
CO=57	Colombia
VE=58	Venezuela
MY=60	Malaysia
AU=61	Australia
ID=62	Indonesia
PH=63	Philippines
NZ=64	New Zealand
SG=65	Singapore
TH=66	Thailand

JP=81	Japan
KR=82	Korea
VN=84	Vietnam
CN=86	China
TR=90	Turkey
IND=91	India
PK=92	Pakistan
AF=93	Afghanistan
LK=94	Sri Lanka
MM=95	Myanmar
IR=98	Iran
MA=210	Morocco
EH=210	Western Sahara
DZ=213	Algeria
TN=216	Tunisia
LY=218	Libya
GM=220	Gambia
SN=221	Senegal
MR=222	Mauritania
ML=223	Mali
GN=224	Guinea
CI=225	Côte d'Ivoire

BF=226	Burkina Faso
NE=227	Niger
TG=228	Togo
BJ=229	Benin
MU=230	Mauritius
LR=231	Liberia
SL=232	Sierra Leone
GH=233	Ghana
NG=234	Nigeria
TD=235	Chad
CF=236	Central African Republic
CM=237	Cameroon
CV=238	Cape Verde
ST=239	Sao Tome and Principe
GQ=240	Equatorial Guinea
GA=241	Gabon
CD=242	Congo
CG=242	Democratic Republic of the Congo
AO=244	Angola
GW=245	Guinea-Bissau
SD=249	Sudan
RW=250	Rwanda

ET=251	Ethiopia
SO=252	Somalia
DJ=253	Kyrgyzstan
KE=254	Kenya
TZ=255	Tanzania
UG=256	Uganda
BI=257	Burundi
MZ=258	Mozambique
ZM=260	Zambia
MG=261	Madagascar
RE=262	Reunion
ZW=263	Zimbabwe
NA=264	Namibia
MW=265	Malawi
LS=266	Lesotho
BW=267	Botswana
SZ=268	Swaziland
KM=269	Comoros
YT=269	Mayotte
ER=291	Eritrea
AW=297	Aruba
HU=336	Hungary

DE=349	Germany
PT=351	Portugal
LU=352	Luxembourg
IE=353	Ireland
IS=354	Iceland
AL=355	Albania
MT=356	Malta
CYP=357	Cyprus
FI=358	Finland
BG=359	Bulgaria
LT=370	Lithuania
LV=371	Latvia
EE=372	Estonia
MD=373	Moldova
AM=374	Armenia
BY=375	Belarus
AD=376	Andorra
UA=380	Ukraine
RS=381	Serbia
ME=382	Montenegro
HR=385	Croatia
SI=386	Slovenia

BA=387	Bosnia and Herzegovina
MK=389	Macedonia
VA=396	Vatican
CZ=420	Czech Republic
SK=421	Slovakia
BZ=501	Belize
GT=502	Guatemala
SV=503	El Salvador
HN=504	Honduras
NI=505	Nicaragua
CR=506	Costa Rica
PA=507	Panama
HT=509	Haiti
GP=590	Guadeloupe
BO=591	Bolivia
GY=592	Guyana
EC=593	Ecuador
GF=594	French Guiana
PY=595	Paraguay
MQ=596	Martinique
SR=597	Suriname
UY=598	Uruguay

AN=599	Netherlands Antilles
GU=671	Guam
TL=670	East Timor
BN=673	Brunei Darussalam
NR=674	Nauru
PG=675	Papua New Guinea
TO=676	Tonga
SB=677	Solomon Islands
VU=678	Vanuatu
FJ=679	Fiji
CK=682	Cook Islands
WS=685	Samoa
KI=686	Kiribati
NC=687	New Caledonia
TV=688	Tuvalu
PF=689	French Polynesia
FM=691	Micronesia
MH=692	Marshall Islands
KP=850	North Korea
HK=852	Hong Kong
MO=853	Macau
KH=855	Cambodia

LA=856	Laos
BD=880	Bangladesh
TW=886	Taiwan
MV=961	Maldives
LB=962	Lebanon
JO=963	Jordan
SY=964	Syria
IQ=965	Iraq
KW=966	Kuwait
SA=967	Saudi Arabia
YE=968	Yemen
OM=969	Oman
PS=970	Palestine
AE=972	United Arab Emirates
IL=973	Israel
BH=974	Bahrain
QA=975	Qatar
BT=976	Bhutan
MN=977	Mongolia
NP=978	Nepal
TJ=992	Tajikistan
TM=993	Turkmenistan

AZ=994	Azerbaijan
GE=995	Georgia
KG=996	Djibouti
UZ=998	Uzbekistan
BB=1809	Barbados
BS=1809	Bahamas
PR=1809	Puerto Rico
DO=1809	Dominican Republic
GD=1809	Grenada
LC=1809	Saint Lucia
VC=1809	Saint Vincent
TT=1809	Trinidad and Tobago
JM=1809	Jamaica
VG=1809	British Virgin Islands

4.70 AlprSDK_GetImageList

Function

```
public native static int AlprSDK_GetImageList(int nHandleID);
```

Description

Gets the current picture list (not supported for the time being).

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.71 AlprSDK_SetNetworkParam

Function

```
public native static int AlprSDK_SetNetworkParam
(
            int nHandleID,
    NetworkParam  networkParam
);
```

Description

Set network parameters.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles.
`NetworkParam networkParam`	**In**: Network parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Function

`NetworkParam`

Description

Network parameter.

Parameters

Parameter	Description

Int NetInterface:	Network interface 1-10MBase-T; 2-10Base-T full duplex; 3-100Base-TX; 4-100M full duplex; 5-10M/100M adaptive.
String DVRIP:	IP address
String DVRIPMask:	Subnetmask
String GatewayIpAddr:	Gateway address
String MACAddr:	Physical address
Short DvrPort:	Communication port, default 8000
Short HttpPortNo:	Http port
Short HttpsPort:	Https port
Short RtspPort:	Rtsp port
Short RTMPPort:	Rtmp port
Short MulticastPort:	Multicast port
Int AlarmHostIpPort:	Alarm host port
String MulticastIpAddr:	Multicast address
String DnsServer1IpAddr:	IP address of domain name server 1.
String DnsServer2IpAddr:	IP address of domain name server 2.
Int DefaultRoute:	Defaultroute,0-struEtherNet[0],1-struEtherNet[1]
Int NetworkCardNum:	Number of NICs that the device can actually configure.
String AlarmHostIpAddr:	Alarm host IP address
String SnmpHostIp:	Self-trapped host IP address description, supporting IPv4 IPv6 and domain name description
Int SnmpCount:	The number of transmissions

Int SnmpInterval:	Send time interval
Boolean EnableUPNP:	Whether to enable UPNP
Boolean EnableSnmp:	Whether to enable Snmp
Boolean UseDhcp:	Whether to enable Dhcp
Boolean EnablePPPOE:	Whether to enable PPPoE
String PPPoEUser:	PPPoE username
String PPPoEIP:	PPPoE IP address
String PPPoEPassword:	PPPoE password

4.72 AlprSDK_SetP2PServerAddress

Function

```
public native static int AlprSDK_SetP2PServerAddress(
    String strP2PServerAddress;
);
```

Description

Set the P2P server address.

Parameters

Parameter	Description

strP2PServerAddress	**In**: The address, which can be a domain name.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.73 AlprSDK_SetOSD

Function

```
public native static int AlprSDK_SetOSD
(
        int   nHandleID,
    OSD_CTRL   osdCtrl
);
```

Description

Setting up OSD.

Parameters

Parameter	Description

`int nHandleID`	**In**: Number of Handles.
`OSD_CTRL osdCtrl`	**In**: The address, which can be a domain name.

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Example

```
OSD_CTRL modifiedOsdCtrl = (OSD_CTRL) restoreOsdCtrl.clone();
modifiedOsdCtrl.stTitleOSD.bShow = 1;
modifiedOsdCtrl.stTitleOSD.x = 48;
modifiedOsdCtrl.stTitleOSD.y = 48;
modifiedOsdCtrl.strTitle = "ZKTco123";
System.out.println("Set data: " + modifiedOsdCtrl);
ret = AlprSDK.AlprSDK_SetOSD(0, modifiedOsdCtrl);
```

Structure

`OSD_CTRL`

Description

Video control: the perceptual device only supports setting the title strTitle and whether to display the title.

Parameters

Parameter	Description
OSD_PARAM stDateOSD:	Video date display location
OSD_PARAM stTimeOSD:	Video time display position
OSD_PARAM stWeekOSD:	Video week display position
OSD_PARAM stBitrateOSD:	Video resolution display bit
OSD_PARAM stTitleOSD:	Video title display position
String strTitle:	video title

4.74AlprSDK_GetOSD

Function

```
public native static int AlprSDK_GetOSD
(
        int   nHandleID,
    OSD_CTRL   osdCtrl
);
```

Description

Get the OSD.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
OSD_CTRL osdCtrl	**Out**: Video Control Mode

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.75 AlprSDK_SetFtpClientCfg

Function

```
public native static int AlprSDK_SetFtpClientCfg
(
            int  nHandleID,
    FtpClientCfg  ftpClientCfg
);
```

Description

Set FtpClient configuration parameters.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
FtpClientCfg ftpClientCfg	**In**: Configuration parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.76 AlprSDK_GetFtpClientCfg

Function

```
public native static int AlprSDK_GetFtpClientCfg
(
            int   nHandleID,
    FtpClientCfg  ftpClientCfg
);
```

Description

Get FtpClient configuration parameters.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
`FtpClientCfg` ftpClientCfg	**In:** Configuration parameter

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Structure

`FtpClientCfg`

Description

FtpClient configuration parameters.

Parameters

Parameter	Description
boolean enable:	Whether Ftp is enabled
boolean pasvMode:	Remote port
short remotePort:	Passive mode connection.
String remoteHost:	Remote IP
String userName:	Name of user
String passWord:	User Password
String uploadPath:	Upload path

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.77 AlprSDK_SetSysTime

Function

```
public native static int AlprSDK_SetSysTime
```

```
(
     int    nHandleID,
    Time    time
);
```

Description

Set device system time.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`Time time`	**In**: Time

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Structure

`Time`

Description

Time.

Parameters

Parameter	Description
short year:	Year (current year minus 2000)
short month:	Month
short day:	Day
short hour:	Hour
short minute:	Minute
short second:	Second

4.78 AlprSDK_GetSysTime

Function

```
public native static int AlprSDK_GetSysTime
(
    int   nHandleID,
   Time   time
);
```

Description

Get device system time.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`Time time`	**In**: Time

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Structure

`Time`

Description

Time.

Parameters

Parameter	Description
`short year:`	Year (current year minus 2000)
`short month:`	Month
`short day:`	Day

short hour:	Hour
short minute:	Minute
short second:	Second

4.79AlprSDK_SetVideoParam

Function

```
public native static int AlprSDK_SetVideoParam
(
            int     nHandleID,
    VideoParam     videoParam
);
```

Description

Set video day and night switching parameters.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
VideoParam videoParam	**In**: Video switching parameters day and night

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.80 AlprSDK_GetVideoParam

Function

```
public native static int AlprSDK_GetVideoParam
(
            int     nHandleID,
    VideoParam      videoParam
);
```

Description

Get video day and night switching parameters.

Parameters

Parameter	Description

int nHandleID	**In**: Number of Handles
VideoParam videoParam	**In**: Video switching parameters day and night

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.81 AlprSDK_AddPlateListExt

Function

```
public native static int AlprSDK_AddPlateListExt
(
            int  nHandleID,
            int  t,
    PLATE_INFO_EXT[]    plateList,
            int  count
);
```

Description

Additional license plate information (if there is a duplicate license plate, it will be replaced directly).

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int t	**In**: license plate type, 0: whitelist, 1: blacklist, 2: fixed car list
PLATE_INFO_EXT[] plateList	**In**: An array of license plate information, which will store the license plate data to be added.
int count	**In**: count number of license plate data

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.82 AlprSDK_DelplateListExt

Function

```
public native static int AlprSDK_DelPlateListExt
(
            int   nHandleID,
            int   t,
```

```
    PLATE_INFO_EXT[]  plateList,
            int   count
);
```

Description

Delete license plate information.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int t	**In**: license plate type, 0: whitelist, 1: blacklist, 2: fixed car list
PLATE_INFO_EXT[] plateList	**In**: An array of license plate information, which will store the license plate data to be added.
int count	**In**: Number of license plate data

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.83 AlprSDK_ClearPlateListExt

Function

```
public native static int AlprSDK_ClearPlateListExt
(
    int nHandleID,
    int t
);
```

Description

Clear white / black / fixed car list data.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`int t`	**In**: license plate type, 0: whitelist, 1: blacklist, 2: fixed car list

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.84 AlprSDK_ExportPlateListExt

Function

```
public native static int AlprSDK_ExportPlateListExt
(
                    int     nHandleID,
                    int     t,
        PLATE_INFO_EXT[]    plateList,
                Integer     count
);
```

Description

Export license plate information (extension) .

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int t	**In**: license plate type, 0: whitelist, 1: blacklist, 2: fixed car lists
PLATE_INFO_EXT[] plateList,	**In**: An array of license plate information that stores the data to be imported
Integer count	**In**: count number of License plate data

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remark

Support only for African firmware

4.85 AlprSDK_GetDeviceDataCount

Function

```
public native static int AlprSDK_GetDeviceDataCount
(
        int    nHandleID,
        int    tType,
        int    offset,
    Integer    count
);
```

Description

Gets the number of data bars for the device.

Parameters

Parameter	Description

int nHandleID	**In**: Number of Handles
int tType	**In**: table type (3 - Temporary vehicle charging rules, 4 - General charging rules, 5 - Entry and exit records, 7 charging records)
int offset	**In**: offset starts from an ID
Integer count	**In**: count number of data

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.86 AlprSDK_GetDeviceData

Function

```
public native static int AlprSDK_GetDeviceData
(
        int    nHandleID,
        int    tType,
     char[]    buf,
         int   offset,
    integer    count
);
```

Description

Get device data.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`int tType`	**In**: table type (3 - Temporary vehicle charging rules, 4 - General charging rules, 5 - Entry and exit records, 7 charging records)
`char[] buf`	**Out**: Data
`int offset`	**In**: starts from an ID
`integer count`	**In/Out**: The number of records expected to be returned / the number of data actually returned

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.87 AlprSDK_SetDeviceData

Function

```
public native static int AlprSDK_SetDeviceData
(
        int     nHandleID,
        int     type,
     char[]     buf,
        int     count
);
```

Description

Send data to the device.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int type	**In**: table type (3 - Temporary vehicle charging rules, 4 - General charging rules)
char[] buf	**In**: Data (need to construct a string of a specific format, please be sure to use the XX Container class provided by the SDK to construct, the demo below the call will give a specific usage example)

int count	**In**: Number of data

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Example

```
TempCarChargeRuleContainer container = new TempCarChargeRuleContainer();
// The secondary cycle is to build 10 tests in batches. The mock data, writing method is not standard for reference only.
for (int i = 0; i < 10; i++) {
TempCarChargeRule tempCarChargeRule = new TempCarChargeRule();
    tempCarChargeRule.ID = i;
    tempCarChargeRule.FreeMinutes = 10;
    tempCarChargeRule.IncludeFreeMinFlag = 1;
    tempCarChargeRule.CrosstimeSpitFlag = 0;
    tempCarChargeRule.MaxFeePerDay = 100.0f;

    for (int j = 0; j < 16; j ++) {
       tempCarChargeRule.GenChargeRuleIDs[j] = j;
    }
    container.add(tempCarChargeRule);
}
System.out.println("container:" + container);

ret = AlprSDK.AlprSDK_SetDeviceData(0, 3, container.simpleSerialization(), container.size());
System.out.println("AlprSDK_SetDeviceData ret = " + ret);
```

```
GenChargeRuleContainer genChargeRuleContainer = new GenChargeRuleContainer();
```

// The following two loops are designed to bulk build 20 tests using mock data, writing that is not standard for reference only

```
for (int i = 0; i < 15; i++) {
    TimezoneRule tmpTimezoneRule = new TimezoneRule();
    tmpTimezoneRule.StartTime = 830;
    tmpTimezoneRule.EndTime = 900;
    tmpTimezoneRule.PayPerViewFlag = 0;
    tmpTimezoneRule.UnitTimeMin = 30;
    tmpTimezoneRule.UnitTimeCharge = 2;
    tmpTimezoneRule.MaxCharge = 50;
    GenChargeRule tmpGenChargeRule = new GenChargeRule(i, tmpTimezoneRule);
    genChargeRuleContainer.add(tmpGenChargeRule);
}

for (int i = 15; i < 20; i++) {
     PeriodRule tmpPeriodRule = new PeriodRule();
     tmpPeriodRule.Min = 30;
     tmpPeriodRule.PayPerViewFlag = 0;
     tmpPeriodRule.UnitTimeMin = 30;
     tmpPeriodRule.UnitTimeCharge = 2;
     tmpPeriodRule.MaxCharge = 50;
     GenChargeRule tmpGenChargeRule = new GenChargeRule(i, tmpPeriodRule);
     genChargeRuleContainer.add(tmpGenChargeRule);
}

System.out.println("container:" + new
String(genChargeRuleContainer.simpleSerialization()));
ret = AlprSDK.AlprSDK_SetDeviceData(0, 4,
genChargeRuleContainer.simpleSerialization(),
genChargeRuleContainer.size());
System.out.println("AlprSDK_SetDeviceData ret:" + ret);
```

4.88AlprSDK_ClearDeviceData

Function

```
public native static int AlprSDK_ClearDeviceData
(
    int nHandleID,
    int tType
);
```

Description

Clear a table.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int tType	**In**: table type (3 - Temporary vehicle charging rules, 4 - General charging rules, 5 - Entry and exit records, 7 charging records)

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.89 AlprSDK_CommTransparentTransfer

Function

```
public native static int AlprSDK_CommTransparentTransfer
(
        int     nHandleID,
    byte[]      data,
        int     len
);
```

Description

RS485 transparent transmission.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`byte[] data`	**In**: Data
`int len`	**In**: Data length

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

The length cannot exceed 25 5, and the software must be called online to be valid (the parameter clientType must be 0 or 1 when connecting to the device)

Example

If you want to set up a real-time display of "welcome" to the two-color screen, the following code:

```
char[] dataChars = new char[50];

String rawData =
"AA420000AE1A0023090001BBB6D3ADB9E2C1D9240B0000323031382D30352D3238F535";

for (int i = 0; i < rawData.length() / 2; i++) {
    dataChars[i] = (char)(0xFF & Integer.parseInt(rawData.substring(i * 2, i *
2 + 2), 16));
    System.out.println("The" + i + " " + (int)dataChars[i]);
}
ret = AlprSDK.AlprSDK_CommTransparentTransfer(0, dataChars, rawData.length() /
2);
System.out.println("AlprSDK_CommTransparentTransfer ret = " + ret);
```

For the format of the rawData in the above example, see Chapter 3.5 of the Communication Protocol between the camera and the dual-color screen (voice and display) in the appendix.

4.90AlprSDK_SetDColorDLineSCNParam

Function

```
public native static int AlprSDK_SetDColorDLineSCNParam
```

```
(
            int  nHandleID,
    DScreenDLine  screenParam
);
```

Description

Set the default parameters for two-color dual-line screen.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
DScreenDLine screenParam	**In**: Two-color dual-line screen information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

The software must be called online to be valid (the parameter clientType must be 0 or 1 when connecting to the device)

4.91 AlprSDK_GetVideoSize

Function

```
public native static int AlprSDK_GetVideoSize
(
        int    nHandleID,
    Integer    width,
    Integer    hight
);
```

Description

Get the video size.

Parameters

Parameter	Description
`int nHandleID`	**In**: Number of Handles
`Integer width`	**Out**: Video Weight
`Integer hight`	**Out**: Video Height

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

In P2P connection mode, AlprSDK.AlprSDK_StartVideo () must be called to get the size of the video.

4.92AlprSDK_SetVideoConfig

Function

```
public native static int AlprSDK_SetVideoConfig
(
                  int    nHandleID,
    ALPR_VIDEO_CONFIG    videoCfg
);
```

Description

Set up video stream information.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
ALPR_VIDEO_CONFIG videoCfg	**In**: Video stream configuration information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.93 AlprSDK_GetVideoConfig

Function

```
public native static int AlprSDK_GetVideoConfig
(
                  int    nHandleID,
    ALPR_VIDEO_CONFIG    videoCfg
);
```

Description

Get video stream information.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
ALPR_VIDEO_CONFIG videoCfg	**In**: Video stream configuration information

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.94 AlprSDK_OpenAuxOut

Function

```
public native static int AlprSDK_OpenAuxOut
(
    int   nHandleID ,
    int   index,
    long  time
);
```

Description

Turn on auxiliary output.

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles
int index	**In**: Auxiliary output number (values 1, 2, 3, ...)

long time	**In**: Auxiliary output duration (values 0, 2, 3, ..., 255)

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

4.95 AlprSDK_EnableP2PReconnect

Function

```
public native static int AlprSDK_EnableP2PReconnect(int nHandleID);
```

Description

Turn on P2P reconnection (valid only for P2P connections).

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

When the reconnect function is enabled, the user's following interface is called.

The precondition for AlprSDK_DisConnectDev, AlprSDK_StopVideo is to turn off the P2P reconnection function, otherwise the call will fail.

The call timing of this interface should be before AlprSDK_ConnectDev, AlprSDK_StartVideo.

4.96AlprSDK_DisableP2PReconnect

Function

```
public native static int AlprSDK_DisableP2PReconnect(int nHandleID);
```

Description

Turn off P2P reconnection (valid only for P2P connections).

Parameters

Parameter	Description
int nHandleID	**In**: Number of Handles

Returns

Successful: It returns 0.

Unsuccessful: Returns non-zero Error Code.

Error Code: See Appendix 1 for Error Code.

Remarks

When calling this interface, if the SDK is reconnecting, wait until the SDK reconnects and returns.

5 Structure definition

5.1 PLATERESULT

PLATERESULT **Class Description**

```
public class PLATERESULT {
  public String license;
  public int letterCount;
  public float confidence;
  public XRect rect;
  public byte plateColor;
  public boolean doublePlates;
  public byte direction;
  public byte bFakePlate;
  public int typeResult;

  public PLATERESULT() {
    license = new String();
    letterCount = -1;
    confidence = -1;
    rect = new XRect();
    plateColor = -1;
    doublePlates = false;
    direction = -1;
  }

  ......
};
```

Description

The result structure of the recognized license plate

Parameters

Parameter	Description
public String license	**Out:** License plate number character
public int letterCount	**Out:** Number of characters of license plate number
public float confidence	The credibility of the license plate, the value range [1,100]. The smaller the value, the higher the credibility.
public XRect rect	License plate location information
public byte plateColor	License plate color: 0-black,20-green;30-blue;40-red;50-yellow;255-white
public boolean doublePlates	Is there a double license plate
public byte direction	For movement direction, please refer to MotionDir for values.
public byte bFakePlate	False license plate
public int typeResult	Vehicle Type Identified by Equipment End: Large and Small Vehicles

5.2 DEVINFO

DEVINFO **Structure Description**

```
public class DEVINFO implements Cloneable {
 public String ipAddr;
 public String devUid;
 public short ifOpenP2p;
 public short u16port;
 public String userName;
 public String password;
 public String picturesSavePath;
 public short alprPort;
 public short alprPullPort;
 public short lprDevType;
 public long pullHandle;

 public DEVINFO() {
    ipAddr = new String();
    devUid = new String();
    userName = new String();
    password = new String();
    picturesSavePath = new String();
 }

 ......
};
```

Description

Camera device parameter definition.

Parameters

Parameter	Description
public String ipAddr	IP address

public String devUid	Device serial number
public short ifOpenP2p	Whether to use P2P connection method
public short u16port	Port number
public String userName	Username
public String password	Password
public String picturesSavePath	Picture local save path
public short alprPort	Alpr port number
public short alprPullPor	Pull port number
public short lprDevType	Device Type: 0-Unknown Device, 1-Dragon Device, 2-Sense Device
public long pullHandle	**pullsdk handle**: This sdk only manages its opening and closing, other software directly calls the pullsdk interface

5.3 ALPR_VIDEO_CONFIG

ALPR_VIDEO_CONFIG Class Description

```
public class ALPR_VIDEO_CONFIG {
    public int nEncFormat;
    public String toString() {
        StringBuffer retBuf = new StringBuffer();
        retBuf.append("{");
        retBuf.append("nEncFormat:").append(nEncFormat);
```

```
        retBuf.append("}");
        return retBuf.toString();
    }
};
```

Description

Definition of video coding mode

Parameters

Parameter	Description
public int nEncFormat	Only two are supported for the time being： 0:1080p，3:D1.

5.4DEV_VER_INFO

DEV_VER_INFO Class Description

```
public class DEV_VER_INFO {

    public String algorithm_Ver;
    public String firm_Ver;
    public String adk_Ver;

    ......

};
```

Description

Device version information definition.

Parameters

Parameter	Description
`public String algorithm_Ver`	Algorithm Version.
`public String firm_Ver`	Firmware Version
`public String adk_Ver`	Sdk version

5.5 ALPR_CONFIG

ALPR_CONFIG Class Description

```
public class ALPR_CONFIG implements Cloneable {

    public byte installDistID;
    public byte recogNewEmbassyLic;
    public byte enableMotionDectect;
    public short defaultProvinceID;
    public byte laneCount;
    public byte ifAirportVehicle;
    public byte ifAgriculturalVehicle;
    public byte outputStableResult;
    public short maxRecogCount;
    public short outputInterval;
    public byte triggerMode;
    public byte recogMode;
    public byte uploadMode;
    public byte outputMode;
    public byte recogEmbassyLic;
    public byte recogDoubleLic;
```

```
        public byte recogSameLicOneTime;
        public byte recogOverlayChars;
        public byte recogOverlayRect;
        public byte samePosFilter;
        public byte virtualCoilTrigger;
        public byte filterStrip;
        public short countryCode;
        public short alarmMaxRecogTime;
        public float fRecogThreshold;

        ......
};
```

Parameters

Parameter	Description
public byte installDistID	by distance ID 0-3.5m below 1-3.5m-4.5m 2-4.5m-5m 3-5 -6 meters 4-6 meters above
public byte recogNewEmbassyLic	Support for the new embassy license plate
public byte enableMotionDectect	Start motion detection
public short defaultProvinceID	The default province, the value is tPLATE_SYM_ID
public byte laneCount	Currently only supports 1
public byte ifAirportVehicle	Does it support civil aviation license plates?
public byte ifAgriculturalVehicle	Support for license plates of agricultural vehicles

public byte outputStableResult	Stable identification trigger
public short maxRecogCount	maximum number of recognitions
public short outputInterval	Same license plate entry interval in seconds
public byte triggerMode	Trigger mode, the value is : 0-Video Trigger, 1-Ground Trigger, 2-Mixed Trigger
public byte recogMode	Recognition mode, the value is: 0-single frame mode, 1-multi-frame preferred mode
public byte uploadMode	Upload mode, the value is: 0-- FTP upload, 1-SDK upload, 2-JSON upload, 3-U disk storage
public byte outputMode	Input mode, the value is: 0-all output, 1-filter vehicles leaving, 2-filter vehicles leaving
public byte recogEmbassyLic	Is it the embassy license plate
public byte recogDoubleLic	Whether it is a double deck license plate
public byte recogSameLicOneTime	1: The same license plate is only output once, 0 has no such limit
public byte recogOverlayChars	Overlay OSD characters

public byte recogOverlayRect	Overlay OSD Rectangular Box
public byte samePosFilter	Is the license plate output at the same position, 1--no output, 0--output
public byte virtualCoilTrigger	Virtual coil division 1--Use virtual coil, 0--Do not use virtual coil
public byte filterStrip	Whether to enable stripe filtering, 1--enabled, 0--not enabled
public short countryCode	Country code
public short alarmMaxRecogTime	Maximum recognition time after ground trigger, in seconds.
public float fRecogThreshold	Identifies the threshold, which is [0, 1000.0f]. The smaller the value, the higher the confidence. The default value is 100.0f

5.6OSD_CTRL

OSD_CTRL Class Description

```
public class OSD_CTRL implements Cloneable {

 public OSD_PARAM stDateOSD;
 public OSD_PARAM stTimeOSD;
 public OSD_PARAM stWeekOSD;
```

```
    public OSD_PARAM stBitrateOSD;
    public OSD_PARAM stTitleOSD;
    public String strTitle;

    public OSD_CTRL() {
          stDateOSD = new OSD_PARAM();
          stTimeOSD = new OSD_PARAM();
          stWeekOSD = new OSD_PARAM();
          stBitrateOSD = new OSD_PARAM();
          stTitleOSD = new OSD_PARAM();
           strTitle = "";
    }

    ......
};
```

Description

Video control mode: The sensing device only supports setting the title strTitle and whether to display the title or not

Parameters

Parameter	Description
public OSD_PARAM stDateOSD	Video date display location
public OSD_PARAM stTimeOSD	Video time display position
public OSD_PARAM stWeekOSD	Video week display position
public OSD_PARAM stBitrateOSD	Video resolution display position
public OSD_PARAM stTitleOSD	Video title display location
public String strTitle	video title

5.7 BASE_PARAM

BASE_PARAM Class Description

```
public class BASE_PARAM implements Cloneable {
public byte rgnArea;
public byte virtualCoil;
public byte lprAccuracyMatch;
public byte imageSwitchType;
public byte fillLightBrightness;
public byte auxiliaryCameraFlag;
public String sMasterCamIP;
public byte ledCharacterEncoding;
public byte onlyShowLic;
public short nCountryCode;
public short nStartTime;
public short nEndTime;
public short nPhotosensitiveThreshold;
public short nOfflineLevel;

public BASE_PARAM() {
    sMasterCamIP = new String();
}

......

};
```

Parameters

Parameter	Description
public byte rgnArea	Whether to display the recognition area, 0: no display, 1: display
public byte virtualCoil	Whether to display virtual coil, 0: no display, 1:

	display
public byte lprAccuracyMatch	License plate matching accuracy
public byte imageSwitchType	The switching type of image parameters during the day and at night, 0-photosensitive threshold switching, 1-time period switching
public byte fillLightBrightness	fill light brightness [0-100], 0: turn off the fill light, other: fill light brightness value
public byte auxiliaryCameraFlag	Whether it is a secondary camera, 0: host, 1: auxiliary camera
public String sMasterCamIP	main camera IP address
public byte ledCharacterEncoding	Display character encoding
public byte onlyShowLic	Does the display only show license plates, 0: other, 1: only send license plates
public short nCountryCode	country code, reference enumeration COUNTRY_CODE_E
public short nStartTime	Switch to daytime image parameters at 6:00-->600
public short nEndTime	Switch to night image parameters at 18:00-->1800
public short nPhotosensitiveThreshold	Photosensitive threshold [0-1024], which is greater than this value to switch to the night parameter, otherwise switch to daytime parameter

public short nOfflineLevel	Offline level, 0-turn off offline function, 1-save records to SD card, 2-save records to FLASH, 3-save pictures to SD card, 255- turn on all offline functions

5.8PLATE_INFO_EXT

PLATE_INFO_EXT **Class Description**

```
public class PLATE_INFO_EXT {

    public String plate;
    public XDate fromDate;
    public XDate toDate;
    public String name;
    public String cardNo;
    public short plateColor;

    public PLATE_INFO_EXT() {
        plate = new String();
        fromDate = new XDate();
        toDate = new XDate();
        name = new String();
        cardNo = new String();
    }

    public PLATE_INFO_EXT(String plate, XDate fromDate, XDate toDate,
            String name, String cardNo, short plateColor) {
        this.plate = plate;
        this.fromDate = fromDate;
        this.toDate = toDate;
```

```
            this.name = name;
            this.cardNo = cardNo;
            this.plateColor = plateColor;
        }

         ......
};
```

Description

The list of license plate structures used in the country.

Parameters

Parameter	Description
public String plate	license plate
public XDate fromDate	date commenced
public XDate toDate	End date
public String name	Name of owner
public String cardNo	License plate number
public short plateColor	License plate color,0--black,20--green,30--bule,50--yellow,255--white

5.9GATE_CONFIG

GATE_CONFIG **Class Description**

```
public class GATE_CONFIG implements Cloneable {
    public int workMode;
```

```
        public int latency;
        public int inverseSignal;

       ......
};
```

Description

Gate parameter definition.

Parameters

Parameter	Description
pubilc int WorkMode	Operation mode of road gate
pubilc int Latency	Delay in operation of gate
public int inverseSignal	Whether or not to reverse the signal. The value is 1 or 0.

5.10 DSCREENDLINE

`DScreenDLine` **Class Description**

```
public class DScreenDLine {

public int countryCode;
public byte firstLineColor;
public byte secondLineColor;
public byte moveDirection1;
public byte moveDirection2;
public int moveSpeed;
```

```
    public int showTimer;
    public int volume;
    public String firstLinedef;
    public boolean timeSync;
    public SysTime curTimer;

    public DScreenDLine() {
        curTimer = new SysTime();
    }

    ......
};
```

Description

Definition of Two-color and Two-line Screen Information.

Parameters

Parameter	Description
public int countryCode	Country code
public byte firstLineColor	The first row shows colors (0: red, 1: green)
public byte secondLineColor	The second row shows color (0:red,1:green)
public byte moveDirection1	First row scroll direction (0: from left to right, 1: from right to left)
public byte moveDirection2	Scroll direction of second row (0: from left to right, 1: from right to left)
public int moveSpeed	Moving speed (0-100)
public int showTimer	Display duration (0-100s)
public int volume	Volume (0-31)

public String firstLinedef	The first line displays information by default
public boolean timeSync	Time synchronization
public SysTime curTimer	Rcurrent time

5.11 WIEGANDDATA

`WiegandData` **Class Description**

```
public class WiegandData {
    public long wiegandCardNo;

    ......

};
```

Description

Wigan card data.

Parameters

Parameter	Description
`public long wiegandCardNo`	Wigan card number

5.12 ZOOMCTLPARA

ZoomCtlPara **Function Description**

```
public class ZoomCtlPara {
    public int cmd;
    public int stepSpeed;
```

```
        ......
};
```

Description

```
Zoom control parameters
```

Parameters

Parameter	Description
public int cmd	Zoom control command : 0-focal length zooms in at stepSpeed, 1-focal length is reduced at speed stepSpeed.
public int stepSpeed	Step size, range: 1-16

5.13 FOCUSCTLPARA

FocusCtlPara **Function Description**

```
    public class FocusCtlPara {

      public int cmd;
      public int stepSpeed;
     ......
};
```

Description

```
Focus control parameters.
```

Parameters

Parameter	Description
public int cmd	Focus Control Command: 0-Focus Forward at Speed stepSpeed, 1-Focus Backward at Speed stepSpeed
public int stepSpeed	Step size, range: 1-16

5.14 JPG_BYTES

Jpg_Bytes **Class Description**

```
public class JPG_BYTES {

    public String time;
    public int nBytesLen;
    public byte[] jpgBytes;
    public JPG_BYTES() {
       time = new String();
       nBytesLen = -1;
       jpgBytes = null;
    }

    ......
};
```

Description

```
Capture JPG picture information definition.
```

Parameters

Parameter	Description
public String time	The time when the picture was captured is 20161012163417050, i.e. 16: 34: 17: 050 ms on October 12, 2016
public int nBytesLen	Jpg data length
public byte[] jpgBytes	Jpg data can be directly saved as jpg files.

5.15 XRECT

XRect **Class Description**

```
public class XRect implements Cloneable {

    public int left;
    public int right;
    public int top;
    public int bottom;

    public XRect() {
           left = -1;
           right = -1;
           top = -1;
          bottom = -1;
    }

    .....
};
```

Description

Coordinate information. the current resolution is based on 1024*720.

Parameters

Parameter	Description
int left	left
int right	right
int top	top
int bottom	bottom

5.16 DEVLICENSE

DevLicense **Class Description**

```
public class DevLicense {
    public int licenseType;
    public int licenseStatus;

    ......
};
```

Description

Device license information

Parameters

Parameter	Description

public int licenseType	0: old, 1: new
public int licenseStatus	License Status 0: Authorization success 1: License file matching is incorrect 2: License expired 3: Algorithm initialization failed or no license 4: Encrypted chip unlicensed content

5.17 SYS_TIME

SYS_TIME Function Description

```
public class SysTime {
    public byte year;
    public byte month;
    public byte day;
    public byte week;
    public byte hour;
    public byte minute;
    public byte second;

    public SysTime() {
    }

    public SysTime(byte year, byte month, byte day, byte week, byte hour, byte
minute, byte second) {
        this.year = year;
        this.month = month;
        this.day = day;
```

```
        this.week = week;
        this.hour = hour;
        this.minute = minute;
        this.second = second;
    }

    ......
};
```

Description

System time definition.

Parameters

Parameter	Description
public byte year	Year, excluding the current year 2000
public byte month	moon
public byte day	Day
public byte week	Week
public byte hour	Hour
public byte minute	Minute
public byte second	Seconds

5.18 OFFLINEPARAM

OfflineParam **Class Description**

```
public class OfflineParam implements Cloneable{
public String serverIP;
public int serverPort;
public int parkID;
```

```
    public byte recordIsCover;
    public byte parkInOutFlag;
    public short monthcarAlarmDays;
    public byte recognitionAccuracy;
    public byte recordMatchAccuracy;
    public byte monthCarToTempcarFlag;
    public byte monthCarOpenType;
    public byte tempCarOpenType;
    public float minCharge;
    public byte tempCarForbiddenFlag;
    public int syncTimeFromMaster;
    public byte onlineFlag;
    public byte oneChannelMode;
    public long oneChannelWaitTime;
    public long normalModeWaitTime;
    public byte minChargeFlag;
    public short displayRefreshInterval;
    public String propertyLogo;
    public byte nScreenType;
    public byte nZeroQuickOut;
    public OfflineParam() {
        serverIP = new String();
        propertyLogo = new String();
    }
    ......
};
```

Parameters

Parameter	Description
`public String serverIP`	Primary server IP address
`public int serverPort`	Primary server port
`public int parkID`	parking lot number
`public byte recordIsCover`	Record (outbound and charge records) coverage, 1: coverage, 0: no coverage

public byte parkInOutFlag	Logo of depot entrance, 0-depot entrance, 1-depot exit
public short monthcarAlarmDays	Fixed vehicle warning days
public byte recognitionAccuracy	Fixed vehicle matching accuracy, 99: exact match
public byte recordMatchAccuracy	record matching precision, 99: exact match
public byte monthCarToTempcarFlag	Enable fixed car to temporary car, 0-not enabled, 1-enabled
public byte monthCarOpenType	Fixed vehicle brake opening mode, 0-manual brake opening, 1-automatic brake opening
public byte tempCarOpenType	Temporary car brake opening mode, 0-manual brake opening, 1-automatic brake opening
public float minCharge	Minimum charge
public byte tempCarForbiddenFlag	Temporary car is forbidden to enter the venue, 0: Admission is allowed, 1: No entry is allowed
public int syncTimeFromMaster	Time point 23:00-->2300 -->0x08fc
public byte onlineFlag	Whether the display is in online mode, 0-offline, 1-online
public byte oneChannelMode	Whether to enable single channel mode, 0: not enable single channel, 1: single channel mode
public long oneChannelWaitTime	Single channel repeat license plate waiting time in seconds
public long normalModeWaitTime	Normal mode repeats license plate waiting time in seconds
public byte minChargeFlag	Whether to enable the minimum charge, 0: not enabled, 1: enabled

public short displayRefreshInterval	The refresh interval of the offline display content, in seconds
public String propertyLogo	The corporate logo displayed by default on the offline display
public byte nScreenType	Display screen type, 0-monochrome screen, 1-dual color dual-line screen, 2-dual color four-line screen
public byte nZeroQuickOut	Charge 0 yuan, whether to play quickly

5.19 SDCARDCAPACITY

`SDCardCapacity` **Function Description**

```
public class SDCardCapacity {

    public int nTotalCapacity;
    public int nRemainCapacity;
    ......
};
```

Description

SD card capacity information definition.

Parameters

Parameter	Description
public int nTotalCapacity	Total capacity in megabytes
public int nRemainCapacity	Remaining space, in MB

5.20NETWORKPARAM

NetworkParam **Function Description**

```
public class NetworkParam implements Cloneable {

    public String DVRIP;
    public String DVRIPMask;
    public String GatewayIpAddr;
    public String MACAddr;
    public String DnsServer1IpAddr;
    public String DnsServer2IpAddr;
    ......
}
```

Description

Network configuration parameters.

Parameters

Parameter	Description
public String DVRIP	IP address
public String DVRIPMask	Subnet mask
public String GatewayIpAddr	Gateway address
public String MACAdd	Physical address
public String DnsServer1IpAddr	DNS address 1
public String DnsServer2IpAddr	DNS address 2

5.21VIDEOPARAM

VideoParam **Function Description**

```
public class VideoParam implements Cloneable {

      public int Mode;
      public int DayStart;
      public int DayEnd;
      ......
}
```

Description

Video parameter interface.

Parameters

Parameter	Description
public int Mode	Mode, 0- External Trigger; 1-Automatic; 2- Color; 3- black and white; 4- time period
public int DayStart	Daytime period start time (in seconds)=hour * 3600 + min * 60 + sec)
public int DayEnd	Daytime period start time (in seconds)=hour * 3600 + min * 60 + sec)

5.22DEVICEPARAM

DeviceParam **Function Description**

```
public class DeviceParam implements Cloneable {
public String softwareVer;
public String hardwareVer;
public String serialNum;
public String dvrName;
public byte dvrType;
```

```
        public byte alarmInPortNum;
        public WebApiVer webApiVer;

        public DeviceParam() {
            webApiVer = new WebApiVer();
        }
        ......
}
```

Description

Equipment information.

Parameters

Parameter	Description
public String softwareVer	Software version number (master version)
public String hardwareVer	Hardware version number
public String serialNum	serial number
public String dvrName	DVR name
public byte dvrType	DVR type. **1** - DVR, **2** - NVR, **3** - DVS/IPC
public byte alarmInPortNum	Number of DVR Alarm Inputs
public WebApiVer webApiVer	Web API Information

5.23WERAPIVER

WebApiVer **Function Description**

```
public class WebApiVer implements Cloneable {
     public String standard;
```

```
        public String build;
        .....
    }
```

Description

Web API information.

Parameters

Parameter	Description
public String standard	Version number
public String build	Compilation date

5.24RECOG_ALL_INFO

RECOG_ALL_INFO **Structure Description**

```
    public class RECOG_ALL_INFO {
        public LICENSE_PLATE PlateInfo;
        public JPG_BYTES JpgBytes;
        public RECOG_ALL_INFO() {
            PlateInfo = new LICENSE_PLATE();
            JpgBytes = new JPG_BYTES();
        }
       ......
    };
```

Description

License Plate Recognition Information Definition.

Parameters

Parameter	Description
public LICENSE_PLATE PlateInfo	**Out:** Recognized license plate information

public JPG_BYTES JpgBytes	**Out:** Capture JPG picture information

5.25DEVINFO

DEVINFO **Structure Description**

```
public class DEVINFO implements Cloneable {
      public String ipAddr;
      public String devUid;
      public short ifOpenP2p;
      public short u16port;
      public String userName;
      public String password;
      public String picturesSavePath;
      public short alprPort;
      public short alprPullPort;
      public short lprDevType;
      public long pullHandle;

      public DEVINFO() {
       ipAddr = new String();
       devUid = new String();
       userName = new String();
       password = new String();
       picturesSavePath = new String();
    }
    ......
}
```

Description

Camera device parameter definition.

Parameters

Parameter	Description
`public String ipAddr`	IP address
`public String devUid`	Device serial number
`public short ifOpenP2p`	Whether to use P2P connection method
`public short u16port`	Port number
`public String userName`	Username
`public String password`	Password
`public String picturesSavePath`	Picture local save path
`public short alprPort`	Alpr port number
`public short alprPullPort`	Pull port number
`public short lprDevType`	Camera device type: 0-Unknown Device, 1-Dragon Device, 2-Sense Device
`public long pullHandle`	**pullsdk handle**: This sdk only manages its opening and closing, other software directly calls the pullsdk interface

5.26DEVSTATUS

DevStatus **Class Description**

```
public class DevStatus {
     public AuxCameraStatus[] auxCameraStatus;
     public int heartBeatStatus;
     public byte gateSwitchStatus;
     public byte gateRunStatus;
     public short feelStatus;
     public short photosensitiveValue;
     public DevStatus() {
       auxCameraStatus = new AuxCameraStatus[2];
       for (int i = 0; i < 2; ++i) {
          auxCameraStatus[i] = new AuxCameraStatus();
       }
       heartBeatStatus = -1;
       gateSwitchStatus = -1;
       gateRunStatus = -1;
       feelStatus = -1;
       photosensitiveValue = -1;
    }
    ......
};
```

Description

device status.

Parameters

Parameter	Description
public AuxCameraStatus[] auxCameraStatus	Secondary camera status
public int heartBeatStatus	Heartbeat state
public byte gateSwitchStatus	State of gate switch
public byte gateRunStatus	Running state of gate

public short feelStatus	Ground sensation state
public short photosensitiveValue	Photosensitive signal

5.27DEFBRIGHTNESS

DefBrightness **Class Description**

```
public class DefBrightness {
    public short defSensitiveValue;
    public byte defBrightness;
    ......
};
```

Description

device status.

Parameters

Parameter	Description
public short defSensitiveValue	The default photosensitive lower limit value, above which the supplementary light will be turned on.
public byte defBrightness	The brightness value when the supplementary light is turned on is in the range of [0-100]

5.28CHARGELOG

ChargeLog **Class Description**

```
public class ChargeLog {
    public int id;
    public int inID;
```

```
    public int outID;
    public float receivableAmount;
    public float discountAmount;
    public float actualAmount;
    public int carTypeID;
    public int chargeTime;
    public int  inSrcID;
    public String inSrcAddr;
    public ChargeLog() {
    }
    ......
};
```

Description

Charge record definition.

Parameters

Parameter	Description
public int id	Record serial number
public int inID	Admission record number
public int outID	Admission record number
public float receivableAmount	Amount receivable
public float discountAmount	Preferential amount
public float actualAmount	Paid in amount
public int carTypeID	Car type number
public int chargeTime	Charge time, (t->tm_year-100)*12*31+((t->tm_mon)*31)+ t->tm_mday-1)*(24*60*60)+ (t->tm_hour * 60 + t->tm_min) * 60 + t->tm_sec
public int inSrcID	Admission ID
public String inSrcAddr	Admission IP address

5.29OSD_PARAM

OSD_PARAM **Class Description**

```
public class OSD_PARAM implements Cloneable {
    public int bShow;
    public short x;
    public short y;

    public OSD_PARAM() {
        bShow = 0;
        x = 0;
        y = 0;
    }

    ......
};
```

Description

Video display position

Parameters

Parameter	Description
public int bShow	0: Close 1: Display
public short x	The displayed position, ranging from 0 to 704, is independent of the resolution of the image, and x must be a multiple of 4
public short y	The value range is 0-576

5.30FPCLIENTCFG

FtpClientCfg **Class Description**

```
public class FtpClientCfg implements Cloneable {

    public boolean enable;
    public boolean pasvMode;
    public short remotePort;
    public String remoteHost;
    public String userName;
    public String passWord;
    public String uploadPath;

     public FtpClientCfg() {
        enable = false;
        pasvMode = false;
        remotePort = 0;
        userName = "";
        passWord = "";
        uploadPath = "";
    }
    ......
};
```

Description

Ftp Client configuration parameters.

Parameters

Parameter	Description
public boolean enable	Whether to enable Ftp
public boolean pasvMode	Whether to connect in passive mode
public short remotePort	Remote port
public String remoteHost	Remote IP
public String userName	User name
public String passWord	Password
public String uploadPath	Upload path

5.31 RS485_CONFIG

RS485_CONFIG Class Description

```
public class RS485_CONFIG {
    public byte rS485WorkModeID;
    public byte bitrateID;
    public byte databitID;
    public byte checksumID;
    public int stopbitID;
    public byte rS485ScreenID;
    public short enableWhitelist;
    public short enableBlacklsit;
    public String whitelistBannerA;
    public String whitelistBannerB;
    public String blacklistBannerA;
    public String blacklistBannerB;

    public RS485_CONFIG() {
        whitelistBannerA = new String();
        whitelistBannerB = new String();
        blacklistBannerA = new String();
        blacklistBannerB = new String();
    }
    ......
};
```

Description

485 configuration parameters.

Parameters

Parameter	Description
public byte rS485WorkModeID	485 working mode: 0-system LED display, 1-offline identification result output, 2-offline LED display
public byte bitrateID	Please refer to the help document for bit rate ID and value meaning.

public byte databitID	Data bit ID, 0-5 valid data bits, 1-6 valid data bits, 2-7 valid data bits, 3-8 valid data bits
public byte checksumID	Checksum ID, 0-no check, 1-odd check, 2-even check, 3-mark check, 4-space check
public int stopbitID	Stop bit ID, 0-- no stop bit, 1-1 stop bit, 2-2 stop bit
public byte rS485ScreenID	RS485 screen model, currently only 0
public short enableWhitelist	Whether to enable whitelisting
public short enableBlacklsit	Whether to enable blacklisting
public String whitelistBannerA	Whitelist character 1, maximum length is 24
public String whitelistBannerB	White list character 2, maximum length is 24
public String blacklistBannerA	Blacklist character 1, maximum length is 2
public String blacklistBannerB	Blacklist character 2, maximum length is 24

5.32RS485_DATA

RS485_DATA Class Description

```
public class RS485_DATA {
        public byte destAddr;
        public byte command;
        public byte rollingCode;
```

```
        public byte devType;
        public short dataLen;
        public char[] dataBuf;

       ........

};
```

Description

RS485 transparent transmission data.

Parameters

Parameter	Description
public byte destAddr	485 Address, 0-Voice and Display, 1-Gateway
public byte command	Command
public byte rollingCode	Rolling code, 1-new packet, 0-duplicate packet
public byte devType	Type of equipment, 1-display screen, 2-voice board, 3-gate
public short dataLen	Data Length, Length of DataBuf
public char[] dataBuf	Data

5.33 AUXCAMERASTATUS

AuxCameaStatus **Class Description**

```
public class AuxCameraStatus {
    public long ip;
    public int status;
    ......
};
```

Description

Auxiliary camera status.

Parameters

Parameter	Description
public long ip	Auxiliary camera IP
public int status	Secondary camera status: linked, disconnected

5.34DEVSN

DEVSN Class Description

```
public class DEVSN {
    public String szDevSN;
    public String szEncContent;
    public long szLen;
    public String szLicense;
    ......
};
```

Description

Device encryption information.

Parameters

Parameter	Description
public String szDevSN	serial number
public String szEncContent	Encrypt the contents of the chip
public long szLen	Permissible length
public String szLicense	Licensed content, memory allocated outside

5.35NALPRCFG

NAlprCfg Class Description

```
public class NAlprCfg implements Cloneable {
    public int region;
    public int[] country;
    public int minimumheight;
    public int maximumheight;
    public int mode;
    public int capturecount;
    public int timeout;
    public NAlprCfg() {
        country = new int[3];
        for (int i = 0; i < 3; i++) {
            country[i] = -1;
        }
    }

    ......
};
```

Description

Identification parameter class.

Parameters

Parameter	Description
public int region	Region 1: Europe and Morocco 2: South and Central America 3: North and Central America 4: Asia 5: Africa
public int[] country	Country code, please refer to the help document for specific values, up to three

public int minimumheight	The lowest height (15-50), in pixels, prevents the algorithm from starting recognition when the car is very far or very close.
public int maximumheight	The lowest height (15-50), in pixels, prevents the algorithm from starting recognition when the car is very far or very close.
public int mode	Working mode: 1: Trigger 2: Free-Flow
public int capturecount	Number of captured photos (1-10), the algorithm will capture the set number of photos to identify when identifying.
public int timeout	Timeout, in milliseconds

5.36COUNTRY_CODE

COUNTRY_CODE **Class Description**

Parameters

Parameter	Description
CA = 1	Canada
US = 1	US
KZ = 7	Kazakhstan
RU = 7	Russia
EG = 20	Egypt
ZA = 27	South Africa
GR = 30	Greece
NL = 31	Netherlands
BE = 32	Belgium

FR = 33	France
ES = 34	Spain
IT = 39	Italy
UK = 44	UK
RO = 40	Romania
CH = 41	Switzerland
AT = 43	Austria
DK = 45	Denmark
SE = 46	Sweden
NO = 47	Norway
PL = 48	Poland
PE = 51	Peru
MX = 52	Mexico
CU = 53	Cuba
AR = 54	Argentina
BR = 55	Brazil
CL = 56	Chile
CO = 57	Colombia
VE = 58	Venezuela
MY = 60	Malaysia
AU = 61	Australia
ID = 62	Indonesia

PH = 63	Philippines
NZ = 64	New Zealand
SG = 65	Singapore
TH = 66	Thailand
JP = 81	Japan
KR = 82	Korea
VN = 84	Vietnam
CN = 86	China
TR = 90	Turkey
IND = 91	India
PK = 92	Pakistan
AF = 93	Afghanistan
LK = 94	Sri Lanka
MM = 95	Myanmar
IR = 98	Iran
MA = 210	Morocco
EH = 210	Western Sahara
DZ = 213	Algeria
TN = 216	Tunisia
LY = 218	Libya
GM = 220	Gambia
SN = 221	Senegal

MR = 222	Mauritania
ML = 223	Mali
GN = 224	Guinea
CI = 225	Côte d'Ivoire
BF = 226	Burkina Faso
NE = 227	Niger
TG = 228	Togo
BJ = 229	Benin
MU = 230	Mauritius
LR = 231	Liberia
SL = 232	Sierra Leone
GH = 233	Ghana
NG = 234	Nigeria
TD = 235	Chad
CF = 236	Central African Republic
CM = 237	Cameroon
CV = 238	Cape Verde
ST = 239	Sao Tome and Principe
GQ = 240	Equatorial Guinea
GA = 241	Gabon
CD = 242	Congo
CG = 242	Democratic Republic of the

	Congo
AO = 244	Angola
GW = 245	Guinea-Bissau
SD = 249	Sudan
RW = 250	Rwanda
ET = 251	Ethiopia
SO = 252	Somalia
DJ = 253	Kyrgyzstan
KE = 254	Kenya
TZ = 255	Tanzania
UG = 256	Uganda
BI = 257	Burundi
MZ = 258	Mozambique
ZM = 260	Zambia
MG = 261	Madagascar
RE = 262	Reunion
ZW = 263	Zimbabwe
NA = 264	Namibia
MW = 265	Malawi
LS = 266	Lesotho
BW = 267	Botswana
SZ = 268	Swaziland

KM = 269	Comoros
YT = 269	Mayotte
ER = 291	Eritrea
AW = 297	Aruba
HU = 336	Hungary
DE = 349	Germany
PT = 351	Portugal
LU = 352	Luxembourg
IE = 353	Ireland
IS = 354	Iceland
AL = 355	Albania
MT = 356	Malta
CYP = 357	Cyprus
FI = 358	Finland
BG = 359	Bulgaria
LT = 370	Lithuania
LV = 371	Latvia
EE = 372	Estonia
MD = 373	Moldova
AM = 374	Armenia
BY = 375	Belarus
AD = 376	Andorra

UA = 380	Ukraine
RS = 381	Serbia
ME = 382	Montenegro
HR = 385	Croatia
SI = 386	Slovenia
BA = 387	Bosnia and Herzegovina
MK = 389	Macedonia
VA = 396	Vatican
CZ = 420	Czech Republic
SK = 421	Slovakia
BZ = 501	Belize
GT = 502	Guatemala
SV = 503	El Salvador
HN = 504	Honduras
NI = 505	Nicaragua
CR = 506	Costa Rica
PA = 507	Panama
HT = 509	Haiti
GP = 590	Guadeloupe
BO = 591	Bolivia
GY = 592	Guyana
EC = 593	Ecuador

GF = 594	French Guiana
PY = 595	Paraguay
MQ = 596	Martinique
SR = 597	Suriname
UY = 598	Uruguay
AN = 599	Netherlands Antilles
GU = 671	Guam
TL = 670	East Timor
BN = 673	Brunei Darussalam
NR = 674	Nauru
PG = 675	Papua New Guinea
TO = 676	Tonga
SB = 677	Solomon Islands
VU = 678	Vanuatu
FJ = 679	Fiji
CK = 682	Cook Islands
WS = 685	Samoa
KI = 686	Kiribati
NC = 687	New Caledonia
TV = 688	Tuvalu
PF = 689	French Polynesia
FM = 691	Micronesia

MH = 692	Marshall Islands
KP = 850	North Korea
HK = 852	Hong Kong
MO = 853	Macau
KH = 855	Cambodia
LA = 856	Laos
BD = 880	Bangladesh
TW = 886	Taiwan
MV = 961	Maldives
LB = 962	Lebanon
JO = 963	Jordan
SY = 964	Syria
IQ = 965	Iraq
KW = 966	Kuwait
SA = 967	Saudi Arabia
YE = 968	Yemen
OM = 969	Oman
PS = 970	Palestine
AE = 972	United Arab Emirates
IL = 973	Israel
BH = 974	Bahrain
QA = 975	Qatar

BT = 976	Bhutan
MN = 977	Mongolia
NP = 978	Nepal
TJ = 992	Tajikistan
TM = 993	Turkmenistan
AZ = 994	Azerbaijan
GE = 995	Georgia
KG = 996	Djibouti
UZ = 998	Uzbekistan
BB = 1809	Barbados
BS = 1809	Bahamas
PR = 1809	Puerto Rico
DO = 1809	Dominican Republic
GD = 1809	Grenada
LC = 1809	Saint Lucia
VC = 1809	Saint Vincent
TT = 1809	Trinidad and Tobago
JM = 1809	Jamaica
VG = 1809	British Virgin Islands

5.37XPOINT

XPOINT Class Description

```
public class XPoint implements Cloneable {

        public int x;
        public int y;
        ......
};
```

Description

coordinate position.

Parameters

Parameter	Description
public int x	X-axis coordinates
public int y	Y-axis coordinates

5.38LICENSE_PLATE

LICENSE_PLATE **Class Description**

```
public class LICENSE_PLATE {
    public String createPicTime;
    public long processTime;
    public int plateNum;
    public PLATERESULT[] pPlate;

    public LICENSE_PLATE() {
```

```
        createPicTime = new String();
        processTime = -1;
        plateNum = -1;
        pPlate = new PLATERESULT[4];
        for (int i = 0; i < 4; i++) {
          pPlate[i] = new PLATERESULT();
       }
    }

    ......
};
```

Description

Identification of License Plate Information Definition.

Parameters

Parameter	Description
public String createPicTime	**Out:** trigger time. format: 20161012163417050, i.e. 16: 34: 17: 050 ms on October 12, 2016
public long processTime	**Out:** Processing Time of Current Picture
public int plateNum	**Out:**Number of plates currently recognized
public PLATERESULT[] pPlate	You can identify up to 4 license plates at a time.

5.39XDATE

XDate **Class Description**

```
public class XDate {

    public short nYear;
    public byte nMonth;
    public byte nDay;

    public XDate() {
    }

    public XDate(short nYear, byte nMonth, byte nDay) {
    this.nYear = nYear;
    this.nMonth = nMonth;
    this.nDay = nDay;
    }

    ......
};
```

Description

Date.

Parameters

Parameter	Description
public short nYear	Time format: 2016
public byte nMonth	Values 1,2, ..., 12
public byte nDay	Values 1,2, ..., 31

6 Appendixes

Appendix 1 – Error Code

Error type definition	Error code	Remarks
OS_NoErr = (OS_Error)0	0	Successful operation
OS_BadURLFormat=(OS_Error)-1000	-1000	error code
OS_NotEnoughSpace	-999	Not enough space
OS_CannotOpenSocket	-998	Failed to create socket
OS_CannotConnect	-997	Device disconnected
OS_InvalidArgument	-996	Invalid data
OS_CannotSendData	-995	Failed to send data
OS_TRYAGAIN	-994	The server is too busy, please try again
OS_OperationErr	-993	Function call error
OS_CannotOpenChn	-992	Failed to open channel
OS_VideoNotOpen	-991	Video channel is not open
OS_ConnectExist	-990	Connection already exists
OS_PullCannotConn	-989	Pull cannot be connected
OS_NotEnoughMem	-988	Not enough storage
OS_FileReadErr	-987	File read error
OS_FileWriteErr	-986	File write error

OS_CannotRecvData	-985	Read data timeout
OS_SetTimeFail	-984	Set time failed
OS_DevCannotSupport	-983	The device does not support this command or interface.
OS_ExceedDevCapcity	-982	Exceeding device storage capacity
OS_PlaySoundFail	-981	Failed to play sound
OS_StarVoiceFail	-980	Failed to start intercom
OS_SendVoiceFail	-979	Failed to send voice
OS_InputAudioFail	-978	Input Audio defeat
OS_DevNotSupportP2P	-977	The device does not support P2P
OS_JniError	-976	JNI error
OS_JsonParseError	-975	Json parsing error
OS_InitThirdSDKFaild	-974	Calling the third-party SDK failed
OS_GetHandleIDFail	-973	HandleID has been used up
OS_DateFormatErr	-972	Error in date format, illegal date format
OS_InvalidDate	-971	Invalid date (start date is greater than end date)
OS_InvalidData	-970	Invalid Data
OS_VideoChannelException	-969	Video channel anomaly

Appendix 2– Voice board and display communication protocol

The content in this document is mainly used for the serial communication protocol between the camera and the expansion board, and follows the original embedded master-slave RS485 protocol standard.

Note:

Display Screen	**1**
Voice board	**2**
Device address	
Display screen	**0**
Voice board	**0**

Communication Data Format Definition

	Start tag	Target Address	Command Word	Total length of Data	Parameters and Data	CRC16 Calibration
Content	0xaa					
Length	1 Byte	1 Byte	1 Byte	2 Bytes	N Bytes	2 Bytes

Start tag: Fixed to 0xaa, binary is 1011010, on the circuit as a neat peak, valley and valley waveform, easy to distinguish from interference data.

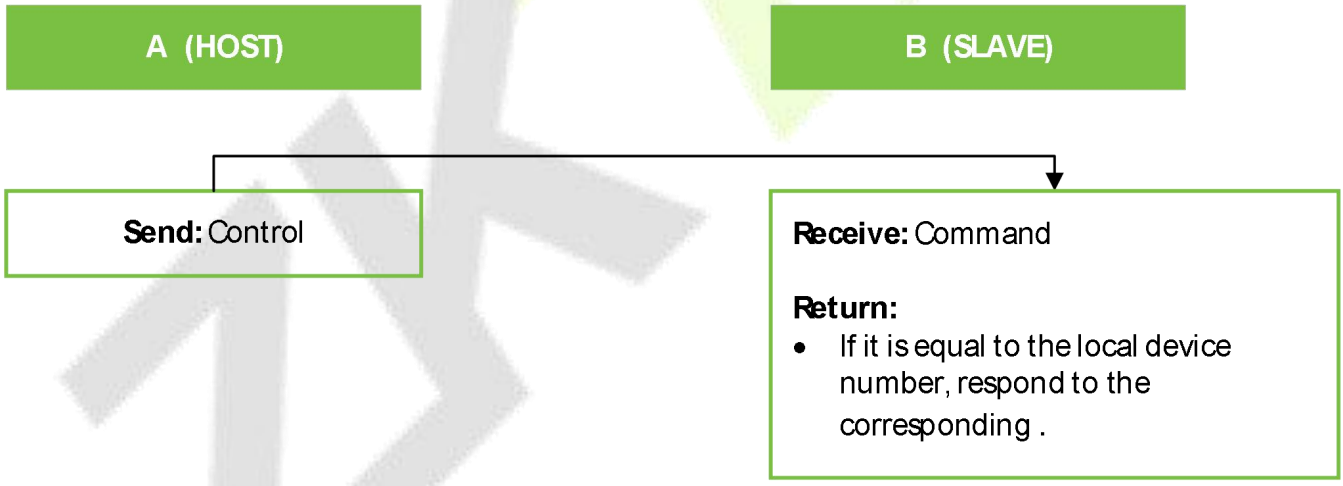
Target address: Refers to the device ID number received by this data stream (i.e., the 485 address of the slave). In principle, the ID number of all devices in a network or system cannot be repeated; the address of the broadcast command is 0xff, and all received are executed.

Total length of data: The sum of the parameters and data length of this communication.

CRC calibration: The result value of the CRC16 calculation for content from the beginning of the destination address to the end of the parameters and data.

Communication Procedure

Host polling slave



Communication Command

Host sends command format

Start Tag	Target Address	Command Word	Total length of Data	Parameters and Data	CRC16 Calibration

Content	0xaa		5	1	0	
length	1 Byte	1 Byte	1 Byte	2 Bytes	N Byte	2 Bytes

Command Format:

The Parameters and the Data format are as follows,

Rolling code	Equipment type	data
1 Byte	1 Byte	N Byte

Instruction Slave Type and Data Type Definition

Name	Equipment Type	Device Address	Rolling Code
Content	Display ： 1 Voice board：2 Gate：3	Display：0 Voice board：0 Gate：1	1：New packet 0：Duplicate packet
Length	1 Byte	1 Byte	1 Byte

Display Screen:

In the data content, the Chinese character is GB2313, the character is ASCII, and the characters are 0D and 0A. If there are 0D or 0A characters, the front and back contents are displayed on the line. If the content exceeds the display width, it will be displayed in scroll mode. For example, if the data is 0D 0A, the uplink content is empty, and all data is displayed on the downlink.

Test case:

Voice Board

AA 00 05 04 00 01 02 30 31 d7 5c //broadcast"0","1"

Display Screen

AA 00 05 05 00 01 01 41 42 43 39 98 //Send a new package when the content ABC.

Appendix 3 - Voice Segment Definition Description

Voice segment code [segment code is ASCLL code]

Voice content	Segment code
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
ten	A
hundred	B
drop	C
Please charge	D
yuan	E
Pro-car, please press the card	F
Please pay for the card in the sensor area.	G
welcome	H

The parking space is full	I
~~Card issuing machine lacks card~~	J
The system is processing	K
Please wait	L
Invalid card	M
This card has expired	N
This card has entered the market	O
This card has no entry record	P
~~This card is about to expire, please recharge in time~~	Q
This card has not expired	R
This card has been reported lost	S
Validity period	T
month	U
day	V
hour	W
Minute	X
welcome	Y
I wish you a safe journey.	Z
~~Please insert the card into the recycling card mouth~~	a
sorry	b

Please charge first and then play	c
Balance	d
thousand	e
Please contact your administrator	f
~~Please pay the fee first and then enter the market.~~	g
week	h
~~Please keep the parking card~~	i
day	j
year	k
Ten thousand20161127	l

Appendix 4 - RS485 Communication Protocol

RS485 Communication Protocol between Camera and Two-color screen (voice and display)

The content in this document is mainly used for the 485-communication protocol between the camera and the display and voice, and follows the original embedded master-slave RS485 protocol standard.

Note:

Display and Voice Device Address	66
Host Address	0
Display Screen	
The First row of the Data Type	35
The Second row of the Data Type	36

Communication Data Format Definition

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and data	CRC16 Check
content	0xaa						
length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Start tag： Fixed to 0xaa, binary is 1011010, on the circuit as a neat peak, valley and valley waveform, easy to distinguish from interference data.

Serial number： When the host computer sends data, it automatically increments by 1, and the lower computer responds with the same serial number.

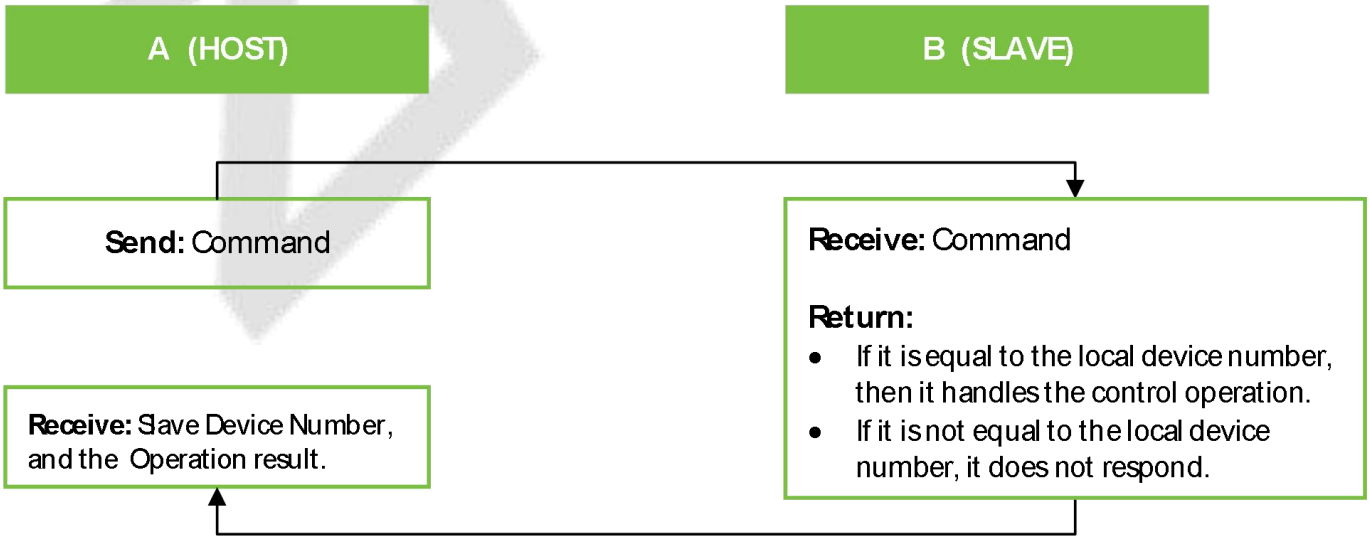
Target address： Refers to the device ID number received by this data stream (that is, the 485 address of the slave). In principle, the ID number of all devices in a network or system cannot be repeated; the address of the broadcast command is 0xff, and all received are executed;

Total length of data： The sum of the parameters and data length of this communication。

CRC check： The result value of CRC16 calculation for the content from the "target address" to the end of "parameters and data".

Communication Procedure

Host-Slave Control:



Communication Command

Setting Country Code 4

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
content	0xaa	66	1	170		National code	
length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=170，datalen=2，data[0]=National code.

Command – 171: Instruction setting data moving direction

	Start tag	target address	serial number	Command word	Total length of data	Parameters and data	CRC16 check
Content	0xaa	66	1	171			
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=171, datalen=1, data[0]=moving direction.

- The direction of movement of the first line: lower four, 1-4 (up, down, left and right).
- The moving direction of the second line: high four, 1-4 (up, down, left and right).

Command - 172 Command setting data movement speed

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
content	0xaa	66	1	172			
length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=172, datalen=1, data[0]=moving speed.

Movement speed: In milliseconds (50-1000).

Command – 173

The command sets the default display data (the second line cannot be set; the default is the clock)

	Start Tag	Target Address	Serial Number	Command word	Total length of data	Parameters and data	CRC16 Check
content	0xaa	66	1	173			
length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Data 1 type	Data 1 length	Data 1 content	...	Data N type	Data N length	Data N content
1 Byte	2 Bytes	Data 1 length	...	1 Byte	2 Bytes	Data N length

Command Format:

Cmd=173，datalen=N，data[0]=data.

The Parameters and the Data format are as follows,

	Data type	Data length	Data	Data type	Data length	Data
Content	First row of data（35）	N	DATA	First row of data（36）	N	DATA
Length	1 Byte	2 Bytes	N Bytes	1 Byte	2 Bytes	N Bytes

DATA Content: The first byte, the color of the data (0: red, 1: green), followed by the content that needs to be displayed.

Command - 174 instructions to send real-time displayed data.

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check

Content	0xaa	66	1	174			
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Data 1 type	Data 1 length	Data 1 content	...	Data N type	Data N length	Data N content
1 Byte	2 Bytes	Data 1 length	...	1 Byte	2 Bytes	Data N length

Command Format:

Cmd=174，datalen=N，data[0]=data.

The Parameters and the Data format are as follows,

	Data type	Data length	Data	Data type	Data length	Data
Content	First row of data（35）	N	DATA	Second row of data（36）	N	DATA
Length	1 Byte	2 Bytes	N Bytes	1 Byte	2 Bytes	N Bytes

DATA Content: The first byte, the color of the data (0: red, 1: green), followed by the content that needs to be displayed.

Command – 175: Command to set the volume of the voice board

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	175			
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=175, Datalen=1, Data[0]=volume, Volume size: 0-31.

Command – 176: Command to interrupt the last voice broadcast

	Start tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	176			
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Byte	2 Bytes

Command Format:

Cmd=176，datalen=1，data[0]=

Command – 177: Command to send voice data.

	Start Tag	Target	Serial	Command	Total	Parameters	CRC16

		Address	Number	Word	length of Data	and Data	Check
content	0xaa	66	1	177		data	
length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=177，datalen=N，data=voice data.

Command – 178: Command to set the time.

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	178		Data	
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=178，datalen=N，data=time.

Time Format： Seconds, days, months, years, time and day are divided by 0, and the data is as follows：21 32 14 00 21 09 17.

Command – 179: Command to Query Version Number

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	179		data	
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=179，datalen=N，data=0。

Command – 180: Command to Save Default Parameter Values

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	180		data	
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Byte	2 Bytes

Command Format:

Cmd=180，datalen=N，data=0

Command – 181: Command to set the display duration

	Start Tag	Target Address	Serial Number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	66	1	181		data	
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=181，datalen=N，data=0.,duration：5-255second.

Command – 200: Instructions executed successfully

	Start Tag	Target Address	Serial number	Command Word	Total length of Data	Parameters and Data	CRC16 Check
Content	0xaa	0	1	200			
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	N Bytes	2 Bytes

Command Format:

Cmd=200，datalen=1，data=0.

Destination address: The address of the display or voice.

The slave receives the get version command reply version information to the host：

Cmd=200，datalen=Version number length，data=version number.

Command – 201: Instruction execution failed

	Start Tag	Target Address	Serial Number	Command word	Total length of Data	Parameters and Data	CRC16 Check
Conten	0xaa	0	1	201	1	Error Code	

t							
Length	1 Byte	1 Byte	2 Bytes	1 Byte	2 Bytes	1 Byte	2 Bytes

Command Format:

Cmd=201，datalen=1，data[0]=Error code.

Target address: The address of the display screen or voice.

Communication Command – Error Code

Error Code	Description
-1	Command failed to send
-2	Command did not respond
-3	Insufficient cache required
-4	Decompression failed
-5	The length of the read data is incorrect.
-6	The length of the decompression does not match the expected length
-7	Command repetition
-8	Connection not authorized
-9	CRC check failed
-10	Data API cannot be parsed
-11	Parameter error

-12	Command execution error
-13	Without this command
-14	Communication password error

Appendix 5 - Language Code Description

Code	Description
86	Chinese
66	Thai
54	Spanish
97	Arabic
62	Indonesian
	Chinese

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