/**

IC Card DLL User Guide 1.1

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1. Development Environment

Visual Studio 2005 VC.

2. Usage

(1) Library header

: "ICCCard_dll.h.h" is the library header file.

(2) Library file

: "ICCCard_DLL.dll" is the library

3. Execution

(1) Copy the provided ICCCard_DLL.dll and MF2351DLL.dll to the device. The location can be" \ Windows" directory or the same directory with the application which uses the library .

(2) Copy the application that uses the IC Card library in the device and execute it.

4. API Reference

[1] _DLL_EXPORT_ int WINAPI ICCard_Init (void);

Description :

Initialization the IC Card model.

Return Values :

None.r

Parameter :

None

Note: ICCard_Init() should be executed before operating IC Card model.

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[2] _DLL_EXPORT_ int WINAPI ICCard_Detect (unsigned char slot);

Description :

Detect IC Card in the specified card slot.

Return Values :

(0) : Have card

(-2405): No card

Parameter :

unsigned char slot :[in]

Card slot number specified

0: Main Card

1: Slave Card

2: Slave Card

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[3] _DLL_EXPORT_ int WINAPI ICCard_Reset (unsigned char slot,unsigned char VCC_Mode,unsigned char *ATR) ;

Description :

Reset IC Card, and reset reponse data return.

Return Values :

(0) : Success
(-2403) : Channel num error
(-2405) : No card
(-2404) : Protocol error
(-2500) : Reset power mode error
(-2503) : Communication failure

Parameter :

unsigned char slot :[in]
Card slot number specified
0: Main Card
1: Slave Card
2: Slave Card

unsigned char VCC_Mode : [in]
Power mode
1 : 5V
2 : 3V
3: 1.8V

unsigned char *ATR
Buffer of response data
ATR[0] : length of data
ATR[1~N] : data N<=33

Note: IC Card command operation can be done just when IC Card reset successfully

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[4] _DLL_EXPORT_ int ICCard_Command(unsigned char slot,APDU_SEND *ApduSend,APDU_RESP *ApduResp);

Description :

IC card operation function.This function supports IC card common interface protocol (T=0, T=1).

Return Value :

(0) : Success
(-2503) : Communication timeout
(-2405) : No card or card removed
(-2401) : Parity error
(-2403) : Channel num error
(-2400) : The length of data to send is long (LC)
(-2404) : IC card protocol error (not T =0 or T=1)
(-2406) : IC card is not reset.

Parameters :

unsigned char slot : [in]
Card slot number specified
0: Main Card
1: Slave Card

2: Slave Card

APDU_SEND *ApduSend : [in]

```
APDU_SEND：
struct{
        BYTE    Command[4];
        WORD    Lc;
        BYTE    DataIn[512];
        WORD    Le;
      };
```

Command[] = {CLA, INS, P1, P2}。

Lc = length of data to send。

DataIn = data to send to RFID model。

Le = data length expected return。

Case1：Lc=0; Le=0

Neither data nor return data

Case2: Lc=0; Le>0

No data transmission but expect return of data, if return data number unknown, should put the Le = 256; otherwise the returned data length must be determined by numerical.

Case3: Lc>0; Le=0

Send data is not empty,but no expected data returned

Case4: Lc>0; Le>0

Send data is not empty, and expected data returned. If return data number unknown, should put the Le = 256; otherwise the returned data length must be determined by numerical。

APDU_RESP *ApduResp :[out]

```
APDU_RESP：
        struct{
            WORD    LenOut;
            BYTE    DataOut[512];
            BYTE    SWA;
            BYTE    SWB;
            };
```

LenOut : The actual data length returned from IC card.

DataOut : The data buffer returned from IC card.

SWA : Status returned.

SWB : Status returned.

Note: IC card must be reset successfully before this operation.

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[5]_DLL_EXPORT_ int WINAPI ICCard_Close(unsigned char slot);

Description :

Power off IC card in the card slot.

Return Value :

(0) : Success

Parameters :

unsigned char slot : [in]

Card slot number specified

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5. Application Flow Sheet：

(1)Detect card.

Step1: Initialization the IC Card model

```
ICCard_Init();
```

Step2: Detect card

```
ICCard_Detect(unsigned char slot);
```

(2)APDU command

Step1: Initialization the IC Card model

```
ICCard_Init();
```

Step2 : Reset IC card

ICCard_Reset (unsigned char slot,unsigned char VCC_Mode,unsigned char *ATR) ;

Step3 : APDU command

ICCard_Command(unsigned char slot,APDU_SEND *ApduSend,APDU_RESP *ApduResp);