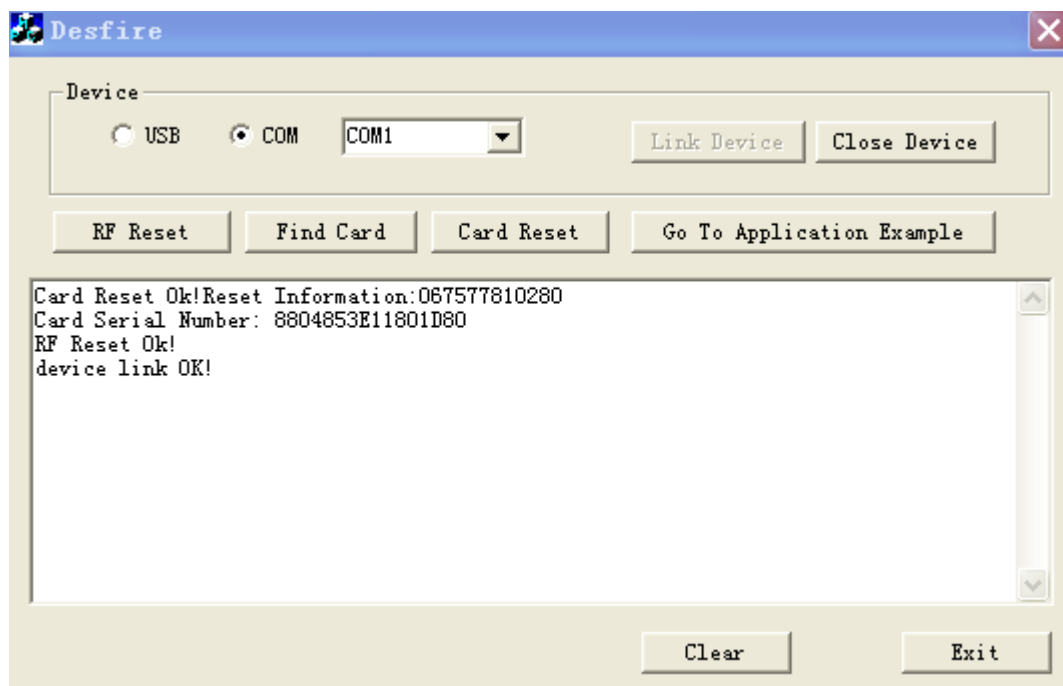


中文说明
[English NOTE](#)

打开程序后, 选择适当的端口, 通过 “link device”打开端口, 然后依次点击“RF Reset”->”Find Card”->”Card Reset”->”Go To Application Example”

Start application, choose special communicate port the reader used, click “Link Device” to open, then “RF Reset” -> “Find card” -> “Card Reset” -> “Go To Application Example”, as follow:



在打开的另一个界面中, 首先验证主控密钥,
[Click “Authentication” to authen default master key in the dialog popup,](#)

Application Demo

PICC operate | Application Level Operation | File Operation

Master Key: Authentication

Get Version Format This Card

Get Current APPS

Delete Selected APP

AID: Key Setting: Num Of Key:

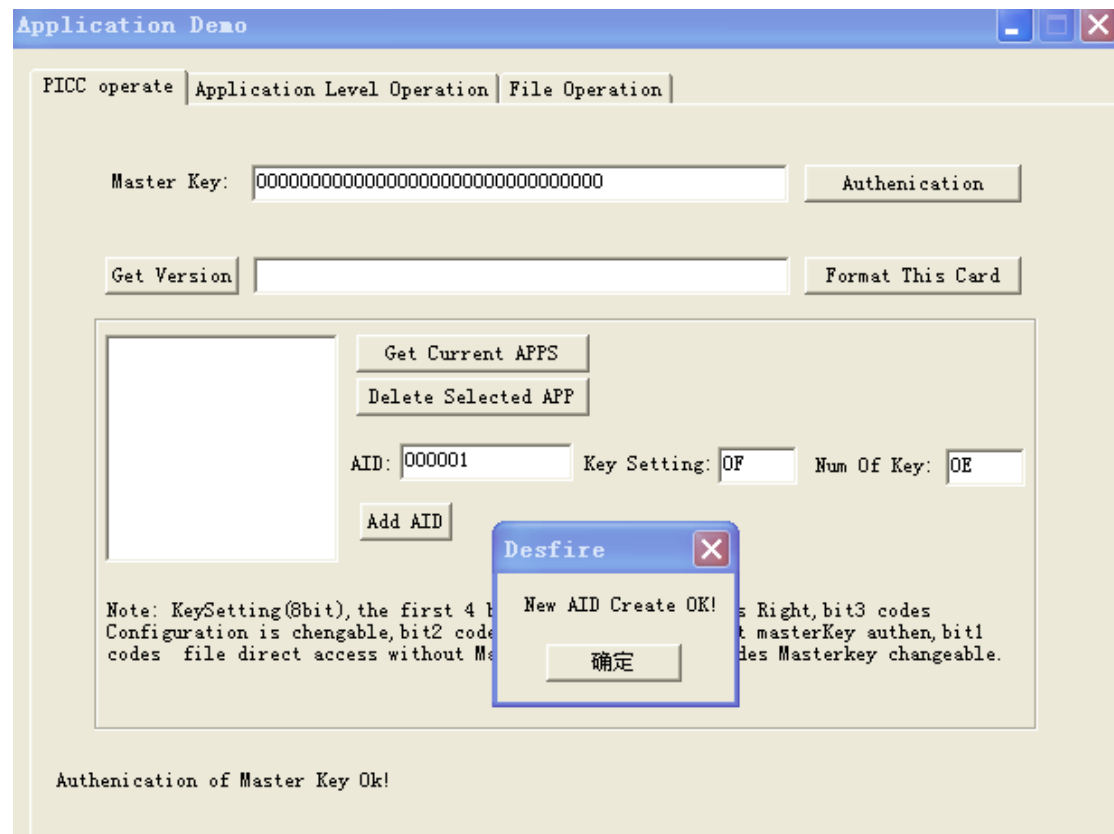
Add AID

Note: KeySetting(8bit), the first 4 bits are Changkey Access Right, bit3 codes Configuration is chengable, bit2 codes create/delete without masterKey authen, bit1 codes file direct access without MasterKey authen, bit0 codes Masterkey changeable.

Authentication of Master Key Ok!

验证密钥成功后，通过设置 AID，Key Setting, Num of key 参数（这里选择默认即可），最后点击”Add AID”来增加一个应用

Edit paramters AID / Key setting / number of key, or set them as default, create a new AID by click “Add AID”,



创建文件

Navigate to page “Application Level Operation” , you can create files by config file setting like under:

Application Demo

PICC operate Application Level Operation File Operation

Applications: 000001 [v] [Selete APP] [KeySetting] []

FID	Type	ComSe...	Acc
01	S...	plain	eee
02	C...	plain	eee

[Get All FileIDs] KeyNO: 0 (decimal 0-14)

[Delete Sel-File] Cur-Key: 00000000000000000000000000000000

NewKey: 00000000000000000000000000000000

[Authen] [ChangeKey]

Add New File

☒ Data File ☐ Value File ☐ Record File [Add File] [ChangeSet]

File ID: 01 (1) LowerLimit: (4)

Com Setting: 00 (1) UpperLimit: (4)

AccessRight: eeee (2) Value: (4)

File Size: 200000 (3) LimitCreditEn: (1)

Record Size: 080000 (3) Max Number: 100000 (3)

[<] [] [>]

Get FileIDs OK!

图一/pic-1

Application Demo

PICC operate Application Level Operation File Operation

Applications: 000001 [v] [Selete APP] [KeySetting] []

FID	Type	ComSe...	Acc
01	S...	plain	eee
02	C...	plain	eee

[Get All FileIDs] KeyNO: 0 (decimal 0-14)

[Delete Sel-File] Cur-Key: 00000000000000000000000000000000

NewKey: 00000000000000000000000000000000

[Authen] [ChangeKey]

Add New File

☐ Data File ☐ Value File ☒ Record File [Add File] [ChangeSet]

File ID: 02 (1) LowerLimit: (4)

Com Setting: 00 (1) UpperLimit: (4)

AccessRight: eeee (2) Value: (4)

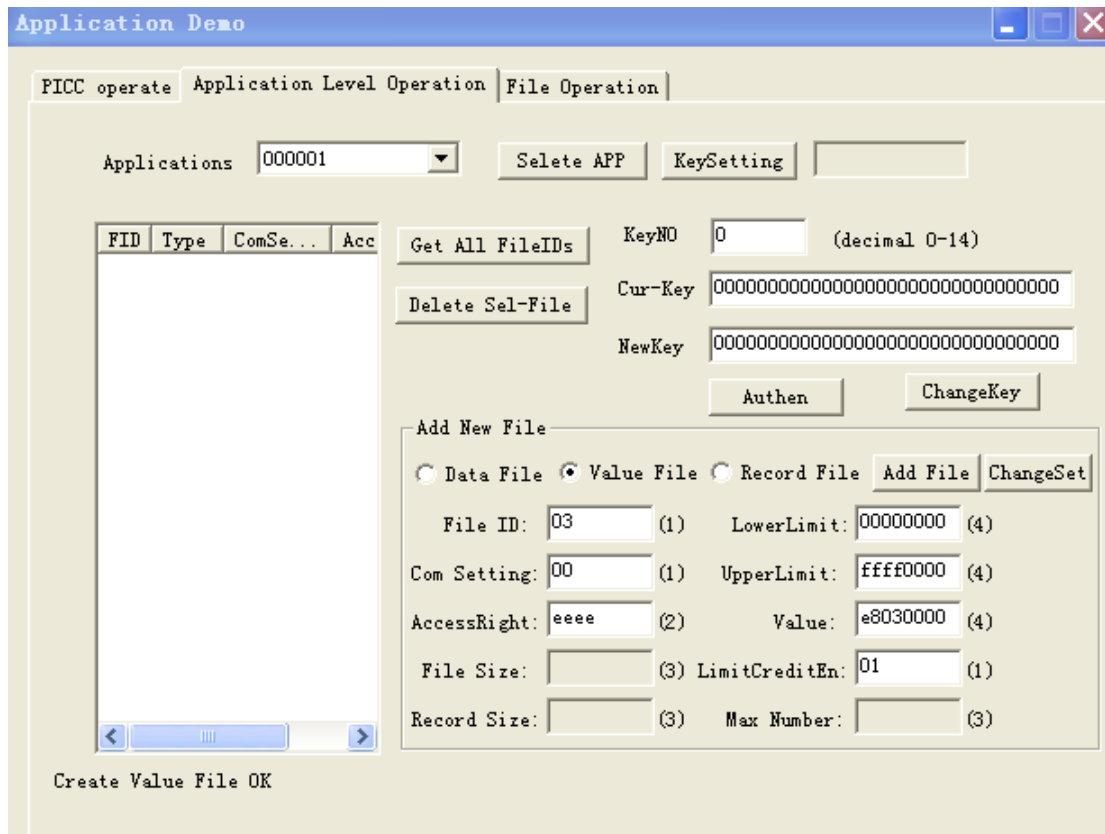
File Size: 200000 (3) LimitCreditEn: (1)

Record Size: 080000 (3) Max Number: 100000 (3)

[<] [] [>]

Get FileIDs OK!

图二/pic-2



图三/pic-3

上面 3 个图示中，分别显示了如何创建二进制文件、循环记录文件、以及值文件的设置示例。
The pictures (pic-1/2/3) show how to create data(binary) file, value file, record file.

参数说明：

PARAMTER:

File ID: 文件标识号. 如 01,02...

FileID: ID of file, eg. 01, 02...

Com Setting: 其实是 communication setting, 传输方式的设置 00: 明文数据格式传输, 01:MAC 码校验方式, 03: DES/3DES 加密方式传输

Com Setting: communication setting, values 00- type as plain text; 01- type as MAC verify; 03-type as DES/3DES cipher text.

AccessRight: 访问方式. 0~13 代表要验证对应的密码, 0xE 自由访问, 4 个位分别代表:

- ✧ 可读可写权限 (ReadData, WriteData, GetValue, Debit, LimitedCredit, Credit)
- ✧ 修改访问权限
- ✧ 读权限 (ReadData, GetValue, Debit)
- ✧ 写权限 (WriteData Debit, LimitedCredit)

AccessRight: Type of access, values 0x0~0xd means needing verify special key before access,

0xE means free access, all 4 half-byte meaning map:

- ✧ Read and Write (ReadData, WriteData, GetValue, Debit, LimitedCredit, Credit)
- ✧ Update
- ✧ Read (ReadData, GetValue, Debit)
- ✧ Write (WriteData Debit, LimitedCredit)

这里仅说明一点，这里要填入的参数是采用低位在前，高位在后的方式。例如，100000（看图二），表示总共有 16 条记录，200000（图一），表示文件大小为 32 个字节。

Note: When length parameter, the low bit at head, high bit at tail. For example, it means 16(dec) records all total when setting as 100000 (see pic-2); It means 32(dec) bytes total this file size when setting as 200000.

读写二进制文件：

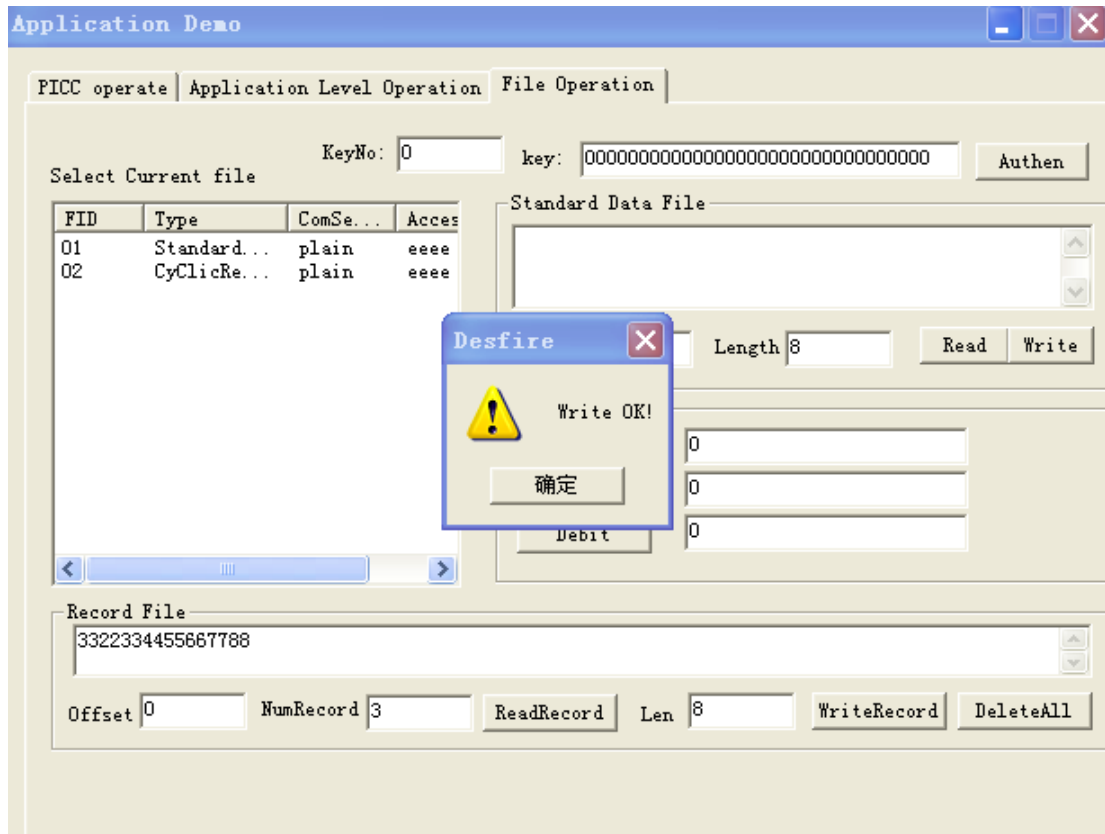
Read / Write binary file

二进制文件的操作比较简单，在文件一览框中选择要操作的二进制文件，就可以在二进制文件工作区进行读写操作了。

Select one binary file in the list box left, test read/write in the R/W area.

读写循环记录文件：

Read/ Write cycle record file:



在写记录的时候，偏移地址设为 0，NumRecord 按次序递增，这样每条记录将会被记录下来，NumRecord 值越大，该条记录越靠前。

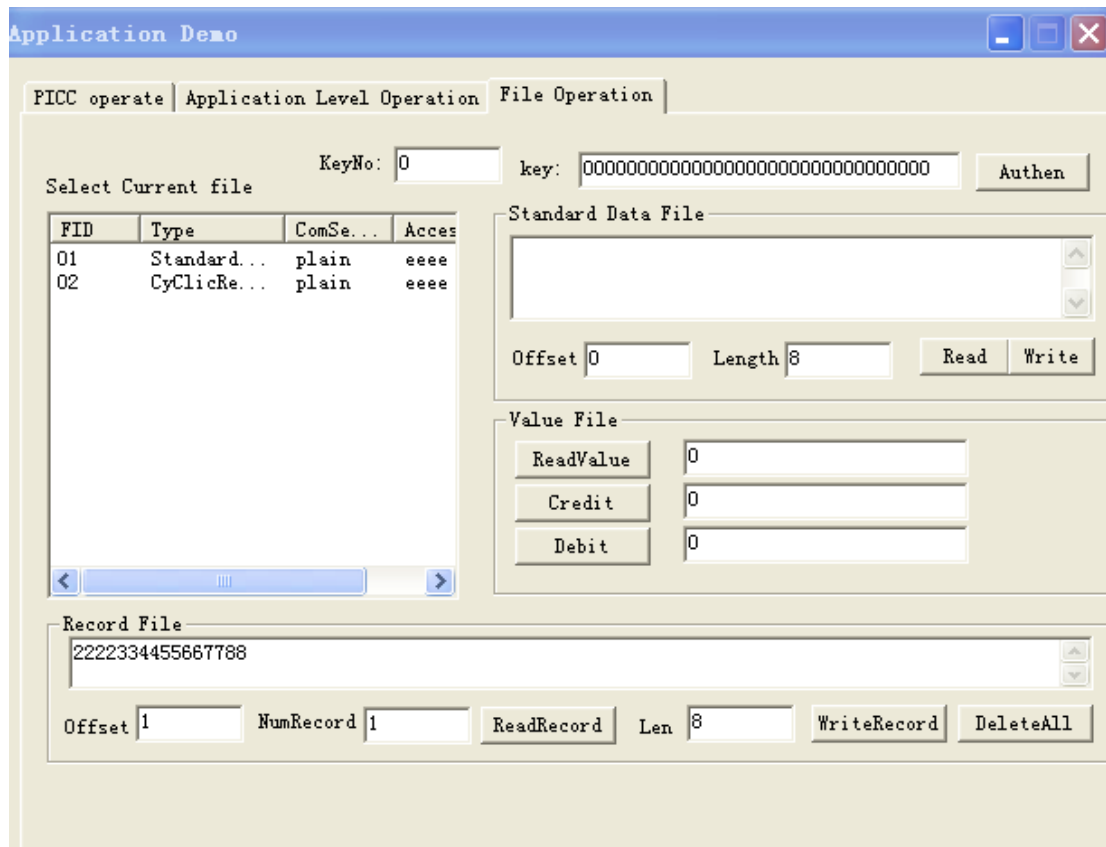
In this writing test, offset set as 0, and number of record set from 1 to 3, the record will be created at the top if the number is more bigger.

以下开始读的情况：

Next test reading:

保持偏移值不变，仅改变 NumRecord 的值，会读到从这个偏移地址开始的 NumRecord 个记录：

The offset set as 0, change value of number record, you will get records depends on the number.



还有读出所有当前该文件中的所有记录的方法，把两个值都设为 0:

You will get all the record if set the offset and record number as 0:

Application Demo

PICC operate | Application Level Operation | File Operation

Select Current file KeyNo: 0 key: 00000000000000000000000000000000 Authen

FID	Type	ComSe...	Access
01	Standard...	plain	eeee
02	CyClicRe...	plain	eeee

Standard Data File

Offset 0 Length 8 Read Write

Value File

ReadValue 0

Credit 0

Debit 0

Record File

112233445566778822223344556677883322334455667788442233445566778811223344556677882222334455
6677883322334455667788

Offset 0 NumRecord 0 ReadRecord Len 8 WriteRecord DeleteAll

值文件操作:

Value file operation:

首先在文件一览框中选择对应的文件:

First, you should select the value file in left list box:

Application Demo

PICC operate | Application Level Operation | File Operation

KeyNo: 0 key: 00000000000000000000000000000000 Authen

Select Current file

FID	Type	ComSe...	Acces
03	ValueFile	plain	eeee

Standard Data File

Offset 0 Length 8 Read Write

Value File

ReadValue 0

Credit 0

Debit 0

Record File

1122334455667788

Offset 0 NumRecord 1 ReadRecord Len 8 WriteRecord DeleteAll

然后就可以在值操作区进行读、加、减操作了：

Then you can test read\credit\debit:

Application Demo

PICC operate | Application Level Operation | File Operation

KeyNo: 0 key: 00000000000000000000000000000000 Authen

Select Current file

FID	Type	ComSe...	Acces
03	ValueFile	plain	eeee

Standard Data File

Offset 0 Length 8 Read Write

Value File

ReadValue 1000

Credit 0

Debit 0

Record File

1122334455667788

Offset 0 NumRecord 1 ReadRecord Len 8 WriteRecord DeleteAll

Application Demo

PICC operate | Application Level Operation | File Operation

Select Current file KeyNo: 0 key: 00000000000000000000000000000000 Authen

FID	Type	ComSe...	Access
03	ValueFile	plain	eeee

Standard Data File

Offset 0 Length 8 Read Write

Value File

ReadValue 1010

Credit 10

Debit 0

Record File

1122334455667788

Offset 0 NumRecord 1 ReadRecord Len 8 WriteRecord DeleteAll

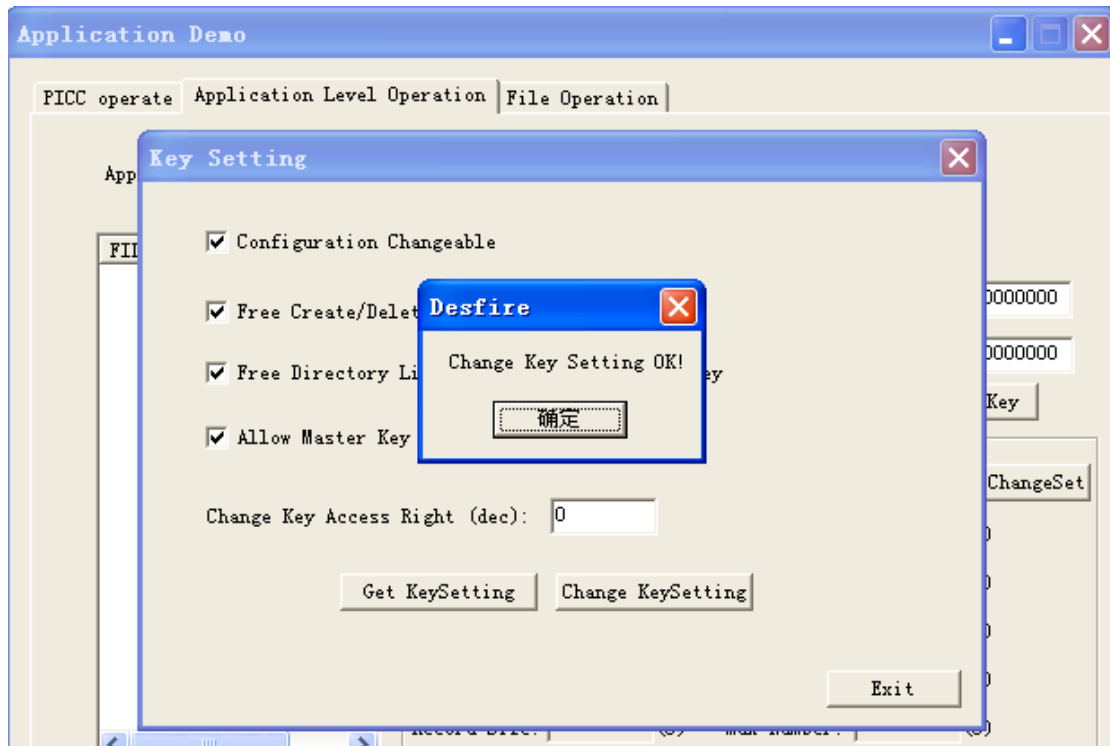
Credit Value OK

更改密钥设置

Changing of key setting

选择应用，验证 0 号密钥，通过后可以更改密钥设置：

Select application,you can change the key setting after passed verify key 0:



修改密码

Change Key

当应用的密钥设置中密钥是可以更改的（密钥的访问权限值为 0-14），这种情况下，可以对密钥进行修改

The key is changeable only when the value of access authority is between 0x0 and 0xe

密钥修改遵循如下规则：

The rules of changing key:

- 当密钥的访问权限值设为 0-13 时，当要修改的密钥号与该值不同时，需先验证改权限值对应的密钥，然后再对要修改的密钥进行修改；

When the value of access authority is between 0x0 and 0xd, and is different from key number for updating, you must verify the key correspond to access authority for first;

举例：当前设置的密钥访问权限值为 1，如果要修改密钥 2，需先验证密钥 1

eg.: When the value of access authority is 1, and the value of key number for updating is 2, in this case, you should verify key 1.

- 当密钥的访问权限值设为 14 (0xE) 时，在修改密钥前要先验证该密钥号对应的原密钥，验证成功后方能进行修改

When the value of access authority is 0xE, the key number for updating should be verified

before updated.

举例：要修改密钥 1，需先验证密钥 1

eg.: For updating key 1, the verify key 1 is needed.