Android Development User Manual

< API for software development>

Please Load this lib first

/*****************************

1. Open device(connect)

public native int ZAZOpenDeviceEx(int fd,int nDeviceType,int iCom,int iBaud,int nPackageSize/*=2*/,int iDevNum/*=0*/)

Parameters：

*nDeviceType Device type（0：USB with drive， 1：Serial COMM， 2: USB without drive ,3：USB with drive+0x30， 4：Serial COMM+0x30， 5：USB without drive +0x30）;(0x30 4.0 version)

*nDeviceType (compatible with FS500)Device type（10：USB with drive， 11：Serial COMM， 12：USB without drive,13：USB with drive+0x30，14：Serial COMM+0x30， 15：USB without drive+0x30）

*nDeviceType Device type（20：USB with drive， 21：Serial COMM， 22：USB without drive,23：USB with drive+0x30， 24：Serial COMM+0x30，25：USB without drive+0x30）+0x30）;(0x30 4.0 version)

*nDeviceType (compatible with FS500)device type（30：USB with drive， 31：Serial COMM， 32：USB without drive,33：USB with drive+0x30，34：Serial COMM+0x30， 35：USB without drive+0x30）

*iCom serial comm number （ 1-16 ）(USB"/dev/ttysWKx" 0-7), 30-37"/dev/ttyHSLx"(x is 0-7)),40-47"/dev/ttyMAXx"(x is 0-7)), 50-57 "/dev/ttyAMAx"(x is 0-7)), 60-67

*iBaud Baud Rate（9600-57600）(USB device is 0）baud rate=iBaud*9600；*nPackageSize package size（default:2）*iDevNum device comm port(default: 0)

*return ：

*0 is success，other numbers return please refer to error code list

/*********************************

2. Get image

*Parameters：

*nAddr： 0xffffffff

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZGetImage(**int** nAddr);

/*********************************

3. Close device(disconnect)

*Parameters：

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZCloseDeviceEx();

/*********************************

4. Get image

*Parameters：

*nAddr： 0xffffffff

*return ：

*0 is success，other numbers return please refer to error code list

/**********

7. Search（Verify CharBufferA or CharBufferB with template in database ）

*Parameters：

*nAddr： 0xffffffff ；

*iBufferID： 0x01、 0x02

*iStartPage：start ID；

*iPageNum：end ID；

*iMbAddress：iMbAddress[0] matched template I

*iscore：efault Parameters（NULL）

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZSearch(**int** nAddr,**int** iBufferID, **int** iStartPage, **int**iPageNum, **int**[] iMbAddress/*int *iscore=NULL*/);

/**********

8. Register (mix the Characteristic code in CharBufferA with Characteristic code In CharBufferB to generate template to store in ModelBuffer)

*Parameters：

*nAddr： 0xffffffff ；

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZRegModule(**int** nAddr);

/**********

9. Store template (save the template in ModelBuffer to database in flash memory)

*Parameters：

*nAddr： 0xffffffff ；

*iBufferID： 0x01、 0x02

*iPageID：template ID in database

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZStoreChar(**int** nAddr,**int** iBufferID, **int** iPageID);

/**********

10. Load feature Character (load character from database in flash to ModelBuffer)

*Parameter：

*nAddr： 0xffffffff ；

*iBufferID：buffer where character is stored (0x01、 0x02)；

*iPageID：character ID is stored in database

*return:

*0 is success，other return numbers please refer to error code list

**********/

public native int ZAZLoadChar(int nAddr,int iBufferID,int iPageID);

/**********

11. Set feature character length

*Parameter：（default 512）

*

*return:

*0 is success，other return numbers please refer to error code list **********/

public native int ZAZSetCharLen(int charLen);

/**********

12. Upload feature

*Parameters：

*nAddr： 0xffffffff ；

*iBufferID：upload template to buffer(0x01、 0x02)；

*pTemplet：store address for uploading template

*0 is success，other numbers return please refer to error code list

Public native int ZAZUpImage(**int**nAddr,**byte**[]pImageData,**int**[]iTempletLength);

/**

15. Download image

*Parameter：

*nAddr： 0xffffffff ；

*pImageData：image data address

*iImageLength：image data length

*return:

*0 is success，other return numbers please refer to error code list

**/

public native int ZAZDownImage(int nAddr,byte[] pImageData, int iLength);

/**

16. Generate image to BMP format

*Parameters：

*pImageData：data address for image data；

*pImageFile(str)：file name for image file

*return ：

*0 is success，other numbers return please refer to error code list

public native int ZAZImgData2BMP(**byte**[] pImgData,String str);

/**

17. Get feature characters from BMP image

*Parameter：

*pImageData：image data address

*pImageFile(str)：image file name

*pnImageLen：image data length

*return:

*0 is success，other return numbers please refer to error code list

**/

public native int ZAZGetImgDataFromBMP(String str,byte[] pImageData,int[] pnImageLen);

/**

18. Delete Feature Characters

*Parameter：

*nAddr： 0xffffffff ；

*iStartPageID：start page ID

*nDelPageNum：The total pages you want to delete from start ID

*return:

*0 is success，other return numbers please refer to error code list

**/

public native int ZAZDelChar(int nAddr,int iStartPageID,int nDelPageNum);

/**

19. Empty database

*Parameter：

*nAddr： 0xffffffff

*return:

*0 is success，other return numbers please refer to error code list

**/

public native int ZAZEmpty(int nAddr);

/**

20. Read Parameter list

*Parameter：

*nAddr： 0xffffffff ；

*pParTable：address where Parameter list is stored

*return:

*0 is success，other return numbers please refer to error code list

**/

public native int ZAZReadParTable(int nAddr,byte[] pParTable);

/**

```
/**********************************************************************
```
23. set connection password
```
*Parameter：
*nAddr： 0xffffffff ；
*pPassword：password string you set
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZSetPwd(int nAddr,byte[] pPassword);
/**********************************************************************
```
24. Verify connection password
```
*Parameter：
*nAddr： 0xffffffff ；
*pPassword：password string you set
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZVfyPwd(int nAddr,byte[] pPassword);
/**********************************************************************
```
25. Read user info
```
*Parameter：
*nAddr： 0xffffffff ；
*nPage：user info page（total 512 page， 32byte/page）;
*UserContent：user info it read
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZReadInfo(int nAddr,int nPage,byte[] UserContent);
/**********************************************************************
```
26. Write user info
```
*Parameter：
*nAddr： 0xffffffff ；
*nPage：user info page（total 512 page，32 byte/page）;
*UserContent：user info you want to write
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZWriteInfo(int nAddr,int nPage,byte[] UserContent);
/**********************************************************************
```
27. Set baud rate
```
*Parameter：
*nAddr： 0xffffffff ；
*nBaudNum：baud rate （9600-57600）
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZSetBaud(int nAddr,int nBaudNum);
/**********************************************************************
```
28. Set Security Level
```
*Parameter：
*nAddr： 0xffffffff ；
*nLevel：security level you want（1-5）
*return:
*0 is success，other return numbers please refer to error code list
**********************************************************************/
public native int ZAZSetSecurLevel(int nAddr,int nLevel);
/**********************************************************************
```
29. Set data package size
```
*Parameter：
*nAddr： 0xffffffff ；
*nSize：the size you want（32/64/128/256）
*return:
```

**/
public native int ZAZDownCharFromFile(int nAddr,int iBufferID, byte[] pFileName);
/**
32. Get Random address
*Parameter：
*nAddr： 0xffffffff ；
*pRandom：random address you set
*return:
*0 is success，other return numbers please refer to error code list
**/
public native int ZAZGetRandomData(int nAddr,byte[] pRandom);

/**
33. Set chipset address
*Parameter：
*nAddr： 0xffffffff ；
*pChipAddr：chipset address you set
*return:
*0 is success，other return numbers please refer to error code list
**/
public native int ZAZSetChipAddr(int nAddr,byte[] pChipAddr);

34. BT_REV
public native int ZAZBT_rev(byte[] pTemplet, int iTempletLength);

/**
*
35. Read Version number
public native int ZAZReadInfPage(int nAddr,byte[] pVersion);
**/

Error code list:
nErrCode:
case -1: "failed package transmit"
case -2: "failed to receive package"
case -3: "incorrect validation "
case -4: "beyond buffer or invalid template ID in flash"
case -5: "invalid security level"
case -6: "failed to generate"
case -7: "no specified file"
case -8: "size is incorrect"
case -9: "failed memory"
case 0: "success"
case 1: "error for package receive"
case 2: "no finger detected"

case 3: "poor fingerprint image"
case 4: "fingerprint image is too light"
case 5: "fingerprint image is not clear"
case 6: "fingerprint image is too messy"
case 7: "no enough feature of fingerprint image"
case 8: "not matched"
case 9: "no fingerprint"
case 10: "failed generate"
case 11: "address id is beyond database"
case 12: "failed getting template from database"
case 13: "failed uploading"
case 14: "can not receive upcoming package"
case 15: "uploading failed"
case 16: "failed to delete template"
case 17: "failed to clear database"
case 18: "can not sleep"
case 19: "incorrect password"
case 20: "failed reset"
case 21: "invalid fingerprint image"
case 22: "updating failed"
case 23: "remaining image"
case 24: "failed to read/write into FLASH "
case 25: "undefined error"
case 26: "invalid ID number"
case 27: "incorrect ID number"
case 28: "incorrect page number"
case 29: "failed comm port"
case 30: "failed enrolled"
case 31: "template database is full"
case 0xf0: "0xf0 response to upcoming data package"
case 0xf1: " 0xf1 response to upcoming data package "
case 0xf2: "Validation is incorrect when write into flash”
case 0xf3: "package is incorrect when write into flash
case 0xf4: "the length of package is incorrect when write into flash"
case 0xf5: "length is too long when write into flash"
case 0xf6: "failed write into flash"
case 0x20: "null operation"
default: "unknown error"