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Package com.zcs.sdk.fingerprint

Interface Summary

Interface	Description
FingerprintListener	A callback that notifies fingerprint operation

Class Summary

Class	Description
FingerprintManager	
FingerResult	
Result	

com.zcs.sdk.pin.pinpad

Enum PinKeyboardViewModeEnum

java.lang.Object
  java.lang.Enum<PinKeyboardViewModeEnum>
    com.zcs.sdk.pin.pinpad.PinKeyboardViewModeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PinKeyboardViewModeEnum>

```
public enum PinKeyboardViewModeEnum
extends java.lang.Enum<PinKeyboardViewModeEnum>
```

Enum Constant Summary

Enum Constants

Enum Constant and Description
DEFAULT Default, display input view
NO_INPUTVIEW No default input view, must set custom

Method Summary

All Methods | Static Methods | Concrete Methods

Modifier and Type	Method and Description
static PinKeyboardViewModeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PinKeyboardViewModeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

DEFAULT

public static final PinKeyboardViewModeEnum DEFAULT

Default, display input view

NO_INPUTVIEW

public static final PinKeyboardViewModeEnum NO_INPUTVIEW

No default input view, must set custom

Method Detail

valueOf

public static PinKeyboardViewModeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static PinKeyboardViewModeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PinKeyboardViewModeEnum c : PinKeyboardViewModeEnum.values())
```

```
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

Hierarchy For Package com.zcs.sdk.pin.pinpad

Package Hierarchies:
All Packages

Class Hierarchy

- java.lang.Object
  - android.content.Context
    - android.content.ContextWrapper
      - android.view.ContextThemeWrapper
        - android.app.Activity (implements android.content.ComponentCallbacks2, android.view.KeyEvent.Callback, android.view.LayoutInflater.Factory2, android.view.View.OnCreateContextMenuListener, android.view.Window.Callback)
          - com.zcs.sdk.pin.pinpad.PinPadPasswordActivity
  - com.zcs.sdk.pin.pinpad.PinPadManager

Interface Hierarchy

- com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener

Enum Hierarchy

- java.lang.Object
  - java.lang.Enum<E> (implements java.lang.Comparable<T>, java.io.Serializable)
    - com.zcs.sdk.pin.pinpad.PinKeyboardViewModeEnum

Classes

ExternalCardManager
ICCard

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Package com.zcs.sdk.card

Class Summary

Class	Description
CardInfoEntity	Card info entity
CardReaderManager	
ICCard	
IDCard	
MagCard	
RfCard	
SLE4428Card	
SLE4442Card	

Enum Summary

Enum	Description
CardReaderTypeEnum	
CardSlotNoEnum	
MagEncryptTypeEnum	
RfCardTypeEnum	

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Package com.zcs.sdk

Interface Summary

Interface	Description
Sys.UpdateListener	Interface definition for a callback to be invoked when firmware is update

Class Summary

Class	Description
Beeper	
DriverManager	
Led	
Printer	
SdkData	
SdkResult	
Sys	

Enum Summary

Enum	Description
ConnectTypeEnum	
LedLightModeEnum	The enum of led light type

com.zcs.sdk.card

Class RfCard

java.lang.Object
    com.zcs.sdk.card.RfCard

```
public class RfCard
extends java.lang.Object
```

Method Summary

All Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
int	getIDCardUid(byte[] typeData)
int	getRfCardType(byte[] typeData) Get rf card type
int	m1ChangeKey(byte block, byte keyType, byte[] newKey) Change the M1 card key
int	m1ReadBlock(byte block, byte[] outDate) Read M1 card block
int	m1VerifyKey(byte block, byte keyType, byte[] key) Verify card key for M1 card
int	m1WirteBlock(byte block, byte[] inputDate) Write M1 card block
int	mFPlusCommitPerso() L0 L1 L3
int	mFPlusCommitPerso(byte leval, byte[] key) L1 L2
int	mFPlusFirstAuthen(byte[] adress, byte[] key) L3
int	mFPlusL3Read(byte[] adress, byte len, byte[] outData) L3
int	mFPlusL3Write(byte[] adress, byte len, byte[] inputData) L3

int	mFPlusWritePerso(byte[] adress) LO ( )
int	mFSetFelicaTime(int outTime)
int	rfCardMoveCard()
int	rfCardPowerDown() Power off
int	rfCardPowerOn() Power on
byte[]	rfExchangeAPDU(byte[] sendData) Send apud command
int	rfExchangeAPDU(byte[] sendData, byte[] receiveData, int[] receiveLength) Send apud command
int	rfReset() Rf card reset
int	rfReset(byte[] resetData, int[] dataLength) Rf card reset
int	rfSearchCard(byte rfCardType, byte[] outCardType, byte[] uid) Search card
void	setCardType(boolean ishave)

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

getIDCardUid

```
public int getIDCardUid(byte[] typeData)
```

getRfCardType

```
public int getRfCardType(byte[] typeData)
```

Get rf card type

Parameters:

typeData -

Returns:

m1ChangeKey

```
public int m1ChangeKey(byte block,
                       byte keyType,
                       byte[] newKey)
```

Change the M1 card key

Parameters:

block - block number, 0 ~ 3

keyType - key type. 0x00:A, 0x01:B

newKey - new key to set

Returns:

m1ReadBlock

```
public int m1ReadBlock(byte block,
                       byte[] outDate)
```

Read M1 card block

Parameters:

block - block number, 0 ~ 3

outDate - block data

Returns:

m1VerifyKey

```
public int m1VerifyKey(byte block,
                       byte keyType,
                       byte[] key)
```

Verify card key for M1 card

Parameters:

block - block number, 0 ~ 3

keyType - key type. 0x00:A, 0x01:B

key - key

Returns:

m1WirteBlock

```
public int m1WirteBlock(byte block,
                        byte[] inputDate)
```

Write M1 card block

Parameters:

block - block number, 0 ~ 3

inputDate - the data to write

Returns:

mFPlusCommitPerso

```
public int mFPlusCommitPerso()
```

L0 L1 L3

Returns:

mFPlusCommitPerso

```
public int mFPlusCommitPerso(byte leval,
                             byte[] key)
```

L1 L2

Parameters:

leval - 0x02 L2 0X03 L3

key - 16

Returns:

mFPlusFirstAuthen

```
public int mFPlusFirstAuthen(byte[] adress,
                             byte[] key)
```

L3

Parameters:

adress - 0x4000--0x403f: 0-31 A B A 0x4040--0x404f: 32-39 A B A

key - 16

Returns:

mFPlusL3Read

```
public int mFPlusL3Read(byte[] adress,
                        byte len,
                        byte[] outData)
```

L3

Parameters:

adress - 0x0000--0x007f: 0-31 , 4 0x0080--0x00ff: 32-39 16

len -

outData - 16 16 2*16

Returns:

mFPlusL3Write

```
public int mFPlusL3Write(byte[] adress,
                         byte len,
                         byte[] inputData)
```

L3

Parameters:

adress - 0x0000--0x007f: 0-31 , 4 0x0080--0x00ff: 32-39 16

len - 16

inputData -

Returns:

mFPlusWritePerso

```
public int mFPlusWritePerso(byte[] adress)
```

L0 ( )

Parameters:

adress - 0x9000 // 0x9001 // 0x9002 // L2 0x9003 // L3

Returns:

mFSetFelicaTime

```
public int mFSetFelicaTime(int outTime)
```

Returns:

rfCardMoveCard

```
public int rfCardMoveCard()
```

rfCardPowerDown

```
public int rfCardPowerDown()
```

Power off

Returns:

rfCardPowerOn

```
public int rfCardPowerOn()
```

Power on

Returns:

rfExchangeAPDU

```
public byte[] rfExchangeAPDU(byte[] sendData)
```

Send apud command

Parameters:

sendData - the data to send

Returns:

The apdu response. It will return null if send failed

rfExchangeAPDU

```
public int rfExchangeAPDU(byte[] sendData,
                          byte[] receiveData,
                          int[] receiveLength)
```

Send apud command

Parameters:

sendData - the data to send

receiveData - the received data

receiveLength - the length of received data

Returns:

rfReset

```
public int rfReset()
```

Rf card reset

Returns:

rfReset

```
public int rfReset(byte[] resetData,
                   int[] dataLength)
```

Rf card reset

Parameters:

resetData - reset info data

dataLength - the length of reset info data

Returns:

rfSearchCard

```
public int rfSearchCard(byte rfCardType,
                        byte[] outCardType,
                        byte[] uid)
```

Search card

Parameters:

rfCardType - rf card type. SdkData.RF_TYPE_A, SdkData.RF_TYPE_B, SdkData.RF_TYPE_FELICA

outCardType - rf card type. It can only be distinguished as SdkData.RF_TYPE_A or SdkData.RF_TYPE_B,

uid - card uid

setCardType

```
public void setCardType(boolean ishave)
```

BitmapUtils occurences:

- com.zcs.sdk.util.BitmapUtils
- com.zcs.sdk.util.BitmapUtils.BitmapUtils()

PrnStrFormat occurences:

- com.zcs.sdk.print.PrnStrFormat
- com.zcs.sdk.print.PrnStrFormat.PrnStrFormat()

SdkResult occurences:

- com.zcs.sdk.SdkResult
- com.zcs.sdk.SdkResult.SdkResult()

changeKey occurences:

- com.zcs.sdk.card.SLE4428Card.changeKey(byte[])
- com.zcs.sdk.card.SLE4442Card.changeKey(byte[])

closeInputPin occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.closeInputPin()
- com.zcs.sdk.pin.pinpad.PinPadManager.closeInputPin()

connect occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.connect(BluetoothDevice)
- com.zcs.sdk.usb.UsbHandler.connect()

encodeDES occurences:

- com.zcs.sdk.util.MessageDigestUtils.encodeDES(String, String)
- com.zcs.sdk.util.MessageDigestUtils.encodeDES(byte[], byte[])

getCardNo occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.getCardNo()
- com.zcs.sdk.card.CardInfoEntity.getCardNo()

getTimeout occurences:

- com.zcs.sdk.usb.UsbHandler.getTimeout()
- com.zcs.sdk.usb.UsbReader.getTimeout()

icCardReset occurences:

- com.zcs.sdk.card.ICCard.icCardReset(CardSlotNoEnum)
- com.zcs.sdk.card.ICCard.icCardReset(CardSlotNoEnum, byte[], int[])
- com.zcs.sdk.exteranl.ICCard.icCardReset(byte, byte[], int[])
- com.zcs.sdk.exteranl.ICCard.icCardReset(byte)

init occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.init()
- com.zcs.sdk.card.SLE4428Card.init()
- com.zcs.sdk.card.SLE4442Card.init()
- com.zcs.sdk.fingerprint.FingerprintManager.init()
- com.zcs.sdk.usb.UsbHandler.init()

recv occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.recv(int)
- com.zcs.sdk.usb.UsbHandler.recv(int)

rfReset occurences:

- com.zcs.sdk.card.RfCard.rfReset()
- com.zcs.sdk.card.RfCard.rfReset(byte[], int[])

setRetryCount occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.setRetryCount(int)
- com.zcs.sdk.usb.UsbHandler.setRetryCount(int)

updateFirmware occurences:

- com.zcs.sdk.Sys.updateFirmware(InputStream, Sys.UpdateListener)
- com.zcs.sdk.Sys.updateFirmware(File, Sys.UpdateListener)
- com.zcs.sdk.exteranl.ExternalCardManager.updateFirmware(File, Sys.UpdateListener)
- com.zcs.sdk.exteranl.ExternalCardManager.updateFirmware(InputStream, Sys.UpdateListener)

values occurences:

- enum in com.zcs.sdk.ConnectTypeEnum.values()
- enum in com.zcs.sdk.LedLightModeEnum.values()
- enum in com.zcs.sdk.bluetooth.emv.CardDetectedEnum.values()
- enum in com.zcs.sdk.bluetooth.emv.EmvStatusEnum.values()
- enum in com.zcs.sdk.bluetooth.emv.NFCCardType.values()
- enum in com.zcs.sdk.card.CardReaderTypeEnum.values()
- enum in com.zcs.sdk.card.CardSlotNoEnum.values()
- enum in com.zcs.sdk.card.MagEncryptTypeEnum.values()
- enum in com.zcs.sdk.card.RfCardTypeEnum.values()
- enum in com.zcs.sdk.pin.MagEncryptTypeEnum.values()
- enum in com.zcs.sdk.pin.PinAlgorithmMode.values()
- enum in com.zcs.sdk.pin.PinAlgorithmModeEnum.values()
- enum in com.zcs.sdk.pin.PinEncryptTypeEnum.values()
- enum in com.zcs.sdk.pin.PinMacTypeEnum.values()
- enum in com.zcs.sdk.pin.PinWorkKeyTypeEnum.values()
- enum in com.zcs.sdk.pin.pinpad.PinKeyboardViewModeEnum.values()
- enum in com.zcs.sdk.print.PrnAlignTypeEnum.values()
- enum in com.zcs.sdk.print.PrnFontSizeTypeEnum.values()
- enum in com.zcs.sdk.print.PrnSpeedTypeEnum.values()
- enum in com.zcs.sdk.print.PrnTextFont.values()
- enum in com.zcs.sdk.print.PrnTextStyle.values()

com.zcs.sdk.print

Enum PrnTextStyle

java.lang.Object
    java.lang.Enum<PrnTextStyle>
        com.zcs.sdk.print.PrnTextStyle

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PrnTextStyle>

---

public enum PrnTextStyle
extends java.lang.Enum<PrnTextStyle>

The enum of print text style

Enum Constant Summary

Enum Constants

Enum Constant and Description
BOLD
BOLD_ITALIC
ITALIC
NORMAL

Method Summary

All Methods | Static Methods | Concrete Methods

Modifier and Type	Method and Description
static PrnTextStyle	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PrnTextStyle[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

BOLD

public static final PrnTextStyle BOLD

BOLD_ITALIC

public static final PrnTextStyle BOLD_ITALIC

ITALIC

public static final PrnTextStyle ITALIC

NORMAL

public static final PrnTextStyle NORMAL

Method Detail

valueOf

public static PrnTextStyle valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

```
public static PrnTextStyle[] values()
```

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PrnTextStyle c : PrnTextStyle.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk

Class Beeper

java.lang.Object
    com.zcs.sdk.Beeper

```
public class Beeper
extends java.lang.Object
```

Method Summary

All Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
int	beep(int timeout) Buzzer, the default frequency is 3000
int	beep(int frequency, int beepTime) Set buzzer

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

beep

```
public int beep(int timeout)
```

Buzzer, the default frequency is 3000

Parameters:

timeout - The duration of buzzing

Returns:

SdkResult

beep

```
public int beep(int frequency,
                int beepTime)
```

Set buzzer

Parameters:

frequency - The frequency setting can be 500~8000, minimum frequency 500, maximum frequency 8000, other values are invalid

beepTime - The duration of buzzing

Returns:

SdkResult

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All Classes

com.zcs.sdk.card

Class IDCard

java.lang.Object
    com.zcs.sdk.card.IDCard

```
public class IDCard
extends java.lang.Object
```

Method Summary

All Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
com.ivsign.android.IDCReader.UserIDCardInfo	getIDInfo() Read ID card info 1.import ID card image decoding library: libwltdecode.so 2.the folder wltlib needs to be placed in the sdcard root path
com.ivsign.android.IDCReader.UserIDCardInfo	getIDInfo(java.lang.String path) Read ID card info
int	halt()
int	powerOff()
int	powerOn()
int	readData(byte[] outData)
int	reset()

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

getIDInfo

```
public com.ivsign.android.IDCReader.UserIDCardInfo getIDInfo()
```

Read ID card info 1.import ID card image decoding library: libwltdecode.so 2.the folder wltlib

needs to be placed in the sdcard root path

Returns:

User ID card info

getIDInfo

```
public com.ivsign.android.IDCReader.UserIDCardInfo getIDInfo(java.lang.String path)
```

Read ID card info

Parameters:

path - the full path for ID card image decoding library

Returns:

User ID card info

halt

```
public int halt()
```

powerOff

```
public int powerOff()
```

powerOn

```
public int powerOn()
```

readData

```
public int readData(byte[] outData)
```

reset

```
public int reset()
```

Hierarchy For Package com.zcs.sdk.util

Package Hierarchies:
All Packages

Class Hierarchy

- java.lang.Object
  - com.zcs.sdk.util.BitmapUtils
  - com.zcs.sdk.util.LogUtils
  - com.zcs.sdk.util.MessageDigestUtils
  - com.zcs.sdk.util.StringUtils

OVERVIEW PACKAGE CLASS TREE INDEX HELP

PREV NEXT FRAMES NO FRAMES ALL CLASSES

T

com.zcs.sdk.pin

Enum PinWorkKeyTypeEnum

java.lang.Object
    java.lang.Enum<PinWorkKeyTypeEnum>
        com.zcs.sdk.pin.PinWorkKeyTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PinWorkKeyTypeEnum>

---

public enum PinWorkKeyTypeEnum
extends java.lang.Enum<PinWorkKeyTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
MAC_KEY
ORTHER
PIN_KEY
TDKEY

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static PinWorkKeyTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PinWorkKeyTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

MAC_KEY

public static final PinWorkKeyTypeEnum MAC_KEY

ORTHER

public static final PinWorkKeyTypeEnum ORTHER

PIN_KEY

public static final PinWorkKeyTypeEnum PIN_KEY

TDKEY

public static final PinWorkKeyTypeEnum TDKEY

Method Detail

getType

public byte getType()

valueOf

public static PinWorkKeyTypeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static PinWorkKeyTypeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PinWorkKeyTypeEnum c : PinWorkKeyTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk.print

Classes

PrnStrFormat

Enums

PrnAlignTypeEnum
PrnFontSizeTypeEnum
PrnSpeedTypeEnum
PrnTextFont
PrnTextStyle

E

com.zcs.sdk.pin.pinpad

Interfaces

PinPadManager.OnPinPadInputListener

Classes

PinPadManager
PinPadPasswordActivity

Enums

PinKeyboardViewModeEnum

com.zcs.sdk.print

Enum PrnAlignTypeEnum

java.lang.Object
  java.lang.Enum<PrnAlignTypeEnum>
    com.zcs.sdk.print.PrnAlignTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PrnAlignTypeEnum>

```
public enum PrnAlignTypeEnum
extends java.lang.Enum<PrnAlignTypeEnum>
```

Enum Constant Summary

Enum Constants

Enum Constant and Description
ALIGN_CENTER Align center
ALIGN_LEFT Align left
ALIGN_RIGHT Align right

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static PrnAlignTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PrnAlignTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

ALIGN_CENTER

public static final PrnAlignTypeEnum ALIGN_CENTER
Align center

ALIGN_LEFT

public static final PrnAlignTypeEnum ALIGN_LEFT
Align left

ALIGN_RIGHT

public static final PrnAlignTypeEnum ALIGN_RIGHT
Align right

Method Detail

getType

public byte getType()

valueOf

public static PrnAlignTypeEnum valueOf(java.lang.String name)
Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static PrnAlignTypeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PrnAlignTypeEnum c : PrnAlignTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk.fingerprint

Class FingerResult

java.lang.Object
    com.zcs.sdk.fingerprint.FingerResult

```
public final class FingerResult
extends java.lang.Object
```

Field Summary

Fields

Modifier and Type	Field and Description
static int	CHECK_VALUE_ERROR
static int	DELETE_TEMPLATE_FAILED
static int	DRY_AND_LIGHT_IMAGE
static int	EMPTY_TEMPLATE_FAILED
static int	ENCROLL_FAILED
static int	FAILD_EXTRACT_MINITIAE
static int	FEATURE_MERGE_FAILED
static int	FINGER_ID_OUT_OF_BOUND
static int	FLASH_OPT_FAILED
static int	GET_IMAGE_TIMEOUT
static int	IDENTIFY_NOT_FIND
static int	INVALID_REGISTER_NUM
static int	MESSY_IMAGE
static int	NO_FINGER_DETECTED
static int	NO_PERMISSION
static int	NO_SUPPORTED_CMD
static int	NO_TEMPLATE_ID
static int	NO_VALID_IAMGE
static int	RECV_REMAIN_DATA_ERROR
static int	REGISTER_SETTING_ERROR_NUM

static int	RESULT_OK
static int	TEMPLATE_IS_EMPTY
static int	TEMPLATE_NUM_ERROR
static int	TEMPLATE_TRANSFER_INVALID
static int	TRANSFER_ERROR
static int	UNKNOWN_ERROR
static int	UPLOAD_FETURE_FAILED
static int	VERIFY_NOT_MATCH
static int	WET_AND_SLOPPY_IMAGE
static int	WRONG_LOCATION_ERROR
static int	WRONG_OPT_SEQUENCE

Constructor Summary

Constructors

Constructor and Description
FingerResult()

Method Summary

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Field Detail

CHECK_VALUE_ERROR

```
public static final int CHECK_VALUE_ERROR
```

See Also:

Constant Field Values

DELETE_TEMPLATE_FAILED

public static final int DELETE_TEMPLATE_FAILED

See Also:

Constant Field Values

DRY_AND_LIGHT_IMAGE

public static final int DRY_AND_LIGHT_IMAGE

See Also:

Constant Field Values

EMPTY_TEMPLATE_FAILED

public static final int EMPTY_TEMPLATE_FAILED

See Also:

Constant Field Values

ENCROLL_FAILED

public static final int ENCROLL_FAILED

See Also:

Constant Field Values

FAILD_EXTRACT_MINITIAE

public static final int FAILD_EXTRACT_MINITIAE

See Also:

Constant Field Values

FEATURE_MERGE_FAILED

public static final int FEATURE_MERGE_FAILED

See Also:

Constant Field Values

FINGER_ID_OUT_OF_BOUND

public static final int FINGER_ID_OUT_OF_BOUND

See Also:

Constant Field Values

FLASH_OPT_FAILED

```
public static final int FLASH_OPT_FAILED
```

See Also:

Constant Field Values

GET_IMAGE_TIMEOUT

```
public static final int GET_IMAGE_TIMEOUT
```

See Also:

Constant Field Values

IDENTIFY_NOT_FIND

```
public static final int IDENTIFY_NOT_FIND
```

See Also:

Constant Field Values

INVALID_REGISTER_NUM

```
public static final int INVALID_REGISTER_NUM
```

See Also:

Constant Field Values

MESSY_IMAGE

```
public static final int MESSY_IMAGE
```

See Also:

Constant Field Values

NO_FINGER_DETECTED

```
public static final int NO_FINGER_DETECTED
```

See Also:

Constant Field Values

NO_PERMISSION

```
public static final int NO_PERMISSION
```

See Also:

Constant Field Values

NO_SUPPORTED_CMD

```
public static final int NO_SUPPORTED_CMD
```

See Also:

Constant Field Values

NO_TEMPLATE_ID

```
public static final int NO_TEMPLATE_ID
```

See Also:

Constant Field Values

NO_VALID_IAMGE

```
public static final int NO_VALID_IAMGE
```

See Also:

Constant Field Values

RECV_REMAIN_DATA_ERROR

```
public static final int RECV_REMAIN_DATA_ERROR
```

See Also:

Constant Field Values

REGISTER_SETTING_ERROR_NUM

```
public static final int REGISTER_SETTING_ERROR_NUM
```

See Also:

Constant Field Values

RESULT_OK

```
public static final int RESULT_OK
```

See Also:

Constant Field Values

TEMPLATE_IS_EMPTY

```
public static final int TEMPLATE_IS_EMPTY
```

See Also:

Constant Field Values

TEMPLATE_NUM_ERROR

```
public static final int TEMPLATE_NUM_ERROR
```

See Also:

Constant Field Values

TEMPLATE_TRANSFER_INVALID

```
public static final int TEMPLATE_TRANSFER_INVALID
```

See Also:

Constant Field Values

TRANSFER_ERROR

```
public static final int TRANSFER_ERROR
```

See Also:

Constant Field Values

UNKNOWN_ERROR

```
public static final int UNKNOWN_ERROR
```

See Also:

Constant Field Values

UPLOAD_FETURE_FAILED

```
public static final int UPLOAD_FETURE_FAILED
```

See Also:

Constant Field Values

VERIFY_NOT_MATCH

```
public static final int VERIFY_NOT_MATCH
```

See Also:

Constant Field Values

WET_AND_SLOPPY_IMAGE

```
public static final int WET_AND_SLOPPY_IMAGE
```

See Also:

Constant Field Values

WRONG_LOCATION_ERROR

```
public static final int WRONG_LOCATION_ERROR
```

See Also:

Constant Field Values

WRONG_OPT_SEQUENCE

```
public static final int WRONG_OPT_SEQUENCE
```

See Also:

Constant Field Values

Constructor Detail

FingerResult

```
public FingerResult()
```

JavaScript is disabled on your browser.

Package com.zcs.sdk.exteranl

Class Summary

Class	Description
ExternalCardManager	
ICCard	

com.zcs.sdk.card

Enum MagEncryptTypeEnum

java.lang.Object
    java.lang.Enum<MagEncryptTypeEnum>
        com.zcs.sdk.card.MagEncryptTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<MagEncryptTypeEnum>

---

public enum MagEncryptTypeEnum
extends java.lang.Enum<MagEncryptTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
NOT_ENCRYPT No encryption
UNIOONPAY_ENCRYPT Unionpay encryption

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static MagEncryptTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static MagEncryptTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

NOT_ENCRYPT

public static final MagEncryptTypeEnum NOT_ENCRYPT

No encryption

UNIOONPAY_ENCRYPT

public static final MagEncryptTypeEnum UNIOONPAY_ENCRYPT

Unionpay encryption

Method Detail

getType

public byte getType()

valueOf

public static MagEncryptTypeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

```
public static MagEncryptTypeEnum[] values()
```

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (MagEncryptTypeEnum c : MagEncryptTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk.usb

Class UsbHandler

java.lang.Object
    com.zcs.sdk.usb.UsbHandler

```
public class UsbHandler
extends java.lang.Object
```

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
void	checkPermission() Check and request usb permission
void	close()
int	connect() connect to usb reader
java.lang.String	getDataWithCipherCode(java.lang.String cipherCode) write commands to the reader,and return result
static UsbHandler	getInstance()
int	getRetryCount() Get the retry count for the function of getDataWithCipherCode.
int	getTimeout() Get the timeout value for the function of getDataWithCipherCode.
java.lang.String	icExchangeAPDU(java.lang.String apdu)
UsbHandler	init()
boolean	isAutoConn()
boolean	isConnected()
boolean	isPrn()
void	onDestroy() stop all
java.lang.String	recv(int overTime)
java.lang.String	rfExchangeAPDU(java.lang.String apdu)

boolean	send(java.lang.String cmd)
void	setAutoConn(boolean autoConn)
UsbHandler	setContext(android.content.Context context)
void	setReadTimeOut(int timeout)
void	setRetryCount(int retryCount) Set the retry count for the function of getDataWithCipherCode
void	setTimeout(int timeout) Set the timeout value for the function of getDataWithCipherCode.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

checkPermission

public void checkPermission()

Check and request usb permission

close

public void close()

connect

public int connect()

connect to usb reader

Returns:

getDataWithCipherCode

public java.lang.String getDataWithCipherCode(java.lang.String cipherCode)

write commands to the reader,and return result

Parameters:

cipherCode - ,like:01 04

getInstance

```
public static UsbHandler getInstance()
```

getRetryCount

```
public int getRetryCount()
```

Get the retry count for the function of getDataWithCipherCode. default is 3

Returns:

int

getTimeout

```
public int getTimeout()
```

Get the timeout value for the function of getDataWithCipherCode. default is 3s

Returns:

int

icExchangeAPDU

```
public java.lang.String icExchangeAPDU(java.lang.String apdu)
```

init

```
public UsbHandler init()
```

isAutoConn

```
public boolean isAutoConn()
```

isConnected

```
public boolean isConnected()
```

isPrn

```
public boolean isPrn()
```

onDestroy

```
public void onDestroy()
```

stop all

recv

```
public java.lang.String recv(int overTime)
```

rfExchangeAPDU

```
public java.lang.String rfExchangeAPDU(java.lang.String apdu)
```

send

```
public boolean send(java.lang.String cmd)
```

setAutoConn

```
public void setAutoConn(boolean autoConn)
```

setContext

```
public UsbHandler setContext(android.content.Context context)
```

setReadTimeOut

```
public void setReadTimeOut(int timeout)
```

setRetryCount

```
public void setRetryCount(int retryCount)
```

Set the retry count for the function of getDataWithCipherCode

Parameters:

retryCount -

setTimeout

```
public void setTimeout(int timeout)
```

Set the timeout value for the function of getDataWithCipherCode.

Parameters:

timeout - the specified timeout, in seconds.

com.zcs.sdk

Enum ConnectTypeEnum

java.lang.Object
    java.lang.Enum<ConnectTypeEnum>
        com.zcs.sdk.ConnectTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<ConnectTypeEnum>

---

public enum ConnectTypeEnum
extends java.lang.Enum<ConnectTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
BLUETOOTH
COM
SPI
USB

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static ConnectTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static ConnectTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

BLUETOOTH

public static final ConnectTypeEnum BLUETOOTH

COM

public static final ConnectTypeEnum COM

SPI

public static final ConnectTypeEnum SPI

USB

public static final ConnectTypeEnum USB

Method Detail

getType

public byte getType()

valueOf

public static ConnectTypeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static ConnectTypeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (ConnectTypeEnum c : ConnectTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk.fingerprint

Interfaces

FingerprintListener

Classes

FingerprintManager
FingerResult
Result

L

A B C D E F G H I L M N O P R S T U V W

OVERVIEW PACKAGE CLASS TREE INDEX HELP

PREV LETTER NEXT LETTER FRAMES NO FRAMES ALL CLASSES

DriverManager occurences:

- com.zcs.sdk.DriverManager
- com.zcs.sdk.DriverManager.DriverManager()

FingerResult occurences:

- com.zcs.sdk.fingerprint.FingerResult
- com.zcs.sdk.fingerprint.FingerResult.FingerResult()

ICCard occurences:

- com.zcs.sdk.card.ICCard
- com.zcs.sdk.exteranl.ICCard

MagEncryptTypeEnum occurences:

- com.zcs.sdk.card.MagEncryptTypeEnum
- com.zcs.sdk.pin.MagEncryptTypeEnum

UsbReader occurences:

- com.zcs.sdk.usb.UsbReader
- com.zcs.sdk.usb.UsbReader.UsbReader(UsbHandler, UsbEndpoint, UsbDeviceConnection)

authenticate occurences:

- com.zcs.sdk.fingerprint.FingerprintManager.authenticate(int)
- com.zcs.sdk.fingerprint.FingerprintManager.authenticate()
- com.zcs.sdk.fingerprint.FingerprintManager.authenticate(int, int)

cancelSearchCard occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.cancelSearchCard()
- com.zcs.sdk.card.CardReaderManager.cancelSearchCard()
- com.zcs.sdk.exteranl.ExternalCardManager.cancelSearchCard()

captureAndGetFeature occurences:

- com.zcs.sdk.fingerprint.FingerprintManager.captureAndGetFeature(int)
- com.zcs.sdk.fingerprint.FingerprintManager.captureAndGetFeature()

getIDInfo occurences:

- com.zcs.sdk.card.IDCard.getIDInfo(String)
- com.zcs.sdk.card.IDCard.getIDInfo()

getInstance occurences:

- com.zcs.sdk.DriverManager.getInstance()
- com.zcs.sdk.bluetooth.BluetoothManager.getInstance()
- com.zcs.sdk.bluetooth.emv.BluetoothHandler.getInstance(SmartPosJni)
- com.zcs.sdk.card.CardReaderManager.getInstance(SmartPosJni)
- com.zcs.sdk.exteranl.ExternalCardManager.getInstance(SmartPosJni)
- com.zcs.sdk.fingerprint.FingerprintManager.getInstance(SmartPosJni)
- com.zcs.sdk.pin.pinpad.PinPadManager.getInstance(SmartPosJni)
- com.zcs.sdk.usb.UsbHandler.getInstance()

getRfCardType occurences:

- com.zcs.sdk.card.CardInfoEntity.getRfCardType()
- com.zcs.sdk.card.RfCard.getRfCardType(byte[])

getTagValue occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.getTagValue(String)
- com.zcs.sdk.bluetooth.emv.BluetoothHandler.getTagValue(byte[], byte[], byte[])

getType occurences:

- enum in com.zcs.sdk.ConnectTypeEnum.getType()
- enum in com.zcs.sdk.bluetooth.emv.NFCCardType.getType()
- enum in com.zcs.sdk.card.CardReaderTypeEnum.getType()
- enum in com.zcs.sdk.card.CardSlotNoEnum.getType()
- enum in com.zcs.sdk.card.MagEncryptTypeEnum.getType()
- enum in com.zcs.sdk.card.RfCardTypeEnum.getType()
- enum in com.zcs.sdk.pin.MagEncryptTypeEnum.getType()
- enum in com.zcs.sdk.pin.PinEncryptTypeEnum.getType()
- enum in com.zcs.sdk.pin.PinMacTypeEnum.getType()
- enum in com.zcs.sdk.pin.PinWorkKeyTypeEnum.getType()
- enum in com.zcs.sdk.print.PrnAlignTypeEnum.getType()
- enum in com.zcs.sdk.print.PrnFontSizeTypeEnum.getType()
- enum in com.zcs.sdk.print.PrnSpeedTypeEnum.getType()

icExchangeAPDU occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.icExchangeAPDU(String)
- com.zcs.sdk.card.ICCard.icExchangeAPDU(CardSlotNoEnum, byte[])
- com.zcs.sdk.card.ICCard.icExchangeAPDU(CardSlotNoEnum, byte[], byte[], int[])
- com.zcs.sdk.exteranl.ICCard.icExchangeAPDU(byte, byte[])
- com.zcs.sdk.exteranl.ICCard.icExchangeAPDU(byte, byte[], byte[], int[])
- com.zcs.sdk.usb.UsbHandler.icExchangeAPDU(String)

isConnected occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.isConnected()
- com.zcs.sdk.usb.UsbHandler.isConnected()

onError occurences:

- interface in com.zcs.sdk.Sys.UpdateListener.onError(int, String)
- interface in com.zcs.sdk.listener.OnSearchAndRecvListener.onError(int)
- interface in com.zcs.sdk.listener.OnSearchCardListener.onError(int)
- interface in com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener.onError(int)

onNoCard occurences:

- interface in com.zcs.sdk.listener.OnSearchAndRecvListener.onNoCard(CardReaderTypeEnum, boolean)
- interface in com.zcs.sdk.listener.OnSearchCardListener.onNoCard(CardReaderTypeEnum, boolean)

readData occurences:

- com.zcs.sdk.card.IDCard.readData(byte[])
- com.zcs.sdk.card.SLE4428Card.readData(int, int, byte[])
- com.zcs.sdk.card.SLE4442Card.readData(byte, byte, byte[])

rfExchangeAPDU occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.rfExchangeAPDU(String)
- com.zcs.sdk.card.RfCard.rfExchangeAPDU(byte[])
- com.zcs.sdk.card.RfCard.rfExchangeAPDU(byte[], byte[], int[])
- com.zcs.sdk.usb.UsbHandler.rfExchangeAPDU(String)

searchCardAndRecv occurences:

- com.zcs.sdk.card.CardReaderManager.searchCardAndRecv(CardReaderTypeEnum, int, byte, OnSearchAndRecvListener)
- com.zcs.sdk.card.CardReaderManager.searchCardAndRecv(CardReaderTypeEnum, int, OnSearchAndRecvListener)

setContext occurences:

- com.zcs.sdk.bluetooth.BluetoothManager.setContext(Context)
- com.zcs.sdk.usb.UsbHandler.setContext(Context)

verifyKey occurences:

- com.zcs.sdk.card.SLE4428Card.verifyKey(byte[])
- com.zcs.sdk.card.SLE4442Card.verifyKey(byte[])

com.zcs.sdk.pin.pinpad

Class PinPadManager

java.lang.Object
    com.zcs.sdk.pin.pinpad.PinPadManager

```
public class PinPadManager
extends java.lang.Object
```

Nested Class Summary

Nested Classes

Modifier and Type	Class and Description
static interface	PinPadManager.OnPinPadInputListener

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
int	cancelInputPin()
int	closeInputPin()
static PinPadManager	getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
int	getPinBlock(java.lang.String cardNo, byte keyIndex, PinAlgorithmMode pinMode, int timeOut, byte[] pinBlock)
void	inputOfflinePin(android.content.Context context, byte minLength, byte maxLength, int timeOut, boolean isBypass, PinPadManager.OnPinPadInputListener callback) Start to input offline pin
void	inputOnlinePin(android.content.Context context, byte minLength, byte maxLength, int timeOut, boolean isBypass, java.lang.String cardNo, byte keyIndex, PinAlgorithmMode pinMode, PinPadManager.OnPinPadInputListener callback) Start to input online pin(using 3des)

void	inputOnlinePinByDukpt(android.content.Context context, byte minLength, byte maxLength, int timeOut, boolean isBypass, java.lang.String cardNo, byte keyIndex, PinAlgorithmMode pinMode, PinPadManager.OnPinPadInputListener callback, byte[] ksn) Start to input online pin.
int	pedOffineCiperPin(CardSlotNoEnum slotNoEnum, byte[] random, byte[] publicKey, byte publicKeyLength, byte[] respond)
int	pedOffinePlaintextPin(CardSlotNoEnum slotNoEnum, byte[] respond)
int	pinPadEncryptData(int keyId, PinWorkKeyTypeEnum workType, byte[] inputData, int inputDataLength, byte[] outData) Use work key to encrypt
int	pinPadEncryptDataByDukpt(int keyIndex, PinWorkKeyTypeEnum workType, byte[] inputData, int inputDataLength, byte[] outData, byte[] ksn) Use DUKPT algorithm to encrypt data
int	pinPadEncryptTrackData(int keyIndex, MagEncryptTypeEnum magType, byte[] trackData, byte trackDataLength, byte[] outData) Encrypt track data using the 3des/des algorithm
int	pinPadGetRandom(byte[] random) Get random
int	pinPadMac(int keyIndex, PinMacTypeEnum macType, byte[] inputData, int inputDataLength, byte[] outData) MAC
int	pinPadMacByDukpt(int keyIndex, PinMacTypeEnum macType, byte[] inputData, int inputDataLength, byte[] outData, byte[] ksn) Use DUKPT algorithm to get MAC
int	pinPadSetAlgorithmMode(PinAlgorithmModeEnum algorithmMode)
int	pinPadSM4Encrypt(byte mode, byte[] pucFactor, byte[] outData)
int	pinPadUpDukpt(int keyIndex, byte[] keyData, byte keyLength, byte[] ksn) Download the DUKPT algorithm key
int	pinPadUpEncryptedMastKey(int keyIndex, byte[] keyData, byte keyLength, byte decKeyIndex) Download the encrypted master key
int	pinPadUpEncryptKey(int keyIndex, byte[] keyData, byte keyDataLength, PinEncryptTypeEnum transType)

int	pinPadUpMastKey(int keyIndex, byte[] keyData, byte keyLength) Download the plaintext master key
int	pinPadUpPlainWorkKey(int keyIndex, byte[] mainKey, byte[] pinKeyData, byte[] macKeyData, byte[] tdkData) Download the encrypted work key(pin key, mac key, tdk).
int	pinPadUpWorkKey(int keyIndex, byte[] pinKeyData, byte pinKeyLength, byte[] macKeyData, byte macKeyLength, byte[] tdk, byte tdkLength) Download the encrypted work key(pin key, mac key, tdk).
int	readPinKeyValue(byte[] key)
void	setEditTextView(android.widget.EditText editText) Set custom password input view
void	setInputOffPinTitle(java.lang.String payTitle) Set the title for offline keyboard inputOfflinePin(android.content.Context, byte, byte, int, boolean, com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener)
void	setInputPinTitle(java.lang.String payTitle) Set the title for random keyboard inputOnlinePin(android.content.Context, byte, byte, int, boolean, java.lang.String, byte, com.zcs.sdk.pin.PinAlgorithmMode, com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener)
void	setKeyBoardViewMode(PinKeyboardViewModeEnum keyModeEnum) Set the visible mode for the input view
int	startInputPin(byte minLength, byte maxLength, int timeOut, boolean isBypass)

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

cancelInputPin

public int cancelInputPin()

closeInputPin

```
public int closeInputPin()
```

getInstance

```
public static PinPadManager getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
```

getPinBlock

```
public int getPinBlock(java.lang.String cardNo,
                       byte keyIndex,
                       PinAlgorithmMode pinMode,
                       int timeOut,
                       byte[] pinBlock)
```

inputOfflinePin

```
public void inputOfflinePin(android.content.Context context,
                            byte minLength,
                            byte maxLength,
                            int timeOut,
                            boolean isBypass,
                            PinPadManager.OnPinPadInputListener callback)
```

Start to input offline pin

Parameters:

context - android environment context

minLength - min length of the pin(>=4)

maxLength - max length of the pin(<=12)

timeOut - timeout for waiting to input, the unit is second

isBypass - if true allow to input empty password

callback - the pin input notification listener

inputOnlinePin

```
public void inputOnlinePin(android.content.Context context,
                           byte minLength,
                           byte maxLength,
                           int timeOut,
                           boolean isBypass,
                           java.lang.String cardNo,
                           byte keyIndex,
                           PinAlgorithmMode pinMode,
                           PinPadManager.OnPinPadInputListener callback)
```

Start to input online pin(using 3des)

Parameters:

context - android environment context

minLength - min length of the pin(>=4)

maxLength - max length of the pin(<=12)

timeOut - timeout for waiting to input, the unit is second

isBypass - if true allow to input empty password

cardNo - card number

keyIndex - key index, 0x00~0x0F

pinMode - 0x00:ANSI X9.8, 0x01:ANSI X3.92

callback - the pin input notification listener

inputOnlinePinByDukpt

```
public void inputOnlinePinByDukpt(android.content.Context context,
                                  byte minLength,
                                  byte maxLength,
                                  int timeOut,
                                  boolean isBypass,
                                  java.lang.String cardNo,
                                  byte keyIndex,
                                  PinAlgorithmMode pinMode,
                                  PinPadManager.OnPinPadInputListener callback,
                                  byte[] ksn)
```

Start to input online pin. The encryption algorithm is dukpt

Parameters:

context - android environment context

minLength - min length of the pin(>=4)

maxLength - max length of the pin(<=12)

timeOut - timeout for waiting to input, the unit is second

isBypass - if true allow to input empty password

cardNo - card number

keyIndex - key index, 0x00~0x09

pinMode - 0x00:ANSI X9.8, 0x01:ANSI X3.92

callback - the pin input notification listener

ksn - 10 bytes key serial number

pedOffineCiperPin

```
public int pedOffineCiperPin(CardSlotNoEnum slotNoEnum,
                             byte[] random,
                             byte[] publicKey,
                             byte publicKeyLength,
                             byte[] respond)
```

pedOffinePlaintextPin

```
public int pedOffinePlaintextPin(CardSlotNoEnum slotNoEnum,
                                 byte[] respond)
```

pinPadEncryptData

```
public int pinPadEncryptData(int keyId,
                             PinWorkKeyTypeEnum workType,
                             byte[] inputData,
                             int inputDataLength,
                             byte[] outData)
```

Use work key to encrypt

Parameters:

keyId - key index

workType - work key type

inputData - data to be encrypted

inputDataLength - Length of data to be encrypted

outData - Encrypted return data

Returns:

pinPadEncryptDataByDukpt

```
public int pinPadEncryptDataByDukpt(int keyIndex,
                                    PinWorkKeyTypeEnum workType,
                                    byte[] inputData,
                                    int inputDataLength,
                                    byte[] outData,
                                    byte[] ksn)
```

Use DUKPT algorithm to encrypt data

Parameters:

keyIndex - key index, 0x00~0x09

workType - work key type

inputData - data to be encrypted

inputDataLength - Length of data to be encrypted

outData - result data

ksn - 10 bytes key serial number

Returns:

pinPadEncryptTrackData

```
public int pinPadEncryptTrackData(int keyIndex,
                                  MagEncryptTypeEnum magType,
                                  byte[] trackData,
                                  byte trackDataLength,
                                  byte[] outData)
```

Encrypt track data using the 3des/des algorithm

Parameters:

keyIndex - key index, 0x00~0x0F

magType - Track data encryption format

trackData - Track data to be encrypted

trackDataLength - Length of track data to be encrypted

outData - Encrypted return data

Returns:

pinPadGetRandom

```
public int pinPadGetRandom(byte[] random)
```

Get random

Parameters:

random -

Returns:

pinPadMac

```
public int pinPadMac(int keyIndex,
                     PinMacTypeEnum macType,
                     byte[] inputData,
                     int inputDataLength,
                     byte[] outData)
```

MAC

Parameters:

keyIndex - key index, 0x00~0x0F

macType - type of mac algorithm(ECB, ANSI X9.9, ANSI X9.19, XOR)

inputData - data to be encrypted

inputDataLength - Length of data to be encrypted

outData - Encrypted return data

Returns:

pinPadMacByDukpt

```
public int pinPadMacByDukpt(int keyIndex,
                            PinMacTypeEnum macType,
                            byte[] inputData,
                            int inputDataLength,
                            byte[] outData,
                            byte[] ksn)
```

Use DUKPT algorithm to get MAC

Parameters:

keyIndex - key index, 0x00~0x09

macType - the type of Mac algorithm(ECB, ANSI X9.9, ANSI X9.19, XOR).

inputData - data to be encrypted

inputDataLength - Length of data to be encrypted

outData - MAC

ksn - 10 bytes key serial number

Returns:

pinPadSetAlgorithmMode

```
public int pinPadSetAlgorithmMode(PinAlgorithmModeEnum algorithmMode)
```

pinPadSM4Encrypt

```
public int pinPadSM4Encrypt(byte mode,
                            byte[] pucFactor,
                            byte[] outData)
```

pinPadUpDukpt

```
public int pinPadUpDukpt(int keyIndex,
                         byte[] keyData,
                         byte keyLength,
                         byte[] ksn)
```

Download the DUKPT algorithm key

Parameters:

keyIndex - key index, 0x00~0x09

keyData - key

keyLength - the length of key

ksn - 10 bytes key serial number

Returns:

pinPadUpEncryptedMastKey

```
public int pinPadUpEncryptedMastKey(int keyIndex,
                                    byte[] keyData,
                                    byte keyLength,
                                    byte decKeyIndex)
```

Download the encrypted master key

Parameters:

keyIndex - key index, 0x00~0x0F

keyData - encrypted master key

keyLength - the length of encrypted master key

decKeyIndex - the index of decrypted key

Returns:

pinPadUpEncryptKey

```
public int pinPadUpEncryptKey(int keyIndex,
                              byte[] keyData,
                              byte keyDataLength,
                              PinEncryptTypeEnum transType)
```

Parameters:

keyIndex -

keyData -

keyDataLength -

transType -

Returns:

pinPadUpMastKey

```
public int pinPadUpMastKey(int keyIndex,
                           byte[] keyData,
                           byte keyLength)
```

Download the plaintext master key

Parameters:

keyIndex - key index, 0x00~0x0F

keyData - master key

keyLength - the length of master key

Returns:

pinPadUpPlainWorkKey

```
public int pinPadUpPlainWorkKey(int keyIndex,
                                byte[] mainKey,
                                byte[] pinKeyData,
                                byte[] macKeyData,
                                byte[] tdkData)
```

Download the encrypted work key(pin key, mac key, tdk).

Parameters:

keyIndex - key index of master key, 0x00~0x0F

keyIndex - key index of master key

pinKeyData - pin key

macKeyData - mac key

tdkData - tdk

Returns:

pinPadUpWorkKey

```
public int pinPadUpWorkKey(int keyIndex,
                           byte[] pinKeyData,
                           byte pinKeyLength,
                           byte[] macKeyData,
                           byte macKeyLength,
                           byte[] tdk,
                           byte tdkLength)
```

Download the encrypted work key(pin key, mac key, tdk). The key length should by 20 bytes. It include 16 bytes encrypted work key and 4 bytes validation data. Check the data is to use the 3des algorithm key to encrypt 8 bytes 0 and intercept the first 4 bytes.

Parameters:

keyIndex - key index of master key, 0x00~0x0F

pinKeyData - pin key

pinKeyLength - the length of pin key. If 0, indicate that don't download this key

macKeyData - mac key

macKeyLength - the length of mac key. If 0, indicate that don't download this key

tdk - tdk

tdkLength - the length of tdk. If 0, indicate that don't download this key

Returns:

readPinKeyValue

```
public int readPinKeyValue(byte[] key)
```

setEditTextView

```
public void setEditTextView(android.widget.EditText editText)
```

Set custom password input view

Parameters:

editText -

setInputOffPinTitle

```
public void setInputOffPinTitle(java.lang.String payTitle)
```

Set the title for offline keyboard `inputOfflinePin(android.content.Context, byte, byte, int, boolean, com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener)`

Parameters:

payTitle -

setInputPinTitle

```
public void setInputPinTitle(java.lang.String payTitle)
```

Set the title for random keyboard `inputOnlinePin(android.content.Context, byte, byte, int, boolean, java.lang.String, byte, com.zcs.sdk.pin.PinAlgorithmMode, com.zcs.sdk.pin.pinpad.PinPadManager.OnPinPadInputListener)`

Parameters:

payTitle -

setKeyBoardViewMode

```
public void setKeyBoardViewMode(PinKeyboardViewModeEnum keyModeEnum)
```

Set the visible mode for the input view

Parameters:

keyModeEnum -

startInputPin

```
public int startInputPin(byte minLength,
                         byte maxLength,
                         int timeOut,
                         boolean isBypass)
```

com.zcs.sdk

Class Led

java.lang.Object
    com.zcs.sdk.Led

```
public class Led
extends java.lang.Object
```

Method Summary

All Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
int	setLed(LedLightModeEnum ledNumber, boolean isOn) Set LED

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

setLed

```
public int setLed(LedLightModeEnum ledNumber,
                  boolean isOn)
```

Set LED

Parameters:

ledNumber - The enum object of led lightLedLightModeEnum

isOn - true is on, false is off

Returns:

U

Hierarchy For Package com.zcs.sdk.card

Package Hierarchies:
All Packages

Class Hierarchy

- java.lang.Object
  - com.zcs.sdk.card.CardInfoEntity
  - com.zcs.sdk.card.CardReaderManager
  - com.zcs.sdk.card.ICCard
  - com.zcs.sdk.card.IDCard
  - com.zcs.sdk.card.MagCard
  - com.zcs.sdk.card.RfCard
  - com.zcs.sdk.card.SLE4428Card
  - com.zcs.sdk.card.SLE4442Card

Enum Hierarchy

- java.lang.Object
  - java.lang.Enum<E> (implements java.lang.Comparable<T>, java.io.Serializable)
    - com.zcs.sdk.card.RfCardTypeEnum
    - com.zcs.sdk.card.CardReaderTypeEnum
    - com.zcs.sdk.card.MagEncryptTypeEnum
    - com.zcs.sdk.card.CardSlotNoEnum

All Classes

Packages

com.zcs.sdk
com.zcs.sdk.bluetooth
com.zcs.sdk.bluetooth.emv
com.zcs.sdk.card
com.zcs.sdk.exteranl
com.zcs.sdk.fingerprint
com.zcs.sdk.listener
com.zcs.sdk.pin
com.zcs.sdk.pin.pinpad
com.zcs.sdk.print
com.zcs.sdk.usb
com.zcs.sdk.util

All Classes

F

A B C D E F G H I L M N O P R S T U V W

OVERVIEW PACKAGE CLASS TREE INDEX HELP

PREV LETTER NEXT LETTER FRAMES NO FRAMES ALL CLASSES

com.zcs.sdk

Class Printer

java.lang.Object
    com.zcs.sdk.Printer

---

public class Printer
extends java.lang.Object

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
android.graphics.Bitmap	createBarcode(android.content.Context context, java.lang.String contents, int desiredWidth, int desiredHeight, boolean displayCode, android.text.Layout.Alignment alignment, com.google.zxing.BarcodeFormat format) Create bar code bitmap
static android.graphics.Bitmap	createQRCode(java.lang.String content, int width, int height)
android.graphics.Bitmap	createQRImage(java.lang.String content, int widthPix, int heightPix, android.text.Layout.Alignment alignment) Create QR code bitmap.
int	getPrinterStatus() Get print status
int	setPrintAlign(PrnAlignTypeEnum align) Set print alignment
void	setPrintAppendBarCode(android.content.Context context, java.lang.String contents, int desiredWidth, int desiredHeight, boolean displayCode, android.text.Layout.Alignment alignment, com.google.zxing.BarcodeFormat format) Append the bar code of bitmap printed Need to add google ZXing scan library as a dependency
void	setPrintAppendBitmap(android.graphics.Bitmap bitmap, android.text.Layout.Alignment alignment) Append the bitmap to print

void	setPrintAppendQRCode(java.lang.String content, int width, int height, android.text.Layout.Alignment alignment) Append the QR code of bitmap printed Need to add google ZXing scan library as a dependency
void	setPrintAppendString(java.lang.String string, PrnStrFormat format) Append the text of bitmap printed
int	setPrintBitmap(byte[] bitmap)
int	setPrintFontSize(PrnFontSizeTypeEnum size) Set the print font size
int	setPrintLine(int line) Set forward paper lines
int	setPrintRowGap(int rowgap) Set print row spacing
int	setPrintSpeed(PrnSpeedTypeEnum speed) Set the print speed level
int	setPrintStart() Set to start printing
int	setPrintString(byte[] string) Set print text
static byte[]	sysCopy(java.util.List<byte[]> srcArrays)

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

createBarcode

```
public android.graphics.Bitmap createBarcode(android.content.Context context,
                                             java.lang.String contents,
                                             int desiredWidth,
                                             int desiredHeight,
                                             boolean displayCode,
                                             android.text.Layout.Alignment alignment,
                                             com.google.zxing.BarcodeFormat format)
```

Create bar code bitmap

Parameters:

context - android environment context

contents - content of bar code

desiredWidth - width of bar code

desiredHeight - height of bar code

displayCode - whether to display the text below the bar code

alignment - alignment of bar code

format - format of bar code

Returns:

createQRCode

```
public static android.graphics.Bitmap createQRCode(java.lang.String content,
                                                    int width,
                                                    int height)
```

createQRImage

```
public android.graphics.Bitmap createQRImage(java.lang.String content,
                                             int widthPix,
                                             int heightPix,
                                             android.text.Layout.Alignment alignment)
```

Create QR code bitmap. Need to add google ZXing scan library as a dependency

Parameters:

content - content of QR code

widthPix - width of QR code

heightPix - height of QR code

alignment - alignment of QR code

Returns:

getPrinterStatus

```
public int getPrinterStatus()
```

Get print status

Returns:

SdkResult.SDK_PRN_BASE_ERR

setPrintAlign

```
public int setPrintAlign(PrnAlignTypeEnum align)
```

Set print alignment

Parameters:

align - alignment PrnAlignTypeEnum

Returns:

SdkResult

setPrintAppendBarCode

```
public void setPrintAppendBarCode(android.content.Context context,
                                  java.lang.String contents,
                                  int desiredWidth,
                                  int desiredHeight,
                                  boolean displayCode,
                                  android.text.Layout.Alignment alignment,
                                  com.google.zxing.BarcodeFormat format)
```

Append the bar code of bitmap printed Need to add google ZXing scan library as a dependency

Parameters:

context - android environment context

contents - the content of bar code

desiredWidth - bar code width

desiredHeight - bar code height

displayCode - whether to display the text below the bar code

alignment - the alignment of bar code

format - bar code format. Refer to com.google.zxing.BarcodeFormat

setPrintAppendBitmap

```
public void setPrintAppendBitmap(android.graphics.Bitmap bitmap,
                                 android.text.Layout.Alignment alignment)
```

Append the bitmap to print

Parameters:

bitmap - bitmap to print

alignment - the alignment of printed bitmap

setPrintAppendQRCode

```
public void setPrintAppendQRCode(java.lang.String content,
                                 int width,
```

```
                                int height,
                                android.text.Layout.Alignment alignment)
```

Append the QR code of bitmap printed Need to add google ZXing scan library as a dependency

Parameters:

- content - the content of QR code
- width - the width of QR code
- height - the height of QR code
- alignment - the alignment of QR code

setPrintAppendString

```
public void setPrintAppendString(java.lang.String string,
                                 PrnStrFormat format)
```

Append the text of bitmap printed

Parameters:

- string - the text string to print
- format - the text format PrnStrFormat

setPrintBitmap

```
public int setPrintBitmap(byte[] bitmap)
```

setPrintFontSize

```
public int setPrintFontSize(PrnFontSizeTypeEnum size)
```

Set the print font size

Parameters:

- size - enum of supported print font size

Returns:

- SdkResult

setPrintLine

```
public int setPrintLine(int line)
```

Set forward paper lines

Parameters:

- line -

Returns:

SdkResult

setPrintRowGap

```
public int setPrintRowGap(int rowgap)
```

Set print row spacing

Parameters:

rowgap - line spacing

Returns:

SdkResult

setPrintSpeed

```
public int setPrintSpeed(PrnSpeedTypeEnum speed)
```

Set the print speed level

Parameters:

speed - the print speed level PrnSpeedTypeEnum

Returns:

SdkResult

setPrintStart

```
public int setPrintStart()
```

Set to start printing

Returns:

SdkResult

setPrintString

```
public int setPrintString(byte[] string)
```

Set print text

Parameters:

string - the text string to print

Returns:

SdkResult

sysCopy

```
public static byte[] sysCopy(java.util.List<byte[]> srcArrays)
```

JavaScript is disabled on your browser.

Hierarchy For Package com.zcs.sdk.bluetooth

Package Hierarchies:
All Packages

Class Hierarchy

- java.lang.Object
  - com.zcs.sdk.bluetooth.BluetoothManager

Interface Hierarchy

- com.zcs.sdk.bluetooth.BluetoothListener

com.zcs.sdk.print

Enum PrnFontSizeTypeEnum

java.lang.Object
    java.lang.Enum<PrnFontSizeTypeEnum>
        com.zcs.sdk.print.PrnFontSizeTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PrnFontSizeTypeEnum>

---

public enum PrnFontSizeTypeEnum
extends java.lang.Enum<PrnFontSizeTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
DEFAULT_SIZE Defalut
DOUBLE_HEIGHT Double height
DOUBLE_WIDTH Double width
DOUBLE_WIDTH_HEIGHT Double width, double height

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static PrnFontSizeTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.

static PrnFontSizeTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

DEFAULT_SIZE

public static final PrnFontSizeTypeEnum DEFAULT_SIZE

Defalut

DOUBLE_HEIGHT

public static final PrnFontSizeTypeEnum DOUBLE_HEIGHT

Double height

DOUBLE_WIDTH

public static final PrnFontSizeTypeEnum DOUBLE_WIDTH

Double width

DOUBLE_WIDTH_HEIGHT

public static final PrnFontSizeTypeEnum DOUBLE_WIDTH_HEIGHT

Double width, double height

Method Detail

getType

public byte getType()

valueOf

`public static PrnFontSizeTypeEnum valueOf(java.lang.String name)`

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

`name - the name of the enum constant to be returned.`

Returns:

`the enum constant with the specified name`

Throws:

`java.lang.IllegalArgumentException - if this enum type has no constant with the specified name`

`java.lang.NullPointerException - if the argument is null`

values

`public static PrnFontSizeTypeEnum[] values()`

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PrnFontSizeTypeEnum c : PrnFontSizeTypeEnum.values())
    System.out.println(c);
```

Returns:

`an array containing the constants of this enum type, in the order they are declared`

How This API Document Is Organized

This API (Application Programming Interface) document has pages corresponding to the items in the navigation bar, described as follows.

Overview

The Overview page is the front page of this API document and provides a list of all packages with a summary for each. This page can also contain an overall description of the set of packages.

Package

Each package has a page that contains a list of its classes and interfaces, with a summary for each. This page can contain six categories:

- Interfaces (italic)
- Classes
- Enums
- Exceptions
- Errors
- Annotation Types

Class/Interface

Each class, interface, nested class and nested interface has its own separate page. Each of these pages has three sections consisting of a class/interface description, summary tables, and detailed member descriptions:

- Class inheritance diagram
- Direct Subclasses
- All Known Subinterfaces
- All Known Implementing Classes
- Class/interface declaration
- Class/interface description
- Nested Class Summary
- Field Summary
- Constructor Summary
- Method Summary
- Field Detail
- Constructor Detail
- Method Detail

Each summary entry contains the first sentence from the detailed description for that item. The summary entries are alphabetical, while the detailed descriptions are in the order they appear in the source code. This preserves the logical groupings established by the programmer.

Annotation Type

Each annotation type has its own separate page with the following sections:

- Annotation Type declaration
- Annotation Type description
- Required Element Summary
- Optional Element Summary
- Element Detail

Enum

Each enum has its own separate page with the following sections:

- Enum declaration
- Enum description
- Enum Constant Summary
- Enum Constant Detail

Tree (Class Hierarchy)

There is a Class Hierarchy page for all packages, plus a hierarchy for each package. Each hierarchy page contains a list of classes and a list of interfaces. The classes are organized by inheritance structure starting with `java.lang.Object`. The interfaces do not inherit from `java.lang.Object`.

- When viewing the Overview page, clicking on "Tree" displays the hierarchy for all packages.
- When viewing a particular package, class or interface page, clicking "Tree" displays the hierarchy for only that package.

Index

The Index contains an alphabetic list of all classes, interfaces, constructors, methods, and fields.

Prev/Next

These links take you to the next or previous class, interface, package, or related page.

Frames/No Frames

These links show and hide the HTML frames. All pages are available with or without frames.

All Classes

The All Classes link shows all classes and interfaces except non-static nested types.

Serialized Form

Each serializable or externalizable class has a description of its serialization fields and methods. This information is of interest to re-implementors, not to developers using the API. While there is no link in the navigation bar, you can get to this information by going to any serialized class and clicking "Serialized Form" in the "See also" section of the class description.

Constant Field Values

The Constant Field Values page lists the static final fields and their values.

This help file applies to API documentation generated using the standard doclet.

com.zcs.sdk.util

Class MessageDigestUtils

java.lang.Object
    com.zcs.sdk.util.MessageDigestUtils

```
public final class MessageDigestUtils
extends java.lang.Object
```

Class that provide a wide set of methods

Field Summary

Fields

Modifier and Type	Field and Description
static int	TDES_CBC
static int	TDES_ECB

Constructor Summary

Constructors

Constructor and Description
MessageDigestUtils()

Method Summary

All Methods | Static Methods | Concrete Methods

Modifier and Type	Method and Description
static java.lang.String	bytesToHexString(byte[] src)
static byte[]	decodeDES(byte[] data, byte[] key) Convert a DES bytes to plain text bytes
static java.lang.String	decodeDES(java.lang.String data, java.lang.String key) Convert a DES string to plain text string
static java.lang.String	decodePin(java.lang.String encrypted, java.lang.String pan, java.lang.String key)

static byte[]	decodeTripleDES(byte[] data, byte[] key)
static byte[]	decodeTripleDES(int type, byte[] data, byte[] key)
static java.lang.String	decodeTripleDES(int type, java.lang.String data, java.lang.String key)
static java.lang.String	decodeTripleDES(java.lang.String data, java.lang.String key)
static byte[]	encodeDES(byte[] data, byte[] key) Convert a plain text bytes to DES bytes
static java.lang.String	encodeDES(java.lang.String data, java.lang.String key) Convert a plain text string to DES string
static java.lang.String	encodeMD5(java.lang.String data) Convert a plain text string to MD5 string
static java.lang.String	encodePin(java.lang.String pin, java.lang.String pan, java.lang.String key)
static byte[]	encodeTripleDES(byte[] data, byte[] key)
static byte[]	encodeTripleDES(int type, byte[] data, byte[] key)
static java.lang.String	encodeTripleDES(int type, java.lang.String data, java.lang.String key)
static java.lang.String	encodeTripleDES(java.lang.String data, java.lang.String key)
static byte[]	hexStringToBytes(java.lang.String hexString)
static void	main(java.lang.String[] args)

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Field Detail

TDES_CBC

public static int TDES_CBC

TDES_ECB

public static int TDES_ECB

Method Detail

bytesToHexString

```
public static java.lang.String bytesToHexString(byte[] src)
```

decodeDES

```
public static byte[] decodeDES(byte[] data,
                               byte[] key)
                        throws java.security.InvalidKeyException,
                               java.security.NoSuchAlgorithmException,
                               java.security.spec.InvalidKeySpecException,
                               javax.crypto.NoSuchPaddingException,
                               javax.crypto.IllegalBlockSizeException,
                               javax.crypto.BadPaddingException
```

Convert a DES bytes to plain text bytes

Parameters:

data - the specified bytes

key - the specified DES key the key length must be multiple of 8

Returns:

byte[]

Throws:

java.security.InvalidKeyException

java.security.NoSuchAlgorithmException

java.security.spec.InvalidKeySpecException

javax.crypto.NoSuchPaddingException

javax.crypto.BadPaddingException

javax.crypto.IllegalBlockSizeException

java.lang.Exception

decodeDES

```
public static final java.lang.String decodeDES(java.lang.String data,
                                               java.lang.String key)
                                        throws java.security.InvalidKeyException,
                                               java.security.NoSuchAlgorithmException,
                                               java.security.spec.InvalidKeySpecExceptio
                                               javax.crypto.NoSuchPaddingException,
                                               javax.crypto.IllegalBlockSizeException,
                                               javax.crypto.BadPaddingException
```

Convert a DES string to plain text string

Parameters:

data - the specified bytes

key - the specified DES key the key length must be multiple of 8

Returns:

String

Throws:

javax.crypto.BadPaddingException

javax.crypto.IllegalBlockSizeException

javax.crypto.NoSuchPaddingException

java.security.spec.InvalidKeySpecException

java.security.NoSuchAlgorithmException

java.security.InvalidKeyException

decodePin

```
public static java.lang.String decodePin(java.lang.String encrypted,
                                         java.lang.String pan,
                                         java.lang.String key)
                                  throws java.security.InvalidKeyException,
                                         java.security.NoSuchAlgorithmException,
                                         javax.crypto.NoSuchPaddingException,
                                         javax.crypto.IllegalBlockSizeException,
                                         javax.crypto.BadPaddingException,
                                         java.security.InvalidAlgorithmParameterExceptio
                                         java.security.spec.InvalidKeySpecException
```

Throws:

java.security.InvalidKeyException

java.security.NoSuchAlgorithmException

javax.crypto.NoSuchPaddingException

javax.crypto.IllegalBlockSizeException

javax.crypto.BadPaddingException

java.security.InvalidAlgorithmParameterException

java.security.spec.InvalidKeySpecException

decodeTripleDES

```
public static byte[] decodeTripleDES(byte[] data,
                                     byte[] key)
                              throws java.security.NoSuchAlgorithmException,
                                     javax.crypto.NoSuchPaddingException,
                                     java.security.InvalidKeyException,
```

```
                                    javax.crypto.IllegalBlockSizeException,
                                    javax.crypto.BadPaddingException,
                                    java.security.InvalidAlgorithmParameterException,
                                    java.security.spec.InvalidKeySpecException
```

Throws:

- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- java.security.InvalidKeyException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

decodeTripleDES

```
public static byte[] decodeTripleDES(int type,
                                     byte[] data,
                                     byte[] key)
                              throws java.security.NoSuchAlgorithmException,
                                     javax.crypto.NoSuchPaddingException,
                                     java.security.InvalidKeyException,
                                     javax.crypto.IllegalBlockSizeException,
                                     javax.crypto.BadPaddingException,
                                     java.security.InvalidAlgorithmParameterException,
                                     java.security.spec.InvalidKeySpecException
```

Throws:

- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- java.security.InvalidKeyException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

decodeTripleDES

```
public static java.lang.String decodeTripleDES(int type,
                                               java.lang.String data,
                                               java.lang.String key)
                                        throws java.security.InvalidKeyException,
                                               java.security.NoSuchAlgorithmException,
```

```
                                                javax.crypto.NoSuchPaddingException,
                                                javax.crypto.IllegalBlockSizeException,
                                                javax.crypto.BadPaddingException,
                                                java.security.InvalidAlgorithmParameterEx
                                                java.security.spec.InvalidKeySpecExceptio
```

Throws:

- java.security.InvalidKeyException
- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

decodeTripleDES

```
public static java.lang.String decodeTripleDES(java.lang.String data,
                                                java.lang.String key)
                                         throws java.security.InvalidKeyException,
                                                java.security.NoSuchAlgorithmException,
                                                javax.crypto.NoSuchPaddingException,
                                                javax.crypto.IllegalBlockSizeException,
                                                javax.crypto.BadPaddingException,
                                                java.security.InvalidAlgorithmParameterEx
                                                java.security.spec.InvalidKeySpecExceptio
```

Throws:

- java.security.InvalidKeyException
- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

encodeDES

```
public static byte[] encodeDES(byte[] data,
                               byte[] key)
                        throws java.security.InvalidKeyException,
                               java.security.NoSuchAlgorithmException,
                               java.security.spec.InvalidKeySpecException,
```

```
                                javax.crypto.NoSuchPaddingException,
                                javax.crypto.IllegalBlockSizeException,
                                javax.crypto.BadPaddingException
```

Convert a plain text bytes to DES bytes

Parameters:

data - the specified bytes

key - the specified DES key the key length must be multiple of 8

Returns:

String

Throws:

java.security.InvalidKeyException

java.security.NoSuchAlgorithmException

java.security.spec.InvalidKeySpecException

javax.crypto.NoSuchPaddingException

javax.crypto.BadPaddingException

javax.crypto.IllegalBlockSizeException

encodeDES

```
public static final java.lang.String encodeDES(java.lang.String data,
                                               java.lang.String key)
                                        throws java.security.InvalidKeyException,
                                               java.security.NoSuchAlgorithmException,
                                               java.security.spec.InvalidKeySpecExceptio
                                               javax.crypto.NoSuchPaddingException,
                                               javax.crypto.IllegalBlockSizeException,
                                               javax.crypto.BadPaddingException
```

Convert a plain text string to DES string

Parameters:

data - the specified string

key - the specified DES key the key length must be multiple of 8

Returns:

String

Throws:

javax.crypto.BadPaddingException

javax.crypto.IllegalBlockSizeException

javax.crypto.NoSuchPaddingException

java.security.spec.InvalidKeySpecException

java.security.NoSuchAlgorithmException

java.security.InvalidKeyException

encodeMD5

```
public static java.lang.String encodeMD5(java.lang.String data)
                                  throws java.security.NoSuchAlgorithmException
```

Convert a plain text string to MD5 string

Parameters:

data - the specified string

Returns:

String

Throws:

java.security.NoSuchAlgorithmException

encodePin

```
public static java.lang.String encodePin(java.lang.String pin,
                                         java.lang.String pan,
                                         java.lang.String key)
                                  throws java.security.InvalidKeyException,
                                         java.security.NoSuchAlgorithmException,
                                         javax.crypto.NoSuchPaddingException,
                                         javax.crypto.IllegalBlockSizeException,
                                         javax.crypto.BadPaddingException,
                                         java.security.InvalidAlgorithmParameterExceptio
                                         java.security.spec.InvalidKeySpecException
```

Throws:

java.security.InvalidKeyException

java.security.NoSuchAlgorithmException

javax.crypto.NoSuchPaddingException

javax.crypto.IllegalBlockSizeException

javax.crypto.BadPaddingException

java.security.InvalidAlgorithmParameterException

java.security.spec.InvalidKeySpecException

encodeTripleDES

```
public static byte[] encodeTripleDES(byte[] data,
                                     byte[] key)
                              throws java.security.NoSuchAlgorithmException,
                                     javax.crypto.NoSuchPaddingException,
                                     java.security.InvalidKeyException,
                                     javax.crypto.IllegalBlockSizeException,
                                     javax.crypto.BadPaddingException,
                                     java.security.InvalidAlgorithmParameterException,
```

```
                                    java.security.spec.InvalidKeySpecException
```

Throws:

- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- java.security.InvalidKeyException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

encodeTripleDES

```
public static byte[] encodeTripleDES(int type,
                                     byte[] data,
                                     byte[] key)
                              throws java.security.NoSuchAlgorithmException,
                                     javax.crypto.NoSuchPaddingException,
                                     java.security.InvalidKeyException,
                                     javax.crypto.IllegalBlockSizeException,
                                     javax.crypto.BadPaddingException,
                                     java.security.InvalidAlgorithmParameterException,
                                     java.security.spec.InvalidKeySpecException
```

Throws:

- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- java.security.InvalidKeyException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

encodeTripleDES

```
public static java.lang.String encodeTripleDES(int type,
                                               java.lang.String data,
                                               java.lang.String key)
                                        throws java.security.InvalidKeyException,
                                               java.security.NoSuchAlgorithmException,
                                               javax.crypto.NoSuchPaddingException,
                                               javax.crypto.IllegalBlockSizeException,
                                               javax.crypto.BadPaddingException,
```

```
                                                java.security.InvalidAlgorithmParameterEx
                                                java.security.spec.InvalidKeySpecExceptio
```

Throws:

- java.security.InvalidKeyException
- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

encodeTripleDES

```
public static java.lang.String encodeTripleDES(java.lang.String data,
                                                java.lang.String key)
                                         throws java.security.InvalidKeyException,
                                                java.security.NoSuchAlgorithmException,
                                                javax.crypto.NoSuchPaddingException,
                                                javax.crypto.IllegalBlockSizeException,
                                                javax.crypto.BadPaddingException,
                                                java.security.InvalidAlgorithmParameterEx
                                                java.security.spec.InvalidKeySpecExceptio
```

Throws:

- java.security.InvalidKeyException
- java.security.NoSuchAlgorithmException
- javax.crypto.NoSuchPaddingException
- javax.crypto.IllegalBlockSizeException
- javax.crypto.BadPaddingException
- java.security.InvalidAlgorithmParameterException
- java.security.spec.InvalidKeySpecException

hexStringToBytes

```
public static byte[] hexStringToBytes(java.lang.String hexString)
```

main

```
public static void main(java.lang.String[] args)
```

M

com.zcs.sdk.bluetooth

Interfaces

BluetoothListener

Classes

BluetoothManager

CardInfoEntity occurences:

- com.zcs.sdk.card.CardInfoEntity
- com.zcs.sdk.card.CardInfoEntity.CardInfoEntity()

LogUtils occurences:

- com.zcs.sdk.util.LogUtils
- com.zcs.sdk.util.LogUtils.LogUtils()

StringUtils occurences:

- com.zcs.sdk.util.StringUtils
- com.zcs.sdk.util.StringUtils.StringUtils()

debugHexMsg occurences:

- com.zcs.sdk.Sys.debugHexMsg(byte[], byte[], int)
- com.zcs.sdk.util.LogUtils.debugHexMsg(String, byte[])

decodeTripleDES occurences:

- com.zcs.sdk.util.MessageDigestUtils.decodeTripleDES(int, String, String)
- com.zcs.sdk.util.MessageDigestUtils.decodeTripleDES(byte[], byte[])
- com.zcs.sdk.util.MessageDigestUtils.decodeTripleDES(String, String)
- com.zcs.sdk.util.MessageDigestUtils.decodeTripleDES(int, byte[], byte[])

emv occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.emv(CardReaderTypeEnum, int, String, int)
- com.zcs.sdk.bluetooth.emv.BluetoothHandler.emv(CardReaderTypeEnum, int, int)

error occurences:

- com.zcs.sdk.fingerprint.Result.error
- com.zcs.sdk.util.LogUtils.error(String)

getModeType occurences:

- enum in com.zcs.sdk.pin.PinAlgorithmMode.getModeType()
- enum in com.zcs.sdk.pin.PinAlgorithmModeEnum.getModeType()

readProtectedData occurences:

- com.zcs.sdk.card.SLE4428Card.readProtectedData(int, int, byte[])
- com.zcs.sdk.card.SLE4442Card.readProtectedData(byte[])

searchCard occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.searchCard(CardReaderTypeEnum, int)
- com.zcs.sdk.card.CardReaderManager.searchCard(CardReaderTypeEnum, int, byte, OnSearchCardListener)
- com.zcs.sdk.card.CardReaderManager.searchCard(CardReaderTypeEnum, int, OnSearchCardListener)
- com.zcs.sdk.exteranl.ExternalCardManager.searchCard(byte, int, OnSearchCardListener)

setCardType occurences:

- com.zcs.sdk.card.ICCard.setCardType(boolean)
- com.zcs.sdk.card.MagCard.setCardType(boolean)
- com.zcs.sdk.card.RfCard.setCardType(boolean)
- com.zcs.sdk.exteranl.ICCard.setCardType(boolean)

startInputPin occurences:

- com.zcs.sdk.bluetooth.emv.BluetoothHandler.startInputPin(byte, byte, int, boolean)
- com.zcs.sdk.pin.pinpad.PinPadManager.startInputPin(byte, byte, int, boolean)

writeData occurences:

- com.zcs.sdk.card.SLE4428Card.writeData(int, int, byte[])
- com.zcs.sdk.card.SLE4442Card.writeData(byte, byte, byte[])

com.zcs.sdk.listener

Interface OnSearchAndRecvListener

---

public interface OnSearchAndRecvListener

A callback that notifies card searched or external port data received.

Method Summary

All Methods | Instance Methods | Abstract Methods

Modifier and Type	Method and Description
void	onCardInfo(CardInfoEntity carInfo) Called when the card search is successful
void	onError(int resultCode) Called when the card search is failed
void	onExternalPortRcv(int dataLen, byte[] data) Called when the external serial port receives data.
void	onNoCard(CardReaderTypeEnum cardType, boolean flag) Only using for testing.

Method Detail

onCardInfo

void onCardInfo(CardInfoEntity carInfo)

Called when the card search is successful

Parameters:

carInfo - CardInfoEntity

onError

void onError(int resultCode)

Called when the card search is failed

Parameters:

resultCode -

onExternalPortRcv

```
void onExternalPortRcv(int dataLen,
                       byte[] data)
```

Called when the external serial port receives data. Sys.externalPortRcv(int[], byte[]) and Sys.externalPortSend(int, byte[])

Parameters:

dataLen - the length of received data

data - received data

onNoCard

```
void onNoCard(CardReaderTypeEnum cardType,
              boolean flag)
```

Only using for testing. No need to implement

Parameters:

cardType -

flag -

com.zcs.sdk

Class Sys

java.lang.Object
    com.zcs.sdk.Sys

```
public class Sys
extends java.lang.Object
```

Nested Class Summary

Nested Classes

Modifier and Type	Class and Description
static interface	Sys.UpdateListener Interface definition for a callback to be invoked when firmware is update

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
void	debugHexMsg(byte[] msg, byte[] buffer, int length)
int	DevInitWithParam(byte[] key)
int	downloadPubKey(int[] len, byte[] key)
int	externalPortRcv(int[] dataLen, byte[] data) Gets data from an external serial port.
int	externalPortSend(int dataLen, byte[] data) Send data to an external serial port
int	getBaseSdkVer(java.lang.String[] version) Read base sdk version
static ConnectTypeEnum	getConnectType()
int	getCustomSn(java.lang.String[] customNo) Read the custom serial number
int	getDeviceInfo(byte[] info, byte[] infoLen)

int	getDevName(java.lang.String[] devName) Read device name
int	getFirmwareVer(java.lang.String[] version) Read the firmware version number
int	getPid(java.lang.String[] pid) Read device pid
byte[]	getRandom(byte length) Get random array
java.lang.String	getSdkVersion() Read sdk version
int	getSN(java.lang.String[] sn) Read terminal serial number
int	getSpStatus(byte[] posStatus) Gets the pos security status
int	installApp(android.content.Context context, java.lang.String appFilePath) Silently install the specified application
void	installApp2(android.content.Context context, java.lang.String appFilePath) Silently install the specified application without a return value
void	installApp2NoAuth(android.content.Context context, java.lang.String appFilePath) Systems that restrict app installation can be installed silently through this interface.There is no return value
int	readPubKey(int[] len, byte[] key) Read public key
int	requestUnlock(byte[] encData) Device unlock request that returns public key encrypted data
void	resetSettingsPin(android.content.Context context) Restore the login password of Settings (customized system is available)
int	sdkInit() Init sdk.
int	sdkInit(ConnectTypeEnum type) Init sdk.
int	sdkInitWithParam(byte[] key)
int	setCustomSn(java.lang.String customNo) Set custom serial number

int	setDeviceInfo(byte[] info, int infoLen)
int	setExternalPort(byte isOpen, int uiBaut, byte[] PubKeyStatus) Set the external serial port switch state
void	setSystemClock(android.content.Context context, java.lang.String datetime) Set system time
void	showLog(boolean isShow) Defines whether sdk show log
int	sysPowerOff() Power off
int	sysPowerOn() Power on
int	uninstallApp(android.content.Context context, java.lang.String packageName) Silently uninstall the specified application
void	uninstallApp2(android.content.Context context, java.lang.String packageName) Silently uninstall the specified application without a return value
int	unlock(int len, byte[] encData) Unlock device
void	updateFirmware(java.io.File file, Sys.UpdateListener listener) Update firmware
void	updateFirmware(java.io.InputStream inputStream, Sys.UpdateListener listener) Update firmware

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

debugHexMsg

```
public void debugHexMsg(byte[] msg,
                        byte[] buffer,
```

```
                          int length)
```

DevInitWithParam

```
public int DevInitWithParam(byte[] key)
```

downloadPubKey

```
public int downloadPubKey(int[] len,
                          byte[] key)
```

externalPortRcv

```
public int externalPortRcv(int[] dataLen,
                           byte[] data)
```

Gets data from an external serial port. When there is no data, the length returned is 0

Parameters:

dataLen - the length of received data

data - received data

Returns:

SdkResult

externalPortSend

```
public int externalPortSend(int dataLen,
                            byte[] data)
```

Send data to an external serial port

Parameters:

dataLen - the length of data to send

data - data to send

Returns:

SdkResult

getBaseSdkVer

```
public int getBaseSdkVer(java.lang.String[] version)
```

Read base sdk version

Parameters:

version - version is the first string of string array

Returns:

SdkResult

getConnectType

```
public static ConnectTypeEnum getConnectType()
```

getCustomSn

```
public int getCustomSn(java.lang.String[] customNo)
```

Read the custom serial number

Parameters:

customNo - custom serial number

Returns:

SdkResult

getDeviceInfo

```
public int getDeviceInfo(byte[] info,
                         byte[] infoLen)
```

getDevName

```
public int getDevName(java.lang.String[] devName)
```

Read device name

Parameters:

devName - device name

Returns:

SdkResult

getFirmwareVer

```
public int getFirmwareVer(java.lang.String[] version)
```

Read the firmware version number

Parameters:

version - version is the first string of string array

Returns:

SdkResult

getPid

```
public int getPid(java.lang.String[] pid)
```

Read device pid

Parameters:

pid - 24-bytes terminal pid

Returns:

SdkResult

getRandom

public byte[] getRandom(byte length)

Get random array

Parameters:

length - the length of the generate random

Returns:

random byte array

getSdkVersion

public java.lang.String getSdkVersion()

Read sdk version

Returns:

the sdk version

getSN

public int getSN(java.lang.String[] sn)

Read terminal serial number

Parameters:

sn - 16-bytes terminal serial number

Returns:

SdkResult

getSpStatus

public int getSpStatus(byte[] posStatus)

Gets the pos security status

Parameters:

posStatus - pos security status

Returns:

SdkResult

installApp

```
public int installApp(android.content.Context context,
                      java.lang.String appFilePath)
```

Silently install the specified application

Parameters:

context - android environment context

appFilePath - absolute path of the apk file, e.g. /data/media/0/android_meituan.apk

Returns:

SdkResult

installApp2

```
public void installApp2(android.content.Context context,
                        java.lang.String appFilePath)
```

Silently install the specified application without a return value

Parameters:

context - android environment context

appFilePath - absolute path of the apk file, e.g. /data/media/0/android_meituan.apk

installApp2NoAuth

```
public void installApp2NoAuth(android.content.Context context,
                              java.lang.String appFilePath)
```

Systems that restrict app installation can be installed silently through this interface.There is no return value

Parameters:

context - android environment context

appFilePath - absolute path of the apk file, e.g. /data/media/0/android_meituan.apk

readPubKey

```
public int readPubKey(int[] len,
                      byte[] key)
```

Read public key

Parameters:

len - the length of public key

key - public key

Returns:

SdkResult

requestUnlock

```
public int requestUnlock(byte[] encData)
```

Device unlock request that returns public key encrypted data

Parameters:

encData - returns 256 bytes of encrypted data

Returns:

SdkResult

resetSettingsPin

```
public void resetSettingsPin(android.content.Context context)
```

Restore the login password of Settings (customized system is available)

Parameters:

context - android environment context

sdkInit

```
public int sdkInit()
```

Init sdk. Must be initialized to use other features.

Returns:

SdkResult

sdkInit

```
public int sdkInit(ConnectTypeEnum type)
```

Init sdk. Must be initialized to use other features.

Parameters:

type - Connection type enum

Returns:

SdkResult

sdkInitWithParam

```
public int sdkInitWithParam(byte[] key)
```

setCustomSn

```
public int setCustomSn(java.lang.String customNo)
```

Set custom serial number

Parameters:

customNo - custom serial number

Returns:

SdkResult

setDeviceInfo

```
public int setDeviceInfo(byte[] info,
                         int infoLen)
```

setExternalPort

```
public int setExternalPort(byte isOpen,
                           int uiBaut,
                           byte[] PubKeyStatus)
```

Set the external serial port switch state

Parameters:

isOpen - 0x01 to open, 0x02 to close

uiBaut -

00 115200 01: 9600 02 14400 03: 19200 04 28800 05: 38400 06 57600

This baud rate only exists when mode is enabled

PubKeyStatus - public key status

Returns:

SdkResult

setSystemClock

```
public void setSystemClock(android.content.Context context,
                           java.lang.String datetime)
```

Set system time

Parameters:

context - android environment context

datetime - The format of time is yyyyMMddHHmmss, e.g. 20180731132250

showLog

```
public void showLog(boolean isShow)
```

Defines whether sdk show log

Parameters:

isShow - true to show log

sysPowerOff

```
public int sysPowerOff()
```

Power off

Returns:

SdkResult

sysPowerOn

```
public int sysPowerOn()
```

Power on

Returns:

SdkResult

uninstallApp

```
public int uninstallApp(android.content.Context context,
                        java.lang.String packageName)
```

Silently uninstall the specified application

Parameters:

context - android environment context

packageName - package name, e.g. com.szzcs.smartpos

Returns:

SdkResult

uninstallApp2

```
public void uninstallApp2(android.content.Context context,
                          java.lang.String packageName)
```

Silently uninstall the specified application without a return value

Parameters:

context - android environment context

packageName - package name, e.g. com.szzcs.smartpos

unlock

```
public int unlock(int len,
                  byte[] encData)
```

Unlock device

Parameters:

len - the length of encrypted data

encData - encrypted data

Returns:

SdkResult

updateFirmware

```
public void updateFirmware(java.io.File file,
                           Sys.UpdateListener listener)
```

Update firmware

Parameters:

file - firmware file

listener - the firmware update notification listener

updateFirmware

```
public void updateFirmware(java.io.InputStream inputStream,
                           Sys.UpdateListener listener)
```

Update firmware

Parameters:

inputStream -

listener - the firmware update notification listener

Hierarchy For Package com.zcs.sdk

Package Hierarchies:
All Packages

Class Hierarchy

- java.lang.Object
  - com.zcs.sdk.Beeper
  - com.zcs.sdk.DriverManager
  - com.zcs.sdk.Led
  - com.zcs.sdk.Printer
  - com.zcs.sdk.SdkData
  - com.zcs.sdk.SdkResult
  - com.zcs.sdk.Sys

Interface Hierarchy

- com.zcs.sdk.Sys.UpdateListener

Enum Hierarchy

- java.lang.Object
  - java.lang.Enum<E> (implements java.lang.Comparable<T>, java.io.Serializable)
    - com.zcs.sdk.ConnectTypeEnum
    - com.zcs.sdk.LedLightModeEnum

com.zcs.sdk.card

Class SLE4442Card

java.lang.Object
    com.zcs.sdk.card.SLE4442Card

```
public class SLE4442Card
extends java.lang.Object
```

Method Summary

All Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
int	changeKey(byte[] key) Change key
int	init() 4442 card initialization, detection of the first 4 bytes of content
int	readData(byte startAddr, byte readLen, byte[] outData) Read card data
int	readErrCountAndKey(byte[] key) Read error counts and key
int	readProtectedData(byte[] outData) Read whether the data in the card is protected.
int	verifyKey(byte[] key) Authentication password on 4442 card.
int	writeData(byte startAddr, byte writeLen, byte[] inData) Write card data
int	writeProtectedData(byte startAddr, byte writeLen, byte[] inData) Write protected bit.If data once write , it can not be changed

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

changeKey

```
public int changeKey(byte[] key)
```

Change key

Parameters:

key -

Returns:

init

```
public int init()
```

4442 card initialization, detection of the first 4 bytes of content

Returns:

readData

```
public int readData(byte startAddr,
                    byte readLen,
                    byte[] outData)
```

Read card data

Parameters:

startAddr - start address

readLen - length of read data

outData - read data

Returns:

readErrCountAndKey

```
public int readErrCountAndKey(byte[] key)
```

Read error counts and key

Parameters:

key - The first byte is the number of key validations(0x07: 3, 0x06:2, 0x04:1) Last 2 bytes are key. It will be 0x00 if the key is not verified

Returns:

readProtectedData

```
public int readProtectedData(byte[] outData)
```

Read whether the data in the card is protected. It will return a byte array that every byte means data at the same location in the card is protected

Parameters:

outData - length is 32 bytes. 0x30: protected, 0x31: unprotected

Returns:

verifyKey

```
public int verifyKey(byte[] key)
```

Authentication password on 4442 card. Default is 2-byte FF

Parameters:

key -

Returns:

writeData

```
public int writeData(byte startAddr,
                     byte writeLen,
                     byte[] inData)
```

Write card data

Parameters:

startAddr - start address

writeLen - the length of data to write

inData - data to write

Returns:

writeProtectedData

```
public int writeProtectedData(byte startAddr,
                              byte writeLen,
                              byte[] inData)
```

Write protected bit.If data once write , it can not be changed

Parameters:

startAddr - start address, 0x00-0x1f

writeLen - the length of data to write, 1-32

inData - the data to write

Returns:

V

com.zcs.sdk.listener

Interface OnSearchCardListener

---

public interface OnSearchCardListener

A callback that notifies card searched

Method Summary

All Methods | Instance Methods | Abstract Methods

Modifier and Type	Method and Description
void	onCardInfo(CardInfoEntity carInfo) Called when the card search is successful
void	onError(int resultCode) Called when the card search is failed
void	onNoCard(CardReaderTypeEnum cardType, boolean flag) Only using for testing.

Method Detail

onCardInfo

void onCardInfo(CardInfoEntity carInfo)

Called when the card search is successful

Parameters:

carInfo - CardInfoEntity

onError

void onError(int resultCode)

Called when the card search is failed

Parameters:

resultCode -

onNoCard

```
void onNoCard(CardReaderTypeEnum cardType,
              boolean flag)
```

Only using for testing. No need to implement

Parameters:

`cardType` -

`flag` -

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Package com.zcs.sdk.pin.pinpad

Interface Summary

Interface	Description
PinPadManager.OnPinPadInputListener	

Class Summary

Class	Description
PinPadManager	
PinPadPasswordActivity	

Enum Summary

Enum	Description
PinKeyboardViewModeEnum	

com.zcs.sdk.bluetooth.emv

Interfaces

OnBluetoothEmvListener

Classes

BluetoothHandler

Enums

CardDetectedEnum
EmvStatusEnum
NFCCardType

JavaScript is disabled on your browser.

Packages

Package	Description
com.zcs.sdk	
com.zcs.sdk.bluetooth	
com.zcs.sdk.bluetooth.emv	
com.zcs.sdk.card	
com.zcs.sdk.exteranl	
com.zcs.sdk.fingerprint	
com.zcs.sdk.listener	
com.zcs.sdk.pin	
com.zcs.sdk.pin.pinpad	
com.zcs.sdk.print	
com.zcs.sdk.usb	
com.zcs.sdk.util	

com.zcs.sdk.util

Class BitmapUtils

java.lang.Object
    com.zcs.sdk.util.BitmapUtils

```
public class BitmapUtils
extends java.lang.Object
```

Constructor Summary

Constructors

Constructor and Description
`BitmapUtils()`

Method Summary

All Methods | **Instance Methods** | **Concrete Methods**

Modifier and Type	Method and Description
void	`getBmpWith8(byte[] bufferSrc, java.lang.String imgPath)` 8 + + +

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

BitmapUtils

```
public BitmapUtils()
```

Method Detail

getBmpWith8

```
public void getBmpWith8(byte[] bufferSrc,
                        java.lang.String imgPath)
 8         +   +  +
```

Parameters:

bufferSrc -

imgPath -

com.zcs.sdk.fingerprint

Class FingerprintManager

java.lang.Object
    com.zcs.sdk.fingerprint.FingerprintManager

```
public class FingerprintManager
extends java.lang.Object
```

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods | Deprecated Methods

Modifier and Type	Method and Description
void	addFignerprintListener(FingerprintListener listener)
void	authenticate() Fingerprint internal database authentication.
void	authenticate(int timeout) Fingerprint internal database authentication.
void	authenticate(int fingerId, int timeout) Fingerprint internal database authentication.
void	cancelAuthentication() Deprecated.
void	cancelEnrollment() Deprecated.
void	capture() Capture fingerprint image.
void	capture(int timeout) Capture fingerprint image.
void	captureAndGetFeature() Capture fingerprint and get feature.
void	captureAndGetFeature(int timeout) Capture fingerprint and get feature.
void	captureAndGetISOFeature() Capture fingerprint and get feature.

void	captureAndGetISOFeature(int timeout) Capture fingerprint and get feature.
boolean	close() Close fingerprint module
void	destroy() Destroy fingerprint module, and release cache
void	enrollment() Enroll fingerprint and storage in internal storage.
void	enrollment(int fingerId) Enroll fingerprint and storage in internal storage.
void	enrollment(int fingerId, int timeout) Enroll fingerprint and storage in internal storage.
void	enrollment(int fingerId, int count, int timeout) Enroll fingerprint.
android.graphics.Bitmap	generateBmp(byte[] buffer, java.lang.String path) Generate a Bitmap and store it to the specified path
Result	getEnrolledCount() Get the fingerprint database size
Result	getEnrolledFingerprints() Get the list of fingerprint id in fingerprint database
static FingerprintManager	getInstance(com.zcs.base.SmartPosJni jni)
boolean	hasEnrolledFingerprints(int fingerId) Deprecated.
void	identifyWithFeature(byte[] feature) Verify fingerprint feature with the finger in the module internal storage.
void	identifyWithISOFeature(byte[] feature) Verify fingerprint feature with the finger in the module internal storage.
boolean	init() Init fingerprint module
int	remove(int fingerid) Delete the fingerprint in the internal fingerprint database
int	removeAll() Clear the internal fingerprint database
void	removeFignerprintListener(FingerprintListener listener)
void	setTimeout(int timeout)

void	verifyWithFeature(byte[] feature) Verify fingerprint feature with the finger on the sensor.
void	verifyWithISOFeature(byte[] feature) Verify fingerprint feature with the finger on the sensor.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

addFignerprintListener

```
public void addFignerprintListener(FingerprintListener listener)
```

authenticate

```
public void authenticate()
```

Fingerprint internal database authentication. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

authenticate

```
public void authenticate(int timeout)
```

Fingerprint internal database authentication. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

timeout - the max and default timeout is 3s

authenticate

```
public void authenticate(int fingerId,
                         int timeout)
```

Fingerprint internal database authentication. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

fingerId - the id number of fingerprint, 0~63

timeout - the max and default timeout is 3s

cancelAuthentication

```
@Deprecated
public void cancelAuthentication()
```

Deprecated.

cancelEnrollment

```
@Deprecated
public void cancelEnrollment()
```

Deprecated.

capture

```
public void capture()
```

Capture fingerprint image. It will trigger `FingerprintListener.onGetImageComplete(int, byte[])`

capture

```
public void capture(int timeout)
```

Capture fingerprint image. It will trigger `FingerprintListener.onGetImageComplete(int, byte[])`

Parameters:

timeout - the max and default timeout is 3s

captureAndGetFeature

```
public void captureAndGetFeature()
```

Capture fingerprint and get feature. It will trigger `FingerprintListener.onGetImageFeature(int, byte[])`

captureAndGetFeature

```
public void captureAndGetFeature(int timeout)
```

Capture fingerprint and get feature. It will trigger `FingerprintListener.onGetImageFeature(int, byte[])`

Parameters:

timeout - the max and default timeout is 3s

captureAndGetISOFeature

```
public void captureAndGetISOFeature()
```

Capture fingerprint and get feature. It will trigger `FingerprintListener.onGetImageFeature(int, byte[])`

captureAndGetISOFeature

```
public void captureAndGetISOFeature(int timeout)
```

Capture fingerprint and get feature. It will trigger `FingerprintListener.onGetImageISOFeature(int, byte[])`

close

```
public boolean close()
```

Close fingerprint module

Returns:

true if close successfully

destroy

```
public void destroy()
```

Destroy fingerprint module, and release cache

enrollment

```
public void enrollment()
```

Enroll fingerprint and storage in internal storage. The default fingerprint id is 0. It will trigger `FingerprintListener.onEnrollmentProgress(int, int, int)`

enrollment

```
public void enrollment(int fingerId)
```

Enroll fingerprint and storage in internal storage. It will trigger `FingerprintListener.onEnrollmentProgress(int, int, int)`

Parameters:

fingerId - the id number of fingerprint, 0~63

enrollment

```
public void enrollment(int fingerId,
                       int timeout)
```

Enroll fingerprint and storage in internal storage. It will trigger

FingerprintListener.onEnrollmentProgress(int, int, int)

Parameters:

fingerId - the id number of fingerprint, 0~63

timeout - the max and default timeout is 3s

enrollment

```
public void enrollment(int fingerId,
                       int count,
                       int timeout)
```

Enroll fingerprint. It will trigger FingerprintListener.onEnrollmentProgress(int, int, int)

Parameters:

fingerId - the id number of fingerprint, 0~63

count - the count numbe of fingerprint enrollment, 1~3

timeout - the max and default timeout is 3s

generateBmp

```
public android.graphics.Bitmap generateBmp(byte[] buffer,
                                           java.lang.String path)
```

Generate a Bitmap and store it to the specified path

Parameters:

buffer - the fingerprint data from FingerprintListener.onGetImageComplete(int, byte[])

path - the full path to store bitmap. If null, it wont store

Returns:

getEnrolledCount

```
public Result getEnrolledCount()
```

Get the fingerprint database size

Returns:

Result

getEnrolledFingerprints

```
public Result getEnrolledFingerprints()
```

Get the list of fingerprint id in fingerprint database

Returns:

Result

getInstance

```
public static FingerprintManager getInstance(com.zcs.base.SmartPosJni jni)
```

hasEnrolledFingerprints

```
@Deprecated
public boolean hasEnrolledFingerprints(int fingerId)
```

Deprecated.

identifyWithFeature

```
public void identifyWithFeature(byte[] feature)
```

Verify fingerprint feature with the finger in the module internal storage. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

feature - fingerprint feature

identifyWithISOFeature

```
public void identifyWithISOFeature(byte[] feature)
```

Verify fingerprint feature with the finger in the module internal storage. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

feature - fingerprint ISO feature

init

```
public boolean init()
```

Init fingerprint module

Returns:

true if init successfully

remove

public int remove(int fingerid)

Delete the fingerprint in the internal fingerprint database

Parameters:

fingerid - the id number of fingerprint, 0~63

Returns:

FingerResult

removeAll

public int removeAll()

Clear the internal fingerprint database

Returns:

FingerResult

removeFignerprintListener

public void removeFignerprintListener(FingerprintListener listener)

setTimeout

public void setTimeout(int timeout)

verifyWithFeature

public void verifyWithFeature(byte[] feature)

Verify fingerprint feature with the finger on the sensor. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

feature - fingerprint feature

verifyWithISOFeature

public void verifyWithISOFeature(byte[] feature)

Verify fingerprint feature with the finger on the sensor. It will trigger FingerprintListener.onAuthenticationSucceeded(int, Object) or FingerprintListener.onAuthenticationFailed(int)

Parameters:

feature - fingerprint ISO feature

com.zcs.sdk

Class DriverManager

java.lang.Object
    com.zcs.sdk.DriverManager

```
public class DriverManager
extends java.lang.Object
```

Constructor Summary

Constructors	
Constructor and Description	
DriverManager()	

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
Sys	getBaseSysDevice() Get the system manager
Beeper	getBeeper() Get the beeper manager
BluetoothHandler	getBluetoothHandler() Get the bluetooth device operation manager
CardReaderManager	getCardReadManager() Get card reader manager
ExternalCardManager	getExternalCardManager() Gets the card reader manager for an external serial device
FingerprintManager	getFingerprintManager() Get the fingerprint manager
static DriverManager	getInstance()
Led	getLedDriver() Get the led manager

PinPadManager	getPadManager() Get the pinpad manager
Printer	getPrinter() Get the print operation manager
java.util.concurrent.ExecutorService	getSingleThreadExecutor() Get the internal single-thread thread pool
com.zcs.sdk.Uart	getUart() Get the uart manager
void	setJni(com.zcs.base.SmartPosJni smartPOsJni1)

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

DriverManager

public DriverManager()

Method Detail

getBaseSysDevice

public Sys getBaseSysDevice()

Get the system manager

Returns:

Sys

getBeeper

public Beeper getBeeper()

Get the beeper manager

Returns:

Beeper

getBluetoothHandler

`public BluetoothHandler getBluetoothHandler()`

Get the bluetooth device operation manager

Returns:

`BluetoothHandler`

getCardReadManager

`public CardReaderManager getCardReadManager()`

Get card reader manager

Returns:

`CardReaderManager`

getExternalCardManager

`public ExternalCardManager getExternalCardManager()`

Gets the card reader manager for an external serial device

Returns:

`ExternalCardManager`

getFingerprintManager

`public FingerprintManager getFingerprintManager()`

Get the fingerprint manager

Returns:

`FingerprintManager`

getInstance

`public static DriverManager getInstance()`

getLedDriver

`public Led getLedDriver()`

Get the led manager

Returns:

`Led`

getPadManager

public PinPadManager getPadManager()

Get the pinpad manager

Returns:

PinPadManager

getPrinter

public Printer getPrinter()

Get the print operation manager

Returns:

Printer

getSingleThreadExecutor

public java.util.concurrent.ExecutorService getSingleThreadExecutor()

Get the internal single-thread thread pool

Returns:

A single-thread thread pool

getUart

public com.zcs.sdk.Uart getUart()

Get the uart manager

Returns:

Uart

setJni

public void setJni(com.zcs.base.SmartPosJni smartPOsJni1)

com.zcs.sdk.pin

Enum PinMacTypeEnum

java.lang.Object
    java.lang.Enum<PinMacTypeEnum>
        com.zcs.sdk.pin.PinMacTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PinMacTypeEnum>

---

public enum PinMacTypeEnum
extends java.lang.Enum<PinMacTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
ANSI_X_9_19
ANSI_X_9_9
ECB
XOR

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static PinMacTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PinMacTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

ANSI_X_9_19

public static final PinMacTypeEnum ANSI_X_9_19

ANSI_X_9_9

public static final PinMacTypeEnum ANSI_X_9_9

ECB

public static final PinMacTypeEnum ECB

XOR

public static final PinMacTypeEnum XOR

Method Detail

getType

public byte getType()

valueOf

public static PinMacTypeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static PinMacTypeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PinMacTypeEnum c : PinMacTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

com.zcs.sdk.pin

Enum PinEncryptTypeEnum

java.lang.Object
    java.lang.Enum<PinEncryptTypeEnum>
        com.zcs.sdk.pin.PinEncryptTypeEnum

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable<PinEncryptTypeEnum>

---

public enum PinEncryptTypeEnum
extends java.lang.Enum<PinEncryptTypeEnum>

Enum Constant Summary

Enum Constants

Enum Constant and Description
CRYPTO_TEXT
PlLAIN_TEXT

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
byte	getType()
static PinEncryptTypeEnum	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static PinEncryptTypeEnum[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

Methods inherited from class java.lang.Enum

compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

getClass, notify, notifyAll, wait, wait, wait

Enum Constant Detail

CRYPTO_TEXT

public static final PinEncryptTypeEnum CRYPTO_TEXT

PlLAIN_TEXT

public static final PinEncryptTypeEnum PlLAIN_TEXT

Method Detail

getType

public byte getType()

valueOf

public static PinEncryptTypeEnum valueOf(java.lang.String name)

Returns the enum constant of this type with the specified name. The string must match *exactly* an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

Parameters:

name - the name of the enum constant to be returned.

Returns:

the enum constant with the specified name

Throws:

java.lang.IllegalArgumentException - if this enum type has no constant with the specified name

java.lang.NullPointerException - if the argument is null

values

public static PinEncryptTypeEnum[] values()

Returns an array containing the constants of this enum type, in the order they are declared. This method may be used to iterate over the constants as follows:

```
for (PinEncryptTypeEnum c : PinEncryptTypeEnum.values())
    System.out.println(c);
```

Returns:

an array containing the constants of this enum type, in the order they are declared

JavaScript is disabled on your browser.

Package com.zcs.sdk.listener

Interface Summary

Interface	Description
OnSearchAndRecvListener	A callback that notifies card searched or external port data received.
OnSearchCardListener	A callback that notifies card searched

com.zcs.sdk.card

Class CardReaderManager

java.lang.Object
    com.zcs.sdk.card.CardReaderManager

```
public class CardReaderManager
extends java.lang.Object
```

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
void	cancelSearchCard() Cancel card search.
void	closeCard() Close the card reader module
ICCard	getICCard()
IDCard	getIDCard()
static CardReaderManager	getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
MagCard	getMAGCard()
RfCard	getRFCard()
SLE4428Card	getSLE4428Card()
SLE4442Card	getSLE4442Card()
void	searchCard(CardReaderTypeEnum searchCardType, int timeout, byte rfCardType, OnSearchCardListener listener) Search card.
void	searchCard(CardReaderTypeEnum searchCardType, int timeout, OnSearchCardListener listener) Search card.
void	searchCardAndRecv(CardReaderTypeEnum searchCardType, int timeout, byte rfCardType, OnSearchAndRecvListener listener) Search the card and receive external serial port data at the same time

void	searchCardAndRecv(CardReaderTypeEnum searchCardType, int timeout, OnSearchAndRecvListener listener) Search the card and receive external serial port data at the same time

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

cancelSearchCard

```
public void cancelSearchCard()
```

Cancel card search.

closeCard

```
public void closeCard()
```

Close the card reader module

getICCard

```
public ICCard getICCard()
```

getIDCard

```
public IDCard getIDCard()
```

getInstance

```
public static CardReaderManager getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
```

getMAGCard

```
public MagCard getMAGCard()
```

getRFCard

```
public RfCard getRFCard()
```

getSLE4428Card

```
public SLE4428Card getSLE4428Card()
```

getSLE4442Card

```
public SLE4442Card getSLE4442Card()
```

searchCard

```
public void searchCard(CardReaderTypeEnum searchCardType,
                       int timeout,
                       byte rfCardType,
                       OnSearchCardListener listener)
```

Search card. It will running in a sub thread and notify the result through callback

Parameters:

searchCardType - the card type to search

timeout - the seconds of card search timeout. Set 0 will keep searching util it has find card or return error

rfCardType - set rf card type. SdkData.RF_TYPE_A, SdkData.RF_TYPE_B, SdkData.RF_TYPE_FELICA

listener - the card search notification listener

searchCard

```
public void searchCard(CardReaderTypeEnum searchCardType,
                       int timeout,
                       OnSearchCardListener listener)
```

Search card. It will running in a sub thread and notify the result through callback

Parameters:

searchCardType - the card type to search

timeout - the seconds of card search timeout. Set 0 will keep searching util it has find card or return error

listener - the card search notification listener

searchCardAndRecv

```
public void searchCardAndRecv(CardReaderTypeEnum searchCardType,
                              int timeout,
                              byte rfCardType,
                              OnSearchAndRecvListener listener)
```

Search the card and receive external serial port data at the same time

Parameters:

searchCardType - the card type to search

timeout - the seconds of card search timeout. Set 0 will keep searching util it has find card or return error

rfCardType - set rf card type. SdkData.RF_TYPE_A, SdkData.RF_TYPE_B, SdkData.RF_TYPE_FELICA

listener - the card search notification listener

searchCardAndRecv

```
public void searchCardAndRecv(CardReaderTypeEnum searchCardType,
                              int timeout,
                              OnSearchAndRecvListener listener)
```

Search the card and receive external serial port data at the same time

Parameters:

searchCardType - the card type to search

timeout - the seconds of card search timeout. Set 0 will keep searching util it has find card or return error

listener - the card search notification listener

N

A B C D E F G H I L M N O P R S T U V W

OVERVIEW PACKAGE CLASS TREE INDEX HELP

PREV LETTER NEXT LETTER FRAMES NO FRAMES ALL CLASSES

Classes

USBConstants
UsbHandler
UsbReader

com.zcs.sdk.exteranl

Class ExternalCardManager

java.lang.Object
    com.zcs.sdk.exteranl.ExternalCardManager

```
public class ExternalCardManager
extends java.lang.Object
```

Method Summary

All Methods | Static Methods | Instance Methods | Concrete Methods

Modifier and Type	Method and Description
void	cancelSearchCard() Cancel card search.
void	closeICCard(byte slot)
ICCard	getICCCard()
static ExternalCardManager	getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
void	searchCard(byte slot, int timeout, OnSearchCardListener listener) Search card.
void	updateFirmware(java.io.File file, Sys.UpdateListener listener) Update firmware
void	updateFirmware(java.io.InputStream inputStream, Sys.UpdateListener listener) Update firmware

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Method Detail

cancelSearchCard

```
public void cancelSearchCard()
```

Cancel card search.

closeICCard

```
public void closeICCard(byte slot)
```

getICCCard

```
public ICCard getICCCard()
```

getInstance

```
public static ExternalCardManager getInstance(com.zcs.base.SmartPosJni smartPOsJni1)
```

searchCard

```
public void searchCard(byte slot,
                       int timeout,
                       OnSearchCardListener listener)
```

Search card. It will running in a sub thread and notify the result through callback

Parameters:

slot - card slot, 0x00~0x0f

timeout - the seconds of card search timeout. Set 0 will keep searching util it has find card or return error

listener - the card search notification listener

updateFirmware

```
public void updateFirmware(java.io.File file,
                           Sys.UpdateListener listener)
```

Update firmware

Parameters:

file - firmware file

listener - the firmware update notification listener

updateFirmware

```
public void updateFirmware(java.io.InputStream inputStream,
                           Sys.UpdateListener listener)
```

Update firmware

Parameters:

```
    listener -
```

com.zcs.sdk

Interfaces

Sys.UpdateListener

Classes

Beeper
DriverManager
Led
Printer
SdkData
SdkResult
Sys

Enums

ConnectTypeEnum
LedLightModeEnum