



ATID Co.,Ltd

Barcode API Reference Guide for Android Developers

Android Developer Guide

SDK Team

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1. Intro

This document is aim to describe the usage of SDK Library for Android developers to develop an application program by using Barcode SDK Library.

This document used Eclipse(Luna/Kepler) as a development tool, and Android 4.2.2 as a platform of development object.

Library	Description
atid.dev.barcode	A library for Android to control the Barcode module
atid.system.comm	A library for Android to control the module with communication
atid.system.ctrl	A library for Android to control the module with power
atid.system.device	A library for Android to control the module with information
atid.util	A utility library for internal usage of SDK

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2. Reference Library Guide

2.1. ATScanManager Class

ATScanManager is to control the creation and resource of Barcode Scanner's Instance, which is installed in PDA. Also, it is Class that manages activity between Barcode Scanner and Resource.

2.1.1. Method

2.1.1.1. getInstance

Creates Barcode Object and connects Barcode Module with Barcode Object

➤ Syntax

```
public static ATScanner getInstance()
public static ATScanner getInstance(Context context)
public static ATScanner getInstance(BarcodeModuleType type)
public static ATScanner getInstance(BarcodeModuleType type, Context context)
```

➤ Parameters

context: Context of User Application

type: Barcode Module Type installed in PDA

➤ Return value

Return Instance of Barcode Scanner

➤ Remarks

Once getInstance method works successfully, it creates and returns Instance of Reader.

Calls from onCreate method of Main Activity

Users are recommended to use getInstance(Context context). Methods overloaded to set parameter of BarcodeModuleType are not to be used for temporarily, since it is an internal usage.

2.1.1.2. finish

Disband Instance of Barcode Scanner Resource that referred instantly, regardless of reference count that being controlled internally.

➤ Syntax

```
public static void finish()
```

➤ Remarks

Disband by using finish to terminate Barcode Scanner Application.

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2.1.1.3. **onDestroy**

Reduce reference count being controlled internally, and disband Instance of Barcode Scanner Resource if reference count becomes 0.

➤ **Syntax**

```
public static void onDestroy()
```

➤ **Remarks**

Disband resource by using finish to terminate Barcode Scanner Application
Calls from onDestroy of Main Activity.

2.1.1.4. **wakeUp**

Calls to wake up Barcode Module in sleep mode.
Increase reference count being controlled internally.

➤ **Syntax**

```
public static void wakeUp()
```

➤ **Remarks**

Calls from onStart method of Application's all Activity. If wakeUp is not called after calling sleep method, Barcode Module doesn't operate.
wakeUp and sleep must be called in pairs.

2.1.1.5. **sleep**

Calls to set sleep mode of Barcode Module in wakeUp mode.
Reduces reference count being controlled internally.

➤ **Syntax**

```
public static void sleep()
```

➤ **Remarks**

Calls from onStop method of Application's all Activity. If sleep is not called in onStop method, Module operates continuously even entered Sleep mode by pressing power button of PDA.

2.1.1.6. **getRefCount**

Returns reference count

➤ **Syntax**

```
public static int getRefCount()
```

➤ **Remarks**

Returns reference count being controlled internal library.

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2.1.1.7. **getVersion**

Returns library version information.

➤ **Syntax**

```
public static String getVersion()
```

➤ **Remarks**

Returns version information of atid.dev.barcode.jar in use.

2.1.1.8. **checkDevice**

Returns after checking whether it is installed to PDA with BarcodeModuleType inputted.

➤ **Syntax**

```
public static boolean checkDevice (BarcodeModuleType type)
public static boolean checkDevice (BarcodeModuleType type, Context context)
```

➤ **Parameters**

type : BarcodeModuleType to check

context : Context of user Application

➤ **Return value**

Returns result of command execution in enumeration type.

➤ **Remarks**

It is not to be used for temporarily, since it is a method being used internal library.

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2.2. ATScanner Class

ATScanner Class creates and returns Instance of Barcode Reader.

2.2.1. Method

2.2.1.1. connect

Execute connecting Barcode Module.

➤ Syntax

```
public boolean connect()
```

➤ Return value

Returns true in proper connection, and false in failure.

➤ Remarks

Delivers EventType.DeviceConnect to onStateChanged event handler.

2.2.1.2. disconnect

Disconnects Barcode Module.

➤ Syntax

```
public void disconnect()
```

➤ Remarks

Delivers EventType.DeviceDisconnect to onStateChanged event handler.

2.2.1.3. destroy

Disbands related resource to Barcode Reader.

➤ Syntax

```
public void destroy()
```

➤ Remarks

It is to be called when closing user Application.

2.2.1.4. getCharSetName

Returns Char Set Name for Barcode data decoding usage. (default value : UTF8)

➤ Syntax

```
public String getCharSetName()
```

➤ Return value

Char Set Name for Barcode data decoding usage.

➤ Remarks

Returns one of Charsets supported in Android.

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2.2.1.5. **setCharSetName**

Set Char Set Name of Barcode data decoding usage. (default value : UTF8)

➤ **Syntax**

```
public boolean setCharSetName(String charsetName)
```

➤ **Parameters**

charsetName : Char Set Name to set

➤ **Return value**

Returns true in proper execution, and false in failure.

➤ **Remarks**

Set one of Charsets supported in Android.

Reference : java.nio.charset.Charset.availableCharsets()

2.2.1.6. **getParameter**

Returns Symbology configuration value of Barcode Module.

➤ **Syntax**

```
public ATScanParameter getParameter()
```

➤ **Return value**

Symbology configuration value.

➤ **Remarks**

Returns configuration value according to Barcode Module installed in PDA.

2.2.1.7. **getScannerType**

Returns Type of Barcode Module in use.

➤ **Syntax**

```
public BarcodeModuleType getScannerType()
```

➤ **Return value**

Returns result of command execution in BarcodeMoudleType enumeration type.

2.2.1.8. **getState**

Returns status value of Barcode Module.

➤ **Syntax**

```
public EventType getScannerType()
```

➤ **Return value**

Returns result of command execution in EventType enumeration type.

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2.2.1.9. **getVersion**

Returns firmware version of Barcode Module.

➤ **Syntax**

```
public String getVersion()
```

➤ **Return value**

Returns firmware version information of Barcode Module in String type.

2.2.1.10. **isDecoding**

Returns state whether decoding is operating.

➤ **Syntax**

```
public boolean isDecoding()
```

➤ **Return value**

Returns true if decoding is operating, and false if not.

2.2.1.11. **startDecode**

starts decoding.

➤ **Syntax**

```
public boolean startDecode()
```

➤ **Return value**

Returns if decoding session started properly, false if not.

2.2.1.12. **stopDecode**

Stops decoding in operation.

➤ **Syntax**

```
public void stopDecode()
```

2.2.1.13. **setEventListener**

Sets listener interface to receive result of, operation status and decoding of Barcode Module.

➤ **Syntax**

```
public void setEventListener(BarcodeEventListener listener)
```

➤ **Parameters**

listener : interface created to takes actions of certain event(Barcode) in Application.

➤ **Remarks**

setEventListener must be used after calling getInstance.

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2.2.1.14. **removeEventListener**

Removes listener interface set by using setEventListener.

➤ **Syntax**

```
public void removeEventListener(BarcodeEventListener listener)
```

➤ **Parameters**

listener : interface created to takes actions of certain event(Barcode) in Application.

➤ **Remarks**

removeEventListener must be used after calling getInstance.

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2.3. BarcodeEventListener Interface

2.3.1. Method

2.3.1.1. **onStateChanged**

Notices state of Barcode Module.

➤ **Syntax**

```
void onStateChanged(EventType state);
```

➤ **Parameters**

state : shows state of Barcode Module in EventType enumeration type.

2.3.1.2. **onDecodeEvent**

Notices result of decoding.

➤ **Syntax**

```
void onDecodeEvent(BarcodeType type, String barcode);
```

➤ **Parameters**

type : type of barcode. In BarcodeType enumeration type.

barcode : value of barcode. String type.

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2.4. Enumerations

2.4.1. EventType

Shows operation status of current Barcode Module.

Flag	Value	Description
Unknown		Unknown
SystemPowerUp		Power Up
DeviceConnect		Connect
DeviceDisconnect		Disconnect
SystemPowerDown		Power Down

2.4.2. BarcodeModuleType

Shows value to classify Barcode module.

Flag	Value	Description
None	0	None
AT1D955M_1	1	Zebra 1D module
AT2D5X80I_1	2	Honeywell 2D module
AT2D4710M_1	3	Zebra 2D module
AT2DMDI3x00	4	Opticon 2D module

2.4.3. BarcodeType

Shows value to classify type of Barcode.

Flag	Value	Description
NoRead		None
UnKnown		Zebra 1D module
AustralianPost		Honeywell 2D module
AztecCode		Zebra 2D module
BooklandEAN		Opticon 2D module
BritishPost		British Post
CanadianPost		Canadian Post
ChinaPost		China Post
Codabar		Codabar
CodablockF		Codablock F
CodablockA		Codablock A
Code11		Code 11
Code128		Code 128

Code16K		Code 16K
Code32		Code 32
Code39		Code 39
Code49		Code 49
Code93		Code 93
ComCode		EAN-UCC Composite Code
ComCodeCCAB		Composite CC-A/B
ComCodeCCC		Composite CC-C
D2of5		Discreate 2 of 5
DataMatrix		Data Matrix
EAN128		UCC/EAN-128
EAN13		EAN-13
EAN13CouponCode		EAN-13 with Extended Coupon Code
EAN8		EAN-8
I2of5		Interleaved 2 of 5
IATA		IATA 2 of 5
ISBT128		ISBT 128
ISBT128Concat		ISBT-128 Concat.
JapanesePost		Japanese Post
KixPost		Kix (Netherlands) Post
KoreaPost		Korea Post
MacroMicroPDF		Macro Micro PDF
MaxiCode		MaxiCode
MicroPDF		Micro PDF 417
MSI		MSI
OCR		OCR
ParameterFNC3		Parameter (FNC3)
PDF417		PDF-417
PlanetCode		Planet Code
PlesseyCode		Plessey Code
PosiCode		PosiCode
Postnet		Postnet
QRCode		QR Code
MicroQR		Micro QR
R2of5		Straight 2 of 5

RSS		RSS
ScanletWebcode		Scanlet Webcode
Telepen		Telepen
TLC39		TCIF Linked Code 39
TriopticCode		Trioptic Code 39
UPCA		UPC-A
UPCE		UPC-E
VeriCode		VeriCode
X2of5		Matrix 2 of 5
USPS4CBOneCodeIntelligentMail		USPS 4CB One Code Intelligent Mail
HanXin		Han Xin(Chinese-Sensible Code)
Industrial2of5		Industrial 2 of 5
UPUFICSPostal		UPU FICS Postal
NEC2of5		NEC 2of 5
InfoMail		Info Mail
Postal4i		Postal-4i
IntelligentMailBarCode		Intelligent Mail Bar Code
SCode		S-Code