

printerSDK for Android

User's Manual



2023/6/16
Sanei Electric Inc.
Rev1.02E

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1. Product outline

Printer SDK is the library for executing the printing function by our mobile printer from application of the Android devices by Bluetooth and performs following functions.

- Bluetooth connection and disconnection with the printer
- Transmit and receive printing data and command
- Acquisition of printer status, such as “Cover open” and “Temperature abnormality on the print head”

Regarding the further details about library, refer to the below-mentioned 5. Function.

2. Operating Environment

Following development environments and tools are necessary to use our printer SDK.,

- JDK (use the version Android Studio requires)
(<http://www.oracle.com/technetwork/java/javase/downloads/index.html>)
- Android Studio
(<https://developer.android.com/intl/ja/sdk/index.html>)

The applicable Bluetooth printers are followings.

- SM1-21BT ... 2 inch mobile printer
- BLM-80BT ... 3 inch mobile printer
- SM2-41BT ... 4 inch mobile printer
- SM3-21 ... 2 inch mobile printer
- SM4-21C ... 2 inch mobile printer
- SM4-31C ... 3 inch mobile printer

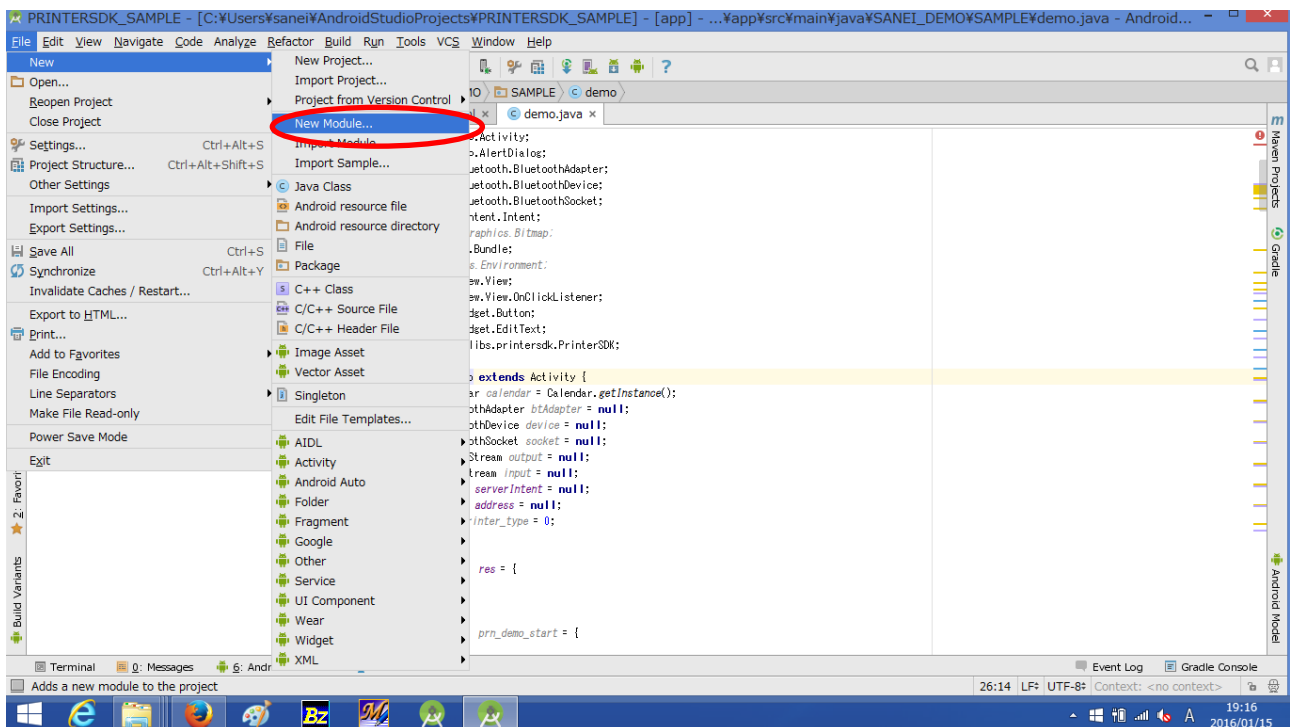
3. Introduction method

Introduce the printer SDK to Android Studio as per following procedure.

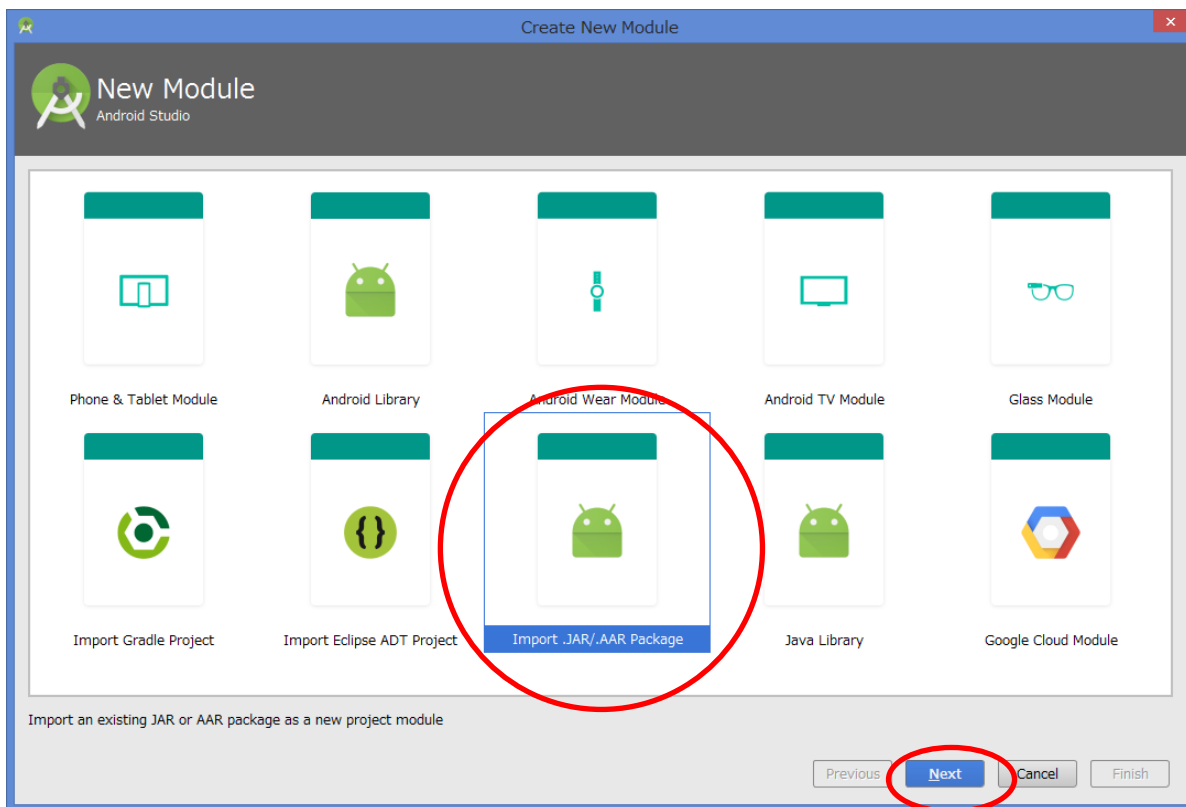
- (1) Download the printer printersdk.zip from the below URL. Save it in the suitable folder and freeze up.

URL: <http://www.sanei-elec.co.jp/downloads/androidapplication.html>

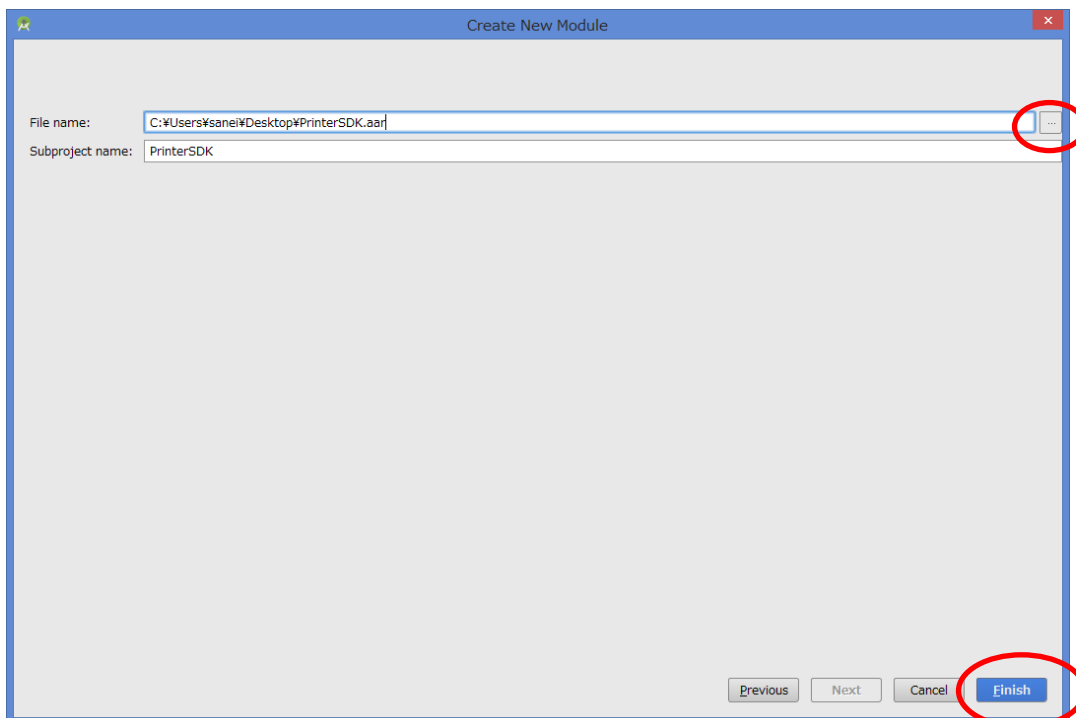
- (2) “File” → Choose “New Module...”



(3) Choose "Import .JAR/.AAR Package" and click "Next".

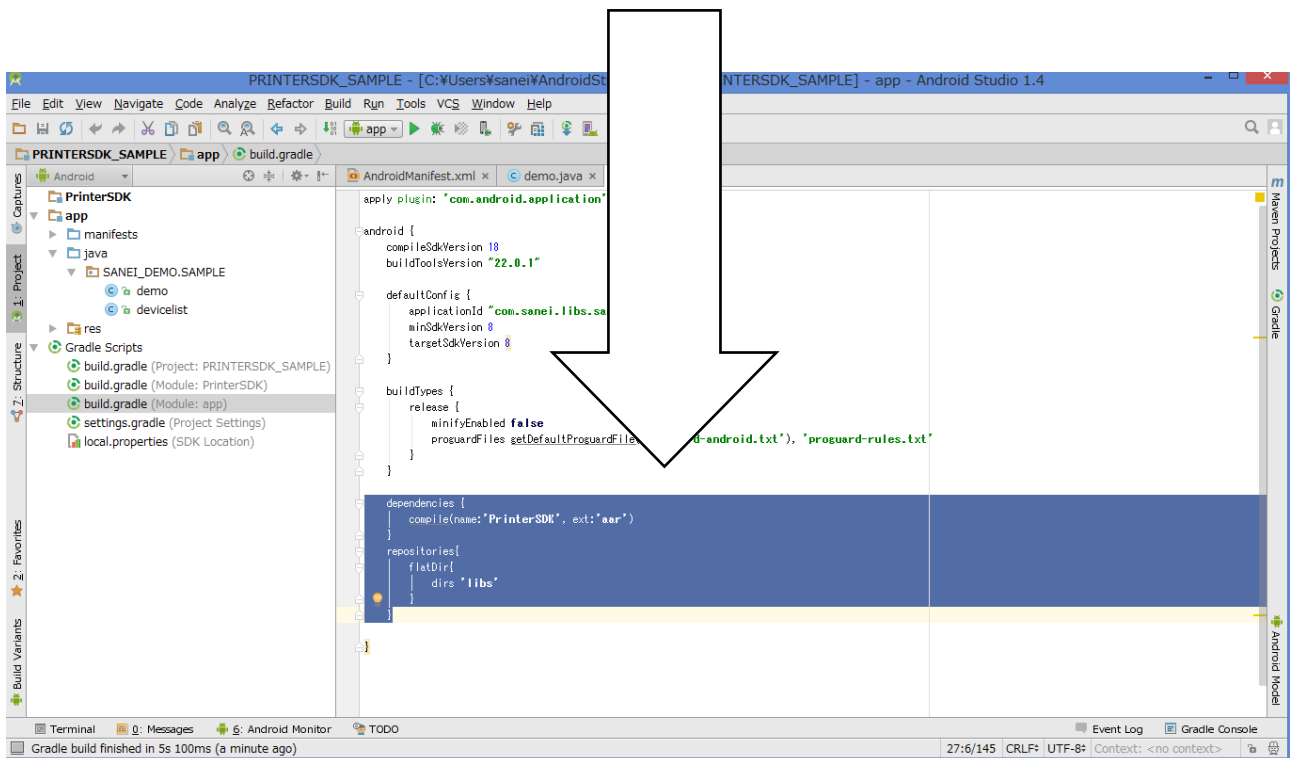


(4) Choose unzipped "PrinterSDK.aar" and click "Finish".



- (5) Make the “libs” holder into “app” holder and make copy of “PrinterSDK.aar”.
- (6) Open “build.gradle” for app and add the following sentence.

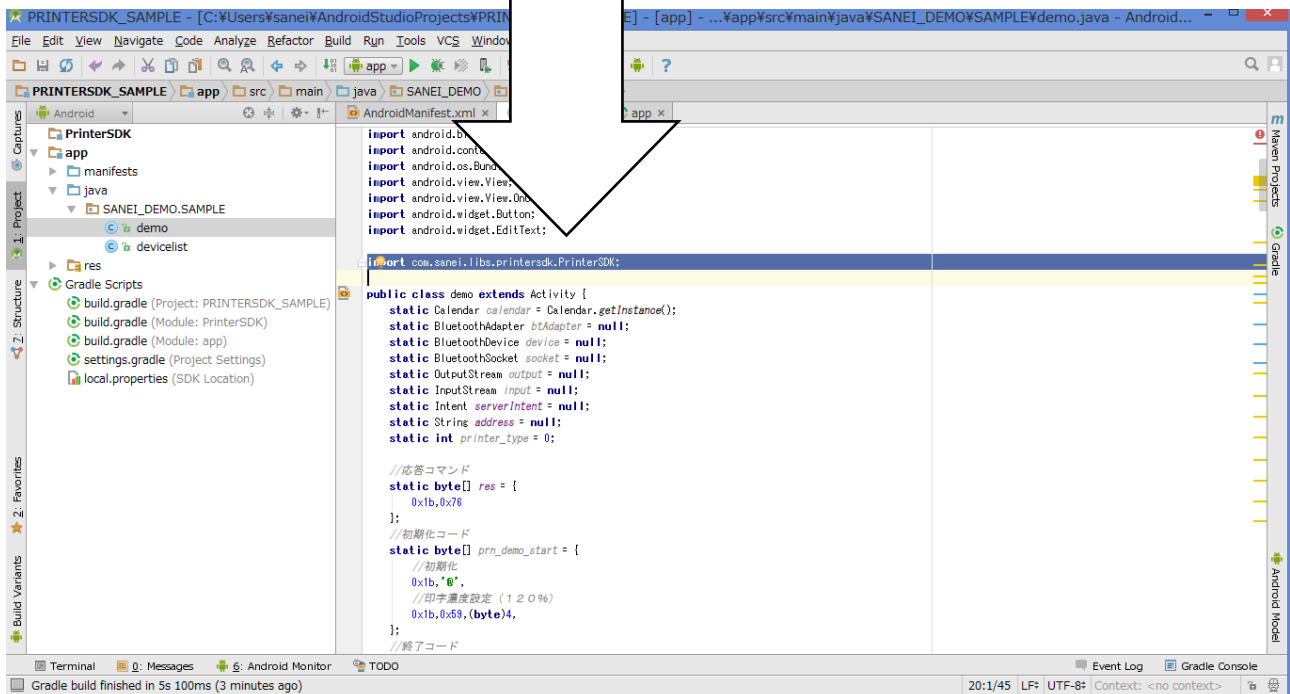
```
dependencies {  
    compile(name:'PrinterSDK', ext:'aar')  
}  
repositories {  
    flatDir{  
        dirs 'libs'  
    }  
}
```



(7) Open the Source file to be used for SDK.

(8) Add the following sentence.

```
import com.sanei.libs.printersdk.PrinterSDK;
```



The process has been completed.

4. Class Configuration

java.lang.Object

└ com.sanei.libs.printersdk.PrinterSDK

Public abstract class printerSDK extends java.lang.Object

5. Function

5.1. Function Basic Format

public static boolean Function name (Argument1, ..., or void);

Return Value: TRUE = Success, FALSE = Exception outbreak

5.2. List of functions

| Name | Function |
|----------------|---|
| btConnect | Bluetooth connection |
| initPrint | Initialization of printer. Invoked at the start and end of printing |
| getPrinterType | Get the type of printer |
| sendData | Data transmitting |
| receiveData | Data receiving |
| getStatus | Get printer status |
| analyzeStatus | Get printer status |
| btClose | Release of Bluetooth connection |

5.3. Function details

5.3.1. Bluetooth connection

Description: Connect the Bluetooth.

Form: public static boolean btConnect (String strBtAddr, int delay)

Argument: strBtAddr: Array with address and name of Bluetooth printer

delay: Direct time (msec) at receiving

Return value: TRUE = Success, FALSE = Exception outbreak

5.3.2. Initialization of printer

Description: Initialize the printer.

Invoked regularly at the start and the end of printing.

Form: public static boolean initPrint ()

Argument: void

Return value: TRUE = Success, FALSE = Exception outbreak

5.3.3. Acquisition of printer type

Description: Acquire the type of the printer connected with the Bluetooth.

Form: public static int getPrintertype ()

Argument: void

Return value: as follows

| | |
|----|-------------|
| -1 | Unconnected |
| 0 | SM1-21 |
| 1 | BLM-80 |
| 2 | SM2-41 |
| 3 | SM3-21 |
| 4 | SM4-21C |
| 5 | SM4-31C |

5.3.4. Data transmitting

Description: Data on the command, the print character string etc are transmitted.

Form: public static boolean sendData (byte[] sendBuff, int buffSize)

Argument: sendBuff: transmitter buff

buffSize: Size of transmit data

Return value: TRUE = Success, FALSE = No transmit data

5.3.5. Data receiving

Description: Data from the printer are received.

Form: public static boolean receiveData (byte[] receiveBuff)

Argument: receiveBuff: receive buff

Return value: TRUE = Success, FALSE = Exception outbreak

5.3.6. Get printer status

Description: Get the status from the printer.

Form: public static int getStatus (byte prnStatus)

Argument: prnStatus: Printer status. Acquire by the response command beforehand.

Return Value: as following

| | |
|------|---|
| 0x00 | Normal |
| 0x01 | Paper empty or Cover open |
| 0x02 | Temperature abnormality on the print head |
| 0x04 | Out of battery charge |

Hint: In case of transmitting the large volume data, such as long sentence printing and bit map data, insert the processing of acquisition the printer status after data transmitting not to cut Bluetooth connection on the way of printing.

5.3.7. Get printer status

Description: Get the status from the printer.

Form: public static int analyzeStatus (byte prnStatus)

Argument: prnStatus: Printer status. Acquire by the response command beforehand.

Return Value: as following

| | |
|------|---|
| 0x00 | Normal |
| 0x01 | Paper empty or Cover open |
| 0x02 | Temperature abnormality on the print head |
| 0x04 | Out of battery charge |

Hint: Behavior is identical to getStatus.

5.3.8. Release of Bluetooth connection

Description: Cancel the Bluetooth connection

Form: public static boolean btClose ()

Argument: void

Return value: TRUE = Success, FALSE = Exception outbreak

5.4. List of constants

| Definition | Value | Meaning |
|--------------------|-------|---|
| PRINTER_TYPE_SM121 | 0 | Printer type: SM1-21 |
| PRINTER_TYPE_BLM80 | 1 | Printer type: BLM-80 |
| PRINTER_TYPE_SM241 | 2 | Printer type: SM2-41 |
| PRINTER_TYPE_SM321 | 3 | Printer type: SM3-21 |
| PRINTER_TYPE_SM421 | 4 | Printer type: SM4-21C |
| PRINTER_TYPE_SM431 | 5 | Printer type: SM4-31C |
| | | |
| STATUS_NORMAL | 0x00 | Normal |
| STATUS_PAPER_END | 0x01 | Paper empty or Cover open |
| STATUS_TEMP_ERROR | 0x02 | Temperature abnormality on the print head |
| STATUS_LOW_BATTERY | 0x04 | Out of battery charge |
| | | |

6. Revision records

| Rev No. | Date of revision | Details |
|---------|------------------|--|
| 1.00 | Mar/2012 | New creation |
| 1.01 | Jun/2016 | <ul style="list-style-type: none">• Applicable for Android Studio• Add the setting for delay of reading.• Add SM3-21 to applicable printer |
| 1.02 | Jun/2023 | <ul style="list-style-type: none">• Add SM4-21C/31C to applicable printer• Updated sample program |