

Nemonic

# Printer SDK commands

(Android)

V 1.1.0

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## History

Ver	내용	비고
1.0.0	Draft	
1.0.1	Fixed bug about getPrinterStatus on printing	
1.0.2	Fixed bug about disconnected BLE not working when Bluetooth is disabled.	
1.0.3	Fixed bug about connect BTC wrong result when connect a printer already connected.	
1.0.4	Slightly improved printing speed for Nemonic AI printer.	
1.0.5	Improved MIP-001, MIP-001L, MIP-101 printer connection.	
1.0.6	Add print quality printing options.	
1.0.7	Fixed bug about print result for Nemonic AI printer.	
1.0.8	Fixed bug about print complete result. Improved BLE connection.	
1.0.9	Add manual print timeout. Change auto print timeout for Nemonic AI.	
1.0.10	Add define of print image length.	
1.0.11	Improved send speed.	
1.0.12	Fixed bug that caused Nemonic, Nemonic Label, and Nemonic mini printers to disconnect.	
1.1.0	Improved BLE transmission stability Functions are removed. <ul style="list-style-type: none"> <li>- getDefaultConnectDelay</li> <li>- getConnectDelay</li> <li>- setConnectDelay</li> </ul> Functions are added. <ul style="list-style-type: none"> <li>- getBleConnectDelayOffset</li> </ul>	

	<ul style="list-style-type: none"><li>- setBleConnectDelayOffset</li><li>- getBleSendRetryDelayOffset</li><li>- setBleSendRetryDelayOffset</li></ul>	
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## **1. Summary**

This document describes the printer control SDK for Nemonic printers.

## Scan printer(NPrinterScanController)

### Basic

#### 1. int startScan()

Start scan.

return: Start scan result (NResult).

#### 2. void stopScan()

Stop scan.

#### 3. boolean isInScan()

Whether scanning.

return: Whether scanning.

### Callback(INPrinterScanControllerCallback or NPrinterScanControllerCallback)

#### 1. void deviceFound(NPrinter printer)

Called when a printer is found.

printer: Printer information found.

## Control printer(NPrinterController)

### Basic

#### 1. int connect(NPrinter printer)

Connect the printer selecting Bluetooth mode automatically depending on the printer type.

printer: Printer to connect to.

return: Connect result (NResult).

#### 2. void disconnect()

Disconnect printer.

#### 3. int getConnectState()

Get connection state.

return Connection state.

#### 4. void cancel()

Cancel image transfer or template settings.

#### 5. void setPrintTimeout(boolean enableAuto, int manualTime)

Set print timeout.

enableAuto: Whether to enable automatic timeout.

manualTime: Manual timeout time.(Applies only when enableAuto is false.)

#### 6. int print(NPrintInfo printInfo)

Print images.

If the width is not 576 pixels, it will be resized.

And after resizing, there are height restrictions for each printer model as shown below.

- Nemonic(MIP-001): 2240
- Nemonic Label(MIP-001L): 2240
- Nemonic mini(MIP-101): 2240
- Nemonic AI(MIP-201): 2000

printInfo: Information for printing.

return: Print result (NResult & NPrinterStatus).

#### 7. int setTemplate(Bitmap image, boolean withPrint, boolean enableDither)

Set a template for the printer.

If the width is not 576 pixels, it will be resized.

And after resizing, there are height restrictions for each printer model as shown below.

- Nemonic(MIP-001): 900
- Nemonic Label(MIP-001L): 900

- Nemonic mini(MIP-101): 900
- Nemonic AI(MIP-201): 2000

image: Image to set as template.

withPrint: Whether to print after setting a template.

enableDither: Whether to process image dither.

return: Template setting result (NResult & NPrinterStatus).

#### 8. int clearTemplate()

Initializing the template of the printer.

return: Template initialization result (NResult).

#### 9. int getPrinterStatus()

Get printer status.

return: Printer status (NPrinterStatus or NResult(<0)).

#### 10. int getCartridgeType()

Get cartridge type.

return Cartridge type (NCartridgeType or NResult(<0)).

#### 11. NResultString getPrinterName()



Get printer Bluetooth name.

return: Printer Bluetooth name(value: printer Bluetooth name,  
result: NResult).

12. int getBatteryLevel()

Get battery level.

return: Battery level (level or NResult(<0)).

13. int getBatteryStatus()

Get battery status.

return: Battery status (status or Nresult(<0)).

~~14. int getDefaultConnectDelay()~~

Get default delay after connecting.(Only Nemonic AI printer)

return: Default delay after connecting (milly second).

~~15. int getConnectDelay()~~

Get delay after connecting.(Only Nemonic AI printer)

return: Delay after connecting (milly second).

16. ~~void setConnectDelay(int delay)~~

Set delay after connecting.(Only Nemonic AI printer)

As the time decreases, the faster the connection speed.

As the time increases, the stability of the connection increases.

delay: Delay after connecting (milly second).

17. long getBleConnectDelayOffset() (Only for Nemonic AI Printer.)

Get delay offset after BLE connecting.

return: Delay offset after BLE connecting (milly second).

18. void setBleConnectDelayOffset(long msec) (Only for Nemonic AI Printer.)

Set delay offset after BLE connecting.

This setting is valid when sending data (e.g., printing) right after connecting; it adjusts the post-connection delay.

Most Android devices work fine by default, but you should configure this if you encounter transmission failures on specific devices when sending data immediately.

msec: Delay offset after BLE connecting (milly second).

19. int getBleSendRetryDelayOffset() (Only for Nemonic AI Printer.)

Get BLE send retry delay offset.

return: BLE send retry delay offset (milly second).

20. void setBleSendRetryDelayOffset(int msec) (Only for Nemonic AI Printer.)

Set BLE send retry delay offset.

Sets the delay offset for BLE retry attempts.

Most Android devices work well with the default setting, but if transmission fails continuously on specific devices, try increasing this value incrementally.

msec: BLE send retry delay offset (milly second).

Callback(INprinterControllerCallback or NPrinterControllerCallback)

1. void disconnected()

Called when the printer is disconnected due to external factors.

2. void printProgress(int index, int total, int result)

Called to notify the progress of each print image when printing multiple images.

index: Current print completion index (start from 0).

total: Total number of printing images.

result: Print result of the currently printed index.

3. `printComplete(int result)`

Called when all printing is complete.

result: Print result.

## Object

### NPrinter

#### 1. boolean isEmpty()

Whether the printer information is empty.

return: Whether the printer information is empty.

#### 2. boolean isValid()

Whether the printer information is a Nemonic product.

return: Whether the printer information is a Nemonic product.

#### 3. void reset()

Reset printer information.

#### 4. String getName()

Get printer Bluetooth name.

return: Printer Bluetooth name.

#### 5. void setName(String name)

Set printer Bluetooth name.

name: Printer Bluetooth name.([A-Za-z0-9]{4,20}(MIP201:  
[A-Za-z0-9]{4,13}))

6. boolean checkName(String name)

Check printer Bluetooth name validation.

name: Printer Bluetooth name.

return Printer Bluetooth name valid.

7. static boolean checkName(NPrinterType type, String name)

Check printer Bluetooth name validation.

type: Printer type.

name: Printer Bluetooth name.

return: Printer Bluetooth name valid.

8. static boolean checkNameWithoutCartridgeType(NPrinterType  
type, String name)

Check printer Bluetooth name without cartridge type(using setting  
printer name).

type: Printer type.

name: Printer Bluetooth name.

return: Printer Bluetooth name valid.

9. String getAddress()

Get Mac address.

return: Mac address.

10. boolean setAddress(String address)

Set Mac address.

address: Mac address.

return: Mac address valid.

11. boolean validateAddress(String address)

Check Mac address valid.

address: Mac address.

return Mac address valid.

12. NPrinterType getType()

Get printer type.

return: Printer type.

13. void setType(NPrinterType type)

Set printer type.

type: Printer type.

14. boolean isLabel()

Label printer or not(It does not refer to a Nemonic Label product(MIP-001L)).

return: Label printer or not.(When the result is false, it does not mean that it is not a Nemonic Label product (MIP-001L)).

15. boolean isMini()

Whether the printer is Nemonic mini printer.

return: Whether the printer is Nemonic mini printer.

16. boolean isFixedPaperSize()

Whether it is a fixed length cartridge type.

return: Whether it is a fixed length cartridge type.

17. boolean isSupportedBattery()

Whether the printer supports batteries.



return: Whether the printer supports batteries.

18. void setCartridgeType(NCartridgeType type)

Set cartridge type.

type: Cartridge type.

19. NCartridgeType getCartridgeType()

Get cartridge type (based on printer name).

return Cartridge type.

20. int getWaitTimeForPrint(int height, int copies)

Get print time.

height: Print image height.

copies: Print copies.

return: Print time (msec).

21. boolean equals(Object obj)

Whether it is the same printer (based on Mac address).

obj: Other NPrinter object for comparison.

## NPrintInfo

### 1. boolean isEmpty()

Whether the images for printing are empty.

return: Whether the images for printing are empty.

### 2. NPrintInfo setPrinter(NPrinter printer)

Set the printer for generating print data.

printer: The printer for creating print images (Connected or connectable printer).

return: Object itself.

### 3. NPrinter getPrinter()

Get the printer for generating print data.

return: The printer for generating print data.

### 4. NPrintInfo setPrintQuality(NPrintQuality quality)

Set the print quality. (Only Nemonic AI firmware 1.03 or later.)

quality: Print quality.

return: Object itself.

5. NPrintQuality getPrintQuality()

Get the print quality.

return: Print quality.

6. NPrintInfo setImage(Bitmap image)

Set the image for printing.

image: The image for printing.

return: Object itself.

7. Bitmap getImage()

Get the image for printing.

return: The image for printing.

8. NPrintInfo setImages(Bitmap[] images)

Set the images for printing.

images: The images array for printing.

return: Object itself.

9. NPrintInfo setImage(List<Bitmap> images)

Set the images for printing.

images: The images array for printing.

return Object itself.

10. List<Bitmap> getImages()

Get the images for printing.

images: The images list for printing.

return: Object itself.

11. NPrintInfo setCopies(int copies)

Set copies.

copies: Copy quantity.

return: Object itself.

12. int getCopies()

Get copies.

return: Copy quantity.

13. NPrintInfo setEnableLastPageCut(boolean enable)

Set enable last page cut.

enable: Enabled or not.

return Object itself.

14. boolean isLastPageCutEnable()

Whether to cut the last page.

return: Whether to cut the last page.

15. NPrintInfo setEnableDither(boolean enable)

Set enable dither processing.

enable: Enabled or not.

return: Object itself.

16. boolean isEnableDither()

Whether to enable print image dither processing.

return: Whether to enable print image dither processing.

17. `NPrintInfo setEnableCheckPrinterStatus(boolean enable)`

Set enable checking printer status.

enable: Enable or not.

return: Object itself.

18. `boolean isCheckPrinterStatus()`

Whether to check printer status when printing.

return: Whether to check printer status when printing.

19. `NPrintInfo setEnableCheckCartridgeType(boolean enable)`

Set enable checking cartridge type.

enable: Enabled or not.

return: Object itself.

20. `boolean isCheckCartridgeType()`

Whether to check the cartridge type when printing.

return: Whether to check the cartridge type when printing.

21. `NPrintInfo setEnableCheckPower(boolean enable)`

Set enable checking about power.

enable: Enabled or not.

return: Object itself.

22. boolean isCheckPower()

Whether to check battery when printing.

return: Whether to check battery when printing.

23. Bitmap getPrintImage()

Get the image for printing.

return: The image for printing.

24. List<Bitmap> getPrintImages()

Get the images for printing.

return: The images for printing.

NResultString

1. int getResult()

Get result

return: Result (NResult).

2. void setResult(int result)

Set result.

result: Result (NResult).

3. String getValue()

Get value.

return: Value.

4. void setValue(String value)

Set value.

value: Value.



## **Define**

### NBatteryStatus

1. NO\_CHARGING

Normal battery level without charging.

2. LOW\_NO\_CHARGING

Low battery level for printing without charging.

3. CHARGING

Normal battery level with charging.

4. LOW\_CHARGING

Low battery level with charging.

### NCartridgeType

1. NONE

None.

2. WHITE

White sticky cartridge.

3. YELLOW

Yellow sticky cartridge.

4. GREEN

Green sticky cartridge.

5. BLUE

Blue sticky cartridge.

6. PINK

Pink sticky cartridge.

7. L1

3x1 label cartridge.

8. L2

3x2 label cartridge.

9. L3

3x3 label cartridge.

10. L4

3x4 label cartridge.

11. M1

3x1 Nemonic mini cartridge.

12. M2

3x2 Nemonic mini cartridge.

13. M3

3x3 Nemonic mini cartridge.

14. M4

3x4 Nemonic mini cartridge.

NConnectState

1. DISCONNECTED

Disconnected state.

2. CONNECTING

Connecting state.

3. CONNECTED

Connected state.

4. DISCONNECTING

Disconnecting state.

NPrinterStatus

1. OK

Ok.

2. OUT\_OF\_PAPER

Out of paper.

3. COVER\_OPENED

Over opened.

4. OVERHEAT

Overheat.

5. PAPER\_JAM

Paper jam.

NPrinterType

1. NONE

None.

2. NEMONIC

Nemonic (MIP-001).

3. NEMONIC\_LABEL

Nemonic Label (MIP-001L).

4. NEMONIC\_MINI

Nemonic mini (MIP-101).

5. NEMONIC\_MIP201

Nemonic AI (MIP-201).

## NPrintImageLength

### 1. PRINT\_WIDTH

Horizontal Pixels for printing.

### 2. MAX\_LENGTH

Maximum Pixels that can be printed at one time.

### 3. MAX\_LENGTH\_MIP\_201

Maximum Pixels that can be printed at one time for  
MIP-201(Nemonic AI).

### 4. MAX\_TEMPLATE\_LENGTH

Maximum Pixels that can be set for printer templates at one time

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### 5. MAXTEMPLATE\_LENGTH\_MIP\_201

Maximum Pixels that can be set for printer templates at one time  
for MIP-201(Nemonic AI).

### 6. CONTENT\_1\_INCH

Vertical Pixels on 3x1 Paper.

### 7. CONTENT\_2\_INCH

Vertical Pixels on 3x2 Paper.

8. CONTENT\_3\_INCH

Vertical Pixels on 3x3 Paper.

9. CONTENT\_4\_INCH

Vertical Pixels on 3x4 Paper.

NPrintQuality

1. LOW\_FAST

Low quality and fast speed.

2. MIDDLE

Middle quality and middle speed.

3. HIGH\_SLOW

High quality and slow speed.

NResult

1. OK

Ok.

2. TIMEOUT

Timeout.

3. CANCELED

Canceled.

4. BATTERY\_LOW

Battery low.

5. BATTERY\_NEED\_CHARGE

Battery needs charging.

6. PAPER\_NOT\_MATCHED

Paper not matched.

7. BLUETOOTH\_UNSUPPORTED

Bluetooth not supported.

8. BLUETOOTH\_DISABLED

Bluetooth disabled.

9. BLUETOOTH\_NO\_PERMISSION

No Bluetooth permission.

10. BLUETOOTH\_RESETTING

Bluetooth resetting.(only iOS)

11. CANCELED\_OR\_BLUETOOTH\_DISABLED

Bluetooth connection canceled or disabled.(only iOS)

12. BLUETOOTH\_UNKNOWN

Bluetooth unknown.(only iOS)

13. LOCATION\_NO\_PERMISSION

No location permission.(only Android)

14. LOCATION\_DISABLED

Location disabled.(only Android)

15. SCAN\_FAILED

Printer scan failed.

16. NO\_SELECTED\_PRINTER

No selected printer.

17. NOT\_CONNECTED

Not connected.

18. ALREADY\_CONNECTED

Already connected.

19. NOT\_FOUND

Bluetooth device not found.(only iOS)

20. NOT\_CONNECTABLE



Bluetooth is not connectable.(only iOS)

21. SOCKET\_ERROR

Socket error.(only Android)

22. CONNECT\_ERROR

Connect error.

23. CONNECT\_FAILED

Connect failed.

24. SESSION\_ERROR

Session error.

25. CONNECT\_SERVICE\_NOT\_FOUND

Connect service not found.

26. CONNECT\_UNSUPPORTED\_MODE

Unsupported connect mode.

27. IO\_RECEIVE\_ERROR

IO receive error.

28. IO\_SEND\_ERROR

IO send error.

29. SEND\_FAILED

Send failed.

30. UNKNOWN

Unknown.

31. INVALID\_PARAMETER

Invalid parameter.

32. NOT\_MATCHED\_PRINTER\_TYPE

Not matched printer type.

33. NO\_CALLBACK

No callback.

34. NOT\_MATCHED\_COMMAND\_RESULT\_FORMAT

Not matched printer command result format.

35. INVALID\_PRINTER\_NAME

Invalid printer name.

36. INVALID\_PRINTER\_RESULT

Invalid printer result.

37. PRINTER\_RESULT\_FAILED

Printer result failed.

38. UNSUPPORTED\_DEVICE

Unsupported device.