HSPOS macOS PrinterSDK User Manual

Item	Description
Product	HSPOS macOS PrinterSDK
Platform	macOS 12+
Entry	`PrinterSDK.shared`
Constants	`PrinterConstants`
Connection	`PrinterConnection`
Chinese edition	`PrinterSDK_macOS_使用说明书.pdf`

Same public API facade as the iOS SDK. Differences are mainly permissions and image types (`NSImage`).

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1. Introduction

Thermal printer SDK for macOS: discover, connect, print, and query status.

Capabilities: USB, BLE, TCP (port 9100), ESC/POS, page mode, JPL labels, status.

Prefer: `PrinterSDK`, `PrinterConstants`, `PrinterConnection`.

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2. Integration (3 steps)

2.1 Requirements

Item	Requirement
macOS	12.0+
Swift	5.9+
Package	`HSPOS-PrinterSDK-macOS-*.zip`

2.2 Steps

1) Add Local Package — unzip, Xcode → Add Package Dependencies → Add Local → select folder → product **PrinterSDK**.

2) Permissions — for BLE, add `NSBluetoothAlwaysUsageDescription`. If App Sandbox is on: enable **USB**, **Outgoing Connections** (TCP), and **Bluetooth** (BLE).

3) Print

USB:

```
let sdk = PrinterSDK.shared
if let d = sdk.getUsbDevices().first, let conn = sdk.connectUsbPrinter(d) {
```

```
    _ = sdk.initPrinter(conn)
    _ = sdk.printText(conn, text: "Hello USB\n")
    _ = sdk.feedAndCutPaper(conn)
    sdk.disconnectPrinter(conn)
}
```

Network:

```
sdk.connectNetworkPrinterAsync(ip: "192.168.1.100", port: 9100) { conn in
    DispatchQueue.global(qos: .userInitiated).async {
        _ = sdk.initPrinter(conn)
        _ = sdk.printText(conn, text: "Hello macOS PrinterSDK\n")
        _ = sdk.feedAndCutPaper(conn)
        sdk.disconnectPrinter(conn)
    }
} onFailed: { print($0) }
```

Images use `NSImage` with `printImage(_:image:)`.

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3. Connections

Transport	API
USB	`getUsbDevices()` / `connectUsbPrinter(_:)`
BLE	GATT `FF00` / write `FF02`
TCP	port **9100**

If macOS already claimed the USB device via a printer driver, open may fail — unplug/replug or disconnect CUPS claim first.

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4. Printing

POS / page mode / label / status usage matches the iOS manual. See API docs for parameters.

Notes: raster is GS v 0 today; label APIs target label printers; prefer `printTextInGBK` for Simplified Chinese.

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5. FAQ

- **TCP fails:** same LAN + port; Sandbox needs Outgoing Connections.
- **BLE missing:** Bluetooth on + usage string; Sandbox needs Bluetooth capability.
- **Share code with iOS:** yes for print logic; only image type and entitlements differ.

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6. Delivery

Ship `HSPOS-PrinterSDK-macOS-*.zip`. API reference shares the iOS function docs (same source).