



Identify what matters

A decorative graphic in the top left corner consisting of several overlapping circles and arcs in red and blue, with small dark blue dots at various points.

# EVOLIS SDK

A vertical dark blue line extending from a dot on a horizontal arc down to the "Get Started" text.

Get Started

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## SCOPE

### Printers' compliance

The following printer's models are supported in the **Evolis SDK** :

- Zenius, Primacy 1, Elypso, Apteo, KC200, KC200/B, KM500B, KM2000B, KC Essential, KC Prime, KC Max (Managed by **Evolis Premium Suite**).
- Edikio Access, Flex, Duplex (managed by the **Edikio Printer Suite**).
- Badgy 100 et Badgy 200 (managed by the **Badgy Premium Suite**)
- Quantum 2, Tattoo RW2 (managed by legacy generation driver).
- **Evolis Primacy 2 (Evolis Premium Suite 2 release above 7.0.0.0)**



Term **Evolis Suite** gathers **Evolis Premium Suite, Evolis Premium Suite 2, Edikio Printer Suite, Badgy Premium Suite**.



**Avansia** is not taken in charge by this SDK package, please contact your Evolis sales representative or your Evolis official distributor to get Avansia SDK.



**Quantum 2 and Tattoo RW2** are only compliant with direct communication development method (for further details, refer to the [decision matrix](#)). They are currently not compliant with Android API nor API MODE - Evolis Services Provider (client/server or library).

### Evolis Premium Suite Compliance

If you are using Evolis Premium Suite above release 7.0.0.0, please refer to [Evolis SDK FAQ](#), check section "Matrix differences for Evolis Premium Suite release inferior to 7 versus Evolis Premium Suite 2" section to adapt your development.



Evolis Premium Suite standard and supervised mode corresponds to standard mode in Evolis Premium Suite 2

### Operating System compliance

- **Windows** Operating System : at least Windows 10.
- **Linux** : Debian or Red Hat based distributions.
- **MacOS** : above 10.11 release (codename El Capitan).
- **iOS** : any release that takes in charge JSON RPC V2 for Evolis Services Provider API.
- **Android** :
  - above Android 5.1 (Lollipop) for direct device communication (**ANDROID Library**), Android studio 22 or above.
  - any release that takes in charge JSON RPC V2 for API MODE (**Evolis Services Provider**).

# INTRODUCTION



I know what I need already, jump me to :

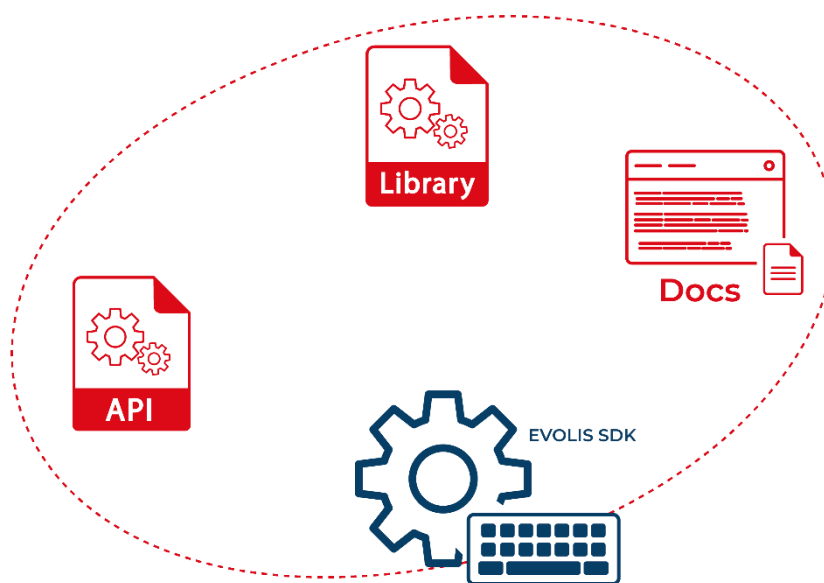
[Decision matrix](#)

[Available source codes](#)

[Firmware commands guides](#)

[Troubleshooting](#)

## General Evolis SDK content:



Evolis provides different ways to develop application software for its printer's range.

- "API" modes:
  - [Evolis Services Provider](#) (or Evolis Services Provider 2 for Evolis Premium Suite 2) framework = API MODE : A client-server API, based on a service embedded in Evolis Suite : Evolis Premium Suite, Edikio Printer Suite, Badgy Premium Suite.
  - [Wrapper for Evolis Services provider](#) framework (libraries) : **EvoSdk1Base.dll and EvoSdk1lib.dll**
- Several [direct communication](#) **modes** (mostly dedicated to Quantum2 and TattooRW2):
  - Library (lomem.dll).
  - Spooler.
  - GDI (Graphical Device interface, [Microsoft Documentation](#)).

- [ANDROID library](#) Android dedicated direct to Evolis device communication library (minimal version 5.1, codename Lollipop).



Direct communication mode is mostly dedicated to **Quantum 2 and Tattoo RW2** that are managed by the previous generation driver.

This documentation provides key points to determine the most appropriate development method for your project.

## EVOLIS SDK CLICKABLE MAP



## LIMITATIONS

### Contactless and Smart encoding

Both contactless and smart card encoding require USB connection. **Only** Magnetic encoding is possible via networked printer(s).

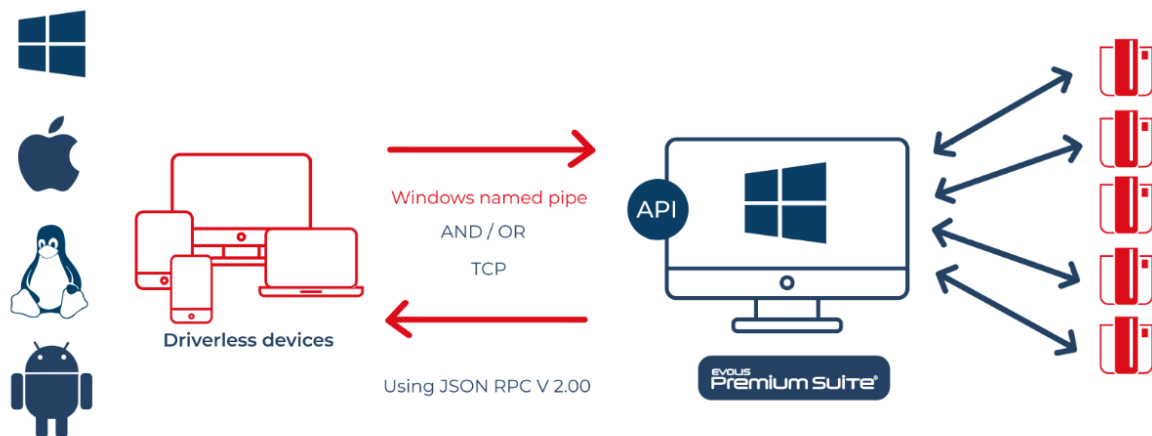
Smart and contactless encoding are not natively supported over network communication. Contact Evolis Official distributor or Evolis sales representative to qualify such a request.

### Technical support

Evolis technical support team provides support on this SDK to explain documentation, improve documentation quality, find information related to your project or help to troubleshoot a specific issue. Under no circumstances will the Evolis technical support team take the place of the solution developer (code writing, compilation, testing of the client application, etc.).

## AVAILABLE DEVELOPMENT METHODS

### API MODE : Evolis Services Provider



### Description

- **Require (mandatory) a Windows computer as a Server.**
- Client/server architecture : JSON RPC over TCP and/or Windows named pipe and JSON RPC based textual requests as communication means.
- Client is driver-less and could be any type of device that supports JSON RPC V2.
- Require an Evolis Suite (**Evolis Premium Suite, Evolis Premium Suite 2 , Edikio Printer Suite, Badgy Premium Suite**) installed as administrator in

Standard or Supervision mode (only standard mode available for Evolis Premium Suite 2).

## Available resources

### Development Guides :

- [How to print monochrome](#)
- [How to encode and print monochrome magnetic](#)
- [Print color dual sided](#)
- [Manage errors](#)
- [Json Requests library](#)

### Technical references:

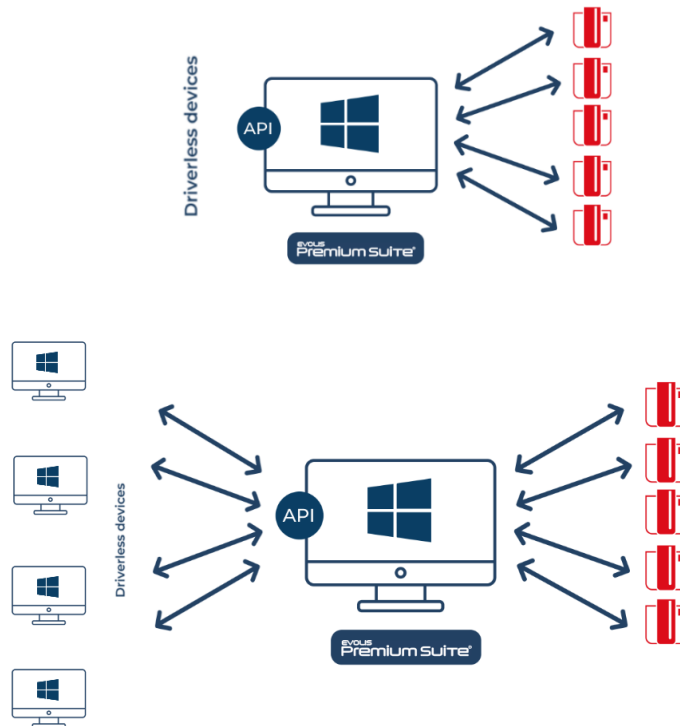
- [Print settings guides](#)
- [Reference guide](#)
- [Troubleshooting](#)
- [Firmware commands guides](#)

### Utilities:

- [ESPRequestTool \(Windows binary and source code\)](#)
- [Demo application and source](#)

**Smart and contactless encoding** relies on external hardware (from third party suppliers) that has their own SDK. To perform a card's contactless or smart encoding. First enable the ADD-ON service of the Evolis Services Provider (see [Reference guide](#)). Then get encoder's SDK that is available on the public section of the Evolis website : [Encoder's drivers and documentations | Evolis](#) .

## EvoSDK1lib.dll : Wrapper for API MODE (Evolis Services Provider)



## Description

- Client/server architecture (Driver-less) : **EvoSDK1lib.dll** (and EvoSdk1Base.dll ) includes wrapped "ready to use" functions for printing, managing printers and graphics.
- Dedicated to developer that intends to integrate a library in API mode
- Client **and** Server is a Windows based computer.
- Require an Evolis Suite (**Evolis Premium Suite, Evolis Premium Suite 2, Edikio Printer Suite, Badgy Premium Suite**) installed as administrator in Standard or Supervision mode (supervision mode not available for Evolis Premium Suite 2).



## Available resources

### Guides :

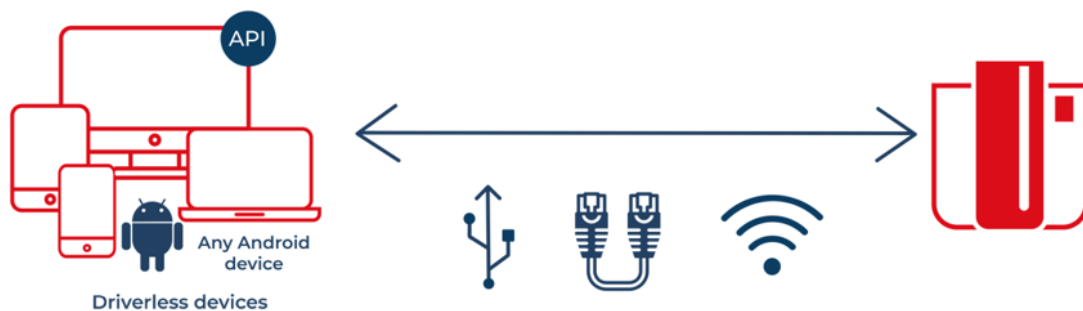
- [Development guide](#)

### Evolis library (x86 and x64):

- [EvoSdk1Base.dll / EvoSdk1Lib1.dll](#)

### [Demo application and source](#)

## Android Library (Direct to device communication)



## Description

- An ".aar" library that allows to communicate, print, set, manage Evolis printer from an Android device (> Android 5.1).
- Direct device to device communication.
- Handle both USB and networked (Ethernet, WI-FI) communication.

## Available resources

### Development Guide :

- [Dev guide Android](#)

### Android library:

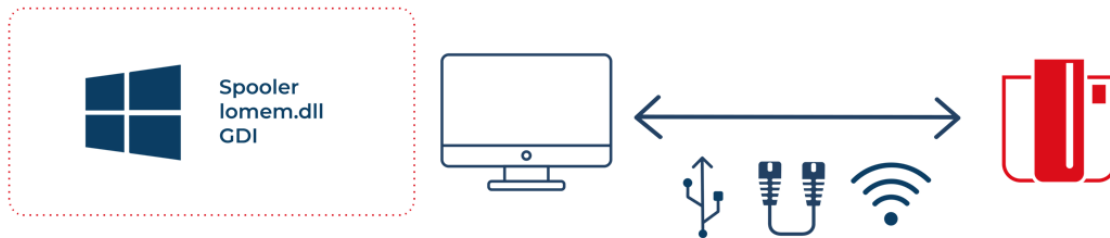
- [evolIS\\_sdk\\_android.aar](#)

### [Demo application \(evolIS-demo-apk\) and source](#)



To be able to test the signed APK, developer's mode **must** be enabled on your Android device (refer to manufacturer's instructions to enable the developer's mode).

## Direct communication mode:



### Description

- Mostly dedicated to Quantum 2 and Tattoo RW2 printers (due to previous generation driver architecture).
- For Windows Operating System : lomem.DLL, GDI, Spooler.
- Require a deeper technical knowledge of the printer functioning

### Technical limitations

- Require an Evolis driver; or an Evolis Suite installation in minimal mode.
- Only magnetic encoding over the network.
- For all printer that are "supervised", it is strongly advised to send a Pps;0 command to disable internal printer supervision (embedded in the firmware of the printer).

## Available resources

### Development Guide :

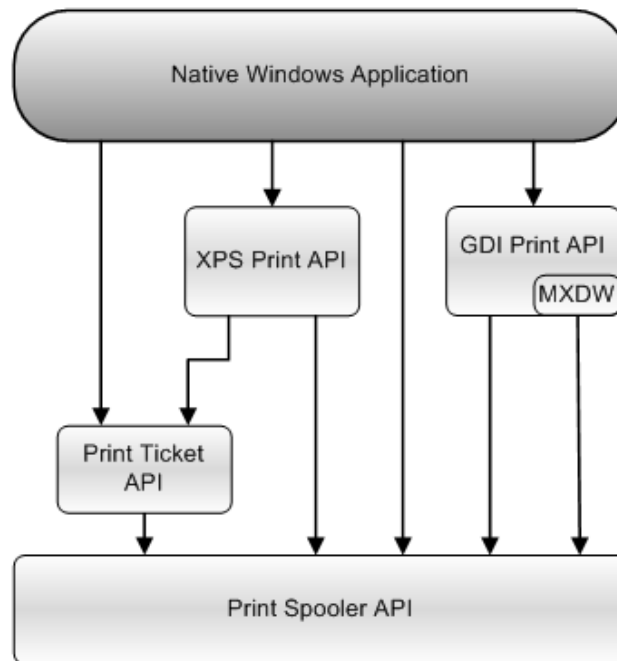
- [Embedded in the Firmware commands guide of Quantum 2 and TattooRW2](#)
- [Get the latest lomem.dll release](#)

### Direct communication:

- [Windows spooler](#)
- [lomem.dll](#)

## Windows API commands

Windows provides applications with a comprehensive set of functions (XPS Print API, GDI Print API or Print Spooler API) that enable printing on different devices.



These commands (CreateDC()/DocumentProperties(), StartJob(), ...) are still usable with the Primacy 2 but with one limitation.

The ExtEscape() function with "PASSTHROUGH" parameter can't be used anymore (ie ExtEscape(PASSTHROUGH, Escape+"Sic"+CarrigeReturn).











( [PASSTHROUGH Printer Escape function \(Windows\) | Microsoft Learn](#) )



Warning in the case of using the method: "copy to spooler".

## DECISION MATRIX

Click on link that corresponds to available environment / development method (see also [Languages samples matrix](#)).

Printers	OS	Communication Mode			
		API Mode		Direct Communication	Link
		Server	Client		
<b>Zenius, Primacy 1 &amp; 2, Elypso</b> <b>KC200, KC200B, KM500B, KM2000B</b> <b>KC Essential, Max, Prime</b> <b>Badgy 100, Badgy 200</b> <b>Apteo</b> <b>Edikio Access, Edikio Duplex, Edikio Flex</b>		✓	✓	lmem.dll / Spooler	<a href="#">↗</a>
		✗	✓	Upon request	<a href="#">↗</a>
		✗	✓	Upon request	<a href="#">↗</a>
		✗	✓	Evolis SDK for Android (.aar file)	<a href="#">↗</a>
		✗	✓	Upon request	<a href="#">↗</a>
<b>Quantum2</b> <b>Tattoo RW 2</b>		Not supported		lmem.dll / Spooler	<a href="#">↗</a>
				Upon request	<a href="#">↗</a>
				Upon request	
				Upon request	
				Not supported	

## AVAILABLE SOURCES CODE MATRIX

Development method	Available source code sample
API MODE (Evolis Services Provider)	
API MODE : <b>Evolis Services Provider</b>	<a href="#">C Minimal client</a> <a href="#">C# Minimal client</a> <a href="#">Delphi Minimal client</a> <a href="#">Java Minimal client</a> <a href="#">Pascal Minimal client</a> <a href="#">Python Minimal client</a> <a href="#">VB.net Minimal client</a>
Wrapper for ESPF API mode Library: <b>EvoSdkLib1.dll / EvoSdk1Base.dll</b>	<a href="#">C# Full demo application software</a> <a href="#">C++ Full demo application software</a>
Android	
API MODE: <b>Evolis Services Provider</b>	<a href="#">JAVA client for Evolis Services Provider</a>
Library: <b>evolis_sdk_android.aar</b>	<a href="#">JAVA (Android Studio project)</a>
iOS	
API MODE : <b>Evolis Services Provider</b>	<a href="#">SWIFT client for Evolis Services Provider</a>
Linux	
API MODE : <b>Evolis Services Provider</b>	<a href="#">JAVA client for Evolis Services Provider</a> <a href="#">PYTHON client for Evolis Services Provider</a>
MacOS	
API MODE : <b>Evolis Services Provider</b>	<a href="#">JAVA client for Evolis Services Provider</a> <a href="#">PYTHON client for Evolis Services Provider</a>
Direct communication methods for Quantum2 / TattooRW2	
Library: <b>lomem.dll</b>	<a href="#">C++ Download a bitmap</a> <a href="#">C++ Magnetic encoding</a> <a href="#">C++ Graphics management</a> <a href="#">C# TattooRW2 print</a> <a href="#">C#_Printer_Status</a> <a href="#">JAVA JNI tutorial with lomem.dll</a>
Windows <b>Spooler</b>	<a href="#">C++ GDI Print and Magnetic Encoding</a> <a href="#">CSharp_magnetic_encoding</a>

# GENERAL DISCLAIMER

While Evolis makes every effort to deliver high quality products, we do not guarantee that our products are free from defects. Our SDK, samples and demo software, any content or documentation delivered in this package (Evolis SDK) is provided "as is". The use of it is at your own risk.

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No oral or written communication from or information provided by Evolis shall create a warranty.

Under no circumstances shall Evolis be liable for direct, indirect, special, incidental, or consequential damages resulting from the use, misuse, or inability to use this Software Development Kit (named Evolis SDK), even if Evolis has been advised of the possibility of such damages.



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