

Card SDK requirements and interoperability

This article contains requirements and interoperability data for [Nexus Card SDK](#).

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This article is valid for Nexus Card SDK 5.5.

Requirements

Supported Windows platforms for client PC:

- Windows 7 (32 and 64 bit, not IA-64)
- Windows 8 / 8.1 (32 and 64 bit, not IA-64)
- Windows 10 (32 and 64 bit)

As soon as Microsoft announces End of Support for a certain Windows platform, Nexus will no longer support this specific Windows version. Therefore that Windows version will be removed from the officially supported platforms.

Nevertheless, Nexus typically does not remove any functionalities in the software (for example drivers) as long as there is no technical need to do this. So, customers can still use Nexus Card SDK on outdated environments at their own responsibility and risk. The software will still work in most of the cases, but Nexus will no longer do tests and bug fixing related to outdated Windows platforms and will also no longer support these setups.

Both the applications of Nexus Card SDK and the ActiveX components run as 32-bit applications, even if the environment is a 64-bit operating system (which is automatically recognized by the Windows operating system).

Therefore, all the drivers required for the connection and operation of external devices (for example, encoders, scanners, printers, etc.) have to support 32-bit mode, that is, they must be accessible from a 32-bit application.

Note: The drivers included in the program package (for example, the dongle driver) support 32/64 bit mode by default.

Disk space required:

- Approximately 150 MB

Interoperability

Supported ID card printer models are listed below (subject to the availability of the drivers for the respective Windows versions).

| Printer name / Manufacturer | Windows 7 32- and 64-bit | Windows 8/8.1 32- and 64-bit | Windows 10 32- and 64-bit |
|---|--------------------------------|------------------------------------|---------------------------------|
| EDIsecure (Matica Technologies / Digital Identification Solutions) | | | |
| XID 8300 | ✓ | ✓ | ✓ |
| XID8600 | - | ✓ | ✓ |

Related information

- [Install Card SDK](#)
- [Nexus Card SDK](#)

| | | | |
|----------------------------|---|---|---|
| XID 93xx | ✓ | ✓ | ✓ |
| XID 5xxie | ✓ | - | - |
| DCP 360i | ✓ | ✓ | - |
| Fargo | | | |
| Fargo DTC4250e, DTC4500e | ✓ | ✓ | ✓ |
| Fargo HDP5000 | ✓ | ✓ | ✓ |
| Fargo HDP5600 | - | ✓ | ✓ |
| Fargo HDP8500 | - | ✓ | ✓ |
| Other | | | |
| Datacard SD, CD, SE-Series | ✓ | ✓ | ✓ |
| Magocard Rio Pro | ✓ | ✓ | ✓ |
| Magocard Rio Pro 360 | - | - | ✓ |
| Magocard Prima 4 | ✓ | ✓ | ✓ |
| Magocard Pronto | ✓ | ✓ | ✓ |



Hints for Matica XID printers

In previous versions of Nexus Card SDK all XID Retransfer Printers were using the JVC Printer driver. Matica released in 2016 the new "EDISecure Connect Driver" which is required for certain setups (for example, new EDISecure Laminators and new printer models). Starting with Nexus Card SDK 5.2 release the EDISecure Connect Driver is supported as well. Currently we are not yet supporting all functionalities of EDISecure Connect. Today Nexus Card SDK supports Printing and Encoding with one printing device (and inline encoding with one RFID encoding position and the CryptoChip position). Optionally one laminator can be attached. Add-ons like IPM, ACEF or more sophisticated setups with several printing and lamination devices are not supported today. Reference Setup for Card SDK is XID 9300 with ILM-LS

| Printer name / Manufacturer | Magnet | Proximity encodings | | | |
|---------------------------------|--------|---------------------|--------|-----------|--------|
| | | LEGIC | MIFARE | HITAG, EM | Proxif |
| EDISecure (Matica Tech) | | | | | |
| XID 8300 | ✓ | ✓ | ✓ | ✓ | - |
| XID8600 | ✓ | ✓ | ✓ | ✓ | ✓ |
| XID 93xx | ✓ | ✓ | ✓ | ✓ | ✓ |
| XID 5xxie | ✓ | ✓ | ✓ | ✓ | ✓ |
| DCP 360i | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fargo | | | | | |
| Fargo DTC4250e, DTC4500e | ✓ | ✓ | ✓ | ✓ | - |
| Fargo HDP5000, HDP5600, HDP8500 | ✓ | ✓ | ✓ | ✓ | - |

| | | | | | |
|-------------------------------|---|---|---|---|---|
| Fargo HDP6600 | ✓ | ✓ | ✓ | ✓ | - |
| Other | | | | | |
| Datacard SP55, SP75 | ✓ | ✓ | - | - | - |
| Datacard SR200, SR300 | ✓ | - | - | - | - |
| Datacard SD-, CD-, SE- Series | ✓ | - | - | - | - |
| Magocard RIO Tango 2e | ✓ | ✓ | ✓ | ✓ | ✓ |
| Magocard Rio Pro | ✓ | ✓ | ✓ | ✓ | ✓ |
| Magocard Rio Pro 360 | - | ✓ | ✓ | ✓ | - |
| Magocard Prima 4 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Evolis Tattoo RW | - | - | ✓ | - | - |

The following ID card encoding methods are supported:

RFID:

- LEGIC (prime, advant)
- LEGIC Hybrid + CTC (prime+advant)
- MIFARE Classic (1K, 4K)
- MIFARE DESFire EV1 (optionally with SAM AV1/AV2)
- MIFARE DESFire EV2
- HITAG 1/2/S
- Proxif
- HID Prox (read only)
- EM (read only)
- UHF EPC Gen2
- iCode SLI

Others:

- Magnetic Stripes (all ISO tracks)
- NFC Mobile phone with a suitable RFID applet

Integrated encoding of contact chips, LEGIC, MIFARE, and magnetic stripes is possible for a variety of ID card printers (click [here](#) to see a list).

Generally, a maximum of 1 RFID encoding position is available inside the card printer. Exception: The FARGO HDP5000 has (with the "Duplex" option) 2 RFID encoding positions. At each position, one of the following encoding devices can be used (if enough space for mounting the device or antenna is available):

RFID combinations with FARGO HDP5000 Duplex:

| FARGO HDP5000 Duplex | Device at RFID Pos. 1 | Device at RFID Pos. 2 | Some of the possible encodings within the same production step and with one card body: |
|----------------------|-----------------------|-----------------------|---|
| Variant 1 | LEGIC encoder | OMNIKEY 5x21 | <ul style="list-style-type: none"> • MIFARE classic + LEGIC prime/advant/CTC • MIFARE DESFire EV1 (Standard) + LEGIC prime/advant/CTC • MIFARE DESFire EV1 (Standard) + LEGIC prime/advant/CTC + Smartcard |

| | | | |
|-------------------|---------------|--------------------------|--|
| Variante 2 | MFP80 | OMNIKEY 5x21 | <ul style="list-style-type: none"> • MIFARE DESFire EV1 (Standard) + MIFARE DESFire EV1 (Non-Standard) • MIFARE DESFire EV1 (Standard) + MIFARE DESFire EV1 (Non-Standard) + Smartcard |
| Variante 3 | OMNIKEY 5x21 | FEIG OBID | <ul style="list-style-type: none"> • MIFARE DESFire EV1 (Standard) + Reading EM 4105/4200 • MIFARE DESFire EV1 (Standard) + Reading EM 4105/4200 + Smartcard |
| Variante 4 | LEGIC encoder | FEIG OBID | <ul style="list-style-type: none"> • LEGIC prime/advant/CTC + Reading EM 4105/4200 • LEGIC prime/advant/CTC + Reading EM 4105/4200 + Smartcard |
| Variante 5 | LEGIC encoder | OMNIKEY 5x21 + FEIG OBID | <ul style="list-style-type: none"> • MIFARE classic + LEGIC prime/advant/CTC + Reading EM 4105/4200 • MIFARE DESFire (Standard) + LEGIC prime/advant/CTC + Reading EM 4105/4200 • MIFARE DESFire (Standard) + LEGIC prime/advant/CTC + Reading EM 4105/4200 + Smartcard |

The following encoders are supported.

| Encoding methods | Supported encoders | | |
|---------------------------|--|---|-----------------------------------|
| | Device | Installation module or Component | Connection U: USB S: Serial |
| LEGIC (13.56 MHz) | | | |
| LEGIC prime | MIMIU-S various | MSM 100-S V3.x MSM 100-S V4.0 SC-2560 | S |
| LEGIC advant LEGIC CTC | various | SC-2560 SM-4500 (for CTC-Chip, LEGIC OS-2000 V7.1 or higher is required) | S |
| MIFARE (13,56 MHz) | | | |
| MIFARE Classic (1K, 4K) | Philips MF RD560/ADA | | S |
| | Gemplus GCR680 | | S |
| | Gemalto GemEasy332 | | S |
| | Gemalto GemEasy-Access332 (new name: GemProx-P2) | | S |
| | | Gemalto GemEasyLink332 (new name: GemProx-C2) | S |
| | OMNIKEY CardMan 5121 | OMNIKEY CardMan 5121 Board | U |
| | OMNIKEY CardMan 5321/5421 | OMNIKEY CardMan 5321/5421 Board | U |

| | | | |
|--|--|---|--|
| MIFARE DESFire EV1/EV2 | OMNIKEY CardMan 5121 | OMNIKEY CardMan 5121 Board | U |
| | OMNIKEY CardMan 5321/5421 | OMNIKEY CardMan 5321/5421 Board | U |
| | OMNIKEY CardMan 5x22 | OMNIKEY CardMan 5x22 | U |
| | OMNIKEY 5127CK-Mini | OMNIKEY 5127CK-Mini | U |
| | MFP72, MFP80 | MFP72/80 | U |
| HITAG (125 kHz) | | | |
| HITAG 1,2 | Philips/Mikron HT RM440 | | S |
| | | Feig OBID ID RW01 | S |
| | Feig OBID ID RW02 | | S |
| HITAG 1,2,S | Frosch HT RM401 | | S |
| Proxif (125 kHz) | | | |
| Proxif (HITAG 1) | Philips/Mikron HAT RM440 | | S |
| | Interflex Proxif Encoder | Interflex Proxif Board | S |
| HID | | | |
| Prox (125 kHz) | ProxPro 5352A | | S |
| | RFIDeas pcProx Reader | | U |
| EM (125 kHz) | | | |
| EM4001,EM4002, EM4022,EM4102, EM4200, Unique, Q5,e5555 | FEIG OBID ID RW 40.30-U | FEIG OBID ID RW 40.30-U (Board) | USB (Virt Port) |
| UHF (860-960 MHz) | | | |
| UHF EPC Gen2 | ThingMagic M5e | ThingMagic M5e-C | U |
| Memory chip cards | | | |
| Cards with an asynchronous protocol (T=0, T=1); with a synchronous protocol (2-wire protocol / 3-wire protocol, I ² C-Bus); | OMNIKEY B1 CardMan 9010 | | S |
| Magnetic Stripe Encoding | | | |
| External Devices | <ul style="list-style-type: none"> • Jarltech 1210R • Scanteam 6980 • MKL-03/2 • Rinas MSL 1233 • MKW 01 • Universal Magstripe Encoder | | <ul style="list-style-type: none"> • S • S • S • S • S • S |
| Magnetic stripe encoders (LoCo, HiCo) built into printers | | Almost all card printers that conform to ISO 7810 standards | |

Smartcards are only supported from Nexus Card SDK in conjunction with ID Management systems such as:

- Nexus SmartACT
- Nexus ProACT
- [Nexus PRIME](#)

For more information, see the appropriate Technical Specifications of the above mentioned applications and program packages.

The **Capture** dialog supports the following cameras:

| Camera type and name | Connection type | | | Live View | Software controlled | Windows | | |
|--|-----------------|-----|----------|----------------|---------------------|-------------|-------------|--------------|
| | S-Video | USB | FireWire | | | 7 32+64 Bit | 8 32+64 Bit | 10 32+64 Bit |
| Analogue Cameras¹ | | | | | | | | |
| ID-CAM S / FCB / FCBX | ✓ | - | - | ✓ | ✓ _{2,3} | ✓ (32 Bit) | - | - |
| Vision 45 | ✓ | - | - | ✓ | ✓ _{2,3} | ✓ (32 Bit) | - | - |
| Canon Digital Cameras | | | | | | | | |
| Canon PowerShot A620, A640, SX100 IS, SX110 IS, S3 IS, S5 IS, G7, G9, G10, S80 | - | ✓ | - | ✓ | ✓ | ✓ | - | - |
| Canon PowerShot A520, A519, S70, S60, S50, S45, G1, G2, G3, G5, G6 | - | ✓ | - | ✓ | ✓ | - | - | - |
| Canon EOS-Digital cameras⁴ | | | | | | | | |
| EOS 2000D, EOS 4000D, EOS 1300D, EOS 1200D /Rebel T5, EOS 1100D /Rebel T3, EOS 1000D /Rebel XS, EOS 750D /Rebel T6i, EOS 760D /Rebel T6s, EOS 700D /Rebel T5i, EOS 670D, EOS 650D /Rebel T4i, EOS 600D /Rebel T3i, EOS 550D /Rebel T2i, EOS 500D /Rebel T1i, EOS 100D /Rebel SL1, EOS 70D, EOS 60D, EOS 60Da, EOS 50D, EOS 40D, EOS 7D, EOS 5D Mark III, EOS-1D Mark IV, EOS-1D X, EOS-1D Mark III, EOS-1Ds Mark III | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| EOS 450D /Rebel XSi | - | ✓ | - | ✓ | ✓ | ✓ (32 Bit) | - | - |
| Other | | | | | | | | |
| All with TWAIN-Treiber | - | ✓ | - | ✓ ₅ | - | ✓ | ✓ | ✓ |
| USB Cameras | | | | | | | | |

| | | | | | | | | |
|--|---|---|---|---|---|------------|---|---|
| Vision 480, EDIsecure CCD 7000 | - | ✓ | - | ✓ | ✓ | ✓ (32 Bit) | - | - |
| DV- Cameras | | | | | | | | |
| All models with Firewire Interface | - | - | ✓ | ✓ | - | ✓ | ✓ | |
| Web-Cams via WDM | | | | | | | | |
| All Webcams (integrated or USB) | | | | | ✓ | ✓ | ✓ | ✓ |
| <p>¹ Requires a Falcon video board in a PCI slot</p> <p>² The zoom, brightness, etc. are controlled via the Capture dialog using the mouse</p> <p>³ Requires an additional serial port</p> <p>⁴ Other EOS models are not supported or do not have a 'LiveView' function</p> <p>⁵ Depending on the model and the TWAIN/VIA/WDM driver involved</p> | | | | | | | | |

For the capture of signatures, devices from the following manufacturers (amongst others) are supported:

- SignoTec Sigma (via TWAIN driver)
- SignoTec Omega (via TWAIN driver)
- StepOver duraSign Pad Brilliance

Devices from other manufacturers and specific device designations on request.

Preferred device:

- Crossmatch "Verifier 300 USB"

Other devices can also be connected if they have a 32-bit TWAIN driver for the respective client operating system.

Generally, all devices with a 32-bit TWAIN driver for the respective client operating system can be connected as document/image scanners.

Standard device for scanning of bar codes and QR codes:

- Datalogic Magellan 1100i

Standard device for scanning the MRZ code of national ID cards and passports:

- 3M Passport Reader AT9000 MK2

- Arabic
- Chinese
- English
- French
- German
- Italian
- Polish
- Portuguese
- Russian
- Spanish
- Swedish

Other languages can be easily integrated

