springcard®

CSB4-U

USB driver installation

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TABLE OF CONTENT

1. INTRODUCTION

This manual explains how to install SpringCard USB driver for CSB4-U, and compliant devices.

USB driver is shipped in a software package, referenced SDD100, together with a diagnostic application.

1.1. COVERED PRODUCTS

SpringCard CSB4-U is an USB contactless reader/writer. Its core is the SpringCard K531 contactless module. A dedicated FTDI chip implements the USB-to-serial functionality.

This manual also covers all SpringCard products using the same FTDI chip, namely :

- **SpringCard CSB5-U** : USB contactless reader/writer with embedded smartcards and SIM/SAM readers, and optional biometric (fingerprint) capabilities,

- **SpringCard INT-USB-TLL and INT-USB-ITL** : interfaces for K531 and K632 modules, IWM-K531 and IWM-K632 proximity readers, and more.

This USB driver targets **Microsoft Windows 2000/XP/Vista** only.

1.2. ALTERNATE OPERATING SYSTEMS

On most operating systems, developers can use the K531 SDK to build applications for the CSB or other K531-based products.

Generally speaking, the FTDI chip will be seen as a Virtual Communication Port (VCP), and the SpringCard product will be accessed through serial communication.

Please refer to K531 development related documentations for more information.

Linux : kernel 2.6 includes the driver for the FDTI chip. SpringCard products using this chip are seen as a VCP, with the name `/dev/ttyUSBxx`. Developers can use the K531 SDK to build applications using the CSB4-U through this channel.

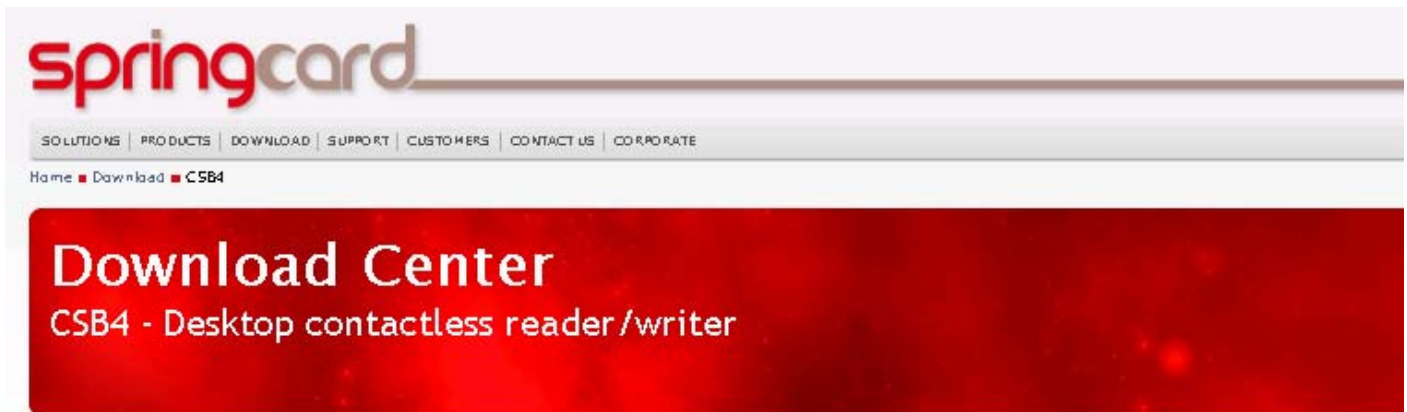FDTI provides also drivers for **Windows CE** and **Mac OS**.

VCP page on FTDI's web site :
http://www.ftdichip.com/Drivers/VCP.htm

1.3. WHERE CAN I FIND THE SOFTWARE ?

The **CSB4 USB driver** is available online at :

http://www.springcard.com/download/csb4.html

Download the file labelled "CSB4 Family : Legacy USB driver" (sdd100).

2. USB DRIVER INSTALLATION

2.1. READ ME FIRST

Please read following warning before connecting the CSB4-U (or compliant product) to your computer :

Do not connect the device now !

The USB driver must be installed before connecting the device to your computer.

Connecting the device before actual driver installation may lead to a bogus configuration, as Windows may download and install automatically a signed driver, instead of using the expected one.

Disconnect Windows XP SP 1 from the Internet during this procedure

Some users have been experiencing problems installing this driver under Windows XP with Service Pack 1.

This is due to Windows XP Update trying to automatically install a certified replacement driver, instead of the SpringCard provided driver.

This problem can be overcome by temporarily disconnecting from the Internet while installing the driver and when connecting the device to the computer for the first time.

Tip : don't forget to download the driver before disconnecting from the Internet.
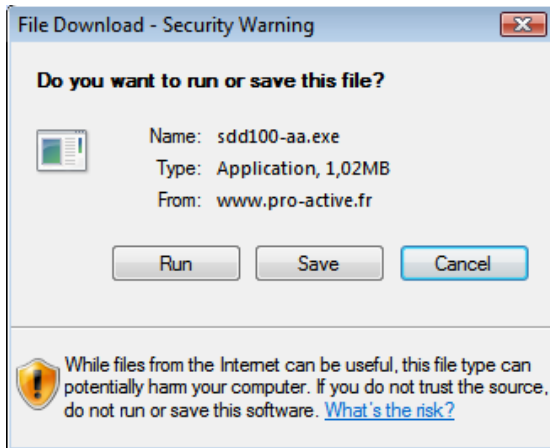

Use a direct USB connection

When you will connect the device to your computer for the first time, plug it directly into an USB port of the computer.

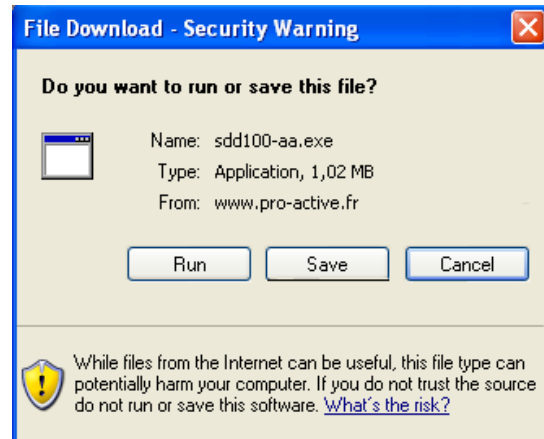Do not connect it through any kind of USB hub or other adapter.

2.2. RUN SDD100 SETUP WIZARD

■ Log-on to your computer with administrative privileges (Administrator account).

■ Run the downloaded installation program.
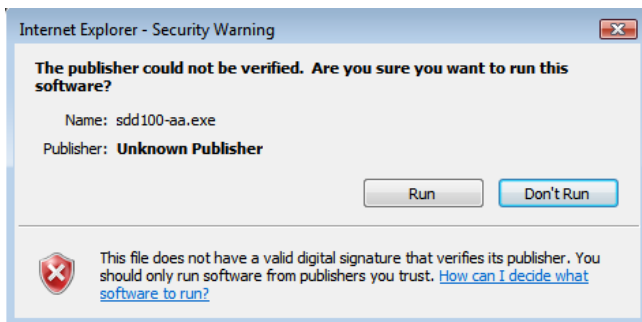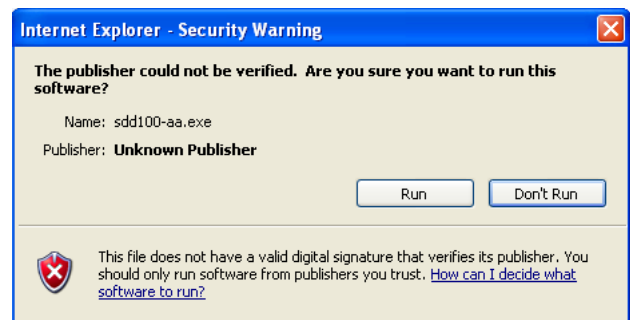
Vista

XP

- If prompted by a security warning (see below), please accept driver installation anyway by clicking on "Run".

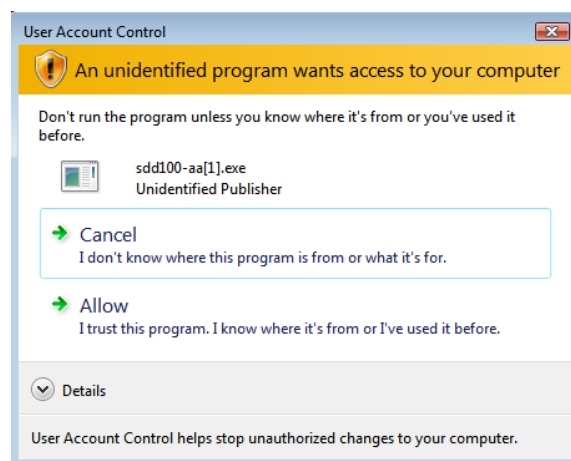*This warning appears only because the package is not digitally signed.*

Vista

XP

- **Vista** : the User Account Control system asks you to confirm you want to run the program. Click "Allow".
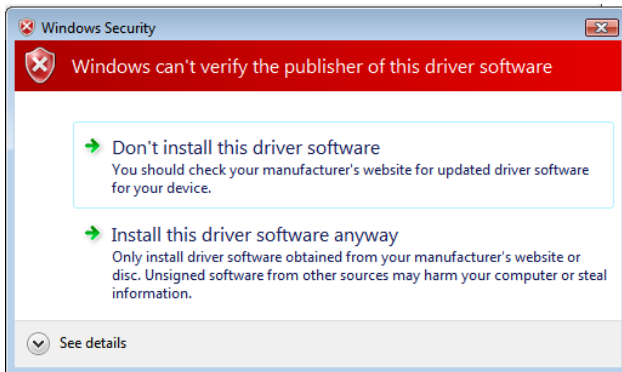
Vista

Now follow the installation program, clicking "Next" at each step.

■ Depending on your security settings, you may be asked twice to confirm driver installation (see below). Please accept driver installation by clicking "Install anyway" or "Continue anyway".

This warning appears only because Microsoft WHQL has not signed the installation package, but the FTDI driver it contains is actually WHQL-certified.
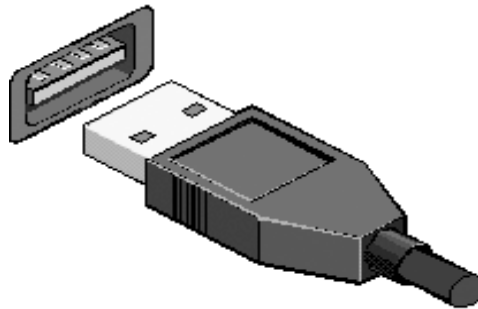
⊞ *Vista*

⊞ *XP*

■ Once the driver has been successfully installed, click "Finish" in the last screen.

3. CONNECT THE DEVICE ON THE COMPUTER

3.1. FIRST CONNECTION ON THE COMPUTER

■ Plug the CSB4-U connector into a free USB port.

■ In most cases, Windows will automatically activate the device. Sometimes, the "Found new hardware wizard" will be launched instead. Please follow the procedure below, depending on the operating system version :
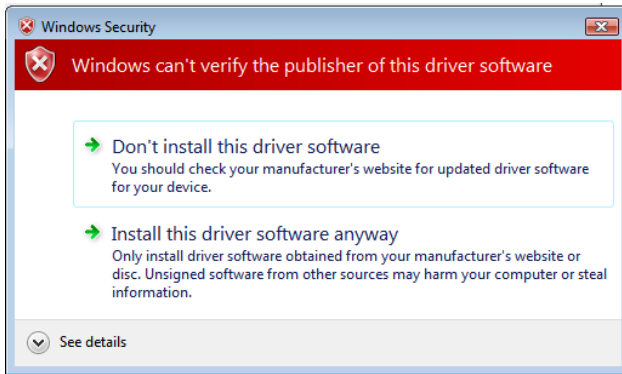
3.1.1. Windows 2000

If prompted by the "Found new hardware wizard",

■ Select "Search for a suitable driver for my device",

■ Check the "Specify a location" box,

■ When the prompted "Copy manufacturer's files from", browse to the driver installation directory (namely `C:\Program Files\SpringCard\SDD100`),

■ Confirm your choice,

■ The device is now ready for use.

3.1.2. Windows Vista and Windows XP

If prompted by the "Found new hardware wizard",

■ If prompted for connection to Windows Update, select "Do not connect to Windows Update this time",

■ Select "Install from a list or specific location",

■ Select "Search the best driver in the locations", check the "include this location in the search" box, and browse to the driver installation directory (namely `C:\Program Files\SpringCard\SDD100`),

■ If prompted, please accept driver installation by clicking "Install anyway" or "Continue anyway" :

⊞ *Vista*   **⊞ *XP***

■ The device is now ready for use.

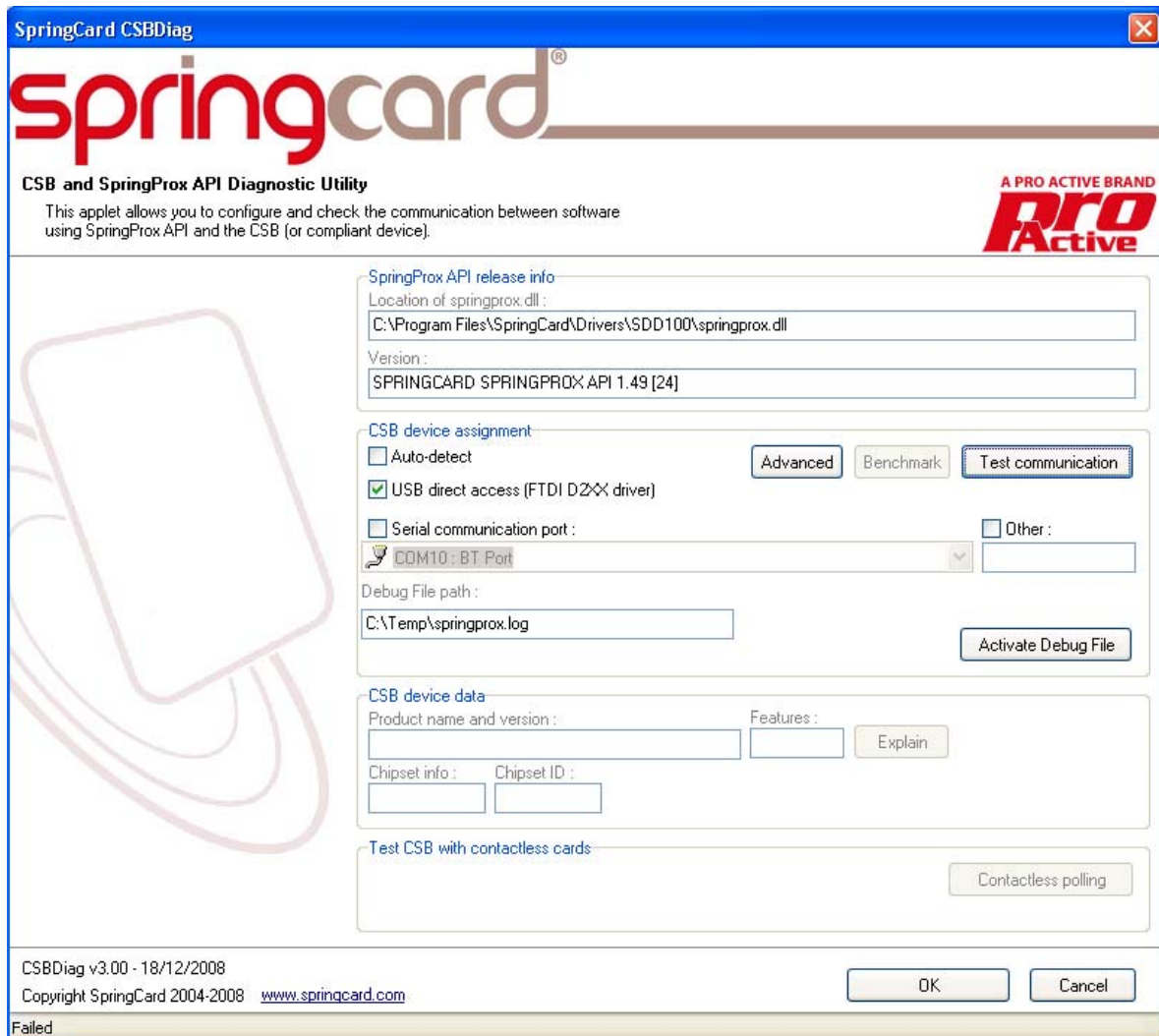## 3.2. VERIFY DRIVER INSTALLATION

3.2.1. Windows Vista

■ In the "Start menu", click on "Control Panel"

■ Click on "Device manager"

■ You will be prompt by User Account Control ; click on "Continue"

■ In the menu, check that the selected View is "Device by connection ".

■ In "PCI bus" section, look for a "SpringCard CSB Contactless coupler".

■ Check that a serial communication port has been assigned to the product.

3.2.2. Windows XP

■ In the "Start menu", select "Settings" – "Control Panel"

■ Click on "System "

■ Choose "Hardware"

■ Click on "Device Manager".

■ In "Ports (COM & LPT)", look for a "SpringCard CSB Contactless coupler".

3.3. TEST DEVICE COMMUNICATION

■ In the "Start menu", select "SpringCard" – "SDD100" – "CSBDiag"

■ Alternatively, you may launch `CSBDiag.exe` located in folder `C:\Program Files\SpringCard\Drivers\SDD100`

■ Check "USB direct access (FTDI D2XX driver)" and click "Test communication". If successful, skip next step.

■ If the first test failed, check "Serial communication port", and choose the appropriate COM port (as identified in device manager, see § 3.2). Click "test communication".

■ Once connected, click "Contactless polling". Put one ISO 14443 compliant card (A or B) on the reader to verify that the card is detected properly.

■ Terminate the program by clicking "OK".

3.4. TROUBLESHOOTING

If the test described in § 3.3 is unsuccessful, please observe the following procedure :

- Un-plug the CSB, restart the computer, plug the CSB, and perform the test again,

- Un-plug the CSB, uninstall the driver ("Control panel" – "Add remove program"), install the driver again, and restart the computer before doing the test again.

If still unsuccessful,

- Launch "Device manager", locate the device entry in the tree,

- Right-click on the device and click "Properties",

- Choose "Driver update" or "Change driver" in the "Driver" tab of the dialog box,

- Force a manual installation of the driver from the installation folder :

- `C:\Program Files\SpringCard\Drivers\SDD100`

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