



Biomini Combo Dual User Guide



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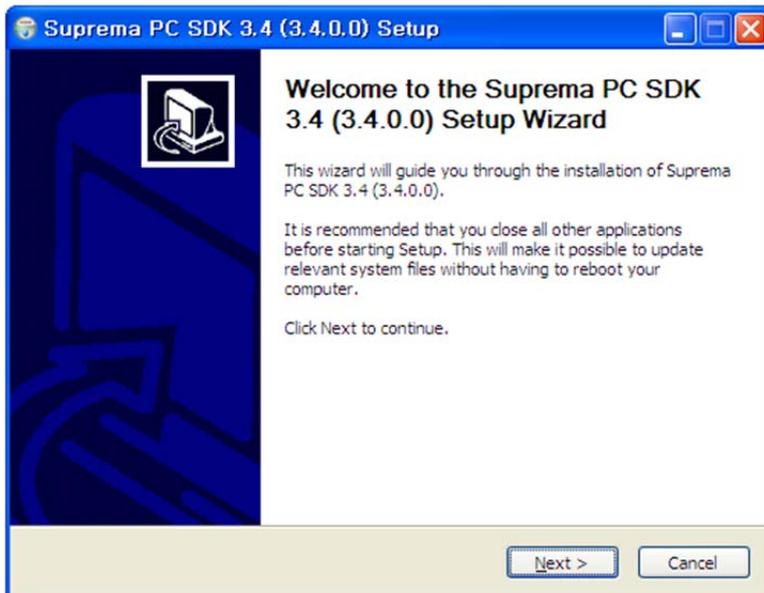


1. Specification

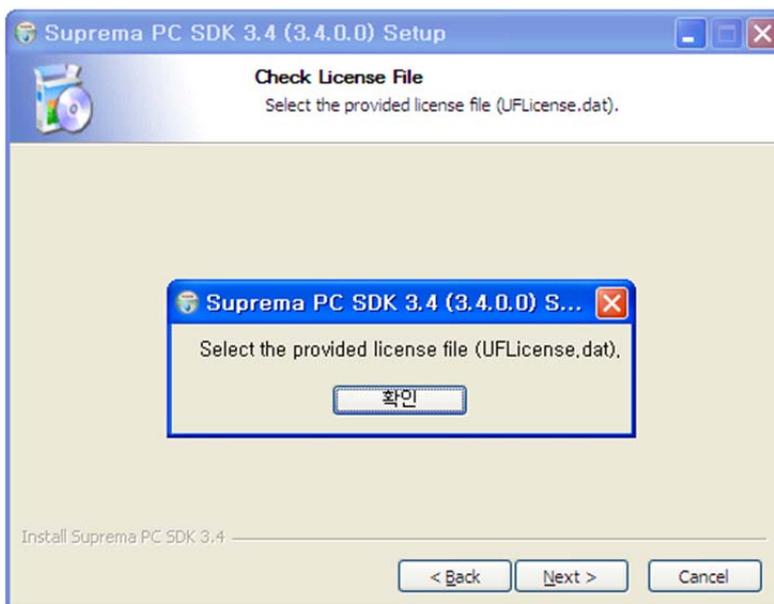
Fingerprint Sensor	Optical
Resolution	500 dpi, 256 gray
Platen Size	18.0mmx25.4mm(0.71"x1.0")
Sensing Area	17.0mmx25.0mm(0.67"x0.99")
Image Size	320x480 pixels
Interface	USB2.0 High Speed
Operating System	MS Windows/ Linux(32/64bit)
Operating Temp./Humidity	-10°C~50°C / 0~90%
Weight	0.40 kg
Certificates	CE, FCC, KCC, UL or CB, WHQL, USB-IF, WEEE
Smart Card Reader	ISO7816 Class A/B/C (5V, 3.0V, 1.8V) T=0 , T=1 EMV2000 contact smart card with SAM slot(optional, max 2x SAM) Interface: USB2.0 CCID , PC/SC driver
Contactless Smart Card Reader	ISO/IEC 14443 A&B, Mifare, FeliCa NFC Forum tag types (Jewel, Mifare Ultralight, FeliCa, FeliCa lite, Mifare Desifare) EMV2000 contactless smart card Frequency: 13.56 MHz +- 7KHz Distanace transaction: Up to 10cm Baud: 106/212/424/848 kbit/s Interface: USB2.0 CCID, PC/SC driver
Dimension(WxLxH)	95.7mmx114.8mmx52.6mm

2. Install Suprema PC SDK

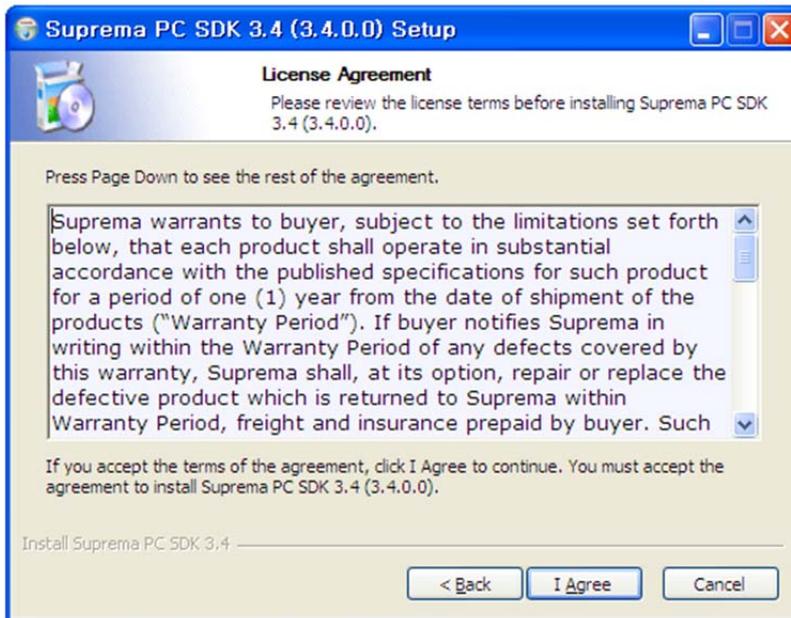
1. Run an Suprema PC SDK install program such as "Suprema_PC_SDK3.x[3.x.x.x]_Install.exe".



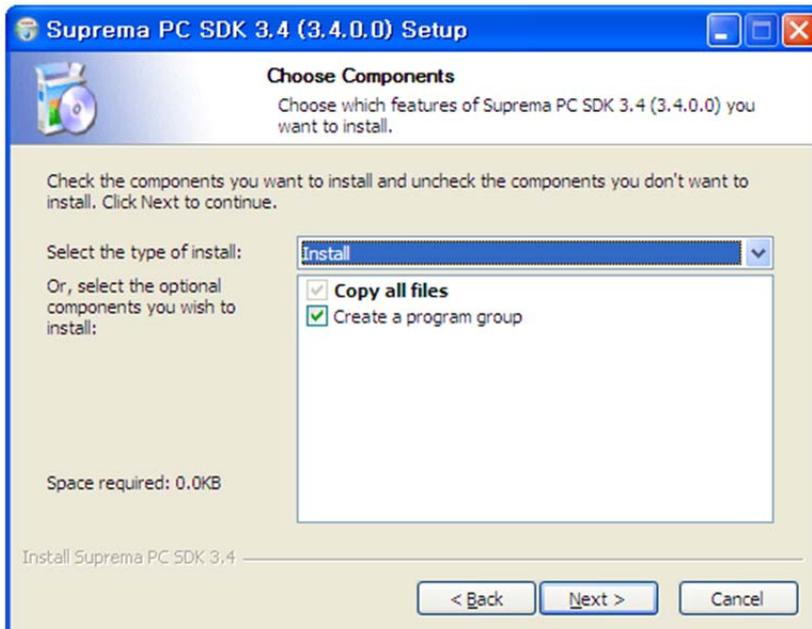
2. Select the provided license file, and brief information about the license will be shown. Selected license file will be copied to bin subfolder of installed directory.



3. Agree with the licence.

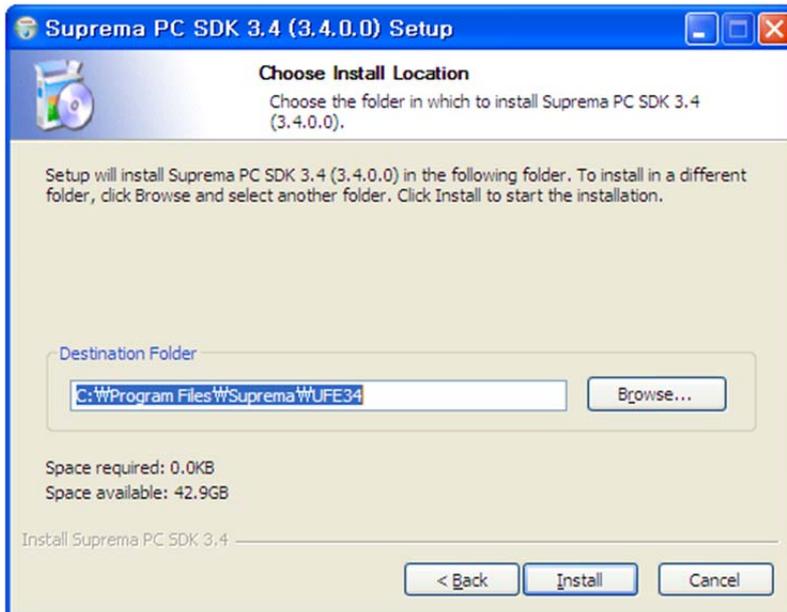


4. Choose installing components.

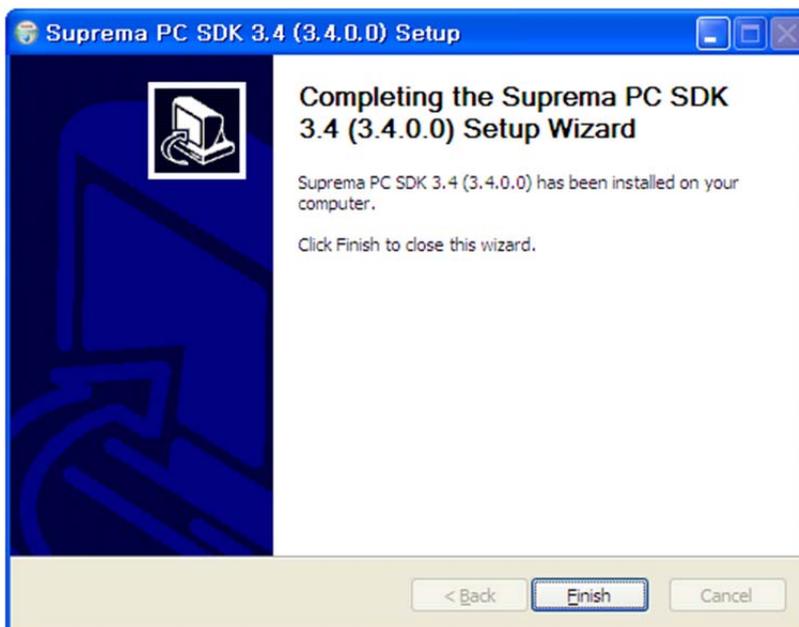




5. Choose install location. After pushing Install button Suprema PC SDK files will be installed to the selected install location.



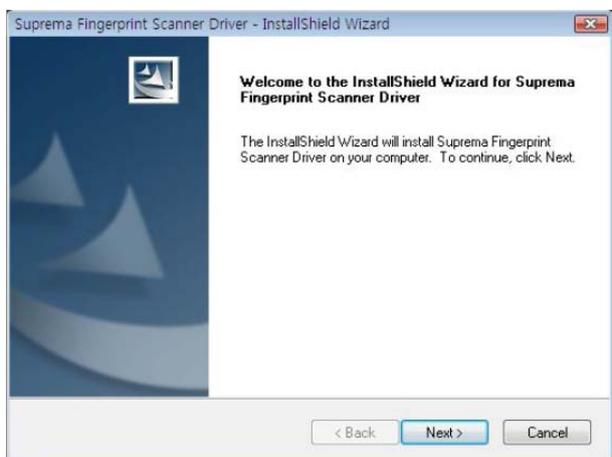
6. Installed SDK can be found in Start menu.



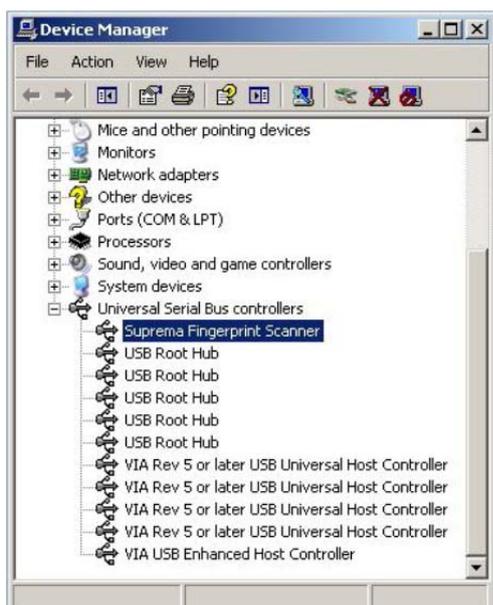
3. Device driver installation

- **FingerPrint Scanner Driver**

1. Connect BioMini Combo Dual to the PC.
2. Windows will launch new hardware search wizard. Click the 'cancel' button at this time.
3. Run the BioMini Combo Dual driver installation file, Sup_Fingerprint_Driver_v2.1.0.exe from install\drivers\WSFR Driver(unified) and follow the installation flow.



4. Confirm the installation of driver from Device manager



- **Smart Card Reader Driver**

Since Biomini Combo Dual supports Microsoft CCID driver.

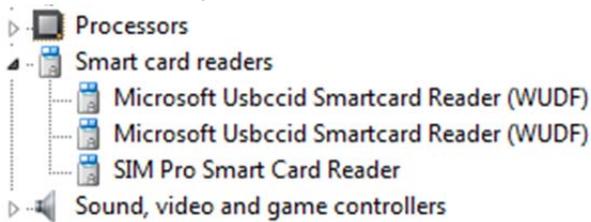
Biomini Combo Dual does not need vender driver For using Contact, ContactLess and first SIM Reader. But you need to use second SIM Readers too, you have to install Vender driver provided from Gemalto, Named "GemPcCCID_en_us_32.msi" or "GemPcCCID_en_us_64.msi"

Before Driver installation, you can see three Smart Card Readers



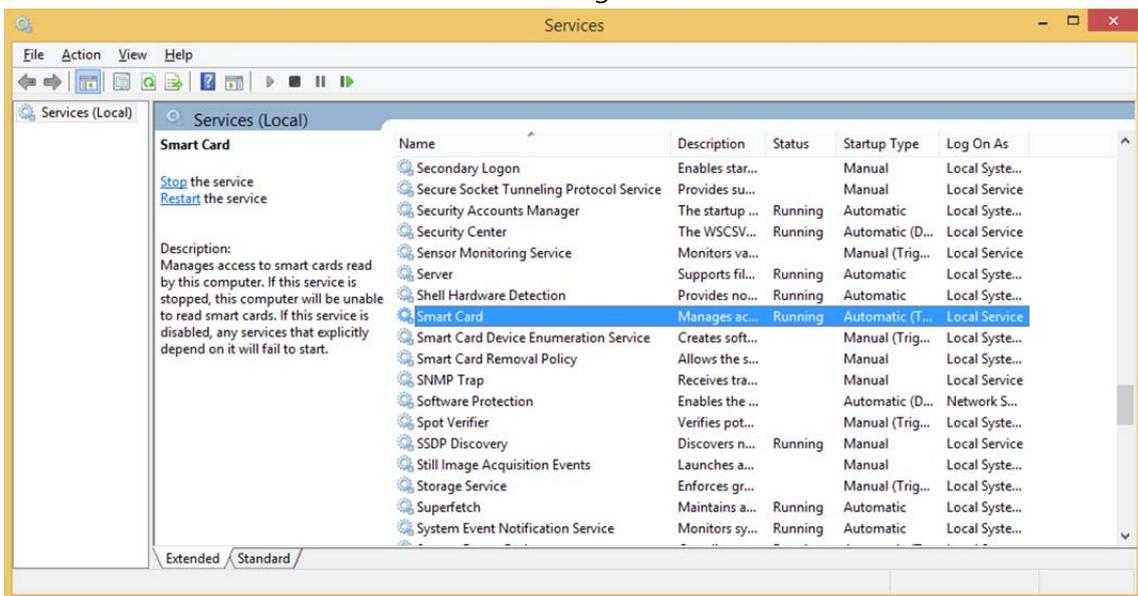
Click this icon, and install

After installation, you can see new Smart Cards list included "SIM Pro Smart Card Reader".



Check smart card service

Check the status that smart card service is "Running".



Control Panel → Administrative Tools → Service

4. Sample Application

1. BioMini Combo Dual test method by using PC/SC sample application.

- **Download and install the PC/SC sample application:**

You can download the application by accessing to below link:

http://support.gemalto.com/index.php?id=download_tools

Description		Date	Rev.
	<p><u>New PC/SC sample application for PC-Link readers: PC/SC IDBridge.</u></p> <p>New PC/SC sample application allows communication with a Smart Card using a PC-Link reader (IDBridge range) and using the Windows PC/SC layers. New improvement for multi-reader support, ATR analysis, PC/SC part 10 support, etc â€¦</p>	March 2013	1.0

- **Run PC/SC Bridge**

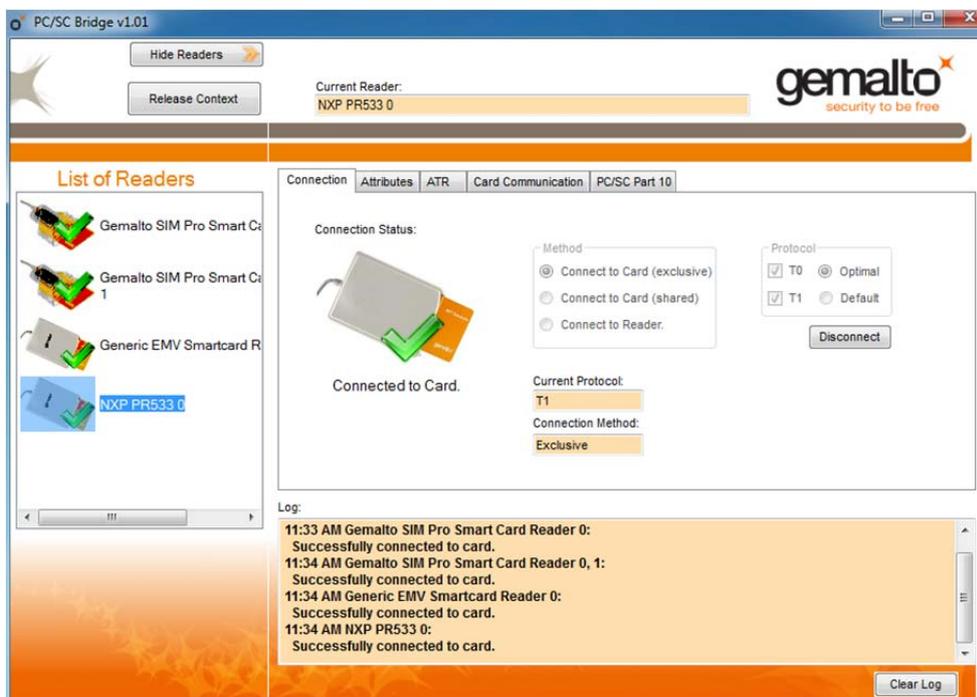
There are two names of PC/SC reader as follows.

Gemalto SIM Pro Smart Card Reader 0 -> Contact card reader

Gemalto SIM Pro Smart Card Reader 1 -> First SIM Reader

Generic EMV SmartCard Reader -> Second SIM Reader

NXP PR533 0 -> Contactless card reader





. PC/SC programming

You can get sample source code of PC/SC by accessing to the below link.

<http://ludovicrousseau.blogspot.kr/2010/04/pcsc-sample-in-different-languages.html>

* For technical assistances, please contact us: sales@supremainc.com



European Union CE mark and compliance statement

This product is CE marked according to the provisions of the R&TTE Directive(1999/5/EC). Hereby, **Suprema Inc.** declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

This device is Class 1 radio equipment under the European Radio and Telecommunications Terminal Equipment (R&TTE) Directive (1999/5/EC).



For further information, please contact [http:// www.suprema.co.kr](http://www.suprema.co.kr)

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FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.