

Suprema PC SDK Installation Guide for Linux

Version 3.1.0



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1. Install Suprema PC SDK Linux

1. Unzip “Suprema PC SDK31[3.x.x.x]_Linux.zip” to an appropriate folder.
2. Copy the provided license file to “<installed folder>/PCSDK31/bin/” and rename to “UFLicense.dat”.
3. Install SFR scanner according to Chapter 2.
4. After driver installation, users can run sample application according to Chapter 3.

5. SDK contains the following library files:

<installed folder>/PCSDK31/bin/libUFScanner.so	– UFScanner library
<installed folder>/PCSDK31/bin/libUFMatcher.so	– UFMatcher library
<installed folder>/PCSDK31/include/UFScanner.h library	– Header file for UFScanner library
<installed folder>/PCSDK31/include/UFMatcher.h library	– Header file for UFMatcher library

- Please see <installed folder>/PCSDK31/samples/Linux/SDK31_DemoConsole/Makefile for library usages.

2. Device driver installation

2.1. SFR300-S(Ver.2)

1. Prerequisites

You need the following packages installed.

```
libusb  
udev  
fxload
```

2. As a root user, do the following

Copy “<installed folder>/PCSDK31/install/drivers/SFR300-S(Ver.2)/Linux/sfr300v2.hex” to /usr/share/usb. Make the directory if it does not exist in your system.

```
mkdir /usr/share/usb (if not exists)  
cp sfr300v2.hex /usr/share/usb/
```

Copy “<installed folder>/PCSDK/install/drivers/SFR300-S(Ver.2)/Linux/sfr.rules” to /etc/udev directory

```
cp sfr.rules /etc/udev
```

Make a symbolic link to sfr.rules as follows

For debian 4.x

```
ln -s /etc/udev/sfr.rules /etc/udev/rules.d/085-sfr.rules
```

For Fedora 6 and later, Ubuntu 6.06 and later

```
ln -s /etc/udev/sfr.rules /etc/udev/rules.d/85-sfr.rules
```

3. Plug sfr300 to the system’s spare usb port. If you see a red light for about a second after plugging in, the device is properly initialized and ready to use.

You may also check it by dumping usb device list and locating the product name and manufacturer string as follows:

```
cat /proc/bus/usb/devices

T: Bus=05 Lev=01 Prnt=01 Port=04 Cnt=01 Dev#= 3 Spd=480 MxCh= 0
D: Ver= 2.00 Cls=00(>ifc ) Sub=00 Prot=00 MxPS=64 #Cfgs= 1
P: Vendor=16d1 ProdID=0400 Rev= 1.02
S: Manufacturer=Suprema
S: Product=SFU300-OC(Ver.2)
S: SerialNumber=xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
C:* #Ifs= 1 Cfg#= 1 Atr=80 MxPwr=100mA
I: If#= 0 Alt= 0 #EPs= 2 Cls=ff(vend.) Sub=00 Prot=00
Driver=(none)
E: Ad=02(O) Atr=02(Bulk) MxPS= 512 Iv1=0ms
E: Ad=86(I) Atr=02(Bulk) MxPS= 512 Iv1=0ms
```

2.2. SFR400(BioMini)

1. Prerequisites

You need the following packages installed.

```
libusb
udev
fxload
```

2. As a root user, do the following

Copy “<installed folder>/PCSDK31/install/drivers/SFR300-S(Ver.2)/Linux/SFR400.hex” to /usr/share/usb. Make the directory if it does not exist in your system.

```
mkdir /usr/share/usb (if not exists)
cp SFR400.hex /usr/share/usb/
```

Copy “<installed folder>/PCSDK31/install/drivers/SFR400/Linux/sfr.rules” to /etc/udev directory

```
cp sfr.rules /etc/udev
```

Make a symbolic link to sfr.rules as follows

For debian 4.x

```
ln -s /etc/udev/sfr.rules /etc/udev/rules.d/085-sfr.rules
```

For Fedora 6 and later, Ubuntu 6.06 and later

```
ln -s /etc/udev/sfr.rules /etc/udev/rules.d/85-sfr.rules
```

3. Plug sfr300 to the system's spare usb port. If you see a red light for about a second after plugging in, the device is properly initialized and ready to use.

You may also check it by dumping usb device list and locating the product name and manufacturer string as follows:

```
cat /proc/bus/usb/devices

T: Bus=05 Lev=01 Prnt=01 Port=04 Cnt=01 Dev#= 3 Spd=480 MxCh= 0
D: Ver= 2.00 Cls=00(>ifc ) Sub=00 Prot=00 MxPS=64 #Cfgs= 1
P: Vendor=16d1 ProdID=0400 Rev= 1.02
S: Manufacturer=Suprema
S: Product=SFR400
S: SerialNumber=xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
C:* #Ifs= 1 Cfg#= 1 Atr=80 MxPwr=100mA
I: If#= 0 Alt= 0 #EPs= 2 Cls=ff(vend.) Sub=00 Prot=00
Driver=(none)
E: Ad=02(O) Atr=02(Bulk) MxPS= 512 Iv1=0ms
E: Ad=86(I) Atr=02(Bulk) MxPS= 512 Iv1=0ms
```

3. Running Samples

1. After SDK and device installation are completed, you can build and run the console demo application in the following location.

<installed folder>/samples/Linux/SDK31_DemoConsole/make run

2. UniFinger Engine SDK Reference Manual is in the following location.

<installed folder>/doc/PCSDK31.pdf

- Adobe PDF File

<installed folder>/doc/PCSDK31.chm

- Windows Help File

* Please refer "Chapter 3. Tutorial" and "Chapter 5. Reference" in the manual.

4. Tutorials for Starting Development

Please read tutorials before starting development. Tutorials can be found in "Chapter 3. Tutorial" in the manual. Please refer Visual C++ part for Linux development. In the tutorial, following topics are covered

- * Enroll fingerprints from scanner
- * Verification
- * Identification
- * Manage database
- * Enroll fingerprints from image