EcoID USB Fingerprint Scanner User Manual
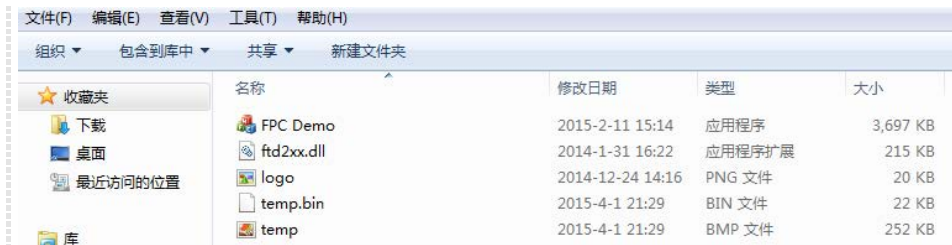
SYSTEM REQUIREMENTS

- Windows 7 or Windows 8 operating system
- 512 MB of free hard disk drive space
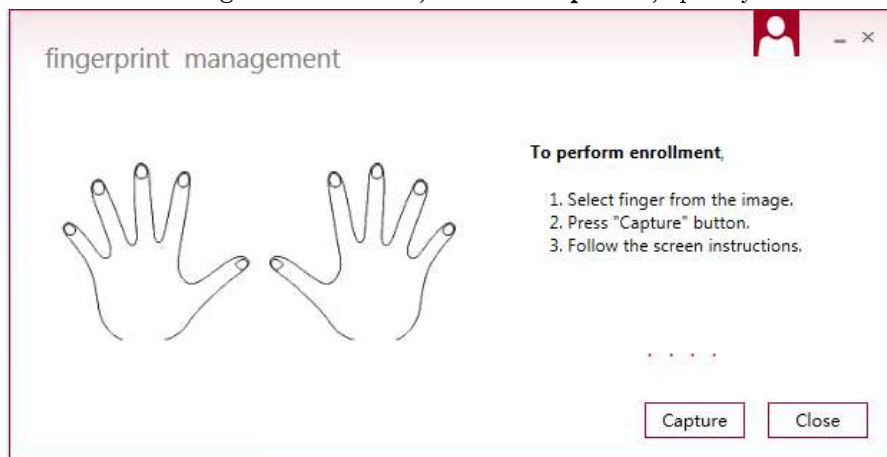- 512 MB of memory (recommended)

INSTALLATION INSTRUCTIONS

Device drivers use driver update to install via internet.

WINDOWS LOGIN METHOD

1. Open **Control Panel**, **Biometric Devices**

2. Select Next Biometrics Device, use fingerprint to login windows
3. Select the finger to enroll, click **Capture**, put your on the sensor

4. Follow the instructions on the screen to complete enrollment

Note:

1. Please remember to keep your finger clean and dry when you need to touch

fingerprint sensor. It can help you improve fingerprint recognition rate.

2. It's better to set 2 or above fingerprint logon accounts due to unintentional finger

injuries

WINDOWS BIOMETRIC FRAMEWORK

The NB-1010-U sensor is provided with a host driver compliant to the Microsoft
Windows Biometric Framework (WBF). The framework structure is illustrated in the
following figure. For a detailed specification, the Microsoft documentation is
suggested reading:

http://msdn.microsoft.com/en-us/library/windows/hardware/dn613952(v=vs.85).aspx

NEXT Biometrics offers a comprehensive WBF SDK including documentation and
reference source code.

LOW LEVEL DRIVER ACCESS

NEXT Biometrics delivers a high quality fingerprint algorithm license with every sensor
module. The customer is free to work with his algorithm or choose his own method for
fingerprint verification.

In case of using a customer algorithm, image access of the NB-1010-U sensor
operates with a simple API based on the Microsoft WBF standards available here:

http://msdn.microsoft.com/en-us/library/windows/hardware/ff536468(v=vs.85).aspx

The full scan provides a fingerprint image of 180x256 pixels using the entire active
capture area of the sensor (11.9 x 16.9 mm$_2$). The partial scan reads only a center
region of 90x128 pixels and is useful for a fast refreshing live image. In the case of
finger-on detection, a timeout of 5 seconds is used before aborting the process.

The NB-1010-U includes a hardware finger-on detection. When issuing a command

with finger-on, the module will only scan a fingerprint after a finger was detected on the sensor. It is the recommended method for most scenarios. If the command is issued without finger-on, the sensor surface is scanned regardless of whether a finger is currently on the sensor.

Commands for scanning a fingerprint can be issued by specifying the VendorFormat of WINBIO_CAPTURE_PARAMETERS structure:

{00000000-0000-0000-0000-000000000000} full scan, no finger-on detection
{00000010-0000-0000-0000-000000000000} full scan, with finger-on detection
{00000001-0000-0000-0000-000000000000} partial scan, no finger-on detection
{00000011-0000-0000-0000-000000000000} partial scan, with finger-on detection

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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.