

# DEMO board and SYDemo software user manual

## V1.5

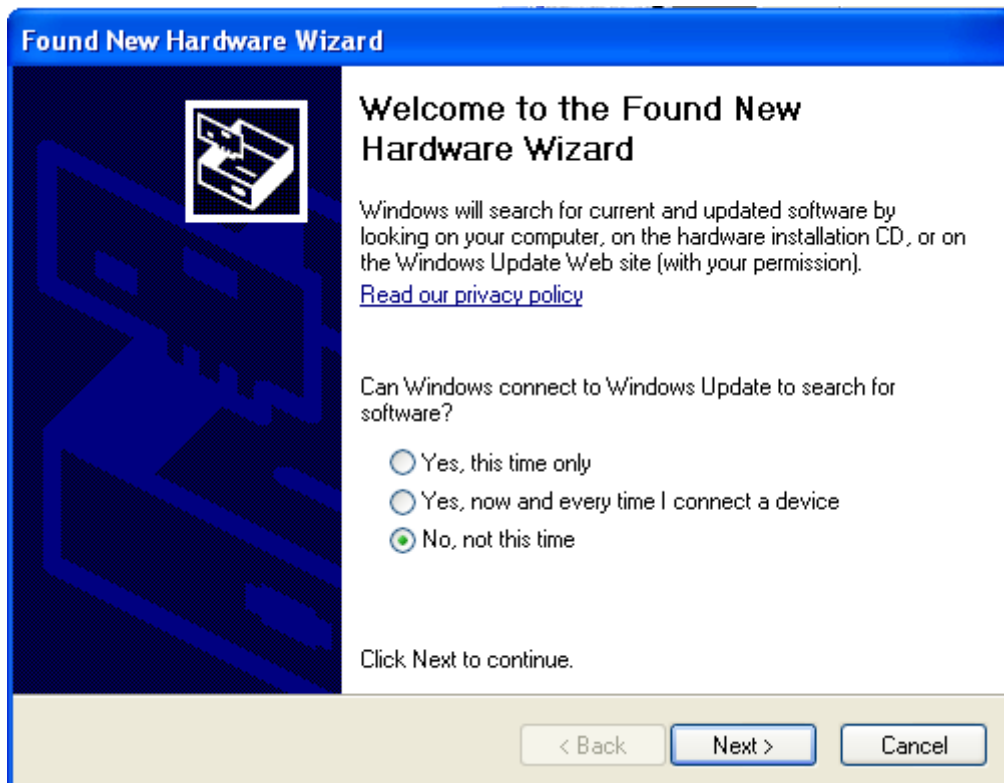
### 1. Hardware setup

#### 1.1 Power supply mode selection:

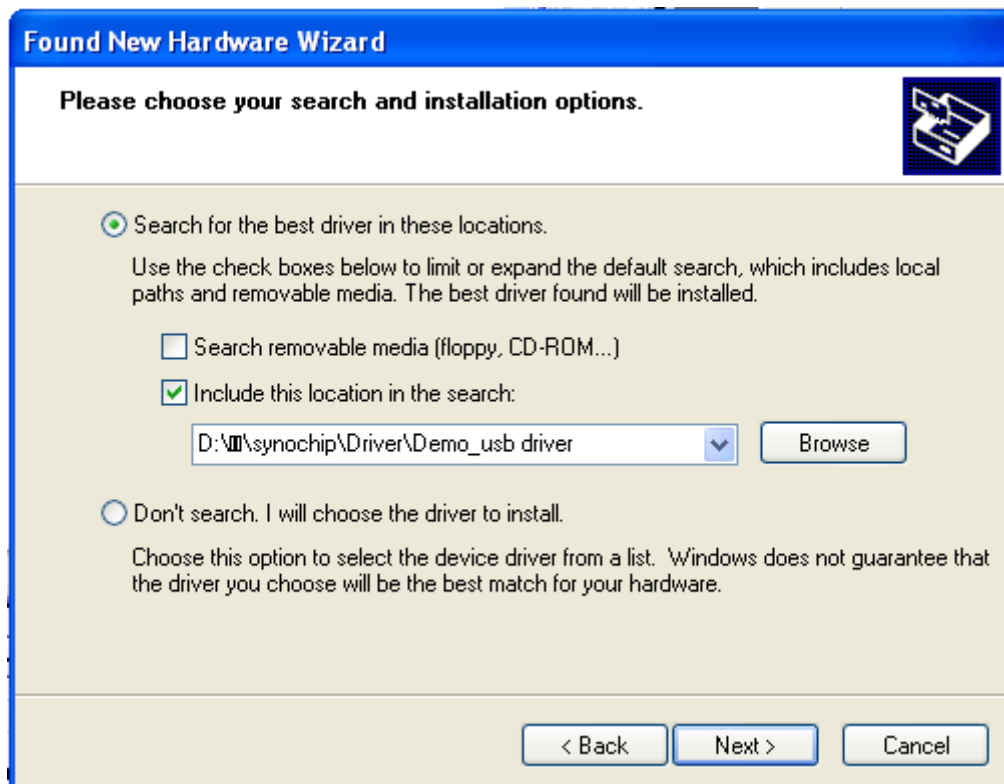
- USB mode: Turn the DIP switch JP1 to “USB”, and then connect PC with DEMO board through USB cable.
- Regulated DC mode: Turn the DIP switch JP1 to “DC5V” and connect the serial port of PC with the one of Demo board through RS232 cable. Then, channel +5V power supply to Demo board power socket J1.

#### 1.2 USB driver setup:

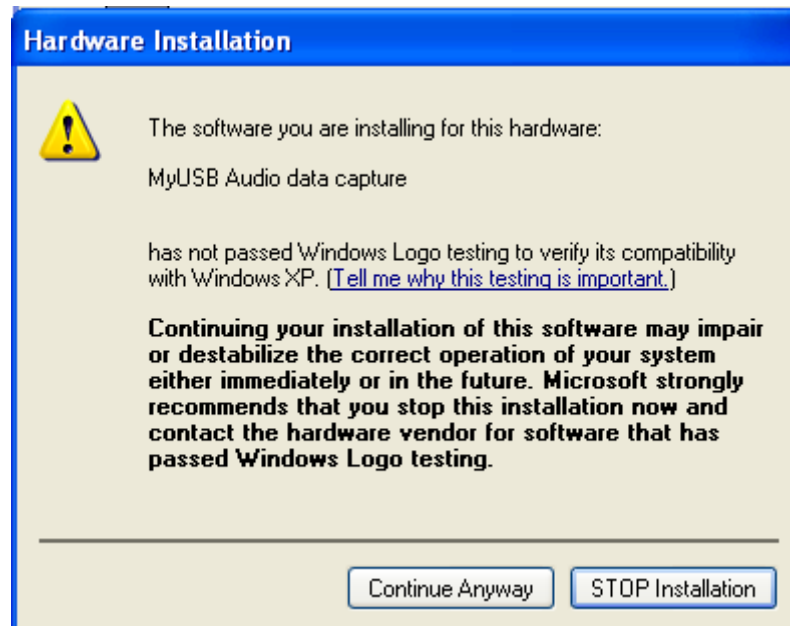
- a) Having connected PC to Demo board through USB, Windows will scan new hardware automatically, while starting up the setup wizard. Click “next” to continue.

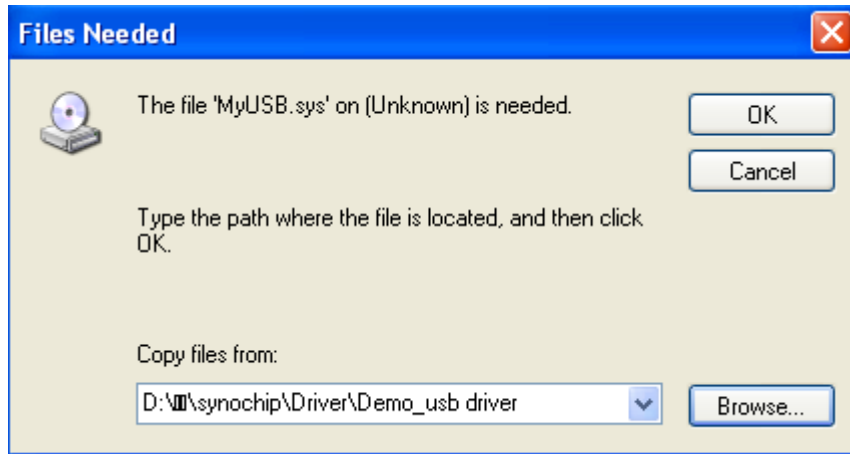


- b) Click “browse” to select the USB driver folder and then click “next” to continue.

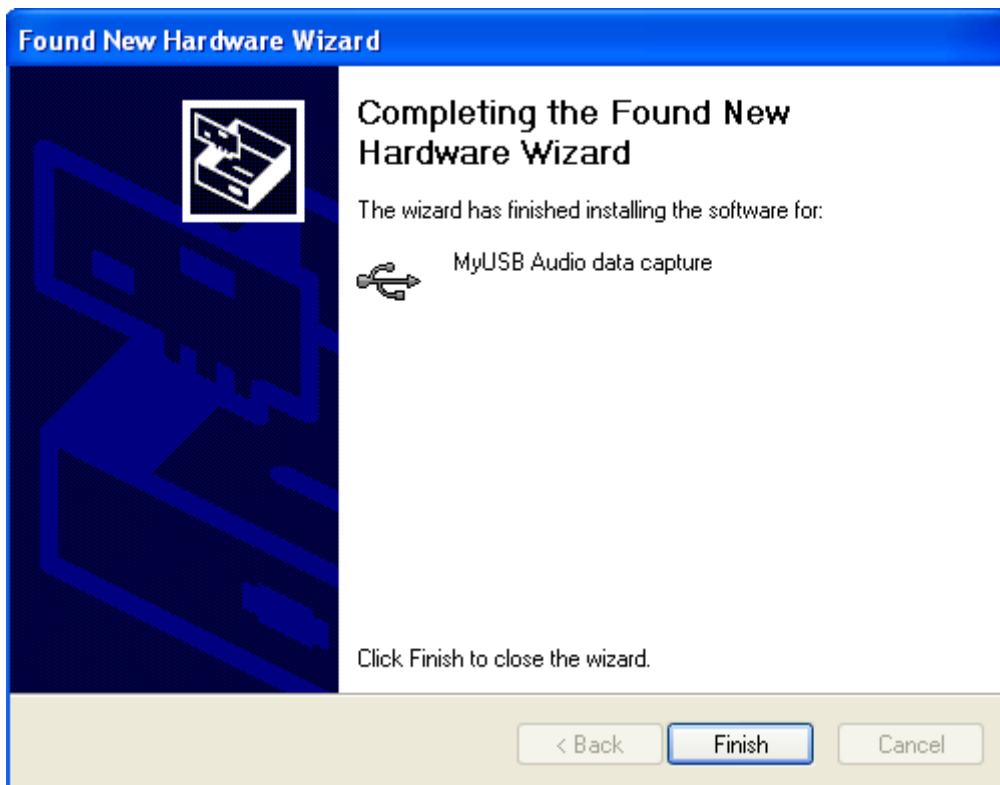


- c) After a while, it might popup the alarm about compatibility if the OS is Windows XP / Windows2000. Neglect it and choose to continue anyway.





d) Then it will show the completion of hardware setup. Click “finish” to complete this.



## 2. Software quick start

Open device: click “Open device”

If device has been successfully connected, relevant hardware information will show up above the “Open device” button.

```
Hardware information
DataBaseSize: 120
SecureLevel: 3
Address: 0xFFFFFFFF
ProductSN: PS1802-1
SoftwareVersion: RS-1.10
SensorName: AES-2510
```

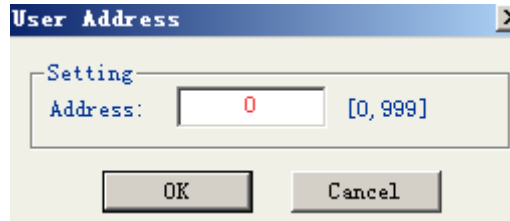
### a) Get image

Click “Get image”, Demo board will upload the present collected FP image (Fingerprint

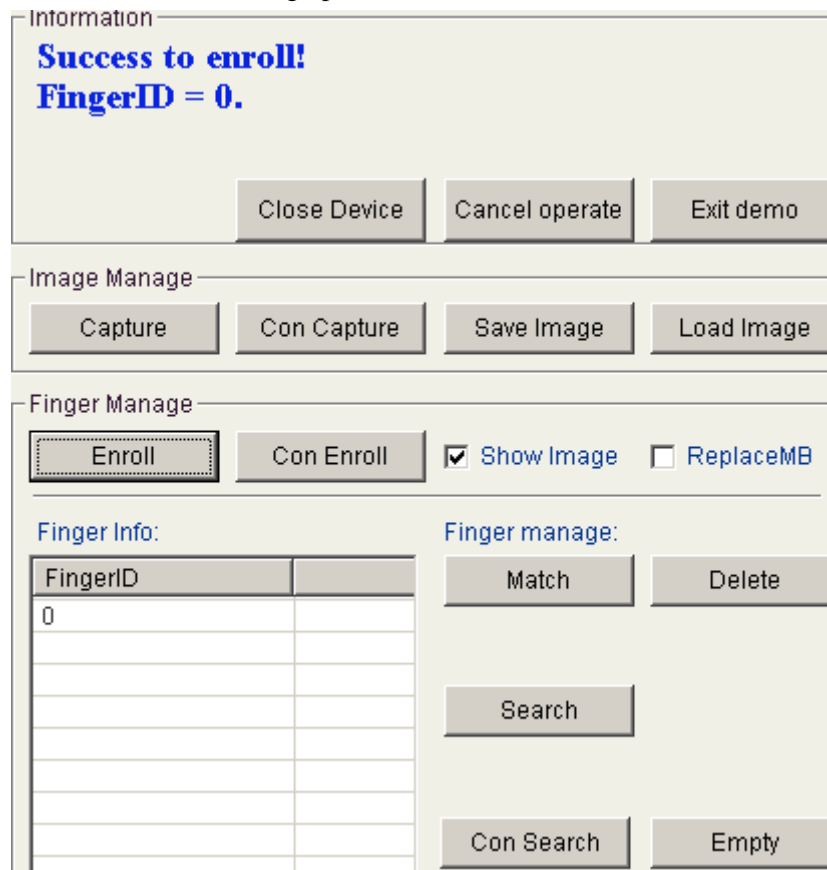
image) to the display area of the software; Click “ Get image continually” to upload the collected fingerprints to the display area successively.

b) Fingerprint enrollment

Click “Enroll templet” to popup “Set user address” dialogue. Fill the “store address” and “user name” , click “OK” to continue.



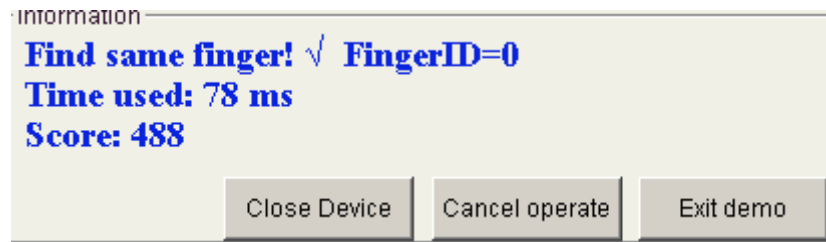
According to the prompt on the upper part of the screen, Ready to swipe finger for the 1st time. When the extraction of reference points finishes, swipe finger for the 2nd time. The software will extract the reference points and combine it with the previous one to complete the enrollment of a fingerprint.



**Tips :** If you want to enroll many fingerprints successively, click “Enroll continually”. That will relieve you from the repetitive click of “enroll templet”. Of course you can quit this by select “Cancel current operation” .

c) Fingerprint searching

Click “search” button, and put fingertip on the sensor according to the prompt. It searches the fingerprint library automatically and decides if there is one in the library that matches the present inputting fingerprint. At finding, a prompt will popup with the information of both FP ID and time consumed.



**Tips: you can run FP searching continually by click “Continual Search” and quit the process by “Cancel current operation”.**

- d) Delete fingerprint.
  - Delete a single fingerprint  
In “Match” section, choose one FP templet, and click “Delete” to delete the FP templet.
  - Delete whole FP library:  
Click “Clear”.
3. Introduction to Demo software and its main functions

### **3.1 Initialization:**

#### **3.1.1 Open device**

For USB communication, just click “OK” with the default port selection; for serial communication, firstly select serial port and then click “OK”

### **3.2 Device configuration**

3.2.1 Delete: Delete the selected FP templet in the FP library;

3.2.2 Clear: Clear the FP library;

### **3.3 Prompt information:**

3.3.1 Cancel current operation;

3.3.2 Close: close the software.

### **3.4 Image management**

3.4.1 Get image: Get one FP image from the Demo’s memories;

3.4.2 Get image continually: Get FP images from the Demo’s memories successively;

3.4.3 Save image: Save current collected image to specified location;

3.4.4 Download image: Show the FP image from specified location at the display area.

### **3.5 Enroll fingerprint**

3.5.1 Enroll templet: Enroll one FP to specified location of the FP library;

3.5.2 Enroll Continually: Enroll FPs successively to sequential locations of the FP library;

### **3.6 Match**

3.6.1 Single match: Select the FP templet to be matched, and put the fingertip on the sensor for FP matching. Matching information will show up in the upper area.

3.6.2 Search: Search templet in the library and compare it with the current collected FP image. Searching information will show up in the upper area.

3.6.3 Continual Search: Search templet in the library successively and compare it with the current collected FP image. Searching information will show up in the upper area.

### **3.7 Special utility**

3.7.1 Read notepad: Read the notepad content from flash of the Demo board and display

them on PC screen.

3.7.2 Write notepad: Modify the notepad content from flash of the Demo board

3.7.3 Get random code: Get random code and display them in the upper area.

3.7.4 Valid templet NUM: Get the number of valid templets in the FP library.

3.7.5 Build fingerprint library: Set up FP library and collect FP image and save it successively to the specified location according to user's setting number.

### **3.8 Image process demo**

3.8.1 Path: Specify the absolute path for image loading

3.8.2 Origin image: Obtain the original image of the setting path.

3.8.3 Thined image: Obtain the thined image of the specified image.

3.8.4 Bi-level Image: Obtain the binary image of the specified image.

3.8.5 Characteristic image: Obtain the thinned characteristic image of the specified image.