



OFIS

Online Fingerprint Identification System

ADMINISTRATOR MANUAL



ADMINISTRATOR MANUAL

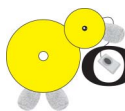


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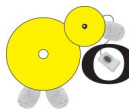
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FINGERTEC WORLDWIDE LTD



1 OFIS SDK INTRODUCTION

The FingerTec® Online Fingerprint Identification System (OFIS) Administrator Manual guides administrators how to quickly and easily installing the OFIS SDK for web-based and windows-based application.

What's in This Guide

Following is a description of each chapter in this guide:

- Chapter 2** Ofis SDK Description describes the overview of the Ofis SDK.
- Chapter 3** Ofis SDK Configuration describes the configuration settings of the Ofis SDK.
- Chapter 4** Ofis SDK Overview describes the process and procedures of registration and verification when the Ofis is invoked.
- Chapter 5** Ofis Server Side Installation describes the process flow and procedures during installation of the Ofis Server Side setup.
- Chapter 6** Ofis Client Side Installation describes the process flow and procedures during the installation of the FingerTec Ofis Scanner Software 1.0 setup and the Ofis Client Side setup.
- Chapter 7** Troubleshooting describes the common problem and how to troubleshoot the Ofis SDK.
- Chapter 8** Hardware handling and usage demonstrates how to plug the Ofis Scanner to computer and describes how to maintain and clean the Ofis Scanner.
- Appendix A** Internet Information Services (IIS) Installation Guide describes the process flow during the installation of the IIS.



Requisite Knowledge

In order to use this guide effectively, you should be familiar with the following subjects:

- A basic knowledge of Microsoft Internet Information Server is required to serve Web applications to users.
- Basic understanding on the database management system.

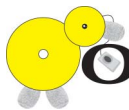
Support Resources

In addition to this guide, the following resources are provided for additional support:

- The Ofis Administrator Manual is provided in PDF file on the product CD. This manual is intended for administrators that install this Ofis server to integrate into their existing applications or systems.
- The FingerTec® Dealer Resource Center web site (<http://ofis.fingertec.com>) provides an online support for FingerTec® dealers worldwide.
- E-mail support is available at ofis@fingertec.com.

Your Feedback Requested

The information in this guide has been thoroughly reviewed and tested. If you find errors or have suggestions for future publications, contact FingerTec® at ofis@fingertec.com



2 OFIS SDK DESCRIPTION

FingerTec® Ofis SDK is applying the fingerprint technique to B/S (Browser / Server) environment. The concept of the system is to perform fingerprint enrollment and extraction in the Internet browser, where the fingerprint template will be sent to backend server and verification will be done with the matching templates stored in the server. The backend server is equipped with a special fingerprint identification service software system using COM+ object. In general, the Internet browser is IE (Microsoft Internet Explorer) browser, backend WEB server is IIS (Internet Information Services, and scripting language used for backend server is ASP.

3 OFIS SDK CONFIGURATION

The Ofis SDK based on FingerTec® Biokey algorithm is a development kit under the B/S configuration. It provides two kinds of verification mode which include one-to-one (1:1) and one-to-many (1:N) methods. This verification mode depends on the scripting language written on the backend server.

The Ofis SDK requires the client and the server to run on Windows Operating System.

The Ofis SDK is using ActiveX to run on the Internet Explorer environment, where user can build a system into the web page of IE browser, or develop application program to the sensor in the language of Visual Studio .NET, VC++, C++ Builder, Delphi, VB, and Visual Foxpro. The software in the server is provided as COM+ and groupware (IIS and ASP).

4 OFIS SDK OVERVIEW

Two processes are required to be performed when using Ofis..

- **The registration process** is to capture the end user fingerprint and generate a fingerprint template to be stored in the database.
- **The validation process** is to validate the fingerprint template from one user with the fingerprint template from the database.

The followings are the screenshots to illustrate the two processes:

Fingerprint Registration Process

During the registration process, the Ofis interface will popup requiring user to select a finger to be enrolled into the system as displayed in Figure 4-2 below. Select a finger that you wish to enroll.

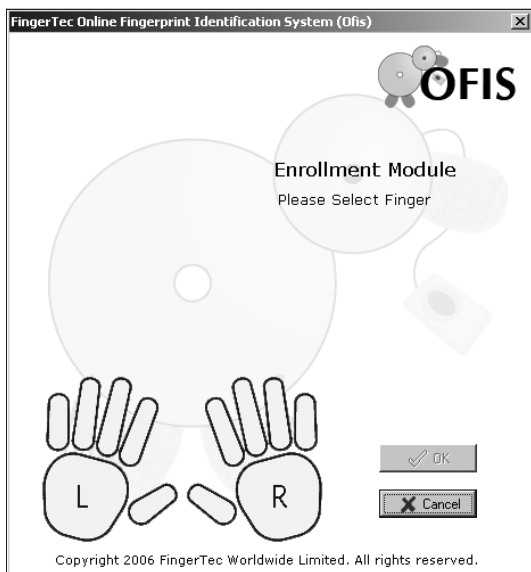
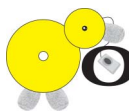


Figure 4-1



Place the selected finger repeatedly at the FingerTec® Ofis Scanner for four times to capture your fingerprint templates. When the color bar is filled as shown in Figure 4-2, your enrollment is complete.

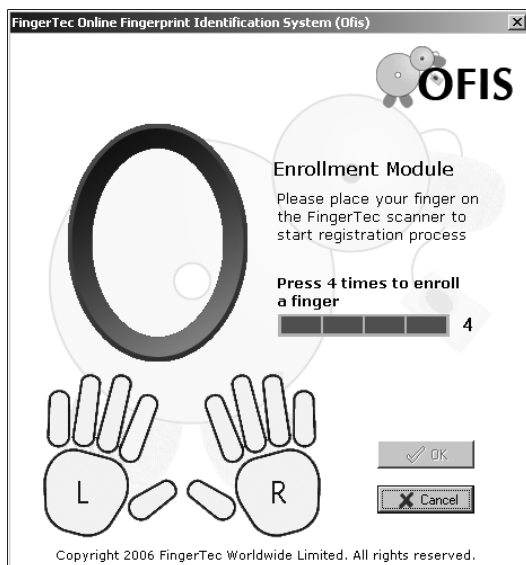


Figure 4-2

During the registration process, the finger must be placed correctly on the sensor. Failure to do so will prompt the following error message as displayed in Figure 4-3. You need to place your finger on the scanner again to recapture the fingerprint template.

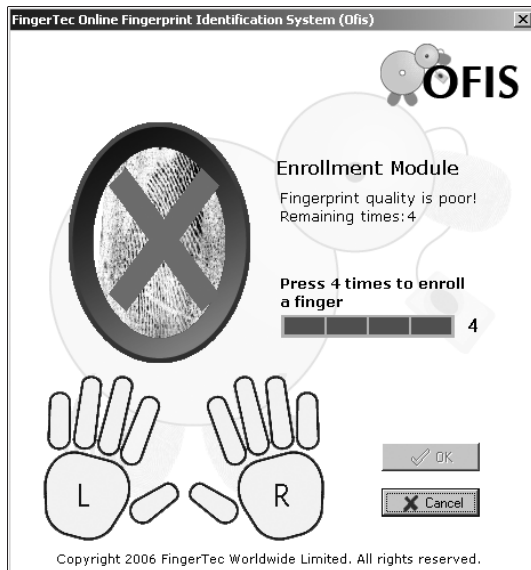
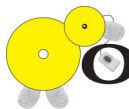


Figure 4-3



When the registration process is successful, the system will prompt "Registration is successful" message. Click OK to close the Ofis window.

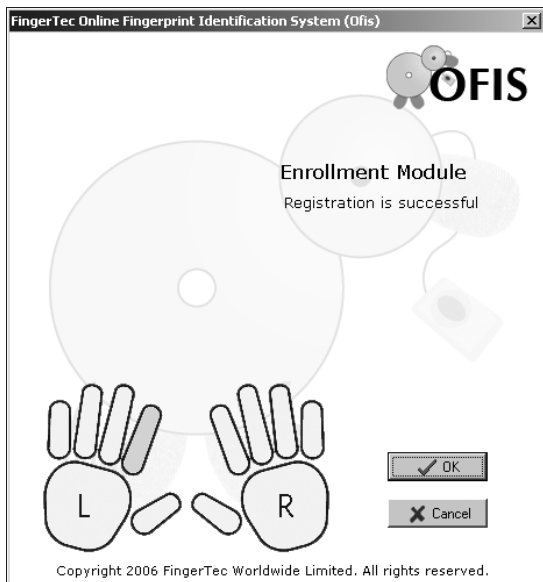


Figure 4-4

Fingerprint Verification Process

During the of verification process, the Ofis interface will popup requiring user to place the fingerprint on the FingerTec® Ofis Scanner.

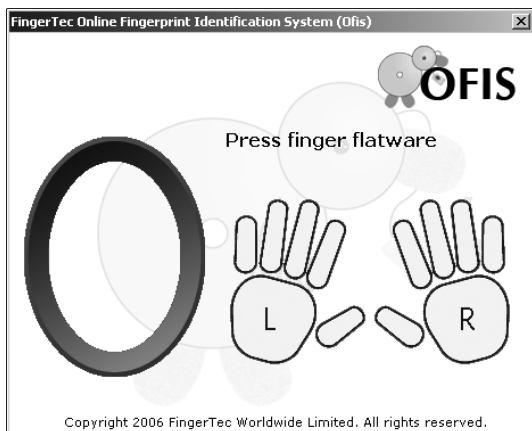
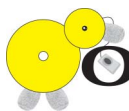


Figure 4-5

When the sensor has successfully captured your fingerprint template, it will display "Successful in receiving fingerprint template" and the window will close automatically.



Figure 4-6



5 OFIS SERVER SIDE INSTALLATION

FingerTec® Ofis is working under browser/server environment, which requires some installations to be performed at the server level.

For Ofis server, installation of Internet Information Services (IIS), recommended version 6.0, is a requisite and the system must be running under Windows 2000 or above. Please upgrade the IIS at the Microsoft Windows Update if you are using an older version than recommended. For Internet Information Services (IIS) installation, please refer to Appendix A.

After the IIS has been successfully installed, the server needs to be installed with Ofis Server Side software. All the server side installation softwares are available on the Ofis Server Installation CD. The server installation process is as the following:

Screenshots of Ofis Server Side Software Installation

Double click on the icon Ofis Server Setup.exe. A window will pop up. Click Next to continue.

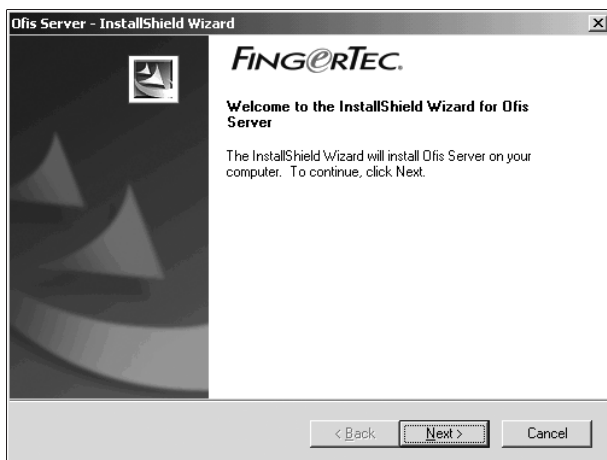


Figure 5-1



Please read the license agreement. You need to accept the terms of the license agreement to proceed to the installation process.

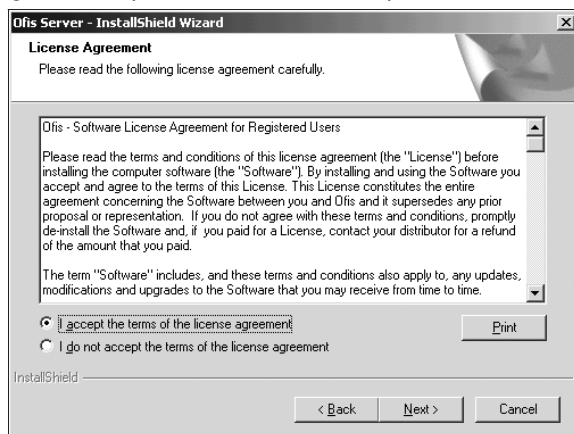


Figure 5-2

Enter your relevant information and the serial number of Ofis. The serial number is available on the CD cover. When finished, click Next to proceed.

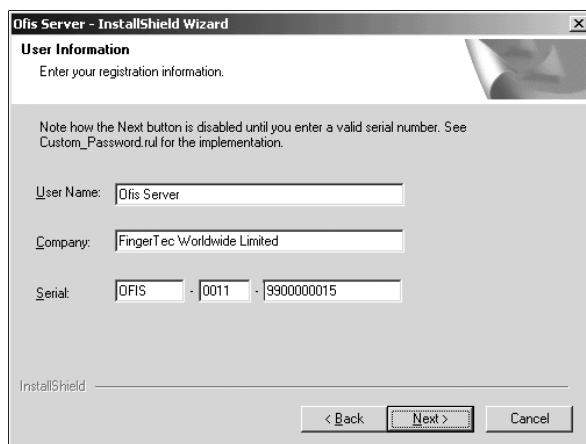


Figure 5-3

The installation process is currently running. Please wait until it is finished.

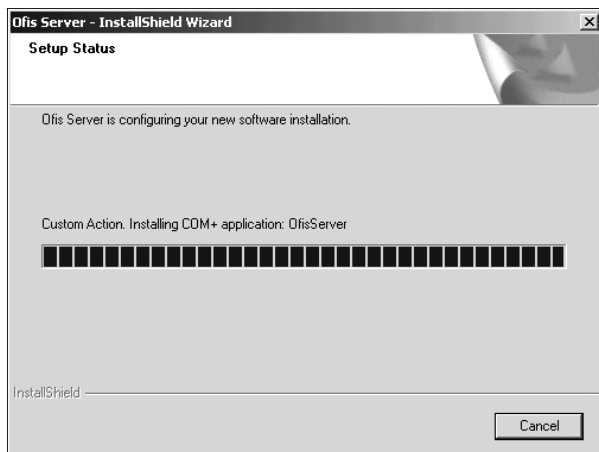


Figure 5-4

The installation of the Ofis Server is complete. Click Finish to exit the wizard. You may now start using the Ofis Server.

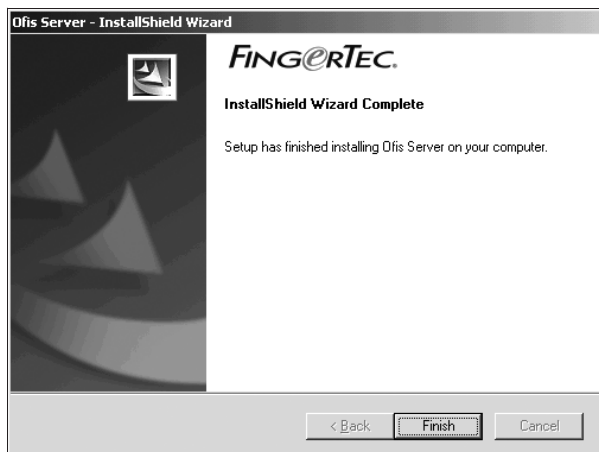


Figure 5-5



6 OFIS CLIENT SIDE INSTALLATION

To get the Ofis up and running at the client side, user needs to install two software (FingerTec® Ofis Scanner Driver and Ofis Client Side Software) which are available on the Ofis Client Installation CD.

Connection between the FingerTec® Ofis Scanner cannot be established before you installed the FingerTec® Ofis Scanner driver. The operating system will not recognize the FingerTec® Ofis Scanner if the driver is unavailable. The followings are the screenshots of the FingerTec® Ofis Scanner driver installation:

Installing FingerTec® Ofis Scanner Software

Double click on the "FingerTec OFIS Scanner Software 1.0 setup.exe" in FingerTec_Ofis_Driver Folder. A window will pop up. Select your desired language and click OK to proceed. The languages available are English and Chinese Simplified.

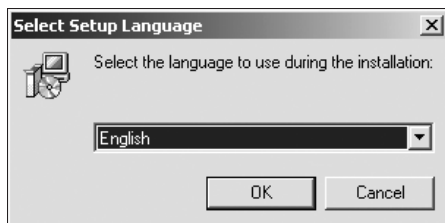


Figure 6-1

Press Next to continue with the installation process.

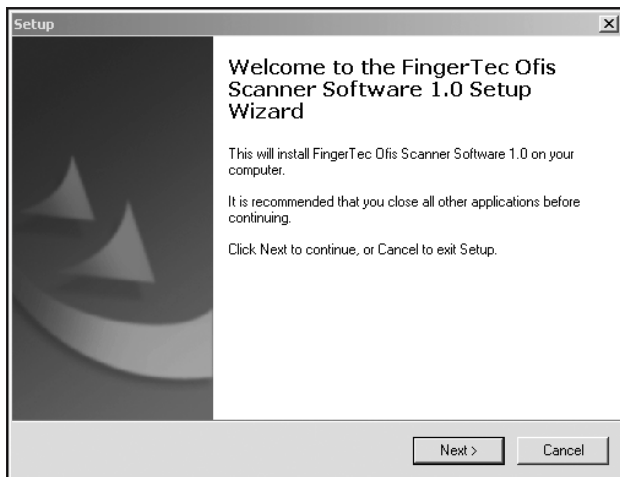
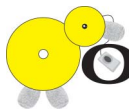


Figure 6-2

Please read the license agreement. You need to accept the terms of the license agreement to proceed to the installation process.

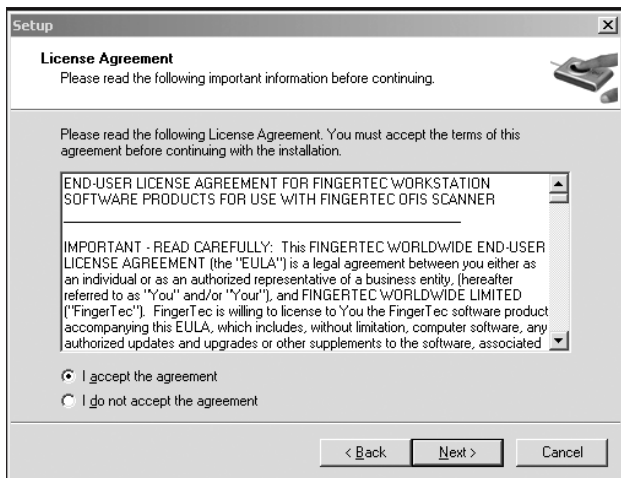


Figure 6-3

Please select the path to install. By default, it will install at the Program Files section. Click Next to continue.

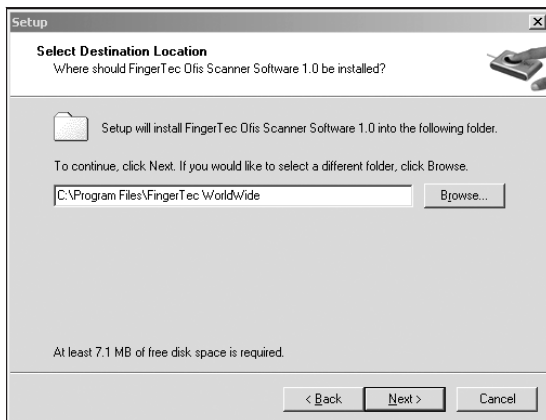


Figure 6-4

Press Next to continue the installation process. It is recommended for you to choose Full installation in order to install all components to make sure that the system works perfectly. Other types of installation include compact installation and custom installation

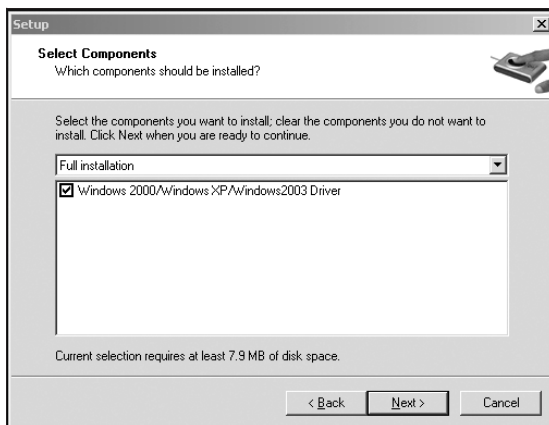
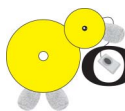


Figure 6-5



Press Install button to confirm installation.

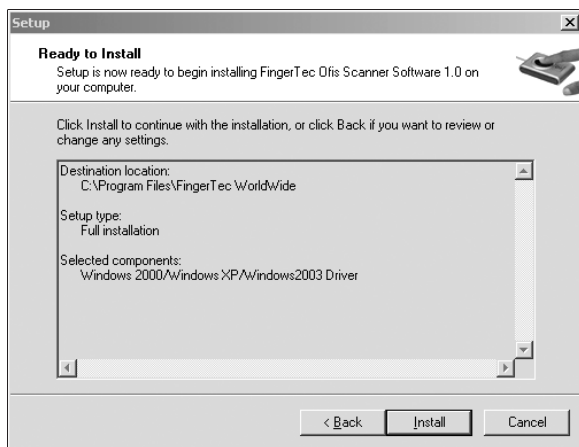


Figure 6-6

Installation process is running.

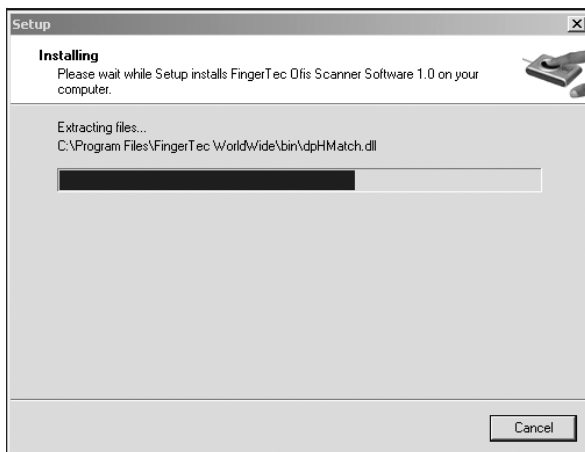


Figure 6-7

The FingerTec® Ofis Scanner Software has finished installing. Restart computer to start using the device.

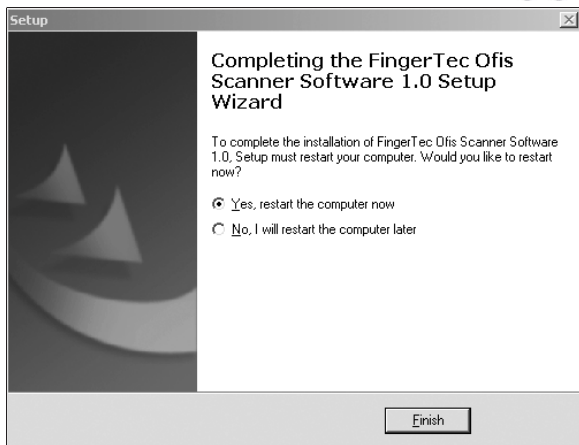


Figure 6-8

Installing Ofis Client Side Software

After the installation of the FingerTec® Ofis Scanner driver is successful, you may start to install the Ofis client side software. The followings are the screenshots to install the Ofis client side software:

Double click on the icon of Ofis Client Setup.exe and it will prompt a window to pop up. Click Next to continue.

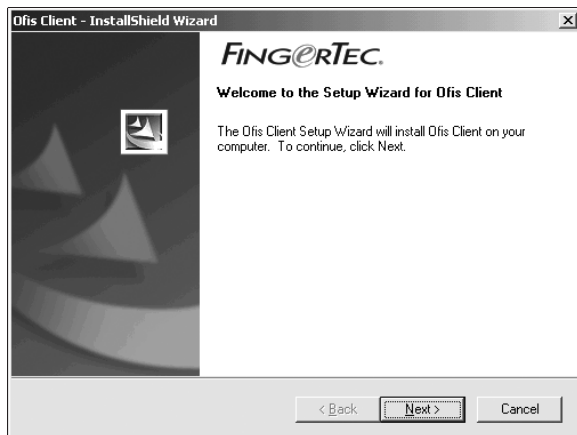
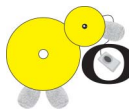


Figure 6-8



Read the license agreement. You need to accept the terms of the license agreement in order to proceed to the installation process.

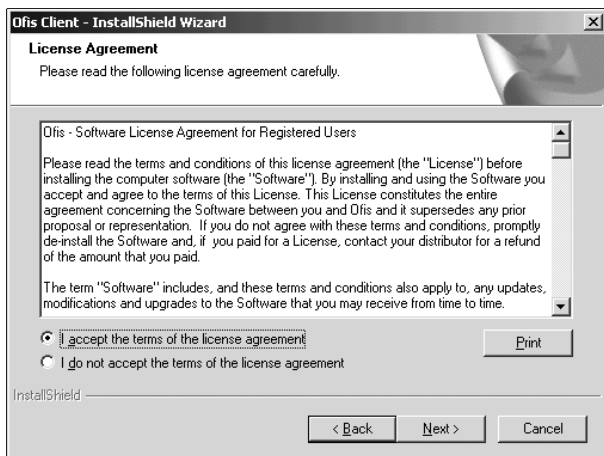


Figure 6-9

Enter your relevant information and click Next to proceed.

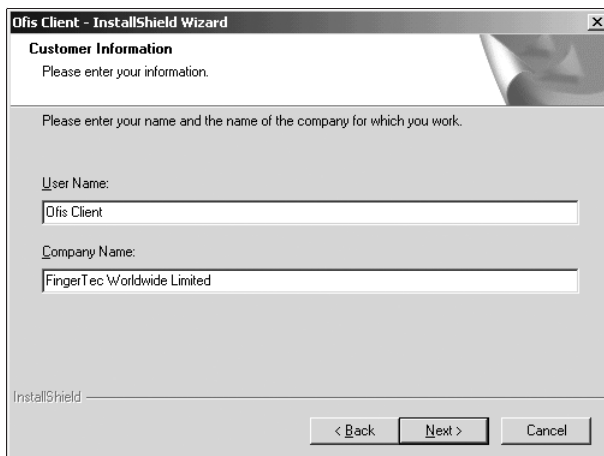


Figure 6-10

The information of installation will be displayed and click Next to confirm.

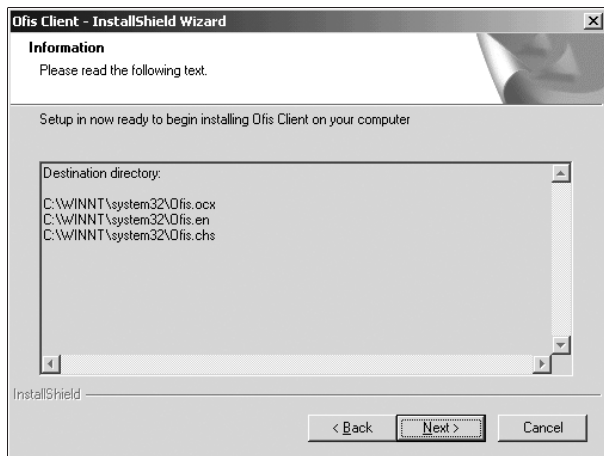


Figure 6-11

Click Install to start the installation process.

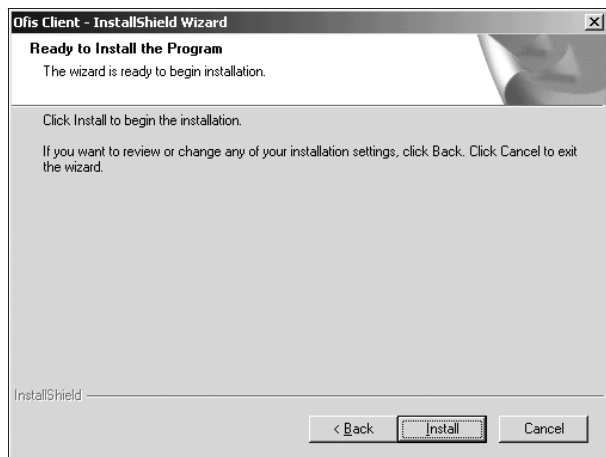
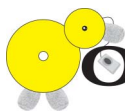


Figure 6-12



The installation process is running. Please wait until it is finished.

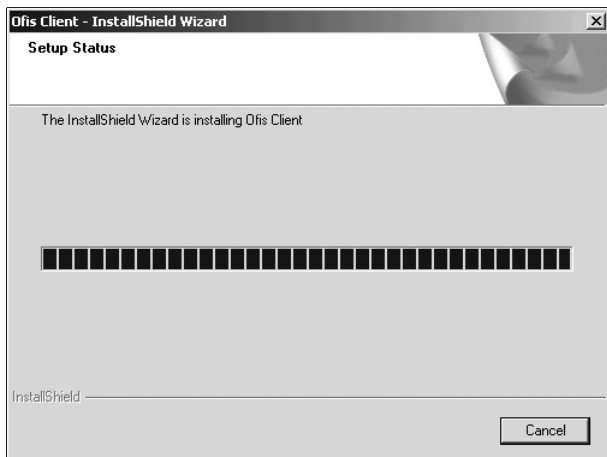


Figure 6-13

The installation of the Ofis client is complete. Click Finish to exit the wizard. You may now start to logon to the Ofis Client.

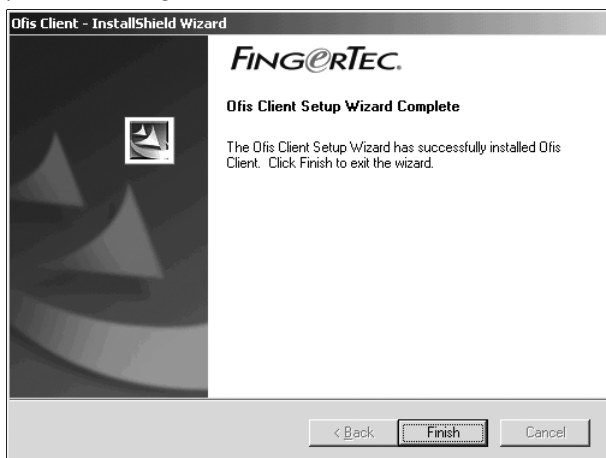


Figure 6-14

7 TROUBLESHOOTING

If your FingerTec® Ofis Scanner is not connected to your computer, the Ofis window will prompt you the following errors. Please close the Ofis window, plug the FingerTec® Ofis Scanner properly to the computer and start the Ofis application again.

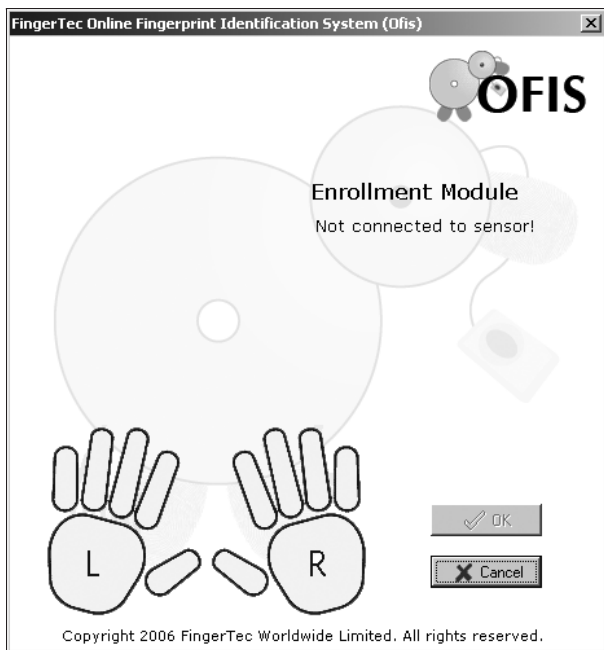


Figure 7-1

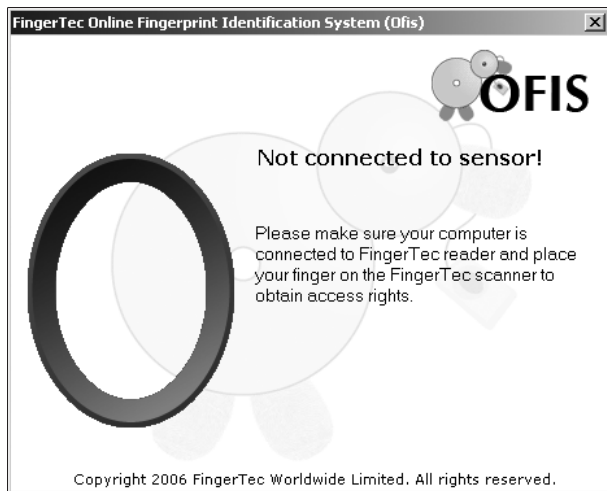
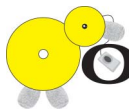


Figure 7-2

If your fingerprint quality is poor, the Ofis window will prompt the following error. Place your finger properly on the FingerTec® Ofis Scanner during enrollment and verification process to get accurate reading everytime.

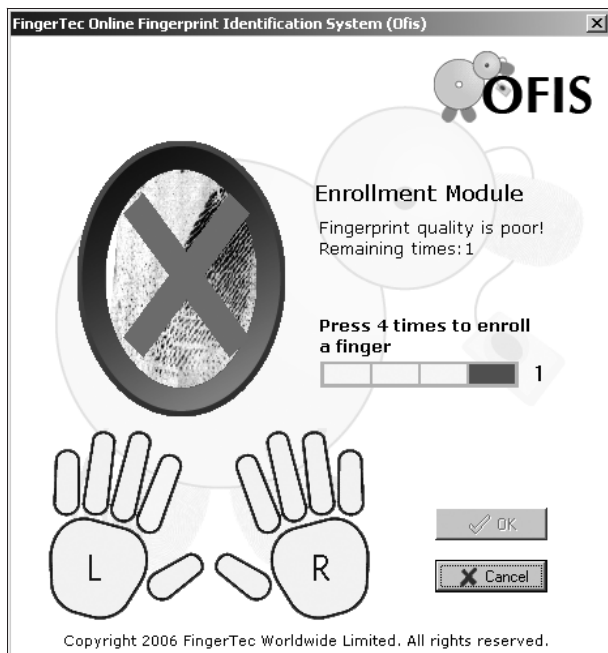
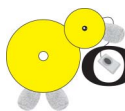


Figure 7-3



8 HARDWARE HANDLING & USAGE

PLUGGING THE FINGERTEC® OFIS SCANNER TO A COMPUTER

Plug the FingerTec® Ofis Scanner into the USB port of your computer. The USB port is normally located at the back of your CPU. The location of the USB port may vary depending on type of computer.



Figure 8-1: The FingerTec® Ofis Scanner with USB interface.

The USB port at the back of a CPU

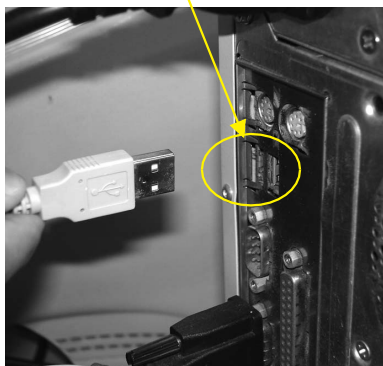


Figure 8-2:
Plug the USB interface into the USB port at the back of your computer.

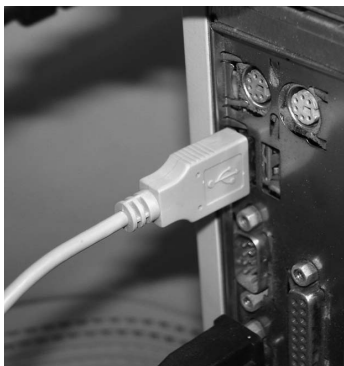


Figure 8-3:
Successful plugging of the FingerTec® Ofis Scanner at a computer.

RECOGNITION PERFORMANCE AND READER USAGE OF FINGERPRINT

This section provides reader usage and maintenance guidelines to maximization fingerprint enrollment and verification performance. It is crucial to achieve optimal fingerprint recognition performance with proper use of the FingerTec® Ofis Scanner during fingerprint enrollment and verification, as well as a well-maintained reader,

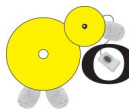
It also describes the proper methodology to use the reader to register and verified fingerprints. Then followed by the reader maintenance instructions, provided in "Cleaning the Reader".

Appropriate Handling of Fingerprint Reader

Place your finger flat on the reader when enrolling and verifying fingerprints to reduce the False Rejection Rate (FRR). During both processes, you must place the finger's midpoint not the tip or the side-in the center of the reader's fingerprint sensor in order to maximize the area of the finger that touches the reader window.



Pressure is applied evenly. Pressing either too hard or light will produce an unusable and faint scan. Do not "roll" your finger. To complete the fingerprint scanning, hold your finger on the sensor until the reader light is blinking. This may take longer time if the skin is dry. Beep is raised when the light blinks and fingerprint is captured. Lift your finger. If the reader is capturing your fingerprint scan as indicated by the reader blink, but FingerTec® software rejects it consistently, you may need to re-register that finger by first delete it and then register it.



Clean the Reader

The condition of the reader sensor affects enormously on the ability of the reader to achieve a good quality scan of a fingerprint. It depends on the amount of user, the reader sensor may need to be cleaned frequently. Apply the glutinous side of a piece of adhesive cellophane tape on the sensor and peel it away.



Under frequent usage, the sensor coating may turn dull caused by the sodium in perspiration. In this case, gently wipe the window with a fabric (not paper) dampened with a mild ammonia-based glass cleaner.

Reader Maintenance Warnings

There are several things that shouldn't be done when cleaning or using the reader:

- Do not shower the glass cleaner directly on the reader sensor.
- Do not apply alcohol-based cleaner.
- Do not submerge the reader in liquid.
- Do not rub the window with rough material, including paper.
- Do not poke the sensor coating with fingernail or any other sharp objects, such as a pen.

The fingerprint reader is meant for indoor home or office use only.

APPENDIX A

INTERNET INFORMATION SERVICES (IIS) INSTALLATION GUIDE

To set up the Ofis Server, you need to install the IIS 6.0. Please make sure your operating system for Ofis Server is Window 2000, Window XP Professional or Window 2003. The steps for IIS installation are as the followings:

Place the Window 2000, Windows XP Professional, or Window 2003 CD-Rom into your CD-ROM Drive.

Click on the Start menu and select the Control Panel.

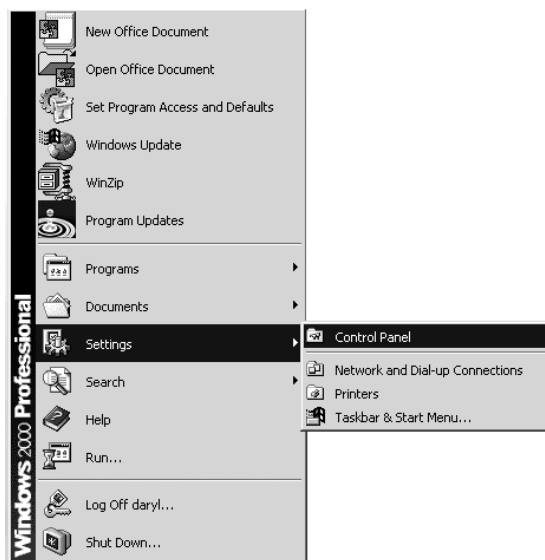
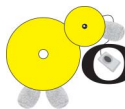


Figure A-1



A window will pop up after the control panel is clicked on. Click on the Change/Remove Programs to proceed.

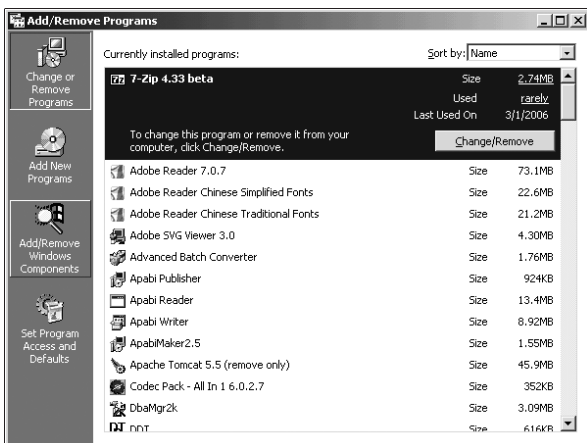


Figure A-2

The Add/Remove Programs window will pop up and please click on the Add/Remove Components button.

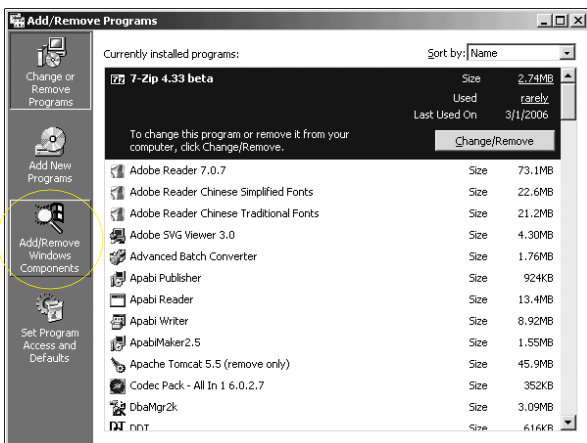


Figure A-3

Select the Windows components to be added to your computer system.

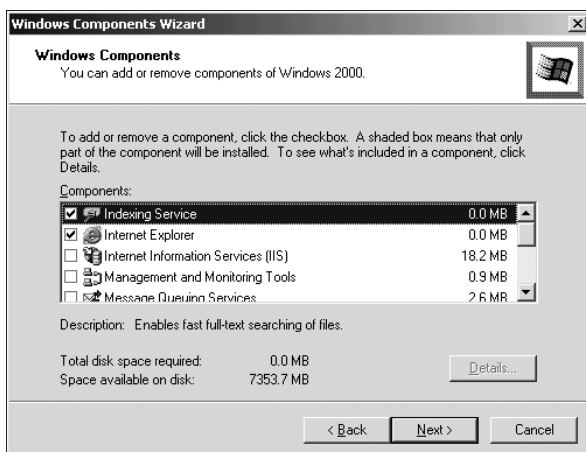


Figure A-4

Put a check mark on the Internet Information Services (IIS) and click Next button to proceed.

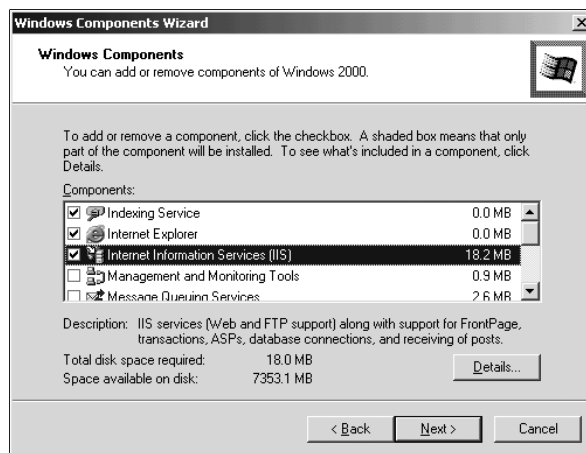
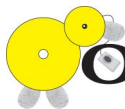


Figure A-5



The installation progress will be initiated and please wait for several minutes for the installation process to complete.

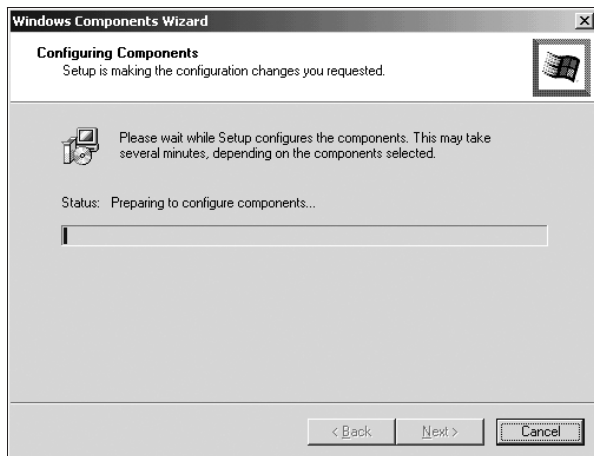


Figure A-6

When the installation is complete, click on the Finish button.



Figure A-7

OFIS, for a truly secured office