

Introduction

Fingerprint Recognition Terminal (FRT) is a standalone biometrics fingerprint recognition based time attendance system with fast 1:N matching and TCP/IP networking capabilities. FRT is a robust standalone fingerprint terminal with LCD, keypad, fingerprint scanner, 800 MHz processor, memory, communication and data storage capabilities. In addition, unlike other existing time attendance systems that use passwords or ID cards only, it is free from such risks as loss of password and abuse or duplication of card, providing excellent convenience and security. It is designed to maximize operational efficiency, enabling integrated monitoring and systematic management of terminals which have been operating independently on a remote location via the network.



Features

- Fast 1:N matching.
- High-performance, maintenance-free optical fingerprint scanner.
- Supports greasy, oily, wet, smeared and even stained fingers.
- Fast and Perfect Authentication through excellent Algorithm.
- Manages access of large number of people.
- Easy remote control of terminals.
- Combines several authentication types (fingerprint, password, and Card).
- Eliminates proxy punching.
- Reduces administrative cost.

Software included in the CD

- Manuals.
- Hardware Testing software.
- Drivers.
- TimeTRONIX. TimeTRONIX is a browser based time attendance management software with easy to use graphical interface supporting standard time attendance features and reports.

Technical Specification

Dimensions (cm)	20(W)*30(H)*16(D)
Color	Silver
Case	Metallic
Scanner resolution	500 dpi
Scanner	Optical, Scratch/Impact resistant
Matching	1: 1, 1: N(recommended), 1: G
Verification speed	< 1 sec
FRR	0.01%
FAR	Under 0.001%
Enrollment	2000 users, two fingers per user
Transactions	200,000 transaction records
LCD	Alphanumeric 16x4
Keypad	12 keys, Silicon rubber keypad
Access control	12V DC Relay
Power	12V DC, Universal AC adapter included
Interface with PC	Ethernet cross cable
Network Interface	10/100 Base-T Ethernet TCP/IP
Temperature range	-10°C to 60°C
Humidity	Under 90%RH
Software	Time Attendance software included.
Card reader	Optional

How it works

Installation

1. FRT comes preconfigured and ready to use. Provide power supply to the system and start using.
2. It has no fingerprints registered in the database and show "Database Empty" message on pressing ENTER key and scanning finger.
3. First finger registered by pressing MENU key automatically becomes top administrator.
4. Once the admin is registered more users can only be registered after verifying admin fingers. Admin can also give admin rights to other users.
5. Plug your Ethernet LAN network cable into network port provided in FRT.
6. You can change few settings and configure FRT to work with your Ethernet LAN network. It is also possible to configure it to use central database residing on your server in case you have multiple FRT machines. To do this you can connect standard keyboard and CRT monitor to FRT and do configurations the way you do with a computer.
7. Before registering employees fingerprints, install TimeTRONIX TA Time Attendance (TA) software on your office computer or server.
8. Enter company, department, shift, calendar and other details particular to your company.
9. Enter employee information to generate unique ID for each employee.
10. Register fingerprints of each employee with his unique ID on the FRT using admin features with MENU key.

Use

1. Employee enters the office and press enter key and place his finger on the scanner.
2. FRT scans his finger and matches the scanned fingerprint with the database of registered fingers stored in its memory
3. Employee is identified and success sound is played along with SUCCESS [#ID] message on the LCD and green LED blinks
4. Employee's IN time is recorded with date and time in the FRT database itself
5. When employee leaves the office his OUT time is recorded in the same way

Administration

1. FRT is connected to the company's 10/100 base-T Ethernet network and its data is accessible anywhere on the LAN. FRT can be assigned its own IP address.
2. Administrator imports log data in time attendance software, he may edit few records if required or remove invalid entries.
3. This data is then processed further to generate data for reports
4. More complex scenarios with lunch IN/OUT, tea breaks, overtime are also supported.
5. Reports can be generated and printed using the software
6. Data required for payroll can be exported and fed to payroll software

TimeTRONIX TA software details



The Time Attendance Software tracks employees' time and provides a daily reconciliation of time records as reports or for further processing by payroll software. As a result, the software cuts down on administrative time, safeguards from error, and saves a substantial amount of money that could have been lost due to mishandled time cards and employees punching in for each other. It is a complete and a cost effective solution for T&A and security.

- Prepare employee muster
- Monitor employee attendance
- Track vacation & sick time
- Schedule employees
- Provide flexible shifts
- Automate time rounding policies
- Quickly retrieve historical data
- Print any of numerous reports
- Link with payroll software
- And much, much more

Software Modules

- Company: to enter company or facility details and address
- Departments: to create and manage various departments for department wise attendance monitoring
- Employee: Employee registration and management
- Shift management: to enter complex shift information, including overnight shift information and overtime schedules

- Calendar: company holidays and calendar
- Leave management: To allocate and track employee leaves, multiple leave types is supported
- Administration: Admin functions, importing logs, logs editing and processing
- Reports: Number of useful reports are available in HTML and text formats

Payroll interface

The TimeTRONIX TA software can be easily interfaced with your existing Payroll software. All payroll software accept standard time attendance data produced by TimeTRONIX TA software. This data is provided in MS-access or text format. Most payroll software will accept text data.

Reports

A variety of reports can be produced to give you the information you need in a format you can use. Following standard reports are available:

- Attendance Report
- Time Attendance Report
- Lateness Report
- Overtime Report
- Overnight Report
- Leave Report
- Absence Report
- Exception Report
- Shift Roster Report
- Clocking Report
- Staff Not Working Report
- Staff Not Clocking Report

Frequently asked questions

Q. What is FRT?

FRT is standalone Fingerprint recognition based Time attendance terminal with advance features and networking capabilities. It is expected to be used by Medium and large size companies who intend to use advanced products and eliminate proxy punching.

Q. Can we use FRT for Access control?

Yes, TimeTRONIX TA can be used for applications where you need both Time Attendance and access control but TimeTRONIX TA has been designed and developed with Time Attendance as main requirements and may not be suitable for some access control environments. Hence you need to confirm and specify in order if you intend to use it for access control also. Access control is at present optional feature.

Q. Is FRT a complete Time Attendance package, do I need to purchase anything else?

Yes FRT is a complete Time attendance package with hardware and software required for basic time attendance requirements of small and medium companies. Time attendance package only offer time attendance reports and does not do payroll processing.

You are not requiring purchasing any other hardware, software or service.

Q. Can we install FRT as a fully standalone machine without any network connection?

Yes, TimeTRONIX TA is developed to work completely standalone and it is not dependent on any network resource for its functionality for standalone operations.

Q. Can we network FRT on our existing computer network?

Yes, TimeTRONIX TA uses same networking technology as computers and support TCP/IP connection on 10/100 Base-T Ethernet networking with standard RJ45 connector. You are not required to setup separate network or cables for FRT, just plug one of your network cable into its RJ45 jack and configure it as per your network settings. You can assign network IP address to FRT.

Q. Does TimeTRONIX TA support RS232, Wiegand and RS485 communication?

No, RS232 and RS485 are old ways of data transfer and communication. TimeTRONIX TA is an advanced system and support TCP/IP networking which is much faster and cabling infrastructure for the same already exist in almost all business organizations today. Hence FRT does not support RS232, Wiegand or RS485 communication.

Q. Can we network multiple FRT to use single database residing on our server?

Yes, You can configure FRT to use database of fingerprints residing on the server instead of its own memory. This allows you to maintain single database in case you are using multiple FRTs. In future versions we also plan architecture where fingerprint matching can also be done on the server.

Q. What can be maximum distance between FRT and Server?

This is dependent on your LAN network and communication bandwidth. This distance is same as the distance supported by your LAN network between a computer and the server. Today large number of networking devices are available to establish very large LAN networks spanning few kilometers without compromising on speed.

Q. What is battery backup available with FRT?

FRT being very powerful system consume lot more power compared to standard standalone fingerprint terminals, hence it is not possible to run it on small compact batteries. It is better to run FRT on inverters/UPS systems which provide AC current. Hence you are recommended to use your existing UPS system for power backup or install small UPS for FRT.

Q. How can I get custom features integrated in time attendance software?

You can send clear Software requirements specification to us, we will evaluate your requirements and in case we find that these changes may be useful to many clients in future we will do this free of cost for you. For other changes we charge nominal service fees. You can also integrate these features yourself if you have knowledge in ASP programming.

Q. Can we add new reports and rules ourselves in time attendance software?

TimeTRONIX TA does not provide engine/wizards to automatically add rules or generate reports, but if you have ASP programming skills you can easily add new reports.

Q. Can I install Time attendance software on my web server?

Yes, you can install it on Windows 2000 or latest server and access it from any where through internet.

Q. Do I need to install time attendance software on multiple places to see reports?

No, TimeTRONIX TA software is browser based and once installed on a computer or server it can be accessed from anywhere on the LAN through browser.

Q. How can you ensure that my investments in time attendance software will not go waste in long term?

is continuously working on TimeTRONIX TA to integrate new features and also provide you with large part of the source code which allow you to take control of the software and integrate additional features of your choice yourself or through your development partner. hence your investment in TimeTRONIX TA will give you long term returns.

Q. Do I receive free upgrades to TimeTRONIX TA time attendance software?

Yes, you will receive free upgrades till one year. After this you can purchase the new versions of the software if required or continue with the older version.

Q. What warranty is offered for FRT?

One year replacement warranty is offered for FRT.

Q. Can we purchase FRT without Time Attendance software? Can we use our own Time Attendance software with FRT?

TimeTRONIX TA Time Attendance software is included with FRT by default as a package. You will pay the same price for FRT whether with TA software or without it.

Yes, you can use your own TA software with FRT, FRT provide your with log reports in many standard formats which are suitable for most TA software.

Packaging list for FRT

- FRT Fingerprint Terminal
- TimeTRONIX TA software CD
- Drivers CD and manual for any diagnostics only
- User Manual
- Cross Cat5 Ethernet cable to connect FRT with a PC for testing etc.