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Video
Image
Radio
Data
Integration

Convenience & Security
VIRDI



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Why VIRDI?



VIRDI COMPETITIVE ADVANTAGE

Live & Fake Finger detection:

A patented three tiered approach incorporating IR scanning technology with the ability to identify the material the fingerprint is made of (chemical composition) such as Silicon, Rubber, Paper, Gel, etc. A Capacitive Sensor built into the Optical Scanner to measure electrical discharge and an intelligent algorithm to measure and compare image distortion.

Patented Search Algorithm:

Incredibly fast and accurate template matching algorithm will complete a 1:1 match in less than .5 of a second, and a 1:N match for 1,000 users in less than 1 second.

Registration & Authentication levels set by User:

Each User can be enrolled and thereafter verified using custom registration and verification levels which have been individually configured to match the conditions of their fingers and the security needs of the organisation.

Number of Enrolled fingers set by User:

Each User can load between 1 and 5 fingerprints on the biometric terminal. The database can accommodate the enrollment of up to 10 fingers and can be set to check that similar fingers do not exist in the database thereby eliminating "ghost employees".

Transaction Options Set by User:

Each User can have their transaction methods individually assigned. I.e. Finger only, Pin + Finger, Card or Finger, Card & Finger, Template on a Card, etc. There are over 10 combinations which can be defined by time of day and day of week.

Templates Stored in device memory and/or on the server:

When each User or Visitor is loaded on the biometric template management software, the operator can assign the User to be authenticated at all or only specific Viridi devices and can either download the User to the device for local authentication or store the template only in the application database for Server authentication, this helps to ensure that terminals do not get "clogged up" with out of date templates.

Push Technology:

In order to minimize network traffic and provide a "real-time" update of transactions, the devices will "Push" their transactions to the Server as they occur. While templates are being sent to the Viridi devices, Users can continue to transact.

Optical Sensor (Patented):

The Optical Sensor has a patent on the angle of the prism which gives the optimal level of distortion for image capture. This means that the biometric image scanned on a Viridi Optical Scanner has a higher image quality than competitive products; furthermore the surface of the sensor is hardened and coated which makes it resistant to wear and tear including use in harsh environments. This has been field proven in a multitude of installations in Africa where some of the harshest environments exist and where abuse of technology is rife.

Interfaces:

The Viridi Biometric Terminals are intelligent and available with a multitude of communication and interface ports. As standard they have TCP/IP for Template and Data management, Wiegand 26 & 34bit IN & OUT ports to connect 3rd Party RFID Readers or Connect to Access Control Controllers, On Board Relays with NO/NC and Motorised Lock Control, Door Status Monitor, Alarm Panel I/F and RS232/485 Ports.

Applications:

The Viridi Biometric Terminals can either operate as stand-alone or networked / Server managed devices and incorporate the functionality required for Time & Access Management, Canteen Control, alternatively they can simply emulate a card reader for interfaces to legacy systems.

Patented Live & Fake Finger Detection Technology

What is a Fake Fingerprint?

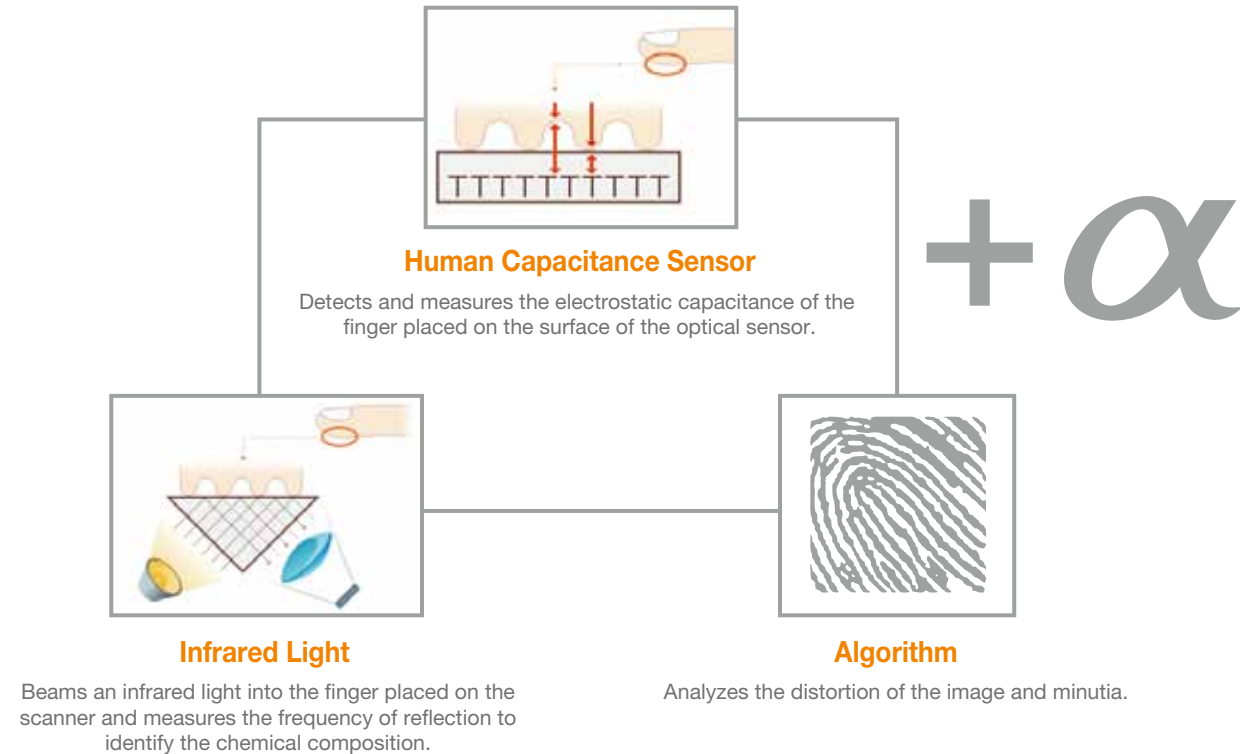
- It is an artificial fingerprint made from silicon, rubber, paper, gel, or film which is used to defeat common biometric readers.

Common Fingerprint Sensors

- Most biometric sensors can be defeated using a variety of commonly known methods. This renders most biometric technology useless as the level of security does not protect businesses from the financial loss through fraudulent clockings, nor does it provide the level of security required by government, airport, military and commercial organizations.

VIRDI Fingerprint Sensors

- UNIONCOMMUNITY's patented optical fingerprint sensor incorporates both LIVE and FAKE finger detection using a combination of the three technologies below.



VIRDI AC 6000



High Tech Fingerprint Authentication System
for Access Control and T&A Management

Image View



Key features

- Patented Fake Finger Detection
- User Capacity 100,000
- Log Capacity 500,000
- Image Log Capacity 12,500
- 1.3M Pixel Camera Embedded
- 4.8" Color TFT Touch Screen
- Card Reader Option: 125KHz EM, 13.56MHz Mifare, HID Prox 125KHz
- TCP/IP, WiFi(Optional), RS232, RS485, Wiegand
- USB Memory Slot
- 32 Bit RISC 806MHz CPU
- 256MB Flash & 256MB DDR SDRAM
- 1:1 < 0.5 sec
- 1:N < 1 sec (1:7,000)
- Max 1:N up to 30,000 users

Metal Case



User Interface



High Speed 806MHz Processor
- Powerful processor ensures quick image acquisition and template matching response time.



Fake Fingerprint Detection (Patented)
- Proprietary optical sensor and algorithm detects fake fingers made of paper, film, rubber, silicon etc.



4.8" Color TFT LCD Touch Screen
- Intuitive UI (user interface) simplifies operation
- Customizable LCD background & icons



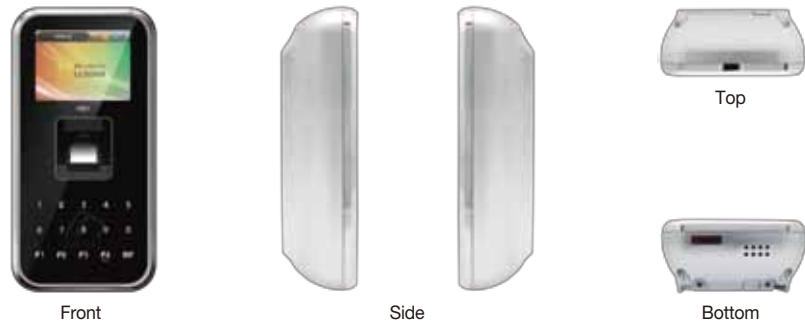
Embedded 1.3M Pixel Camera
- Takes a photo at the time of each transaction
- Stores up to 12,500 images



WiFi Support (Optional)

VIRDI AC 5000

Image View



Key features

- Patented Fake Finger Detection
- User Capacity 20,000
- Log Capacity 61,000
- 2.8" Color TFT LCD
- Card Reader Option: 125KHz EM, 13.56MHz Mifare, HID Prox 125KHz
- TCP/IP, RS232, RS485, Wiegand
- POE 13W support
- IP65 Weatherproof Certified
- 32 Bit RISC 400MHz CPU
- Max 1:N up to 20,000 users

User Interface



Elegant Outdoor IP65 Fingerprint Authentication System



Portable



High Speed Processor
- Powerful processor ensures quick image acquisition and template matching response time.



Fake Fingerprint Detection (Patented)
- Proprietary optical sensor and algorithm detects fake fingers made of paper, film, rubber, silicon etc.



IP65- Weatherproof



Touch Keypad
- LED backlight



2.8 inch TFT Color Screen
- User Customizable LCD Background



POE 13W

Fingerprint Authentication System
for Access Control and T&A Management



AC 4000



Winner of NPS award in 2007 ISC West



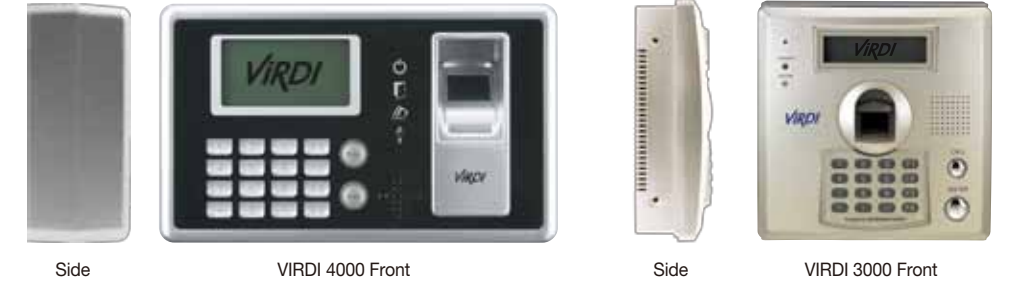
IR52 Jang Young Shil Award
"Fingerprint system with fake finger detection"



AC 3000

VIRDI AC 4000/3000

Image View



Side

VIRDI 4000 Front

Side

VIRDI 3000 Front

Key features

VIRDI AC 4000

- Patented Fake Finger Detection
- 2007 ISC West NPS Product Achievement Award
- Embedded Fake Finger Detection
- User Capacity 22,000
- Log Capacity 55,000
- Card Reader Option: 125KHz EM, 13.56MHz Mifare, HID Prox 125KHz
- TCP/IP, RS232, RS485, Wiegand
- Interphone Interface for Visitor Management
- Optional Slave reader (SR 100FP) with local antipassback

VIRDI AC 3000

- Patented Fake Finger Detection
- User Capacity 3,000
- Log Capacity 12,000
- Card Reader Option: 125KHz EM, 13.56MHz Mifare, HID Prox 125KHz
- TCP/IP, RS232, RS485, Wiegand
- Interphone Interface for Visitor Management

Metal Case



Fake Fingerprint Detection (Patented)
- Proprietary optical sensor and algorithm detects fake fingers made of film, rubber, silicon etc.



Fast Authentication Speed
- 1:1 < 0.5sec, 1:N (1,000) < 1sec



Various Authentication Methods
- Using combinations of fingerprint, password and RF/Smart Card



Communication Interface
- TCP/IP, RS-232, RS-485, Wiegand

VIRDI AC 2100

Image View



Key features

- Patented Fake Finger Detection
- User Capacity 100
- Log Capacity 5,000
- Card Reader Option: 125KHz EM, 13.56MHz Mifare
- IPX3 Weatherproof Certified
- TCP/IP, WiFi(Optional), RS232, RS485, Wiegand
- Optional Slave reader (SR 100FP) with local antipassback

Portable



Fingerprint Authentication System
for Access Control and T&A Management



Supports Slave Reader with local antipassback



Fake Fingerprint Detection (Patented)
- Proprietary optical sensor and algorithm detects fake fingers made of film, rubber, silicon etc.



Fast Authentication Speed
- 1:1 < 0.5sec, 1:N (1000) < 1sec



Various Authentication Methods
- Using combinations of fingerprint, password and RF/Smart Card



WiFi Support (Optional)



GOOD DESIGN
AWARD IN KOREA



RFID / Smart Card Authentication System for Access Control and T&A Management

VIRDI RF/Smart card authentication system has been designed for a wide variety of business applications



Authentication using RFID or Smart Cards
- 125KHz or 13.56MHz



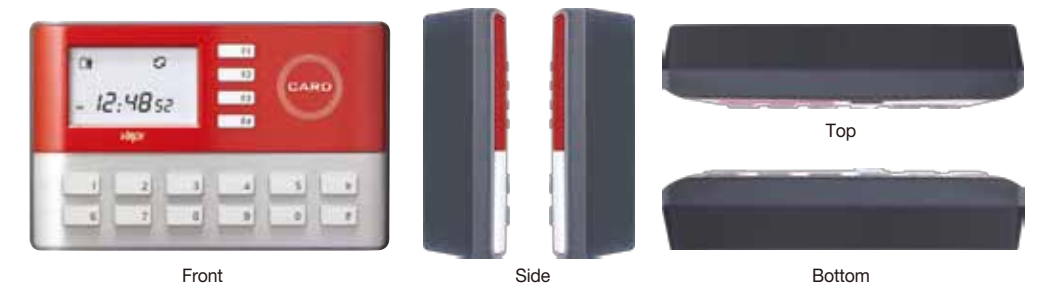
Communication interface
- TCP/IP, RS-232, RS-485, Wiegand



Various Authentication Methods
- Using combinations of password and RF/Smart Card

VIRDI AC 1000

Image View



Key features

- Good Design Award
- User Capacity 15,000
- Log Capacity 17,000
- Card Reader Option: 125KHz EM, 13.56MHz Mifare
- TCP/IP, RS232, RS485, Wiegand

Demo Kit



VIRDI SR-100FP



Fingerprint **Slave Reader**



Key features

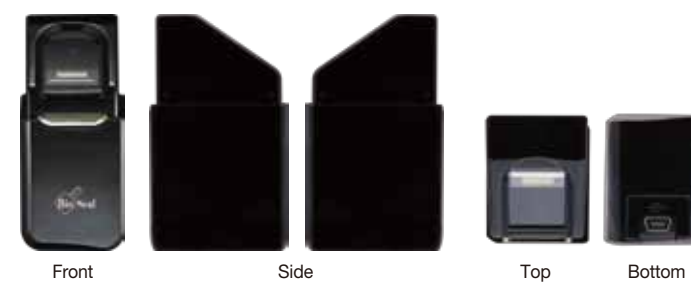
- Patented Fake Finger Detection
- Anti-Pass Back (RS-485)
- 125KHz EM Reader Embedded
- Compatible with : AC 2100(V3.0), AC 4000

Stand-Alone Anti-Passback



VIRDI Bio Seal

Fingerprint PC Login **Security Device**



Key features

- Patented Fake Finger Detection
- HID(Human Interface Device) Driver for Mac OS, Windows, Intel, AMD, HTML or Linux systems
- 10 Different Sets of Login Credentials
- 4,000 characters of data for each fingerprint template
- Internal Authentication Process for Security Enhancement
- Portable USB Device
- Enhances security by assigning individual complex passwords to each application / website
- Ideal for use in
 - 1) PC or Server Security
 - 2) Point of Sale (POS)
 - 3) Banking
 - 4) Identity Management
 - 5) Web/Cloud Computing
 - 6) Education



VIRDI FOH02



USB Fingerprint Reader



Key features

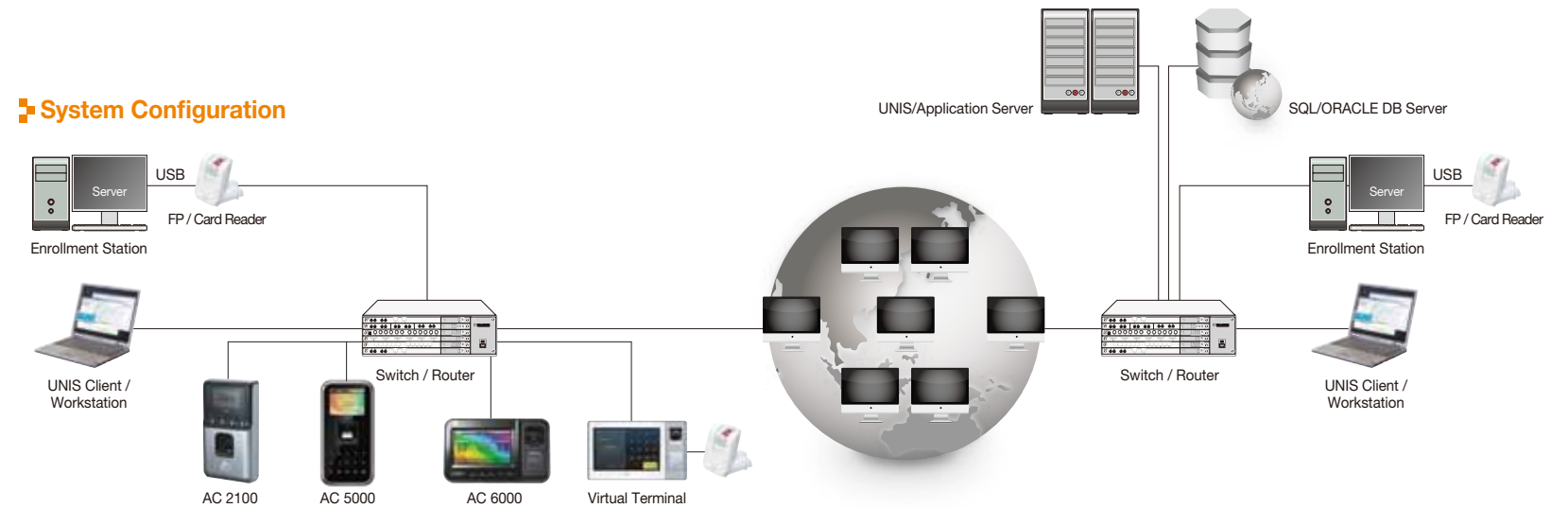
- Patented Fake Finger Detection
- 500dpi Durable Optical Sensor
- 256 Grayscale
- Image Size 304 x 344 pixels
- Sensing Area 15 x 17mm
- Windows Size 16 x 19.6
- O/S MS Windows
- Plug & Play USB2.0
- Card Option: 125KHz EM, 13.56MHz Mifare (ISO14443 TYPE)
- FVC Top Ranking Algorithm as of Dec 2011
- NIST Certified Template Format (ANSI-378 / ISO19794-2)
- WSQ Standard Image Compression
- VIRDI UCBio SDK (VB, Visual C++, C#, VB.NET, Java)

Specification

Items	VIRDI FOH02	VIRDI FOH02RF	VIRDI FOH02SC
Supply voltage	DC 5V ±0.2V supplied by USB	DC 5V ±0.2V supplied by USB	DC 5V ±0.2V supplied by USB
Operating environment	-20 ~ 50 / Lower than 90% RH (Non-condensing)	-20 ~ 50 / Lower than 90% RH (Non-condensing)	-20 ~ 50 / Lower than 90% RH (Non-condensing)
Sensor type	Optical	Optical	Optical
Resolution	500 dpi	500 dpi	500 dpi
Card type	-	125KHz proximity card	13.56MHz smart card
Interface	USB 2.0 compliance, 1.5m Cable	USB 2.0 compliance, 1.5m Cable	USB 2.0 compliance, 1.5m Cable
Verification time	< 1 sec	< 1 sec	< 1 sec
Operating systems	Windows vista/2003/XP/2000/7	Windows vista/2003/XP/2000/7	Windows vista/2003/XP/2000/7
Dimension	74(W)×84(H)×95(D) mm	74(W)×84(H)×95(D) mm	74(W)×84(H)×95(D) mm

VIRDI UNIS Software

System Configuration



Specification

Item	VIRDI UNIS			
OS	Minimum	Windows XP, 2000, 2003, vista, 7		
	Recommended	Windows 2000 Server or higher		
DB	MDB	Recommended	User	Max 500
			Simultaneous Connection	Max 20
		Remote Access Manager	1	
	Maximum	User	Max 1000	
		Simultaneous Connection	Max 30	
		Remote Access Manager	3	
MS SQL Server	Recommended	User	Unlimited	
		Simultaneous Connection	Max 200	
		Remote Access Manager	1	
	Maximum	User	Unlimited	
		Simultaneous Connection	Unlimited	
		Remote Access Manager	100	
Network			TCP/IP, WiFi (Optional)	
Supported Devices			AC 1000/2100/3000/4000/5000/6000 VIRDI FOH02 V-terminal	



VIRDI UNIS Software

Access Control Software Features

- Real-Time Monitoring – Terminals use Push Technology
- Optional Integrated Time & Attendance Module
- Optional Integrated Meal Management Module
- Unlimited Users
- Device Configuration and Management
- Time Zones – Up to 12 transaction bands (start and end times) for each day
- Access Times
- Custom Access Areas
- Define Access Groups
- Access Group Scheduling
- Anti-Pass Back
- Admin Authority Management
- Records Transactions and Events
- Automatic Email System Alarms / Events
- Smart Card Layout Configuration
- Terminal Management
 - 1) Auto Detect Terminals
 - 2) Configure Common Terminal Settings
 - 3) Define Wiegand IN&OUT Interface Protocol
 - 4) Setup Siren Times (used to ring a bell or siren to indicate start or end of work)
- Flexible Template Management and Enrollment
- Flexible Data Selection
- Save to .CSV file
- Blacklist User Management
- Message Broadcast Facility
- Displays Real-Time Alerts on User Defined Site Diagrams
- Web Based Reports

Real time Monitoring



- Terminals use Push Technology
- Pop up Pictures
- Real Time User Picture Display

Time Zones



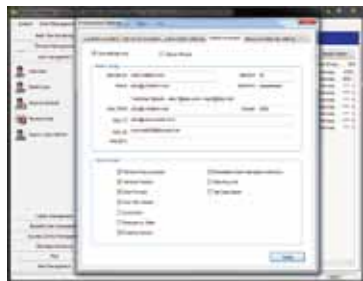
- Up to 12 transaction bands (start and end times) for each day
- Access Times - Custom Access Areas
- Define Access Groups

Anti-Pass Back



- Admin Authority Management
- Records Transactions and Events

Automatic Email System Alarms



- Matching Fail
- Terminal Disconnected
- Terminal Toemper
- Door Forced
- Door Not Closed
- Lock Error
- Emergency State
- External Sensor
- Blacklisted User Attempted Authentication
- Tail Gate Alarm

Message Broadcast Facility



- Send custom message to individual employees (i.e. Happy Birthday, Meeting notification, Report to Clinic etc)

Blacklist User Management



- Transfer "Unwanted" Users to the Blacklist
- Real-Time alarm & email in the even a Blacklisted User transacts or is enrolled
- Report on Blacklisted User Transactions

Displays Real-Time Alerts on User Defined Site Diagrams



- Search Event Log
- Set Terminal Position
- Set Drawing Position
- Real time monitoring
- Event Log notification

Admin Authority Management



- Define what function/s each "User" with Admin right can perform

Smart Card Layout



- Set up card type and card capacity
- Issue smart card
- TOC (Template On Card) feature

Wiegand Setting



- Standard 26bit, 34bit Wiegand Protocols as well as user defined Settings can be Configured for both the IN & OUT Wiegand Ports on the Terminals

Log Management



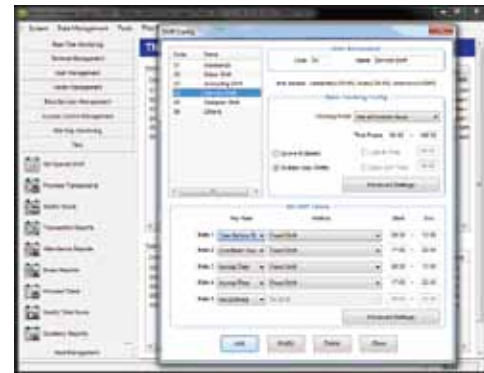
- Access Log
- Server Audit Log
- Terminal Audit Log
- Admin Logon Audit
- Search Event Log
- Search Temporary record
- Search Terminal command

VIRDI UNIS Software

T&A Software Features

- UNIS T&A is a Module of UNIS and shares a Common Database (USB Dongle Required)
- Shifts Config
 - 1) Limited to 99 shifts
 - 2) Each shift has a start and end time
 - 3) Define when an employee is late or leaves early
 - 4) Multiple shifts can be worked on 1 day
 - 5) A shift can have up to 5 breaks per day
 - 6) A shift can commence on the previous day (paid on day OUT) or end on the following day (paid on day IN)
- Flexible Shift Schedules (9999 Patterns can be Created)
- Monitor Tardiness
- Calculates Hours Worked by Rate
- Auto Process Transactions
- Modify Clockings and Hours
- Custom Report Layouts
- Transaction Reports
- Summary Reports (Late, Early Departure, Absenteeism, Break Time)
- Output to Payroll (requires regional customization)

Shifts Config



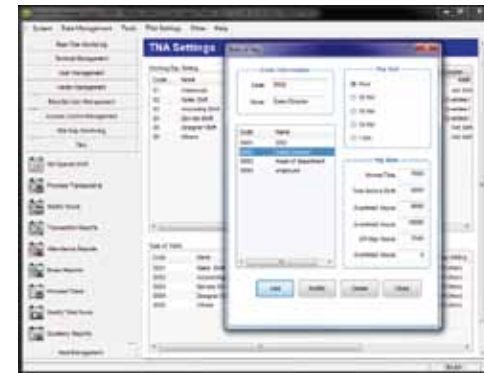
- Limited to 99 shifts
- Each shift has a start and end time
- Defines when an employee is late or leaves early
- Multiple shifts can be worked on 1 day
- A shift can have up to 5 breaks per day
- A shift can commence on the previous day (paid on day OUT) or end on the following day (paid on day IN)

Shift Schedule



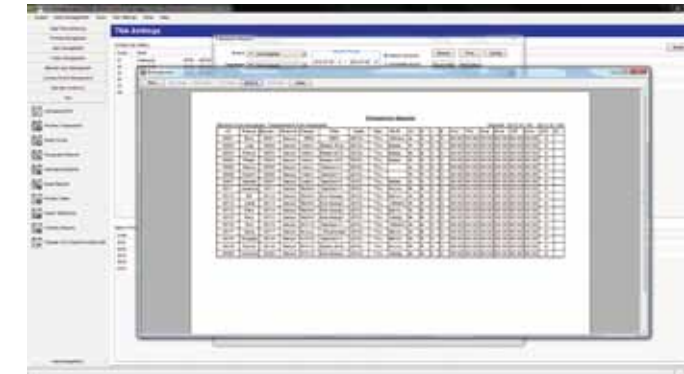
- A shift schedule is a set number of days (1 to 30), starting on a particular date
- The schedule auto repeats at the end of the cycle
- Employees are assigned to shift schedules
- A custom shift schedule report allows you to assign a new shift to an employee and overwrites the original schedule temporarily

Calculates Hours Worked by Rate



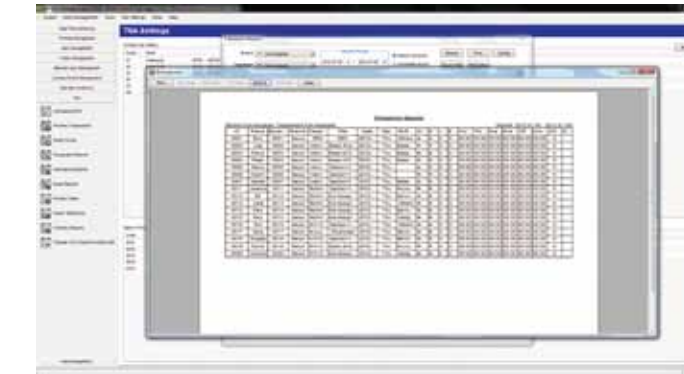
- Set the payment by work hours and the unit of calculation.

Transaction Reports



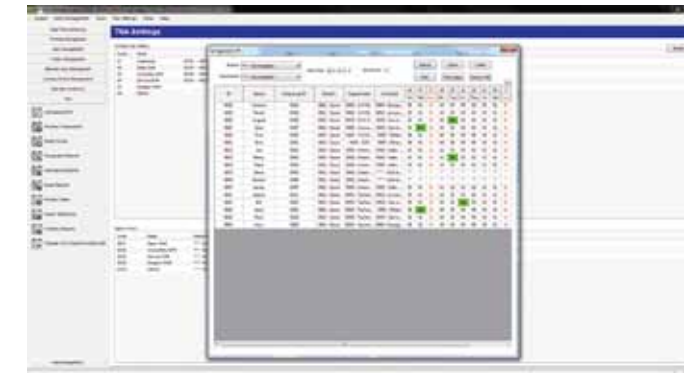
- Search Branch
- Search Department
- Search Period
- Search All or Incomplete Records

Summary Reports



- Late, Early Departure, Absenteeism, Break Time
- Search Branch
- Search Department
- Search Period

Set Special Shift



- When there is any change, you can apply it to time & attendance again after performing modification work in advance
- Search Branch
- Search Department
- Search Start Date (30 days work schedule inquired based on the starting date)

Advance Settings



- Enable Automatic Sign in/out Setting, Exception Time Settings, Multiple Sign in/out Zone Settings
- Time Frames
- Auto Clock Y/N
- Out of Office Settings
- Break Times
- Set Multi Daily Shift Times

Fingerprint Authentication Door Lock

A secure and convenient fingerprint door lock with advanced features such as a built-in thermal sensor to open a lock in the event of a fire, high resistance against ESD and of course, no need to carry a key or card.



VIRDI DL-473FR

VIRDI 450FP

VIRDI DL-473FR/450FP

Image View



DL-473FR Back

DL-473FR Front

VIRDI 450FP Back

VIRDI 450FP Front

Key features

VIRDI DL-473FR

- Patented Fake Finger Detection
- User Capacity 100
- Card Reader Option: 125KHz EM
- STA Manager Software Via USB Host Connector
- Strong Resistance Against Electric Shock
- IPX4 Weatherproof Certified
- Warning Signal for Battery Replacement
- Can be Integrated with Other 6V Locks

VIRDI 450FP

- User Capacity 100
- Strong resistance against electric shock
- IPX4 Weatherproof Certified
- Warning signal for battery replacement
- Home and office mode support
- Aluminum die-casting body
- Automatic re-locking function
- Double Safety Locking

VIRDI FM-30FP

Powerful Fingerprint Authentication OEM Module



Evaluation Kit



FM-30FP

Specification

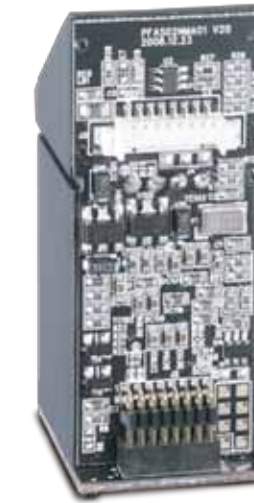
Items	VIRDI FM-30FP
CPU	32Bit RISC CPU, 400MHz
Template capacity	6,000 templates
Template size	400 Bytes per template
FRR(False Rejection Rate)	< 0.1 %
FAR(False Acceptance Rate)	< 0.0001 %
Enrollment time	< 0.7 sec
Verification time	< 0.7 sec
Host communication	RS-232, RS-232(TTL Level), RS-485
Wiegand interface	1 In port, 1 Out port
Programmable I/O	Input Port : 4 input / Output Port : 8 output
Power consumption (mA) (standby/operation)	Operation: 220 mA ~ Max 440 mA
Supply voltage	DC 5V±0.2V
Operating environment	-20 ~ 55°C / Lower than 90% RH(Non-condensing)
Event capacity	12,280
Encryption	Seed
Sensor Typel	Optical
Dimension	43mm(W)×63mm(H)×8mm(D)
Evaluation Kit	Available

Key features

- Patented Fake Finger Detection
- 500dpi Durable Optical Sensor
- Image Size 304 x 344 pixels
- Sensing Area 15 x 17mm
- Windows Size 16 x 19.6
- Programmable I/O (4 Input, 8 Output)
- RS 232, RS 232 (TTL Level), RS 485
- FVC Top Ranking Algorithm as of Dec 2011
- NIST Certified Template Format
(ANSI-378 / ISO19794-2)

VIRDI FAS02NLC

All-In-One Fingerprint Authentication OEM Module



Back



Front

Key features

- Patented Fake Finger Detection
- All in one (Compact type)
- Cost Effective
- 500dpi Durable Optical Sensor
- Image Size 304 x 344 pixels
- Sensing Area 15 x 17mm
- Windows Size 16 x 19.6
- RS 232 (TTL Level)
- FVC Top Ranking Algorithm as of Dec 2011
- NIST Certified Template Format
(ANSI-378 / ISO19794-2)

Specification

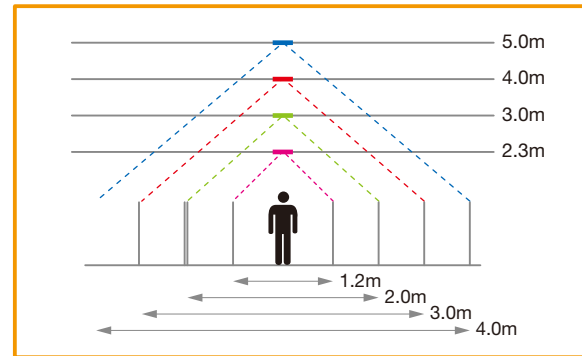
Items	VIRDI FAS02NLC(S5)	VIRDI FAS02NLC(S3)
CPU	32Bit RISC CPU	32Bit RISC CPU
Template capacity	960 templates	960 templates
Template size	400 Bytes per template	400 Bytes per template
FRR(False Rejection Rate)	< 0.1 %	< 0.1 %
FAR(False Acceptance Rate)	< 0.0001 %	< 0.0001 %
Enrollment time	< 1 sec	< 1 sec
Verification time	< 1 sec	< 1 sec
Host communication	RS-232(TTL Level)	RS-232(TTL Level)
Power consumption (mA) (standby/operation)	Standby: 32 μA (Power off feature) Operation: 165 ~ 175 mA	Standby: 32 μA (Power off feature) Operation: 165 ~ 175 mA
Supply voltage	DC 5V±0.2V	DC 3.3V±0.2V
Operating environment	-20 ~ 55°C / Lower than 90% RH(Non-condensing)	-20 ~ 55°C / Lower than 90% RH(Non-condensing)
Event capacity	12,280	12,280
Encryption	Seed	Seed
Sensor Type	Optical	Optical
Dimension	21mm(W)×53mm(H)×28mm(D)	21mm(W)×53mm(H)×28mm(D)
Evaluation Kit	Available	Not available

People Count System

VIRDI People Count System is used for counting the visitor traffic in department stores, shopping malls, stadiums, exhibitions etc. The data is used to analyze marketing programs and can be used to assist with scheduling employees based on visitor traffic.

Specification

- I-BOX**
- Sensing Process, Collecting Control, Combine Analyzed data and Features to the I-BOX
- 4 Channel**
- Support Max. 4ch. People-Count by Real-Time Processing Individually.
- Count Sensor**
- User-Friendly Count Sensor Setting and Adding Sensor.
- Recording**
- Able to Record Captured Video.
- Sensitivity Control**
- Environmental Sensitivity Adjustment Feature.
- Easy Setting**
- Simple Hight Setting without Replacing Hardware.
- Sensing Zone Setting**
- Sensing Zone can be made Simply by the Scroll.
- Sensing Function**
- Count Mode/ Tracking Mode Feature.
- UNIS Server**
- Support Various Version, Web or C/S.
- Multiple Reports**
- Able to Extract Chart and Report Format from People-Count.
- On/Off**
- On/Off System Automatically.
- RF-ID**
- Classify between Visitor/Staff. (Optional)

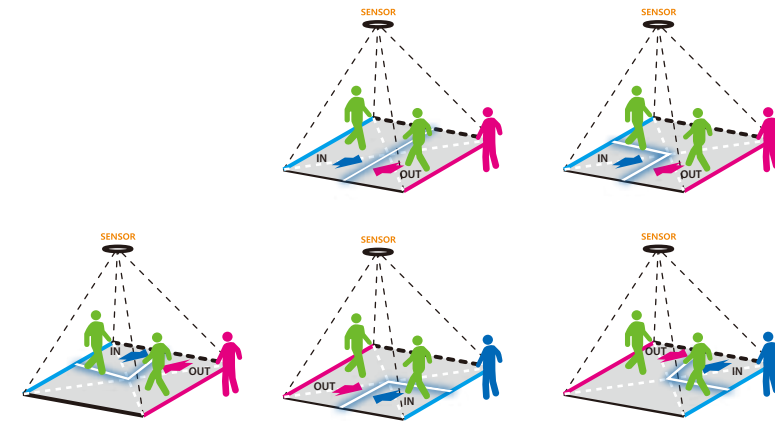


- Same Object(a person) will be count once by tracking ID. Even they pass the sensor multiple time
- With 5-Type round option with the Entrance Corner makes strong sensing infrastructure
- Real-time analysis and reporting technology
- Reports are generated on traffic hourly / daily /monthly / quarterly
- Variable Sensing technology, height range:(Min 2.3m ~ Max 5.0m)
- Multi sensing count technology identifies multiple simultaneous entries
- Single / Dual sensing line application

System User Interface



Angle can be adjusted by the Sensing Type option



Application S/W

Real-Time Statistics



Able to monitor realtime In/Out

Site Statistics



Show the number of visit by hour, week, month

Site Comparison



People count comparison made into hour, week, month

Annual Statistics on Site



Show annual statistics based on week, month

Annual Statistics with Comparison



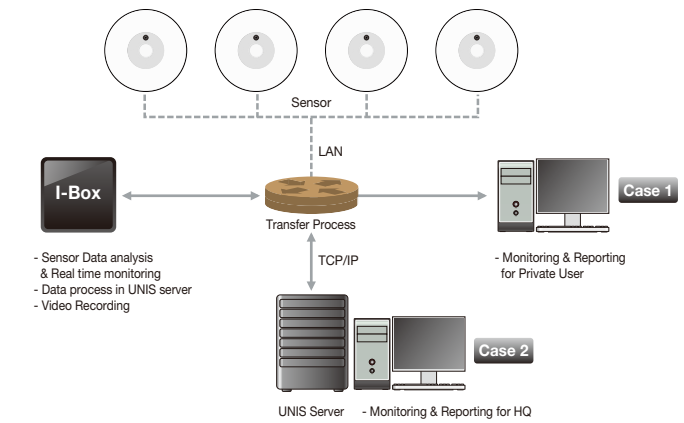
Show annual statistics with comparison based on week, month

Site Summary

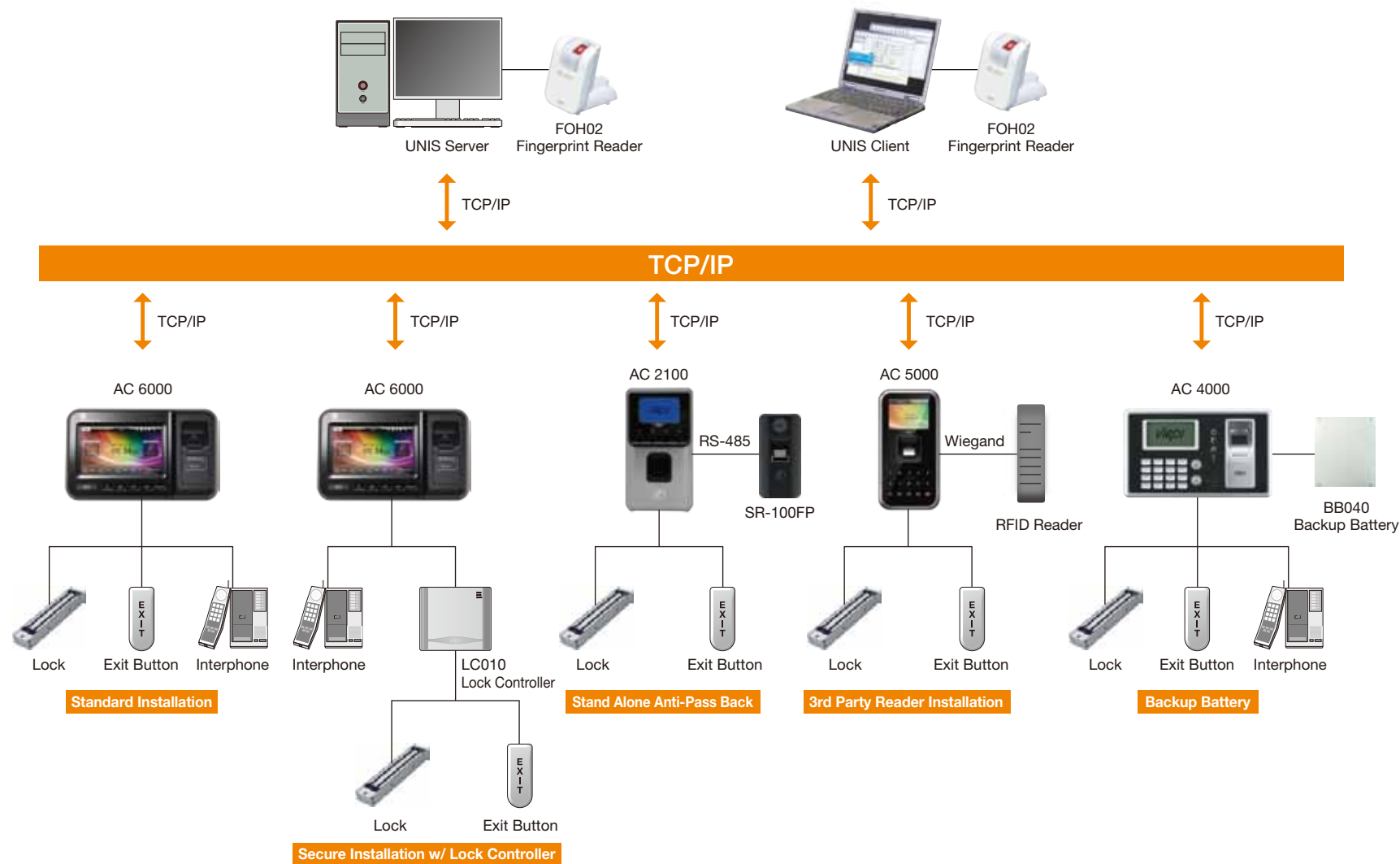


Show summarized statistics of people count based on day, week, month

System Configuration (Case 1: Private User, Case 2: HQ Management)



System Configuration



Access Control / Time Attendance Specifications

Model	AC 6000	AC 5000	AC 4000	AC 3000	AC 2100	AC 1000	SR-100FP	
Type	Biometric	Biometric	Biometric	Biometric	Biometric	RFID	Biometric	
Live / Fake Finger Detection	Yes	Yes	Yes	Yes	Yes	N/A	Yes	
Memory	Users	100,000	20,000	22,000	3,000	100	15,000	
	Templates	200,000	40,000	44,000	6,000	200	N/A	
	Transaction Log	500,000	61,000	55,000	12,000	5,000	17,000	
	Photo Log	12500	N/A	N/A	N/A	N/A	N/A	
Communication	To Management Software	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	
	Other	USB	No	No	No	No	No	
	Optional- Wireless	Yes	No	No	No	Yes	No	
To 3rd Party Devices	Wiegand	Yes	Yes	Yes	Yes	Yes	No	
	RS 232	Yes	Yes	Yes	Yes	Yes	No	
	RS 485	Yes	Yes	Yes	Yes	Yes	Yes	
	Wiegand	Yes	Yes	Yes	Yes	Yes	No	
From 3rd Party Devices	Wiegand	Yes	Yes	Yes	Yes	Yes	No	
Display		Colour TFT Touch LCD	Colour TFT LCD	Mono Graphic LCD	Mono Graphic LCD	Mono Graphic LCD	Mono Graphic LCD	
	Size	4.8" 800 x 480	320 x 240	128 x 64	122 x 32	128 x 64	128 x 64	
	Backlight	Yes - With Motion Sensor	Yes	Yes - With Motion Sensor	Yes	Yes	Yes	
	Built-in Camera	Yes	No	No	No	No	No	
Card Reader	RFID, 125KHz - EM 4100	Yes	Yes	Yes	Yes	Yes	Yes	
	HID 26bit, 34bit	Yes	Yes	Yes	Yes	No	No	
	Mifare	Yes	Yes	Yes	Yes	Yes	Yes	
	Mifare Template Stored on a Card	Yes	Yes	Yes	Yes	Yes	N/A	
Key Pad	Touch Screen	Touch Keypad	Yes	Yes	No	Yes	No	
Motion Sensor	Yes	No	Yes	No	No	No	No	
Auto Scan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Door Phone Interface	Yes	Yes	Yes	Yes	No	No	No	
Function Keys	Yes	Yes	Yes	Yes	Yes	Yes	No	
Sensor Type	Optical	Optical	Optical	Optical	Optical	N/A	Optical	
Sensing Area	15x 17 mm	15 x 17 mm	13 x 15 mm	13 x 15 mm	15 x 17 mm	N/A	15 x 17mm	
Resolution	500 dpi	500 dpi	500 dpi	500 dpi	500 dpi	N/A	500dpi	
Verification	1:1	<0.5 sec	<0.5 sec	<1 sec	<1 sec	<1 sec	<1 sec	
Identification	1:N	<1 sec	<1 sec	<1 sec	<1 sec	<1 sec	<1 sec	
Dimension	(W) x (H) x (D) in mm	198 x 120 x 40	88 x 175 x 43.5	181 x 109 x 47	137 x 137 x 48	93 x 170 x 40	140 x 89 x 28	55.5 x 111 x 40.5