



VISION 21TM - The System Description

Total Flexibility

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1.0 Basic features and advantages of the VISION 21™ system;

Competitive initial system costs

Universal ISO Mag Stripe Technology

A minimum of mechanical components, therefore very low maintenance costs

Multiple uses of tickets and the reuse of tickets for extended applications

Optimal user guidance by monitors and color-coded prompts

On-Line integrated network parking management system

Off-line system capabilities

Remote control and supervision via ISDN, dial up modem, PDA's, radio frequency control, internet, and wireless technology

All common payment methods can be installed

Integrated with access control features and multiple technologies

All rate structures can be set and programmed locally by the parking operator

Credit card acceptance and client invoicing is available

Hotel management and interface software to room keys is available

Various options available for integrated RFID technology, building access, License Plate Recognition, facility/floor/sector vehicle counting and intelligent signage systems, parking guidance system via signage and traffic signals.

2.0 FUNCTIONAL DESCRIPTION

VISION 21™ is based on the system of magnetic stripe tickets, access cards, system debit cards, credit cards and private issued cards. With an intelligent read/write technology and the ability to insert in either read direction, the current data is read and/or all new encoding is placed onto the ticket or card.



The system guarantees a very high data-security while operating off-line or an on-line network. Even when a component or the entire system is off-line from the central server or FMS software, required revenue control functions are managed. System integrity is fully maintained and all data is stored locally at each device until the network polls each unit to retrieve the stored data.

3.0 ENTRY CONTROL STATION

Each Entry Control Station is designed to be an intelligent component of the VISION 21™ system. Located at the entry lane of the parking facility, then Entry Control Station will issue transient tickets, accept credit cards, access cards, system debit cards and communicate on a high-speed network all functional activities.



The cabinet is manufactured from plated steel, aluminum and decorative, yet functional injection molding. A textured powder paint finish ensures a long lasting paint finish. The logic control board and I/O board is consistent to all entry and exit control stations. Thus spare parts inventory and service is limited.

The universal ISO ticket/card transport mechanism is a simplistic patented design that not only issues a ticket but retracts a debit ticket, retracts an access control ticket, a limited use ticket, a "special" ticket for future use, and displays on the integrated display the current status, value, time of entry/exit and advises the customer in many languages the next sequence. This same insertion slot also handles the use of mag stripe access cards and credit cards.

Each Entry Station is connected to the AG50/SSE Auto Gate which provides intelligent information to monitor service problems, ticket capacity, last ticket issued, lane counting within the facility to monitor lane component counting, differential counting, zone or sector counts, and statistical information.

This is all monitored at the System Central Server or a managers FMS workstation. Programming and or simply viewing these activities can be controlled here.



4.0 AUTOMATED PAYMENT STATION

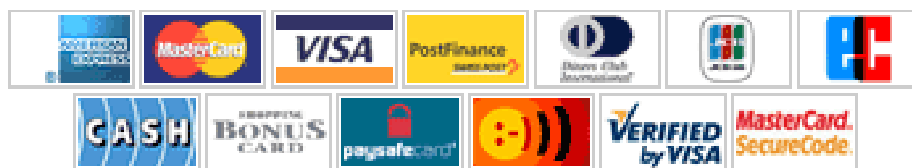
The Automated Payment Station features a contemporary elegant design and ergonomic arrangement of the operating elements.

Upon entering the parking facility, the customer approaches the Entry Control Station and obtains the entry ticket. As the customer accepts the ticket, ticket number, date, time, location, and confirmation that the ticket is in fact within the facility’s vehicle inventory (not a back-away ticket) is encoded onto the ticket and transmitted to the CENTRAL SERVER for storage, functional statistics and/or real time monitoring.

Prior to returning to his/her vehicle, the customer walks to the Automated Payment Station and is prompted through the payment process. The entry ticket is inserted along with any validation tickets, the exact fee is calculated, and a choice of payment options is presented. Various coin denominations, currency, credit cards, debit cards, and electronic chip cards can make payments.

A customer display prompt indicates transaction type, date and time, and if an access card is valid, parking closed or many other programmed messages.

The Automated Payment Station can provide self-recharging system debit card transactions for each individual operating under this application. Real time monitoring provides cash vault status, self-diagnostics, currency and coin inventory levels, sales total, and online report capability in a real time mode.



Upon completion of payment, the entry ticket is now converted to become the exit ticket. An exit grace period is predetermined within the system to allow sufficient time to retrieve your vehicle and prepare to exit the facility.

At the exit lane, the customer inserts the ticket into the Exit Control Station. The ticket is retracted and read for verification. A customer display prompts a message indicating a valid exit. If the customer does not exit the facility within the given grace period, he/she is prompted to return to the Automated Payment Station to pay the calculated fee. This process accommodates all customers, short term and long term, seasonal, temporary, debit, monthly or contract, and provides management with the revenue reporting for each defined period.

5.0 CENTRAL CASHIERING SYSTEM

Upon entering the parking facility, the customer approaches the Entry Control Station and obtains the entry ticket. As the customer accepts the ticket, ticket number, date, time, location, and confirmation that the ticket is in fact within the facility's vehicle inventory (not back away ticket) is encoded onto the ticket and transmitted to the CENTRAL SERVER for storage, functional statistics and/or real time monitoring. A customer display prompt indicates transaction type, date and time, and if an access card is valid, parking closed or many other programmed messages.

Prior to returning to his/her vehicle, the customer walks to the Central Cashier Station, or office, and presents the entry ticket to the cashier for fee calculation. The cashier inserts the entry ticket into the ticker reader/validator located at the Central Cashier Terminal, the exact fee is calculated, and a choice of payment options is presented. Payments can be made by various coin denominations, currency, and/or credit cards.



All cashier and manager reports can be obtained from the Central Cashier Terminal with a secure password.

6.0 EXIT CONTROL STATION



Upon completion of payment, the entry ticket is now converted to become the exit ticket. An exit grace period is predetermined within the system to allow sufficient time to retrieve your vehicle and prepare to exit the facility. At the exit lane, the customer inserts the ticket into the Exit Control Station. The ticket is retracted and read for verification. A customer display prompts a message indicating a valid exit. If the customer does not exit the facility within the given grace period, he/she is prompted to return to the automated payment station or the Central Cashier to pay the calculated fee.

This process accommodates all customers, short term and long term, seasonal, temporary, system debit, monthly or contract, and provides management with revenue reporting for each defined period.

The Central Cashier Terminal can recharge system debit cards for transactions at the Entry Control Station and Exit Control Stations only. Individuals with system debit cards do not proceed to the central cashier. Debit reduction of the parking duration is calculated from the entry time and the exit time. At each Entry or Exit Station, the debit card customer is advised by the customer display prompt of the account balance after each transaction. This function is also available for express credit card usage at the Entry and Exit stations.

7.0 EXIT LANE CASHIERING

Upon entering the parking facility, the customer approaches the Entry Control Station and obtains the entry ticket. As the customer accepts the ticket, ticket number, date, time, location, and confirmation that the ticket is in fact within the facility's vehicle inventory (not a back-away ticket) is encoded onto the ticket and transmitted to the CENTRAL SERVER for storage, functional statistics and/or real time monitoring.

A customer display prompt indicates transaction type, date and time, and if an access card is valid, parking closed or "full" and many other programmed messages.

As the customer exits the facility he/she approaches the exit lane cashier booth and presents the entry ticket to the cashier for payment. The cashier inserts the entry ticket into the Ticket Reader/Validator located at the Cashier Terminal, the exact fee is calculated. A cashier display prompt indicates a method of payment selection and a valid exit ticket check. Payments can be made by multiple formats.



8.0 EXIT LANE PAYMENT STATION



Upon entering the parking facility, the customer approaches the Entry Control Station and obtains the entry ticket. As the customer accepts the ticket, ticket number, date, time, location, and confirmation that the ticket is in fact within the facility's vehicle inventory (not a back-away ticket) is encoded onto the ticket and transmitted to the CENTRAL SERVER for storage, functional statistics and/or real time monitoring.

Prior to returning to his/her vehicle, the customer drives to the Exit Payment Station and is prompted through the payment process. The entry ticket is inserted along with any validation tickets, the exact fee is calculated, and a choice of payment options is presented. Various coin denominations, currency, credit cards, system debit cards, and electronic chip cards can make payments.

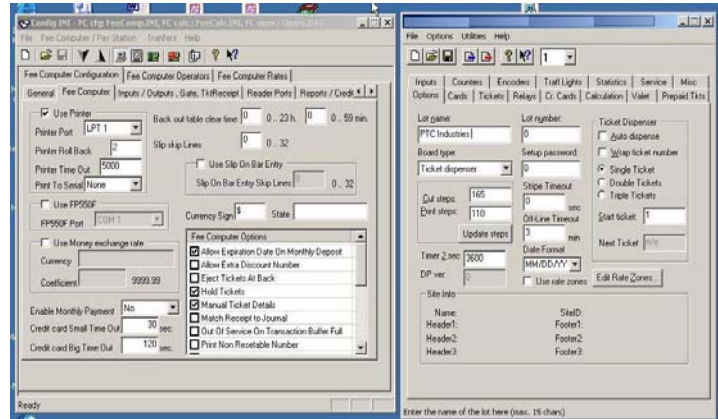
A customer display prompt indicates transaction type, date and time, and if an access card is valid, parking closed or "full" and many other programmed messages.

Once the payment is completed, the ticket is maintained within the Exit Payment Station and the Exit Gate is opened to allow the vehicle to exit.

9.0 VISION 21™ FACILITY MANAGEMENT SYSTEMS

Utilizing a centralized server concept - Windows2000 Professional©, the FMS provides direct real-time transaction and statistical information to monitor and control an entire parking facility and its devices.

The FMS software is a vertical product and upward compatible. The communication between the devices such as the Automatic Payment Station, entry and exit stations, access control readers, RFID readers are networked via RS485. Each device has an address on the network to identify all individual programming functions and report characteristics.



The application software was developed as fully object oriented in Windows Visual Basic© and C++ for interface to Microsoft Office standard products (i.e.; Excel, Access, Word) standard interfaces are used. SQL-interface is available for comprehensive evaluation tools. The FMS is designed to add valued applications directly to the system such as a reservation system, PDA tools, external accounting programs, report generators etc.

Various modules can be integrated into one seamless FMS. Modules include: System Revenue Control, Facility Count Manager, Access Card Manager, Credit Card Manager, Report Manager.

10.0 TICKETS

Our standard system and theory evolves around the “One Ticket“ concept of magnetic encoding tickets. This read and write technology provides for secure data transactions in an on-line or off-line environment and allows for re-coding of tickets for a multi-use application (i.e.; hotel tickets, conventions, hospital passes, etc). The entry ticket also has a man readable date, time, ticket number, rate selector and machine number printed on the ticket. Remote off-line ticket validators can be utilized to reduce the value of a ticket for the customer and all revenue reporting is in real time.



Tickets can be pre-printed with specific site information, artwork and logos.

Access Cards and Tickets are retracted within all units by a patented drive transport mechanism to provide for optimum reading and a controlled environment.

Magnetically encoded tickets:

1. Meet ISO global requirements for Ticket/Card size and magnetic stripe coercivity
2. Can be inserted in either two-way direction.
3. Utilize a universal reader for all devices.

11.0 ACCESS CONTROL

Today, access cards or RFID tags can be integrated directly into the VISION 21™ central system. Utilizing a customer's existing readers, or a preference to proximity, RFID, mag stripe, barcode or any other device can be integrated into one clean environment. No longer will you have to close software modules to move from transient activity to access card management.

To accommodate the use of monthly or contract customers the use of an access card can be utilized within VISION 21™. Contract parker cards are processed by the VISION 21™ central server and can provide defined, restricted or unlimited access to a customer. The contract customer uses the same equipment at the entrance lane as the transient customers. The access card is inserted or presented to the ticket reader. The customer display prompt indicates validity, system debit card balance and/or other messages. Amounts payable and duration of the contract period are programmed by the operator.



Service and administration of the different contract parkers are managed by a normal text terminal.

Car-pooling is also capable for business applications. Per contract access card number, only one car can be parked in the facility at the same time, even though more than one card with an identical number was issued. Each individual number can be released or blocked for a free-programmed period.

All movements and transactions of the contract customer are visible at the CENTRAL SERVER. Statistical printouts can be obtained from the real-time printer or from the system printer.



11.1 PART TIME ACCESS CARD

During specified, established day or evening times, these customers can enter and leave like unrestricted access card users. Start date/time and ending date/time of access can be programmed. If this part time customer is beyond the pre-programmed exit time, he/she is prompted by the exit terminal to return to the Automated Cashier or Central Cashier to pay the current rate structure fee from the point of the exit time zone ending. This feature utilizes all fee related transactions to maximize revenue control.

11.2 MONTHLY PAYMENT

The customer can be charged either by a monthly lump sum basis, or on the basis of the accumulated amount of real parking time utilized.

12.0 HOTEL GUESTS, CONVENTION, HOSPITAL WEEKLY PASSES, ETC.

Then entry ticket can be programmed to become a temporary access card. The length of the respective stay or occasion (starting and ending time and date) can be pre-programmed with the text terminal.

During the time visitors can enter and exit the facility similar to any other contract parker. When a customer of this group exceeds the period of validity, he/she will be informed by the customer display prompt at the exit control station to pay the additional fee at the Automatic Cashier Station or the Central Cashier Terminal. The rate will be calculated as a current transient customer.

13.0 REMOTE MERCHANT VALIDATION

Merchant validations are accomplished in various methods. One method is by the merchant inserting the customers' entry ticket into an off-line ticket reader/validator. These remote validators can also be wired on-line to the CENTRAL SERVER, and it will automatically reduce the parking fee by a preprogrammed value, time, or percentage.

Another method is by issuing preprogrammed tickets (coupons) to various merchants, for use at the Automatic Payment Station in conjunction with the customer transient ticket. The rate calculated will be reduced by the preprogrammed amount.

For exit cashiering, the cashier will insert the entry transient ticket into the Exit Cashier Station, a rate will be displayed, the cashier will then press the validation request key followed by the account number of that particular merchant, and the fee will be reduced.

All methods produce a merchant validation report, which displays the number of transactions and amount of validations, all by date and time. This report is then used to advise the merchants and collect any fees necessary.



14.0 SYSTEM DEBIT CARD

Regular customers of the facility can obtain a system debit card that contains a prepaid amount of parking time. According to the length of stay, the fee is then subtracted which reduces the balance of the debit card.

The customer inserts his/her debit card into the Entry Control Station located at the entry lane as an access card customer. The remaining balance is indicated on the customer display prompt each time he/she enters the facility. To subtract the accumulated parking fee, the customer inserts the system debit card into the Exit Control Station. Should the card not have sufficient funds for the entire parking fee, the customer display prompt indicates to the customer to pay the difference at the Automatic Payment Station or the Central Cashier Station.



The system debit card can be recharged individually with defined amounts (i.e.; \$10, \$20) at the Automatic Payment Station.

Debit cards with a \$ 00.00 balance are automatically collected at the Exit Control Station. The parking operator can recharge these as another type of ticket or pass.

15. ADDITIONAL FEATURES:

Password levels of Security
Multi-Language Displays
Multi-Language Voice Prompts
Voice Annunciation
Real Time Transaction Monitoring
Facility Count Management
Self Diagnostics & Support
Remote Control of Each Lane
Intercom Communication from each Unit
Fiber optics Communication
Real Time Display & Monitoring of Cash Vaults
Real Time Display & Monitoring of Ticket Rolls
True Access Control
Hotel/Exhibit Guest Control
Car Pool Accounting
Temporary Use Access
Debit Card System
Self Re-Charging Debit Card System
Advanced Reservation Systems for "FULL" Customers
Linear/Progressive/Degrressive Rate Structures
Foreign Currency Acceptance: 14 notes/9 coins Simultaneously
Self-Refilling Coin Hopper Systems
Credit Card Systems