GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

A

20mA CURRENT LOOP
A type of serial communication in which the presence or absence of an electrical signal indicates the state of the bit being transmitted.

ABIOS
Message indicating an abnormal end to a program execution.

AC (Alternating Current)
Term which refers to the voltage from a transformer or mains supply.

ACCELERATOR
Expansion circuitry that speeds up the operation of a Central Processing Unit (CPU) or other component.

ACCESS AUTHORISATIONS
Permission granted to a card number, enabling the cardholder to enter a location based on a programmed time schedule.

ACCESS CODE
Data contained on a card, entered on a keypad or programmed into a central controller which, if correct, may allow entry into the protected area or premises.

ACCESS CONTROL
A method of automatically controlling entry to and/or exit from protected areas or premises.

ACCESS CONTROL DEVICE
A hardware device that detects the presence of electronic cards. Devices have sensors, which detect the cards and a card reader interface, which decodes the card's electronic data and transmits that information to the computer. The devices also detect state changes for doors and monitor points.

ACCESS DECISION
The response by a controller to an access request (either access granted or access denied).

ACCESS LEVEL
A subset of access groups. A number that is assigned to a range of readers and cardholders. Allows a cardholder access only at access points with readers having the same access level number.

ACCESS GROUP
An access assignmemt given to each card holder that designates which readers and at what times a person may enter an access point.

ACCESS POINT
A gate, door, turnstile, or other controlled point of entry to an area.

ACCESS REQUEST
The transmission of an access code requesting entry through an access point.

ACCOUNT
A specification that allows a user to log into a system. Accounts have a user name and are defined by the system manager. Accounts have associated privilege levels that define the functions the user can perform.

ACIA
Asynchronous Communications Interface Adapter. A device providing the data formatting and control necessary to interface serial asynchronous data communications information to bus-organised systems.

ACTIVE PARTITION
The partition on a hard disk that contains the start-up operating system.

ACTIVE WINDOW
The desktop window in which a user is currently working.

ACU
Access Control Unit, name given to field based data collectors used in access control systems.

ACS
Access Control System.

ADAPTER
A circuit board that fits in an expansion slot to increase the capabilities of the computer system.

ADDRESS
1. A unique location in memory or in auxiliary storage where data or programs are stored for future use. A coding scheme used to store and retrieve data from memory or auxiliary storage.
2. Value set on an access control device to determine its mapped location within the system.

ADDRESS REGISTER
Indicates the location of data to be stored or retrieved from primary storage.

Ah
Ampere hours e.g. 250mA for 4 hours = 1Ah. Always derate battery capacity by 66% e.g. 250mA device could run for 16 hours on a 6Ah battery.

ALARM
The activation of an input device or system condition that is brought to the console operators' attention.

ALARM BYPASS RELAY
A relay in the controller that is used to shunt or bypass the door alarm contacts of a central alarm system to allow authorised access without causing an alarm.

ALARM CONDITION
A change of state or user defined condition that is considered threatening, such as an intrusion, fire, or hold-up.

ALARM OUTPUT
A system interface that can be connected to an external alarm device.

ALARM PRIORITIES
Alarms can be grouped according to their assigned priority. Higher priority alarms will be presented to the operator prior to lower priority alarms.

ALARM PROCESSING
Once processed, a 50 line, 50 character space is available for the operator to detail his actions, these are then archived along with the alarm and operator identity.

ALARM ZONE
Enables the system to automatically respond to input activation by time, and determine what output response is required.

ALARMS STACK
When an alarm is activated at a Remote Terminal, the alarm is

prioritised and placed in an Alarms Stack pending operator action.

ALGORITHM
A step by step list of directions that need to be followed to solve a problem.

ALPHA TEST
The first test of software that is under development. Opposite of Beta Test.

ALPHANUMERIC
Consisting of any combination of letters, numbers and special symbols.

AMP
Measurement for the flow rate of electrical current for an electrical device (smaller amounts below 1 amp are quoted in milliamps (mA).

ANALOGUE
Describes a signal that has a continuous range of voltage or current values. Contrast with digital in which values are Off (O) or On (1).

ANALOGUE COMPUTER
A computer that operates by creating a physical (usually electrical) analogy of the mathematical problem to be solved.

ANALOGUE/DIGITAL CONVERTER (ADC)
A device that converts analogue signals, especially those generated by sensing equipment, into digital signals.

ANALOGUE INTERFACE
Circuit that enables a personal microcomputer to monitor and control a non-digital universe.

ANNUNCIATOR
A visual or audible signalling device.

ANSI
American National Standards Institute. An organisation that sets the standards for computer languages. Ensures mortice electric release dimensions for faceplate and side lip are the same for every version.

ANSI.SYS
The configuration file that describes the display interface.

ANTI-PASSBACK (HARD)

An arrangement where the software flags a card as either 'IN' or 'OUT' when it is used at readers designated 'IN' or 'OUT'. For example, once a card is used at an 'IN' reader, that card is denied access at the same or other 'IN' reader until it is used at an 'OUT' reader. This prevents an individual who has entered at an 'IN' reader from 'passing back' his/her card to another person for unauthorised access. Anti-passback is best used where entry is controlled by a 'one-at-a-time' entry device such as a turnstile.

ANTI-PASSBACK (SOFT)
As above, but allows access and annunciates passback violation to operator via the monitoring system console.

ANTI-PASSBACK (TIMED)
As above, but incorporating a timed anti-passback feature to allow cardholders to re-enter the zone after a set time period.

ANTI STATIC MAT
A mat, usually located on the floor, that reduces static charges that can damage a computer.

ANTI TAMPER SCREW
Screw which has a non-standard head (Hex or Torx drive head).

APPLICATION SOFTWARE OR APPLICATION PACKAGE
A collection of related programs or sub-programs designed to accomplish specified tasks.

ARCHIVE
1. A second backup copy of a file that is kept separately from the working backup copy.
2. A backup or transfer file that has been compressed.

ARMATURE PLATE
Metal plate supplied with an electromagnetic lock and bolted to the door or bracket. Must be flexible when fixed to the door.

ARRAY
A group of logically sequential memory spaces in which data can be stored. Also called Table.

ARTIFICIAL INTELLIGENCE AI. The branch of computer science concerned

with building systems that imitate human thought processes or decision making.

ASCII
American Standard Code for Information Interchange. A system of internal coding used by most personal computers to represent numbers, letters and special symbols. A binary coding scheme used to store data in a computer. It provides compatibility between devices exchanging information.

ASCII FILE
A file that conforms to the American Standard Code for Information Exchange. Often used for transferring data between incompatible computers or applications.

ASTERISK (*)
In computer terms, a character that is considered a wild card because it can be substituted for other characters in a command. For example, a database search using SMIT* will turn up entries such as SMITH, SMITS, SMITY etc.

ASYNCHRONOUS COMMUNICATION
See Asynchronous Transmission.

ASYNCHRONOUS DATA CHANNEL
A communications channel capable of transmitting data but not timing information.

ASYNCHRONOUS MODEM
A modem which cannot transmit timing information. It is not synchronised with the associated terminal equipment, which assumes all timing responsibility.

ASYNCHRONOUS TERMINAL
A terminal which uses the start/stop method of data transmission.

ASYNCHRONOUS TRANSMISSION
The sending of one character at a time over communications channels. Also called Asynchronous Communication.

AT
Advanced Technology. Describes the standards established by IBM with their first 80286 computers.

AT BUS

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

The 16-bit data bus featured in Advanced Technology (AT) computers.

AUDIBLE DEVICE
A noise making device such as a siren or bell, or horn used as part of a local alarm system to annunciate an alarm condition.

AUDIT TRAIL
A historical listing of every action occurring within a system that sequentially accounts for all system activities.

AUTO DIAL/AUTO ANSWER
The ability of a modem to dial or answer a phone automatically.

AUTOEXEC.BAT
Abbreviation for automatically executed batch file. A batch file that automatically executes every time a computer is turned on or rebooted. It defines the start-up procedure.

B

BACK EMF
Electrical surge which is produced from the coil of an electric release or electromagnetic lock. Can cause an access control system to crash.

BACKGROUND
1. A method by which two jobs or functions can be processed at the same time. One job or function is in the foreground; the other is in the background. Frequently used with printers, the computer processes the print function while running another program.
2. A job that has low priority that will be processed when the computer is not being used for a higher priority job.

BACKLIT DISPLAY
A display method used in portable computers to enhance the visibility of the Liquid Crystal Display (LCD).

BACKUP
Describes the process of making copies of data or programs in case the original is lost, destroyed or becomes unusable.

BACKUP UTILITY

A program that allows faster or easier copying of disks or files.

BAD SECTOR
The area of a floppy or hard disk that is damaged and will not hold data.

BADGE
An information carrying device that usually contains unique information used to identify the user to an access control system.

BADGE PROFILE
The screen that contains pertinent information about a card holder.

BADGE READER
Industrial device that senses data from an inserted badge.

BANDWIDTH
The range of frequencies that can be transmitted accurately over a communications channel.

BARCODE
A series of vertical bars that contrast with the background. Usually black on white. These bars and spaces are arranged in a unique sequential pattern to represent binary data.

BARCODE READER
An input device that can scan barcodes and convert their information into a digital format that can be processed by a computer.

BARCODE TECHNOLOGY
A barcode is a series of alternating light and dark areas spaced set distances apart, forming a code that is read by an optical scanner. The code can be placed on a card and left visible, or it can be masked.

BARRIUM FERRITE
Permanent magnetic material placed in a card to form a binary code.

BASEBAND
A communication method often used for Local Area Networks (LAN's) in which a signal is transmitted digitally without modulation.

BATCH FILE
A collection of commands stored in the same file that will be processed in a batch. Batch files usually have a BAT

extension. For example, PAYROLL.BAT.

BATTERY BACKUP
Rechargeable battery which fits into a DC Power Supply (PSU) to provide power for a limited period in a power Failure.

BAUD
One signalling element per second. A measure of the signalling rate on a data channel. The data transfer rate measured in bits per second is usually (though not invariably) a simple multiple of this.

BAUD RATE
The speed at which data is transmitted over a cable. Usually refers to telephone line transmission. Common baud rates are 300, 1,200, 2,400 and 9,600. The higher the baud rate the faster the transmission speed.

BCD
Binary Coded Decimal. A method of coding data using only the numbers 1 and 0 where each byte corresponds to a single digit of the number. The method of representing data that most personal computers use. A coding system in which the number 1 usually represents ON, TRUE, POSITIVE or YES and the number 0 is usually used to represent OFF, FALSE, NEGATIVE or NO. Also called 8421 code.

BETA TEST
The final round of testing that is undertaken before a program is released to the public. Opposite of Alpha Test.

BIOMETRIC IDENTIFICATION
Automatic assessment of a unique body feature or attribute (fingerprint, voice print, eye retina pattern, etc.) for identification purposes.

BIOS
Basic Input/Output System. Software that has been micro coded on ROM's to control the communication among the components of a computer system.

BIT
Binary digits. In binary notation, a bit is represented by the character "1" or "0." The computer is a digital device which means it stores and sends information as a string of bits. It takes

8 bits (1 byte) to represent a character (a letter or a numeral).

BITMAP
The dot-by-dot description of a video image or font.

BLOCK
1. The amount of information processed or transmitted by a typical operation. In DOS, data is transmitted to and from a disk in a block of 512K bytes.
2. In a database, a group of records handled as a unit to speed processing.

BOOT
To start or reset a computer. To boot a personal computer, the user can simply turn on the power if DOS is available to the computer. If the computer is already on, the user can hit the Ctrl,Alt,Del keys at the same time. This is called a Warm Boot, as opposed to a Cold Boot, which is initiated by the power switch. The word Boot is derived from the word Bootstrap.

BPI
Bits Per Inch. The unit of measurement for the density of data on a tape or disk.

BPS
Bits Per Second. A measure of the information transfer rate of a data channel.

BREAK GLASS / CALL POINT
Means of emergency release for a Fail-Safe locking device. Has a switch inside which is operated when glass panel is broken when pushed.

BROWSER
A user interface on a computer that allows navigation of web pages.

BUFFER
A temporary storage location where data is stored until it can be used. Data sent to a printer is often stored in a buffer until the printer is ready for it.

BUG
Term used to denote a problem or error in a program.

BUS
A group of wires or solder tracks that connect the various internal and external components of a computer system with the Central Processing Unit (CPU) and one another. ISA, EISA and MCA are the most popular bus configurations.

BUS MOUSE
A pointing device connected to the computer through an adapter card.

BYTE
A group of bits, normally eight, which represent one data character. A kilobyte is 1,024 bytes. A megabyte is 1,024 kilobytes.

C

C
A high-level programming language.

CACHE CONTROLLER
A high speed disk controlling device that contains its own RAM for temporary storage of data or instructions.

CACHE MEMORY
Very fast but spatially limited semiconductor memory. Also called Memory Cache.

CAD
Computer Aided Design.. Refers to software that supports graphic and drafting functions. See Computer-Assisted Instruction.

CAE
Computer-Aided Engineering. The application of computer programs that simulates complex electrical or mechanical systems to the design and development of products.

CAI
Computer Assisted Instruction. The use of computers to facilitate the process of learning.

CAM
Computer Aided Manufacturing. The application of shared databases and computers to all aspects of production.

CARD
1. A collection of electronic components mounted on a flat surface, usually designed for a specific function. Most personal computers have several cards. A group of electronic components that can be inserted into or removed from a computer as a single unit.
2. An information carrying device that usually contains unique information used to identify the user to an access control system.

CARD FORMAT
The internal bit structure determining how the information is arranged with a Wiegand compatible card. Determines where and how long the card number and facility code is.

CARD HOLDER
An individual who has been issued an access control card.

CARD NUMBER
The code stored in the card.

CARD READER
An electronic device which scans or reads the unique code of the identification device (card, badge, token etc.).

CCD
Charge-Coupled Device. A semiconductor that stores and, when stimulated, transfers a charge representing digital information. Also called image sensor.

CCITT
Acronym for International Telegraph and Telephone Consultative Committee. The world-wide committee that establishes standards for the communications industry and computer equipment that use telephone and telegraph to transmit and receive data.

CCITT (ITU-TSS) V.xx STANDARDS
The Consultative Committee for International Telephone and Telegraph (CCITT) (now known as ITU-TSS [International Telegraphic Union Telecommunication Standards Sector]) is an international association that helps establish world-wide communication standards. The standards are prefaced by the letter 'V'. See V.22, V.22 bis, V.25, V.25bis, V.32, V.32 bis,V.33, V.13, V.42, AND V.42 bis

CD-ROM
Compact Disc Read-Only Memory. A device used to store data digitally from

a computer onto a compact disk through the use of a laser. Once stored, the data becomes permanent and can be recalled using the same device. A device similar to audio compact disc players, but is used to store and retrieve computer data.

CENTRAL CONTROLLER
A computer, with a dedicated software program and a specialised hardware interface, designed for monitoring, programming and controlling all other equipment in an access control system.

CENTRONICS
The standard parallel printer interface, developed by the company that gave the interface its name.

CGA
Colour Graphics Adapter. A device that allows a computer to use colour and graphic functions on a display. CGA is the oldest of the colour adapters and has the fewest number of functions.

CGM
Computer Graphics Metafile. A standard file format that allows graphics to be exchanged among applications.

CHAIN
A group of access control devices wired together. Each chain connects to the computer with a single cable.

CHARACTER
The smallest unit of computer data; a single letter, numeral or symbol.

CHECK BIT
See Parity Bit.

CHIP
An electronic component cut from silicon and having circuits etched into it. Most chips are smaller than a fingernail. Common examples include RAM and ROM memory chips.

CIRCUIT
A path through which electric current can flow.

CLEARANCE CODE
Description of times and locations where an access card is valid, including up to three door group/time

code pairs. Each card can have up to six clearance codes associated to it.

CLIENT-SERVER NETWORK
A method of setting up a distributed Local Area Network (LAN) so workstations or clients perform the majority of computations but file management and other functions are performed by a central computer or server.

CLOCK CHIP
The chip that establishes the rate of speed at which a computer functions. Also called System Clock and Clock.

CLOCK SPEED
The rate of speed at which a computer functions, determined by the internal clock, or clock chip. Also called Clock Rate.

CMOS
Complementary Metal Oxide Semiconductor. A technology that draws less power than standard chips. Often used in laptop computers, A CMOS chip powered by a battery stores configuration information in AT-type computers.

COAXIAL CABLE
A connection cable for networks that consists of a central wire surrounded by an insulator and a second solid or braided wire. This type of cabling is also used in television wiring.

CODE
A system used to describe something in another form. Codes are used to condense information into the smallest possible space, thereby saving memory and disk capacity. A typical example of a code used in computers is the binary code.

COERCIVITY
Amount of magnetic force required to change magnetic polarity of particles.

COLOUR MONITOR
A video display that can show colours.

COM
The designation given to the communications port of a computer or asynchronous communications adapter. Computers using PC-DOS typically can communicate with a COM1 or COM2.

COMMAND
An instruction given by the user to tell the system what action to take.

COMMAND CENTRE
The Command Centre is the control terminal and gathers and stores all events from each Commander and system outstation.

COMMUNICATION PROTOCOL
The settings, or parameters, that determine the transmission and reception of data through telecommunications.

COMMUNICATIONS
Term used to describe the transfer of data, usually over cables or telephone lines, between computer systems and peripherals.

COMMUNICATIONS PACKAGE
Software that allows one computer to talk to another, either directly or through a modem.

COMPATIBLE
Describes computer hardware or software that is adaptable to the hardware or software of more than one manufacturer.

COMPRESSED FILE
A file that has been encoded to minimise storage space.

COMPUTER PROGRAM
A precise, ordered group of statements that specifies how a computer is to execute a well-defined task.

CONCURRENCE
Concurrence requires that when an operator makes a request to perform one of a specified group of actions, a second operator logged in at a different terminal concurrence group must agree with the request.

CONFIG.SYS
A system file that contains configuration commands for DOS or OS/2.

CONFIGURE
To set up a computer, peripheral device or program for the first time. This process allows the user to define how and when an item will be used.

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

CONSOLE
1. A terminal consisting of a monitor and a keyboard.
2. The control panel used by a mainframe computer operator to enter commands.

CONTACT DEVICE
A device which when actuated, opens or closes a set of electrical contacts; a switch or relay.

CONTROLLED AREA
A location where entry and/or exit is under the control of other persons or a control system. An area where the entrances and exits are controlled by an access control system is a controlled area.

CONVENTIONAL MEMORY
The first 640K of RAM in a computer based on the Intel family of microprocessors.

COPROCESSOR
A hardware device that is inserted into the system unit.

CORRUPTED FILE
A file containing information that has been damaged.

CPI
Characters Per Inch. A unit of measurement that refers to the number of letters or numbers a printer or monitor can fit in one horizontal inch.

CPS
Characters Per Second. A common rating for the speed at which a printer works.

CPU
Central Processing Unit. The part of the central controller that performs calculations and makes decisions.

CRASH
When a computer stops functioning due to internal error of hardware/software.

CREDENTIAL
Generic term used to describe a card, tag or fob used in Access Control systems.

CROSSTALK
Communications and terminal emulation software package.

CURRENT DRAW
Amount of electrical current which is required to operate an electronic locking device or system. Usually measured in Amps or Milliamps.

CURRENT LOOP
A method of wiring access control devices so many readers can communicate to the computer through one I/O port. Current loops are wired to a current loop interface, which connects to the computer with a single RS-232 cable.

D

DAC
Digital-to-Analogue Convertor. A device that converts a digital signal into a continuous electrical signal suitable for input to an analogue computer.

DATA
Information that is input to, processed by, or output from a device such as a computer.

DATA BUS
The set of channels that carries data between computer components.

DATA COMMUNICATIONS
The transmission of data between geographically separated computers.

DATABASE
A collection of information containing details of access criteria about each valid cardholder.

DAUGHTER BOARDS
The individual circuit boards that plug into the motherboard and constitute a completely modular computer.

DAY FILES
Enables different access criteria and alarm monitoring requirements on different days of the week.

DB-9 CONNECTORS
A connector at the end of RS-232 cables. Each connector has 9 pins and can be plugs (male) or sockets (female).

DB-25 CONNECTORS
A connector at the end of RS-232 cables. Each connector has 25 pins and can be plugs (male) or sockets (female).

DBMS
Database Management System. A software program for controlling the accumulation of data within an organisation.

DC (DIRECT CURRENT)
Term which refers to the voltage from a power supply unit (PSU).

DEDICATED FILE SERVER
A Local Area Network (LAN) set-up in which one computer is dedicated to running the network.

DEFAULT
An assumption made by the system when no specific choice is given by the program or the user.

DELTA™
Farpointe Data's Trade Name for their rang of 13.56Mhz Smart Card readers and cards.

DEMODULATION
The conversion of an analogue signal, such as a pulse on a telephone line, into a digital signal that can be processed by a computer.

DEVICE
A peripheral component that can be controlled by a computer.

DEVICE DRIVER
A program that tells the computer how to communicate with a peripheral device. The name of the device driver is usually included in the CONFIG.SYS file.

DIAGNOSTIC
A program that is used to check computer hardware and search for malfunctioning parts.

DIGITAL
Describes a signal made of two values - Off (0) or ON (1). Contrast with Analogue, in which a continuous range of signals is present.

DIGITAL COMPUTER
A computer that processes information represented by combinations of discontinuous data.

DIGITISE
To convert a chart, diagram or picture into a form that can be stored on a computer.

DIODE
Small electronic component used to protect an electronic device from Back EMF surges. Allows current to flow in one direction.

DIMM
Dual in-line memory module, comprises a series of dynamic random access memory integrated circuits. These modules are mounted on a printed circuit board and designed for use in personal computers, workstations and servers. DIMMs began to replace SIMMs (single in-line memory modules) as the predominant type of memory module as Intel P5-based Pentium processors began to gain market share.

The main difference between SIMMs and DIMMs is that DIMMs have separate electrical contacts on each side of the module,

DIN CONNECTOR
Deutsche Industrie Normale Connector. From the German Standards Bureau. A round connector, usually featuring five pins.

DIP
Dual In-Line Package. A type of plastic integrated circuit with two sets of parallel pins. Popular in the 1970's.

DIP SWITCH
Dual Inline Package switches. Two-way switches that allow for user-specified changes in the way a device will perform.

DIRECTORY
A named area on the hard disk that holds a user's files. Most systems show directory names enclosed within square brackets. i.e., [msdos]

DISK CACHE
A block of RAM that holds data or instructions that are usually stored on disk. The use of RAM cache, or disk cache, speeds up operations involving these data or instructions.

DISK CAPACITY
The amount of data that can be stored on a disk.

DISK CRASH
The destruction of data on a disk due to disk drive and/or access arm malfunction.

DISK DRIVE
A device that is used to read and write data to a disk. In DOS, disk drives are usually referred to by a single letter followed by a colon. A: and B: are usually the floppy disk drives and C: or higher are the hard drives.

DISK DRIVE CONTROLLER
The electronic circuitry that directs the functioning of a disk drive.

DISKETTE
A flexible disk consisting of an oxide-coated Mylar disk permanently enclosed in a plastic carrier. Used widely in mini and microcomputers in 8 inch, 5¼" and 3½" sizes with density configurations ranging from single-sided, single-density to double-sided, quad density.

DISKLESS WORKSTATION
A workstation in a Local Area Network (LAN) that has no secondary storage capabilities.

DISTRIBUTED DEVICE
Access control devices that make their own access decisions, uploading event messages periodically to the host computer.

DISTRIBUTED INTELLIGENCE
Ability of unit to continue operating in event of system failure.

DISTRIBUTED PROCESSING
A networking technique in which individual computers in a system perform processing functions, but data is maintained in a central filing system to which users have access.

DOOR FORCED OPEN
When an attempt is made to gain entry without a valid access attempt.

DOOR LOOP
Flexible cable protection (open or concealed) to protect cable when transferring power between door frame and door leaf.

DOOR MONITORING
Shows the status of door i.e. door open or door closed.

DOOR OPEN TIME
The time allowed for a controlled door to remain open after a valid entry. At the expiration of this time, the system records a transaction which may be defined as an alarm. If the Alarm Bypass Relay is used, it is also de-energised at the end of this time.

DOOR STRIKE
An electro-mechanical device used to lock and unlock a door under electrical control.

DOS
A Disk Operating System in which programs are stored on magnetic disks. Typically, it keeps track of files, saves and retrieves files, allocates storage space and manages other control functions associated with disk storage. See PC-DOS.

DOS PROMPT
The character string on the screen that shows the computer is ready to accept data. The prompt usually shows the currently active drive.

DOT MATRIX PRINTER
A type of printer that forms images by creating a pattern of dots on the page.

DOT PITCH
The size of a pixel on a video monitor. Usually, the smaller the dot pitch, the better the resolution. Typical dot pitch is .28mm or better.

DOUBLE DENSITY DISKETTE
A diskette that is rated to store twice as much data over the same area as a single density diskette. Typically 360 versus 180K for a 5¼" diskette or 720K versus 360K for a 3½" diskette.

DOUBLE POLE
Term used for switches or break glass call points. Means that the switch has 2 isolated sets of contacts (see also Single Pole).

DOUBLE SIDED DISKETTE
A diskette that is designed to store data on both sides.

DOWNLOAD
To send data from a central controller to a sub system or peripheral.

DPI

Dots Per Inch. A measure of the resolution of a printer or video monitor.

DRAM
Dynamic Random Access Memory. A RAM chip that needs to be refreshed by the Central Processing Unit (CPU) or another chip so it will hold its contents. DRAM is less expensive than static RAM.

DRIVE
Electromechanical device that rotates a disk as the read/write head moves across disk.

DRY CONTACT
A contact that is isolated or unconnected from any electrical source.

DSM
Door Switch Monitor - An input point used to monitor a door's open/closed state.

D-SUB CONNECTOR
A connector type commonly found on personal computers. This D-shaped connector features 9, 15 or 25 pins. Also called D-Shell.

DUAL AUTHORISATION
Access is granted when two different cards are used within an adjustable time period.

DUAL VOLTAGE
Can be set to work on 2 different voltages (i.e.: 12 or 24)

DUPLEX
In communications, simultaneous independent transmission in both directions.

DURESS
Forcible entry.

DURESS ALARM
An access code alarm signifying an emergency situation in which an individual is being forced to act against their will.

DURESS SWITCH
A device which when activated will produce a silent alarm that indicates a condition of personal stress or emergency.

E

ECHO
1. A part of a command or signal that is repeated on the computer display.
2. A DOS command that controls the screen display of a command or signal.

EEPROM
Electrically Erasable Programmable read-only Memory. A memory that may be reprogrammed electrically.

EGA
Enhanced Graphics Adapter. A hardware device that supports up to 16 colours simultaneously. Screen resolution is 640 pixels horizontally by 350 vertically.

EGD
Enhanced Graphics Display. A digital monitor designed to work with an Enhanced Graphics Adapter (EGA).

EISA
Extended Industry Standard Architecture. A 32-bit expansion bus promoted by a group of manufacturers other than IBM.

EM SERIES TECHNOLOGY
Low end 125Khz proximity cards and readers developed for animal tagging. Cards are not unique and are readily duplicated.

EMERGENCY DOOR RELEASE
Means of emergency release for a Fail-Safe locking device. Has a switch inside which is operated when glass panel is broken when pushed.

EMULATION
The process of imitating a computer system device that is accomplished with hardware and software. A method that allows different types of devices to work together.

EN54-11
BS EN 54-11:2001 specifies the requirements and methods of test for manual call points in fire detection and fire alarm systems in and around buildings. It takes into account indoor and outdoor conditions, the appearance and operation of the manual call points for type A "direct operation" and type B "indirect operation" and covers those which are simple mechanical switches, those which are fitted with simple electronic components (e.g. resistors, diodes)

and those which contain active electronic components and which work with the control panels for signalling and identifying, for example, an address or location.

NCODED
The result of transferring information in a coded form to a medium, such as magnetic stripe.

ENCRYPTED DATA
Data is not available for viewing or amendment.

EPROM
Erasable Programmable Read Only Memory.

EPS
Encapsulated PostScript. A file format that allows high resolution graphics images to be exchanged among applications.

ERROR LOG
File that contains error messages/unexpected messages generated by Command Centre.

ESCORT REQUIRED
A visitor is not permitted to enter a zone without an accompanying escort. An escort is a special cardholder with security privileges.

ESD
Electro Static Discharge.

ESDI
Enhanced System Device Interface. A high speed controlling system for floppy or hard disks. Also called Enhanced Small Device Interface and Extended Small Device Interface.

ETHERNET
A popular Local Area Network (LAN) standard developed by Xerox.

EVEN PARITY
An error checking function in asynchronous communications. An extra bit, the parity bit, is set to 1 or 0 to make the total number of 1 bits even.

EVENT
Valid transactions reported by Access Control and Monitoring Systems.

EXCEPTION REPORT

A computer report noting that conditions are outside the normal range.

EXIT DEVICE
A switch or device that operates an electronically controlled door allowing egress from a protected area.

EXIT PUSH BUTTON (EPB)
Electrical spring switch which is used to momentarily control the electrical current to an electric locking device. Can be used with other devices.

EXPANDED MEMORY
A technique for using more than 640K on a PC system. Up to 32 megabytes of RAM can be accessed in 64K chunks through bank switching.

EXPANDED MEMORY EMULATOR
The ability of 80286 and higher computers to be configured so extended memory imitates expanded memory.

EXPANDED MEMORY MANAGER
Software that manages the expanded memory on an adapter card.

EXPANDED MEMORY SPECIFICATION
The expanded memory specification established by three large software publishers: Lotus, Intel and Microsoft. The specification describes a method of overcoming the 640K DOS limitation.

EXPANSION ADAPTER
EXPANSION BOARD
EXPANSION CARD
A circuit board that plugs into an expansion slot to increase the capabilities of a computer.

EXPANSION BUS
Circuitry that allows peripheral devices to be added to the computer through slots into which adapter cards can be inserted.

EXPANSION SLOT
An internal connector that allows circuit boards containing extra components to be plugged into a computer system.

EXTENDED MEMORY
The amount of RAM greater than 1 megabyte. Its usually installed on the motherboard or an adapter card and is directly accessed by the Central Processing Unit (CPU).

EXTENSION
The three-character suffix used in naming computer files. The extension comes after the period and usually denotes the type of file. For example BAK - backup copy, BAS - basic program, BAT - batch file, DAT - data file, EXE - executable file, TXT - text file.

EXTERNAL HARD DISK
A hard disk that is separate from the system unit. It usually contains its own cabling and power supply.

EXTERNAL MODEM
A modem that is separate from the system unit. It usually contains its own cabling and power supply.

F

FACE TO FACE
Refers to the locking position of the armature plate against the face of an electromagnetic lock when fixing to a door.

FACILITY CODE
Unique site code, preventing unauthorised system use of cardholders from another site.

FAIL LOCKED (FAIL SECURE)
Locking device requires current to unlock. Means an electric locking device will remain locked in a power failure.

FAIL SOFT
A device that continues to process data in spite of the failure of parts of the system, usually with a lower level of function.

FAIL UNLOCKED (FAIL SAFE)
Locking device requires current to lock. Means an electric locking device will be unlocked in a power failure.

FAT
File Allocation Table. A system only table on a disk. Held near the outer edge of a disk, it tells which sectors are allocated to each file and in what order.

FAULT TOLERANCE
The ability of a computer system to overcome hardware problems, usually by engaging a backup system.

FAX
Facsimile Transmission. A process by which text and fixed graphic images are optically scanned, converted into electronic signals, sent over communications lines and reproduced at a remote location.

FAX BOARD
A circuit board that fits into a microcomputer's expansion slot and acts as a fax device or high-speed modem.

FIBRE OPTICS
A technology based on the transmission of information by the modulation of light through small diameter glass fibres.

FIELD
Part of a data file or collection of data that cannot be broken down into smaller parts without losing meaning. An example of a field would be LAST NAME. A last name is a piece of data that cannot be broken down into smaller components without losing meaning.

FILE
A collection of records of related type that have a common use, function or purpose. A computer file is a method to store similar items on a computer.

FILE COMPRESSION UTILITY
A program that reduces the size of a file by special encoding. A compressed file must be decompressed to be usable again. File compression is used for archival storage.

FILE CONVERSION UTILITY
A program that converts a file from one format to another. A file conversion utility is used so incompatible programs can use the same data.

FILE NAME
A series of characters that uniquely identifies a file. The file name can beup to 8 characters in length and is followed by a three-letter extension.

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

FILE SERVER
The computer within a network that stores data and programs and allows other computers in the network to access them.

FILE TRANSFER PROTOCOL
The standards that determine how data is transmitted in asynchronous communication.

FILE TRANSFER UTILITY
A program that allows files to be transferred from one family of computers to another.

FIRMWARE
A program stored in micro code on a computer chip. For example, BIOS is firmware that is micro coded on ROM.

FIXED DISK
Non removable magnetic disk, usually with a large capacity for storage.

FLAG
A data item in a program used to signal the occurrence of a specific event or condition during processing.

fleaPower™
Farpointe technology designed to drastically reduce current consumption of their 125Khz Proximity Readers.

FLOPPY
Name given to removable diskettes because the medium is flexible.

FORMAT
In a computer, format generally applies to how the machine arranges information on a disk.

FRANGIBLE
Breakable or brittle, designed to be easily broken refers to element within Break Glass or Emergency Door Release.

FREE ACCESS
No card is required for access.

FREE EXIT
No card is required for exit.

FULL CARD
Term used to describe a computer card that is large enough to require an entire expansion slot.

FULL DUPLEX
The asynchronous transmission of data in both directions (send and receive) at the same time.

G

GRAPHICAL TERMINAL
Graphical Terminals show alarms using site plans. Diagrams of a site display where the alarm has occurred and show building features adjacent to the alarm.

GRAPHICS
Term used to refer to the ability of a computer to display charts, graphics and pictures on a monitor. The three major graphics adapters are colour graphics adapter (CGA), enhanced graphics adapter (EGA) and video graphics adapter (VGA).

GRAPHICS MODE
The computer state in which the computer screen is adjusted to accommodate graphics, video games etc.

GRAPHICS PACKAGE
Software that produces pictures and charts.

GUARDSTATION
A terminal, with or without a printer, that monitors security system activity.

GUARDSTATION MONITORING PROGRAM
A program that sends system event messages to terminals and journal printers. It also provides the interactive functions of acknowledging alarms, locking and unlocking doors and setting control point outputs.

GUI
Graphical User Interface. A means of commanding and controlling software by pointing to pictures with a mouse instead of typing instructions.

H

HALF CARD
A type of computer option card that this small enough to take up only half of a full expansion slot.

HALF DUPLEX
Method of data transmission where signals travel in one direction at a time.

HALF HEIGHT DRIVE
A disk drive that is only half the height of a standard drive.

HALL EFFECT MONITORING
Relay circuit which indicates correct alignment of the Armature plate on an electromagnetic lock. Not to be confused with or used as a Door Status Monitoring device.

HANDS FREE
A proximity technology that allows a cardholder to gain access without having to swipe a card.

HANDSHAKING
1. Term given to the process that occurs when two or more computer devices acknowledge each other.
2. A series of control codes that are exchanged when computers are linked so one computer transmits only when the other is ready to receive.

HARD COPY
Any form of permanent computer output that a user can read.

HARD DISK
A magnetic-storage device built into the host computer that stores all the programs and procedures. It also holds all database information. Typically a large memory device in the order of 100-500 Megabytes for PC's and PS/2s and beyond that for larger computer systems.

HARD DISK DRIVE
A disk drive with vast, high capacity, rigid magnetic disks.

HARDWARE PLATFORM
The set of specifications that define a computer system, such as IBM and compatible or Macintosh.

HARDWIRED
Describes a computer program or control system that is permanently connected by the manufacturer and is therefore unprogrammable. Micro code on a ROM chip is sometimes said to be hardwired.

HAYES COMPATIBLE

Modems compatible with the industry standard first used by Hayes Microcomputer Products.

HERTZ (Hz)
A unit of measure describing the frequency of an event in cycles per second. Often used to describe the speed of a computer. The larger the number of Hertz, the faster the computer.

HI-COERCIVITY
4,000 Oersteds. More durable than Lo-Co, requiring higher degree of magnetism to corrupt encoded data, typically, 13 times more than that required for Lo-Co.

HIGH DENSITY DISK
A floppy disk manufactured by a process that allows it to hold more information than single density or double density formats.

HIGH LEVEL FORMAT
The standard format process that prepares a disk to store data. Among other things, it creates the root directory and the file allocation tables.

HISTORY FILE
A data file that retains chronological information about card access transactions, alarms, events and other system activities.

HOLDING FORCE
Amount of pressure which can be applied to an electric locking device before it will release/unlock. Usually shown in pounds (lbs).

HOST
The primary or controlling computer in a multiple computer local or wide area network.

I

IBM-AT
IBM Advanced Technology. The IBM computer built around the Intel 80286 microprocessor.

IBM CARD
The punched card used to input data into a computer.

IBM COMPATIBLE
A computer made to perform the same tasks, run the same programs and accept the same hardware components as an IBM personal computer.

IBM PC-XT
A popular microcomputer system manufactured by International Business Machines Corporation (IBM). Typically equipped with a hard disk, though that is not the basic configuration. 'XT' stands for eXpanded Technology.

IBM PC-XT COMPATIBLE
A microcomputer not manufactured by IBM but by others, designed to be functionally equal and operate the same software as the IBM. Also called a clone.

IBM PS/2
IBM Personal System 2. The IBM family of computers built around the Intel 8086, 80286 or 80386 microprocessors. Most feature Micro Channel Architecture (MCA).

ICONS
Points inserted into maps to represent such system components as card readers and monitor points.

IDE
Intelligent Drive Electronics. A hard disk interface in which the drive itself contains the majority of the necessary hardware. A controller card and expansion slot are not needed.

IMAGE COMPRESSION
The use of software or hardware to reduce the size of graphics files.

IMPORT
To retrieve a file created by another application.

INCREMENTAL BACKUP
A backup procedure that saves only those files that were altered since the last backup.

INITIALISE
To assign starting values to the variables in a given computer program.

INPUT
A device such as a magnetic contact that opens or closes to inform the system of a change of state, i.e., an alarm. Can be associated with output points.

INPUT DEVICE
Hardware such as a keyboard or mouse that allows data to be entered into a computer.

INPUT/OUTPUT SYSTEM
The circuitry in a computer that allows information to be exchanged between the Central Processing Unit (CPU) and peripheral devices.

INSTRUCTION SET
The set of commands a Central Processing Unit (CPU) can execute.

INTERFACE
A means of connecting one system of device physically and functionally with another.

INTEGRATED SOFTWARE
A software package that combines more than one application.

INTEL 8086
A microprocessor with a full 16-bit bus system.

INTEL 8088
A microprocessor with an 8-bit data bus and a 16-bit address bus.

INTEL 80286
A microprocessor with a 16-bit data bus and a 32-bit address bus.

INTEL 80386
A microprocessor with a full 32-bit bus system.

INTERFACE
A device that allows communication between one device and another.

INTERLACING
A method of improving the quality of a video display by showing the even scan lines and then the odd scan lines. Also called Interlaced Scanning.

INTERNAL MONITOR POINT
A software condition monitored by the system. The system can cause an alarm when the IMP becomes active.

INTERRUPT
1. (Noun) A momentary, deliberate break in the normal flow of a system or routine, usually to accommodate a

signal from or to an input/output device.

2. (Verb) To cause an interruption.

INTRUSION
Unauthorised entry into a property by another.

INVALID ACCESS
Unauthorised access attempt where access is not permitted.

IP ADDRESS

An Internet Protocol address (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication. An IP address serves two principal functions: host or network interface identification and location addressing.

The designers of the Internet Protocol defined an IP address as a 32-bit number and this system, known as Internet Protocol Version 4 (IPv4), is still in use today. However, due to the enormous growth of the Internet and the predicted depletion of available addresses, a new addressing system (IPv6), using 128 bits for the address, was developed in 1995,

I/O
Input/Output.

I/O BOUND
Input/Output Bound. Describes a condition that identifies the speed at which a computer can run a program when that speed is limited by how fast data can enter and exit memory.

I/O BUFFER
Input/Output Buffer. A device that permits data word transfer to and from memory.

I/O BUS
Input/Output Bus.

I/O DEVICE
Input/Output Device. A Peripheral device that sends data to, or receives data from, the system unit.

I/O PORT
Input/Output Port. A channel connecting a computer to external input and/or output devices. Ports through which devices receive and transmit information. Most system devices link together with standard RS-232 cables through the I/O ports.

ISA
Industry Standard Architecture. The system standard introduced by IBM in its original personal computer (PC) and later in eXtended Technology (XT) and Advanced Technology (AT) computers.

ISAM
Indexed Sequential Access Method. A file management technique.

ISO 14443
An international standard that defines proximity cards used for identification, and the transmission protocols for communicating with it.

J

JAW STRENGTH
Amount of side pressure which can be applied to an electric strike's jaw before it will release/unlock. Usually shown in pounds (lbs).

JOB
A group of programs, instructions or commands that are to be processed together and that the computer will treat as one unit.

JOURNAL
Historical record of system activity kept on the host computer disk. Contains data used to create activity reports.

K

Kb
Kilobyte, or one thousand bytes or characters of information. Defines the measure of memory capacity e.g. 64Kb or 64 Kilobytes.

KERNEL
The core portion of an operating system that performs the most important functions.

KEY HOLDER
Another name for a cardholder.

KEYPAD

A non-QWERTY type keyboard device containing alphanumeric buttons; used for entering an access code or PIN.

KEY SWITCH
A switch that must be operated with a key. Often used to override an electric locking device.

L

L BRACKET
Bracket used to fix an electromagnetic lock on door frames with a shallow frame depth on outward opening doors.

LAN (LOCAL AREA NETWORK)
A Local Area Network is one which spans a limited geographical area (usually within one building or site) and interconnects a variety of computers and terminals, usually at very high data rates (1Mbps to 100+Mbps). Because it uses physical media (wires or co-axial cables) owned by the operator and does not normally cross public roads, it is not regulated by a body such as the PTT.

LANDING ZONE
An unusual track on a disk on which the read/write heads can land when the power is shut off. This is the area on which a parking program or a drive with an autopark function will park the heads.

LCD
Liquid Crystal Display. Crystals that become more visible when electricity flows through them. Used to create displays in computers, especially laptops and peripherals.

LED
Light Emitting Diode. An electronic device used in computer monitoring and in alphanumeric displays. Used for status annunciation within electronic devices.

LOCAL ALARM
An alarm that, when activated, makes a loud noise near the protected area, or floods the area with light.

LOCAL DRIVE

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

In a Local Area Network (LAN), a disk drive connected to one of the workstations.

LOCAL PRINTER
In a Local Area Network (LAN), a printer connected to one of the workstations.

LOCK MONITORING
Shows status of lock once door is closed i.e. door locked/door unlocked.

LO-COERCIVITY
300 Oersteds. Less durable than Hi-Co, requiring lesser degree of magnetism to corrupt data.

LOG OFF
To terminate a connection to a computer system session.

LOG ON
The process by which users of time-sharing systems identify themselves as being authorised to gain access. Also called signing on.

LOOP
A number of terminals connected in series in a continuous circuit that starts and ends at the controller.

LOST CLUSTER
Part of a file that remains on a disk even though the file allocation table has no record of it.

LPT
In DOS, one of the parallel ports. LPT1 refers to the first parallel printer attached to a computer.

M

Mb
Megabyte, or one million bytes or characters of information. Defines the measure of memory capacity e.g. 10 Mb or 10 Megabytes.

MACRO
A set of instructions that performs a single task grouped together that can be reused in many programs.

MAINTAINED
Term used for switches – means the switch will remain in either the On or Off position when operated.

MAGNETIC DISKS
Oxide-coated hard metal or floppy plastic platters for recording computer data.

MAGNETIC STRIPE CARD
A card that contains a band of ferrous material that can be magnetically encoded.

MAGNETIC SWITCH
A two piece device with a stationary reed contact block, and a moveable magnet that when moved, causes the reed switch to change state or activate.

MAGNETICALLY ENCODED
Coded information (usually digital) that has been recorded on magnetic material. Information on the magnetic stripe card of the Access Control and Monitoring System has been magnetically encoded.

MANAGEMENT ENVIRONMENT
A set of commands available to users with Manager and Administrative accounts that lets them run the various functions.

MAP
A graphical display of the location of access and alarm points of a protected area.

MATH COPROCESSOR
An add-in microprocessor that performs decimal arithmetic functions for a microcomputer.

MAXSecure™
Proprietary Farpointe technology designed to ensure that proximity credentials are totally unique and that no duplicates exist.

MCGA
1. Multicolour Graphics Array. A video format that supports CGA and certain VGA modes. Used in low-end PS/2 computers.
2. Memory Controller Gate Array. A synonym for the Multicolour Graphics Array Video standard.

MDA
Monochrome Display Adapter. A single colour display adapter card with a resolution of 720 pixels horizontally and 350 pixels vertically. The character box is 7 by 9 pixels.

MEGA
The prefix meaning one million (1,000,000).

MEGABYTE
M or Mb. Equal to 1,048,576 bytes, 1,00K, and two to the twentieth power (2^{20}).

MEGAHERTZ
(MHz). One million (1,000,000) cycles (hertz) per second. Used to compare the clock speed of computers.

MEMORY
The primary storage area for commands and data that will be processed by the Central Processing Unit (CPU). RAM memory is a temporary storage medium and is erased when the power is turned off.

MEMORY ADDRESS
The code number describing a particular RAM location.

MEMORY BUS
The bus by which the Central Processing Unit (CPU) communicates with memory and input/output devices. Also called I/O Bus.

MENU
A displayed list of functions and/or commands available to the operator.

MICROPROCESSOR
The wafer-thin silicon chip that contains the arithmetic logic unit and control unit of the Central Processing Unit (CPU). The brains of a microcomputer. Also called Microprocessing Unit.

MIFARE
MIFARE is the NXP Semiconductors owned trademark of the most widely installed contactless smart card, or proximity card, technology in the world The MIFARE name covers proprietary technologies based upon various levels of the ISO/IEC 14443 Type A 13.56 MHz contactless smart card standard.

MILLI
Prefix meaning one thousandth ($^1/1{,}000$)

MILLISECOND

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

One thousandth (^{1}/1,000) of a second. The unit of measure used to describe disk drive access time.

MIPS
Acronym for One Million (1,000,000) Instructions Per Second. A standard used to judge the speed of a computer's microprocessor.

MODEM
A contraction of the term 'modulator-demodulator'. A modem converts the serial digital data from a transmitting terminal into a form suitable for transmission over the analogue telephone channel. A second unit reconverts this signal to serial digital data for acceptance by the receiving terminal.

MODULATED
Varied the frequency, amplitude, or other characteristics of a radio wave or another carrier wave in order to transmit information.

MODULATION
The conversion of a digital signal to an analog signal, such as a pulse on a telephone line.

MODULE
A relatively independent group of related program statements that can safety be treated as one unit.

MOMENTARY
Term used for switches – means the switch will change from On to Off only while the switch is pressed/turned.

MONITOR POINT (MPT)
A software definition that corresponds to an input on an access control or alarm monitoring device. When an input activates its corresponding monitor point activates.

MONITORED
Shows the status of an electric locking device by signalling to an access control system or indication panel that the device is locked or unlocked.

MONOCHROME DISPLAY
A display or monitor on which data appears in only one colour. Monochrome displays are usually available in green or amber.

MONOCHROME VGA
Monochrome Video Graphics Adapter. A high resolution VGA monitor that shows only black, white or shades of grey. Often used for word processing or page layout applications where colour is not important.

MORTICE MOUNT
Refers to an electric lock which is fitted flush into a door frame.

MOTHERBOARD
The main board in a computer. A printed circuit board that houses the Central Processing Unit (CPU) and other chips, RAM, ROM and expansion slots. Also called logic board and system board.

MOTION DETECTOR
A device that senses and responds to motion within a space. May be ultrasonic, microwave or infrared.

MOUSE
An input device consisting of a small plastic box with either wheels or a ball roller that produces electrical pulses when rolled on a flat surface. It allows the user to manipulate objects on the display screen.

MS-DOS
Microsoft Disk Operating System. A version of DOS written by the Microsoft Company.

MTBF
Mean Time Between Failures. The average time a system or system component operates before failing. Also called mean time to failure (MTTF).

MULTIMEDIA
The capability to present information in multiple formats, including text, graphics, sound and video.

MULTIPLEXING
In communications, the concurrent transmission of more than one information stream on a single channel.

MULTIPROCESSING
The ability of a computer with multiple Central Processing Units (CPU's) to run several programs simultaneously. Compare with multi-tasking.

MULTISYNC MONITOR
A video monitor that can work with a variety of adapters.

MULTITASKING
The ability of an operating system to run more than one program concurrently by rapidly switching between them. Compare with multiprocessing.

MULTIUSER SYSTEM
A system that allows more than one user to gain access to the same programs and data at the same time.

N

NANO
The prefix for one billionth (^{1}/1,000,000,000)

NANOSECOND
One billionth (^{1}/1,000,000,000) of a second.

NARROW BAND CHANNELS
Communications pathways with a bandwidth of less than 3,000 Hertz and a transmission rate between 5 and 30 characters per second.

NETBIOS
Network Basic Input/Output System. The IBM software that establishes a Local Area Network (LAN) standard for DOS 3.1 and higher.

NETWARE
A popular Local Area Network (LAN) operating system marketed by Novell.

NETWORK
A group of computers that are interconnected. A central computer on the system will often store and maintain the programs and data. The other computers will access the central computer when required.

NETWORK INTERFACE CARD
An adapter card that allows a computer to be connected to a network.

NETWORK MASTER
A computer running standard software and a network option that supports the distributed database records on the network system, and that monitors and

controls events on a network wide basis.

NETWORK NODE
Computers running standard system software with a network option and connected to other computers using standard network protocol.

NETWORK PROTOCOL
The software management technique that allows network users to gain access to resources without collisions.

NLQ
Near Letter Quality. A term used to describe a printer that produces documents that have a quality of print very close to letter quality.

NODE
A single entity in a network.

NORMALLY CLOSED
A switched whose contacts are closed when no external forces act upon the switch.

NORMALLY OPEN
A switch whose contacts are open (separated) when no external forces act upon the switch.

NULL MODEM CABLE
A cable that allows two computers to be connected through their serial ports.

NUMERIC
Describes data consisting only of the digits 09, indicated in COBOL by the symbol 9.

NUMERIC COPROCESSOR
A secondary microprocessor that performs high-speed, floating-point calculations. The most popular numeric coprocessors are the 8087, 80287 and 80387.

NUMERIC COPROCESSOR SOCKET
The socket on the motherboard that can accept a numeric coprocessor.

O

OBJECT PROGRAM
A complete program that is ready to be loaded into the computer.

ODD-EVEN CHECK
An automatic computer check in which an extra digit is carried along with each word.

ODD PARITY
An error-checking function in asynchronous communications. An extra bit, the parity bit, is set to 1 if the number of 1 bits in a word is odd.

OEM
Original Equipment Manufacturer. A company that actually manufacturers hardware, as opposed to companies that assemble components, customise hardware or distribute hardware.

OERSTED
Unit of measurement of coercivity.

OFFLINE
Refers to the condition of computer peripheral equipment that is connected to the computer and is ready to function.

ONLINE
A term that describes equipment, devices and persons in direct communication with the central processing unit of a computer. Equipment that is physically connected to the computer.

OOPS
Object Oriented Programming System. A programming technique in which modules of code are independent and can be linked as needed. The modules can be represented on screen as objects or icons.

OPEN ARCHITECTURE
A computer system based on specifications that are available to hardware or software developers and the public.

OPEN SYSTEM INTERCONNECTION
A Local Area Network (LAN) standard established by the International Standards Organisation (ISO) and the Institute of Electrical and Electronic Engineers (IEEE).

OPERATING SYSTEM
A set of programs or instructions that make a computer perform assigned tasks. Operating systems perform housekeeping tasks such as input/output (I/O) between the computer and peripherals and accepting and interpreting information from the keyboard. Operating systems are provided with most computers. The standard operating system for personal computers is MS-DOS.

OPERATOR CLASS
A distinction attached with security system operators for use with a segregated database feature. Operators can edit, view, and delete only the cardholders within their class.

OPERATOR PRIVILEGE
A level associated with security system operators that determines which commands to the security system menus they can give and access to which menus they can have.

OPTICAL DISK
A high density secondary storage device that uses laser technology to read and write data. Optical disks may be read only, write once, read many or multiple write.

OS/2
Operating System 2. An operating system designed by IBM to be used with PS/2 personal computers. OS/2 can use up to 16 megabytes of RAM, offers multitasking and takes advantage of the protected mode of Intel chips.

OUTPUT
1. Data transferred from a computer's internal storage to some external device. For example, the output to a printer.
2. A point on an access control device that activates a relay. Outputs can be associated with the system's control points.

OVERRIDE
Used to disable/enable relay responses to inputs.

P

PAGE UP/PAGE DOWN KEYS
Keyboard keys that shift text on a monitor from page to page.

PARALLEL PORT
A connector and circuitry that sends data to peripheral devices in synchronous transmission or one byte

at a time along parallel lines to peripheral devices. Used most often with printers. The opposite of Serial Printer.

PARALLEL PRINTER
A printer that connects to the parallel port of a computer. A parallel printer will usually operate faster than a Serial Printer.

PARAMETER
1. A value that determines the scope, range or performance of a command. For example, the COPY command requires two parameters: the name and location of the source file and the name and location of the target file. COPY A:MYDOC C:MYDOC will copy the file MYDOC from the A drive to the C drive.
2. A setting that defines how a hardware or software component functions. Most parameters are set during the initial set-up and are not changed unless the operation of the component changes.

PARITY
A system designed to check the integrity of transmitted data and to correct errors that may occur.

PARITY BIT
A binary digit that is used in error checking.

PARITY ERROR
An error that occurs when the sum of the bits in data is inconsistent with the required parity bit.

PARTITION
A part of a disk formatted as if it were a separate drive. Disk partitions are identified by letters (C:, D:. etc.) in the same way as standard disk drives.

PASSWORD
A special word, code or symbol that must be presented to the computer system to gain access to its resources. It identifies the user to the computer system.

PCB
Printed Circuit Board.

PC-DOS
A disk operating system for microcomputers developed by Microsoft Corporation. See DOS.

PC-LAN
Personal Computer Local Area Network. The operating system designed by IBM for its token-ring network.

PENDING ACCESS
Door is locked. Door switches automatically to unlocked upon first successful access attempt during pending mode period. A second access event will re-secure door.

PERIPHERAL
A piece of equipment, usually an input/output device, that is separate from the system unit but is under the control of the system unit.

PERMANENT SWAP FILE
A disk file used for caching on 80386 systems. Data or instructions are stored on adjacent disk sectors so they can be retrieved quickly.

PHOTOPASS
Photo Identification Database System. A computer image capture and retrieval system designed for the production of personnel identification documents.

PICO
Abbreviation for one trillionth (^{1}/1000,000,000,000).

PICOSECOND
One trillionth (^{1}/1000,000,000,000) of a second.

PIN
Personal Identification Number. Used as an individualised personal identification for access control and other applications, such as bank teller machines.

PIN ONLY
In this mode the 'PIN required' LED is lit while the door is closed. To open the door a four digit number must be entered and the 'Enter' key pressed.

PIXEL
Acronym for picture element. The name given to the tiny dots of light that make up the display on a computer monitor. A single, resolvable dot on a terminal screen. The greater the number of pixels per given area the higher the resolution on the screen.

PLASMA DISPLAY
A display technology in which ionised gas is trapped between layers of glass. Used with high-end portable computers. Also called Gas Plasma Display.

PLATFORM
The hardware/operating system configuration for which a program has been designed. Also called Environment.

PoE (POWER OVER ETHERNET)
Power over Ethernet or PoE technology describes a system to pass electrical power safely, along with data, on Ethernet cabling. PoE requires category 5 cable or higher for high power levels, but can operate with category 3 cable for low power levels. Power can come from a power supply within a PoE-enabled networking device such as an Ethernet switch or can be injected into a cable run with a midspan power supply.

POINT-TO-POINT
A term used to describe a data channel which connects two and only two, terminals.

POINTING DEVICE
A hand-held input device such as a mouse, trackball or stylus.

POLLING
A method of controlling terminals on a multipoint or clustered data network where each terminal is interrogated in turn by the computer to determine whether it is ready to receive or transmit. Data transmission is only initiated by the computer.

POLYESTER CARDS
Polyester based cards are more durable that PVC cards and have the advantage of staying flexible and stable over a longer period of time. These cards also have a very thin layer of Mylar over the magstripe to reduce wear on the read head.

PORT
That portion of a computer through which a peripheral device may communicate.

PORT NAME

A name that uniquely identifies an I/O port on a computer.

PORTABILITY
The degree to which a program or module can be used with other programs. The ability of a program to run on more than one hardware platform.

POS SYSTEM
Point of Sale System. One or more intelligent terminals located at checkout counters in stores used to pass inventory information to the store's central computer.

POST
Power-On Self-Test. The ROM-based diagnostic routine performed by Intel-based computers when they are started.

POSTSCRIPT
A popular page description language developed by Adobe Systems.

POWER SUPPLY
The component in a computer that contains a transformer to convert standard AC to low-voltage DC current.

PPAR
PreProgrammed Alarm Response. PPAR's are instructions telling the operator what action to take about individual alarm conditions.

Pro-X™
Farpointe proximity technology developed and designed to ensure greatest read range for their 125Khz Proximity Readers.

PROCESSOR
1. A digital device capable of performing certain operations on a digital representation of data.
2. A computer program that performs certain functions, such as compiling or assembling, for a specific programming language.

PROCESSOR SPEED
The clock rate at which a microprocessor processes data.

PROGRAM
A series of instructions or commands grouped together that when executed on a computer, perform a complete task.

PROTECTED AREA
Protected areas are user defined groups of monitor points, doors or both that define an area. Users can define an area from any group of points on the same field panel. An area can be, for example, an entire building or laboratory, or a portion of a building or lab. Users can define whether all, some, or none of the doors in a protected area lock and unlock.

PROTOCOL
A set of rules governing information flow in a communication system.

PROXIMITY
A non contact card technology that uses radio frequency or inductive principles to stimulate and read cards that transmit unique identification codes.

PSU
Power Supply Unit. Unit which is connected to a mains fused spur. Reduces 240v AC to 12v or 24v AC and then converts current to DC.

PULSE
An abrupt change in voltage, either positive or negative, that conveys information to a circuit.

PULSED OUTPUTS
Relay output activated for a pre-determined length of time.

PURGE
To delete all but the latest version of a file.

PUSH BUTTON EXIT
A push button mounted on the interior side of the door activating the door strike when pressed.

PVC CARDS
Low cost magstripe cards, typically used in the banking industry, with an estimated life of approximately 18 months in an access control environment.

PYRAMID™
Brand name of Farpointe's 125Khz Proximity reader and card range.

Q

QUIT

Command used to stop operations connected to a spreadsheet program.

R

RAM
Random Access Memory. Read/write memory of a computer, typically a memory chip into which information can be written to, read from and erased. RAM is volatile memory, which means it loses its contents when power is removed.

RANGER™
Brand name of Farpointe's 433Mhz Long Range reader and card range.

READER
An electronic device that can read the encoded data present on a card or tag.

READ ONLY
Data that can be read, but cannot be changed.

READING HEAD
A device which detects the presence of a Card, reads the code from the Card and sends this code to the Controller.

REAL TIME
The ability to process events, activities etc. as they occur.

REBOOT
To restart a computer by turning it off and then on (cold start). Or to restart a computer by using the Ctrl,Alt,Del key combination (warm start).

RECOVER
To restore the previous status of a computer system or disk drive.

REFLECTED OUTPUT
Relay output that mimics an input i.e. door contact. Door Open - Relay On, Door Closed - Relay Off.

REGION
An area of any size where all entrances and exits are controlled by cardreaders.

RELATIONAL DATABASE
A collection of files with different record structures, but with at least one field that is duplicated in another file.

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

RELAY

Electronic device which is used to switch voltage to an electric locking device. Can also be built into the circuit of an access control device.

REMOTE COMMUNICATIONS
Communications between a terminal and a computer or between two computers separated by a long distance. This is usually done through telephone lines.

RESET
1. To return all hardware and software to their original configurations, usually by rebooting.
2. A switch on a computer that initiates a reboot.

RESET KEY
Plastic key used to reset the operation of a ressetable break glass or call point.

REQUEST-TO-EXIT
An exit request made by activating a monitor point. The system shunts the door's monitor and, if necessary, unlocks the door securing mechanism. Also refereed to as RTE or REX.

REQUEST-TO-EXIT PUSH BUTTON (REX)
Electrical spring switch which is used to momentarily control the electrical current to an electric locking device. Can be used with other devices.

REVERSE VIDEO
The reversal of the normal appearance of text and graphics on a terminal screen. Terminals normally show dark backgrounds with light text. Reverse video, therefore, means the background is light while the text and graphics are dark.

RFID
A technology that uses communication via radio waves to exchange data between a reader and an electronic tag attached to an object or person, for the purpose of identification and tracking. Some tags can be read from several meters away and beyond the line of sight of the reader.

RGB MONITOR
Red, Green and Blue Monitor. A video monitor that accepts separate signals for red, green and blue to produce a better image than standard composite monitors.

ROM
Read Only Memory.

ROM BIOS
Read Only Basic Input/Output Systems. A BIOS that is encoded in a form of read-only memory. ROM BIOS are the important start up programs that must be present in a system for it to operate.

RS232C
A data communication industry standard for the serial transmission of data to a peripheral device, such as a printer, modem, monitor etc. The standard specifies the electrical characteristics (voltage levels, impedance's, etc.),connector pin-outs, and the definition of the signals on the connector. The communications protocol is not included in this standard. RS-232 format can connect two devices over a short distance. RS-485 can connect multiple devices over longer distances. Most computers provide an RS232C interface.

RS232-TO-CURRENT LOOP CONVERTER
A device that converts RS232C signals to 20mA Current Loop and vice versa.

RELAY
An electro-magnetically operated mechanical switch.

RIM MOUNT
Refers to an electric release which is fitted to the face of the door frame.

RTF
Rich Text Format. A standard format that allows word processing programs to exchange files so they retain features such as tabs, bold or italic styles etc.

S

SCANNER
A device used to convert graphs, charts, pictures or printed text into a form that can be stored and used by a computer. A device that digitises information.

SCO UNIX
Computer operating system.

SCO XENIX
A multi-tasking, multi-user operating system enabling a number of operators to perform a number of tasks simultaneously.

SCO XSIGHT
UNIX graphical user interface.

SCREEN CAPTURE
The conversion of the image on a video monitor to a graphics file that can be stored on a disk.

SCREEN DUMP
A printed version of whatever is currently on the screen. Also called Print Screen on the keyboard.

SCRIPT
In telecommunications, the file that contains the commands necessary to log on to a remote system through telecommunications.

SCROLLING
When a display screen fills, the addition of another line at the bottom of the screen causes all other lines to move up.

SCSI
Small Computer System Interface. Pronounced *scuzzy.* A system for attaching or chaining peripheral devices to a computer through an expansion bus arrangement.

SECTOR
Name given to the divisions of the concentric rings on a disk that are used to store information magnetically. A section of one track. Most sectors hold 512 bytes of data.

SECURE ACCESS
A successful card attempt is required for valid entry. The door re-secures after access attempt.

SECURITY MANAGEMENT PROGRAM
The program that holds the database information about the security system and the cardholder records.

SEEK

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

A computer process for locating specific data in random access storage.

SEEK TIME
The time needed for the read/write head to reach a specified location on a disk.

SEGREGATED DATABASE
A feature that restricts which cardholder records an operator can view, edit and delete. This works by attaching an "operator class" to a record. Only operators with that class can use the record.

SENSOR
A device that detects deviations from a reference and responds with a signal or alarm.

SERIAL
A method of transmitting data one bit at a time. The RS-232 port on a computer is used for serial transmission.

SERIAL MOUSE
A pointing device that connects directly to the serial port of a computer.

SERIAL PORT
The asynchronous communications port in a computer that transmits information one bit at a time. The opposite of Parallel Port.

SERIAL PRINTER
A printer that is connected to a computer through the serial port. The opposite of Parallel Printer.

SERVER
In a Local Area Network (LAN), the computer that co-ordinates the functioning of the network.

SHELL
A program that improves the interface for an application or operating system.

SHORT HAUL MODEM
A device for transmitting data over short distances.

SHUNT
1. A deliberate shorting out of a portion of an electrical circuit. A switch that removes some portion of an alarm system for operation, allowing entry into a protected area without initiating an alarm signal.

2. To disregard the activation of a monitor point. On a valid access, the system shunts the Door Switch Monitor so that access does not cause an alarm.

SIGNAL
The meaningful part of an electrical transmission, as opposed to meaningless noise or static.

SINGLE POLE
Term used for switches or break glass call points. The switch has a single set of isolated contacts (see Double Pole).

SIMM
Single In-line Memory Module. Plug in RAM modules, usually in increments of 256K or 1Mg.

SIMPLEX
A data communications method that allows for one-way transmission at a time, either sending or receiving.

SINGLE DENSITY
An early frequency modulation recording method for information on a floppy disk.

SINGLE SIDED DISKETTE
A diskette that is designed to record data on one side only.

SITE LICENCE
An agreement between a user and a software publisher so a program can be copied legally and used at a specified site.

SMART CARD
A smart card, chip card, or integrated circuit card (ICC), is any pocket-sized card with embedded integrated circuits. There are two broad categories of ICCs. Memory cards contain only non-volatile memory storage components, and perhaps dedicated security logic. Microprocessor cards contain volatile memory and microprocessor components. The card is made of plastic, generally polyvinyl chloride, but sometimes acrylonitrile butadiene styrene or polycarbonate . Smart cards may also provide strong security authentication for single sign-on within large organizations.

SMART CARD READER

A reader designed to read the information contained within a Smart Card.

SOFTWARE
The programs encoded on magnetic media that contain the information and operating procedures of the computer functions. Software initially comes on floppy disks or cartridge tapes and is then transferred to the computer's hard disk.

SOLENOID
Electronic device which is fitted inside an electric release or bolt which controls the movement of the locking mechanism.

SORTING
The sequencing of input data into alphabetic or numeric order.

SOURCE
The origin of information or data. The disk that contains the original item that is to be copied.

SOURCE CODE
A program that has not been compiled. A program still in high-level language that can be read and understood by a person,

SPIKE
Momentary power increase that may damage data or electronic components.

SPREADSHEET
Worksheet on which financial statements (such as balance sheets, income statements and sales reports) are laid out in columns and rows.

SPREADSHEET PACKAGE
A software package that manipulates tables of numbers.

STACK
A list of data items. Also called Pushdown Stack.

STANDALONE
An access control system that makes its own access decisions and does not have the ability to communicate with any controller.

STANDBY POWER SUPPLY
A backup power supply that quickly switches on when there is a power failure.

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

STATE CHANGE
The activation of an input or output.

STORAGE DEVICE
A component of a computer system such as a disk or tape drive that can retain data after power has been shut down. Also called Memory.

STREAMING TAPE DRIVE
A cartridge-based tape system used to backup a computer's data.

SUB DIRECTORY
Sub division of root directory. Sub directories themselves exist as files.

SUBNET MASK

A subnetwork, or subnet, is a logically visible subdivision of an IP network. The practice of dividing a network into subnetworks is called subnetting.

All computers that belong to a subnet are addressed with a common, identical, most-significant bit-group in their IP address. This results in the logical division of an IP address into two fields, a network or routing prefix and the rest field, which is a host number or interface identifier. The rest field is computer or network interface specific.

SUBROUTINE
A subsidiary program available as needed during the execution of the main program.

SUPERVISED LINE
An electrical connection between two devices which is electrically monitored against tampering.

SURGE
A sudden jump in electrical current. Power surges can damage a computer and cause erratic results.

SYNCHRONOUS MODEM
A modem which can transmit timing information in addition to data. It must be synchronised with its associated terminal equipment by the exchange of timing signals.

SYNCHRONOUS TERMINAL
A terminal requiring timing information from its associated modem for the proper reception and transmission of data. Usually more efficient than a 'start/stop' terminal.

SYNCHRONOUS DATA TRANSMISSION
In Synchronous Data Transmission, special characters synchronise the transmitting and receiving elements of the link; this permits transmissions to proceed without the start and stop bits of asynchronous communication.

Synchronous protocols fall into two major categories: 1) character- or byte-oriented protocols that specify a definite character length (BSC), and 2) bit-oriented protocols that do not specify character boundaries (SDLC).

Binary Synchronous Communication (BSC), one of the most common character-oriented protocols, uses a set of special characters to define the structure of the data transmission frame. At the start of each block of data are PAD and SYN characters, which signal the start of a frame and allow the receiving station to synchronise with the transmitting station clock. A variety of different bisynchronous transmission frames can be created with the available character control set.

SYNCHRONOUS TRANSMISSION (SYNCH)
Clock controlled transmission of data at a high rate of speed so no start and stop bits are needed.

SYSTEM CRASH
When the computer seizes up and refuses to proceed without being rebooted. These crashes are usually caused by faulty software and no permanent physical damage occurs.

SYSTEM UNIT
The part of a personal computer that contains the Central Processing Unit (CPU), memory and special function cards.

T

TAIL-GATE RULE
Prevents cardholders from following another cardholder through a door without using a valid access card. The system warns of a tailgate violation when the cardholder makes an access request from a location different from the last area entered.

TAIL-GATING
Unauthorised personnel following in behind an authorised cardholder.

TAMPER
Unauthorised physical interference with the system.

TAMPER SWITCH
A switch which detects attempts to interfere with the enclosure of system components. Activates alarm in the event of Reader interference.

TAPE DRIVE
A machine that reads from and writes to reels of magnetic tape.

TCP/IP
A set of communications protocols used for the Internet and other similar networks. It is named from two of the most important protocols in it: the Transmission Control Protocol (TCP) and the Internet Protocol (IP), which were the first two networking protocols defined in this standard.

TERMINAL
A device for sending and/or receiving data on a communication channel.

TERMINAL EMULATION MODE
Software that allows a personal computer to imitate the functions of a terminal for communication purposes.

TEST KEY
Plastic key used to test the operation of a break glass or call point.

TIME & ATTENDANCE (T&A)
Allows employees' normal work hours, overtime and absence hours to be totalled and maintained.

TIME CODE
Combination of any number of time intervals. A time code need not be continuous.

TIME CONTROLLED OUTPUTS
Relay outputs are incorporated that can be activated by time rather than alarm event. These outputs may be used to control lighting, heating, or to lock doors etc.

TIME FRAME
Programmable time spans restricting access.

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

TIME INTERVAL
Continuous blocks of time used as the basic time unit for access control. A time interval can span multiple days.

TIMEOUT
When a device consistently fails to respond to polls, the system computer "times out" the device, stopping all communications with it.

TIME ZONE
A period of time during which access is authorised. It is defined by the time of day and days of the week. Time interval during which an activity is permitted.

TOUCH SCREEN
A special monitor screen that reacts to finger pressure.

TRACK 1 ENCODING
Alphanumeric data track, capable of storing up to 79 alphanumeric characters. Seldom used in Hi Co cards due to difficulty of encoding a reading this track.

TRACK 2 ENCODING
Numeric data track, capable of storing up to 40 numeric characters. Used by the Banking industry and not as secure as Hi Co Track 1.

TRACKBALL
An input device that moves the cursor or pointer on the screen in response to rolling a ball set in a holder.

TRANSACTION
An exchange between a computer and a user.

TRANSACTION FILE
A set of records containing the information about a specific activity.

TRANSCEIVER
Combination of transistor and receiver. A device capable of both transmitting and receiving signals.

TRANSDUCER
A device by which energy can be made to flow from one or more transmission systems to one or more other transmission systems.

TRANSFORMER
Unit which is connected to a mains fused spur. Reduces 240v AC current to 12v or 24v AC.

TRANSFER
Computer instructions that shift control from one part of a program to another.

TRANSFER RATE
The speed, usually in bytes or megabytes per second, at which hardware devices exchange information.

TRANSPARENT
When an event takes place in a manner that is not perceived by the user.

TWISTED PAIR CABLE
A low bandwidth Local Area Network (LAN) cabling system comprising two insulated wires twisted around one another.

TWO-MAN-RULE

No fewer than two people can be in an occupied area. A cardholder can access an area only if another cardholder makes access at the same time. Both must leave together.

U

UNINTERRUPTED POWER SUPPLY (UPS)
Equipment that supplies power to a system in the event that primary power is lost. It may consist of batteries or auxiliary motor generators.

UNIX
A multi-user, multi-tasking operating system that works across many platforms, from mainframes to microcomputers.

UNLOCK TIME
Refers to the time the system holds the door locking device energised to allow entry or exit. This time terminates when the door opens.

UPLOAD
To send data from a sub system to a central controller.

UTILITY PROGRAMS
Software programs used to perform some frequently required process in the operation of a computer system; for example, sorting, printing etc.

UNIVERSAL SYNCHRONOUS / ASYNCHRONOUS RECEIVER / TRANSMITTER (UART)
The circuitry that converts the in-computer parallel data stream into the bit-by-bit stream that can be transmitted in serial form.

UNIVERSAL SYNCHRONOUS / ASYNCHRONOUS RECEIVER / TRANSMITTER (USART)
A chip used as a peripheral device in most serial data transmission technologies.

UPGRADE
To add components to a computer to give it greater capacity, speed or capabilities.

UPS
Uninterruptable Power Supply. A backup electrical supply, usually provided by a battery, that ensures a computer will continue running in case of a power failure.

USER FRIENDLY
The characteristic of software that makes it easy to use e.g. built in instructions and answers to questions to guide the user.

UTILITIES
Software programs that assist in the operation of a computer.

V

V.22, V.22 bis
Synchronous/asynchronous data transmission, full-dupex operation over 2-wire leased or dialup lines; 1200-bps data rate (V.22 bis, 2400 and 1200 bps). V.22 accommodates the equipment found in today's typical "hybrid" network: synchronous mainframes and terminals, and asynchronous PCs. V.22 bis doubles data throughput (to 2400 bps) for large file transfers.

V.25, V.25 bis
Provides for automatic calling and answering circuitry for use on dialup lines. Both define a dialup interface; V.25, parallel; V.25 bis serial.

V.32
Synchronous/asynchronous data transmission, full-duplex operation

over 2-wire dialup or 2-wire/4wire leased lines, 9600-bps data rate (fallback to 4800 bps). The V.32 recommendation is the first universal standard for 9600-bps modems on dialup or leased phone lines. Trellis-encoding modulation allows high data speeds and reduces errors. Data can be sent over standard dialup lines. And V.32-compliant modems will work anywhere in the world.

V.32 bis
Synchronous/asynchronous data transmission, full-duplex operation over 2-wire dialup or leased lines, 14,400-, 12,000-, 9600-, 7200-, 4800-bps data -rates. It offers two advantages over V.32. First, a V.32 bis modem transmits data faster--at up to 14,400 bps. Second, V.32 bis redefines modem-connection negotiations (called training and retraining). Training is the procedure two modems use to make a connection; they "discuss" and agree upon a data rate. Retraining is a subsequent negotiation after data exchange is under way in which both modems "agree" to reduce transmission to a slower speed to overcome ambient line noise. Retraining is triggered by the line noise. After modems retrain, data transfer resumes. V.32 bis also provides a new procedure called "fastrain," which allows the modem to go to a slower or faster speed automatically. When two V.32 bis modems do a fastrain, they stop, determine that they can run faster, and then switch speed in a few milliseconds. One advantage of V.32 bis over V.33 (see below): V.33 lets you send sync data at 14,400 bps over a 4-wire leased line, but V.32 bis lets you do the same over a 2-wire dialup line, which is less expensive.

V.33
Synchronous data transmission, full-duplex operation over 4-wire leased lines, 14,000- or 12,000 bps data rate. A V.33-compliant modem uses the same signal modulation techniques that are used by V.32 modems, but is restricted to using 4-wire leased lines. If your network requires very high-speed sync data transmission, choose a V.33 modem.

V.13

Provides for simulated half-duplex (switched-carrier) control. V.32- and V.33-compliant modems that support v.13 can be used in sync IBM RJE environments, so these networks, too, can take advantage of V.32/V.33 technology.

V.42, V.42 bis
Internationally recognised standards for error control and data compression. V.42 is the CCIITT's recommendation for error control, it contains two algorithms (LAPM, or Link Access Protocol, and MNP 1-4) . When two V.42-compliant modems establish a connection, they use LAPM to control data errors and retransmit "bad" data blocks. The error-control process is automatic and requires no special user actions or software programs. V.42 can usually generate a 4:1 ratio of data compression, depending on the type of file transmitted.

VALID
Authorised activity (i.e., use of a valid badge to enter a controlled area).

ValidID™
Anti-counterfitting technology designed and developed by Farpointe to detect tampering with or copying of Smart Cards

VDT
Video Display Terminal.

VDT RADIATION
Video Display Terminal Radiation. This radiation takes the form of low power X-rays and extremely low frequency emission (ELF) radiation. Industry has developed new standards regarding the suppression of these harmful electromagnetic waves.

VDU
Visual Display Unit.

VECTOR
A quantity with both magnitude and direction.

VECTOR INTERRUPT
An internal or external interrupt having its own uniquely recognisable address.

VESA

Video Electronics Standards Association. An industry group sponsoring the super VGA mode.

VGA
Video Graphics Array. A graphics adapter that provides a high level of function and clarity. VGA adapters can display up to 256 colours at the same time at a resolution of 640 horizontal pixels by 480 vertical pixels. One VGA mode can display 1,024 by 768 pixels.

VIDEO ADAPTER
The adapter card that serves as the interface between a computer and a monitor.

VIRTUAL DISK
A portion of RAM that is set aside to function as secondary storage. A virtual disk significantly speeds up data processing. Data must be moved to permanent , secondary storage before power is shut down or it will be lost. Also called Electronic Disk, RAM Disk and RAM Drive.

VOLATILE
Memory that loses its content when power is shut down. For example, RAM is volatile memory.

VOLTAGE
Measurement of the energy available to drive the flow of electrical current.

VOLUME LABEL
The identifying name given to a disk or partition by DOS or OS/2.

VT 100/220
VDU and keyboard used as dumb terminal on host system.

W

WAIT STATE
A processing cycle in which nothing occurs. The delay gives slower components in a computer a chance to catch up to faster components.

WAN
Wide Area Network. To be distinguished from the LAN, a WAN interconnects geographically remote sites

WATERMARK TECHNOLOGY

GLOSSARY OF ACCESS CONTROL & COMPUTER TERMS

A special manufacturing process physically orients the small needle shaped particles that make up the magnetic stripe into zones of varying widths. These are set at alternating, complementary angles to the length of the stripe during tape manufacture when the magnetic oxide is wet. The binary structured spacing of this computer generated pattern is dried permanently into the orientation of the magnetic oxide to create a unique, un-alterable 'watermark magnetics' number, whilst leaving the strip available for conventional encoding.

WEB BROWSER
Software application used to access the World Wide Web

WIEGAND TECHNOLOGY
Wiegand Technology is a pulse generated technology invented by John R. Wiegand. It consists of a special alloy wire which is subject to a patented processing technology to produce two regions, a shell and a core that react differently to an external magnetic field resulting in a short length of special alloy wire that can induce a voltage output in a small coil when the wire passes through an external magnetic field. A coded strip consisting of two rows of Wiegand wires is embedded in the card. The presence of a wire is read as either a '0' or a '1' in binary code. A common Wiegand card or key contains 26 wires, called bits, that provide a capacity of more than 16 million unique codes.

WILDCARD
A character, especially the asterisk (*) that can be substituted for other characters in a command.

WINDOW
An area of the computer screen in which instructions or other information can appear.

WINDOWING ENVIRONMENT
An operating environment that features a graphical user interface.

WINDOWS
A graphical environment developed by Microsoft.

WORKSTATION

A portable unit combining word processing, data processing and data communications capabilities.

WYSIWYG
What You See Is What You Get. The term describing a screen representation that is very close to what will appear on the printed page.

X

X-WINDOWS
UNIX equivalent of Microsoft Windows.

XENIX
The Microsoft version of the UNIX operating system.

XGA
eXtended Graphics Array. A graphics standard for Micro Channel Architecture (MCA) systems that is an improvement on the video graphics array (VGA) standard. Resolution is 1,024 x 768 pixels.

Y

Z

Z&L BRACKET
Set of 3 brackets used to fix an electromagnetic lock to the door & frame on an inward opening door.

ZERO WAIT STATE COMPUTER
A system with components and circuitry that allows the Central Processing Unit (CPU) to function without waiting for slower components.

ZONES
Smaller subdivisions into which large areas are divided to permit selective access to some zones while maintaining other zones as secure.