

Glossary

Access Control: Controlling access to a port of entry in a physical area or into a computer. See *Electronic Access Control*.

Access Level: A level of authorization that indicates a reader (or readers) and the times those readers can be accessed.

ACK: Abbreviation for *Acknowledge*.

ACK-NAK: See 485 *ACK-NAK*.

Acquire: The act of obtaining an image through scanning or video for use in StarAccess2000.

Activate: See *Energize*.

Address: In StarAccess2000, this refers to an identification number of a specific control panel and/or the points on that panel.

AHJ: Authority Having Jurisdiction. This might be the building inspector, fire code inspector, electrical inspector, etc.

Alarm: A signal of some time that indicates a problem.

Alarm Input Points: A physical input wired to a control panel. The point at which an input device is connected to a control panel.

Alarm Priority: Alarms are assigned priority rankings of 1 to 99, with 1 being very high and 99 being very low.

Alarm State: On an input, refers to the state that is opposite of a normal state. Software can recognize an input when that input goes into alarm, unless some other condition (such as a shunt) applies.

Alphanumeric: A combination of numeric, alphabetical and, in some cases, symbols found on a keyboard or display.

Annunciator: A device that indicates a condition. This condition can be announced on a computer monitor, on a flashing sign, by a bell, etc., and by a combination of these things.

Anti-passback: An access control feature that reduces the likelihood that two or more people can use the same access credential to gain admission to a controlled area. This is done by requiring that the credential be presented upon entrance to an area and again when leaving the area. If the same credential is used for two entrances without an exit in between, an alarm is sounded.

Authenticity: A check to determine whether the credential being presented is valid.

Authorization Level: The amount of authority assigned to individuals who manage any software. This authority limits or expands the number of tasks they can perform with the software.

Authorized User: A person authorized to use a credential to electronically gain access into a door controlled by an EAC system.

AUX Port Alarm: Refers to an alarm when the panel senses a communication failure from the auxiliary port. This has a default priority of 99 (very low).

AWG: American Wire Gauge.

Backdrops: Refers to the art used on an access card.

Badge: A card of some type that provides very general or specific information about the person who is using it.

Badge #: See *Card #*.

Badging: The act of creating an ID card. Photo badging includes a picture on the card.

Bar Code Reader: An optional reader that reads bar codes.

Bar Codes: A series of black lines of various thickness that represents a code which is read through an optical reader and is interpreted by a computer or EAC system.

Barium Ferrite Card: A card-type of credential that holds small magnetic particles that are arranged within it in a way that produces an identification code in a reader.

Battery Backup: A battery that supplies power to a device when standard AC power has been abruptly cut off.

Bill of Materials (BOM): A list showing the items purchased for installation.

Biometrics: The ability to use the physical characteristics or an object, such as an eye, to uniquely identify a person.

Buffer: Refers to the act of storing transactions in the panel's RAM memory. Once stored, the information can be retrieved at a later date (called *unbuffering the panel*).

Building Codes: Requirements to which all facilities must conform. Many codes change from community to community, however some are standard throughout the nation.

Bulletin: A special type of documentation manufacturers issue that supports installation and other manuals. These are issued as needs arise that are not documented in the current manuals.

Bus: A run (path) of wiring on a circuit board.

Cable Labeling: The act of labeling all cabling in a way that people know how the cable is used, where it came from and where it goes.

Cable Wrap: Tape or other materials used to protect a cable from rubbing and friction.

Capture: In reference to graphic image, refers to the act of acquiring images through scanning or video.

Card: In this course, a card usually refers to any type of credential used to carry electronic information in an EAC system.

Card #: Is the encoded number which would be assigned to an individual which would grant them access to the E.A.C. System.

CCTV: Closed circuit television.

Central Processing: Preparing through a prescribed procedure. Processing information centrally.

Central Station: A remotely located control and monitoring center that supplies a client with monitoring services.

Chain of Events: A process that starts at one device and triggers numerous other devices and/or actions before it is done.

Cold Restart: The act of restarting a panel after the power has been completely removed, then restored. The need for this might happen after a storm knocks out power to the area.

Contact: An electrical switch that maybe in an open or closed state. That state may be electrically, magnetically or physically controlled.

Controller: This is a specialized computer that manages access for specific doors and related devices. Access Technologies Int'l, Inc. refers to it as a "intelligent control panel."

CPU: Stands for *central processing unit*. It is the main chip (microprocessor) in a computer and controller.

Credential: In EAC, refers to any type of object used to carry electronic information that identifies an individual (or object) and based on that identification, allows the bearer access.

Cross Reference Sheet: A reference made from one part of a sheet, book or register to another part.

Cylindrical Lock: A doorknob- type of latch, where the latching mechanism protrudes from a cylinder that is embedded in the door itself.

Data: Information. At the lowest level, data is represented as an electrical signal and is interpreted as a code. At the highest level, data represents information that people can read and understand.

DC: Direct Current.

Deactivate: *See De-energize.*

Dead Bolt: A special type of a lock that moves back and forth without spring action. It is used to discourage tampering.

De-energize: To remove energy from an output point. On a Access Technologies Int'l, Inc. system, the normal state of an output point is "de-energized."

Default: Refers to a software or hardware setting created at the factory.

Dial-Up: Refers to a system of control panels connected to a communications line (loop or multi-drop) that is not hooked up directly to a computer. In order for the computer to communicate with the panels, it must use a modem at its end to connect with a modem on the communications line. The act of establishing a connection is called *dialing*, as in "dialing a telephone number."

Direct Hold: A type of magnetic lock. The lock is put on the outside of a door frame and the plate on an adjoining place on a door. It can be used on almost any door.

Distributed Processing: The ability of control panels connected to a single communications loop or multi-drop line to function independently from one another, yet communicate to and receive information from a central computer.

Distributed System: A computer network wherein each device (a PC or EAC controller) can work independently of one another, yet at the same time, communicate with one another.

Documentation: Any written record of activities and processes.

Door Ajar: A condition that occurs when the door contact is open longer than it's programmed shunt time.

Door Closer: This is a mechanical device that automatically closes an opened door.

Door Contact: This is a position locator that senses when a door is fully closed or open.

Door Strikes:

Download: The act of sending information from one computer to another.

Dual Technology Sensor: Any motion sensor which logically combines two or more motion sensing elements to reduce the likelihood of a false alarm. Combinations of PIR and Microwave elements are the most common.

Duplex Printing: Printing on two sides of a single material, such as two sides of an access card.

Egress: To exit.

Egress Button: A button by an EAC controlled door that, when pushed, sends a signal to the controller indicating that someone wants to leave the area. This device may also mechanically allow the door to unlock, overriding the EAC.

Electric Hinge: A special door hinge that looks like any other door hinge except it carries wires to an electric strike or lock installed in a door.

Electric Lock: A standard lock, such as a cylindrical or mortise-style, that is controlled by a small electric motor.

Electric Strike: An electrified bolt or latch “pocket” put into a door frame that has a pivoting plate. When the plate pivots, the latch or bolt on the door clears the pocket, allowing the door to open.

Electronic Access Control: Controlling entry into a physical area by means of a controller and electronic components including locks, readers, sensors, buttons and more.

EMI: Electromagnetic interference.

Enclosure: An electrical utility box. It can hold controllers, splices, power outlets, etc.

Energize: Often refers to the state of an output point. On a system, output points are in a normal state when they are “de-energized.” An energized state means that that output is active.

Enroll: The act of signing someone into the EAC system.

Environmental Considerations: Considerations that make up the environment, such as the temperature range, humidity range, wind conditions, UV, etc.

EPROM: Erasable Programmable Read-only Memory.

ESD: Electrostatic discharge.

Exit Button or Switch: When pressed or tripped, this device allows a person to exit from a controlled area without sounding an alarm.

Exit Reader: A reader that controls egress from a controlled area as is used in anti-passback.

External 5 Volt: This phrase refers to monitoring a potential short in an external 5-volt battery. Panels can be configured to report this short.

Facility Code: A series of additional digits that expands upon a cards basic digital code to prevent duplicates between facilities.

Fail Safe Lock: A lock, which is in the unlatched or unlocked state when the unit is not energized.

Fail Secure Lock: (Also known as *Non-Fail Safe*.) A lock, which is in the latched or locked state when the unit is not energized.

Firmware: The operating software for the controller held in a PROM or EPROM chip.

Floor Plan: A diagram showing the layout of a facility, used to mark where EAC devices are to be placed.

Floor Plan Maps: It refers to graphics files that contain a floor plan as created by other software, such as Windows Paint.

Follow: In a interlock, a second point (component B) takes on the same state as the triggering point (component A). See *Invert Follow*.

Forced Open Detection: Alarm indicating a door has been opened without proper credentials.

Ground Connection: A point where a cable is bonded to the grounding system.

Ground Fault: Refers to a short in the system.

Grounding System: A unified (bonded) system designed to drain excess electrical energy from a circuit in order to protect life and property, and reduce the potential of signal interference.

Group: This refers to a group of output points that are activated by a single input point. This usually refers to a configuration used to program elevator cab door access control.

Guard Tour: Refers to a planed period of time during which a security officer must register at specific reader check-points. Failure to check-in at the specified times creates an alarm.

Hardwired: Refers to a system of control panels connected to a communications line (loop or multi-drop) that is hooked up directly to a computer.

Hold Door Opened Device: Similar in operation to a magnetic lock but having the opposite effect, this is a magnetic device that holds a door opened until the EAC controller sends a signal to release the door.

Holidays: Exceptions to the normal way of operating an EAC system. A holiday on a weekday, for example, can cause normally opened doors to remain locked.

Host Computer: The main computer in an EAC network that is directly connected to a controller or controller network. Holds EAC software and databases, and manages the system.

Hot Stamp: The number stamped onto the access card that usually reflects the encoded number in the card.

Infrared Cards: A bar code card where the bar code information is opaque to visible light, but transparent to Infrared light. The bar-coded information on the card may be read by the reader, but not copied by a photocopy machine.

Input: A point which receives information. An input device, such as an egress button, sends information to a control panel. Software monitors the state of an input. When that input state changes, such as when a related input device sends information to the panel, software regards that input as being in a state of alarm.

Insertion Card or Token: A card or token that is inserted into a reader, rather than swiped through or passed near a reader.

Integration: The art of controlling electronic devices through activities known as “chains of events.” Especially, in EAC, controlling CCTV and other systems in a unified way.

Interlock: Refers to creating a chain-of-events between input and output points.

Job Specifications: All the written documentation that must be followed in order for a job to be correctly completed.

Keypads: A keyboard device, often, but not always, limited to numbered keys between 0 to 9.

Latching: The manual use of electronic access control credential in which one credential read causes a lock to unlock and a second read locks the lock. The lock changes state only after a credential is read.

LCD: Liquid Crystal Display (a grayish information display area).

LED: Light Emitting Diode (a small lamp).

Linear Power Supply: A power supply using a series regulator to control voltage by dissipating excess voltage as heat. Provides a very high quality output at the expense of power efficiency.

Logon (Log In): The act of signing into the system. When system operators change shift, the new operator log's in. A "log" refers to a record or diary.

Loop: Describes communications network wherein the communications cable begins and ends at the same point, with controllers linked at increments along the *loop*.

Low Voltage: In a Access Control system, this refers to a 12-volt 7 Am battery being low. Panels can be configured to report a low voltage alarm.

Magnetic Contact: A device that creates a magnetic field between two contact points. The points may be normally opened or normally closed. The following is an example of normally closed contacts: When these points are separated, the field is broken and cause the system to go into alarm until the points are reunited. When a magnetic door contact is pulled apart, for example, the panel knows that the door is opened.

Magnetic Lock: (Also known as *Mag Lock*.) An electronic lock that uses magnetism as its primary holding power.

Magnetic Stripe: (Also know as *Mag Stripe*.) A magnetic material, such as used in an audio tape cassette or computer floppy disk, that is bonded with a card and is used to carry information that can be interpreted through a magnetic stripe reader.

Man Trap: An ultra-secure small corridor or room that allows a person to enter and be identified before he or she can leave that area.

Maximum Bends: In conduit, the maximum number of bends in a wiring conduit allowed between junction boxes or pulling ells, as per the NEC is four.

Memory: In a control panel, this refers to the amount of information that can be handled or stored provided by RAM (Random Access Memory) chips.

Message: It refers to information displayed on the Alarm Info screen in response to the activity (state changes) of an input.

Midnight Forgiveness: This feature adjusts the use of anti-passback to accommodate people who did not properly exit the anti-passback area. With this feature enabled, a person who did not use the proper exit reader will be allowed to use the enter reader the following day without an anti-passback violation occurring. *Example:* A credential user who enters a controlled area, but doesn't leave until the next day, would cause the system to go into alarm the next day because the credential wasn't used to check-in before checking-out.

Modem: A device that translates digital signals to analog signals and the reverse, allowing a computer to send information over a standard phone line.

Mortise Lock: A latch whose mechanism is contained in a flat box.

Multi-drop Line: Used in certain types of communication networks to connect controllers. The line is a length of cable that has controllers connected to it by means of T-taps. Refer to documentation regarding the permissible length of the T-taps.

Multi-technology Cards: A card that uses several information technologies, such as magnetic stripe and bar codes.

Muster Area: A designated area where people go to be acknowledged as being safe during an emergency.

NEC: The National Electrical Code.

No Action: In an interlock, a second point (component B) does nothing in response to the state change of the triggering point (component A).

Node: A connection point on network cable. It indicates that a computer is linked to the network.

Non-Distributed System: A computer or EAC network that requires a single "host computer" that supplies the programming and decision making resources to other computers and EAC controllers in the system.

Normally Closed (NC): Refers to contact points that always touch when a device is in its normal position.

Normally Open (NO): Refers to contact points that do not touch when a device is in its normal position.

Off Line: Disconnecting one computer device from another that stops the flow of information between them.

On Line: Connecting one computerized device with another in a way that can send information between them.

On Line Reader: Unit is powered up and functioning properly.

Operating Humidity: The relative humidity range in which a device can operate.

Operating Temperature: The temperature range in which a device can operate.

Optical Cards: A card with embedded optical characteristics made by a laser cutter, or other process, that is read by a special optical reader.

Output: This can refer to a location on a controller at which an output device (such as a lock) is connected, or a point on the controller which software controls to produce a transaction.

Output Points: A physical output wired to a control panel.

Panel Reset Alarm: Refers to an alarm reported when a control panel using 8.2 firmware or higher is reset. This has a default priority of 1 (very high).

Parallel Port: A plug on a computer that is normally hooked up to a printer.

Passive Infrared Sensor (PIR): A small motion sensor commonly used above doors in an EAC installation. A dual technology PIR combines passive infrared and microwave or passive infrared and ultrasound.

PC: Stands for *personal computer*. In this course, refers to a computer based on Intel technology (or clones) and most commonly uses a Microsoft or International Business Machines (IBM) operating system.

Photo Imaging: The process of designing an identification card utilizing cameras and printers.

Piggybacking: See *Tailgating*.

Pigtail: A pigtail allows for two or more conductors to terminate at a single point by joining two or more of those conductors to a short piece of wire, then joining the other end of that wire to the remaining conductor at the terminal.

PIN #: A unique identification number which would be entered into a keypad to grant access. Could be used in combination with card readers.

PIR: A passive infrared sensor, which is usually installed above a door and senses motion in an EAC installation. A dual technology PIR combines passive infrared and microwave or passive infrared and ultrasound.

Plenum: The space that moves environmental air throughout a building. Plenum areas are generally in the ceiling, under a false floor or in the HVAC system. These areas require that devices within them be made of nonflammable and nonsmoking materials (plenum rated).

Poll: Asking for information. In a computerized system, one computer asks another for information.

Port: A place where you can connect a communications cable or device into a computer.

Port Expander: A special device that allows you to have more than two serial ports on a personal computer.

Power Drop: The change in the available electrical voltage or current supplied to a device. This is a function of the size and length of the supply wires.

Power Supply: The source of power that changes AC to filtered DC.

Priority: See *Alarm Priority*:

PROM: Programmable Read-only Memory.

Protocol: Rules. In a computer network, protocol controls how computers interconnect.

Proximity Cards (Tokens): An object (card or token) that is able to transmit encoded information to a reader without physical contact with a reader.

Proximity Reader: A reader that uses RF to interpret the E.A.C. card number.

Pulse: A specific amount of time set to energize an output point or shunt an input point.

Push Bar: A door-unlatching device. When pushed, it releases a lock. If the push bar is connected electronically to the controller, it signals the controller that an egress event has taken place.

RAM: Refers to random access memory used in a computer or EAC controller.

Reader: Any device that reads encoded information from a card or token and transmits the information to a control panel.

Relay: A type of switch that electrically opens or closes physical/mechanical contacts.

REX: Request-to-exit device.

RFI: Radio Frequency Interference.

Serial Port: A plug on a computer that is normally used for communications functions. These functions include attaching a computer to a modem, or a computer to communications loops that are connected to control panels.

Shear Lock: A type of magnetic lock. The lock is embedded into the doors frame and the plate is installed on the adjoining edge of the door proper. The holding force is augmented through friction. It generally requires custom-fitted doors.

Shielded Cable: A special metallic foil, tape, or wire braid that covers the entire set of conductors in a single cable. It serves to protect the cable against EMI and RFI.

Shunt: The automated or manual means through software, to ignore an input alarm (or an input).

Signal Strength: Indicates the size or quality of an electrical signal. The signal strength decreases as the length of its path in the medium increases. The media type (generally cable) and length are selected so that a signal can travel from the transmitter to the receiver and still be interpreted. If the signal is transmitted via a radio signal the choice of antenna type and location will affect the signal strength.

Silence Alarms: This refers to honoring information received by an input point, but not displaying that information on the Alarm Monitor screen.

Site Code: See *Facility Code*.

Smart Card: A type of credential that looks like a card and holds computer-intelligence.

Specifications: Rules and measures governing what a device does and how it can be used.

Stand-alone Reader: A reader that can operate separately utilizing a distributive database.

Stand-alone System: A single, independently working computer or EAC controller that is not networked with other computers.

State: A reference to a device's current mode. A change of state means that the mode of a device has changed.

Supervision: Special electronic protection of a communications line that is accomplished by sending a continuous or coded signal through the circuit. When this feature is enabled, any change of the circuit will be detected and an alarm will result.

Surge Protection: A device that prevents power surges in system or power wiring from affecting or damaging the EAC system or its components.

Switching Power Supply: A power supply system that uses high frequency switching to regulate voltage and current. This type of regulation is more efficient, but may allow some high frequency noise to be present in the power supply output.

TTL: Abbreviation for *Transistor-Transistor Logic*.

Tailgating: In access control, this is the act of two or more people entering a controlled area by using a single card. (Also known as *piggybacking*.)

Tamper Switch: A special switch or contact sensor used to create an alarm when an enclosure or device is opened in an unauthorized manner.

Tampering: The unauthorized act of destroying, modifying, or removing a device.

Terminals: Points on a circuit board where cables from various devices are attached.

Throughput Rate: This can be the rate at which people or vehicles pass through a controlled area, or the rate that information (data) moves through the computer and controller network.

Time and Attendance: The means of recording employee time and attendance through a computer-controlled reader.

Timezone: A range of times and days of the week that are assigned to access levels. These allow usage of the system within their specifications.

Timing: A procedure that times events so the controller can determine whether the event is normal and within limits or not.

Tracking Areas: Refers to an area defined by an *entrance* and *exit* reader. When a person is inside the tracking area, the computer reports that that person is being tracked until such time as that person uses an exit reader, a muster reader, or a different tracking-area reader. This feature does not require anti-passback.

Trouble State: A condition when an alarm circuit is out of specified tolerance, which may indicate tampering or other troubles with the alarm point.

Troubleshooting: The act of figuring out a problem through deductive reasoning.

Turnstile: A type of rotating gate.

TWAIN Interface: A special set of instructions used by Windows that enables image capture from a scanner or video.

Twisted Pair: A pair of conductors, each covered by an insulating jacket, that are twisted together at a specific rate in a way that increases their ability to withstand EMI. They commonly contain copper wire, either single conductors or multiple strands.

Unbuffer: Refers to a panel mode in which transactions are not stored in the panel's RAM memory. When a panel is unbuffered, it either transmits stored information to a computer, then continues to transmit ongoing access transactions to that computer, or the access transactions the panel can collect are simply ignored. *See Buffer.*

Uninterruptable Power Supply (UPS): This device continues to provide power to your devices even after the main power has been accidentally shut down. It also protects your equipment against voltage spikes that can damage equipment.

Unshunt: *See Shunt .*

UPS: *See Uninterruptable Power Supply.*

Walk-Through: Procedures used to determine whether the plan matches the reality of the facility.

Wiegand Card: A card that has specially treated wires embedded in it that, when it passes through a Wiegand reader, emit a discrete electrical signal.

Wiegand Reader: A popular card technology in Access Control. It can use 5 or 12 digit card formats.