



IXP220 Software Suite

Product Specification Catalogue

The IXP220 Software Suite consists of a set of Software Modules (performing on a client-server basis) used for monitoring and controlling residential, small, medium and large commercial sites. IXP220 is flexible, allowing for easy addition of further ImproX hardware. As well as providing the means to add third-party hardware devices such as biometrics, IXP220 Software provides an easy-to-use graphic user interface for real-time monitoring.

The IXP220 Software controls and monitors the actions of associated ImproX Hardware, therefore controlling and reporting on recorded actions of personnel to a site. The System responds to Tags presented to Readers and controls and monitors the relevant access of the associated Tagholders.

The Software Suite provides a wide array of features, including compilation of Reports showing movement of Tagholders and other System aspects. These features support simple configurations as well as medium-system access control needs. The IXP220's scalable design allows for single-system users or expanded systems for multiple users in LAN and WAN configurations.

Packaged with your purchase of the IXP220 System is the Software Suite on a CD that includes all Modules. Certain Modules however, need a purchased unlock code to enable them.

The Hardware and Software design lends itself to a system that can cope with any access control and monitoring needs for residential and small to medium, and large commercial installations.

Key Features

Key Features New to IXP220 Software V1.86

- **NITGEN Support**—the IXP220 System offers support for the NITGEN Fingkey Access Terminal, the NITGEN NAC-2500 Plus Terminal and the NITGEN NAC-5000 Terminal.
- **Controller UDP Broadcast**—the IXP220 Controller can broadcast transactions as they happen to a defined IP Address. The Base Application let's you configure the IP Address the Controller broadcasts transactions to. Once this information uploads to the Controller, the Controller sends an ASCII string for each transaction to the IP Address as defined in the Base Application. This setting is specific to Controllers.

- **Operator Management**—lets you create extra Users and customize their System Rights. This allows you to restrict access to Site definition and configuration tools without limiting access to day-to-day operations.
 - **Add Tagholder Through Transaction Viewer**—this feature lets you enroll Tagholders direct from the Transaction Viewer. You can present an un-enrolled Tag to a Reader and it will show in the Transaction Viewer as an unidentified Tag. If you right click on it, you receive the option to enroll the Tagholder.
 - **View Transaction Image**—displays the Tagholder's image for each transaction.
- **Door Wizard**—easy setup of Doors using the largely intuitive Door Wizard.
- **Full Off-line Validation Mode**—during on-line operation, the Controller transfers its decision making tables to the ImproX iTT or iTRT. Thus when the Door Controller goes off-line from the Controller the Door Controller can make "informed" access decisions. Once the Door Controller comes back on-line, all transactions update. During Full Off-line all functions are supported EXCEPT for the following: Anti-passback (APB), Liquid Crystal Display (LCD) Messaging, Building Management, Lift (Elevator) Control, Alarm Arming, Intrusion or Power Control Mode.
 - **Tag Limits**—on sites using IP communications, the iTT or iTRT can store and validate a maximum of 10 000 Tags. When using the Door Controller with RS485 communications and the number of Tags exceeds 1 000, then Full Off-line switches to Cached Off-line for the RS485 Door Controllers in the System. IP Door Controllers remain in Full Off-line Validation Mode.
 - **Transaction Limits**—while off-line at least 10 000 transactions store for each Reader. Once the buffer reaches capacity, new transactions overwrite oldest.
 - **E-mail Enrollment**—this feature lets you enroll a new Tagholder by e-mail, thus simplifying and streamlining the process.
 - **E-mail Reports**—this feature lets you to request the following reports by e-mail:
 - **Absenteeism Report**—this Report details a list of Employees absent on a specified date. The Report includes information such as: Employee Name and Number.
 - **Person Report**—this Report displays a detailed record for a selected individual Tagholder. The Report includes information such as: First Name and Last Name, ID Number, Company, Department, Employee Number, transaction Date and Time, Door Accessed, Event and Tag code. The Report also displays a photo of the employee.
 - **Hours Worked Timesheet Report**—this Report calculates hours worked of all employees from the IN and OUT Transactions of all Zones. The Report includes information such as: Name, Employee Number, Date, Time, Event, Terminal, Zone and Reason.
 - **Access Pattern Report**—this Report displays a summary of an individual employee's time in, average time in, time out, average time out and average hours worked. The Report includes information such as: Date, First Transaction, Last Transaction, Time (Last Transaction – First Transaction), Average Time In and Out, Average Hours at Work and Total Time at Work.
 - **Zone Occupancy Report**—this Report details a list of Employees absent on a specified date. The Report includes information such as: Employee Name and Number.
 - **Tagholder Transaction Report**—this Report displays all transactions for a Tagholder. The Report includes information such as: Time, Name, Door, Event and Tag.
 - **Transactions Report**—this Report displays all Tagholders transactions on a specific date. The Report includes information such as: Time, First Name, Last Name, Employee Number, Door, Event, Tag and Zone.
 - **Tag Expiry Report**—this Report displays details of Tags either expired or due for expiry. The Report includes information such as: Site, Tag Code, Tag Type, First Name, Last Name, ID, Expiry Date and Expiry Time.

Existing Key Features

- **Sagem J-Series Support**—the IXP220 System offers support for the Sagem MorphoAccess™ J-Bio and J-Dual Fingerprint Readers.
- **Sagem Enrollment**—on a Windows Vista or Server 2008 PC Workstation (32-bit or 64-bit). A separate Windows XP PC Workstation is no longer required for Sagem Enrollment.
- **Mifare Encoder Support**—this feature allows you to write fingerprint templates direct to a MIFARE® Tag. Thus when you present the MIFARE® Tag to the Biometric Reader, the template on the Tag is read. Presenting your finger to the Reader then confirms the template information stored on the MIFARE® Tag.
- **ImproX MDE Multi-discipline Enrollment Reader Support**—allows you to enroll 125 kHz and 13.56 MHz Tags from the same Enrollment Reader.



Existing Key Features (Continued)

- Comms Diagnostic Report—the Transaction Reports category now offers a Comms Diagnostic Report. The Report displays all diagnostic transactions from IP Terminals for a specific date. You may filter the Report by: Date, Controller and Door and select whether to include one or all Sites.
- Conflicting Controller Comms Report—the Transaction Reports category now offers a Conflicting Controller Comms Diagnostic Report. The Report displays all conflicting Controller communication transactions reported by IP Terminals. You may filter the Report by: Date and select whether to include one or all Sites.
- 64-Bit Enrollment Support—on the ImProX ISR and RS when used with IXP220 V1.84.
- ImProX MDTA Multi-discipline Time and Attendance Terminal Support—full support for the ImProX (MDTA) Multi-discipline Time and Attendance Terminal.
- ImProX iTRT Intelligent Twin Reader Terminal Support—this second generation Door Controller gives IXP220 Software the following capabilities:
 - Full Wiegand support
 - Off-line Redundancy
- ImProX iTT Intelligent Twin Antenna Terminal Support—this second generation Door Controller gives IXP220 Software Off-line Redundancy capabilities.
- ImProX Multi-discipline Reader Support—full support offered for the ImProX (MDR) Multi-discipline Reader and the ImProX (MDK) Multi-discipline Keypad Reader.
- Zero Downtime Upgrade Support—implemented on the ImProX iTT, iTRT, MDR and MDK. During a firmware upgrade the affected Hardware continues to operate as expected, however in the case of the ImProX MDR and MDK the LED flickers intermittently while the new file uploads. Once the upgrade is complete, a reset (about 30 seconds) takes place for the new firmware to load. While resetting, the related Hardware will not read Tags.
- Broadcast Transactions by UDP—this feature allows broadcast of real-time transaction data as a UDP comma separated packet to an IP Address and Port Number specified by you, the user. The purpose of this is to allow third parties to pick up transactions and use the transactions as they wish (for example for Time Attendance or Alarms). During broadcast (to either the Host PC or another named PC), the transactions still go into the Database as usual.
- Live Video Image Capture—this feature allows you to use a web camera to capture and save Tagholder images. By connecting a web camera to a PC running either the Base Application or the Web Enrollment Module, users can capture an image from live video and save it directly to the Tagholder data. You can use this feature when loading new Tagholders or when editing existing Tagholders.
- Support Diagnostics Bundle—this feature assists you by supplying Technical Support Staff with information about your System in the form of a zip file. This helps the Support Staff solve your problems quickly and efficiently.
- Automatic Tag Reading—offers you the following options:
 - From Anywhere—this option opens the Tagholder dialog automatically on presentation of a Tag to the Registration Reader. Enrollment or editing therefore takes place without opening the Tagholder Page Tab.
 - From Tagholder Configuration—enrollment or editing takes place from the Tagholder Page Tab only.
 - Disable Automatic Reading—by selecting this option, enrollment or editing takes place in the Tagholder dialog, from the Tag tab only.
- Firmware Upgrade Utility—new look user interface for ease of use.
- GPRS, 100 Mbps TCP/IP, USB or RS485 Connection—the IXP220 System offers a choice of the following system busses for connection to the Host PC and or LAN or WAN:
 - GPRS—links the remote site System Controller to the Host PC.
 - TCP/IP Bus—links the System Controller (and ImProX iTT and iTRT IP Terminals) and Host PC to the LAN or WAN.
 - USB—links the System Controller to the Host PC.
 - The Controller Bus (RS485)—links the System Controller to the Host PC via the Registration Interface.
- RS232 Port—links the System Controller to the Host PC.
- The ImProX GSM Module (Quad Band) (GSM900-0-0-GB-XX) (optional extra)—provides the IXP220 Controller with TCP/IP connectivity without requiring any additional network cable or router infrastructure. Using the GSM network, the ImProX GSM Module (Quad Band) (optional extra) allows you to:
 - Contact a remote IXP220 Controller.
 - Program an IXP220 Controller without removing it from the remote location.
 - Download transactions from an IXP220 Controller installed at a remote site.
- Full HID Support—on presentation of a Tag, the Reader extracts a

string of data from the Tag. Certain applications only need a portion of this extracted data string. With tag truncation, installers can now specify interpretation rules for Tags. The IXP220 Software supports entry of multiple Facility and Site Codes at each site and allows the simple transfer of this data between sites.

- Input or Output Support Using Events—IXP220 V1.82, lets you set event triggers configured by Door(s) (Location(s)) and unique Event. Each trigger can then be set to drive a Relay (on an ImProX O16 or IXP220 Controller), LED or Buzzer on any Reader. This feature gives increased control and flexibility to the Building Management capability of the IXP220 Software.
- Notifications—a combination of Hardware and Software providing a huge leap in the management of Tagholders. Notifications are setup using the largely intuitive Notification Creation Wizard. Thereafter, notifications take place at the time of a specified event, offering site managers real-time notifications based on Events and Alarms occurring on the site. Notifications take place by SMS, E-mail or Tweets via the Twitter micro-blogging network.
- IP Based Intercontroller Communications—this allows for communication to take place across Controllers without interaction from the PC or the Base Application. Inter-controller Communications is beneficial when used with Building Management and in maintaining Anti-passback (APB) status across Controllers.
- Fall-back Communications—allows for configuration using TCP/IP as the primary communications channel and RS485 as the secondary channel. Where your TCP/IP connection fails, the IXP220 Software falls back on RS485 and operations continue as normal (slightly slower than TCP/IP). When the TCP/IP connection restores, the Software automatically resumes communication on the primary TCP/IP connection. This configuration does NOT support inter-controller or pass-through communications.
- IXP220 Rich Client Module—this Module lets you configure Doors (Locations) and Tagholders from a separate PC (not running the IXP220 Base Application). Use this Module where you need feature flexibility not offered by the Web Enrollment Module. These instances could include but are not limited to: Biometric enrollment and where you need to change Door (Location) configuration patterns (on a PC away from the Base Application).
- Visual Door Control Module—this CCTV integration solution allows for better site management. The operator can from another location monitor and control up to 4 Doors (Locations) (4 Cameras) at a time per Site. The Module also allows tracking of up to 30 Tagholders at a time on a per site basis. The Tagholder monitor refreshes every 5 seconds giving you a near real time Tagholder tracking solution. You may use the Visual Door Control Module with Windows® Internet Explorer 8 (and above) or alternatively Firefox 3 (and above). The Module is designed for use with the Axis 210 and 213D range of cameras.
- Enhanced Preference Configuration—dialog tabs offer you the following options:
 - General Tab—lets you select the IXP220 Software's default Configuration Level, Transaction Priority and System Seed (for biometric integration).
 - Enrollment Tab—select from either *Tag Type is Ignored when Validating a Tag (default)* or *Tag Type is Taken into Consideration when Validating a Tag*. By selecting Tag Type is Ignored when Validating a Tag, you activate the AnyTag Mode. In this Mode, the IXP220 Software stores the Tag Code and not the Tag Type. Using AnyTag Mode, a single enrollment enrolls both the RF and passive component of your RF Tag. Also, from the Enrollment Tab, set the Tag Code Truncation, allowing enrollment of the Tag using the same truncation rules as applied by the Reader out in the field.
 - Web Tab—select either Anyone can View Web Reports or Username and Password is Required to View Web Reports. Also allows you to select the Port used by the Web Server. The default is Port 80.
 - System Notifications Tab—lets you configure your E-mail and Twitter account settings.
- Tracker Module—this Module keeps you advised as to the whereabouts of selected Tagholders (maximum 10 Tagholders per site) as they move about the Site. Alternatively, you may use the Tracker Module to monitor events at a selected Reader (maximum 10 Readers per Site). Both these facilities allow for better end user site management, by displaying the latest 20 transactions for today only, in time order per group (Tagholders or Readers) selected.
- Database Archive Utility—this Utility lets you archive transactions (Normal, Status and Alarms), placing the transactions in a separate archived Database. We recommend that you run the Archive Utility on a regular basis, thus keeping your Database below the maximum recommended database size of 2 GB.
- Database Pump Utility—this Utility lets you flush out and refresh an overloaded Database. When executed, the Pump takes all data and pumps this into a fresh Database.
- Secure Socket Layer SSL Support—using the IXP220 Software V1.82 onwards, you may connect to the various Web Modules using a secure (1024 Bit encrypted) connection.
- Supports the ImProX B-SHO BioMini USB Fingerprint Enrollment Reader.

Existing Key Features (Continued)

- Multi-site support—unlocking your ImproX RS with the Multi-site License lets you manage up to 1 000 Sites per Host per IXP220 System.
- Buffered Transactions per Controller—IXP220 supports up to 100 000 Buffered Transactions per Controller.
- Modes of Operation—IXP220 offers the following software selectable “Modes of Operation”:
 - Alarm Arming Mode—in this Mode, the Controller interfaces with an Alarm Panel to either, arm or disarm, or trigger the Alarm Panel.
 - Intrusion Mode—in this Mode, there is no installed Alarm Panel and merely a simple alarm sensor is required.
 - Bell Button Mode—in this Mode, the Bell Button on the ImproX (KMA) Mullion Keypad Antenna Reader, when pushed, drives Relay 3 on the IXP220 Controller.
 - Power Control (Emergency) Mode—on Sites configured for Inter-controller Communications, Power Control (Emergency) Mode allows you to unlock all Doors (Locations). Essentially, the Alarm Signal input on the Controller unlocks all Doors (Locations) on the Site. That is, where you have 2 Controllers with Inter-controller Communications, and both Controllers set to Power Control (Emergency) Mode, the unlock instruction passes from Controller 1 to Controller 2. All Doors (Locations) connected to these Controllers unlock. Alternatively, on Sites without Inter-controller Communications, this Mode only affects the single Controller’s Doors (Locations).
 - Power Control (Lockdown) Mode—on Sites configured for Inter-controller Communications, Power Control (Lockdown) Mode allows you to lockdown all Doors (Locations) denying Tagholders entry. Essentially, the Alarm Signal input on the Controller locks down all Doors (Locations) on the Site. That is, where you have 2 Controllers with Inter-controller Communications, and both Controllers set to Power Control (Lockdown) Mode, the lockdown instruction passes from Controller 1 to Controller 2. All Doors (Locations) connected to these Controllers enter lockdown. Alternatively, on Sites without Inter-controller Communications, this Mode only affects the single Controller’s Doors (Locations).
 - Action Mode—used when you setup actions making use of your Controller’s Inputs and Relays. Examples could include switching on or off devices, such as lights or air conditioners.
- Scheduled Reports—lets you set up schedules that automatically run the Reports you request. These scheduled Reports may run at a specified time on any day of the week, or on any combination of days in a month. The available Scheduled Reports include:
 - Absenteeism Report
 - Person Report
 - Hours Worked Timesheet Report
 - Access Pattern Report
 - Zone Occupancy Report
 - Tagholder Transaction Report
 - Transactions Report
 - Tag Expiry Chart
- Improved Web Report Offering—as part of the improved Web Report offering, the Hours Worked (Person) Report, Hours Worked Timesheet Report, the Access Pattern Report and the Access Pattern (Department) Report support night-shift calculations. In addition, the IXP220 Software hosts the following new Reports:
 - Message Board Report
 - First Access Report
 - Last Access Report
 - Last Access for Day Report
 - GSM Configuration Report
 - Biometric Report
 - Tag Expiry Report
 - Door Usage Chart
- Key Assist Feature—selecting the Key Assist option opens an area on the right-hand side of the Base Application’s desktop. This area displays a list of keyboard shortcuts that let you quickly move between the Page Tabs. The final option listed in the Key Assist Area (System Navigation) opens the System Navigation dialog. This dialog allows quick navigation through System related functions.
- Up to 10 000 Tags per System—IXP220-3 and IXP220-4 Systems are restricted to 10 000 Tags per System regardless of the number of Sites. In addition these Systems are also restricted to 10 000 Tags per Site. This restriction includes Tagholders (Tags) from other Sites with access to the original Site. In other words, Site A can have up to 10 000 Tags, Tagholders from Site B with access to Site A are therefore included in Site A’s total Tag count.
- Doors (Locations)—IXP220 supports a maximum of 256 full Anti-passback (APB) Doors (Locations).
- Sites per System—IXP220 supports a maximum of 1 000 Sites per System.

- Web-based Reporting—the IXP220 Software lets you compile Reports on functions and transactions within the IXP220 System. As these Reports are essentially Web Reports, so you can compile Reports for one or more Sites over LAN or WAN networks. The Reports Software allows selection of single or multiple Sites, allowing management of both. Filters readily displayed on the screen, let you select parameters for running your Report. These filters may consist of information fields (occasionally), drop-down menus, checkboxes or calendars.

System Features

System Hardware Related Features

- Architecture supports up to 64 Controllers per Site and each Controller supports up to 64 Terminal Fixed Addresses.
- All ImproX Terminals (except for the ImproX ER and ImproX LR) operate with input voltages between 10 V DC to 30 V DC.
- Easy installation with simple daisy chain configuration using a single twisted pair cable.
- Fully redundant off-line operation.
- Plastic or metal Reader options (Proximity or Proximity plus Keypad).
- Input Monitoring (Normal, Terminating Strike, Inhibit Scanner).
- Configurable Buzzer volume and duration.
- Configurable LED colour and duration.
- Infield Firmware upgrades.
- Door (Location) Mode examples include: Tag Mode, Supervisor Unlock, Locked, Open, No Entry, Door Entry, Open Now and Personal Access Code.
- Auto-ID function.
- Supports third-party Hardware integration including: Wiegand (26-Bit, 37-Bit, 40-Bit, 44-Bit and Open Format), Biometric, Barcode and Magstripe.
- Supports the Bell feature on the ImproX KMA (XTT905).
- 3-Year warranty on Hardware.

Features Common to all Controller Models

- 2 Reader Fixed Addresses, offering connection of up to 2 Antenna Readers OR 2 Wiegand Readers.
- IXP220-1 stores up to 1 000 Tags and up to 100 000 buffered Transactions.
- IXP220-2 stores up to 2 000 Tags and up to 100 000 buffered Transactions.
- IXP220-3 and IXP220-4 store up to 10 000 Tags and up to 100 000 buffered Transactions.
- Communication options include:
 - GPRS
 - 100 Mbps Ethernet
 - USB
 - RS485
 - RS232
- The ImproX GSM Module (optional extra) provides the IXP220 Controller with TCP/IP connectivity without requiring any additional network cable or router infrastructure. Using the GSM network, the ImproX GSM Module (optional extra) allows you to:
 - Contact a remote IXP220 Controller.
 - Program an IXP220 Controller without removing it from the remote location.
 - Download transactions from an IXP220 Controller installed at a remote site.
- On-board Battery charging circuit (up to 7 Ahr when using a 12 V Sealed Lead Acid Battery).
- CE Approved.
- Digital Inputs—Door Open Sensor (DOS) with End of Line (EOL) Sensing and Request to Exit (RTE).
- Cost Effective.

Features Specific to the Power Supply Combo Model

- A 16 V AC (40 VA) Transformer providing 2 A to power the Controller and charge a 12 V 7 Ahr Sealed Lead Acid Battery.
- Automatic switch-over to Battery operation on Mains Failure.
- Mild Steel Cabinet, accommodating the Transformer, IXP220 Controller and Battery.
- Uses Quick Click Glands.
- 1 Anti-tamper Switch.

Tag Related Features

- Up to 10 000 Tags per System.
- Supports up to 4 Tags per person.
- The RF and Infrared Tags transmit a unique tag-code on each transmission, which can then be assigned to a respective Tagholder and be reported on.
- AnyTag Mode—in this Mode, the IXP220 Software stores the Tag Code and not the Tag Type. Using AnyTag Mode, a single enrollment enrolls both the RF and passive component of your RF Tag.
- Web-based Tagholder and Visitor Tagholder enrollment.
- Accepted Tag types (when used with standard Impro Readers):
 - 125 kHz Slim and Omega Tags (ISO standard Manchester encoded)
 - 125 kHz read or write Tags (Philips HITAG™ 1 and Philips HITAG™ 2)
 - RF
 - Infrared
 - Mifare
 - Felica
 - Third-party Tags
 - Barcode
 - Magstripe

Software Related Features

- Building Management Support using Event Driven or Time Triggered Actions—this feature lets you manage various hardware devices in and around the office, such as irrigation, lighting or airconditioning with the use of event driven or time triggered actions. The IXP220 System supports up to 18 input or output devices per Controller, configured as required.
- Building Management Support using the Power Control Mode—the Alarm Relay (on the IXP220 Controller) switches on or off various building devices, such as lights or air conditioners. Use an external switching device to remove the dangers of high voltage from the terminal connector, and also to handle the high current associated with these devices. The “Emergency Open” input unlocks all doors in the System.
- Lift (Elevator) Control—offers added security by controlling Lift (Elevator) access to various floors in a building so a Tagholder can only select the floors they have access to. The IXP220 Controller supports a maximum of 8 Lifts (Elevators) with a maximum of 32 floors per Lift (Elevator).
- Universal Data Exporter Utility—this Utility lets you extract transaction (including time and attendance) records from the IXP220 Database for use by your third-party application. The Exporter Utility makes use of user defined templates (created in Design Mode) that specify the data for extraction and the export format. Using the Run Mode, you have the choice of exporting the records interactively or as scheduled (using Windows® Scheduler).
- Automatic Database Upgrade Utility—this Utility enables automatic updating of the IXP220 Database. The Utility checks the Database ensuring processing of all available Scripts in the directory.
- Database Conversion Utility—this Utility converts existing IXP120 or IXP200 Databases for use in IXP220. The Conversion Utility uses the same ImproX RS constraints as the IXP220 Software itself. This means the Utility checks for an ImproX RS and then checks the IXP220 System itself, confirming the number of allowed Tagholders and so on. The Utility does NOT move information such as Doors (Locations), Terminals, Controllers and so on. The Utility does move information such as Tagholder details, Tag information, Holidays, Messages, Reason Codes, Door Mode Patterns, Access Groups and Access Patterns.
- Automatic Reader Assignment—after Auto-ID, multi-selecting Readers at Door Configuration means Readers (from a single Terminal) are automatically assigned. The IXP220 Software automatically assigns the top selected Reader as the Entry Reader and the bottom selected Reader as the Exit Reader.
- B-SHO Integration—the IXP220 System recognizes the B-SHO Fingerprint Terminals in the same fashion as our ImproX Terminals. Therefore, connect these Terminals to the IXP220 Controller's Terminal Bus using the RS485 bus protocol. As when using with associated ImproX Terminals, you may multi-drop up to 64 Terminal Fixed Addresses, including up to 16 B-SHO Terminals per IXP220 Controller. In situations that require heightened security, we recommend that you connect the ImproX B-SHO Fingerprint Terminal via an associated ImproX OSCAR Door Control Unit. In all other instances multi-drop the Fingerprint Terminals direct from the Terminal Bus. Carry out fingerprint enrollment using the IXP220 Base Application. You may store up to 1 000 single-finger templates or up to 500 double-finger templates.
- Firmware Version Check—this feature incorporated in the IXP220 Base Application, lets you quickly confirm whether a Firmware upgrade is required.

- Supports the Firebird (V2.1) Database type.
- Auto-ID Log—this feature lets you check whether Auto-ID has missed any terminals, possibly because of a wrong DIP-switch setting or faulty communications.
- IO Device Configuration Report 100 % Redundant Off-line Operation—for Systems with Controllers installed at each Door (Location), full System features and functions exist locally at each Controller.
- Alarm Arming support—this feature lets you arm and disarm your third-party alarm system direct from your ImproX Keypad Antenna Reader or Keypad Remote Reader. While your alarm panel is in an armed state, IXP220 denies access by Tagholders into or out of the armed Zone. While using the Alarm Arming feature, you may still arm or disarm your alarm from your third-party alarm panel.
- Supports Holidays.
- Operator Management facility.
- Backup facility. Facility to clear the Controller's Transaction Buffer.
- Modular, LAN or WAN compatible Software including:
 - Base Application Module (includes facility for Lift (Elevator) Control, Input or Output Control and Notifications).
 - Web Enrollment Module (General)
 - Web Enrollment Module (Visitor)
 - IXP220 Rich Client Module
 - Tracker Module
 - Visual Door Control Module
 - ImproTouch Module
 - Card Designer Module
 - Web Reports Module
- Detailed Tagholder information with Tagholders picture.
- The Tagholder Configuration Pane has a search option using: First Name, Last Name, Address, Company, Department and Tag. Supports Building Management.
- Anti-passback (APB): Off, Relaxed or Strict.
- Allows batch loading of Tags.
- Setup and configure custom Communication Schedules.
- Written in pure Java.
- The Viewer Pane consists of Tabs showing the following information:
 - Transaction Viewer—gives a live real-time view of all types of transactions in the System. It displays the names of the Doors (Locations) and details of Tagholders who have entered or exited these Doors (Locations).
 - Alarm Transaction Viewer— gives a live real-time view of all *alarm* transactions in the System. It displays the names of the Doors (Locations) and details of Tagholders who have entered or exited these Doors (Locations).
 - Communications Status Viewer—indicates the status of the IXP220 Controllers communicating with the IXP220 System.
- Door Status Viewer—indicates the status of the Doors (Locations) forming part of the Site. You may physically unlock Doors (Locations) displayed here, using the IXP220 Software. Page Tabs provide a quick and user friendly method of accessing the various configuration options:
 - Site Configuration
 - Controller Configuration
 - Door Configuration
 - Access Group Configuration
 - Tagholder Configuration
 - Holiday Configuration
 - Reason Code Configuration
 - Message Configuration
 - Batch Tag Registration Configuration
 - Input and Output Devices Configuration
 - Actions Configuration
 - Notifications Configurations
- Windows XP Professional, Vista (Business or Ultimate) and 7 (Professional, Enterprise or Ultimate) compatible.
- Web Reports—the Web Reports Module includes pagination (autoloading only the content for the page selected). For Reports of more than 500 records, IXP220 prompts to export the result set to CSV without displaying the Report first.
- 100 % translatable Software.
- Supports Impro Card Printing:
 - Unlimited Templates
 - Dual side printing
 - Links to Database Tables
 - Image Import
 - Landscape or Portrait
 - Batch Printing

Software Related Features (Continued)

- Context Sensitive (F1) WebHelp—the Context Sensitive WebHelp provided with the IXP220 Time Zones and Daylight Saving.
- Supports messaging to an ImproX TA.
- Software works with your positioned Mouse
- Pointer (or cursor) on your screen. For example if you place your Mouse Pointer in the Viewer Pane, WebHelp opens Context Sensitive WebHelp specific to the Viewer Pane.

PC Specifications (Minimum)

Description	IXP220-1 Single APB Door or 2 non-APB Door System	IXP220-2 4 APB Door System	IXP220-3 256 APB Door System	IXP220-4 Multi-site System (256 Doors per Site)
Processors (A high performance model released in the last 3 months)	1 Desktop Processor	1 - 2 Server Processor(s)	2 or more Server Processor(s)	2 or more Server Processor(s)
Free Memory (For use by the Database Server only)	1 GB	2 GB	4 GB	4 GB
Free Hard Disk Space (For Database storage, backup & archived copies)	80 GB	160 GB	320 GB	320 GB
Display (Monitor and graphics accelerator)	1 024 x 768	1 024 x 768	1 024 x 768	1 024 x 768
Validated Operating Systems	Microsoft Windows Server 2008 64-bit Microsoft Windows 7 32-bit and 64-bit (Professional, Enterprise or Ultimate) Microsoft Windows Vista 32-bit ONLY (Business or Ultimate) Microsoft Windows XP 32-bit ONLY (Professional)	Microsoft Windows Server 2008 64-bit Microsoft Windows 7 32-bit and 64-bit (Professional, Enterprise or Ultimate) Microsoft Windows Vista 32-bit ONLY (Business or Ultimate) Microsoft Windows XP 32-bit ONLY (Professional)	Microsoft Windows Server 2008 64-bit Microsoft Windows 7 32-bit and 64-bit (Professional, Enterprise or Ultimate) Microsoft Windows Vista 32-bit ONLY (Business or Ultimate) Microsoft Windows XP 32-bit ONLY (Professional)	Microsoft Windows Server 2008 64-bit Microsoft Windows 7 32-bit and 64-bit (Professional, Enterprise or Ultimate) Microsoft Windows Vista 32-bit ONLY (Business or Ultimate) Microsoft Windows XP 32-bit ONLY (Professional)
Supported Database Server Platforms	Firebird 2.1	Firebird 2.1	Firebird 2.1	Firebird 2.1

Related Information

For extra information relating to this product refer to the:

- IXP220 Software Quick Start Guide (ISW302-0-0-GB-XX).
- IXP220 Software Installers Guide (ISW300-0-0-GB-XX).
- IXP220 WebHelp (ISW390-0-0-GB-XX).
- ImproX IXP220 Controller Installation Manual (ISC300-0-0-GB-XX).
- ImproX IXP220 Controller Product Specification Catalogue (ISC350-0-0-GB-XX).

Warranty Details

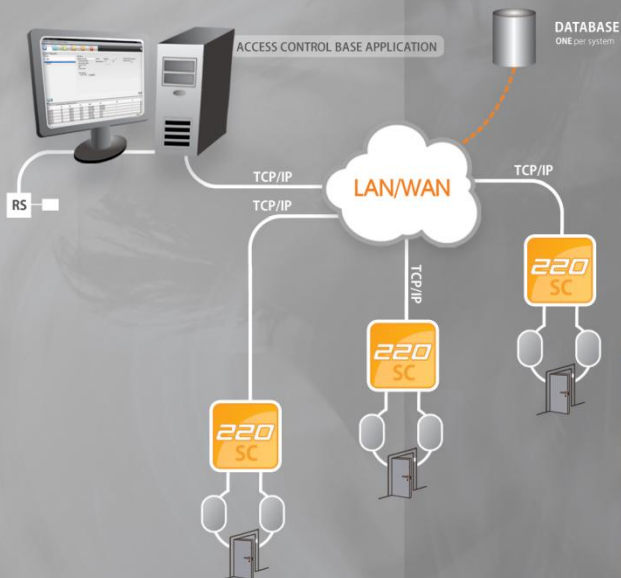
This product conforms to our Warranty details on www.impro.net.

seamless scalability access control

SOFTWARE*

Unlock Options

- Web Employee Enrollment
- Web Visitor Enrollment
- ImproTouch
- Multiple Sites
- Card Design and Print
- Lift (Elevator) Control
- Input and Output Control
- Graphics Client
- ImproVision
- Intrusion Detection
- Reception Control
- Time and Attendance
- Parking Control
- Operator Security



RS485 Option:

- RS485 System Controller comms option as standard.
- TCP/IP shown above.

Identical Controllers

4 feature models for various market needs

Model 1 - IXP220 -1

Single APB Door or 2 non-APB Door System

Model 2 - IXP220 -2

4 APB Door System

Model 3 - IXP220 -3

256 APB Door System

Model 4 - IXP220 -4

Premium multi-site System (256 Doors per Site)



KEY for diagram

- SYSTEM Controllers
 - DOOR Readers - selection
 - Multi-discipline Readers (125 kHz and 13.56 MHz)
 - 125 kHz Antenna Readers
 - Biometric Readers
 - MIFARE Multi-mode Readers (13.56 MHz)
 - Wiegand Readers
 - Vehicle Entry Long Range Readers
 - Extended Range Readers
 - Infrared Readers
 - Drop Box Visitor Tag Readers
 - Time and Attendance Readers
 - TAG REGISTRATION Reader
- * Some features listed are only available in Rev. 2 or higher

Variety of Connectivity

Ethernet - TCP/IP
USB, RS232, RS485

Web-based Reporting

viewable in any web browser
Inter-site Reports
Time Management Reports
Personal Details and Transaction History
General System Status
and Configuration Reports

Redundant Controllers

IXP220 EndUser Back.tif

Figure 1 – System Architecture

This Product Specification Catalogue applies to the IXP220 Software, V1.86.