

IXP220 Software

QUICK START GUIDE

Scope of Document

This document gives a brief overview of the IXP220 System.

Document Conventions

We use the following conventions in this document:



Note – points out extra information



Tip – points out alternative methods to perform a task



Important – points out important information



Warning – points out potential danger to you or the product

Before You Begin

Have the following available:

- An active Ethernet connection to the IXP220 Controller.
- The IXP220 Software Suite.
- The MAC Address and Fixed Address of each IXP220 Controller – on a label bundled with the Controller.

1

Installation

IXP220 Software Installation Procedure

Install the IXP220 Software Suite on a single Host PC as follows:

1. Insert the IXP220 Installation CD into the CD-ROM drive.
2. Select the **Install IXP220 Suite** option.



If the CD does not start up automatically, browse the CD in Windows® Explorer and double-click Setup.exe.

3. Select **English** as the language option.
4. Click the **OK** button.



If no Database Server is present, one is installed. Follow the onscreen instructions for this.

5. At the Introduction screen, click **Next**.
6. At the Licence Agreement screen, select the **I Accept the Terms of the Licence Agreement** radio button.
7. Click the **Next** button.
8. At the Choose Install Folder screen, click **Next**.



*If you change the installation directory file path, ensure that you enter **text only, NO spaces**.*



Figure 1 – Install Set Menu

-
- At the Choose Install Set screen, from the **Install Set** drop-down list, make your preferred installation type selection.



An Install Set is a collection of pre-selected applications suitable for specific scenarios. Customize an Install Set option by selecting or de-selecting applications from the list.

- Click the **Next** button.
- Click the **Install** button.
- At the Install Complete dialog, click the **Done** button.



By default Windows® XP (SP2 and SP3) installs a firewall. To keep this Firewall, unblock the TCP Ports thereby allowing functionality of the IXP220 Software. Continue as follows:

- Select **Start>Control Panel**.
- Select the **Windows Firewall** icon.
- In the Windows Firewall Settings dialog, select the **Exceptions** tab.
- Click on the **Add Port** button.
- Unblock the TCP Port** in the Add a Port dialog, by completing the **Name** (for example Impro) and **Port Number** (Ethernet Controllers use 10005) text boxes.
- Select the **TCP** radio button.
- Close the Add a Port dialog, by clicking the **OK** button.
- At the Windows Firewall Settings dialog, again click on the **Add Port** button.
- Set the Ethernet Firebird Port** by completing the **Name** (for example Firebird Service) and **Port Number** (Ethernet communication uses 3050).
- Select the **TCP** radio button.
- Close the Add a Port dialog, by clicking the **OK** button.
- Close the Windows Firewall Settings dialog, by clicking the **OK** button.

Installing the Firebird 2.1 Database Server

A Database Server is required to host the IXP220 Database. If the IXP220 Suite is installed on to a single PC, the Database Server installs automatically. However, if more than one PC is used to host the IXP220 Software, you must install the Database Server manually.



Firebird automatically prompts to install, if a previous version is not detected.

1. As any PC on the network can host the Database Server, select a PC to host the Database Server.
2. Insert the IXP220 Installation CD in the PC's CD-ROM drive.
3. Browse to the **\database\firebird** directory on the IXP220 Installation CD.
4. Double-click **Firebird.exe**.
5. In the Select Language Setup dialog, from the drop-down menu, select your preferred **language**.
6. Click the **OK** button.

Firebird Installation Wizard

1. At the Welcome dialog, review and follow the on-screen instructions.
2. Click the **Next** button.
3. At the Licence Agreement dialog, select the **I Accept the Agreement** radio button.
4. Click the **Next** button.
5. Review the Information dialog, and then click the **Next** button.
6. In the Select Destination Location dialog, select the **Destination Directory**—we recommend that you use the default location of **C:\Program Files\Firebird\Firebird_2_1**.
7. Click the **Next** button.
8. From the drop-down menu, select the **Full Installation of Super Server and Development Tools** option.
9. At the Select Start Menu Folder screen click **Next**.

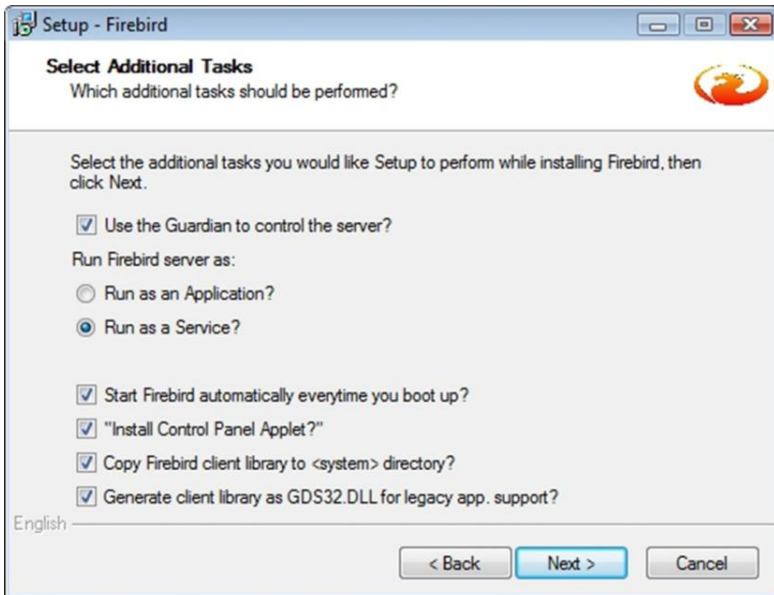


Figure 2 – Firebird Select Additional Tasks

10. On the Select Additional Tasks screen:
 - Select the **Use the Guardian to Control the Server?** option.
 - Select the **Run as a Service?** option.
 - Select the **Start Firebird Automatically Everytime You Boot Up?** option.
 - Select the **“Install Control Panel Applet?”** option.
 - Select the **Copy Firebird Client Library to <System> Directory?** option.
 - Select the **Generate Client Library as GDS32.DLL for Legacy app. Support?** option.
11. Click the **Next** button.
12. Click the **Install** button.
13. Review the Information dialog and then click the **Next** button.
14. Click the **Finish** button.

Installing the USB Registration Interface's USB Driver

IXP220 uses a USB Registration Reader Interface to read Tags. Some Interface versions also provide an RS485 communication link to the Controllers. To install the driver, proceed as follows:



*If there are old USB Drivers on the PC, delete them **before** installing the provided driver.*



*On some PC's, the **New Hardware Found** wizard displays every time you plug in a **USB Registration Reader Interface** with a new USB Serial Number (Fixed Address). If this happens, choose the option to automatically install the unit. The **New Hardware Found** wizard will not display again.*

1. Plug the **USB Registration Interface** into a USB port on the PC. The **Found New Hardware Wizard** displays.
2. Select the **Locate and Install Driver Software (Recommended)** option.
3. Select **I don't have the Disk. Show me Other Options.**
4. Select the **Browse My Computer for Driver Software (Advanced)** option.
5. Click the **Browse** button.
6. In the Browse for Folder dialog, select the **IXP220\USB_Device_Driver** folder.
7. Click the **OK** button.
8. Click the **Next** button.
9. At the Windows Security dialog, select the **Install this Driver Software Anyway** option.
10. Click the **Close** button.

You will notice that the Wizard pops up twice, installing two drivers; one for the **USB Registration Reader** and one for the **COM Port to USB Bridge**.

2

Pre-configuration Procedure

When *all* IXP220 Software components are installed, you need to perform the **Pre-configuration Procedure**. This procedure determines if the hardware communication infrastructure is functioning correctly.

RS485 Communications Infrastructure

1. Using the supplied USB Cable, connect the ImproX RS to the PC.
2. Using the IXP220 Controller's RS485 Controller Port, connect the IXP220 Controller to the ImproX RS.

USB Communications Infrastructure

1. Plug the **IXP220 Controller** into a USB port on the PC. The **Found New Hardware Wizard** displays.
2. Select the **Locate and Install Driver Software (Recommended)** option.
3. Select **I don't have the Disk. Show me Other Options.**
4. Select the **Browse My Computer for Driver Software (Advanced)** option.
5. Click the **Browse** button.
6. In the Browse for Folder dialog, select the **IXP220\USB_Device_Driver** folder.
7. Click the **OK** button.
8. Click the **Next** button.
9. At the Windows Security dialog, select the **Install this Driver Software Anyway** option.



Take note of the COM Port number displayed by the Driver Software Installation dialog.

10. Click the **Close** button.

TCP/IP Communications Infrastructure

Start the Discovery Utility

In Windows®, go to **Start>All Programs>IXP220>Utils>Ethernet Discovery Utility**.



*Alternately, access the Ethernet Discovery Utility direct from the IXP220 Base Application. From the Menu Bar, select **Hardware>Unit Discovery**.*

View all Available Controllers

To view all the IXP220 Network Controllers on the local subnet:

1. On the Menu Bar, go to **Network>Search Local Subnet**.
2. If the Discovery Application fails to find any Devices, at the **Device Not Found** dialog, click the **OK** button.
3. On the Menu Bar, go to **Network>Advanced Local Search**.



*By selecting **Advanced Local Search**, you may:*

1. *Select the correct **Network Interface** (only displayed where more than one exists).*
2. *Enter the correct **Subnet Mask**.*

If the search returns Controller details, then the Discovery Application (while running) retains the Network Interface and Subnet Mask information captured, for further searches. You may however, use the Advanced Local Search feature again during the session for further searches using different search criteria.

4. At the Select Network Interface dialog, select the relevant Network Interface, if more than one displays.
5. Click the **OK** button.


-
6. In the Input dialog, in the textbox, enter the **Subnet Mask** for your network.
 7. Click the **OK** button.
 8. Wait for the Controllers to display.



Sort the information displayed in either ascending or descending order by selecting the column header. The arrow displayed in the column header indicates whether sorting is ascending or descending, and the column on which the sort took place.

View a Specific Controller


To view a specific Controller:

1. On the Menu Bar, go to **Network>Search IP**.
2. In the **Enter IP Address** dialog, enter the **IP Address** of the Controller you're searching for.
3. Click on the  button.
4. Wait for the Controller to display.

Secure Logon



*The default password is **masterkey**, for improved security we recommend that you change this password.*

1. In the **Device Password** dialog, enter your **password**.
2. Click on the  button.

Configure IP Addresses



If you do not know your Configuration Settings, contact your Network Administrator.



If a DHCP server is present, IP Addresses are dynamically assigned initially. Obtain a suitable IP Address from your Network Administrator. A static IP Address is essential for the Controller because a DHCP Server may assign a new IP Address resulting in the Software losing communications.

Configure a Controller's IP Address settings as follows:

1. In the **Ethernet Discovery Utility** window, select the Controller for configuration.
2. From the Menu Bar, select **Network>Configure IP**.
3. **Logon** if requested (see page 9).

Device MAC Address	00-1A-6E-00-0B-51	
Device IP Address	192.1.0.238	<input type="checkbox"/> Static
Gateway IP Address	192.1.3.2	<input type="checkbox"/> Static
<input checked="" type="radio"/> Subnet Mask	255.255.252.0	<input type="checkbox"/> Static
<input type="radio"/> Subnet Host bits	0	
Device Name	IXP220___	
Product Name	IXP220___	
Device Discovery Version	01.00	

Force Update Update Cancel

Figure 3: Configuration Settings Dialog

4. Assign the IXP220 Controller to EITHER a local or non-local Subnet as follows:



Local Subnet refers to the subnet connecting the Controller and the PC (whether running IXP220 or the stand-alone Ethernet Discovery Utility).



By assigning an invalid IP Address, the IXP220 may no longer communicate. Refer to the Controller's Installation Manual for information on restoring factory defaults.

Case 1 (using the integrated Ethernet Discovery Utility)—access the Ethernet Discovery Utility direct from the IXP220 Base Application (see the Tip 1 on page 8). After detection and configuration it's not necessary to assign a Logical Address, as the IXP220 Auto-ID process does this. Therefore it is not necessary to export the settings to a file.

1. In the Device IP Address textbox, enter a **Device IP Address**.
2. Tick the checkbox to set the IP Address to **Static**.
3. In the Gateway IP Address textbox, enter a **Gateway IP Address**.
4. Tick the checkbox to set the Gateway IP Address to **Static**.
5. Continue with *ONE* of the procedures (Subnet Mask or Subnet Host Bits) below:

Subnet Mask

1. Select the **Subnet Mask** radio button.
2. In the textbox, alongside, enter the **Subnet Mask**.
3. Tick the checkbox to set the Subnet Mask to **Static**.

Subnet Host Bits

1. Select the **Subnet Host Bits** radio button.
 2. Enter the number of bits in the textbox.
6. If necessary, amend the supplied Device Name.



*Use the same **site prefix** to name devices belonging to the same site. Example: "**Site 1 – Factory**", "**Site 1 – Testing**".*

7. Ensure the **Force Update** checkbox is **UNCHECKED** when assigning an Address on the Local Subnet. Alternatively, ensure the **Force Update** checkbox is **CHECKED** when assigning an Address on an external subnet.



If the Force Update checkbox remains **UNCHECKED**, the Controller changes the IP Address testing communication on the new Address. If successful, the update is final; if not, the Controller reverts to its old settings.

By **CHECKING** the Force Update checkbox, the Controller changes the IP Address and reboots. In this case, if the Address points outside the Local Subnet, the Controller is not found until it's physically moved to the new location.

Changes to the IP Configuration result in the Controller rebooting on acceptance of the change. The Configuration Settings dialog remains open while allowing the Controller to reboot. On closure of the dialog, the Utility again searches for the Controller and if successful, displays the updated Controller details.


8. Click the **Update** button.



After installing the Controller in its new location, you can find it using the **Network>Search IP** menu option.

Case 2 (using the stand-alone Ethernet Discovery Utility)—use this version of the Ethernet Discovery Utility when installing a Controller at a remote location without prior configuration on the local subnet of the Host PC. Install the Utility on a PC on the Remote Subnet to detect and configure the Controller. Do NOT check the Force Update checkbox. Export the settings to a file for manual entry into the IXP220 Base Application.

Change the Default Password

1. On the Menu Bar, go to **Configuration>Change Password**.
2. **Logon** if requested (see page 9).
3. In the Enter **New Device Password** dialog, in the **Enter New Password** textbox enter a new password (not exceeding 16 characters) for the selected Controller.
4. In the **Confirm New Password** textbox re-enter your password.
5. Click on the  button.

3

Site Configuration Procedure

Open the Software

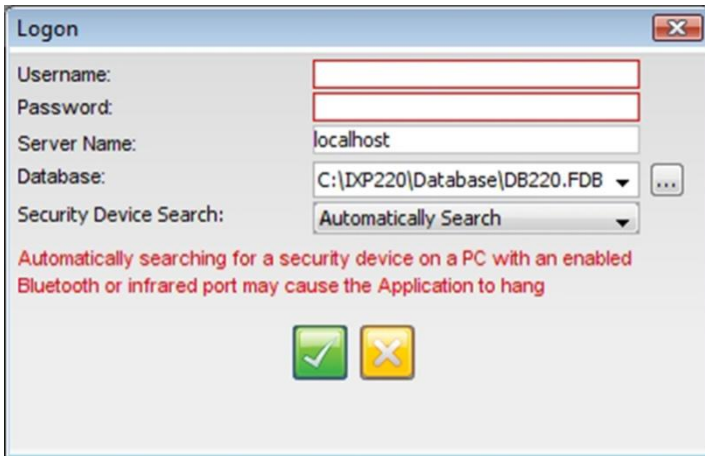



Figure 4 – Login Dialog

1. In Windows®, click **Start>All Programs>IXP220>IXP220**.
2. Enter your **Username** and **Password**. The default username is **SYSDBA** and the default password is **masterkey**.
3. From the **Security Device Search** drop-down list, make your selection from the following choices:
 - **Automatically Search**—for *IXP220-3* and *IXP220-4* installations where an ImproX RS is connected but you are unsure of the COM Port number in use by the ImproX RS.
 - **Enter the COM Port Name**—for *IXP220-3* and *IXP220-4* installations where an ImproX RS is connected and you know the COM Port number in use by the ImproX RS.
Recommended when you have an enabled Bluetooth or Infrared Port. Automatically searching on a computer that has an enabled Bluetooth or Infrared Port may result in the IXP220

application freezing. If you select this choice, enter the COM Port number in the supplied textbox.

- **I do NOT Have One**—for *IXP220-1* and *IXP220-2* installations with no ImproX RS. On first time installation of the IXP220 Software, the **I do NOT Have One** choice is by default selected. In this case, if the site has an ImproX RS connected that's unlocked for a System 3 or System 4 then the IXP220 Software starts up as a **System 1**. This means, no search is performed for the ImproX RS.
4. Click the  button.

Database Version Check

After completing the login action, the **Automatic Database Upgrade Utility** checks the database version. If the Utility confirms the Database is older than that needed by the Software, a Warning dialog tells you an upgrade is needed. Perform the upgrade as follows:

1. At the Warning dialog, click the **OK** button.
2. In the Database Updater dialog, click the **Upgrade** button.
3. At the Message dialog, click the **OK** button.

If you do not upgrade the Database immediately, the IXP220 Software closes.


Hardware Auto-ID

During an Auto-ID, the Base Application polls attached Controllers and Terminals, identifying their **type**, and their **Logical Address**.

After physically connecting and powering up the ImproX Hardware carry out the Auto-ID process.





Hardware detected for the first time receives a Logical Address. This Logical Address does not change, thus ensuring continuity in the Database.

1. At the **Auto-ID is Recommended for New Sites** dialog, click the **Yes** button.
2. At the **Confirm Auto-ID** dialog, click the **OK** button.
3. If you connected your Controller to the Host PC via an **ImproX RS**, from the Auto ID Communications Configuration dialog, select the appropriate Com Port record.
4. If you connected your Controller to the Host PC via **TCP/IP**, click the  button.
5. In the Channel column, replace the default IP Address details with the IP Address of your Controller.
6. Press **Enter**.



*Alternatively If your Controller does not appear in the **Auto ID Communications Configuration** dialog continue as follows:*

1. Click the  button.
2. In the Input dialog, enter the **Subnet Mask details for your Network**.
3. Click the **OK** button.

7. From the list of devices displayed, in the **AutoID Channel** column, make your selection.
8. Click the  button.



Connecting Controller A via the network and Controller B (connected to Controller A) by RS485, lets you configure both Controllers at the same time.



*After performing Auto-ID, review the log of identified units by selecting **Hardware>Latest Auto ID Log** from the Menu Bar. This feature lets you check whether Auto-ID has missed any terminals, possibly because of a wrong DIP-switch setting or faulty communications.*

Firmware Version Confirmation


After physically connecting, powering up and identifying the ImproX Hardware, confirm whether a Firmware upgrade is required.

The Firmware Revisions dialog indicates the Unit Type along with the Latest Firmware revision available and the Current Firmware version in use by the unit. Access the Firmware Revisions dialog by selecting **Hardware>Firmware Version Check** from the Menu Bar.



See the *Software Installers Guide, Part VII – Utilities* for more information on the **Firmware Upgrade Utility**.

Configure the Site


1. If not already selected, select the  Page Tab.
2. In the Configuration Pane, complete the **Site Name** textbox.
3. Complete the **Site Street/Physical Address** text area.
4. Select either the **Standard Configuration** or the **Advanced Configuration** radio button. The instructions below continue as for an Advanced Configuration. For a Standard Configuration ignore references made to fields that appear greyed out.
5. In the **Communications** group, from the **Communication Schedule** drop-down list select a Communication Schedule.
6. If you wish to communicate only with the selected site, select the **Communicate Exclusively** checkbox.
7. From the **Poller Configuration** group, click the **Set Parameters** button.
 - Set the **Polling Frequency** (seconds)—how often Doors (Locations) get polled for their status.
 - Set the **Door Open Time Limit** (seconds)—normal duration Doors (Locations) remain open.
8. From the **Time Zone** drop-down list, make your selection.



Set the **Apply Daylight Saving** option as follows:

1. Alongside **Apply Daylight Saving**, click the **Yes** radio button.
 2. Click on the **Set Daylight Saving** button.
 3. In the **Set Daylight Saving** dialog, set the **Time Offset**, **Start Date**, **Start Time**, **End Date** and **End Time**.
 4. Click the button.
9. Click the button.

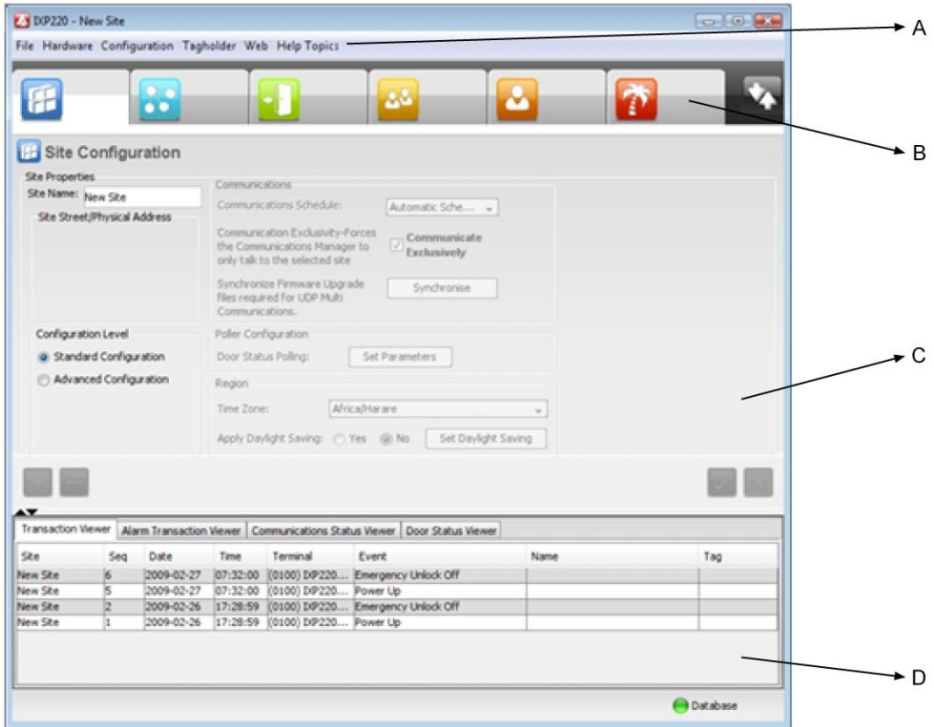
Controller Configuration

1. Select the  Page Tab.
2. In the **Controller Name** textbox, assign your Controller a suitable name.
3. From the **APB Configuration** group, adjust the following settings:
 - Set the **APB Lockout Delay on Entry** (minutes)—the same Tagholder may not pass this same entry access point within the specified time period.
 - Set the **APB Lockout Delay on Exit** (minutes)—the same Tagholder may not pass this same exit access point within the specified time period.
4. Enable or disable Controllers as per your requirements, by selecting or de-selecting the **Controller Enabled** checkbox.
5. Click the button.

4

Using the IXP220 Software

IXP220 User Interface



ConfigOverview_01-300.jpg

Figure 5 – IXP220 Work Area



The IXP220 Base Application only displays as shown in Figure 5 where you select the standard Windows® Vista (Business or Ultimate) and XP Professional themes. Using other non-standard themes results in IXP220 displaying incorrectly.

The following parts comprise the IXP220 Base Application's interface:

A—Menu Bar

Contains drop-down menus that let you navigate between different operations in the IXP220 Base Application. These menus include: File, Hardware, Configuration, Tagholder, Web and Help Topics.

B—Page Tabs

Switches between the different configuration settings, for example:


- Site Configuration
- Controller Configuration
- Door Configuration
- Access Group Configuration
- Tagholder Configuration
- Holiday Configuration

C—Configuration Pane

Lets you adjust various settings based on your selection from the Page Tabs or Menu Bar.

D—Viewer Pane



Click the  button (placed alongside the Page Tabs) to adjust the Base Applications layout:

- **First Click**—closes the Viewer Pane, opening the Configuration Pane in Full Screen Mode.
- **Second Click**—opens the Viewer Pane in Full Screen Mode.
- **Third Click**—returns the Base Application to Split-screen Mode, showing both the Configuration Pane and the Viewer Pane.

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.

Using Help



*The **Context Sensitive WebHelp** provided with the IXP220 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. If, however, you want WebHelp specific to the active Configuration Pane, continue as follows:*

1. *Move your Mouse Pointer into the Configuration Pane.*
2. *Anchor your Mouse Pointer by clicking the left-hand button on your mouse, thus ensuring the Pane has focus.*
3. *Press the **F1** key on your keyboard.*

The IXP220 System has integrated **context sensitive** WebHelp. Information not covered in this guide is covered in detail in the WebHelp.

Activate the WebHelp as follows:

1. In Windows®, go to **Start>Programs>IXP220>IXP220**.
2. From the Menu Bar select **Help Topics>Online Help**.

Site Setup

Perform Site setup in the following order:

1. Site Configuration
2. Controller Configuration
3. Door Configuration
4. Access Group Configuration
5. Tagholder Configuration
6. Holiday Configuration
7. Full Upload

For detailed information on Site setup, please refer to Part III of the IXP220 Software Installation Guide. Or alternatively, refer to the WebHelp included with the IXP220 Software.

Extra Information

Further information is available at the following resources:

- **IXP220 Software Installation Guide** (ISW300-0-0-GB-XX).
- **IXP220 WebHelp** (ISW390-0-0-GB-XX).
- **IXP220 Software Product Specification Catalogue** (ISW350-0-0-GB-XX).
- **Ethernet Discovery Utility Software User Manual** (ISW301-0-0-GB-XX).
- **ImproX IXP220 Controller Product Specification Catalogue** (ISC350-0-0-GB-XX).
- **ImproX IXP220 Controller Installation Manual** (ISC300-0-0-GB-XX).



The referenced documents are available for download at www.impro.net. Alternatively, contact your Impro dealer for a copy.

User Notes

User Notes

This manual is applicable to the IXP220 Software Suite V1.80 (upwards).
(The last two digits of the Impro stock code indicate the issue status of the product).

ISW302-0-0-GB-00

Issue 01

Mar 2009

IXP220\Software\English Manuals\LATEST
ISSUE\220QSG-swm-en-01.docx