

TCP-IP Communicator



Instruction Manual

Contents

Introduction	3
Connecting the unit to a Simplicity Panel	4
Preparing to configure the TCP-IP unit	5
Configuring the TCP-IP Communicator	7
Connecting the TCP-IP Communicator to a network.....	12
Configuring the Zeta Fire IP Alarm Panel software.....	13
Running the Zeta Fire IP Alarm Panel Software.....	17
Trouble shooting.....	20
Known issues running on Windows 7	21

Introduction

The Zeta TCP-IP remote monitoring system has been designed to allow a simplicity panel to report all system events to a remote PC. This includes alarms, pre-alarms, loop faults, general faults, panel access (key on), menu access, changes to loop, changes to clock etc. In some instances, not all of this information is desirable, so the system can filter for just the important information.

The Zeta TCP-IP remote monitoring system consists of 2 parts.

Firstly, there is the TCP-IP interface itself. This is a module that connects to the serial port of a Simplicity fire alarm panel, and then connects into a LAN.

Secondly, there is a piece of software that is installed on the PC to which the TCP-IP interface will forward event messages.

The system can essentially run in 2 ways.

LOCAL NETWORK REPORTING

If the PC to monitor the system is on the same network as the interface, the system can be configured to report to the default network IP addresses of 192.168.xx.yy. Setting up this type of system is very straightforward.

INTERNET REPORTING

The software is designed for monitoring several Simplicity panels, which may be spread over several sites. Such a system is likely to be on several different "local networks".

With this type of system, the unit is configured to report to the external IP address of the monitoring PC, and it is likely that the routers on each network will need to be configured to allow access to the required ports. (Consult your router manual for information on this)

The system uses ports 20000 and 10001, with further interfaces using ports 10002, 10003, 10004 etc.

Connecting the unit to a Simplicity Panel

The Interface connects to the simplicity panel's RS-232 port using 4 cores as shown below.

SIMPLICITY	IP-COMM
RX	TX2
TX	RX3
GND	GND5
-	DTR4
-	DSR6
DSR	12V
-	SHIELD

Configuration Jumpers

J10 – OPEN

J11 – Not used

J18 – Not used

The Interface also connects to the simplicity's Aux Power connection.

As this is an RS232 connection, this wire should be limited to a metre or so.

Preparing to configure the TCP-IP unit

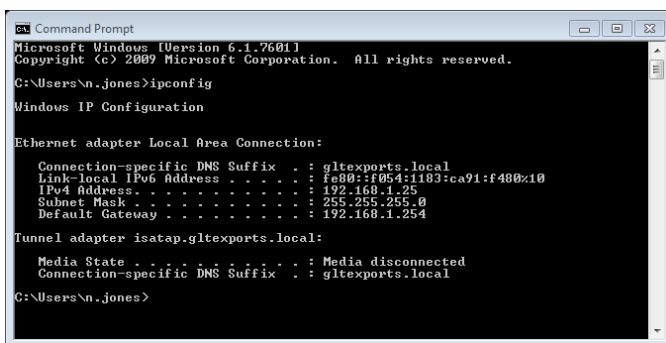
The TCP-IP communicator must be configured using the LANTRONIX configuration utility. Firstly download and install this utility from the zeta alarm systems website.

The TCP-IP Communicator comes configured with a default IP Address of 192.168.1.100. In order to configure the unit, it must be connected to a PC that can see this IP address (IE in the same subnet)

The options to connect are:-

1. If your network uses the 192.168.1.xxx subnet, then the TCP-IP communicator can just be plugged into the network
2. If your network uses a different subnet, then you can either:-
 - a. Temporarily adjust the computer's subnet to include the TCP-IP communicators address (EG change subnet mask from 255.255.255.0 to 255.255.0.0)
 - b. Temporarily adjust the computer's IP address to match the range of the TCP-IP communicator. (This is probably best done on a laptop, or a PC that is not usually connected to the network.) Then connect the PC to the TCP-IP UNIT EITHER with a CROSSOVER NETWORK CABLE, or via a NETWORK SWITCH

To check the IP address of a PC, open a DOS window and type IPCONFIG. You will see something like:-



```
Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\N..jones>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

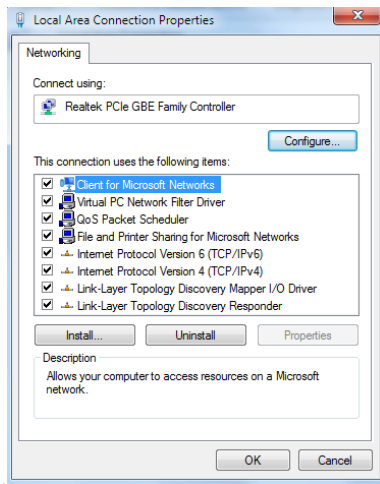
    Connection-specific DNS Suffix . : gltexports.local
    Link-Local IPv6 Address . . . . . : fe80:f054:1183:ca91:f480:10
    IPv4 Address. . . . . : 192.168.1.25
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.254

Tunnel adapter isatap.gltexports.local:

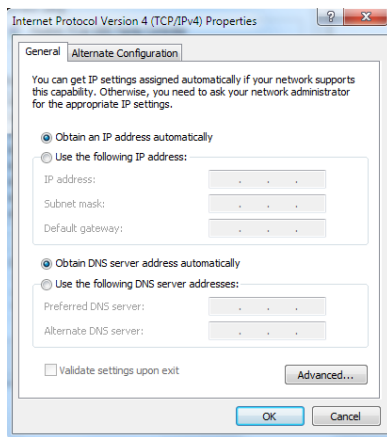
    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . : gltexports.local

C:\Users\N..jones>
```

Altering a computers TCP/IP settings will depend on which version of windows is being used, but it is generally found by selecting the control panel, followed by network settings Finding the network adapter icon, right clicking on it and selecting properties

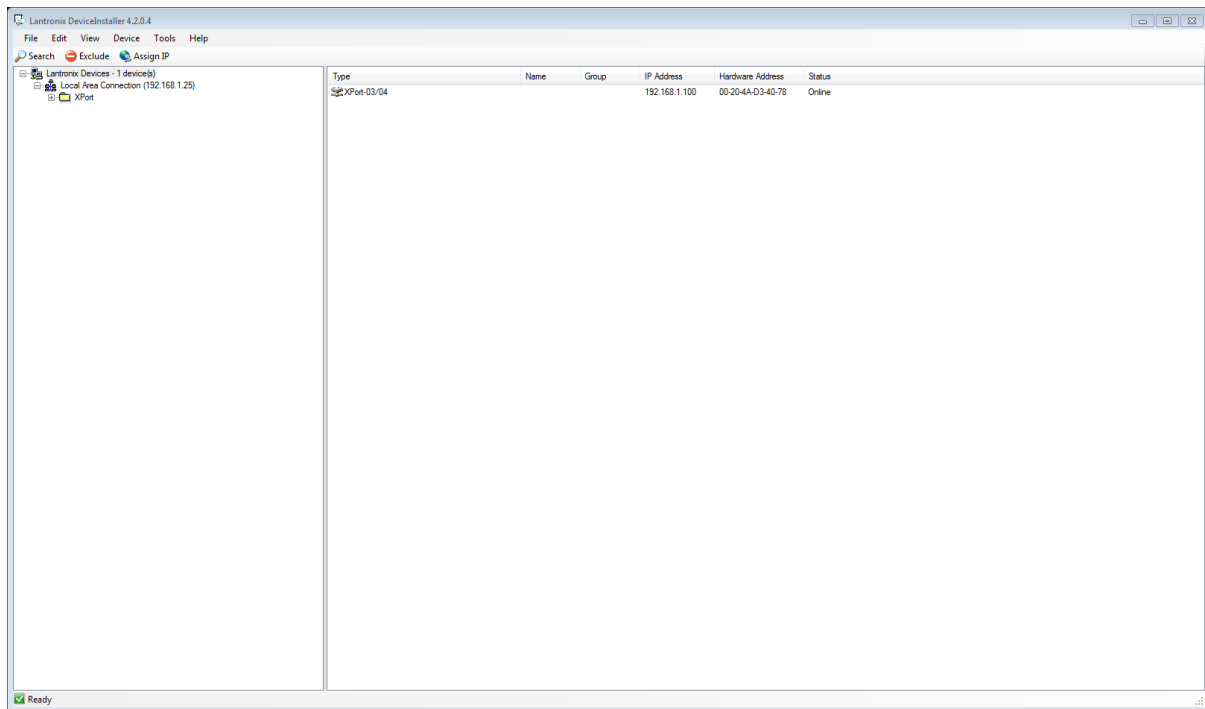


Then click on internet Protocol 4, and then click properties button.

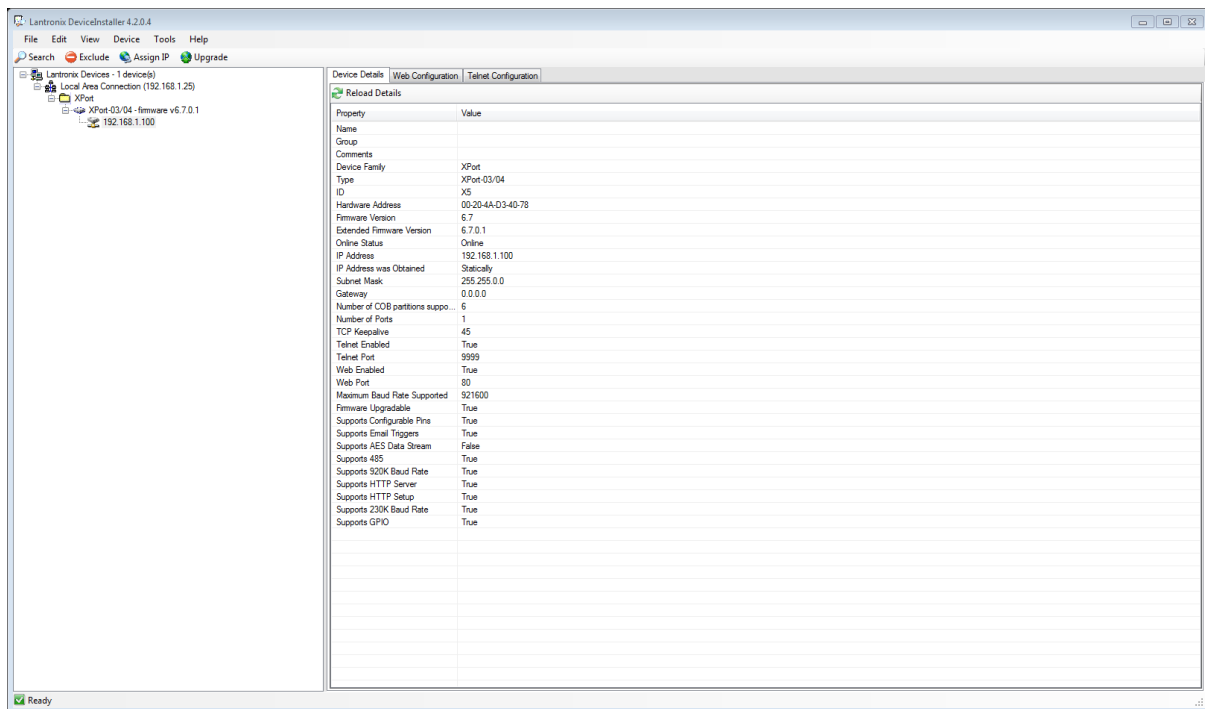


Configuring the TCP-IP Communicator.

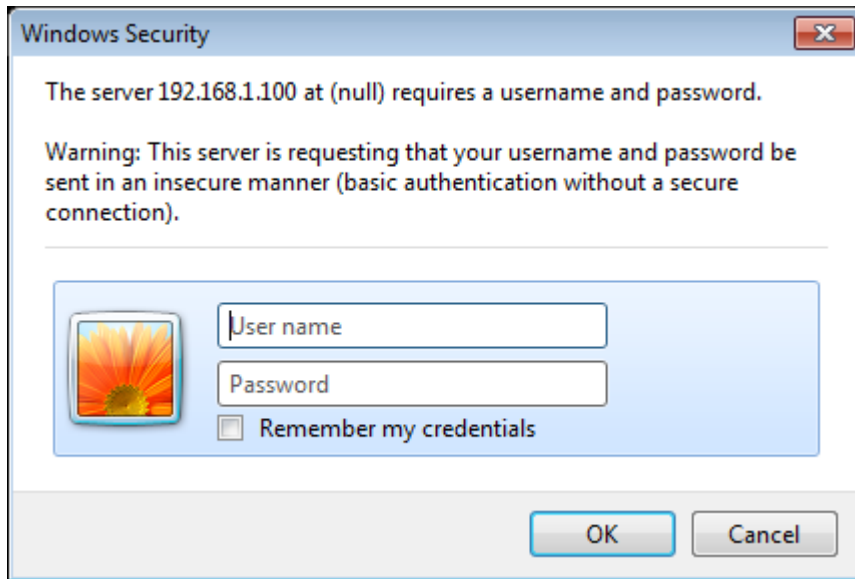
Open the Lantronix Device installer utility. After a few seconds, the program will display a screen similar to below. The left hand panel shows the IP address of the PC. The right hand panel shows the TCP-IP addresses of any units connected to the network. Click search to refresh the list.



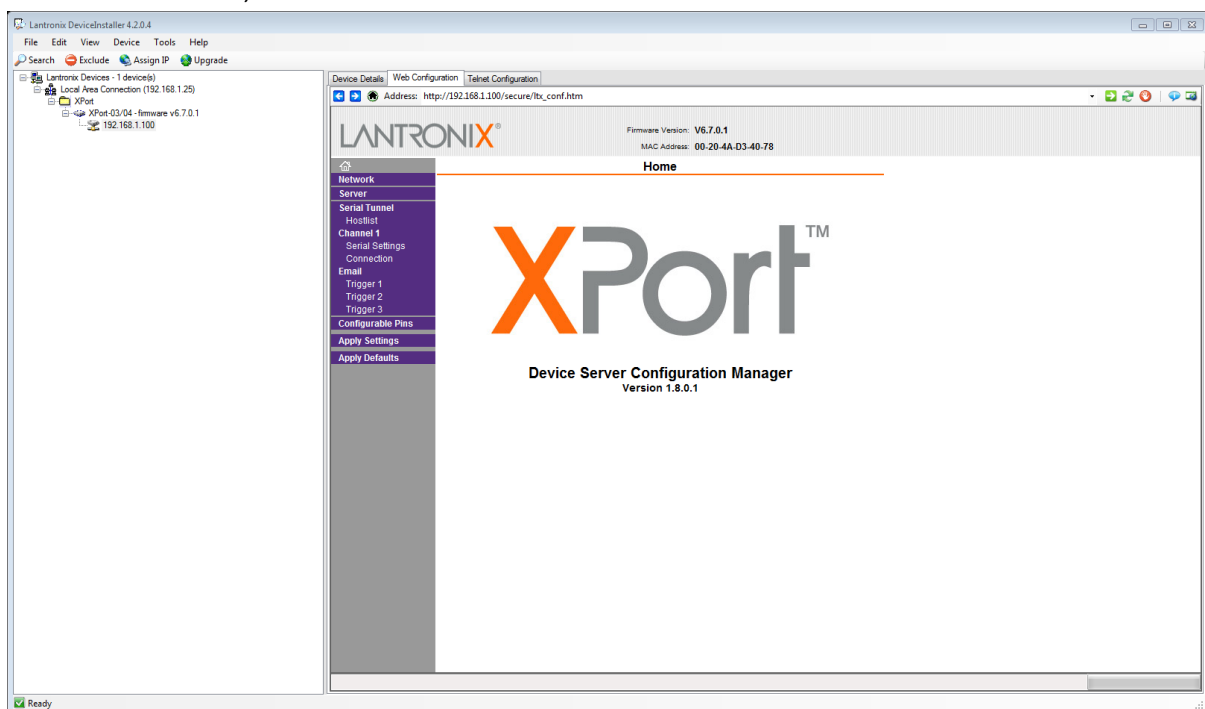
Click on the XPort icon for the TCP-IP unit, and its configuration information will be displayed



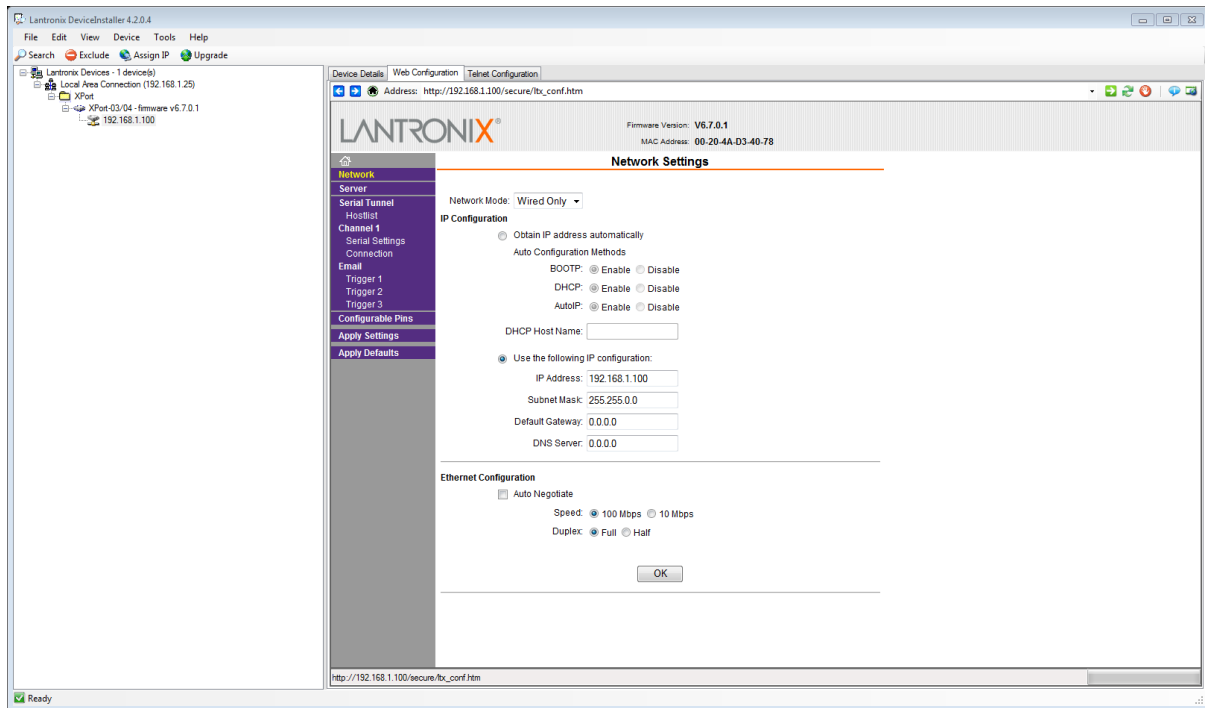
Click on the Web Configuration tab, then press the green GO arrow to display the unit's configuration web page. The unit will prompt for a User Name & password.



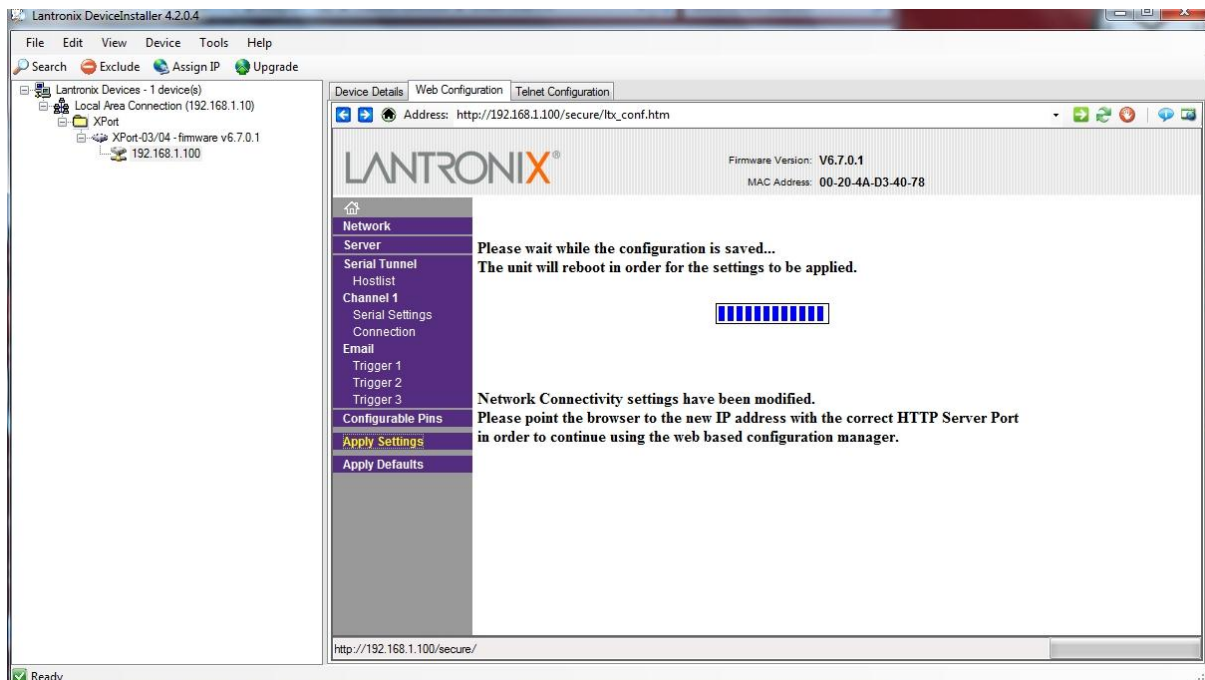
The default setting is blank, so press OK. If you decide to add a password, store it carefully to allow future maintenance, and access to the unit.



Click on the network menu. The network settings of the TCP-IP communicator can be set here. For a local network, set the IP address and subnet mask. If the unit will communicate to a remote PC across the internet, the gateway (Router) address and DNS server should also be added.

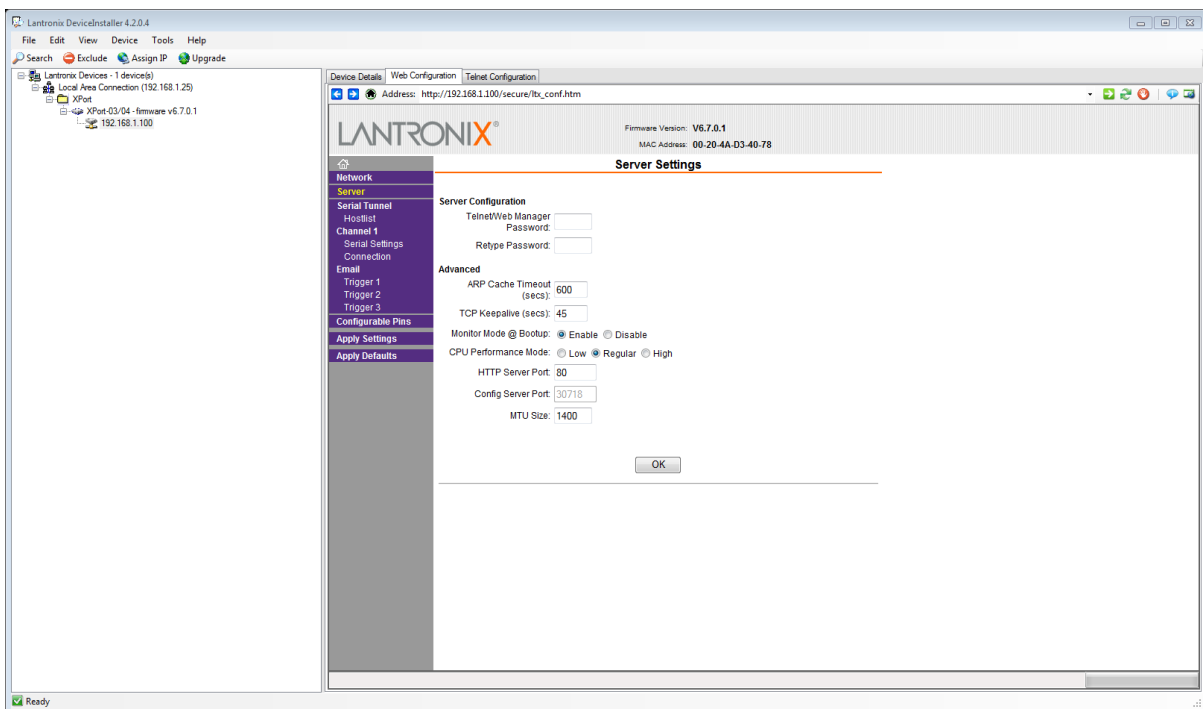


When finished, click OK, then click Apply Settings to save any changes. The following window is shown.

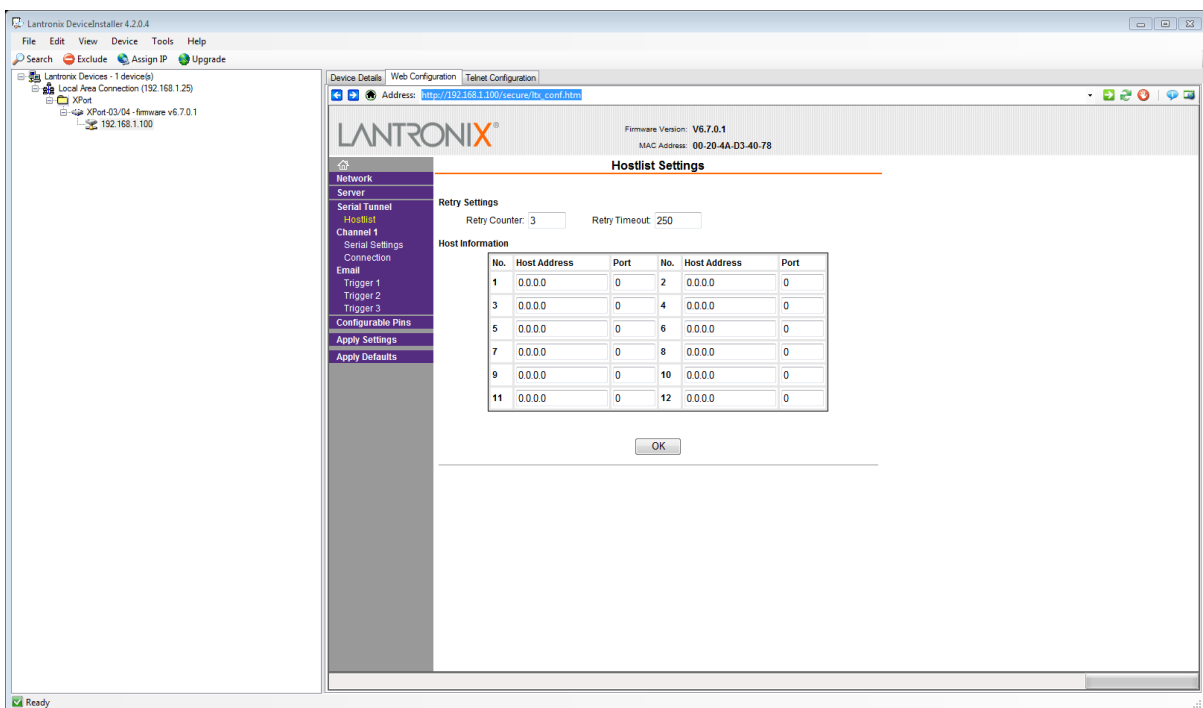


If the unit's IP address has been changed, you will need to repeat the instructions to return to the devices web page.

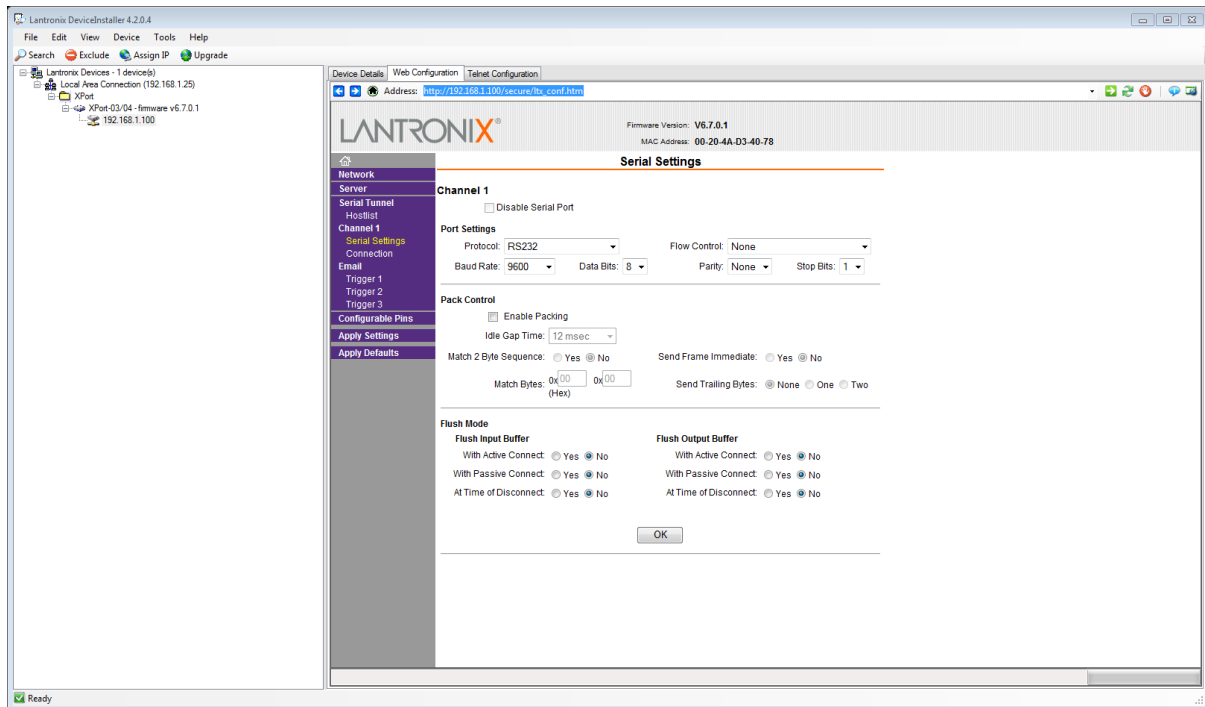
There should be no need to make changes on the server menu (default is shown below)



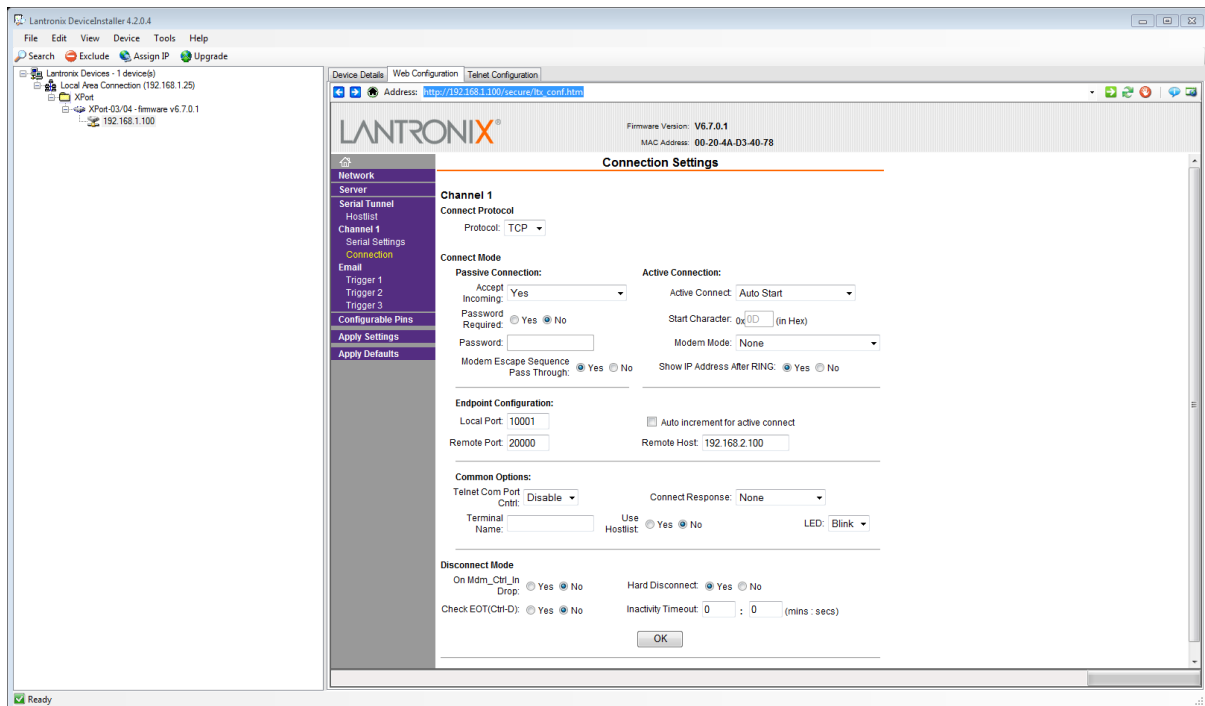
There should be no need to make changes on the Serial Tunnel/Hotlist menu (default is shown below)



On the Channel 1/Serial Settings page, check that the port setting is set to RS232, 9600,8,n,1, with no flow control. Click OK & Apply settings if necessary.



On the Channel 1/Connection page, check that **ACTIVE CONNECT is set to Autostart**. Enter the IP address of the receiving PC, and check that the local port and remote port are correct. Local port = 10001,10002,10003, etc incrementing by 1 for each successive TCP-IP communicator unit connected to the system, and the remote port will be 20000. Click OK & Apply settings if any changes have been made.

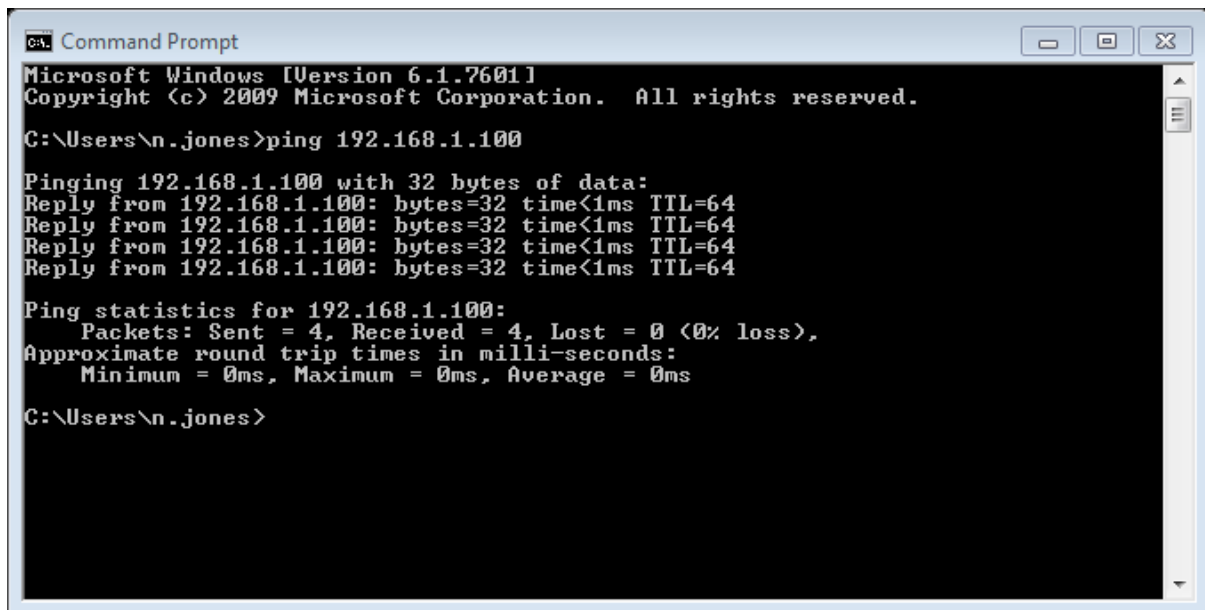


The Email Trigger and configurable pins sections are not used on the TCP-IP communicator.

Connecting the TCP-IP Communicator to a network

If the communicator was configured on a stand-alone PC, it can now be connected to the building's network. At the PC that will monitor events, run the lantronix software. If the software sees the unit and reports it as online, then the connection is working.

The connection can be double checked with the ping command to the units IP address



```
C:\> Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\n.jones>ping 192.168.1.100

Pinging 192.168.1.100 with 32 bytes of data:
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\n.jones>
```

The network link has now been established and the main monitoring software can be installed and configured.

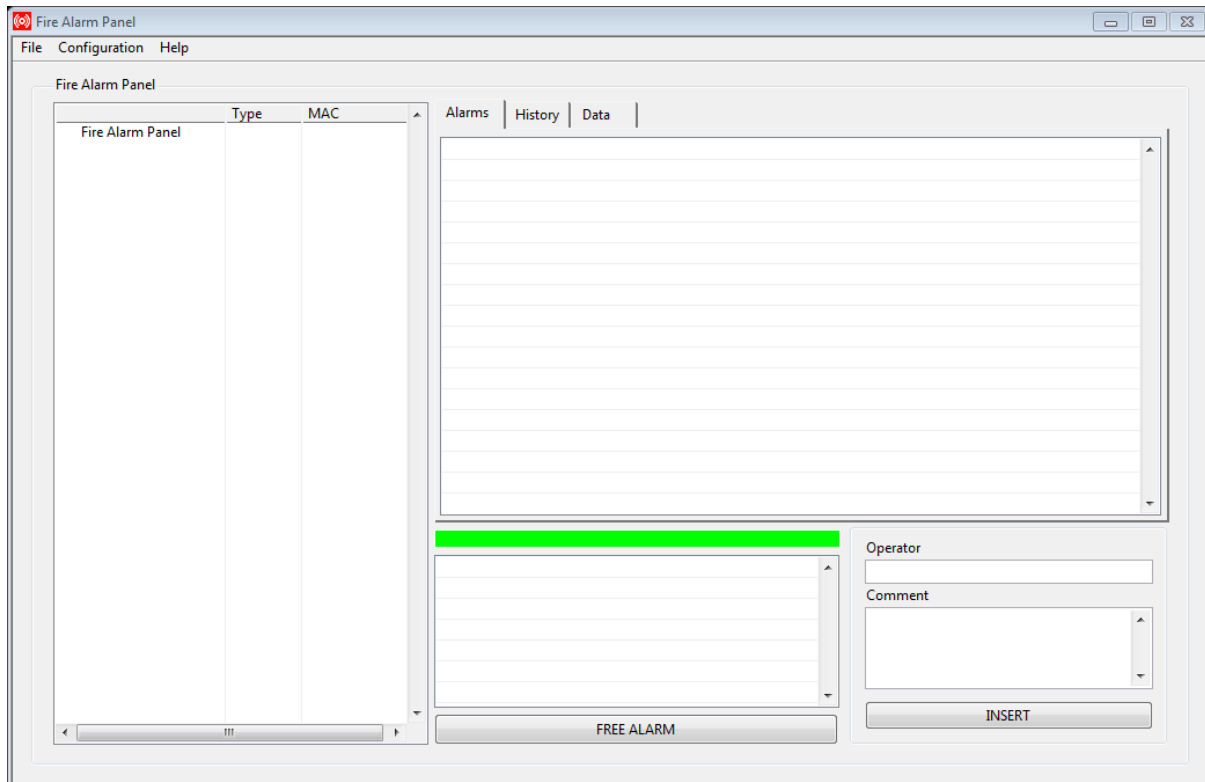
Remember: If you have altered the IP address, or subnet mask of your PC, in order to program the TCP-IP interface, you should set it back to the previous value.

Configuring the Zeta Fire IP Alarm Panel software

Download the Zeta Fire IP Alarm Panel software from the ZetaAlarmSystems.com website, and install as prompted.

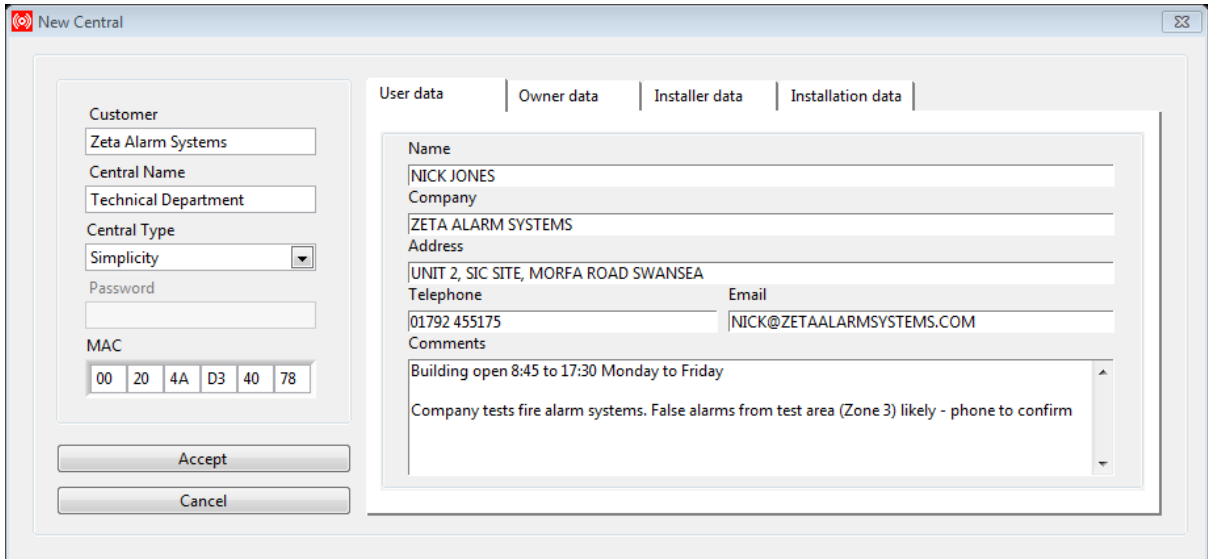
Run the software. Depending on your computer set-up, the firewall may show a warning. For this software to work, you will need to allow access.

It will then display the following screen.

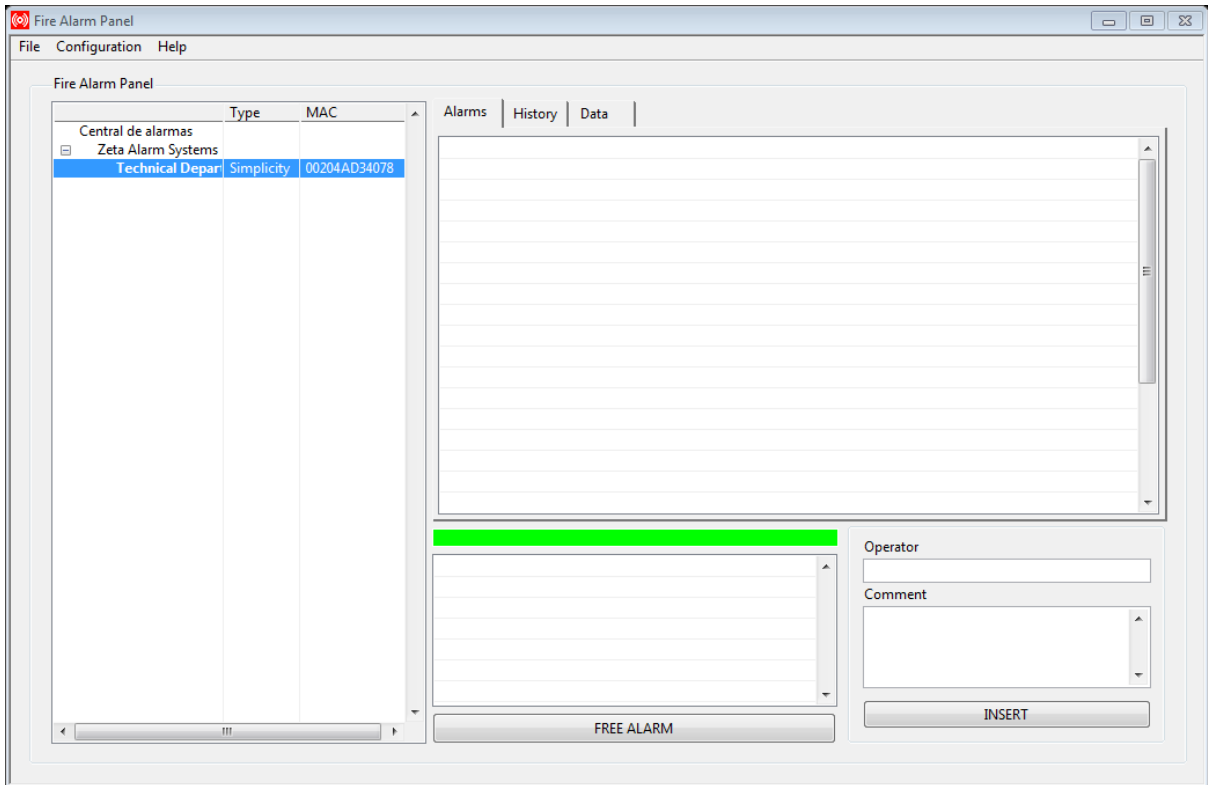


Note that as this software supports several languages, the language may be set to another setting. The second menu, last item is the language option. Select the correct language from here if required.

From the menu, select Configuration/New Central. The screen will ask for configuration info. Note that if a customer has several panels, make sure the customer name on each is identical, so that they can be grouped. The MAC address will be printed on the network connector of each TCP-IP unit. Each unit will have a different number, and this number should be entered into the MAC address field.

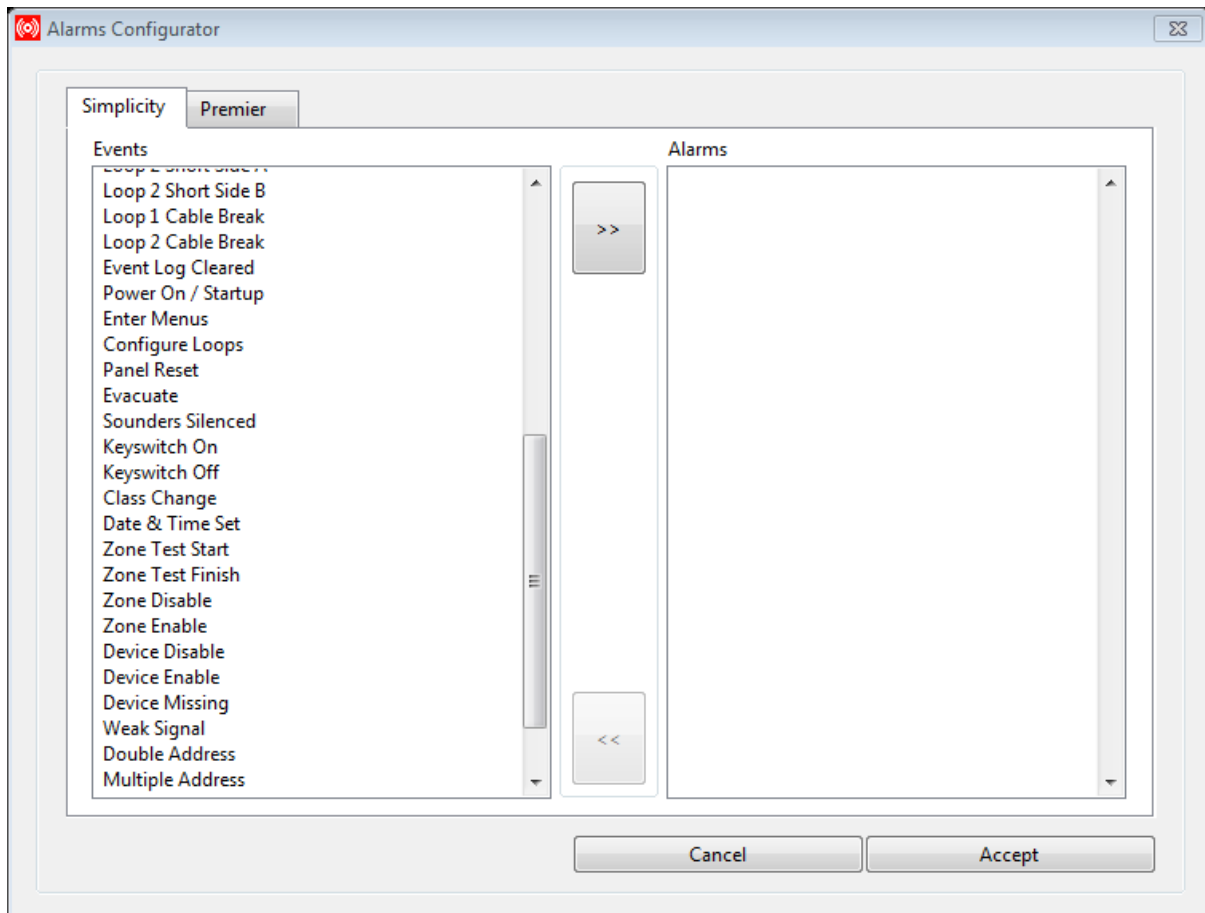


The software allows 4 sets of contact details to be logged for each panel. The comments section is useful for noting site information which may be useful in the event of an alarm.



Add extra Simplicity panels as required.

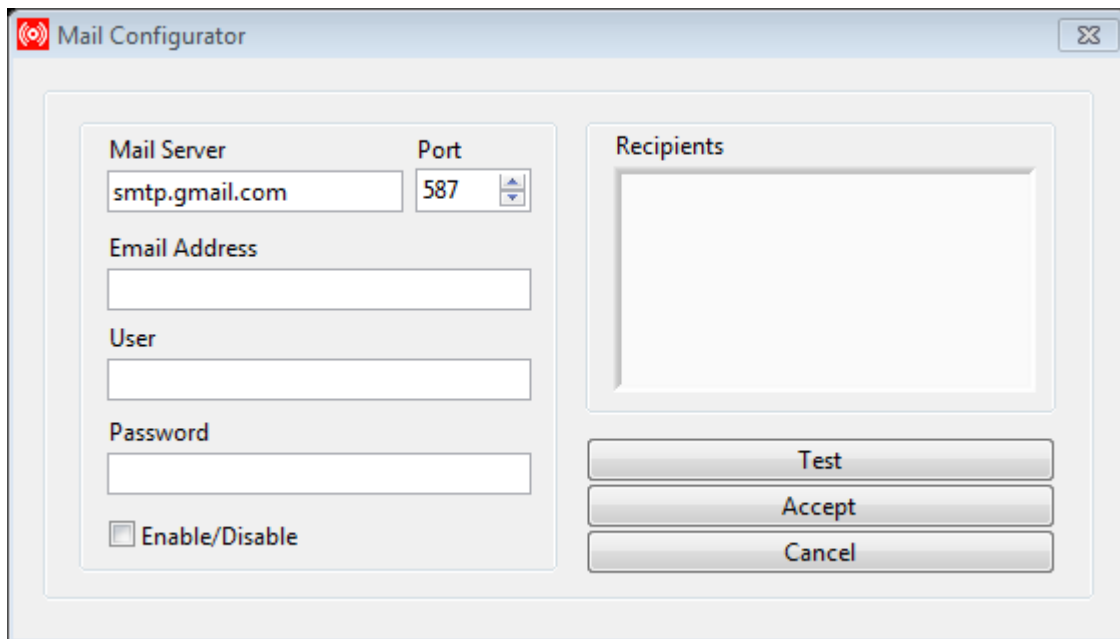
As the Simplicity reports various system events as well as alarms & faults (Eg key access, or setting the clock), the software provides a filter to choose which events will be reported as alarm events. From the list below, press >> to move an event to the alarm list. Select all events that you want reported as alarms, then press Accept.



Any events not selected as alarms will still be displayed on the HISTORY tab, but will not flag an alarm.

The system should now be connected. Create an event on the simplicity panel to check that it is reported at the monitoring PC.

The System can also be configured to send an email message. Select Configuration/Email, and enter the details of the email account that the alarm message should be sent to.

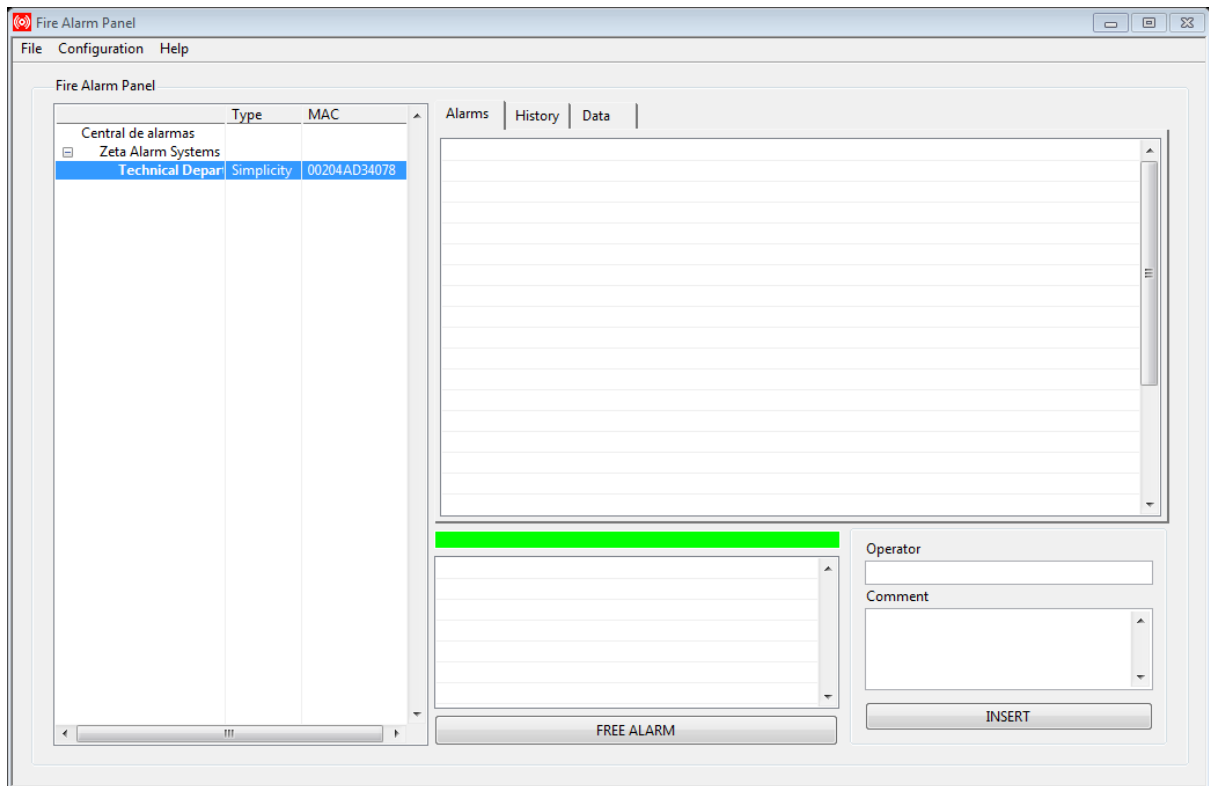


The image shows a 'Mail Configurator' dialog box with the following fields and controls:

- Mail Server:** Text input field containing 'smtp.gmail.com'.
- Port:** Spin box containing '587'.
- Email Address:** Text input field.
- User:** Text input field.
- Password:** Text input field.
- Enable/Disable:** A checkbox that is currently unchecked.
- Recipients:** An empty list box.
- Buttons:** Three buttons labeled 'Test', 'Accept', and 'Cancel' are located at the bottom right of the dialog.

Running the Zeta Fire IP Alarm Panel Software

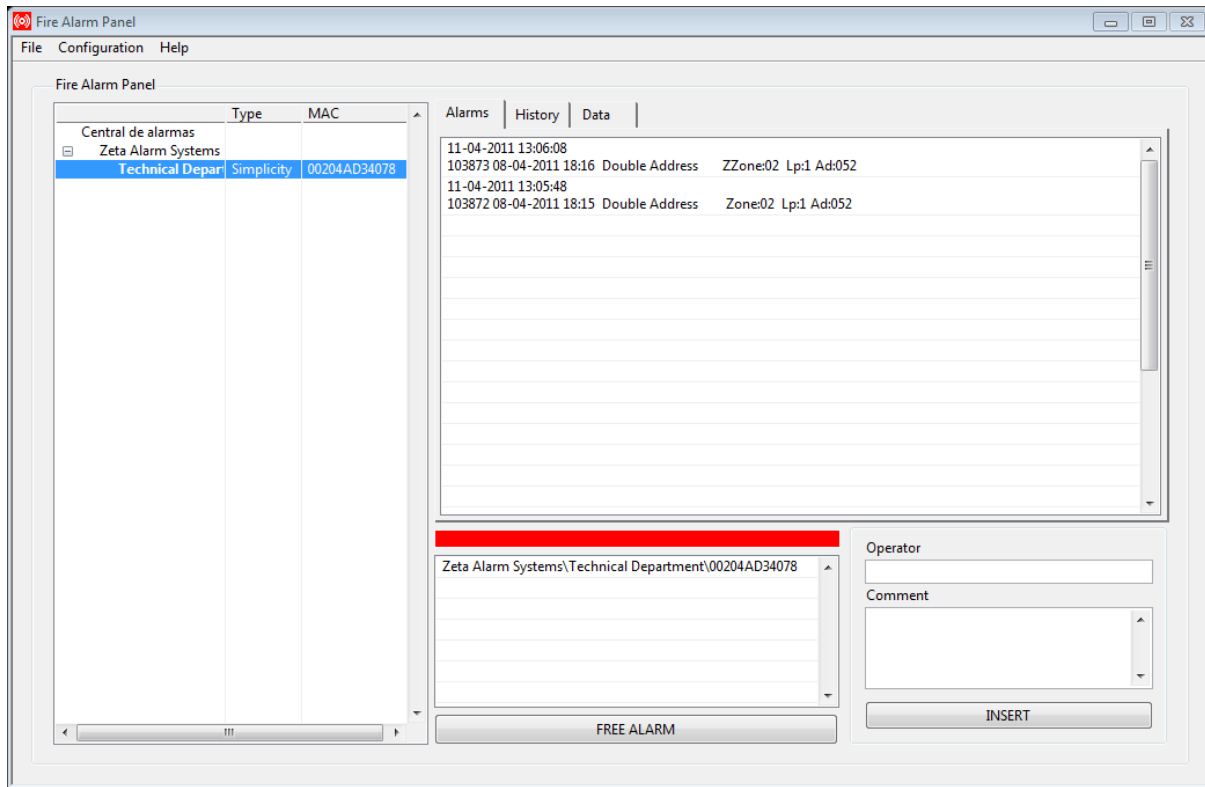
The Quiescent state of the Zeta Fire IP Alarm Panel software is shown below.



The panel name turns green to show that the system is on line, or red if it is off line. (But if only one panel is configured, it will be permanently highlighted, so the colour is not visible)

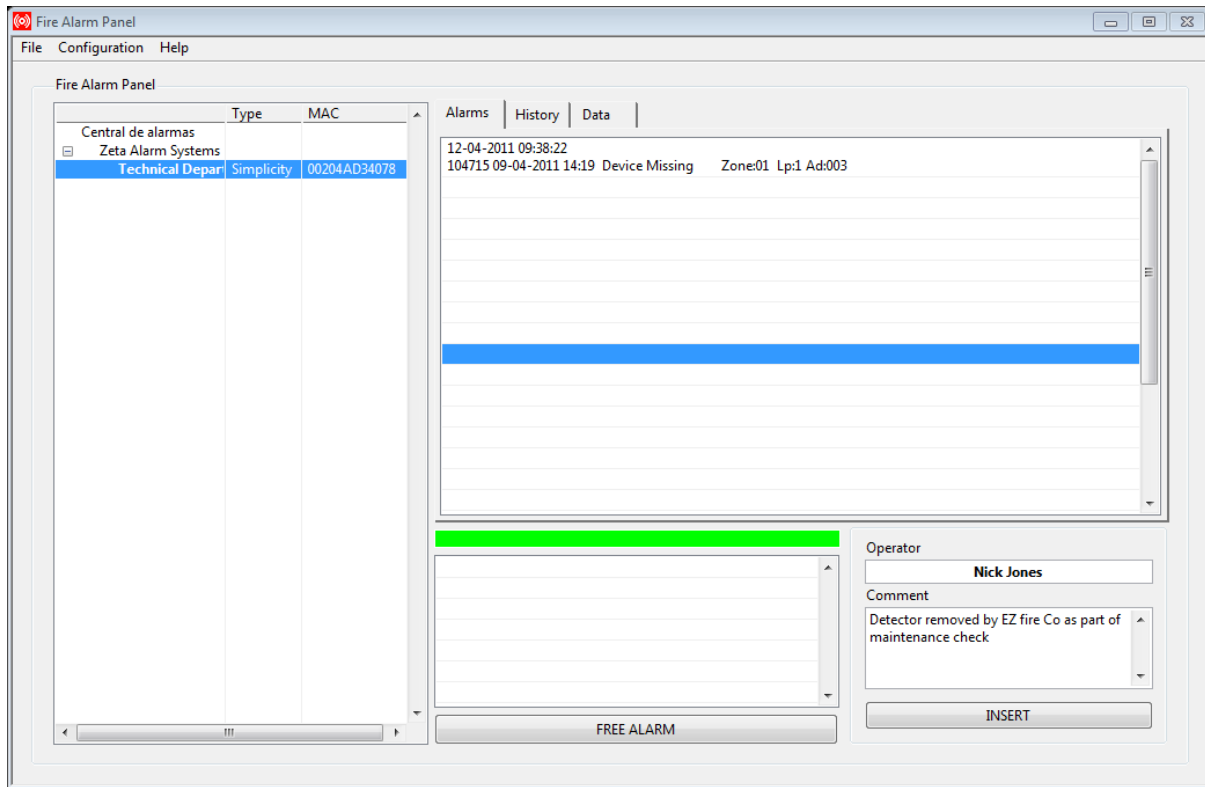
When there are no current alarms, the system status indicator is a green bar, to show that everything is OK.

If there is an event, this status indicator turns red to show that something has happened. The panel (or panels) that have signalled an event will be listed in the window below the system status indicator bar. It is displayed as "Company"/"Panel"/MAC address



After the operator has taken the relevant action (Such as check with building security, contact the maintenance company etc) he can select the panel and click free alarm. This returns the status back to normal when all events are cleared.

The operator can insert a comment at any time, recording action taken for each event. They can type their name or ID code into the operator field, and type a comment in the comment field, then click insert.



The system stores all events, including operator comments, in system log files. These are stored in a history folder in the Program files directory. To access them, click File / Explorer.

The log files are stored in the following structure:-

Customer/panel/date

So there is a folder for each customer name. Within each folder, there is a sub folder for each panel. And within these folders the events are stored for each date, allowing easy access to events on a certain date.

Trouble shooting

Configuration settings

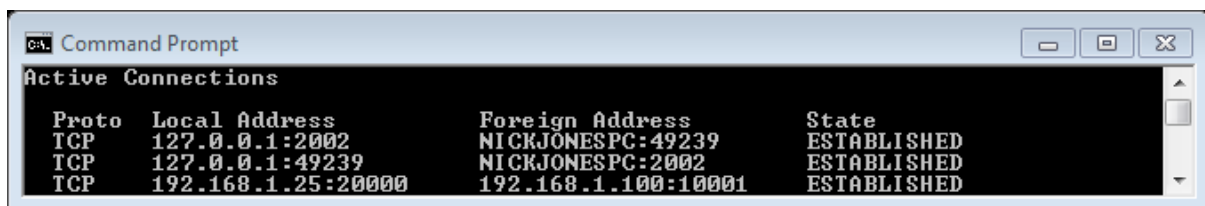
Recheck that the following settings have been made in the Lantronix configuration software and saved:-

- The IP address of the Communicator
- The Destination IP address of the host PC
- The communication port settings (20000 and 10001)
- That the serial port is set to 9600,8,n,1,no flow control
- That the Active connect setting has been set to autostart

Port settings

The TCP IP communicator has been designed to be as straightforward as possible to configure. However due to the nature of it's operation, the software will usually be blocked by default by most firewalls & routers.

To check if the software can communicate, open a command line window & type netstat. This will bring up a list of all network connections. Look for a listing that shows a connection between port 20000 on your PCs IP address and port 10001 on the IP communicators IP address



```
c:\ Command Prompt
Active Connections
Proto Local Address Foreign Address State
TCP 127.0.0.1:20002 NICKJONESPC:49239 ESTABLISHED
TCP 127.0.0.1:49239 NICKJONESPC:20002 ESTABLISHED
TCP 192.168.1.25:20000 192.168.1.100:10001 ESTABLISHED
```

If the connection is not established then it is likely that something is blocking the port.

LAN Operation

Open your firewall program and look for "IP Logging software for Zeta Alarm Systems". Check that this program is allowed access.

Internet Operation

Firstly check the firewall settings. If these are OK, then it is likely the Router is blocking the port. Log on to the router and adjust the NAT settings to allow port 20000 and 10001. (Consult your network administrator if you need advice on doing this)

Known issues running on Windows 7

The Zeta Fire IP Alarm Panel software was originally designed to run on Windows XP.

It will run on Windows 7, but it has a few issues which are in the process of being resolved. These issues are:-

1. The Software always starts in Spanish Mode
2. The Configuration is lost every time the software is restarted (as the program is intended to be run continuously this should not be a big problem)
3. The Heading of the list of panels is always in Spanish, even when another language is selected
4. In the list of panels, all panels are shown in red, rather than red for off line, green for on line.
5. The event logs are not accessible.

If any of these issues are not acceptable, please ensure that you run the system on a Windows XP PC.

If you decide to run on windows 7, please consider signing up to the newsletter on the Zeta alarm systems website, which will advise when an update is available.