Essex
Panel Guide

Intelli–Site
Security Management Software

Essex
Panel Guide

For Windows 7 Professional and Ultimate,
Windows 8.1 Pro and Enterprise,
Windows 10 Pro and Enterprise,
Server 2008 R2, and
Server 2012 R2

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When calling, please be at the computer prepared to provide the following information:

- Product version number, found by selecting the **About** button from the Intelli–Site Application Menu.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?
- It is highly recommended that the user generate a support package for transmission to Intelli–Site technical support staff. To generate the package, run the Intelli–Site Configuration Utility. *Create Support Package…* is the last option in the **Tools** menu.

Table of Contents

1 Introduction

Intelli–Site provides user control and monitoring of all aspects of the Essex devices including:

- Setting and retrieving the status of the red and green LEDs on the master and/or slave unit.
- Setting and retrieving the status of the sound of the master and/or slave unit.
- Receiving Piezo button, reader, and analog button input messages

This integration was written using the Essex TCP v2a protocol document.

No additional software is needed.

This guide explains using Essex with Intelli–Site Security Management Software.

2 Installation Guide

The Essex driver in Intelli–Site must be installed. No external software is needed.

If Intelli–Site has been installed without the Essex driver, run the Intelli–Site installer again and select **Modify**.

During the installation or modify installation process, you are presented with the **Select the drivers you want to install** window.

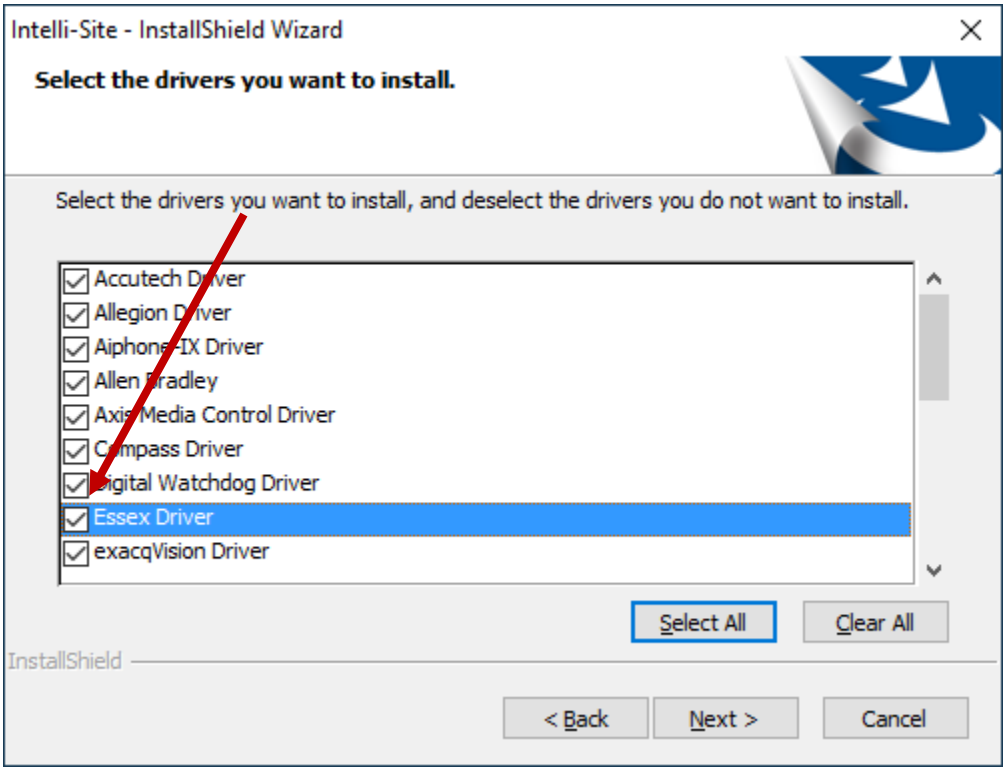


Figure 1 - Select the drivers you want to install

Ensure the **Essex Driver** option is checked then continue with the installation or modification.

3 Hardware Management View

The Essex Driver and Essex panel are best configured in **Hardware Management View**. Once configured, the panels can be easily monitored and controlled using their panel control screens.

Before we begin, the Essex field devices must be properly configured with the IP address of the computer on which the Intelli–Site Driver Service is running. It can be either the **Primary** or **Secondary IPA**. If Intelli–Site is running redundant Engines and Driver Services, then the IP addresses of each Driver Service host computer must be the **Primary** and **Secondary IPA**. In addition, the **Send Port**s must be the same.

Make note of the corresponding Send Port, the Listen Port, and the Device ID. These settings will be needed by Intelli–Site.

Note: Intelli–Site uses port numbers 9600, 9601, and 9602. See the section 5.2.2 Service Setup in the Intelli–Site User's Guide.

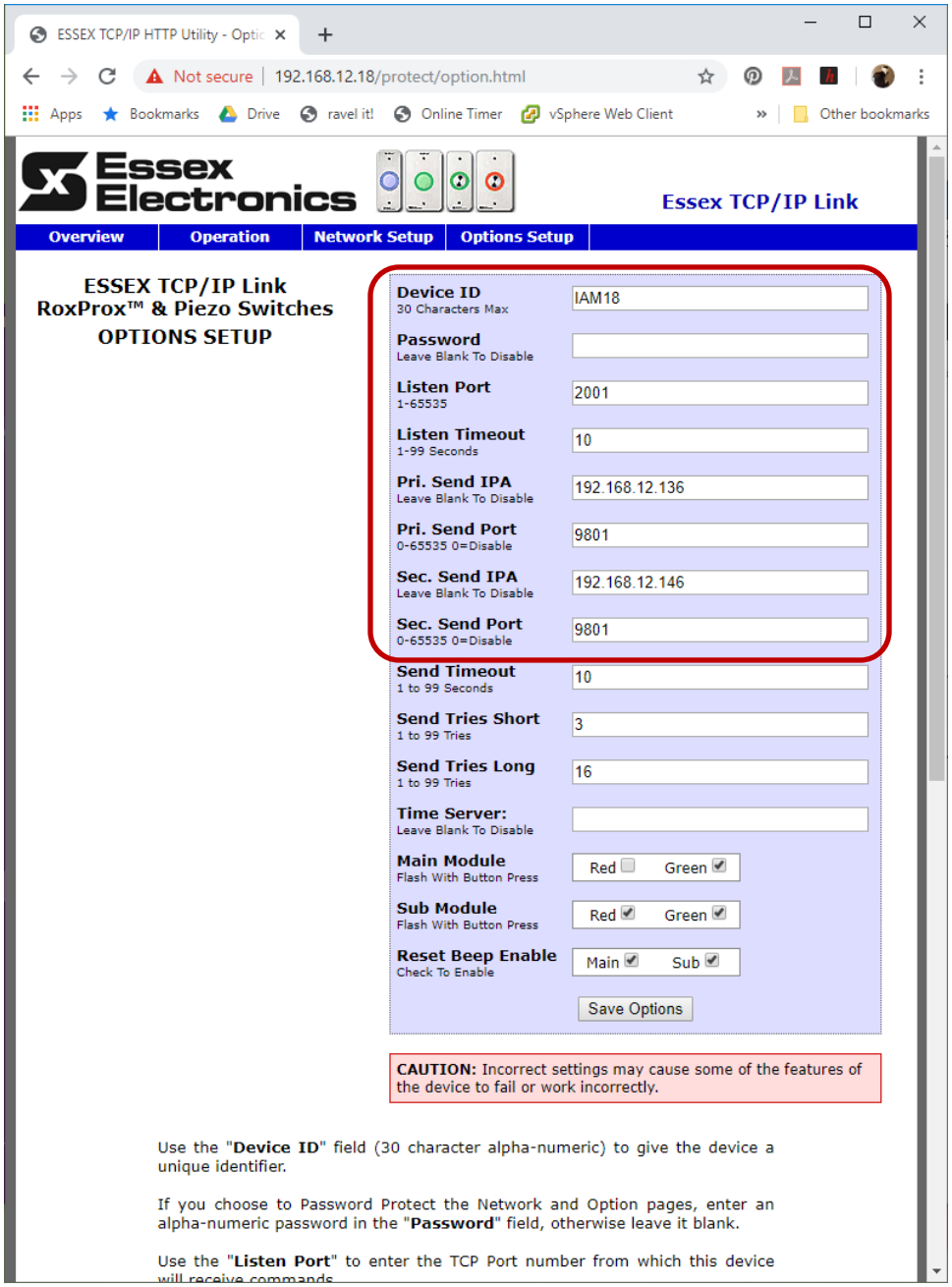


Figure 2 - Essex field device configuration website

3.1 Setup

The Essex Driver and Essex panels are best configured in **Hardware Management View**. Before we begin though, it is a good idea to have the IP address of the network adapter as well as the panel addresses of each of the panels to which it communicates written down.

Once the above information is obtained, the setup process is straight forward.

1. Add an Essex Driver
2. Add a Communication Method to the driver
3. Add an Essex Panel
4. Configure the Essex Panel
5. Enable the Essex Driver

3.1.1 Add an Essex Driver

Adding an Essex Driver is simple, but important. Without it, no communication with the Essex panels can occur.

Launch the Desktop Client and login.

Hardware is managed in the **Hardware Management View**. If you are not in **Hardware Management View** (figure below), click on Menu and select .

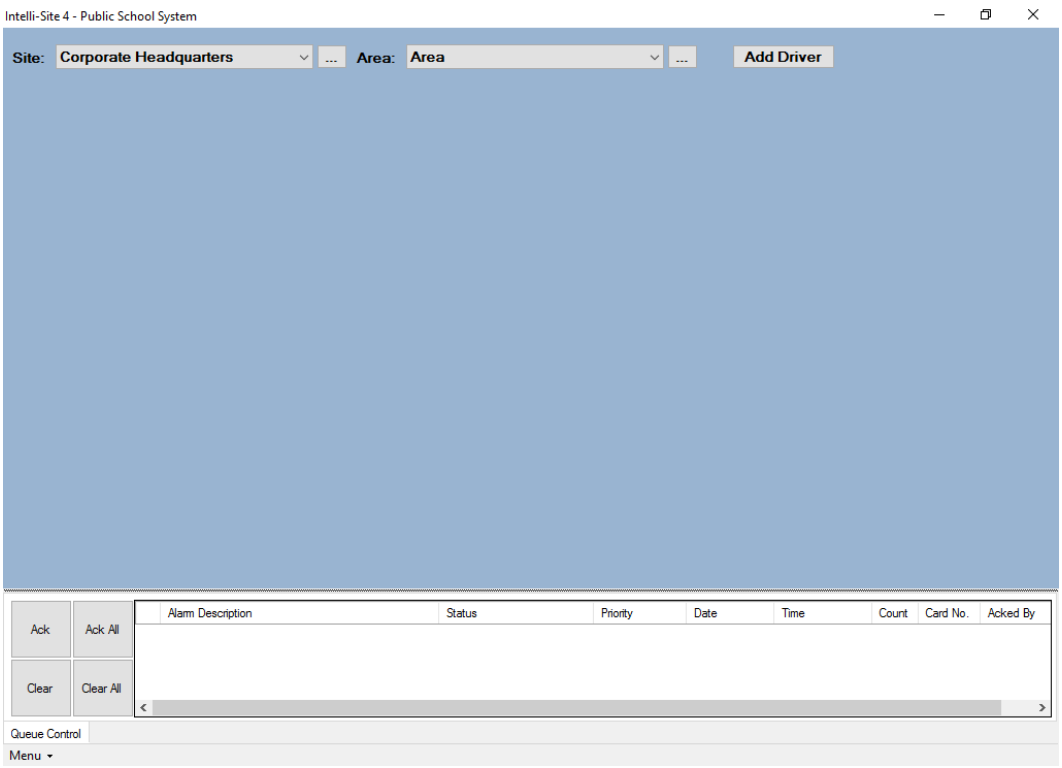


Figure 3 - Hardware Management View

To add the Essex driver, click Add Driver. The **Choose Driver Type** dialog displays.

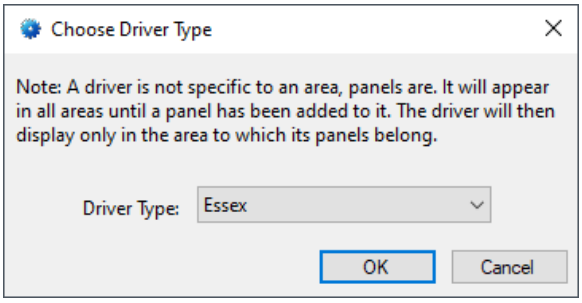


Figure 4 - Choose Driver Type Dialog

Select the *Essex* from the **Driver Type** drop-down menu in the **Choose Driver Type** dialog. Click OK. A new Essex driver icon is added to the screen and its properties dialog opens.

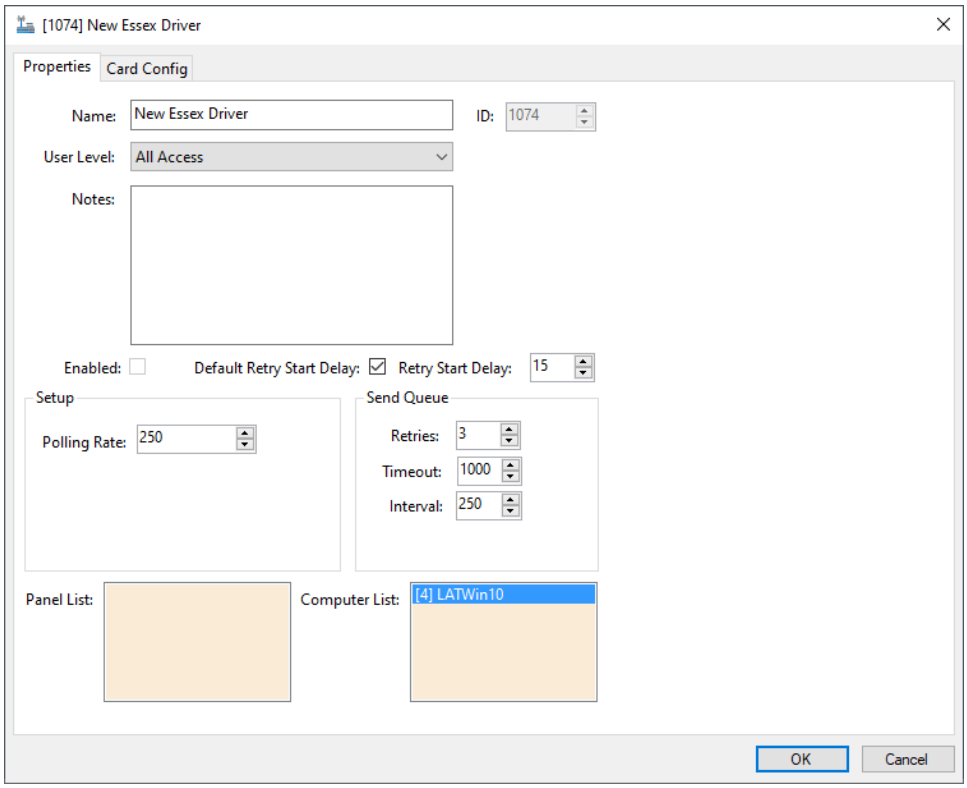


Figure 5 - Essex Driver Properties Dialog

Please change the name of the driver to reflect the use and/or location of the panels that this driver will manage.

Note: For an explanation of all of the driver properties, see Essex Driver Node.

Figure 6 - Essex Driver Icon

Notice the warning icon,  . This appears when the driver needs a communication method. So, let's add one.

3.1.2 Add a Communications Method

Each Essex driver must have a communication method defined and configured. Without one, the Intelli-Site Driver Service does not know where or how to communicate with the panel.

The communication method is added using the right-click context menu on the driver. Right-click on the driver icon and hover over *Comm Method*. The side menu opens. At this time, there is only one option, *Add Comm Method.* Select it. The **Choose Communication Method Type** dialog appears.

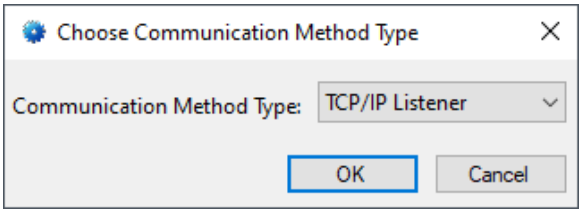
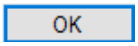


Figure 7 - The Choose Communication Method Type dialog

There is only one communication method for the Essex driver and that is TCP/IP Listener. Click  . A new TCP/IP Listener communication method node is added to the driver and its properties dialog opens.

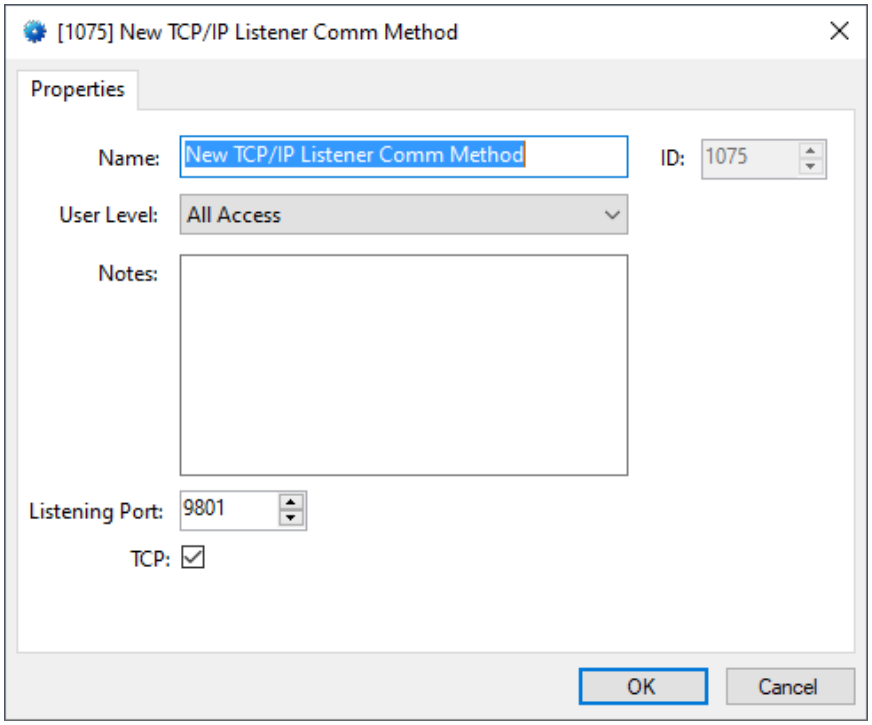


Figure 8 - The TCP/IP Communication Method properties dialog

Note: For a full explanation of all of the fields on this dialog, please read Communication Method Node.

The **Listening Port** is the port on which the Essex driver will listen for messages from the Essex panel(s). This is the **Send Port** in the Essex **Options Setup**. It can be either the **Primary** or **Secondary** depend on which **Send IPA** has the IP address of the Intelli–Site Driver Service host computer.

Note: If Intelli–Site is running redundant Engines and Driver Services, then the IP addresses of each Driver Service host computer must be the Primary and Secondary IPA. In addition, each Send Port must be the same.

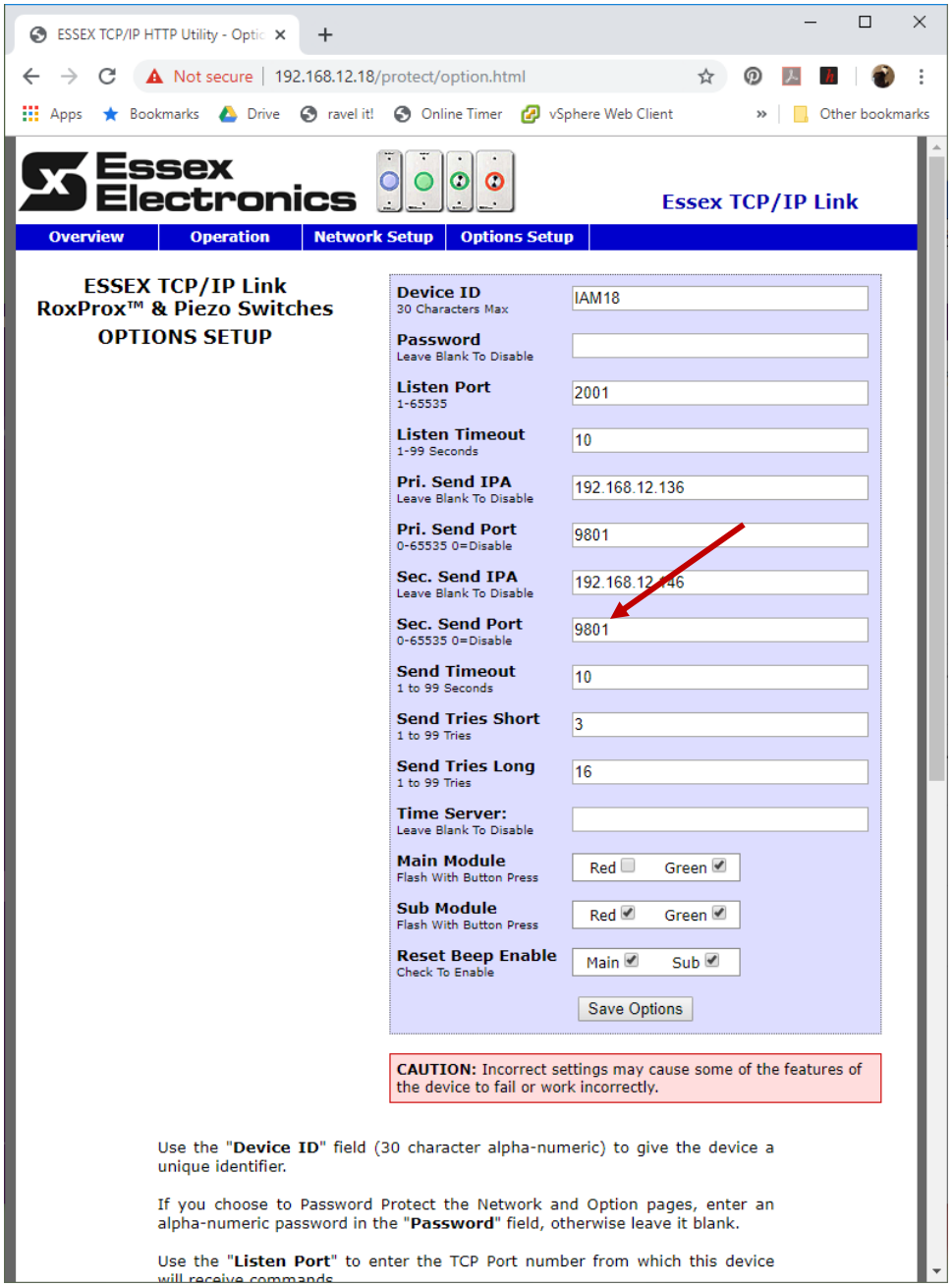


Figure 9 - Essex Options Setup: Send Port

Enter it in the **Listening Port** field. The default value is 9801. If for some reason, the field devices are set up at a different port, enter the new port here. Please change the name and click OK.

Note: There must be a different Essex driver for each of the different Send Port values. Every Essex panel with the same Send Port must be added to the same Essex driver.

Figure 10 - The driver icon with a communication method

Notice the warning icon is no longer on the front of the driver icon.

It's now time to add a panel to the driver.

3.1.3 Add an Essex Panel

Once an Essex driver has been added, it's time to add an Essex panel to it.

Right-click on the Essex Driver and select *Add Panel*. The **Add Panel** dialog displays.

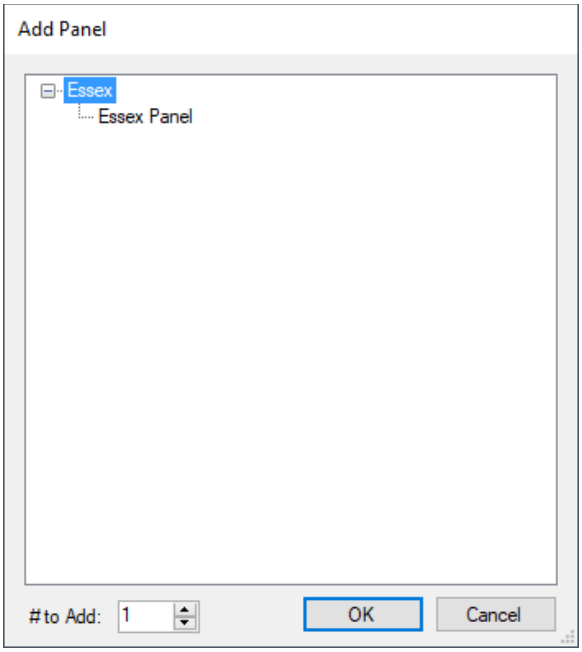


Figure 11 - Add Panel Dialog

This dialog only displays the panels that are appropriate for the target driver. Select the Essex panel. Change the value of **# to Add** to the number of panels this driver will control. Additional panels can be added later. Click OK. A **New Essex** icon is added to the target Essex driver.

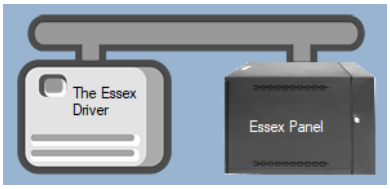


Figure 12 - A new Essex panel attached to an Essex driver

Next comes configuring the panel.

3.1.4 Configure the Essex Panel

The Essex panel is configured using the **Quick Config** dialog. To open the **Quick Config** dialog, right-click on the Essex icon and select *Quick Config*.

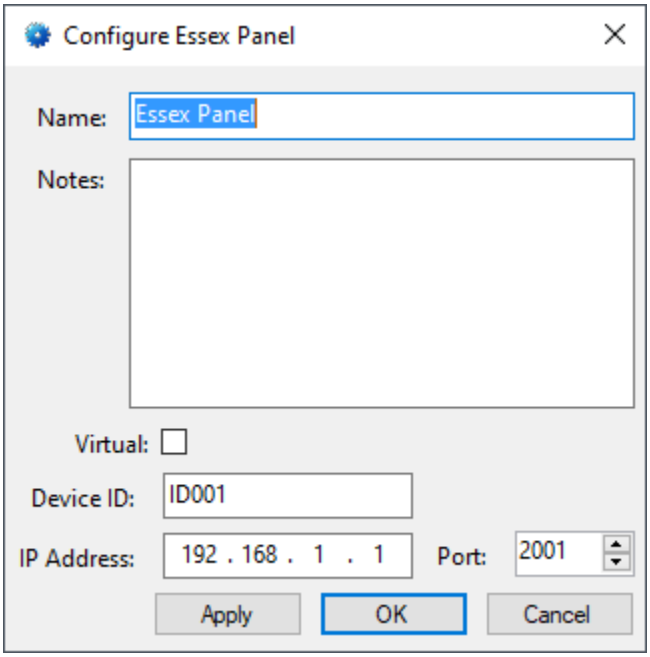


Figure 13 – Essex Panel Quick Config Dialog

Change the **Panel Name** to describe its use or location. In our example, it is the panel in room IAM18.

Set **Device ID** to Essex panel's **Device ID**.

Set **IP Address** to the Essex panel's IP address.

Set **Port** to the Essex panel's **Listen Port**. This is the port on which the panel listens for messages. Then click OK.

Note: For more information on all of the fields and properties of an Essex panel, see Essex Panel Node.

Repeat this section until all the desired panels are added to this driver.

3.1.5 Enable the Essex Driver

At this point, the Essex panel and the Essex driver are configured, but the driver is not online. A quick way to know this is that the communication indicator is grey.

Figure 14 – Disabled Essex Driver

Right-click on the driver to open the context menu; select *Enable Driver*. The communications indicator will change color to green when it's online.

Figure 15 - Enabled Essex Driver

If for some reason the Engine cannot connect to the Driver Service or the Driver cannot connect to the Essex, the communication indicator will be red.

Figure 16 - Enabled Essex Driver that is not communicating with the Driver Service

Figure 17 - Enabled Essex Driver that is communicating with the Driver Service but NOT the panel

Congratulations! The Essex is integrated and ready to use in screen design for **Live View**. Screen design occurs in **Design View**.

3.2 Panel Control Screen

Every Essex panel has a **Panel Control Screen**. From this screen, the user can monitor the current state of the panel and each of its inputs, outputs, reader, and special commands.

Clicking on the panel icon opens the **Panel Control Screen** of the target panel. The content of the screen is dictated by the panel.

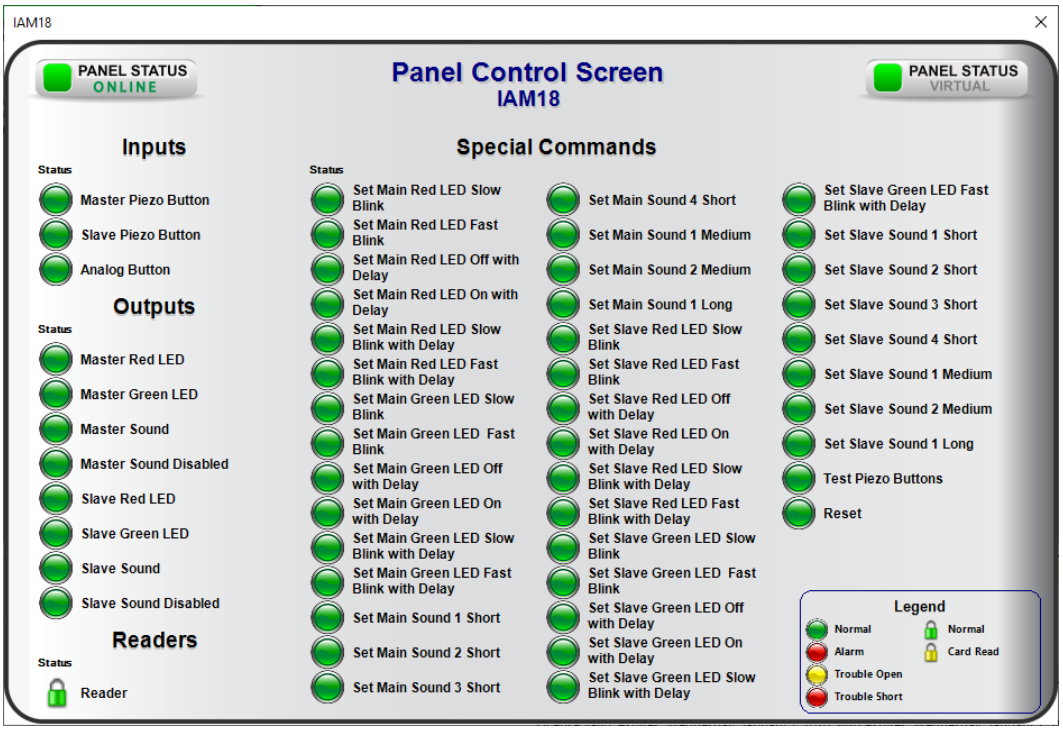


Figure 18 - Sample Essex Panel Control Screen

The color of the light, red, green, or yellow, indicates the state of the point. Green is normal or secure, yellow is supervision/trouble, and red is alarm. Outputs can be set or cleared at the click of a mouse. Special Commands can be sent to the panel too! Special Commands are not I/O Points. Their state cannot change. Therefore, the light is always green.

All panel control screens are popup screens. They are stored in the Project Node Tree under **Screen Control-> Popup Screens->** *Area* **Popup Screens** where *Area* is the name of the area to which the panel was added.

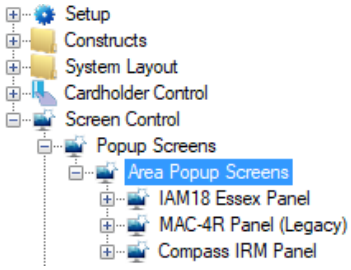


Figure 19 - Panel Controls screen nodes

Locating the specific popup screen for a node can be tricky if there are 10s or even 100s of panels in the Project. To find the popup screen for a specific panel, locate the panel node in the Project Node Tree. Right-click on the panel node and select *Find all nodes referencing this node*. The panel control screen will be in the list of references. Right-click on the node and select *Go to/Find in Tree*.

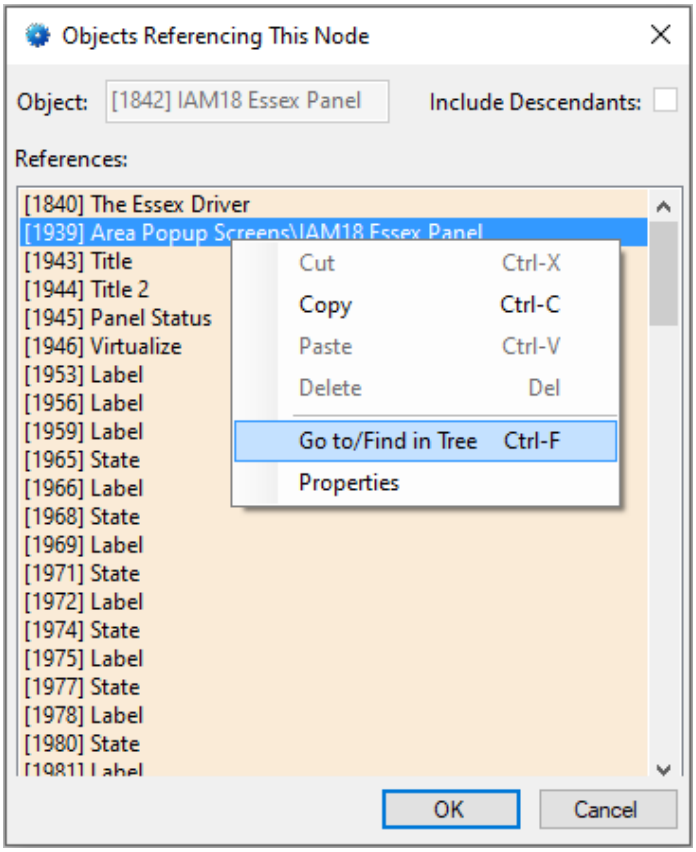


Figure 20 - Objects Referencing This Node dialog

4 Access Management View

Essex panels are not access control panels per se, but they are card readers. Personnel and cards must be added in **Access Management View**. See section **7.2 Access Management View** in the **Intelli–Site User's Guide**.

5 Design View

Design View is the home of the Project Node Tree and the place where screens and screen objects are programmed. The following sections explain the Essex driver node properties, the Essex node properties, and screen object programming especially the automatically created screen objects.

5.1 Essex Driver Node

The Essex driver node is found by expanding **Setup-> Computer Setup-> Drivers**.

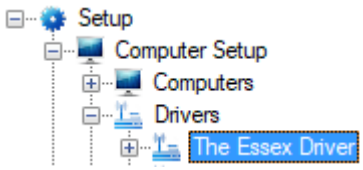


Figure 21 - Essex Driver node in the Project Node Tree

Right-click on the driver node and select *Properties* to open the properties dialog.

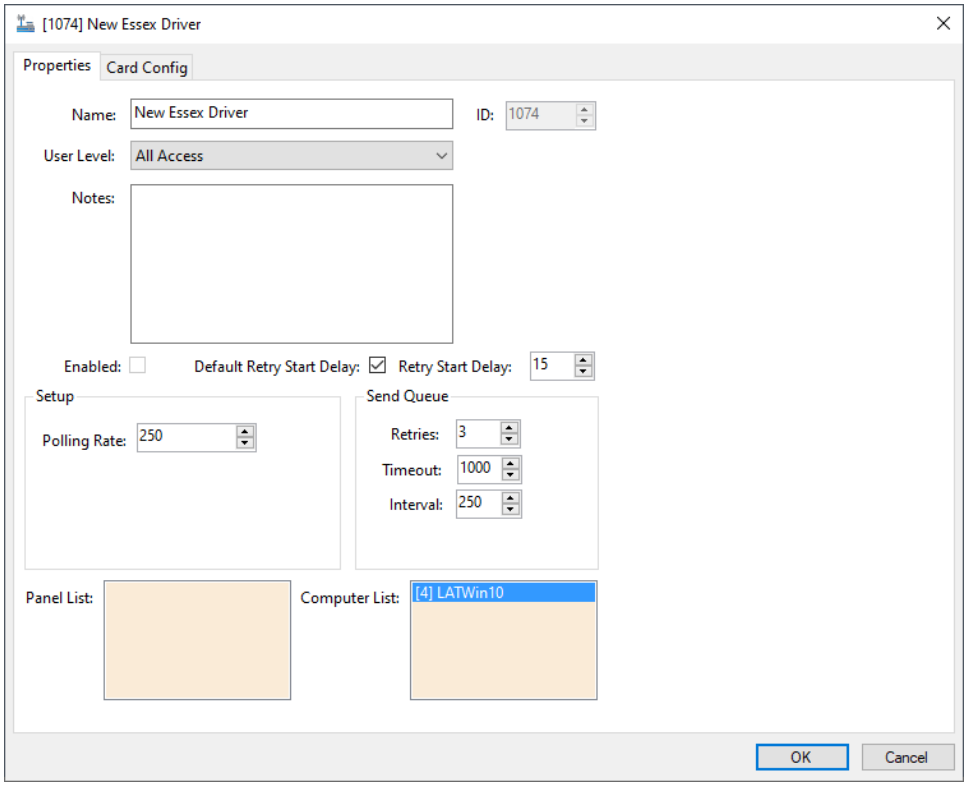


Figure 22 - Essex Driver properties dialog

There are two tabs: ***Properties*** and ***Card Config***.

5.1.1 Properties tab

The ***Properties*** tab is the first tab of the **Properties** dialog.

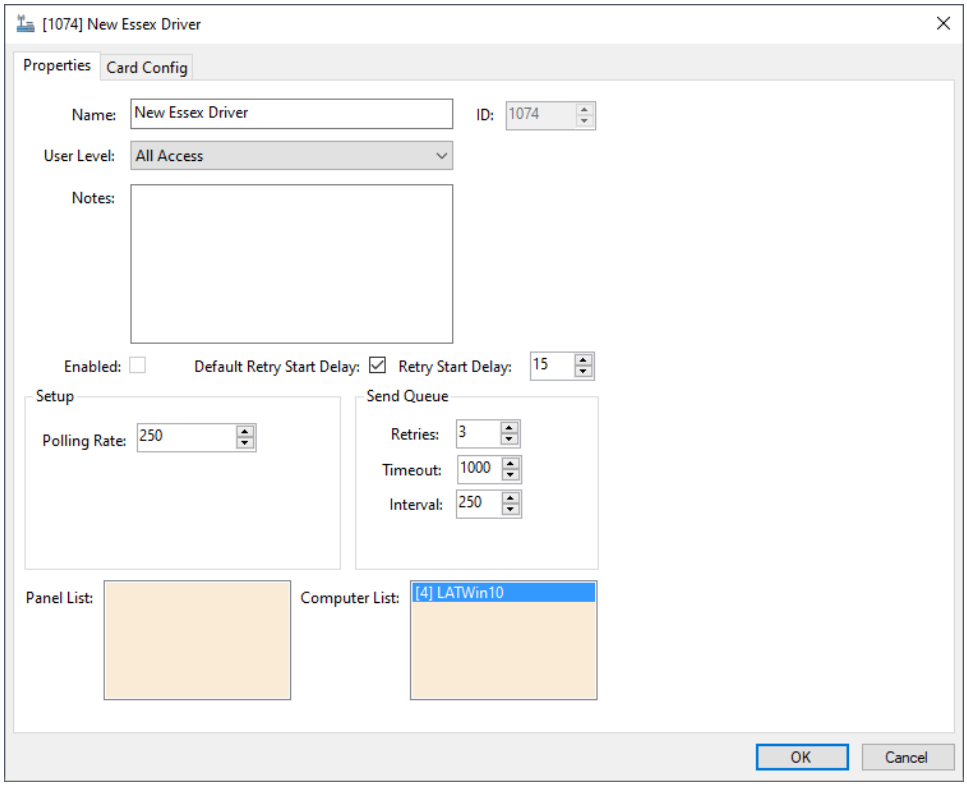


Figure 23 - Essex Driver properties dialog: Properties tab

Name – edit box; the name for the node; the name doesn't have to be unique

ID – numeric (disabled); the unique identifier of this node; generated by Intelli-Site

User Level – drop-down menu (default: All Access); the User Level a user must possess to open the properties for this node

Notes – multiline edit box; any notes the user may have for the node

Enabled – check box; when checked the driver is enabled

Default Retry Start Delay – check box (default: checked); if the driver did not connect, pause before attempting to connect again

Retry Start Delay – numeric (default: 15); number of seconds to wait between retries on connection attempts

Retries – numeric (default: 3); number of retries for sending a packet

Timeout – numeric (default: 1000); number of milliseconds to wait for a response before assuming the packet was not received

Interval – numeric (default: 25); number of milliseconds to wait after a timeout before sending the packet again

Panel List- drop box; the Essex nodes attached to this driver

Computer List – drop box (default: the computer on which the Engine is running); the computer node on which this driver is running

5.1.2 Card Config tab

The ***Card Config*** tab is where the card formats are defined and stored.

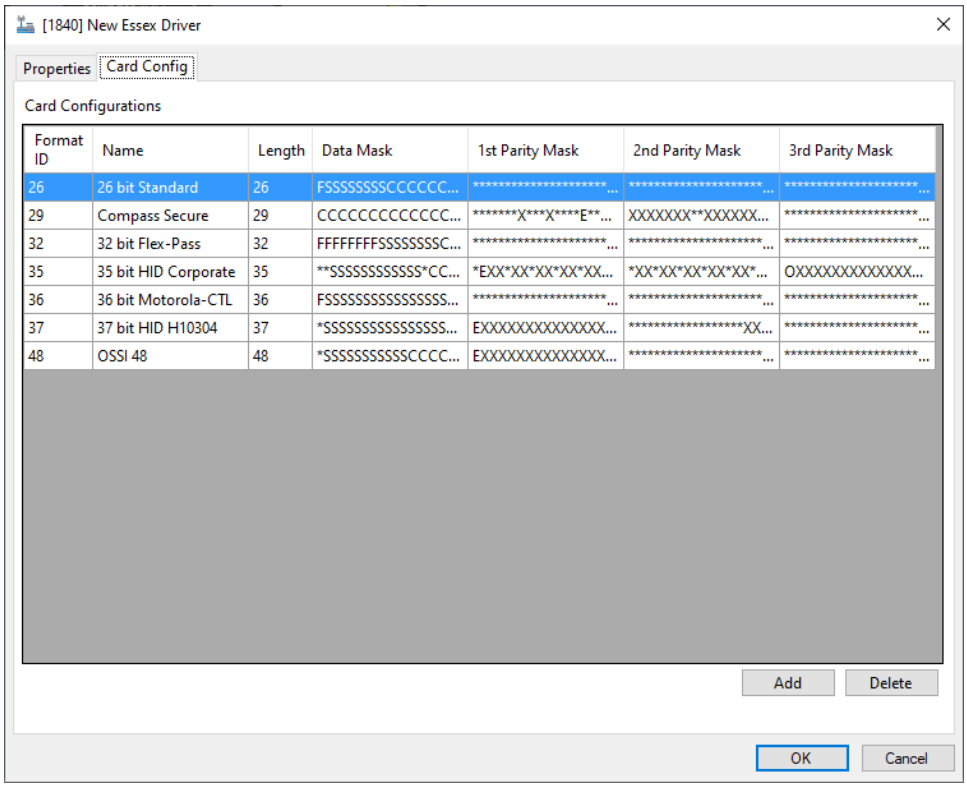


Figure 24 - Driver Properties dialog: Card Config tab

Format ID – numeric; the identifier for the card configuration

Name – alphanumeric; the name of the card configuration; the way humans identify the card configuration

Length – numeric; the number of bits in this card configuration

Data Mask – alphabetic; how each bit of the card configuration is interpreted; "F" is Format; "S" is Site Code; C is card number; "…" indicates the remaining bits are ignored

Parity Mask – alphanumeric; the bits used as part of this parity mask; "E" indicates it is an even parity; "O" indicates it is an odd parity; "X" the bit is included; "*" the bit is ignored

Add - button; add a row to the **Card Configurations** table

Delete - button; delete the selected row from the **Card Configurations** table

5.2 Communication Method Node

The communication method node is a child of the driver.

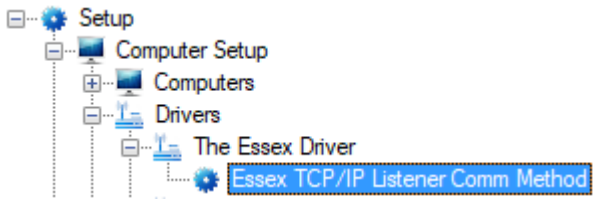


Figure 25 - Communication Method node in the Project Node Tree

Right-click on the node and select *Properties* to open the properties dialog.

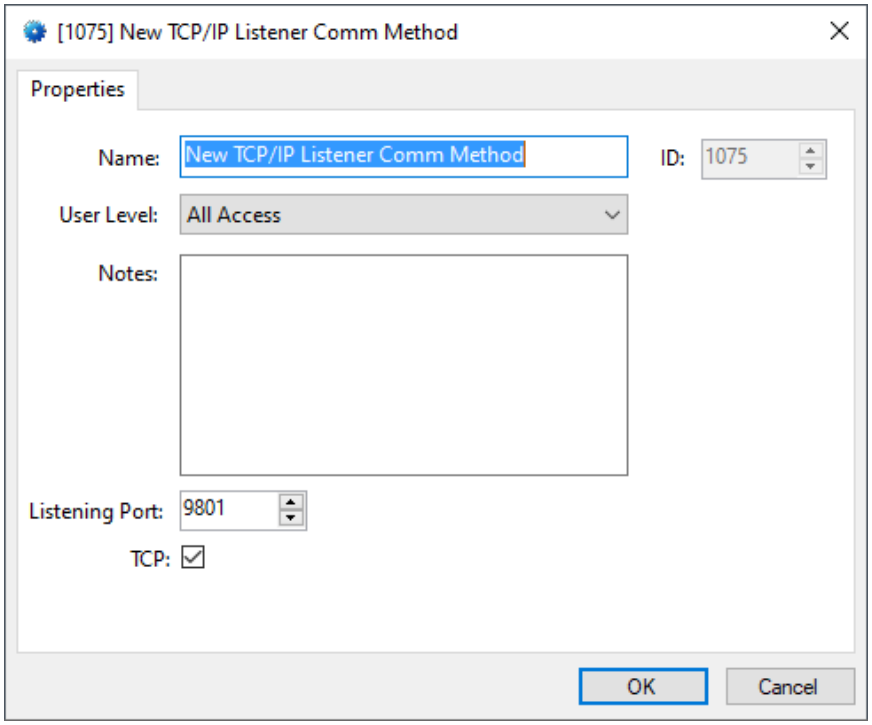


Figure 26 - Communication Method node properties dialog

Name – edit box; the name for the node; the name doesn't have to be unique

ID – numeric (disabled); the unique identifier of this node; generated by Intelli-Site

User Level – drop-down menu (default: All Access); the User Level a user must possess to open the properties for this node

Notes – multiline edit box; any notes the user may have for the node

Listening Port – numeric (default: 9801); the TCP or UDP port number on which the driver will listen for connections from the panel(s)

TCP- checkbox (default: checked); when checked, the driver will communicate with the panel using TCP; when not checked, the driver assumes UDP is the desired communication protocol

5.3 Essex Panel Node

The Essex panel node is found by expanding **System Layout** then the Site and Area to which the Essex panel was added in **Hardware Management View**. In the example below, the panel was added to the site **Corporate Headquarters** and the area imaginatively named **Area**.

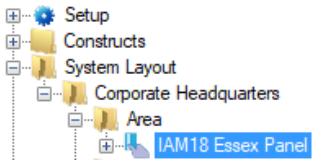


Figure 27 - The Essex panel node in the Project Node Tree

The Essex panel node is the root node for the panel. The following sections will explain:

- The properties of the Essex panel node
- The configuration of the Essex panel (a.k.a. **Quick Config**)
- The child nodes of the Essex panel

5.3.1 Essex Panel Node Properties

Right-click on the Essex panel node to open the properties. These fields are not accessible through the **Quick Config** dialog except for **Name**, **Address**, and **Virtual**. They correspond to those features that aren't part of the day to day running of the system.

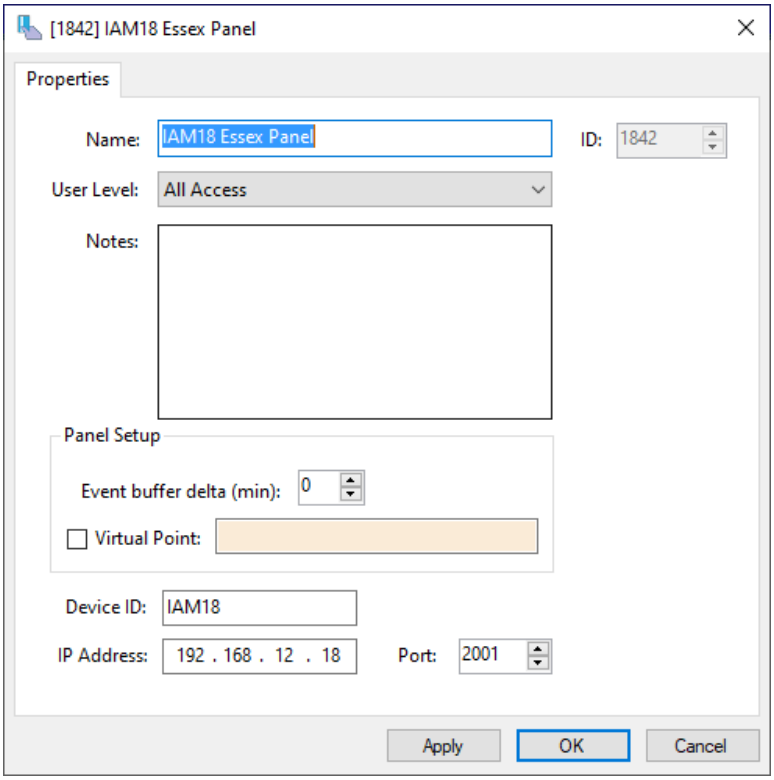


Figure 28 - Essex node properties dialog

Name – edit box; the name for the node; the name doesn't have to be unique

ID – numeric (disabled); the unique identifier of this node; generated by Intelli-Site

User Level – drop-down menu (default: All Access); the User Level a user must possess to open the properties for this node

Notes – multiline edit box; any notes the user may have for the node

Panel Setup – group box; those fields associated with how the software handles the panel

> **Event buffer delta (min)** – numeric (default: 0); only applies to panels that buffer data; the Engine compares the time an event occurs versus the current time, if the difference is greater than the **Event buffer delta**, the event is logged but not acted upon

Virtual – check box; when checked the panel is virtualized, allowing the driver to be brought online without having the physical panel available

Virtual Point – drop box; this I/O Point will be set when the panel is virtualized, clear when it is not

Device ID – edit box; the **Device ID** of the Essex panel

IP Address – edit box; the IP address of the Essex panel

Port – numeric (default: 2001); the **Listen Port** of the Essex panel

5.3.2 Essex Panel Quick Config

The **Quick Config** dialog is accessible either in **Hardware Management View** or in **Design View**. To open the **Quick Config** dialog, right-click on the Essex panel node and select *Quick Config*.

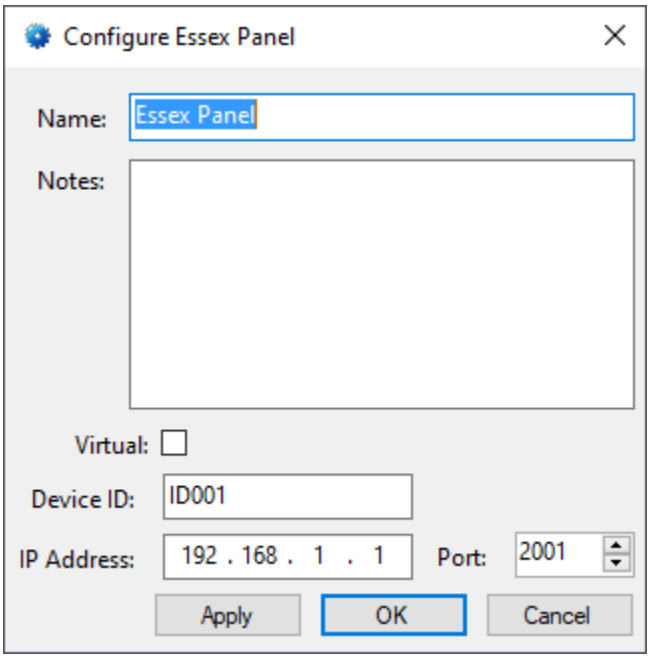


Figure 29 - Essex panel Quick Config dialog

Name – edit box; the name of the Essex panel; updating this field will change the name of the node

Notes – multiline edit box; any comments about this one wants to say about this panel

Virtual – check box; when checked the panel is virtualized, allowing the driver to be brought online without having the physical panel available

Device ID – edit box; the **Device ID** of the Essex panel

IP Address – edit box; the IP address of the Essex panel

Port – numeric (default: 2001); the **Listen Port** of the Essex panel

5.3.3 Essex Panel Child Nodes

An Essex panel has five (5) child node groups.

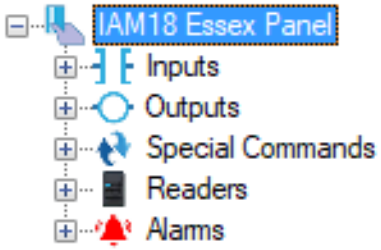


Figure 30 - Panel Child Nodes

The following sections describe each of these groups.

5.3.3.1 Input Nodes

The possible **Input** nodes for every Essex panel are the **Master Piezo Button**, the **Slave Piezo Button**, and the **Analog Button**.

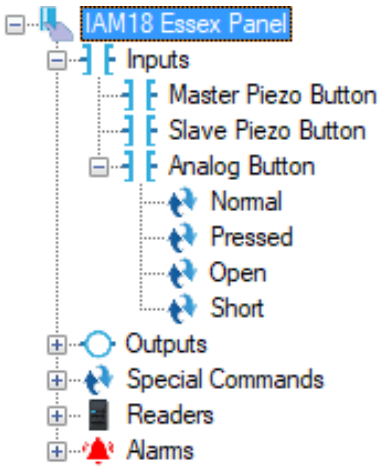


Figure 31 - Panel Inputs

These I/O Points reflect the current state of the corresponding input. The **Analog Button** has sub-states to further identify the current state.

5.3.3.2 Output Nodes

The possible **Output** nodes for every Essex panel are **Master Red LED**, **Master Green LED**, **Master Sound**, and **Master Sound Disabled**, as well as **Slave Red LED**, **Slave Green LED**, **Slave Sound**, and **Slave Sound Disabled**.

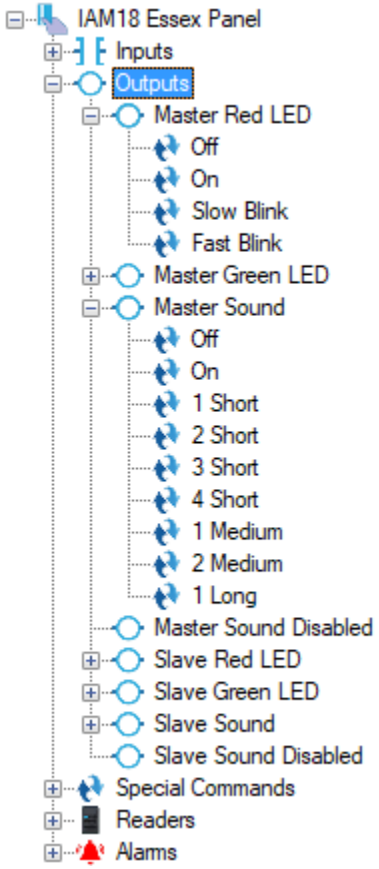


Figure 32 - Panel Outputs

These I/O Points reflect the current state of the corresponding output. The **LED** outputs have sub-states to further identify the current state, and so do the **Sound** outputs. See the figure above.

5.3.3.3 Special Commands Nodes

The possible **Special Commands** nodes for every Essex panel are listed in the figure below.

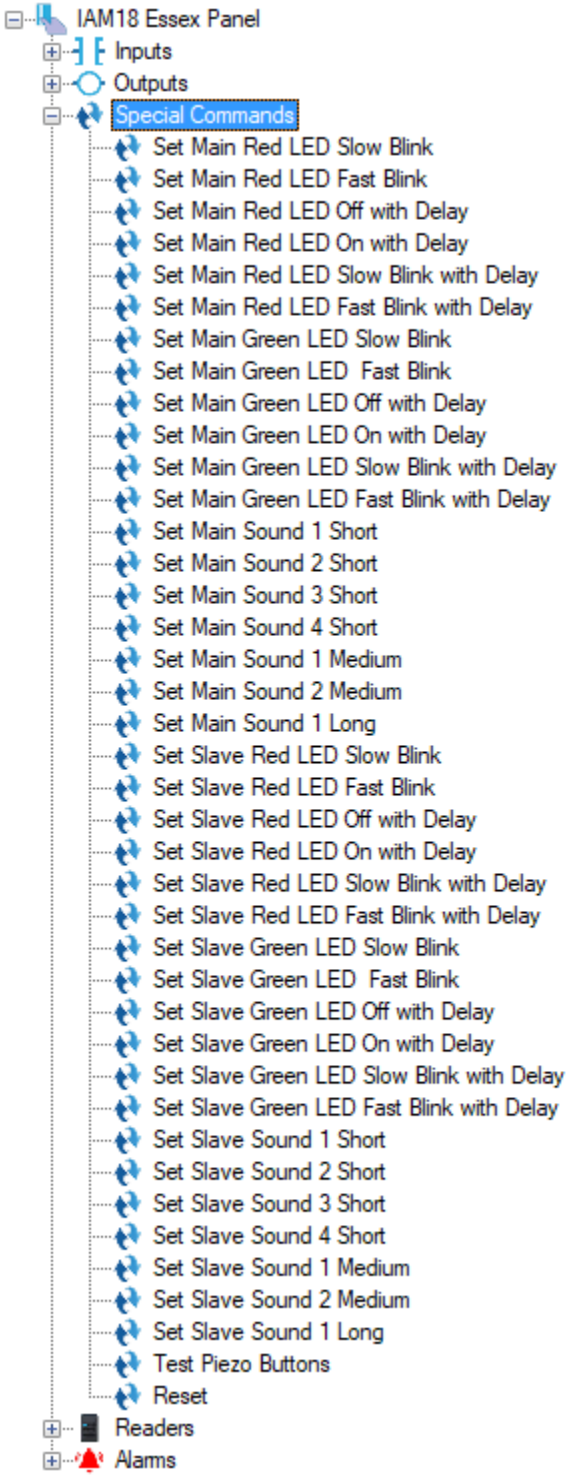


Figure 33 - Panel Special Commands

These are not I/O Points! These are commands. These special commands can be sent to the panel by using these nodes as a target of the SetOn action.

5.3.3.4 Readers Node

There is only one possible **Reader** node for every Essex panel.

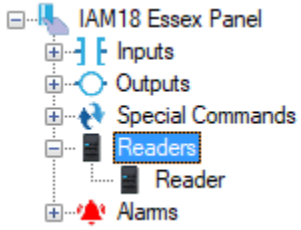


Figure 34 - Panel Reader

5.3.3.5 Alarms

The alarms for the Essex are located under the **Alarms** node. There is only one alarm, **Panel Status**.

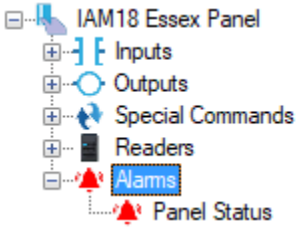


Figure 35 - Panel Alarms node

The **Panel Status** point is high when the panel is offline (assuming the driver is online, and the panel is not virtualized).

5.4 Project Programming

The driver and panel nodes can be used in project programming in a variety of ways.

5.4.1 Using the Essex Driver and Panel Nodes in Evaluation Grids

The Essex driver and panel nodes can be used in evaluation grids. Each has slightly different selection possibilities.

When a driver node is used in an evaluation grid, the possible ***Selection*** values are *Enabled,* or *Disabled*.

When the panel node is used in an evaluation grid, the possible ***Selection*** values are *Virtual*, and *Driver Offline*.

The child nodes are treated as I/O Points.

Note: Special Commands are not I/O Points; they are commands. While they can be used in evaluation grids, their state never changes. Their state is always low.

5.4.2 Special Commands nodes

To send a special command to an Essex panel, use SetOn the target special command node in the action grid.

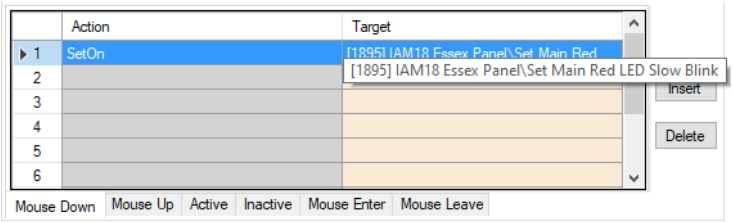


Figure 36 - Action Grid using a Special Command node

Table of Figures

Revision History

2019-11-08 Creation Date