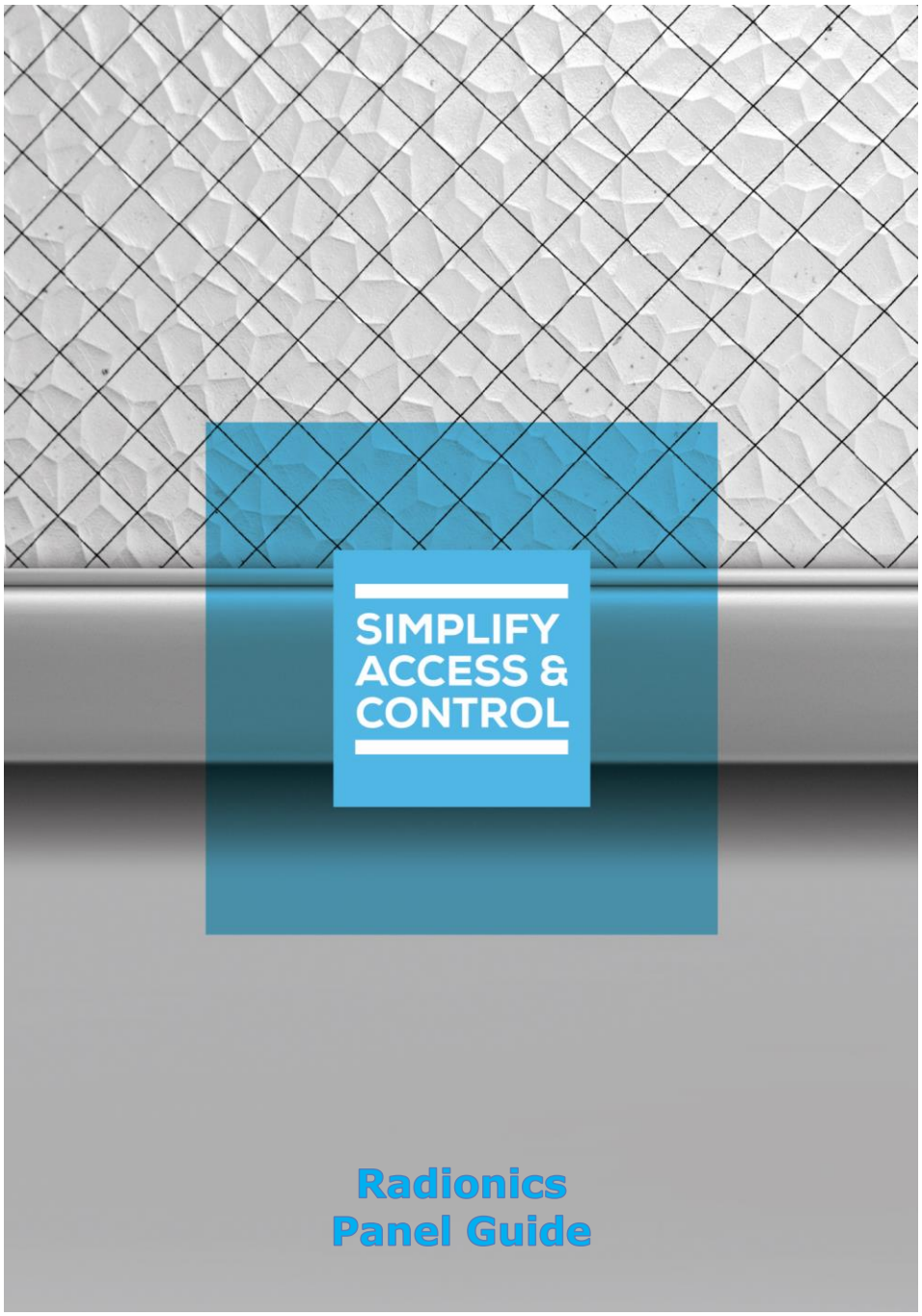

Radionics
Panel Guide

Intelli–Site
Security Management Software

Radionics
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

The Intelli–Site Radionics panel integration was written using Radionics D6600 Computer Interface Manual. The D6600 is a compact design Communications Receiver/Gateway that incorporates Digital Signal Processing (DSP) techniques to receive and analyze different communication data formats. With the capability to receive multiple formats from multiple communication paths, the D6600 provides the flexibility to handle almost any of your security communication requirements.

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

2 Installation Guide

The Radionics drivers in Intelli–Site must be installed. No external software is needed.

If Intelli–Site has been installed without the Radionics drivers, 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.

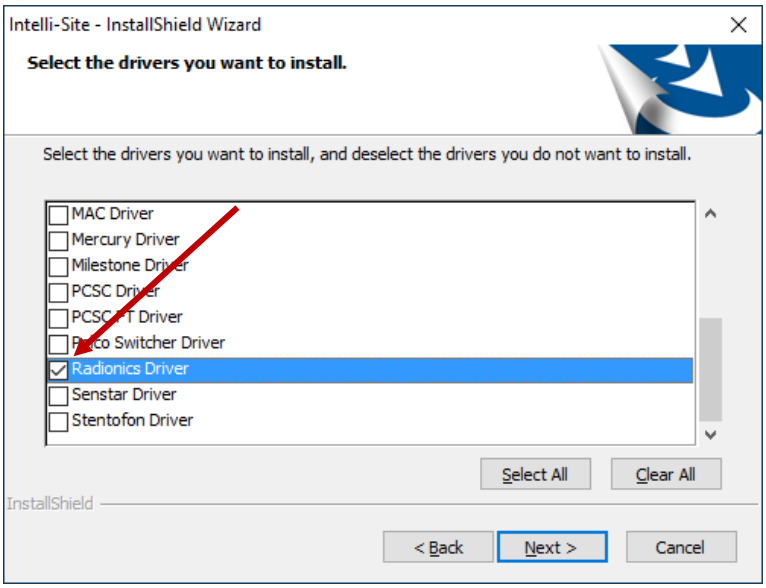


Figure 1 - Select the drivers you want to install

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

Note: It may be necessary to scroll down to locate the desired driver.

3 Hardware Management View

The Radionics Driver and Radionics panel are best configured in **Hardware Management View**.

3.1 Setup

The Radionics Driver and Radionics panel 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 a Radionics Driver
2. Add a Communication Method to the driver
3. Add a Radionics Panel
4. Configure the Radionics Panel
5. Enable the Radionics Driver

3.1.1 Add a Radionics Driver

Adding a Radionics Driver is simple, but important. Without it, no communication with the Radionics 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 2), click on Menu and select .

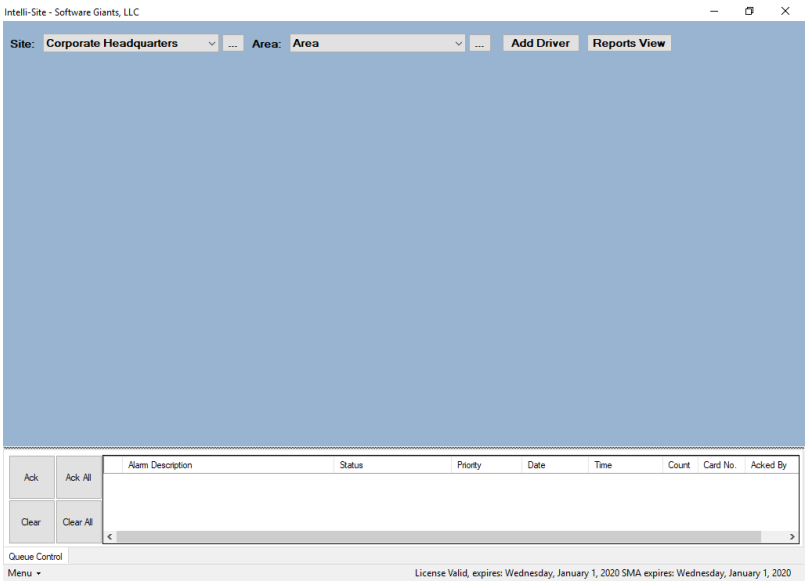


Figure 2 - Hardware Management View

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

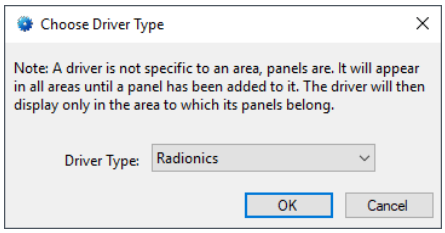


Figure 3 - Choose Driver Type Dialog

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

Note: If only one driver is installed, the** Choose Driver Type **dialog does not display. The driver is automatically added and the properties dialog is opened.

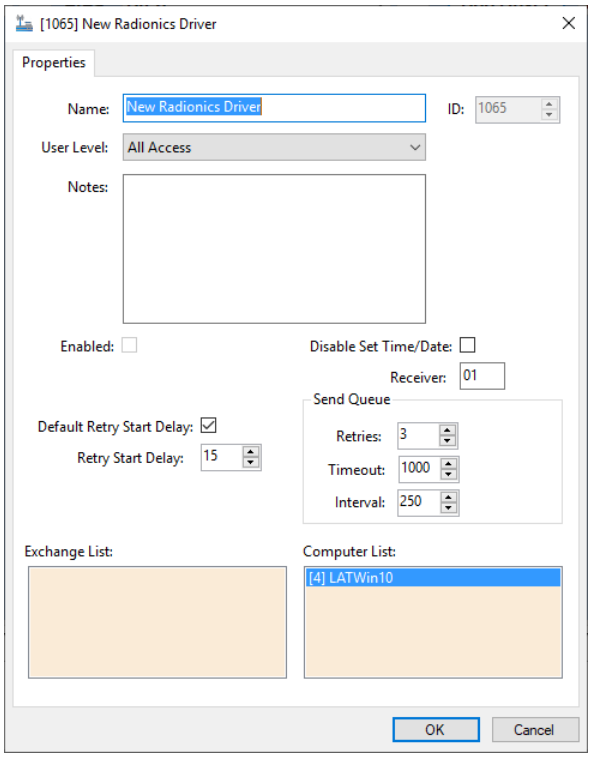


Figure 4 - Radionics Driver Properties Dialog

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 Radionics Driver Node.

Figure 5 - Radionics Driver Icon

Notice the warning icon,  . This appears when the driver requires a communication method and one does not exist yet. So, let's add one.

3.1.2 Add a Communications Method

Each Radionics 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. There is only one option currently, *Add Comm Method.* Select it. The **Choose Communication Method Type** dialog appears.

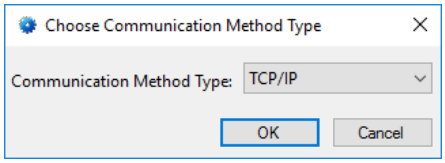
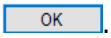


Figure 6 - The Choose Communication Method Type dialog

There are three (3) possible communication methods for any single Radionics device:

- TCP/IP – the Driver will connect directly to the panel using TCP/IP
- Rs232 – the Driver will connect to the panel using a COM port
- TCP/IP Listener – the panel will connect to the Driver using TCP/IP

For this example, we will select *TCP/IP* then click  . A new TCP/IP communication method node is added to the driver and its properties dialog opens.

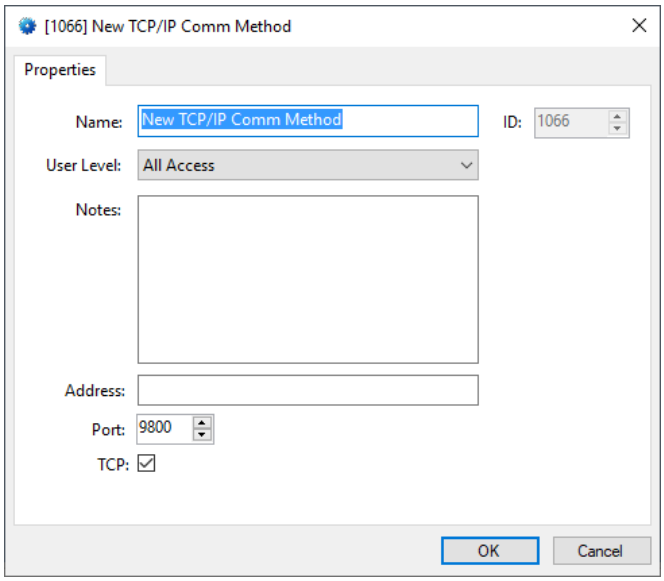


Figure 7 - The TCP/IP Communication Method properties dialog

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

Enter the IP address of the network interface in the **Address** field. The **Port** number field contains the default port number for the network interface. If for some reason, the network interface of the Radionics panel is set up to use a different port, enter that port number. Please change the name and click OK.

Figure 8 - The driver icon with a communication method

Notice the warning icon is no longer present.

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

3.1.3 Add a Radionics Panel

Once a Radionics driver has been added, it's time to add a Radionics panel to it.

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

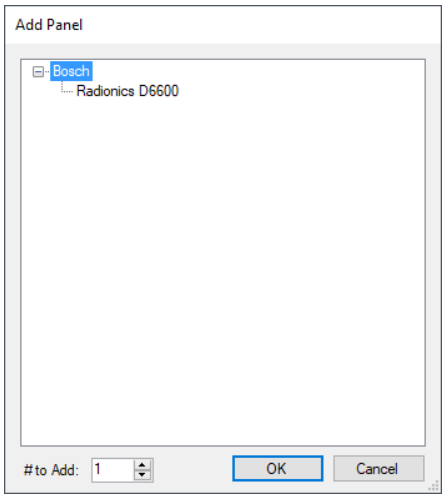


Figure 9 - Add Panel Dialog

This dialog only displays the panels that are appropriate for the target driver. The Radionics panel is manufactured by Bosch. Expand Bosch then select the Radionics 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 Radionics** icon is added to the target Radionics driver.

Figure 10 - A new Radionics panel attached to a Radionics driver

Next comes configuring the panel.

3.1.4 Configure the Radionics Panel

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

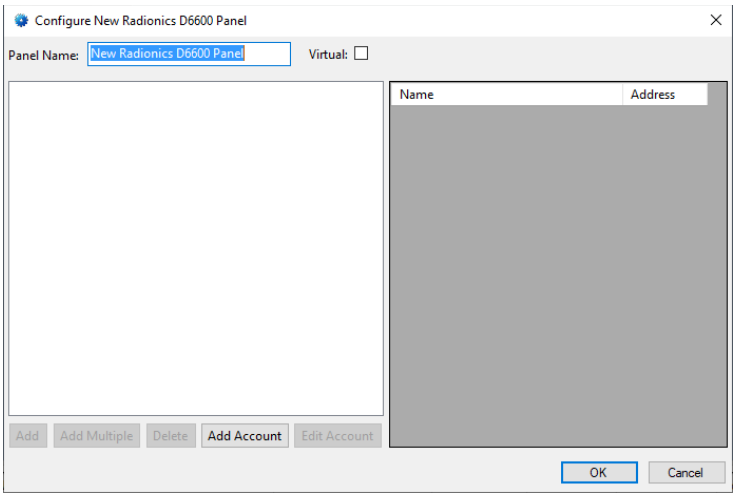


Figure 11 – Radionics Panel Quick Config Dialog

Change the **Panel Name** to describe its use or location. In our example, it is the control panel for The Office.

Click the Add Account button. This opens the **Radionics Account Information** dialog which allows you to define the **Account Type**, the account **Name**, and the **Account Number**.

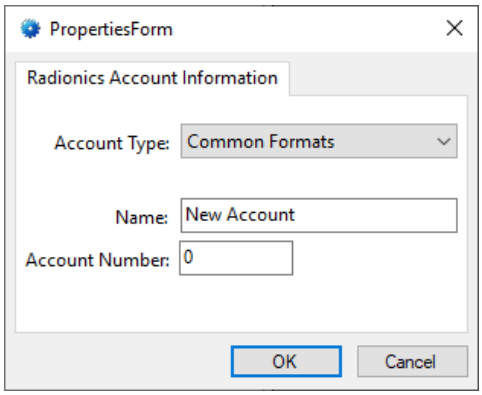


Figure 12 - Add Account dialog

Click on the **Account Type** drop-down menu and select the desired account type.

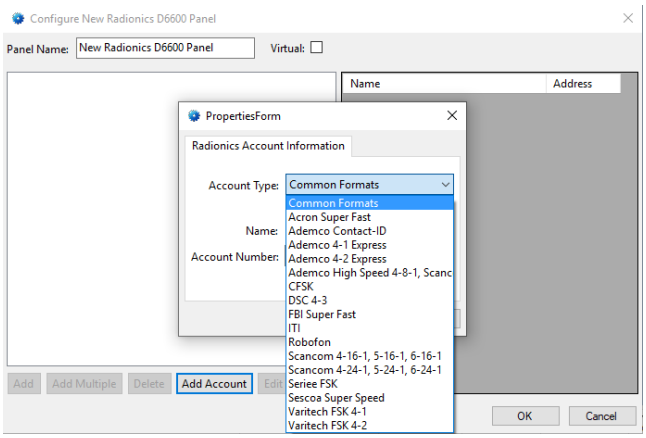


Figure 13 – Available Account Types

Give the account an appropriate **Name** the correct **Account Number**. Then click OK. The new account appears in the Tree on the left. If appropriate, additional information about the account will appear in the table on the right. At this point, the rest of the account configuration is left as an exercise for the integrator.

When all the accounts have been added, click the OK button to save the accounts and close the **Quick Config** dialog.

3.1.5 Enable the Radionics Driver

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

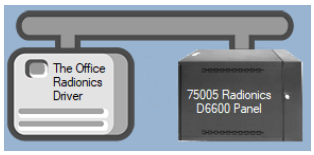


Figure 14 – Disabled Radionics Driver

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.

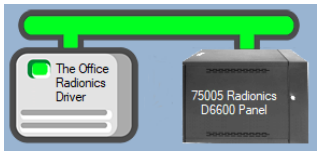


Figure 15 - Enabled Radionics Driver

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

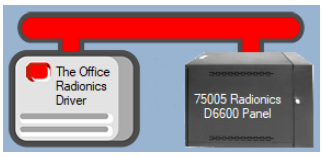


Figure 16 - Enabled Radionics Driver that is not communicating with the Driver Service

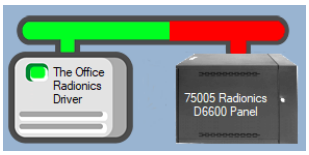


Figure 17 - Enabled Radionics Driver that is communicating with the Driver Service but NOT the panel

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

3.2 Panel Control Screen

Every Radionics panel has a **Panel Control Screen**. From this screen, the user can monitor the current state of the panel. Clicking on the panel icon in **Hardware Management View** opens the **Panel Control Screen** of the target panel. The content of the screen is dictated by the panel.

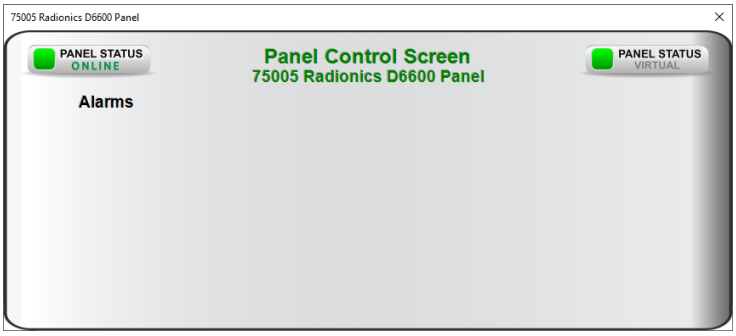


Figure 18 - Sample Radionics Panel Control Screen

Because there are no I/O Points associated with a Radionics panel when it is added to the Project, there are no points on this screen other than the Online Panel Status and the Virtual Panel Status.

You might consider adding controls to this screen once the panel has been fully configured. The panel control screen can be edited in **Design View**. The panel control screen node is a popup screen.

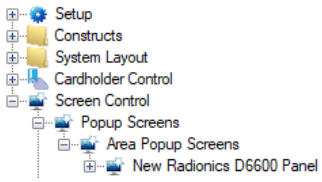


Figure 19 - Radionics Panel Control Screen in the Tree

4 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 Radionics Driver node properties, communication methods properties, the Radionics node properties, and screen object programming especially the automatically created screen objects.

4.1 Radionics Driver Node

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

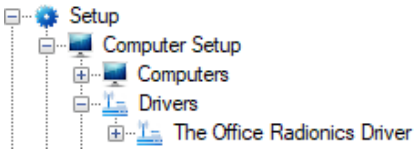


Figure 20 - Radionics Driver node in the Project Node Tree

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

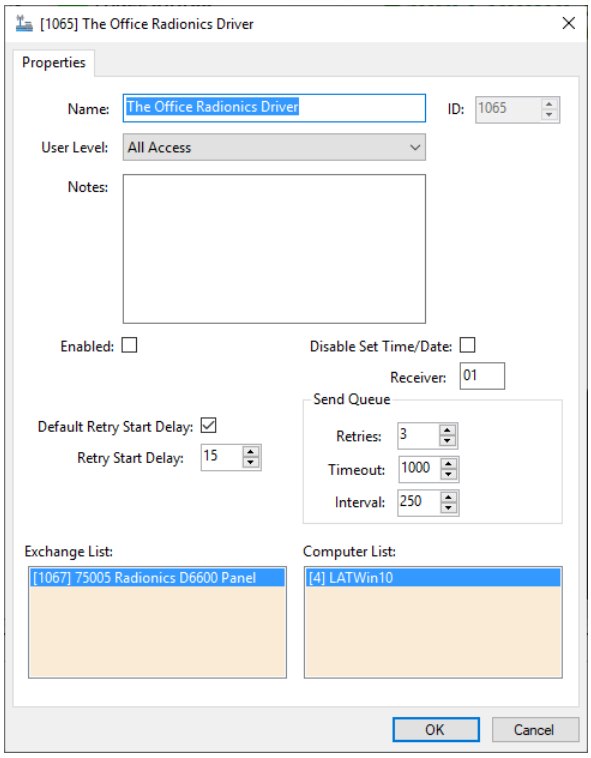


Figure 21 - Radionics Driver properties dialog

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 the software

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

Disable Set Time/Date – check box; when checked, the Driver will not set the receiver's Time/Date

Receiver – numeric; the address of the Radionics Receiver

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 Radionics 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

4.2 Communication Method Node

The communication method node is a child of the driver.

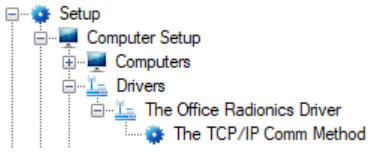


Figure 22 - Communication Method node in the Project Node Tree

There are three different possible communication types for the Radionics driver.

- TCP/IP
- Rs232
- TCP/IP Listener

4.2.1 TCP/IP Communication Method Node

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

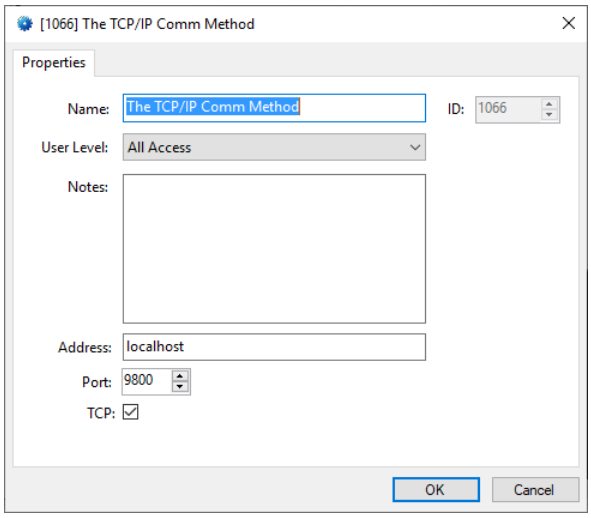


Figure 23 – TCP/IP Communication Method node properties dialog

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 the software

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

Address – edit box; the IP address of the panel

Port – numeric (default: 9800); the TCP or UDP port number

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

4.2.2 Rs232 Communication Method Node

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

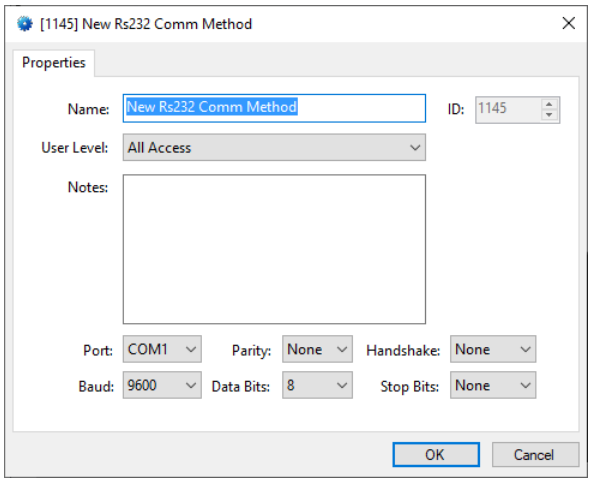


Figure 24 – Rs232 Communication Method node properties dialog

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 the software

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

Port – drop-down menu (default: COM1); the COM port

Parity, Handshake, Baud, Data Bits, and **Stop Bits –** configuration parameters associated with Rs232 communication; for an explanation of Rs232 see How RS232 Works.

4.2.3 TCP/IP Listener Communication Method Node

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

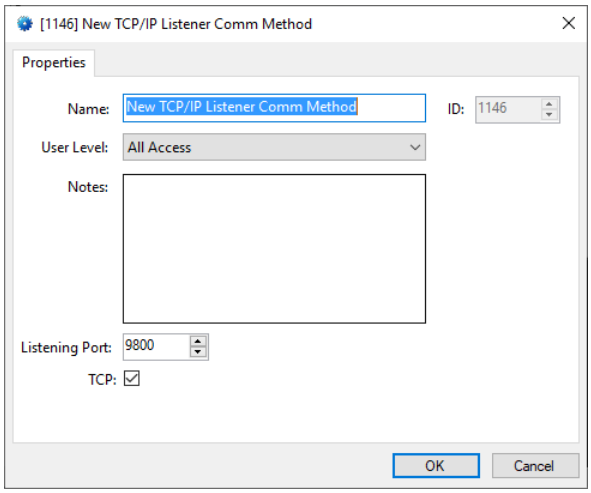


Figure 25 – TCP/IP Listener Communication Method node properties dialog

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 the software

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: 9800); the TCP or UDP port number

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

4.3 Radionics Panel Node

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

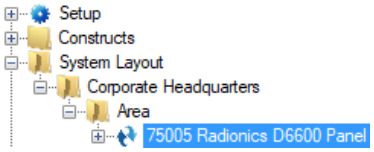


Figure 26 - The Radionics panel node in the Project Node Tree

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

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

4.3.1 Radionics Panel Node Properties

Right-click on the Radionics panel node to open the properties. These fields correspond to those features that aren't part of the day to day running of the system. The rest of the fields are found on the **Quick Config** dialog.

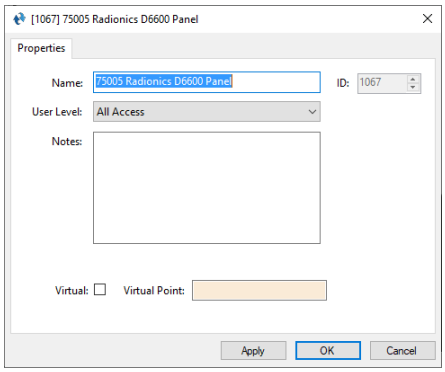


Figure 27 - Radionics node properties dialog

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 the software

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

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

4.3.2 Radionics 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 Radionics panel node and select *Quick Config*.

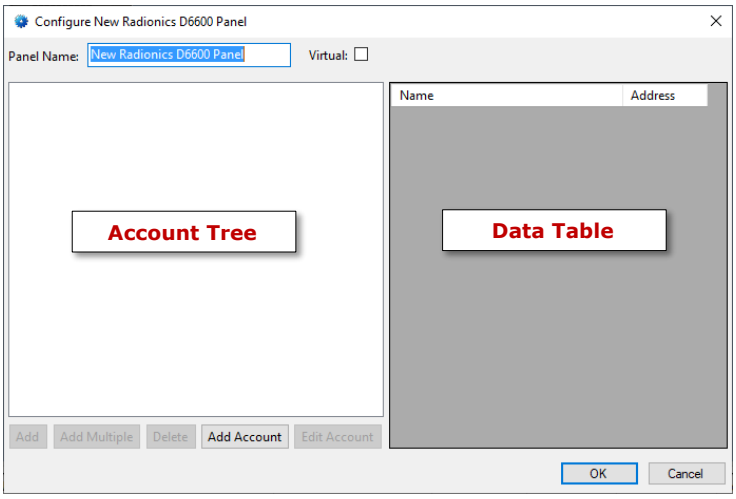


Figure 28 - Radionics panel Quick Config dialog

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

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

Account Tree – tree view; a tree view of the accounts and their properties

Data Table – edit table; the data associated with the selected account tree node if any

Add Account - button; click to add a new account to the panel; opens the **Radionics Account Information** dialog

Add - button; disabled when not applicable; add a child to the selected node

Add Multiple - button; disabled when not applicable; add multiple children to the selected node, opens the **How many would you like to add?** dialog

Delete - button; disabled when not applicable; delete the selected item; a **Confirm Delete** dialog displays

Edit Account - button; disabled when not applicable; edit the selected account

4.3.2.1 Add Account Button

Clicking on Add Account opens the **Radionics Account Information** dialog.

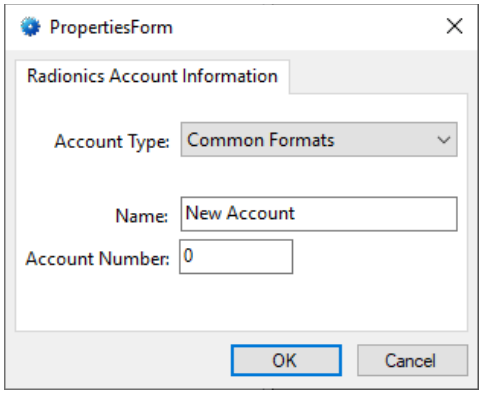


Figure 29 - Radionics Account Information dialog

Name – edit box; The name for the account

Account Number – numeric; the account number

Account Type – drop-down menu (default: *Common Formats*); the type of account to add

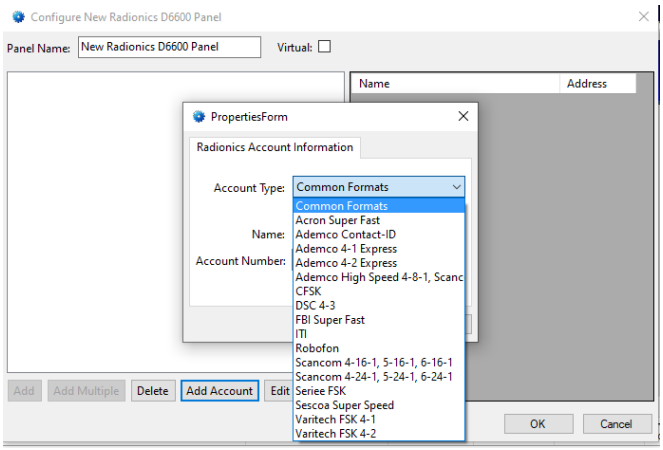


Figure 30 - The Account Types

4.3.3 Radionics Panel Child Nodes

The Radionics panel has different child nodes depending on the different account types added to it. When the panel is initially added and before any accounts have been added, it has two (2) child nodes:

- Internal Messages
- Alarms

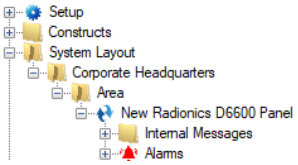


Figure 31 - The Radionics panel child nodes

Each account added to the Radionics panel will appear in the Tree as a child of the panel node.

4.3.3.1 Internal Messages

There are more than forty (40) **Internal Messages** many of which have child nodes of their own. Each internal message is a special type of I/O Point called a GenProto node.

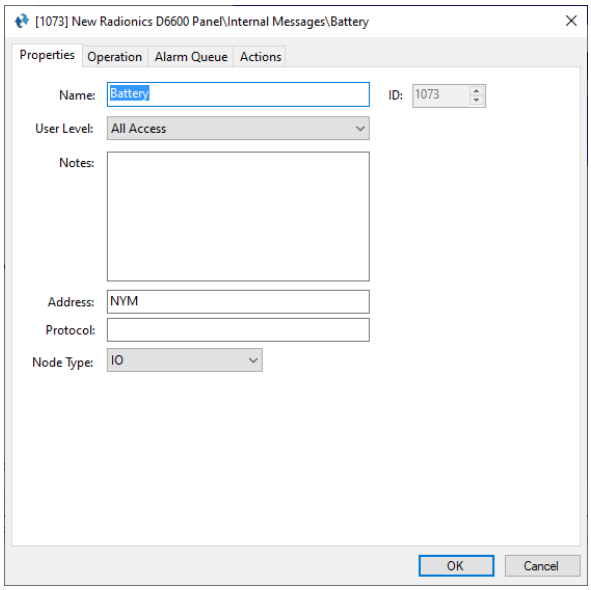


Figure 32 - A sample Internal Message properties dialog

Address – edit box; the content of the internal message

Protocol – edit box; always blank

Node Type – drop-down menu; the type of node; all internal message nodes are IO nodes

As one of these internal messages is received, the point may be pulsed or set on as appropriate for the message. If the internal message has child nodes that are sub-states, the corresponding sub-state will be set on as well. The **Battery** internal message is a good example.

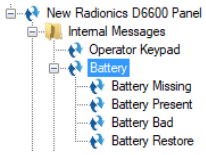


Figure 33 - The Battery internal message and its sub-states

The sub-state nodes are also GenProto nodes.

The **Battery** internal message has four (4) child nodes. When the **Battery** node is in the low state, the **Battery Present** node will be high. When the **Battery** node is high, the corresponding sub-state will be set as well to explain what specific issue is behind the **Battery** node being high.

4.3.3.2 Alarms

The alarms for the Radionics are located under the **Alarms** node. The only alarm is **Panel Status**.

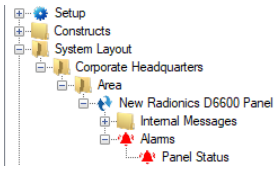


Figure 34 - Radionics panel Alarms child nodes

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

Commented [LT1]: Need the properties dialog for the Alarm point or at least an explanation of the type it is. There is a crash opening the context menu.

4.3.3.3 Account Nodes

When an account is added to the Radionics panel, that account appears as a child node of the panel in the Tree.

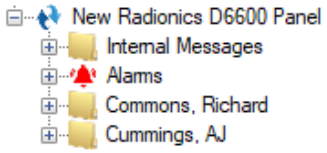


Figure 35 - A Radionics panel with Account child nodes

These child nodes are GenProto nodes.

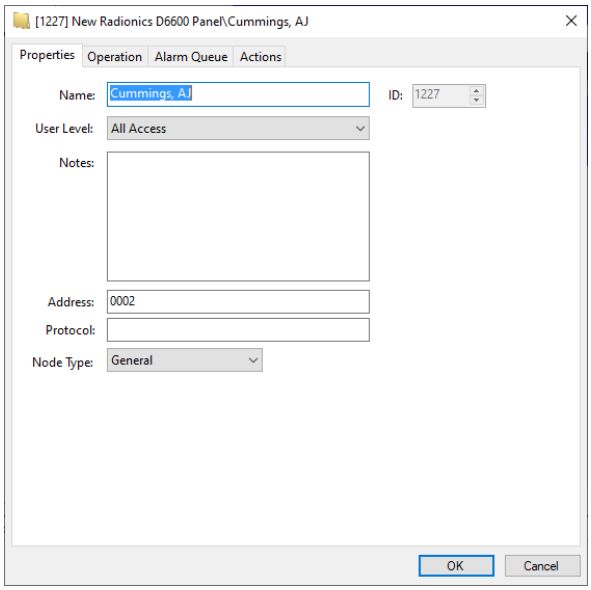


Figure 36 - Example Account node properties dialog

Address – edit box; the account number

Protocol – edit box; always blank

Note Type – drop-down menu; the node type is *General* for Account nodes

Expanding the account node reveals all the nodes associated with the **Account Type** selected when the account was added in the **Quick Config**. Each account type has different nodes. All of an account's child nodes are GenProto nodes as well. And the child nodes are either *General* or *IO* type nodes.

4.4 Automatically Created Screen Objects

When a node is dragged and dropped onto a screen, a button screen object is automatically created.

Figure 37 - Example automatically created screen object

If the **Node Type** is *General*, the screen object has only one state. If the **Node Type** is *IO*, the screen object has two (2) states. The first state, State 0, for each type is the same.

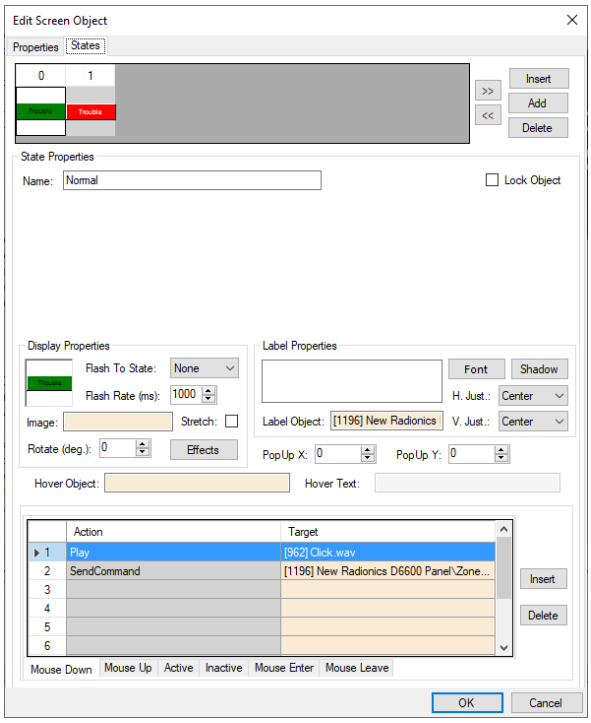


Figure 38 - State 0 for all Radionics automatically created screen objects

Notice the **Mouse Down** action grid. Clicking on this button will perform a **SendCommand** with the node used to create this screen object as the target.

Now let's examine State 1.

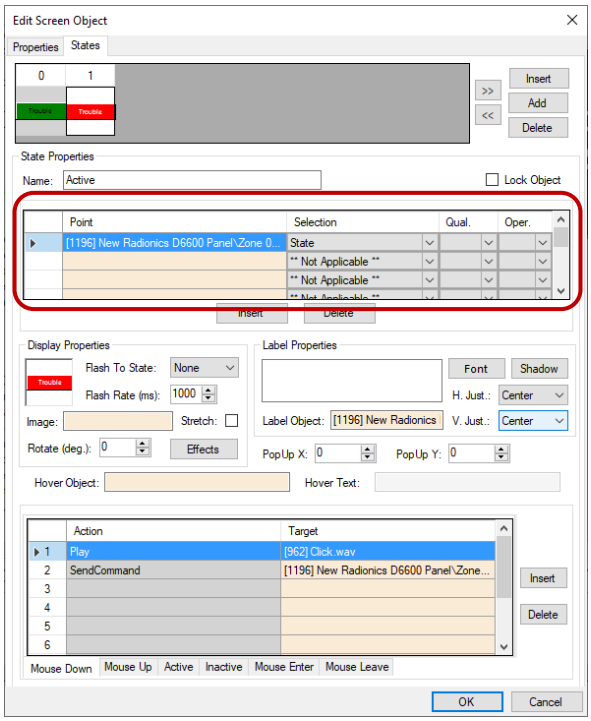


Figure 39 - State 1 for IO type Radionics nodes

Notice the evaluation grid in the red rectangle. This state is active when the IO Point is high. Again, the **Mouse Down** action grid executes a **SendCommand** targeting the node used to create this screen object when this button is clicked.

Revision History

YYYY-MM-DD Creation Date