ProSoft®

Where Automation Connects.

			Teations	Data Tara		
0.000			TagNarie	Data Type		
			RSSI	Integer		
B NDO	HE		FinWettion String			
FH	-1		SSID	Shing		
			MACID	Shing		
			ParentMAC	Shing		
			Associations	Integer		
			UpTime	Unsigned Inte	iger	
			TotBytTX	Integer		
			TotGoodPacksTX	Integer		
			ToPaiPacks1X	Integer		
			Scineter	Command		
Date	Time	Type	Source	Category	Details	



RLX-OPC-SRV

ProSoft Software

RadioLinx® OPC Server for Frequency Hopping and Industrial Hotspot[™] Radios

January 22, 2009

USER MANUAL

Please Read This Notice

The use and configuration of this software requires a reasonable working knowledge of the involved protocols and the application in which they are to be used. For this reason, it is important that those responsible for implementation satisfy themselves that the combination will meet the needs of the application without exposing personnel or equipment to unsafe or inappropriate working conditions.

This manual is provided to assist the user. Every attempt has been made to assure that the information provided is accurate and a true reflection of the product's functionality. In order to assure a complete understanding of the operation of the product, the user should read all applicable ProSoft documentation on the operation of the module and protocol driver.

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RLX-OPC-SRV User Manual January 22, 2009

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1 Start Here

In This Chapter

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For most applications, the following installation and configuration steps will work without additional programming. ProSoft Technology strongly recommends that you complete the steps in this chapter before developing a custom application.

This manual will walk you through the following tasks.

- **1** Setting up your network (page 15)
- 2 Install the server (page 17)
- **3** Configuring the server (page 19)
- **4** Security issues (page 35)
- **5** Setting up OPC client to monitor radios (page 57)

1.1 About the RadioLinx OPC Server

OPC is OLE for Process Control. OPC is open connectivity in industrial automation and the enterprise systems that support industry.

The purpose of the RadioLinx OPC Server is to seamlessly link customer applications to RadioLinx radios.

It will allow any application that can act as an OPC Client, such as an HMI, to interact with most RadioLinx radios to get signal strength, serial number, limited throughput information as well as other useful statistics.



The RadioLinx OPC Server operates in the background on any PC. It independently manages all requests from OPC Clients for information on RadioLinx radios. The clients can be programs running either on the same PC as the OPC Server or on a separate PC connected via a network connection.



1.2 Tags That Can Be Read



The RadioLinx OPC Server manages querying the RadioLinx radios over the appropriate connections. It is configured by the user to query RLX-FH, RLX-IH, RLX2-IHx, and RLX2-IFHx radios over the appropriate Ethernet port on the PC running the RLX OPC Server. The user defines a "connection" within the RLX OPC Server for a particular Ethernet port. They then simply associate as many RLX and RLX2 Ethernet radios with that port. The OPC Server then knows to direct any queries of those radios over that connection.

Note: For RLX-FHS radios, the connection will be done through the serial port.

The RadioLinx OPC Server is software provided by ProSoft Technology to assist in using RadioLinx products. The following sections we will guide you in installation of prerequisites, RLX OPC Server software, RLX OPC Configuration Tool, setting up the network, installing Server, configuring Server and connecting to Server, and how to monitor tags. Notes: Only one process can communicate to a radio at the same time. Attempting to communicate with more than one process at a time can cause unpredictable results. In order to prevent multiple processes from communicating to a radio at the same time, switch the RadioLinx OPC Server into pause mode while running ControlScape. In addition, the validation option on the server will be disabled when the server is running.



1.2.1 RadioLinx Industrial Hotspot Radios

- RLX-IH
- RLX-IHW
- RLX-IHW-66
- RLX2-IHx
- RLXIB-IHW
- RLXIB-IESC

Tag Name	Contracted name	Data Type
RSSI	RSSI	Integer
Firmware Version	FirmVersion	String
SSID	SSID	String
MAC ID	MACID	String
Up Time	UpTime	Unsigned Integer
Parent MAC	ParentMAC	String
Number of Associations	Associations	Integers
Total Bytes TX	TotBytTX	Integer
Soft Reset*	SoftReset	Integer
Total Good Packs TX	TotGoodPacksTX	Integer
Total Failed Packs TX	TotFailPacksTX	Integer

* Are also write tags. TX = Transmitted

1.2.2 RadioLinx Frequency Hopping Radios

- RLX-FHS
- RLX-FHE
- RLX-FHES
- RLX2-IFHx

Tag Name	Contracted name	Data Type
RSSI	RSSI	Integer
Signal-to-Noise Ration	SignalToNoise	Integer
Associations	Associations	Integer
Bit error Rate	BitErrRate	Floating Point
Reset Statistics*	Reset_stats	Integer
Serial Number	SerialNum	String
Parent Address	ParentAdd	Integer
Total Bytes Forward	TotBytFwd	Integer
Total Bytes Reverse	TotBytRev	Integer
TX Packet Errors	TxPackErrs	Integer
Total Good Packets	TotGoodPacks	Integer

* Are also write tags. TX = Transmitted

1.2.3 RLX-IFHE

Tag Name	Description		
RSSI	Receive Signal Strength Indicator measurement.		
Unit Description	Radio name		
IP Address	The IP Address	of the current radio.	
Unit Address:	The unit address is, and must be, a unique identifier of each modem in a network.		
	VALUES		
	1	Master	
	65535	Broadcast	
Retransmissions	This register det will be retransmi	ermines the maximum amount of times that a packet tted (in addition to the initial transmission).	
	VALUES		
	0-255		
Destination Address	This register spe	cifies the ultimate destination for the data.	
	VALUES		
	1-65535		
Roaming	This feature allows a Remote unit to synchronize with a specified 'upstream' unit (either Master or Repeater).		
	VALUES:		
	65535 full roaming		
	1-254 specific (fixed) unit address (Master or Repeat with which to associate		
Serial Number	Serial number of	radio (RF) module.	
Version	Firmware version within radio module.		

Tag Name	Description		
Temperature	Temperature as measured within the radio module.		
Voltage	Supply voltage as measured on motherboard.		
VSWR	Voltage Standing Wave Ratio. Ideally 1:1 (or 1.00), this value gives an indication of how much power is being reflected back to the radio from the antenna relative to how much is being transmitted.		
SoftwareVersion	Core radio firmware version (.mhx file)		
Operation Mode:	The selected mode of operation: Master, Repeater, or Remote.		
Link Rate:	This is the RF communications Link Rate. A lower link rate offers better receive sensitivity performance; a higher link rate, better throughput. All IFHx radios in a network must use the same Link Rate.		
RF Output Power:	This setting establishes the transmit power level which will be presented to the antenna connector at the rear of a IFHx network. Unless required, the RF Output Power should be set not for maximum, but rather for the minimum value required to maintain. FCC regulations allow for up to 36dBi effective isotropic radiated power (EIRP). The sum (in dBm) of the transmitted power, the cabling loss, and the antenna gain cannot exceed 36dBi.		
Network Type:	Type of RADIO network: Point-to-MultiPoint network (PMP), Point-To- Point network (PTP), Peer-to-Peer (P2P), or Everyone-to-Everyone (E2E)		
	VALUES:		
	Point-to-Multipoint		
	Point-to-Point		
	Peer-to-Peer		
	 Everyone-to-Everyone 		
	PMP with ACK		
Channel Mode	This option applies only to COM 1. Determines which serial interface shall be used to connect to external devices: RS232, RS485, or RS422. When an interface other than RS232 is selected, the DE9 port will be inactive.		
	VALUES		
	■ RS232		
	 RS485 		
	• RS422		
Data Baud Rate	The serial baud rate is the rate at which the modem is to communicate with the attached local asynchronous device.		
	NOTE: Most PCs do not readily support serial communications greater than 115200bps.		
	VALUES: bits per second (bps)		
	230400, 115200, 57600, 38400, 28800, 19200, 14400, 9600, 460800 and 921600 may be selected for RS422 or RS485 Channel Modes.		
Data Format	This setting determines the format of the data on the serial port. The default is 8 data bits, No parity, and 1 Stop bit.		
	VALUES:		
	8N1, 8N2, 8E1, 8O1, 7N1, 7N2, 7E1, 7O1, 7E2, 7O2		

Tag Name	Description			
Flow Control	Used to enhance the reliability of serial data communications, particularly at higher baud rates.			
	VALUES			
	Hardware	If the attached device supports hardware handshaking.		
	None If the attached device does not supp hardware handshaking.			
	CTS Framing	Uses the CTS signal to gate the output data on the serial.		
Ethernet Received Bytes	Specifies the number of bytes received by the Ethernet port.			
Ethernet Received Packets	Specifies the num	ber of packets received by the Ethernet port.		
Ethernet Received Multi-Cast	Specifies the numl Ethernet port.	ber of multi-cast packets that are received by the		
Ethernet Transmitted Bytes	Specifies the num	ber of bytes transmitted by the Ethernet port.		
Ethernet Transmitted Packets	Specifies the number of packets transmitted by the Ethernet port.			
Ethernet Collisions	The number of invalid packets caused from multiple devices transmitting Ethernet data at the same time.			
Radio Received Bytes	Number of bytes received by the Radio (RF).			
Radio Received Packets	Number of packets received by the Radio (RF).			
Radio Received Errors	Number of errors r	received by the Radio (RF).		
Radio Received Dropped Packets	Number of received dropped packets recorded by the Radio (RF).			
Radio Transmitted Bytes	Number of bytes transmitted by the Radio (RF).			
Radio Transmitted Packets	Number of packets transmitted by the Radio (RF).			
Radio Transmitted Errors	Number of Radio(RF) transmission errors.			
Radio Collisions	The number of invalid packets caused from multiple devices transmitting RF data at the same time.			
COM1 Received Bytes	Number of bytes re	eceived by the Serial port.		
COM1 Received Packets	Number of packets	s received by the Serial port.		
COM1 Transmitted Bytes	Number of bytes tr	ransmitted on the Serial port.		
COM1 Transmitted Packets	Number of packets transmitted on the Serial port.			

Tag name	Description		
RSSI	This register displays the average signal strength received over the previous 4 hop intervals. Should the downstream unit(s) fail, a Master will maintain the last RSSI reading display.		
	VALUES:		
	110 to –55dBm (maximum reading)		
Temperature	Temperature as measured within the radio module.		
Unit Address	The unit address is, and must be, a unique identifier of each IFHS radio in a network. The address value is 16-bits in length. The Master has by default, and must retain, a unit address of 1; 65535 is the broadcast address.		
	VALUES		
	2-65534		
Destination Address	As the name implies, this register specifies the ultimate destination for a modem's data.		
	Different network topologies dictate the configuration of Destination Address:		
	PMP: Master Destination Address = 65535, Remote Destination Address =1		
	PTP : Master Destination Address = UA of Remote, Remote Destination Address =1		
	P2P : Master Destination Address =65535, Destination Address of each (of 2 / pair) Remote radio is the UA of the other		
	E2E : Destination Address of all radios=65535 (broadcast)		
	VALUES		
	1-65535		
Retransmissions	This register determines the maximum amount of times that a packet will be retransmitted (in addition to the initial transmission), noting the following specific behaviors in various network topologies:		
	PMP: Master will retransmit each data packet the exact number of times specified; Slave will retransmit only if necessary, and then only until a given packet is acknowledged or the value of the Slave's retransmissions is reached (after which it will discard the packet if retransmission not successful).		
	PTP: Modem will retransmit to its counterpart only if necessary, and to a maximum number of the value in retransmissions. Packet is discarded if retransmissions are not successful. Recipients of packets will discard any duplicates.		
	In a PMP system, set retransmissions to the minimum value required as, effectively, the data throughput from Master to Remote is divided by 1 plus the number stored in retransmissions.		
	VALUES		
	0-255		
Roaming	Roaming dictates which radio (by Unit Address (UA)) a Remote unit will 'look' or 'attach to' for its upstream signal path. This feature allows a Remote unit to synchronize with a specified 'upstream' unit (either Master or Repeater).		
	The options are as follows:		
	Roaming=65535:		
	With this value in its roaming register, a Remote will synchronize with an		

1.2.4 RLX-IFHS

Tag name	Description			
	upstream unit which has the same network address and static mask as the Remote. Should that upstream unit fail, this Remote will attempt to synchronize with another 'upstream' unit within the same network. This ability is particularly well-suited to mobile applications.			
	Roaming=1-254:			
	In most static (fixed) networks, where there are no Repeaters, the default value of 1 is maintained: All Slaves synchronize to the Master (whose unit address (UA) is 1). In networks where Repeaters are present, the value of a Remote's roaming value corresponds to the particular upstream radio, with which a particular Remote is intended to communicate.			
	(e.g. A Slave with a UA=3 may have Roaming=2, where the radio with a UA=2 is a Repeater between the Slave and the Master; the Repeater will have Roaming=1.)			
	When setting up 3 radios for a Master-Repeater-Slave link, be sure to set the Slave's Roaming to the UA of the Repeater, and the Repeater's Roaming to the UA of the Master(1). This will ensure that data is routed from the Slave through the Repeater to the Master; otherwise, if the Slave's Roaming is left at the default value of 1, the Slave will communicate directly with the Master and bypassing the Repeater altogether.			
	VALUES:			
	65535 Full Roaming			
	1-254 Specific (fixed) UA of Master or Repeater with which to associate			
Voltage	Supply voltage as measured on motherboard.			
VSWR	Voltage Standing Wave Ratio. Ideally 1:1 (or 1.00), this value gives an indication of how much power is being reflected back to the radio from the antenna relative to how much is being transmitted.			
Operation Mode	The operating mode defines the role of a radio. An IHFS radio may be configured for any role required within a radio network. This is convenient for reasons of familiarity with any/all units, as well as for hardware sparing purposes.			
	The default operating mode is dependent on which factory default option is selected.			
	MASTER: Only one per network. In all network types data either originates at, is destined to, or 'passes through' the Master.			
	REPEATER: May act simply as a 'Repeater' to store and forward data to/from an upstream unit to/from a downstream unit (e.g. when there is a long distance between the latter units), or, may act as a Repeater/Slave in which case the above function is performed AND the unit may also exchange data as a Slave within the network.			
	SLAVE: Interfaces with remote devices and communicates with Master either directly or via Repeater(s). Communications between 2 or more Slaves is possible - through the Master.			
	A 'Remote' (non-Master) modem is either a Repeater or a Slave. If a Repeater is not being used as a Repeater/Slave (i.e. there is no device attached to its local data port), leave its handshaking OFF (&K0) and set the serial baud rate (S102) to 115200bps.			
	VALUES:			
	Master			
	Repeater			
	Slave			

Tag name	Description				
Link Rate	This register determines the rate at which RF communications will occur over a given network.				
	All radios within a particular network must be configured with the same wireless link rate.				
	Faster link rates result in greater throughput, however, for each 'step' increase in link rate, there is an approximately 1dB reduction in sensitivity.				
	VALUES				
	bits per second (bps) 19200 115200 172800 230400 270000 340000				
RF Output Power	This setting establishes the the antenna connector at the Power should be set not for required to maintain an adeo	transmit power level which will be presented to e rear of the radio. Unless required Output maximum, but rather for the minimum value quate system fade margin.			
	FCC regulations allow for up to 36dBi effective isotropic radiated power (EIRP). The sum (in dBm) of the transmitted power, the cabling loss, and the antenna gain cannot exceed 36dBi.				
	dBm	(m)((oquivalent)			
	20	(100)			
	21	(125)			
	22	(160)			
	23	(200)			
	24	(250)			
	25	(320)			
	26	(400)			
	27	(500)			
	28	(630)			
	29	(800)			
	30	(1000)			
Network Type	Defines the type of network: point-to-multipoint, point-to-point, peer-to-peer or everyone-to-everyone				
	In a point-to-multipoint (PMP) network, the Master broadcasts data to all units, and all remote units send their data (ultimately) to the Master.				
	A point-to-point (PTP) network involves a Master and a Slave (with 0 or more Repeaters in-between).				
	Peer-to-Peer involves either communication between 2 (typically remote) units (P2P) or between all units (everyone-to-everyone - E2E).				
	ALL modems in a network must have the SAME value for Network Type.				
	VALUES				
	Point-to-Multipoint				
	Point-to-Point				
	Peer-to-Peer or Everyone-to	-Everyone			

Tag name	Description
Channel Mode	Defines the physical serial interface which will be used for data communications.
	VALUES
	RS-232
	half-duplex RS-485
	full-duplex RS-485
Data Baud Rate	The serial baud rate is the rate at which the modem is to communicate with the attached local asynchronous device.
	VALUES
	bits per second (bps)
	300, 600, 1200, 2400, 3600, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 57600, 115200, 230400
Data Format	This value determines the format of the data on the serial port. The default is 8 data bits, No parity, and 1 Stop bit.
	VALUES
	8N1
	8N2
	8E1
	801
	7N1
	7N2
	7E1
	701
	7E2
	702
Radio Received Bytes	Number of bytes received by the Radio(RF).
Radio rEceived Packets	Number of packets received by the Radio(RF).
Radio Transmitted Bytes	Number of bytes transmitted by the Radio(RF).
Radio Transmitted Packets	Number of packets transmitted by the Radio(RF).
Repeaters in System	This setting applies to the Master only. The default value is No, stating there are no Repeaters in the network. If there are 1 or more Repeaters in the network, configure this setting as Yes.

1.3 System Requirements

The following system requirements are the recommended minimum specifications to successfully install and run RadioLinx OPC Driver.

- Microsoft Windows compatible PC
- Windows XP Professional with Service Pack 2 or higher, Windows VISTA, or Windows 2003
- Microsoft .NET Framework version 3.0 or higher
- 300 mHz Pentium processor (or equivalent)
- 128 megabytes of RAM
- 300 megabytes of available disk space

1.4 Set Up Network

See the ProSoft Technology documentation on your radio.

2 Installing the Server

In This Chapter

- Choosing the Right RadioLinx OPC Server Project for Your Application17
- *

2.1 Choosing the Right RadioLinx OPC Server Project for Your Application

- 1 Go to www.prosoft-technology.com, or use the ProSoft Technology supplied CD to retrieve RLX OPC software!
- **2** Open setup file and follow the install directions. The install process will copy the RLX OPC Server and OPC Configuration Tool onto your PC.

Note: Before installing, verify that you have the Microsoft .NET Framework (version 3.0 or greater) already installed. If you don't then download this from Microsoft.com and continue installing RadioLinx OPC Server. Select the ServerInstaller.msi file to install.

This is an example of the Tree structure you will see. See descriptions below and select the version for your system.



The Window XP Service RadioLinx OPC Server is the recommended version.

Windows XP Service RadioLinx OPC Server

🖺 Windows XP Service RadioLinx OPC Server.zip 173,464 KB Compressed (zippe...

This is the primary server project. The configuration tool will also be installed.

2.2 Installation Process

1 Launch the ServerInstaller.msi file to begin the installation process. You will be asked for a directory to install to. Select a directory that Windows will have access to for all user accounts and you would like to make the project available to.

A registry entry will be placed in the Windows Run folder in order to load some applications at Windows start up. These applications can only be launched by a Windows session if the current user account has access to the directory where the applications reside.

2 During the server installation process, you will be asked to install the OPC Core Components 2.00 Redistributable.

Note: Unless you are 100% sure that you already have these "Core" components installed, it is highly recommended that you complete this install as well.

3 When the installation is complete, you must restart your computer.

If you choose not to install the OPC Core Components and then later change your mind, you can find the setup file for the core components in the "\Setup" subdirectory of the main RadioLinx OPC Server folder.

3 Configuring the Server

In This Chapter

*	Opening the Configuration Tool19
*	Creating a Configuration21
*	Loading Your Configuration25
*	Validating Your Configuration26
*	Adding a Channel27
*	Channel Settings
*	Adding a Radio
*	Radio Settings
*	Adding Tags
*	Changing the Server's Update Rate
*	Adjusting an Existing Radio or Channel
*	OPC Reset Tags / Commands
*	Description of OPC "Commands"

3.1 Opening the Configuration Tool

When you first install the server and configuration tool, the server will not be configured to monitor your wireless radio network. The server is configured using a separate utility. The first step in the configuration process is to open the server and this utility.

Start OPC Monitor)

- 1 Click Start / Programs / RadioLinx OPC Server / RadioLinx OPC Monitor -or-
- 2 Double-click on **desktop icon** for server

Start OPC Configuration Tool - to open as a Client

1 Click Start / Programs / RadioLinx OPC Server / RadioLinx OPC Configuration Tool

-or-



Double-click on RadioLinx OPC Monitor system tray icon, —_____

Or right click on icon, then select Configure Server.

	About					
	Password Protect Server					
	Configure Server:					
	View لیخ Opens the configuration tool. Load Clear					
~	Client Connection: Run Pause Stop					
~	(Connected to Server)					
	Close Monitor [Server Remains Active]					

One of the above processes brings up the RadioLinx OPC Server Configuration screen shown below.

🕀 Rad	ioLinx	OPC Serv	ver Confi	iguratio	n			_ 🗆	×
File	Edit	Control	Server	View	Help				
Date		Time	Туре	Sc	urce	Category	Details		
									F
Configu	ration r	node							.:

3.2 Creating a Configuration

There are two methods for configuring the server. You can connect to the server and then configure it directly, or you can save your configuration to disk and then load it into the server manually.

3.2.1 Configure to Server Mode

When you use the Configure to Server mode, you will connect to a server running on the same machine as the Configuration Tool. The Configure to Server will save your work to the server.

The status bar (bottom of box) should now say "Configuring to file." When you connect to local or remote server it will change to "Configuring to server."

Configuring to file	Configuring to server
Status bar showing that	Status bar showing that
utility is configured to	utility is configured to
save to a file mode.	server mode.

Note: If you have not created and saved a file for your radio, please follow the instructions in Configure to File Mode for Adding a Channel (page 27), Radio (page 30) and Tags. (page 31)

Local Server Procedure

1 Click File / Configure to Server / Connect to Server / Local Server

The RadioLinx OPC Server Configuration box appears with Channel and Radio (upper left panel), Tags (upper right) and Server Time Log on bottom. If you right click on a date in Time Log, you can view details of that incident.

🔅 RadioLin:	RadioLinx OPC Server Configuration							
File Edit	Control S	ierver Vie	w Help					
eer1								
Date	Time	Туре	Source		Category	Γ		
1/31/2007	09:45:48	Warning	RadioLinx_0	PC_S	Communication	1		
1/31/2007	09:45:05		<u> </u>	PC_S	Communication	I		
1/31/2007	09:44:57	View Deta	ails	PC_S	Communication	1		
1/30/2007	15:07:55			°C_S	General	F		
1/30/2007	15:07:50	Refresh		2C_S	Communication	II		
1/30/2007	15:07:14	Clear		C_S	Communication	1		
1730/2007	10:07:04			IL_3	communication	- 11		

You can also configure a server that is running on another machine.

Remote Server Procedure

1 Click File / Configure to Server / Connect to Server / Remote Server

File Edit View Help		
Configure to File 🛛 🕨		
Configure to Server 🔸	Connect to Server 🔸	Local Server
Exit	Disconnect from Server	Remote Server
	Save Current Configuration to File	
	Load Configuration from File	
	Serialize Server	
	Control Server	

Enter the IP address or the name of the computer that the remote server is running on.

You can choose to attempt a secure remote connection, or not.

Note: If the IP address is not valid, you will receive a "Connection Failed" message.

Secure connections require certain Windows security options to be in place before they will work. The unsecured remote connection is a lot more reliable, but it is possible for others to intercept and interpret the messages that are sent.

2 Click **OK** button.

3.2.2 Configure to File Mode

This section details how to create a custom configuration for your server.

Note: Do not connect to a server using the Configuring to Server method.

If you are connected to the server, disconnect before proceeding.

1 Select File / Configure to Server / Disconnect from Server.

The status bar (bottom of screen) should now say "Configuring to file."



2 Add a Channel. Select Edit / Add Channel



3 Choose a Channel name and Channel type.

4 Click **Next**. FHS is for serial connections.



- **5** A dialog box will appear for connection timeout. Default is 2000 milliseconds, but you can decide your speed. Click **OK**.
- 6 Add a Radio. Select Edit / Add Radio.
 - or -
- 7 Now that you have a Channel, you can right click on your Channel name and select **Add Radio**. This will bring up the dialogue box below.

Add Radio		x
.A.	Enter for the co this radio.	onnection settings for
ProSoft	Name:	RLX
T E C H N O L O G Y	IP address:	
	Port:	4000
	Cancel	ОК

- 8 Choose a Name and give it your specific IP address. Click **OK** to accept.
- 9 Add or Remove Tags. Select Edit / Add/Remove Tags
 - or -
- 10 You can right click on your Radio name and select Add/Remove Tags.

File E	dit Control Server View
Exxla 🖃	
····	Refresh
	Add Channel
	Add Radio
	Add/Remove Tags
	Properties
	Remove

11 To Add or Remove tags, click on appropriate button. Then, click **OK**.



12 Click File / Configure to File / Save to File

File	Edit View Help		
~	Configure to File 🛛 🕨		New File
	Configure to Server 🔹 🕨		Load from File
	Exit		Save to File

13 Choose a directory and file name and click **Save**. The Status bar shows utility in "Configuring to file".

g to file

If you want more detailed information on the procedures above please go to Adding a channel, Adding a radio, Adding tags, and adjusting an existing radio or channel in this manual.

3.3 Loading Your Configuration

When you are finished creating and saving your configuration in the RLX OPC Configuration Tool, you should Close it.

Note: If you saved your configuration to file, you will now need to load it into the RLX OPC Server.

If you chose the Configure to server method, none of the following steps are necessary. Skip to "Validating Your Configuration."

1 Right click on the **RLX OPC Server** system tray icon and make sure that the server is stopped. If Stop is checked, the server is stopped.

	About
	Password Protect Server
	Configure Server:
	View
	Load
	Clear
	Client Connection:
	Run
	Pause
~	Stop
~	(ConfDisconnects OPC clients from server.)
	Close Monitor [Server Remains Active]

- 2 If the server is running, select **Stop** to stop the server.
- 3 Right-click on the **RLX OPC Server** system tray icon and select **Load Configuration.** The "Select Configuration" box opens.
- 4 Navigate to the directory where you saved your file and open it.



When the configuration is finished loading, the Configuration Results dialog will appear.

The Configuration Results dialog describes the configuration that was loaded into the server. Items that are listed green were successfully configured. Red items could not be configured. Select an item in order to see more details about why it could not be loaded.



3.4 Validating Your Configuration

Before you attempt to connect to the server with your OPC client, you may want to test your configuration and make sure everything is configured properly.

1 Right-click on the **RLX OPC Server** system tray icon and select **View Configuration.**

The view pane on the left of the dialog shows you what channels and radios are configured. The view pane on the right shows what tags are configured for each radio.

2 Click Validate to test the configuration.

The server will attempt to communicate to your wireless radios. After a pause, the items in the two view panes will turn green or red. Green items were contacted successfully. Red items could not be contacted.

Radios or channels that remain white have no tags associated with them. No attempt is made to contact these items. Notice that the current values of the tags are also displayed after validating.

Name	Data Type	Value
SoftReset	Command	0
TotFailPacksT>	(Integer	1
TotGoodPacks	TX Integer	375861
TotBytTX	Integer	11474540
UpTime	Unsigned Integer	63538
Associations	Integer	0
ParentMAC	String	00.00.00.00.00.00
MACID	String	00.0D.8D.F0.00.FF
SSID	String	MFG_WA_TEST
FirmVersion	String	04.21.13.0F
RSSI	Integer	-100
		-

Note: You can re-verify you are connected by pressing validate again. This will update the values.

3 Click **Close** when you are finished.

Notes: Only one process can communicate to a radio at the same time. Attempting to communicate with more than one process at a time can cause unpredictable results. In order to prevent multiple processes from communicating to a radio at the same time, switch the RadioLinx OPC Server into pause mode while running ControlScape. In addition, the validation option on the server will be disabled when the server is running.

3.5 Adding a Channel

Wireless radio networks are composed of RadioLinx radios of the same type configured to communicate together. In the server, these networks are represented by channels. A channel is a communications stream for communicating to a specific type or model of radio.

The first step in configuring the server is to add a channel for your wireless network.

1 Click Edit / Add Channel

-or-

Right click on top left pane and select **Add Channel** from the context menu.

A dialog opens.



- 2 Enter a custom name for the channel.
- 3 Select the RadioLinx product that the channel will communicate to from the drop down list.
- 4 Click OK.

Another dialog opens.

5 Enter the settings specific to your radio network into this dialog.

(See also: Channel Settings)

6 Click OK.

A channel with the given name appears in the top left view pane.

3.6 Channel Settings

Connection Timeout: The time the server will wait for a response from the radio.

3.6.1 RLX-IH Channel



3.6.2 RLX-FHE Channel



3.6.3 RLX-FHS Channel

Add Channel	X
	Enter settings for this FHS channel. Name of COM port: COM1 Baud rate: 115200 Parity: None V Data bits: 8 Stop bits: One V
	Handshaking: None
	Timeout (ms): 2000
	Cancel OK

Name of COM port: The label of COM port that you are using to communicate to the radio.

Baud rate: The baud rate of the COM port.

Parity: The parity settings for the COM port.

Data bits: The number of data bits used for communication via the COM port.

Stop bits: The number of stop bits used for communication via the COM port.

Handshaking: The flow control used by the COM port.

Timeout: The number of milliseconds that the server will wait for a response from the radio.

Note: The settings can be copied from the properties window of the COM port that you are using to connect to the radio network.

Note: The settings you enter for your FHS channel must be compatible with your com port.

3.6.4 RLX-IFHE Channel



3.6.5 RLX-IFHS Channel

Add Channel		×
ProSoft	Enter settings for this IFHS channel. Name of COM port:	
	Baud rate: 115200 Parity: None	
	Data bits: 8 Stop bits: One	•
	Handshaking: None	
	Timeout (ms): 2000	
	<u>Q</u> K <u>C</u> ancel	

3.7 Adding a Radio

Purpose: Add radios that are part of your network to server configuration so that OPC clients can monitor radio tags.

- **1** Select appropriate channel.
- 2 Click Edit / Add Radio.

-or-

Right click on appropriate channel / **Add Radio**... "Add Radio" dialog opens.

- 3 Enter a custom name for the radio.
- 4 Enter settings for communicating to radio.

See Radio Settings for more details.

3.8 Radio Settings

3.8.1 IH Radios

IP: The IP address of the IH radio to connect to. For more details, browse for radios using the RadioLinx IH Browser.

Port: Defaults to 161. Only change if you have good reason for doing so.

Community: The SNMP community of this radio. Defaults to public. Enter a new value if you have changed the SNMP community of any of your radios.

3.8.2 FHE Radios

IP: The IP address of the FHE radio to connect to. For more details, inspect your ControlScape wireless network settings.

Port: Defaults to 4000. Only change if you have good reason for doing so.

3.8.3 FHS Radios

Radio address: The radio address of the radio to communicate to. For more details, inspect your ControlScape wireless network settings.

3.8.4 IFHE Radios

IP: The IP address of the FHE radio to connect to. For more details, inspect your ControlScape wireless network settings.

Port: Defaults to 4000. Only change if you have good reason for doing so.

3.8.5 IFHS Radios

Radio address: The radio address of the radio to communicate to. For more details, inspect your ControlScape wireless network settings.

3.9 Adding Tags

Purpose: To select specific values to present to OPC clients.

- 1 Select radio.
- 2 Click Edit / Add/Remove Tags.

-or-

Right click on radio or top right pane and select **Add/Remove Tags.** The Add/Remove Tags dialog opens.

- 3 Select the tags you wish to allow clients to monitor and click the ADD button.
- 4 Select the tags you no longer want clients to monitor and click **Remove**.
- 5 Click Add All or Remove All to add or remove all tags.
- 6 Click **OK** for tag changes to be accepted.

3.10 Changing the Server's Update Rate

Purpose: To change the update rate of the server.

- 1 Click Edit / Server settings...
- 2 Enter a new refresh rate.
- 3 Click OK.

Warning: It is not advisable to set the refresh rate lower than 3 to 5 seconds.

3.11 Adjusting an Existing Radio or Channel

3.11.1 Removing Items

- 1 Select item to remove.
- 2 Click Edit / Remove Item.
- **3** Confirm removal.

-or-

Right-click on item to remove and select **Remove**... from drop down menu.

4 Confirm removal.

-or-

Click File / Clear All to remove all items from the configuration.

3.11.2 Properties

Purpose: To change the settings or rename an existing item.

- 1 Select an item.
- 2 Click View / Properties.
- 3 The Properties dialog opens.
- 4 Make necessary changes.

Click **OK**. -or-Right-click on an item and select **Properties.**

3.12 OPC Reset Tags / Commands

The following OPC tags behave differently than the rest:

- ResetStats
- SoftReset

These OPC tags are referred to as commands. They are used for sending messages to radios instead of monitoring values.

Commands have 3 possible values: -1, 0, 1.

The default value is 0.

-1 indicates that an error occurred when trying to send a message to a radio.

0 indicates success when trying to send a message to a radio.

1 instructs the server to send the message to the radio.

The value of a command is solely driven by write requests from OPC clients. This value will not be updated except in response to write requests.

To send a specific message to a radio, write a 1 to the respective OPC tag. The server will forward the request to the radio and will then assign the OPC tag a value of 0 or -1. 0 if the request was completed successfully, -1 if it failed.

You can set or clear the status of a command by writing a 0 or -1 value to it. The server will only send the specified message to the radio when the command is set to 1.

3.13 Description of OPC "Commands"

3.13.1 ResetStats (RLX-FH radios)

Clears the following radio values to zero:

- TotBytFwd
- TotBytRev
- TotGoodPacks
- TXPackErrs

3.13.2 SoftReset (RLX-IH radios)

SoftReset causes the RLX-IH radio to reboot. The radio will be temporarily unavailable while rebooting. It is normal for other tags from this radio to change to quality "OPC_QUALITY_LAST_KNOWN" while the radio is unavailable. After 5 to 30 seconds this situation should right itself automatically. Any attempt to send a SoftReset command while the radio is rebooting will fail and SoftReset will get a -1 value from the server.

Rebooting RLX-IH radios causes the following tags to be reset to zero:

- TotBytTX
- TotFailPacksTX
- TotGoodPacksTX

4 Security and Password Protection

In This Chapter

4.1 Password Protection for the Server

4.1.1 Password Protecting the Server

You can create a password for the server in order to prevent anyone from modifying your configuration.

- 1 Right-click on the system tray icon for the ProSoft OPC Server.
- 2 On the context menu that appears, select Password Protect Server...

A dialog opens.

- **3** Enter a password for the server and then retype the password in the confirmation box.
- 4 Click OK.

A confirmation dialog pops up.

You will now be required to enter this password whenever you wish to make any changes to the server.

4.1.2 Removing Server Protection Password

After creating a password for the server, you can choose to remove the password to allow easier access to the server, either temporarily or permanently.

- 1 Right-click on the system tray icon for the ProSoft OPC Server.
- 2 On the context menu that appears, select Password Protect Server.

A dialog opens requesting the current server protection password to continue.

- **3** Enter your server protection password. Remember, this value is case sensitive.
- 4 Click OK.

The Password Protection dialog opens.

5 Click Clear Password to remove password protection.

A confirmation dialog will appear.
5 **DCOM Configuration**

In This Chapter

*	DCOM Configuration
*	My Computer Properties Checks
*	Component Services
*	RadioLinx OPC Server Properties50

5.1 DCOM Configuration

The following are instructions that will enable an OPC client in Windows XP and Windows Vista to connect to the Local or Remote RadioLinx OPC Server.

This connection was performed where the user logged into the Local and the Remote PC. Both PCs are in the same domain. Consult with your IT person about DCOM Configuration for RadioLinx OPC Server when the OPC Server is located on a separate domain from the OPC Client.

Caution: In the following examples the "permissions" have been given to all potential users on the domain. You need to configure permissions to the specific users only, to fully take advantage of the DCOM security options.

1 Click Start / Run. Enter dcomcnfg.exe

Run	<u>?</u> ×
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	dcomcnfg.exe
	OK Cancel Browse

2 Click OK.

Follow this branch for going to My Computer in Component Services window.

3 Console Root / Component Services / Computers / My Computer



4 Right click on **My Computer**. Select **Properties**. This will bring up the My Computer Properties screen.

Note: Verify with your network administrator regarding Allow and Deny checks for each of the following steps.

5.2 My Computer Properties Checks

- 1 The next tasks will be to click on each tag, General, Options, Default Properties, Default Protocols, MSDTC and COM Security. Each one will have Allow and Deny checks that need to be made.
- 2 Select **COM Security**. Notice the two fields in dialog box. Click **Edit Default** for Access Permissions.

General	Options	Default Properties
Default Protocols	MSDTC	COM Security
Access Permissions		
You may edit who is also set limits on app	allowed default access plications that determine	to applications. You ma their own permissions.
	Edit Limits	Edit Default
You may edit who is activate objects. You determine their own	allowed by default to la u may also set limits on permissions.	aunch applications or applications that
You may edit who is activate objects. Yoi determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	aunch applications or applications that Edit Default
You may edit who is activate objects. You determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	unch applications or applications that Edit Default
You may edit who is activate objects. Yo determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	unch applications or applications that Edit Default
You may edit who is activate objects. Yo determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	unch applications or applications that Edit Default
You may edit who is activate objects. Yo determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	unch applications or applications that Edit Default
You may edit who is activate objects. Yo determine their own	allowed by default to la u may also set limits on permissions. Edit Limits	unch applications or applications that Edit Default

Select **Allow or Deny** per your installation / application requirements. **Unsure?** Contact your IT or network administrator.

Access Permission	? 🛛	Access Permission	?×
Default Security		Default Security	
<u>G</u> roup or user names:		Group or user names:	
SELF		SYSTEM	
Permissions for SELF	Add <u>B</u> emove	Permissions for SYSTEM	Add <u>B</u> emove
Local Access Remote Access		Local Access Remote Access	
	OK Cancel		OK Cancel

3 Click Edit Default for Launch Permissions. Click on each group and select Allow or Deny.

Launch Permission		? 🗙
Default Security		
Administrators (NGRGAS46 INTERACTIVE INTERACTIVE INTERACTIVE	00TEST\Administr	ators)
	Add	Remove
Permissions for Administrators	Allow	Deny
Local Launch Remote Launch Local Activation Remote Activation		
	ОК	Cancel

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aunch Permission	?	Launch Permission	? 🗙
Default Security		Default Security	
Group or user names:		Group or user names:	
Administrators (NGRGAS460 INTERACTIVE SYSTEM	10TEST (Administrators)	Administrators (NGRGAS INTERACTIVE SYSTEM	4600TEST \Administrators)
Permissions for INTERACTIVE	Add <u>R</u> emove	Permissions for SYSTEM	A <u>d</u> d <u>B</u> emove
Local Launch Remote Launch Local Activation Remote Activation		Local Launch Remote Launch Local Activation Remote Activation	28
	OK Cancel		OK Cancel

4 Click Security Limits for Access and Launch Permissions. Click on each group to select **Allow or Deny**.

Access Permission		?×	Access Permission		?>
Security Limits Group or user names: MANONYMOUS LOGON Everyone			Security Limits Group or user names: ANONYMOUS LOGON Everyone		
Permissions for ANONYMOUS LOGON Local Access Remote Access	Add Allow	Remove	Permissions for Everyone Local Access Remote Access	Add Allow	Remove Deny
	ОК	Cancel		OK	Cancel

aunch Permission Security Limits Group or user names:	00TEST\&dministra	tors)	Launch Permission Security Limits Group or user names:	4500TEST\Administrators)
Permissions for Administrators	Add	<u>R</u> emove	Everyone Bermissions for Everyone	Add <u>B</u> emove
Local Launch Remote Launch Local Activation Remote Activation	2007 2017 2017 2017 2017 2017 2017 2017		Local Launch Remote Launch Local Activation Remote Activation	
	ОК	Cancel		OK Cancel

5 Click **Default Properties**. Click on your selection. Then, select **Options** and complete menus.

My Computer Properties 🛛 😨 🔀
Default Protocols MSDTC COM Security General Options Default Properties
Enable Distributed COM on this computer Enable COM Internet Services on this computer Default Distributed COM Communication Properties
The Authentication Level specifies security at the packet level. Default Authentication Level:
Connect The impersonation level specifies whether applications can determine who is calling them, and whether the application can do operations using the client's identity.
Default Impersonation Level:
Identify
Security for reference tracking can be provided if authentication is used and that the default impersonation level is not anonymous. Provide additional security for reference tracking
OK Cancel époky

Default Protocols MS General Options	DTC COM Security Default Properties
ransaction Timeout Fransaction timeout (seconds):	[EI
port	
Application Proxy <u>R</u> SN:	
Check local store when choosing	partition for user
Check local store when choosing	partition for user
Check local store when choosing	partition for user
Check local store when choosing	partition for user
Check local store when choosing	partition for user

6 Select MSDTC, Default Protocols and General and complete each.

General	0	ptions	Default	Properties
Default Proto	cols	MSDTC	CO	M Security
efault Coordina ▼ ∐se local c	ator coordinator			
Renole Host				Gelect
og Information	(Currently owr	ned by NGRGAS46	OOTEST)	
Location:	C:\WINDO	NS\system32\MSI	Dtc	Browse
<u>C</u> apacity:	4	МВ		<u>R</u> eset log
lient Network <u>F</u>	Protocol Config	guration		
CP/IP				•
ervice Control tatus: Started a	Status for MS	DTC version 03.01	.00.4414	
gian	Stop			
ransaction Cor	nfiguration	 Tracing C	lptions	
Security Co	nfiguration		racing Opti	o <u>n</u> s
		1040		

My Computer Properties			?8
General C Default Protocols)ptions MSDTC	Default	Properties DM Security
DCOM Protocols			
Connection-oriented TCP.	/IP		
	Newster	Maus Daum	Properties
Agu	WE WE LET	MOVE DOWN	<u>r</u> iopenies
The set of network protoco	ls available to	DCOM on this m	nachine. The
ordering of the protocols rel with the top protocol having	lects the prioril g first priority.	ty in which they	will be used,
	ОК	Cancel	Abek

My Computer Properties	i	? 🐼
Default Protocols General	MSDTC Options	COM Security Default Properties
	ST	
Description:		
	ОК	Cancel Apoly

5.3 Component Services

1 Go to **DCOM Config** folder and right click on **OpcEnum** and select "**Properties**."

Component Services		
le Action View Window Help		X
← → E ■ × ☎ 2 8 2 4 5	# m = 9	
Console Root	DCOM Config	
😑 🙋 Component Services	Name	Application ID
E Computers	MMC Application Class	{49B2791A-B1AE-4C90-9B8E-E860B
- H My Computer	Mobsync	{6295DF2D-35EE-11d1-8707-00C04I
COM+ Applications	MSDAINITIALIZE	{2206CDB0-19C1-11D1-89E0-00C04
Decom coning Distributed Transaction Coordinator	S MSMQ	{DCBCADF5-DB1b-4764-9320-9a508
	MSSHED	{5F6C4077-12F5-11D3-8CEE-00500-
Event Viewer (Local)	naProductManager	{B07BAB64-7807-4A8F-8829-6FF4F
+ Services (Local)	The second secon	{27AF75ED-20D9-11D1-B1CE-00805
	NetMeeting.	{5CE55CD8-5179-11D2-931D-0000F
	Network Provisioning Service	{39ce474e-59c1-4b84-9be2-2600c3:
	OInfoP11	{8C271700-ADBC-4381-B4A2-2E27C
	OpcEnum	{13486D44-4821-11D2-A494-3CB30
	OPCSniffer Class	{0FAAE42A-35AF-49d4-B7E5-D4D12
	The second secon	{C04E4E5E-89E6-43C0-92BD-D3F2C
	Outlook Message Attachment	{00020D09-0000-0000-C000-000000
	Outlook Office Finder	{0006F01F-0000-0000-C000-000000
	Paintbrush	{D3E34B21-9D75-101A-8C3D-00AAC
	PDFShellInfo Class	{A5090E95-F1E2-41C8-BDA1-5AEB6
	PenIMC2	{63CE6D27-426A-41F9-8E51-549C1
	PrintFilterPipelineSvc	{76db1bf3-e820-4765-a1b2-0b16a8
	RadioLinx_OPC_Server	{9454e6e0-2aa8-e145-8f66-607cc3c
	RDSessMgr	{038ABBA4-4138-4AC4-A492-4A3DF
	RDSHost	{5123EB69-F99E-461C-B6C3-CE6E8:
	Remote Storage Recall Notification Client	{D68BD5B2-D6AA-11d0-9EDA-00A02
	RemoteProxyFactory32 Class	{53362C32-A296-4F2D-A2F8-FD984
	Removable Storage Manager	{D61A27C1-8F53-11D0-8FA0-00A02
	Removable Storage Sink Layer	{0057B183-85ED-4751-A3C7-0DA29
	Removable Storage UI Layer	{003E771E-DF5E-40C0-94A2-4109FI
	RSVIEW Activity Logging Editor	{75C53680-7A32-1018-9ECA-04021

2 Select and complete **General** and **Location** tabs.

General	Location	Security	Endpoints	Identity	
Gene App App Aut Ser	ral propertie dication Nar dication ID: dication Typ nentication I vice Name:	is of this D ne: Op (11 e: Lo Level: N Op	COM applica icEnum 3486D 44-482 cal Service one icEnum	ation 21-11D2-A4\$	4-3CB306C10000}

OpcEnum Prope	ties	? 🔀
General Location	Security Endpoints Identi	ty
The following sett application. If you applicable one, C	ings allow DCDM to locate the make more than one selection, ient applications may overide y	correct computer for this then DCOM uses the first our selections.
🔲 Run applicatio	on on the computer where the <u>c</u>	lata is located.
🔽 Run applicatio	on on <u>t</u> his computer.	
🗍 Run applicatio	on on the <u>following</u> computer:	
		Erowse
	ОК	Cancel Apply

3 Select **Security** tab. For each of the three areas, select **Customize** and **Edit**. For each, you will check **Allow** or **Deny** according to your needs.

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eneral Location Security Endpoints Identi	ty	Security		
Launch and Activation Permissions		Group or user names:		
C Use Default		🕵 Everyone		
Customize	Edit	SINTERACTIVE	teem	
		SYSTEM		
Access Permissions				
C Use Default			Add	<u>R</u> emove
• Customize	E <u>d</u> it	Permissions for Everyone	Allow	Deny
		Local Launch		
Configuration Permissions		Remote Launch		
Conliguration Permissions		Remote Activation		H
C Use Default			1000	
and the second sec	Edit			
Customize	- Giorri			
C Customize				

Launch Permission		?×	Launch Permission	_	?×
Security			Security		
Group or user names:			Group or user names:		
😥 Everyone			f Everyone		
			MINTERACTIVE		
Neven Girgas (ngrgas@psit.c 2 SYSTEM	omj		R Neven Grgas (ngrgas@pstt.	comj	
	A <u>d</u> d	<u>R</u> emove	,	Add	<u>R</u> emove
Permissions for INTERACTIVE	Allow	Deny	Permissions for Neven Grgas	Allow	Deny
Local Launch	 Image: A set of the set of the		Local Launch	Image: A start and a start	
Remote Launch			Remote Launch		
Local Activation			Local Activation	×	
- Hemole Activation			nemote Activation		
	ОК	Cancel		ОК	Cancel

Launch Permission		?×	Access Permission	_	?×
Security Group or user names: Security Everyone Security INTERACTIVE Neven Grgas (ngrgas@ps SYSTEM	ft.com)		Security Group or user names: Structure Structure Neven Grgas (ngrgas@psf SYSTEM	t.com)	
I Permissions for SYSTEM	A <u>d</u> d Allow	<u>R</u> emove	Permissions for Everyone	Add Allow	<u>R</u> emove
Local Launch Remote Launch Local Activation Remote Activation	N N N N N N N N N N N N N N N N N N N		Local Access Remote Access	¥ ¥	
	OK	Cancel		OK	Cancel



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Access Permission		?×	Change Configuration Permis	sion	?×
Security Group or user names:			Security Group or user names:	IOTEST\Administra	tors)
Neven Grgas (ngrgas@p SYSTEM	sft.com)	Proven	CREATON OWNER Creaton		
Permissions for SYSTEM	Allow	 Deny	Permissions for Administrators	Allow	<u>H</u> emove
Local Access Remote Access			Full Control Read Special Permissions		
			For special permissions or for adva	anced settings,	Advanced
	ОК	Cancel		ОК	Cancel



Change Configuration Permission	ř.	?×	Change Configuration Perr	nission	?×
Security		1	Security		
Group or user names: Administrators (NGRGAS4600TES CREATOR OWNER Everyone Neven Grgas (ngrgas@psit.com)	TVAdministrator	s)	Group or user names:	sft.com) 500TEST\PowerUsers 5T\Users)	\$)
Permissions for Neven Grgas	A <u>d</u> d	<u>R</u> emove	Permissions for Power Users	Add	<u>R</u> emove Deny
Full Control Read Special Permissions	✓✓		Full Control Read Special Permissions		
For special permissions or for advanced click Advanced.	d settings, A	dvanced	For special permissions or for a click Advanced.	dvanced settings,	Advanced

ecurity			Security		
Broup or user names:			Group or user names:		
Neven Grgas (ngrgas@psft Power Users (NGRGAS460 SYSTEM	.com) 10TEST\PowerUse	rs)	Neven Grgas (ngrgas@p: Power Users (NGRGAS4) SYSTEM	sft.com) 600TEST\PowerUse	ers)
🚮 Users (NGRGAS4600TEST	'\Users)		Users (NGRGAS4600TES	(TNUsers)	
<			<	1	
	Add	<u>R</u> emove		Add	Remove
Permissions for SYSTEM	Allow	Deny	Permissions for Users	Allow	Deny
Full Control Read Special Permissions			Full Control Read Special Permissions		
for special permissions or for adv click Advanced.	vanced settings,	Advanced	For special permissions or for a click Advanced.	dvanced settings,	Advanced
	ОК	Cancel		ΟΚ	Cancel

5.4 RadioLinx OPC Server Properties

1 Go to DCOM Config and right click on RadioLinx_OPC_Server and select "Properties." Then, select each tab; General, Location, Security, Endpoints and Identity. Complete each dialog box for each.

Component Services		
🚱 File Action View Window Help		_ I& X
	::: <u>m</u> = a	
Console Root	DCOM config	
Computers	Name	Application ID
My Computer	Network Provisioning Service	{39ce474e-59c1-4b84-9be2-2600c3
T COM+ Applications	OInfoP11	{8C271700-ADBC-4381-B4A2-2E27C
🕂 🔄 DCOM Config	OpcEnum	{13486D44-4821-11D2-A494-3CB30
+ 🛄 Distributed Transaction Coordinator	OPCSniffer Class	{0FAAE42A-35AF-49d4-B7E5-D4D12
🗉 🧰 Running Processes	Cotkloadr	{C04E4E5E-89E6-43C0-92BD-D3F2C
🕀 🛐 Event Viewer (Local)	Outlook Message Attachment	{00020D09-0000-0000-C000-000000
🗄 🦓 Services (Local)	Outlook Office Finder	{0006F01F-0000-0000-C000-000000
	Paintbrush	{D3E34B21-9D75-101A-8C3D-00AAC
	PDFShellInfo Class	{A5090E95-F1E2-41C8-BDA1-5AEB6
	PenIMC2	{63CE6D27-426A-41F9-8E51-549C1
	PrintFilterPipelineSvc	{76db1bf3-e820-4765-a1b2-0b16a8
	RadioLinx_OPC_Server	{9454e6e0-2aa8-e145-8f66-607cc3c
	RDSessMgr	{038ABBA4-4138-4AC4-A492-4A3DF
	RDSHost	{5123EB69-F99E-461C-B6C3-CE6E8:
	Remote Storage Recall Notification Client	{D68BD5B2-D6AA-11d0-9EDA-00A02
	RemoteProxyFactory32 Class	{53362C32-A296-4F2D-A2F8-FD984
	Removable Storage Manager	{D61A27C1-8F53-11D0-8FA0-00A02
	Removable Storage Sink Layer	{0057B183-85ED-4751-A3C7-0DA29
	Removable Storage UI Layer	{003E771E-DF5E-40C0-94A2-4109FI
	RSVIEW Activity Logging Editor	{75C53680-7A32-101B-9FCA-04021
	RSVIEW Activity Logging Server	{8F8AE740-F32D-101A-B011-04021
	RSVIEW Alarm Database Editor	{7ad63500-a0ae-101b-80de-04021c
	RSVIEW Alarm Editor	{F1FFD5E0-7D32-101B-82AF-04021
	RSVIEW Alarm Logging Viewer	{0FC14780-A3ED-101C-BA86-04022
	RSVIEW Alarm Quarterback	{30D41900-EFE6-101A-82AF-04021
	RSVIEW Alarm Summary	{3EA26600-2C94-101B-82AF-04021
	RSVIEW Alarm Suppressed List	{9B2D4140-73EF-101B-82AF-04021(
	RSVIEW Channel Editor	{382C5861-8062-1018-A6C4-04021

Note: As you walk yourself through each dialog box, verify decisions with your IT person or administrator for your environment.

Location Seci	urity Endpoints Identity
General properties of th	nis DCOM application
Application Name:	RadioLinx_OPC_Server
Application ID:	{9454e6e0-2aa8-e145-8f66-607cc3c203f9}
Application Type:	Local Service
Authentication Level:	None
Service Name:	RadioLinx_OPC_Server

ieneral Location	Security	Endpoints	Identity	
The following sett application. If you applicable one. C	ings allow D make more lient applica	COM to loca than one se tions may ov	ate the correc ection, then eride your se	ct computer for this DCOM uses the first elections.
Run applicati	on on the co	omputer whe	re the <u>d</u> ata is	located
Run applicati	on on the fo	llowing comp	outer:	
				Erowse.

RLX-OPC-SRV ProSoft Software

RadioLinx® OPC Server for Frequency Hopping and Industrial Hotspot™ Radios

Access Permissions			
C Use Default C Customize Edit	I Permissions for Administrators	A <u>d</u> d Allow	<u>R</u> emove Deny
Configuration Permissions C Use Default C Customize Edit	Local Launch Remote Launch Local Activation Remote Activation	Y Y Y	



Launch Permission		?×	Access Permission		?×
Security <u>Group or user names:</u> Administrators (NGRGAS4 Everyone INTERACTIVE SYSTEM	600TEST \Administrate	(arc	Security Group or user names: Everyone SELF SYSTEM		
Permissions for SYSTEM Local Launch Remote Launch Local Activation Remote Activation	Add Allow V V	Remove	Local Access Remote Access	Agd Allow V	<u>R</u> emove
	OK	Cancel		ОК	Cancel



RLX-OPC-SRV ProSoft Software

RadioLinx® OPC Server for Frequency Hopping and Industrial Hotspot™ Radios

hange Configuration Permissi	ion	?×	Change Configuration Per	mission	?
Security			Security		
Group or user names:			Group or user names:		
Administrators (NGRGA54600T CREATOR OWNER Everyone Neven Grgas (ngrgas@psft.cor	m)		Administrators (NGRGAS CREATOR OWNER CREATOR OWNER CREATOR OWNER Reveryone	4600TEST\Administra sft.com)	ators)
Permissions for Administrators	Add	<u>R</u> emove	Permissions for CREATOR	A <u>d</u> d	<u>R</u> emove Deny
Full Control	v		Full Control		
Read			Read	V	
Special Permissions	×		Special Permissions	4	
For special permissions or for advance click Advanced.	ced settings,	Advanced	For special permissions or for a click Advanced.	idvanced settings,	Advanced
	ОК	Cancel	-	ОК	Cancel

Change Configuration Perm	nission	?×	Change Configuration Permis	sion	?×
Security			Security		
Group or user names:			Group or user names:		
Administrators (NGRGAS4	600TEST\Administrator	s)	Administrators (NGRGAS460 CREATOR OWNER	DTEST\Administrato	ors)
Everyone Neven Grgas (ngrgas@psi	(t.com)		Everyone	iom)	,
	<u>Add</u>	<u>R</u> emove		Add	<u>R</u> emove
Permissions for Everyone	Allow	Deny	Permissions for Neven Grgas	Allow	Deny
Full Control			Full Control		
Read Special Permissions			Read Special Permissions		
For special permissions or for ac click Advanced.	Ivanced settings,	dyanced	For special permissions or for advacinck Advanced.	inced settings,	Advanced
	ОК	Cancel		OK	Cancel

Change Configuration Permission	?×	Change Configuration Permi	ssion	?×
Security		Security		
Group or user names:		<u>G</u> roup or user names:		
Neven Grgas (ngrgas@pstt.com) Power Users (NGRGAS4600TEST\Power Users) SYSTEM Users (NGRGAS4600TEST\Users)		Neven Grgas (ngrgas@psft. B Power Users (NGRGAS4600 SYSTEM Users (NGRGAS4600TEST)	com))TEST\PowerUse \Users)	rs)
<	> [×]	<		> ×
Add E	Remove	Permissions for SYSTEM	A <u>d</u> d	<u>R</u> emove
Full Control		Full Control Read Special Permissions	V	
For special permissions or for advanced settings, Ac click Advanced.	dyanced	For special permissions or for adv click Advanced.	anced settings,	Advanced
OK	Cancel		ОК	Cancel

Neven Grgas (ngrgas@p Power Users (NGRGAS4 SYSTEM SYSTEM	osft.com) 1600TEST\PowerUse ST\Users)	ers)
	A <u>d</u> d	<u>R</u> emove
ermissions for Users	Allow	Deny
Full Control Read Special Permissions	Y Y	
r special permissions or for	advanced settings,	Advanced

6 Connect to Server and Monitor Tags

In This Chapter

This chapter provides a few examples of software programs and using the RLX OPC server. They show typical installation and helpful steps.

6.1 Matrikon Example

6.1.1 Connections

The following procedure will be for a Local Connection.

For the Remote Connection, the user will expand the Network Neighborhood branch and select the appropriate computer in the Network that contains the RadioLinx OPC Server. Then follow the identical sequence as in creating a Local Connection.

2 Select a local (Localhost\\...) or remote (Network Neighborhood) branch to expand.

Matrikon OPC Explorer - [Untitled]						
<u>File Server Group Item View Help</u>						
		2	6 🕑 🖬	R .		
Localhost "\\NGRGASDELL5150"						
🖅 🐨 🌝 Localhost '\\NGRGASDELL5150'	-					
Network Neighborhood						
Other Network Computers						
Server Info			 		Group Inf	in la
	1					-
	1					
						1.

3 The expanded branch displays the installed and available OPC Servers in the selected computer.

Matrikon OPC Explorer - [Untitled]				- 🗆 ×
<u>File Server Group Item View H</u> elp				
	🍽 🤹 🖻 📥	🖉 💓 🕸 🛒 🙆 👘		
Localhost "\\NGRGASDELL5150"				
Cocalhost 'IVIGRGASDELL5150' GT ArchestrA.FSGateway GT ArchestrA.FSGateway GT ArchestrA.FSGateway.1 GT DataLayers.Simulation.1 GT Matrikon.OPC.ControlLogix.1 GT Matrikon.OPC.Simulation.1 GT Matrikon.OPC_Server GT RadioLinx_OPC_Server GT RadioLinx_OPC_Server GT RadioLinx_OPC_Server GT RSLinx CPC Server GT RSLinx Remote OPC Server Other Network Computers				
Server Info			Group Info	

4 Select RadioLinx_OPC_Server. Right-click and select Connect to create a connection between Matrikon OPC Client and the RadioLinx_OPC_Server.



5 Right-click and select **Add Group** to create a group that will hold Server Tags.

Matrikon OPC Explorer - [Untitled*]				×
File Server Group Item View Help				
2 🐼 🖀 🖻 💣 🏾 🖉 🖉	ᅖ 🕹 🖄 📥	Ŕ		
RadioLinx_OPC_Server				
Connect C				
Other Network Computers				
Server Info			Group Info	
Server: RadioLinx_OPC_Server				
Connected: Yes				
State: Running Groups: 0 Current Local Time: 2/1/2007 8:45:47 AM Update Local Time: 2/1/2007 8:45:14 AM Bandwidth Usage: 0				

6 Enter a Group Name. Modify options as desired, and then click OK to accept the Selections.

🚔 Add Group					?×
New Group Settir	ngs:				
Group <u>N</u> ame:	Type Group Name here	e	🔽 Create Active		
Update Rate:	1000	(msec)	Asynchronous I/O	•	Cancel
% <u>D</u> eadband:	0	(Full Scale)			
Time <u>B</u> ias:	(GMT-08:00) Pacific Ti	ime (US & Canada); T	ijuana	·	

The new group is created (Group_1).

7 Right click on **Group_1** and select **Add Items**. This will enable specific Tag selection.

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8 Expand the branches in the "Available Items in Server 'RadioLinx_OPC_Server':" field to display the available Server Tags.

📩 MatrikonOPC Explorer (Group_1)	?×
<u>File E</u> dit <u>V</u> iew	
🗙 🍇 🗙 🔳 🍋 🖓 🤜	
TagEntry	Tags to be added:
Item ID:	
Data Type: Empty/Default 💌 🔽 Create Active	
Access Path:	
Eilter: Data Type Filter: Empty/Default	
☐ Write Access ☐ Read Access ☐ Branches ☐ Items	
Available Items in Server 'RadioLinx_OPC_Server':	
🧰 Available Tags	
model and the second	
100 BitErrRate	
	I V
Tim DSST	
Two SerialNum	
100 SignalToNoise	
100 TotBytFwd	
TotBytRev	
100 TotGoodPacks	
1000 TxPackErrs	
	li.

9 Right click (Highlight) on Available Tags field empty section to add All tags, or right click over a specific Tag to add specifically it to the list for monitoring.



10 Tags that will be added to the OPC client.

MatrikonOPC Explorer (Group_1)		? ×
File Edit View		
🗚 🦉 🗙 🔳 🎦 🔂 🥌		
Tag Entry	Tags to be added:	
TAG Item ID:		
- 1		
Data Type: Empty/Default 🔻 🔽 Create Active	a 🔥	
Access <u>P</u> ath:		
Eilter: Data Type Filter: Empty/Default	JIt 💌	
Write Access Read Access Ranches II	Thems	
Available Items in Server RadioLinx_OPC_Server :		
Available Tags		
M Associations		
100 FirmVersion		
100 MACID		
M ParentMAC		
100 RSSI		1
100 SoftReset		
TIM SSID		
TotBytTX Edit Item ID		
TotFailPacksTX Add to Tag List		
TotGoodPacksTX Add All Items to Tag List		
Time Up Time		
a all items to the tag list using the data type, active state, and	access path settings listed above.	

11 Click on the **Clipboard icon** to Validate the Tags. A *green checkmark* next to the Tag icon in the "Tags to be added:" field indicates that it is a Valid tag.

12 Click the **Red X** icon to Close the Item Browser and add the Selected Items to the Client Monitor.



13 The selected RadioLinx OPC Server tags are being monitored by Matrikon OPC Explorer.

Matrikon OPC Evolorer - [Untitled*]						
File Server Group Item View Help						
Group_1	Contents or Group_1			(.		
□ Gradiost \WGRASDELISIS0' □ Gradiost A.PSGateway □ Gradiost A.PSGateway.1 □ Gradiostaryses.Simulation.1 □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses.Gradiostaryses □ Gradiostaryses □ Gradiost	Item ID Item ID Item IA.Associations Item II.H.Associations Item II.H.Associations Item II.H.Association Item II.H.Association Item II.H.SSI Item II.H.SSI Item II.H.SSI Item II.H.Totspirtx Item II.H.Totspirtx	Access Path	Value 0 0 0 0 0 0 0 0 0 0 0 0 0	Quality Good, non-specific Good, non-specific	Timestamp 2/1/2007 9:03:15 AM 2/1/2007 9:03:15 AM	Status Active Active Active Active Active Active Active Active Active Active Active Active Active
Network Neighborhood						
We other Network Compaters	•					
Server Info					Group Info	
Server: RadioLinx_OPC_Server Connected: Yes State: Running Groups: 0 Current Local Time: 2/1/2007 9:03:16 AM Update Local Time: 2/1/2007 9:03:27 AM Bandwidth Usage: 0				Group: Group_1 Connected (Async I/O Active: Yes Items: 11 Current Update Rate: Percent Deadband: 0.	i) : Yes (2.0) 1000 ms 00%	

There is one Tag that may be controlled from the Matrikon OPC Explorer. That tag is labeled "SoftReset".

This is the example on how to activate the SoftReset tag.

1 Right-Click over the SoftReset Tag. Select the Write Values option.

Matrikon OPC Explorer - [Untitled*]							
File Server Group Item View Help							
£ @ @ @ # # # # # # # # # #	🥌 💥 💁 🛃 🙆						
Group_1	Contents of 'Group_1'						
🖃 🖓 Localhost '\\NGRGASDELL5150'	Item ID	Access Path	Value		Quality	Timestamp	Status
	11.IH.Associations		0		Good, non-specific	2/1/2007 9:43:55 AM	Active
···· OFC ArchestrA.FSGateway.1	11.IH.FirmVersion		04.13.12.0)E	Good, non-specific	2/1/2007 9:43:55 AM	Active
OK DataLayers.Simulation.1	11.IH.MACID		00.0D.8D.F	F0.00.06	Good, non-specific	2/1/2007 9:43:55 AM	Active
	11.IH.ParentMAC		00.00.00.0	00.00.00	Good, non-specific	2/1/2007 9:43:55 AM	Active
Matrikon.OPC.ControlLogix.1	1H.IH.RSSI		0		Good, non-specific	2/1/2007 9:43:55 AM	Active
Matrikon.OPC.Simulation.1	H.IH.SoftReset		0		Good, non-specific	2/1/2007 7:43:30 AM	Active
DRCSOFT FUE ODCS	11.IH.SSID		PAIR_0	Write Va	lues ic	2/1/2007 9:43:55 AM	Active
Structure PROSOFT.FTD_OPCServer	11.IH. TotBytTX		21915205	Deactiva	ic ic	2/1/2007 9:43:55 AM	Active
	11.IH. TotFailPacksTX		0		ic	2/1/2007 9:43:55 AM	Active
OF RSLiny OPC Server	11.IH. TotGoodPacksTX		667380	Delete	ic lice	2/1/2007 9:43:55 AM	Active
OR RSLinx Remote OPC Server	11.IH.UpTime		1303462	Propertie	es Alt+Enter ic	2/1/2007 9:43:55 AM	Active
H Metwork Neighborhood							
Other Network Computers							
· ·	4						•
Server Info						Group Info	
Server: RadioLinx OPC Server				c	Group: Group 1		
Connected: Yes				0	Connected (Async I/C): Yes (2.0)	
State: Running				,	Active: Yes		
Groups: 0				1	tems: 11		
Current Local Time: 2/1/2007 9:43:56 AM					Current Update Rate:	1000 ms	
Bandwidth Usage: 0					creene beaubanu. 0.	50 70	
, <u> </u>	,						

2 Enter 1 into the New Value field and Click OK. This action will reset the values of the Following Tags: (TAG1, TAG2...)

/ Wr	ite ¥alues			E	? ×
Multi	iple Value 💧 Signal	Generator			
	Item ID	Current Value	Data Type	New Value	I
	IH.IH.SoftReset	0	Integer	1	
·					
				el Apply	
					_

6.2 **RSView Example**

6.2.1 Connections

The following procedure will be for a Local Connection.

For the **Remote Connection**, refer to **Step 5**. Then follow the identical sequence as in creating a Local Connection.

1 In this example the SE Stand-alone is being demonstrated. Click on **Continue** button.



2 Enter a desired OPC Client name into the "Application Name:" field. Click on Create.

New/Open SE Stand-alone Application				
New Existing				
Application name:	RadioLinx_OPC_Client			
Description:				
Language:	English (United States), e	n-US	Import	
RSView Studi	0	<u>C</u> reate	Cancel	

3 After about a minute the following window is generated by RSView Studio program.



4 Right Click over the RadioLinx_OPC_Client branch to select the RadioLinx OPC Server.



5 Enter a desired name for the OPC Data Server.

Select **Local** server host, then click on **Browse** button to select RadioLinx OPC Server in installed in the Local Computer. - or -

Select **Remote** server host, then click on **Browse** button to select RadioLinx OPC Server in installed in the Remote Computer.

×

6 Select the RadioLinx_OPC_Server and Click OK.



7 Proper OPC Server has been browsed for and selected. Click OK.

OPC Data Server Properties	? ×
General Advanced	
Name:	
RLX_OPC_Server	
, Description:	
Computer hosting the server	
 Server will be hosted on local computer 	
Server will be hosted on remote computer	
localhost	Browse
UPU Server name (ProgID):	(
RadioLinx_OPC_Server	Browse
OK Cancel Apply	Help

The appropriate OPC Server has been added to the project.

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8 Right click over Tags to start creating RSView tags that will be connected to the RadioLinx OPC Server. Select Open.



9 Enter the desired tag name into "**Name:**" field. Select the RSView Tag **Type**. Click on the **Data Source** Address selection button.

🔏 RSView Studio - SE Stand-alone 📃 🗖
Eile Edit View Settings Iools Window Help
Explore: RadioLinx_OPC_Client RadioLinx_OPC_Client RadioLinx_OPC_Client
RLX_OPC_Server RadioLinx_OPC_Client System D: Command Line HMI Tags Mame: Total_Bytes_Forward
Images Type: Analog Security: * Accept Images Displays Description: Discard Discard Images Images Maximum: 100 Offset: 0 Data Type: (Default) Images
Parameters P P
Alam Setup Search For: Logic and Control Derived Tags Events Client Keys Client Keys
Data Log Data Log Models System Policies Bystem Users and Groups Tags - /Radi
X 🖓 In service. The server RNA://\$Local/RadioLinx_OPC_Client:RadioLinx_OPC_Client (Tag Server) on computer NGRGASDELL5150 is now active.
10 Right-click over the selected branch and select Refresh All Folders.

💡 Tag Browser		<u>? ×</u>
Select Tag		
Folders	Contents of '/'	
RadioLinx_OPC_Client	Refresh Folder	Description
	Refresh All Folders	
	Show Server Names	
	New HMI Tag Folder	
Tag filter:		•
Selected Tag		
Home area: /		
	OK Cancel	Help

11 Expand the branches and select **TotBytFwd** RadioLinx OPC Server Tag name. Click **OK** to continue.

🔗 Tag Browser		? ×
Select Tag		
Folders	Contents of V::FH/FH	
■ RadioLinx_OPC_Client ■ FH ■ FH ■ F5 ■ IH ● IN ● system	Name Associations BitErrRate ParentAdd ResetStats RSSI SerialNum SignalToNoise TotBytRev TotBytRev TotGoodPacks TxPackErrs	Description
Tag filter:		•
Selected Tag		
FH.FH.TotBytFwd		
Home area: /		
OK	Cancel	Help

12 The RSView Tag name Total_Bytes_Forward has been linked to the RadioLinx OPC Server tag name TotBytFwd. In the Tag group select the (Default) Data Type. Click Accept to Continue.

otal_Bytes_Forwar	ed.			
	ru -			0.056
nalog 💌	Security: *			Accept
				Discard
Sc	ale: 1	Units:		0000
00 Of	ifset: 0	Data Type: ((Default))	Ð	Bew
				Help
Device C Mer	nory			
H.FH.TotBytFind				
				_
	Device C Mer H.FH.TotBytFwd	Security: * * Scale: 1 Scale: 1 Offset: 0 Device C Memory LFH.TotBytFwd	valog x Security: x x Scale: 1 Units: Offset: 0 Data Type: (2010/23) Device C Memory LFH.Totbytfwd	valog * Security: * * Scale: 1 Units: Offset: 0 Data Type: (Defoult) * Device C Memory LFH.TotbytFwd

13 Enter another tag name into Name: field. Select the RSView Tag Type. Click on the Data Source Address selection button.

🔏 RSView Studio - SE Stand-alone	
Elle Edit View Settings Iools Window Help	
Provide Andreas Decision of the second	
RLX_OPC_Server	
A RadioLinx_OPC_Client	
Grag System	
Close Command Line Name: Reset Statistics	
Graphics Accept	
Displays Description: Discard Discard	
B Carlo Directos Minimum: 0 Scale: 1 Units:	
🕒 🔂 Images Maximum: 100 Offset: 0 Data Type: (Default) 💌 🖉	
Parameters Data Source Help	
Type: © Device C Memory	
Ze Source and Source a	
Trend Snapshots	
Alm Tag Name Type	
Logic and Control	
Derived Tags	
Client Keys	
🗄 🔤 Data Log	
Data Log Models	
ere ayasen	
표·물 Networks and Devices 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	
Users and Groups	
🔊 🗘 In service. The server RNA://\$Local/RadioLinx_OPC_Client:RadioLinx_OPC_Client (Tag Server) on computer NGRGASDELL5150 is now active. 📰 📴 🛛	lear <u>A</u> ll
NUM	

Contraction Select Tag		<u>?</u> ×
Folders	Contents of V::FH/	FH'
RadioLinx_OPC_Client	Name Associations BitErrRate ParentAdd ResetStats SerialNum SignalToNoise TotBytFwd TotBytFwd TotBytRev TotGoodPacks TxPackErrs	Description
Tag filter:		
Selected Tag		1
FH.FH.ResetStats		
Home area: /		
OK	Cance	l <u>H</u> elp

14 Select ResetStats RadioLinx OPC Server Tag name. Click OK.

15 After clicking on the Accept button, the second sample RSView tag name has been linked with the second RadioLinx OPC Server Tag name (as indicated in this screen capture). Click Close.

🎸 Tags - /Radiol	inex_OPC	_Client/				_ 🗆 ×
Tag						- dun - 1
Name: Res	et_Ratisti	cs				Close
Type: Ansi	0g <u>P</u>	1	Security:			Prev
Description:						New
Minimum: 0		Scale:	1	Units:		una Tr
Maximum: 100	_	Offsel	t: 0	Data Type: (Default)		New
Data Source						Help
Type: 🕫 D	evice (Memory	y			
Address: FHJ	H.Resets	tats				
						- #øm
Search For:		Alm	Tag Name	2	Type	
	1		Total_Byt	cs_Forward		
	2		Reset_Sta	tistics		
	3					
- U tysten						

16 Let's create a display for the two tags link.



Getting ready to create two tag displays.



17 Selecting the RSView tag that has already been linked its RadioLinx OPC Server Tag.

🖇 Tag Browser		? ×
Select Tag Folders	Contents of '/'	
■ General Content ■ General Content <	Name Reset_Statistics Total_Bytes_Forward	Description
Tag filter:		•
Selected Tag		
Home area: /		
	ОКС	ancel <u>H</u> elp

18 Formatting the appearance of the RSView Tag.

Numeric Variable		×
<u>T</u> ag:		
Total_Bytes_Forwa	ď	
<u>N</u> umber of digits:	Decimal places:	<u>Fill left with:</u>
12 🔽	0 💌	None
	ОК	Cancel Help

19 Formatting of the RSView Text Property.

General Common Text /*N:12 Total_Bytes_Forward NOFILL DP:0*/ Insert Variable Font: Size: Arial 10 ♥ B U Back color Alignment: Back style: Fore color C C Transparent ✓ Size to fit C C C	Text Properties			×
Text /*N:12 Total_Bytes_Forward NOFILL DP:0*/ Insert Variable Font: Size: Arial 10 • B • U · Back color Alignment: Back style: Fore color C • Transparent • ✓ Size to fit C • C •	General Common			
I fext /*N:12 Total_Bytes_Forward NOFILL DP:0*/ Insert Variable Font: Size: Arial 10 v B 10 v Back color Alignment: Back style: Fore color C C C Transparent Vord wrap C C C				
/*N:12 Total_Bytes_Forward NOFILL DP:0*/ Insert Variable Font: Size: Arial 10 B III Back color Alignment: Back style: Fore color C Transparent Vord wrap C C	- l ext			
✓ Font: Size: Arial 10 Back color Alignment: Back style: Fore color C C C ✓ Size to fit ✓ Size to fit ✓ Word wrap	/*N:12 Total_Bytes_	Forward NOFILL [DP:0*/	
✓ Font: Size: Arial 10 ■ ■ … Back color Alignment: Back style: … Fore color C C Transparent ▼ ✓ Size to fit C C Transparent ▼ ✓ Word wrap C C C C				
Insert Variable Font: Size: Arial 10 B II Back color Alignment: Back style: Fore color C Transparent Size to fit C C Word wrap C C				
Font: Size: Arial 10 × B ∠ U Back color Alignment: Back style: Fore color C C C Transparent × ✓ Size to fit C C C Transparent × ✓ Word wrap C C C Transparent ×				
✓ Font: Size: Arial 10 ▼ B ∠ ⊥ ⊥ Back color Alignment: Back style: Fore color ○ ○ ○ Transparent ▼ ✓ Size to fit ○ ○ ○ ✓ Word wrap ○ ○ ○				
Insert Variable Font: Size: Arial ▼ 10 ■ ■ ✓ Ш Back color Alignment: Back style: ■ ■ ✓ Ш Back color CCC Transparent ▼ ✓ Size to fit © CCC ✓ Size to fit © CCC ✓ ✓ ✓ ✓			T	
Font: Size: Arial IO IB IU Back color Alignment: Back style: Fore color C C C Transparent Vord wrap C C C C			Insert Variable	
Arial Image: Total and the state of the	Font:	Size:		
Back color Alignment: Back style: ■ Fore color C C C Transparent ▼ Size to fit C C C ▼ Word wrap C C C	Arial 🔹	10 🗸	B I <u>U</u>	
Back color Alignment: Back style: ■ Fore color CCC Transparent ▼ ✓ Size to fit CCC ✓ Word wrap CCC		A.P		
If the color If ansparent If Size to fit C C C If Word wrap C C C	Back color	Alignment	Back style:	
	Size to fit	ecc	Transparent	
	Word wrap	000		
OK Cancel Apply Help	OK	. Cancel	<u>A</u> pply Help	

20 One Tag's label and RadioLinx OPC Server link has been created.



21 Select the appropriate RSView tag to display the RadioLinx OPC tag's value.

🖗 Tag Browser		<u>? ×</u>
┌ Select Tag		
Folders	Contents of '/'	
RadioLinx_OPC_Client	Name Reset_Statistics	Description
Tag filter: (None)		•
Selected Tag Reset_Statistics Home area: /		
	ОКС	ancel <u>H</u> elp

22 In this example the value must be set to 1.

Command Wizard Step 2 of 2
Syntax: [&]Set [/V] <tag> <value tag></value tag></tag>
Iag: Reset_Statistics
☐ Verify ✓ Asynchronous (Does not wait)
- Set to
⊙ Value or Label
C Percentage
C String
© <u>Ω</u> ther tag
Command String: &Set Reset_Statistics 1
Help Cancel < Back Finish

23 Either Press Action or Release Action may be used.

Button Properties	×
General Action Up Appearance Down Appearance Common	
Action:	
Run command	
Press action:	
&Set Reset_Statistics 1]
Repeat action:	.
<u>R</u> epeat rate (secs): 0.25 Release action:	
	ן נ
OK Cancel Help	

24 Appearance of the Total Bytes Forward tag's appearance and the Reset Statistics button appearance in the Edit window.



25 Activating the Run Mode. Observe the display of the Total bytes Forward Tag's value as polled by the RSView's OPC Client Run window from the RadioLinx OPC Server communicating to RLX-FHE radio. Click on the **Reset** Statistics button to reset the value of the Total Bytes Forward tag.



26 The question marks may or may not show up for a few seconds. It will depend on the Ethernet traffic.



27 After a few seconds notice the lower value for the Total Bytes Forward tag. We are not able to observe a value of 0 (zero) because, by the time RLX-FHE radio receives the Command to reset its statistics to the time the Radio receives the pole request from RSView OPC Client to display the reset value, the radio has already incremented it's Total Bytes Forward count.

🔏 RSView Studio - SE Stand-alone	<u>- 0 ×</u>
<u>Eile Edit View Settings Objects Arrange Animation Tools Window H</u> elp	
■ ■ ● ■ ● ※ ■ 電 縦 田田 句 回 功 됨 및 文 2 박 앱 및	
▶ 9 4 詳山 ○ ○ ○ \ ○ △ □ □ ○ 💀 🖯 11 🖉 🖬 🖉 🖬 🖉 🖉 🖉 🖉 🖉 🖉 🖉 🖉 🖉 🖉	
╡回♀┇┽⊻┽≍┥┝▼▲Ў★ <mark>韓</mark> ╻╘┇╠टॿ囪⊚妪삨़	
Image: Source of NGRGASDELISTS0 RadioLinx_OPC_Server RadioLinx_OPC_Clent System Image: Tags Image	
Set Reset_Statistics 1	Clear <u>A</u> ll
For Help, press F1	

6.3 WonderWare Example

1 Select or expand the **DAServer Manager**.

🎊 SMC - [ArchestrA System Management Console (NGRGAS)	DELL5150)\DAServer Manager]
File Action View Help ← → € III IV III	
	DAServer Manager Name DoePC560PCserver

2 Start a new Node Group

💋 SMC - [ArchestrA Sys	stem Management Console (I	NGRGASD	ELL5150)\DAServer Manager]	- 🗆 🗵
File Action View He	elp			
← → 🗈 💽 🛃	E. 2			
💋 ArchestrA System Mana	gement Console (NGRGASDELL51	50)	DAServer Manager	
DAServer Manager	About DAServer Manager		Name	
E Log Viewer	New 🕨	Node Gr	roup	
	View 🕨			
	Refresh			
	Export List			
	Help		1	
Create a new node group -				

3 Give the **Node Group** a name.



4 Start the selection of a Node (PC in the network) in the Group.

🌈 SMC - [ArchestrA Syst	em Management Conso	le (NGRGASDI	ELL5150)\DAServer Manager\RLX_0	PC_Server]	- 🗆 ×
File Action View Help)				
← → 🗈 🖬 🗙 🛛	1 🖪 😫				
💋 ArchestrA System Manag	ement Console (NGRGASDEI	LL5150)	RLX_OPC_Server		
🖻 🛃 DAServer Manager			Name		
I JoePC560PCserv	er New Node Group	1	There are no ite	ems to show in this view.	
	New 🔸	Node	1		
	View 🕨				
	Delete				
	Rename				
	Refresh				
	Export List				
	Help				
Create a new node under the	group		-		

5 Click Browse to see the available Nodes (PCs in the network) that will contain the RadioLinx OPC Server.

New Node		×
Node Name:		Browse
	ОК	Cancel

6 Select the desired Node, and then click **OK** to make the connection to the selected Node.

Browse Nodes	
Domain : 🗐 PSFT	
Node	
S NGRGASDELL5150	
	New Node
	Node Name: NGRGASDELL5150 Browse
, OK Cancel	OK Cancel

7 Expand the Node Tree and right-click on the "Add OPC Client."

8 Name the configuration in the left pane and in the right pane for the 'Server Name:' field select RadioLinx_OPC_Server. Then click on the blue floppy icon to save the configuration.

💋 SMC - [ArchestrA System Management Console (NGRGASD	ELL5150)\DAServer Manager\RLX_OPC_Server\NGRGASDELL5150\ArchestrA.FSGateway.1\Configuration\FHE]	_ 🗆 🗵
File Action View Help		
$\Leftrightarrow \Rightarrow \texttt{E} \blacksquare \times \texttt{B}$		
ArchestA System Management Console (NGRGASDELL5150) DAServer Manager Manager MarGASDELL5150 MarGASDELL5150 MarGASDELL5150 ArchestA.FSGateway.1 ArchestA.FSGateway.1 Daserver Log Viewer	FHE Image: Server Node: Delimiter: . Server Node: locahost Server Name: Server Name: Archestik FSGateway:1 Datal.goers.Smulation:1 Hitschefinkt LGDpcServer.1 Matikon UPC Cornological Matikon UPC Cornological Matikon UPC Cornological Matikon UPC Cornological Matikon UPC Server Imatikon UPC Cornological Matikon UPC Server Robinson UPC Server Imatikon UPC Server Ristion UPC Server Reconnect Server UP Ristion UPC Server Ristion UPC Server Ristion UPC Server	

RadioLinx® OPC Server for Frequency Hopping and Industrial Hotspot™ Radios

RLX-OPC-SRV
 ProSoft Software

9 Add an OPCGroup Object to the newly created configuration.

💋 SMC - [ArchestrA System Management Console (NGRGASD	ELL5150)\DAServer Manager\RLX_OPC_Server\NGRGASDELL5150\ArchestrA.FSGateway.1\Configuration\FHE]	<u>- 🗆 ×</u>
File Action View Help		
← → Ē 🖪 🗙 😫		
	FHE Vode Type: OPC Delimiter: . FHE Parameters Server Node: locahost Server Name: RadoLinx_DPC_Server Reconnect Attempts: 3 Reconnect Period: 30000 ms If Activate Server Dut of Proc	
Mads a OPCGroup Object under this hierarchy level		

10 New OPC group has been created. Click on the 'Browse OPC Items' button to select tags from the RadioLinx OPC Server.

SMC - Förchesträ System Management Concole (NGDC@SDE)	II 5150)\D&Server Manager\DIY_ODC_Server\NCDC&SDEL15150\&rchestr&ESCateway_1\Configuration\EHE\
File Action View Help	
	FHE Node Type: OPCGroup Delimiter: FHE Parameters Device Items Device Group Name: FHE_FHE Update Rate: 1000 Mode Type: OPC Item Derive: Image: Composition of the parameters OPC Item ID Prefix: Image: Composition of the parameters Use Group Name as Access Path Image: Composition of the parameters If Read Only Image: Demand Read After Poke Browse OPC Items Image: Composition of the parameters

11 Expand the Selected OPC Server Tree. In the upper right pane, select all Tags and right-click to add the OPC Server Tags to the Basket.

🚟 OPC Item Browser (Server : R	adioLinx_OPC_Serv	er on localhost)	X
Branches	Available Items : 11		Ŧ
छि Root ⊡िछि FHE ⊡िछि FHE	 Associations BitErrRate ParentAdd ResetStats RSSI SerialNum SignalToNoise TotBytRev TotBytRev TotGoodPacks 	TxPackErrs Properties Add to Basket	
Basket (Selected Items)			×
	OK	Eilter Cance	I
Add selected items to Basket by drag-	drop, 'Enter' key, right-	click menu or '+' button.	

12 Click **OK** to add the Tags in the Basket to the Device Items.

🔚 OPC Item Browser (Serv	ver : RadioLinx_OPC_Serve	r on localhost)	×
Branches	Available Items : 11		Ð
Noot GHE I-N FHE FHE	Associations BitErrRate ParentAdd ResetStats SerialNum SignalToNoise TotBytFwd TotBytRev TotBoodPacks	TxPackErrs	
Basket (Selected Items) : 11			×
 FHE.FHE.Associations FHE.FHE.BitErrRate FHE.FHE.ParentAdd FHE.FHE.ResetStats FHE.FHE.RSSI FHE.FHE.SerialNum 	 FHE.FHE.SignalToNoise FHE.FHE.ToBytFwd FHE.FHE.ToBytRev FHE.FHE.TotGoodPacks FHE.FHE.TxPackErrs 		
	<u>ок</u>	<u>Filter</u>	Cancel
browsing items of RadioLinx_OP	C_Server on node localhost		

Tags have been added to the OPC group.

💋 SMC - [ArchestrA System Management Console (NGRGAS	5DELL5150)\DAServer Manager\RLX_OPC		l\Configuration\FHE\ 📃 🗖 🗙
File Action View Help			
⇔ → 🗈 🖬 🗙 😫			
ArchestrA System Management Console (NGRGASDELL5150) DAServer Manager RLX_OPC_Server RLX_OPC_Server NGRGASDELL5150 C	FHE Node Type: OPCGroup FHE Parameters Device Items Name	Delimiter: , Item Reference	
E - C Vewer	FHE FHE Associations FHE FHE Bite INAte FHE FHE Bite INAte FHE FHE ResetStats FHE FHE ResetStats FHE FHE Signal ToNoise FHE FHE Signal ToNoise FHE FHE TOBYERV FHE FHE TOBYERV FHE FHE TOBYERV	FHE FHE Associations FHE FHE PaternRate FHE FHE PaternAdd FHE FHE.FRSSI FHE FHE.ReseIStats FHE FHE.SeriaNum FHE FHE.SeriaNum FHE FHE.TotBytFwd FHE FHE TotBytFwd FHE FHE TotGoodPacks FHE FHE TotGoodPacks FHE FHE TxPackErrs	

13 Rename the desired OPC Server Tag names with more descriptive names. This completes the RadioLinx OPC Connection to the Wonderware OPC Client that is to be developed next.

HE Parameters Device Items
Name FHE.FHE.Associations FHE.FHE.BitErnRate FHE.FHE.ParentAdd FHE.FHE.ParentAdd FHE.FHE.RSSI ReseLStatistics FHE.FHE.SignalToNoise TotalBytes_Forward FHE.FHE.TotBjotRev FHE.FHE.TotBjotRev FHE.FHE.TotBjotRev
FHE.FHE.TxPackErrs

14 Activate the InTouch Application manager.

🚺 InTouch - Application Manager -							
<u>File View Tools H</u> elp							
D 2 6 4 4							1
Name	Path	Resolution	Version	Applica	Date Modified	Description	
in Demo Application 1024 X 768	c:\documents and settings\all users\application	1024 × 768	9.5	0	1/24/2007 9:	Demo Application of "Now famous" InTouch Reactor. Shows a batch process and product conveyor system.	
in Demo Application 1280 × 1024	c:\documents and settings\all users\application	1280×1024	9.5	0	1/24/2007 9:	Demo Application of "Now famous" InTouch Reactor. Shows a batch process and product conveyor system.	
🚾 an other Demo	c:\work files\testing\radiolinx\tsk00761\wonde	1280×1024	9.5	115	2/7/2007 2:0		
3							Þ
No application selected!							-
Ready						NUM	1///

15 Select where to develop the new application.



16 Create a Directory name for the OPC Client application.

Create New Application	X
	Enter the directory where you want the application to be created. Click 'Next' to continue. RLX_OPC_Client
<]	Back Next Cancel Help

17 Create the new application name.

Create New Application	×
	Enter a name and description of the InTouch Application. Click 'Finish' to continue. Name: RLX_OPC_Client InTouchView Application Description: New InTouch application
<	Back Finish Cancel Help

18 The application new name has been created. Start Window Maker application.

💽 In Touch - Application Manager - [c:\work files\testing\radiolinx\tsk00761\wonderware\rk_opc_client]								
<u>File View Tools H</u> elp								
🗅 📝 🖬 🍪 음 빅 남 註 🏢 💄								
Name	Path	Resolution	Version	Applica	Date Modified	Description		
to Application 1024 X 768	c:\documents and settings\all users\application	1024 × 768	9.5	0	1/24/2007 9:	Demo Application of "Now famous" InTouch Reactor. Shows a batch process and product conveyor system.		
to Application 1280 × 1024	c:\documents and settings\all users\application	1280×1024	9.5	0	1/24/2007 9:	Demo Application of "Now famous" InTouch Reactor. Shows a batch process and product conveyor system.		
🙀 an other Demo	c:\work files\testing\radiolinx\tsk00761\wonde	1280×1024	9.5	115	2/7/2007 2:0			
RLX_OPC_Client	c:\work files\testing\radiolinx\tsk00761\wonde	0 × 0	0	0	2/7/2007 3:2	New InTouch application		
۲.							F	
RLX_OPC_Client - New InTouch applica	ation						-	
							7	
Start WindowMaker application						NU	M//	

19 In WindowMaker open up the Tagname Dictionary and crate an appropriate InTouch tag name for connecting to the RadioLinx OPC Server tag name.

📝 InTouch - WindowMaker - C:\WO	RK FILES\TESTING\RADIOLINX\TSK00761\WONDERWARE\RLX_OPC_CLIENT	
File View Special Help		Runtime!
🛛 🗅 🚅 🎕 🔙 🍠 🐂 X 📭 (a ら c 🖨 🕼 a B z B x K E s s <u>2 3 A I 2</u>	
Windows Scripts Configure WindowMaker WindowWewer Kistorical Logging Wizard/ActiveX Installation Alarms Alarms Coupling Tagname Dictionary Open.	Tagname Dictionary • Main O Details O Alarms O Details & Alarms O Members <u>New Restore Delete Save << Select</u> <u>Tagname:</u> Total_Bytes_Forward <u>Group:</u> <u>System</u> <u>Group:</u> <u>System</u> <u>Group:</u> <u>System</u> <u>Comment:</u> <u>Log Events</u> <u>Retentive Value</u> Retentive Parameters	
Cross Reference TemplateMaker SQL Access Manager SPC Applications C. C. C		
Ready	X, Y W, H	

20 In the "Topic Name:" field enter the name as shown in "Device Group Name:" in the OPC Group tab.

Access	RLX			Οκ
Node Name:				
				Cancel
Application Nam	ne:			Eailover
FSGateway				Tauetai
<u>T</u> opic Name:				
FHE_FHE				
Which protoco	ol to use 🕤	SuiteLink	O Message B	Exchange
⊂ <u>W</u> hen to advis ○ Advise a	se server all items	¢,	Advise only active i	tems

21 Select the appropriate Access Name.



22 The InTouch Tag name to the RadioLinx OPC Server tag name.

Tagname Dictionary		×
O Main 💿 Details O Alarms O Details & A	larms C Members	
<u>N</u> ew <u>R</u> estore <u>D</u> elete <u>Saye</u> <u></u> ∠<	<u>S</u> elect ≥> Cancel C	lose
Tagname: Total_Bytes_Forward	<u>Ivpe:</u> I/O Integer	
<u>G</u> roup: \$System		
Comment: AccessLevel		
🗖 Log Data 🗖 Log Events 🗖	🛛 Retentive Value 🔲 Retentive Paraj	neters
Initial Value: 0	Min EU: -9999999	Max EU: 9999998
Deadband: 0	Min Raw: -99999999	Max Raw: 99999999
Eng Units:	Log Deadband: 0	Conversion
Access Name: RLX		
Item: Total_Bytes_Forward		🔲 Use Tagname as Item Name

23 Create a display that links the InTouch tag name to the RLX OPC Server tag name.

💯 InTouch - WindowMaker - C:\WO	RK FILES\TESTING\F	RADIOLINX	\ TSK007 6	1\WON	DERWA	RE\RLX	_OPC_CL	IENT	- 🗆 🗵
<u>File Edit View Arrange Text Line</u>	<u>S</u> pecial <u>W</u> indows	<u>H</u> elp							Runtime!
🗅 🖙 🐀 🖬 🎒 🐂 🕺 🗈	1 n e 🎒	<u>a</u> 13	<mark>₽</mark> C B	ΙU	Ă	Â∣≣	≑ ∃	112	
Windows RLX_OPC_Client RLX_OPC_Client Configure Configure Surpts Alarms KindowNiewer Alarms KindowNiewer KindowNiewer	RLX_OPC_Client Total Bytes For	ward:							
💽 🖬 🖸 🔛 🖉 🖉 🖬		- B B		= 2	§ 📕	₩ 🖣		≣ 4	
으 ੑ ੑੑ ੑ ੑ ੑ ੑ ੑ ੑ ੑ ₩ १७ 100%	•								-
Ready		Х,	Y 150	12	W, Н	8	16	NUN	1 //.

24 Click on the selected Analog button.

Touch Links	Line Color	Fill Color	Text Color
User Inputs	Discrete	Discrete	Discrete
Discrete	E Analog	☐ Analog	🗆 Analog
	Discrete Alarm	Discrete Alarm	🔲 Discrete Alarm
	Analog Alarm	🗖 Analog Alarm	Analog Alarm
Sliders	Object Size	Location	Percent Fill
☐ Vertical	E Height	U Vertical	
Horizontal	└ Width	Horizontal	Horizontal
Touch Pushbuttons	_ Miscellaneous	Value Display	
Discrete Value	🗖 Visibility	Discrete	
C Action	🗖 🛛 Blink	🔽 Analog	
Show Window	Crientation	🗖 String	
Hide Window	Disable		
			J

25 Double-click in the **Expression:** field.

Output -> Analog Expression	
E <u>x</u> pression:	OK
	Cancel
	Clear

26 Select the desired InTouch Tag name. The selected tag enters the expression field.



- InTouch WindowMaker C:\WORK FILES\TESTING\RADIOLINX\T - 🗆 🗵 File Edit View Arrange Text Line Special Windows Runtime! 🗅 😂 🖄 🖬 🕼 🐘 🕹 🛍 🖄 🔿 🤄 🎒 👗 🖪 🕹 😘 🗼 🖪 🖌 🗉 🗸 🔺 프 프 📃 🖉 🛆 🗖 💆 R 🖃 🗖 Windows RLX_OPC_Client Total Bytes Forward: # 🗄 📄 Scripts 🖻 🐁 Configure Reset Statistics: 🎚 🍓 WindowMaker \bigcirc 👆 WindowViewer 🍓 Alarms / 🍓 Historical Logging +🝓 Distributed Name Manager 🝓 Wizard/ActiveX Installation \geq 👆 Alarm Groups ß 🐁 Access N 📲 Tagname Dict 0K Т Cross Refere
 TemplateMak Object type: Button Next Link Cancel Touch Links Fill Color Line Color -Text Color **8** 🗄 🗂 Applications Discrete Г Discrete User Inputs Г 10 Discrete Г Г Г Analog Analog Analog В Analog Discrete Alarm Discrete Alarm Discrete Alar String 📕 🛛 Analog Alarm Analog Alar 🗖 Analog Alarm Г Object Size Location Percent Fill Sliders Height Vertical Г Vertical Horizontal Width Horizontal E Horizontal Miscellaneous Value Display **Touch Pushbuttons** Discrete Value Visibility Discrete E Action Blink Г Analog Show Window Orientation String 🖺 🖸 🔀 ■ 📲 | 🌾 -🔲 Hide Window Г Disable E Tooltip ର୍ 🗨 🗖 🗔 [W, H 60 30 Г NUM Ready X, Y |160 40
- 27 Connecting the button to the Reset_Statistics tag.

- **28** Create button and the link from InTouch Client tag to RadioLinx OPCServer tag.
- **29** Double-Click in the large empty field. Select the appropriate InTouch tag.

Touch -> Action Script	<u>- 0 ×</u>
Eile Edit Insert Help	
Key and the second s	
Rey equivalent	ОК
	Cancel
Condition Type: On Left Click/Key Down 💌 Scripts used: 0	
-	Lonvert
	⊻alidate
	Functions
	AII
	String
	Math
	System
	Add-ons
	Misc
IF ELSE AND < <= => >	Quick
THEN ELSE IF OR = + · × / ;	Help

C	Select Tag					×
	Tag Source: <local></local>		•			
	Tagname	Тад Туре	Access Name	Alarm Group	_	
	\$OperatorDomain \$OperatorDomainE \$OperatorEntered \$OperatorName \$PasswordEntered \$StartDdeConvers \$System \$Time \$Ime \$VerifiedUserName \$VerifiedUserName \$System \$Ime \$Ime \$TimeString \$VerifiedUserName \$Yerra	System Message System Message System Message System Message System Integer System Discrete System Alarm System Integer System Message System Message System Message				
	Reset_Statistics	I/O Integer	RLX	\$System		
	Total_Bytes_Forward	I/O Integer	RLX	\$System	▼ ►	
	Dot Field: <none></none>	•		01	<	
	Filter: <none></none>	v		Can	cel	
36	6 items Reset_Statistics					1

30 Set the controlling tag to a value of 1 that will issue the resetting command to the radio.

■ Touch -> Action Script File Edt Jack Park Bell Jack Park Bell </th <th></th>	
Key equivalent Ctgl Shift Key None	OK Cancel
Reset_Statistics = 1;	Convert Validate Functions All String Math System Add-ons Miso
IF ELSE AND < == >> > ><	Quick Help

31 Run-Time view of the two tags. You are finished.

🚺 InTouch - WindowViewer - C:\WORK FILE 💻 💌		
<u>File Logic Special</u>	Development <u>!</u>	
RLX_OPC_Client		
Total Bytes Forward: 4418		
Reset Statistics: 0		

7 Support, Service & Warranty

In This Chapter

- Return Material Authorization (RMA) Policies and Conditions......100
- LIMITED WARRANTY......101

ProSoft Technology, Inc. (ProSoft) is committed to providing the most efficient and effective support possible. Before calling, please gather the following information to assist in expediting this process:

- 1 Product Version Number
- **2** System architecture
- 3 Network details

If the issue is hardware related, we will also need information regarding:

- 1 Module configuration and contents of file
 - Module Operation
 - Configuration/Debug status information
 - LED patterns
- 2 Information about the processor and user data files as viewed through and LED patterns on the processor.
- **3** Details about the serial devices interfaced, if any.

7.1 How to Contact Us: Technical Support

Internet

Web Site: http://www.prosoft-technology.com/support E-mail address: support@prosoft-technology.com

Asia Pacific

+603.7724.2080, support.asia@prosoft-technology.com Languages spoken include: Chinese, English

Europe (location in Toulouse, France)

+33 (0) 5.34.36.87.20, support.EMEA@prosoft-technology.com Languages spoken include: French, English

North America/Latin America (excluding Brasil) (location in California)

+1.661.716.5100, support@prosoft-technology.com

Languages spoken include: English, Spanish

For technical support calls within the United States, an after-hours answering system allows pager access to one of our qualified technical and/or application support engineers at any time to answer your questions.

Brasil (location in Sao Paulo)

+55-11-5084-5178 , eduardo@prosoft-technology.com Languages spoken include: Portuguese, English

7.2 Return Material Authorization (RMA) Policies and Conditions

The following RMA Policies and Conditions (collectively, "RMA Policies") apply to any returned Product. These RMA Policies are subject to change by ProSoft without notice. For warranty information, see "Limited Warranty". In the event of any inconsistency between the RMA Policies and the Warranty, the Warranty shall govern.

7.2.1 All Product Returns:

- a) In order to return a Product for repair, exchange or otherwise, the Customer must obtain a Returned Material Authorization (RMA) number from ProSoft and comply with ProSoft shipping instructions.
- b) In the event that the Customer experiences a problem with the Product for any reason, Customer should contact ProSoft Technical Support at one of the telephone numbers listed above (page 99). A Technical Support Engineer will request that you perform several tests in an attempt to isolate the problem. If after completing these tests, the Product is found to be the source of the problem, we will issue an RMA.
- c) All returned Products must be shipped freight prepaid, in the original shipping container or equivalent, to the location specified by ProSoft, and be accompanied by proof of purchase and receipt date. The RMA number is to be prominently marked on the outside of the shipping box. Customer agrees to insure the Product or assume the risk of loss or damage in transit. Products shipped to ProSoft using a shipment method other than that specified by ProSoft or shipped without an RMA number will be returned to the Customer, freight collect. Contact ProSoft Technical Support for further information.
- A 10% restocking fee applies to all warranty credit returns whereby a Customer has an application change, ordered too many, does not need, etc.

7.2.2 Procedures for Return of Units Under Warranty:

A Technical Support Engineer must approve the return of Product under ProSoft's Warranty:

- a) A replacement module will be shipped and invoiced. A purchase order will be required.
- b) Credit for a product under warranty will be issued upon receipt of authorized product by ProSoft at designated location referenced on the Return Material Authorization.

7.2.3 Procedures for Return of Units Out of Warranty:

- a) Customer sends unit in for evaluation
- b) If no defect is found, Customer will be charged the equivalent of \$100 USD, plus freight charges, duties and taxes as applicable. A new purchase order will be required.

c) If unit is repaired, charge to Customer will be 30% of current list price (USD) plus freight charges, duties and taxes as applicable. A new purchase order will be required or authorization to use the purchase order submitted for evaluation fee.

The following is a list of non-repairable units:

- o 3150 All
- o **3750**
- o 3600 All
- o **3700**
- o 3170 All
- o **3250**
- $_{\circ}$ $\,$ 1560 Can be repaired, only if defect is the power supply
- 1550 Can be repaired, only if defect is the power supply
- o **3350**
- o **3300**
- o 1500 All

7.2.4 Purchasing Warranty Extension:

- a) ProSoft's standard warranty period is three (3) years from the date of shipment as detailed in "Limited Warranty (page 101)". The Warranty Period may be extended at the time of equipment purchase for an additional charge, as follows:
- Additional 1 year = 10% of list price
- Additional 2 years = 20% of list price
- Additional 3 years = 30% of list price

7.3 LIMITED WARRANTY

This Limited Warranty ("Warranty") governs all sales of hardware, software and other products (collectively, "Product") manufactured and/or offered for sale by ProSoft, and all related services provided by ProSoft, including maintenance, repair, warranty exchange, and service programs (collectively, "Services"). By purchasing or using the Product or Services, the individual or entity purchasing or using the Product or Services ("Customer") agrees to all of the terms and provisions (collectively, the "Terms") of this Limited Warranty. All sales of software or other intellectual property are, in addition, subject to any license agreement accompanying such software or other intellectual property.

7.3.1 What Is Covered By This Warranty

- a) Warranty On New Products: ProSoft warrants, to the original purchaser, that the Product that is the subject of the sale will (1) conform to and perform in accordance with published specifications prepared, approved and issued by ProSoft, and (2) will be free from defects in material or workmanship; provided these warranties only cover Product that is sold as new. This Warranty expires three years from the date of shipment (the "Warranty Period"). If the Customer discovers within the Warranty Period a failure of the Product to conform to specifications, or a defect in material or workmanship of the Product, the Customer must promptly notify ProSoft by fax, email or telephone. In no event may that notification be received by ProSoft later than 39 months. Within a reasonable time after notification, ProSoft will correct any failure of the Product to conform to specifications or any defect in material or workmanship of the Product, with either new or used replacement parts. Such repair, including both parts and labor, will be performed at ProSoft's expense. All warranty service will be performed at service centers designated by ProSoft.
- b) Warranty On Services: Materials and labor performed by ProSoft to repair a verified malfunction or defect are warranteed in the terms specified above for new Product, provided said warranty will be for the period remaining on the original new equipment warranty or, if the original warranty is no longer in effect, for a period of 90 days from the date of repair.

7.3.2 What Is Not Covered By This Warranty

- a) ProSoft makes no representation or warranty, expressed or implied, that the operation of software purchased from ProSoft will be uninterrupted or error free or that the functions contained in the software will meet or satisfy the purchaser's intended use or requirements; the Customer assumes complete responsibility for decisions made or actions taken based on information obtained using ProSoft software.
- b) This Warranty does not cover the failure of the Product to perform specified functions, or any other non-conformance, defects, losses or damages caused by or attributable to any of the following: (i) shipping; (ii) improper installation or other failure of Customer to adhere to ProSoft's specifications or instructions; (iii) unauthorized repair or maintenance; (iv) attachments, equipment, options, parts, software, or user-created programming (including, but not limited to, programs developed with any IEC 61131-3, "C" or any variant of "C" programming languages) not furnished by ProSoft; (v) use of the Product for purposes other than those for which it was designed; (vi) any other abuse, misapplication, neglect or misuse by the Customer; (vii) accident, improper testing or causes external to the Product such as, but not limited to, exposure to extremes of temperature or humidity, power failure or power surges; or (viii) disasters such as fire, flood, earthquake, wind and lightning.

c) The information in this Agreement is subject to change without notice. ProSoft shall not be liable for technical or editorial errors or omissions made herein; nor for incidental or consequential damages resulting from the furnishing, performance or use of this material. The user guide included with your original product purchase from ProSoft contains information protected by copyright. No part of the guide may be duplicated or reproduced in any form without prior written consent from ProSoft.

7.3.3 Disclaimer Regarding High Risk Activities

Product manufactured or supplied by ProSoft is not fault tolerant and is not designed, manufactured or intended for use in hazardous environments requiring fail-safe performance including and without limitation: the operation of nuclear facilities, aircraft navigation of communication systems, air traffic control, direct life support machines or weapons systems in which the failure of the product could lead directly or indirectly to death, personal injury or severe physical or environmental damage (collectively, "high risk activities"). ProSoft specifically disclaims any express or implied warranty of fitness for high risk activities.

7.3.4 Intellectual Property Indemnity

Buyer shall indemnify and hold harmless ProSoft and its employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not ProSoft is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Products. Without limiting the foregoing, Buyer (at its own expense) shall indemnify and hold harmless ProSoft and defend or settle any action brought against such Companies to the extent based on a claim that any Product made to Buyer specifications infringed intellectual property rights of another party. ProSoft makes no warranty that the product is or will be delivered free of any person's claiming of patent, trademark, or similar infringement. The Buyer assumes all risks (including the risk of suit) that the product or any use of the product will infringe existing or subsequently issued patents, trademarks, or copyrights.

- a) Any documentation included with Product purchased from ProSoft is protected by copyright and may not be duplicated or reproduced in any form without prior written consent from ProSoft.
- b) ProSoft's technical specifications and documentation that are included with the Product are subject to editing and modification without notice.
- c) Transfer of title shall not operate to convey to Customer any right to make, or have made, any Product supplied by ProSoft.
- d) Customer is granted no right or license to use any software or other intellectual property in any manner or for any purpose not expressly permitted by any license agreement accompanying such software or other intellectual property.

- e) Customer agrees that it shall not, and shall not authorize others to, copy software provided by ProSoft (except as expressly permitted in any license agreement accompanying such software); transfer software to a third party separately from the Product; modify, alter, translate, decode, decompile, disassemble, reverse-engineer or otherwise attempt to derive the source code of the software or create derivative works based on the software; export the software or underlying technology in contravention of applicable US and international export laws and regulations; or use the software other than as authorized in connection with use of Product.
- f) Additional Restrictions Relating To Software And Other Intellectual Property

In addition to compliance with the Terms of this Warranty, Customers purchasing software or other intellectual property shall comply with any license agreement accompanying such software or other intellectual property. Failure to do so may void this Warranty with respect to such software and/or other intellectual property.

7.3.5 Disclaimer of all Other Warranties

The Warranty set forth in What Is Covered By This Warranty (page 102) are in lieu of all other warranties, express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

7.3.6 Limitation of Remedies **

In no event will ProSoft or its Dealer be liable for any special, incidental or consequential damages based on breach of warranty, breach of contract, negligence, strict tort or any other legal theory. Damages that ProSoft or its Dealer will not be responsible for included, but are not limited to: Loss of profits; loss of savings or revenue; loss of use of the product or any associated equipment; loss of data; cost of capital; cost of any substitute equipment, facilities, or services; downtime; the claims of third parties including, customers of the Purchaser; and, injury to property.

** Some areas do not allow time limitations on an implied warranty, or allow the exclusion or limitation of incidental or consequential damages. In such areas, the above limitations may not apply. This Warranty gives you specific legal rights, and you may also have other rights which vary from place to place.

7.3.7 Time Limit for Bringing Suit

Any action for breach of warranty must be commenced within 39 months following shipment of the Product.

7.3.8 No Other Warranties

Unless modified in writing and signed by both parties, this Warranty is understood to be the complete and exclusive agreement between the parties, suspending all oral or written prior agreements and all other communications between the parties relating to the subject matter of this Warranty, including statements made by salesperson. No employee of ProSoft or any other party is authorized to make any warranty in addition to those made in this Warranty. The Customer is warned, therefore, to check this Warranty carefully to see that it correctly reflects those terms that are important to the Customer.

7.3.9 Allocation of Risks

This Warranty allocates the risk of product failure between ProSoft and the Customer. This allocation is recognized by both parties and is reflected in the price of the goods. The Customer acknowledges that it has read this Warranty, understands it, and is bound by its Terms.

7.3.10 Controlling Law and Severability

This Warranty shall be governed by and construed in accordance with the laws of the United States and the domestic laws of the State of California, without reference to its conflicts of law provisions. If for any reason a court of competent jurisdiction finds any provisions of this Warranty, or a portion thereof, to be unenforceable, that provision shall be enforced to the maximum extent permissible and the remainder of this Warranty shall remain in full force and effect. Any cause of action with respect to the Product or Services must be instituted in a court of competent jurisdiction in the State of California.

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