Industrial Automation Tech Note 23

ICM8 Configuration



Abstract:

This document describes a basic configuration example of an ICM8 communicating with a device that supports the Red Lion Instrument protocol.

Products:

ICM8000 along with devices that support the Red Lion Instrument protocol

Use Case: ICM8 Configuration

The ICM8 is designed solely* to convert the Red Lion Instrument ASCII serial protocol to an Ethernet protocol from another manufacturer.

* One of the protocols involved in the conversion **MUST** be the RLC Instrument protocol.

Required Software:

Crimson[®] 2.0

Required Firmware:

Build 299+

Panel Meter Communication Settings

The available settings will vary unit to unit; the black items below are common between all units.

LYPE : rLE bAUd : 9600 *1 dALA : 7 *1 Par : 0dd *1 Addr : 1 *2 AbrU : YES

*1 setting must be configured to match in Crimson *2 should be non-zero

ICM8 Communication Configuration

Protocol Selection

- **1.** Click on the port to be configured.
- 2. Click *Edit...* next to the Driver.
- 3. Select Red Lion RLC Instrument.

ommunications		-		
		Dri	ver Selection	
 Prog/RS-232 Com RS-485 Comms Po 	ims Port ort	Dri	iver: No Driver Selected Edit	
E de Ethernet		-		
-3 Protocol 2		Por	rt settings	
- S Protocol 3	Driver Picker for Serial Port			23
- FIGHAGE T	Manufacturer		Driver	
	Pacific Scientific Panasonic - Matsushita Parker Pason Phoenix Contact PLC Direct Koyo PQ Systems Quickaliver		No Driver Selected // Big Thesibic Display Version 1.00 Plant Floor Manquee Version 1.00 BLC Instrument Version 1.01	Add Additional Device
	Red Lon Rexroth Indramat Richards-Wicox Schneider - Telemechanique	•	OK Cancel Help	

- 4. Click OK.
- 5. Configure Port Settings to match the meter.



Red Lion Device Configuration

- 1. Click on the device below the port.
- 2. Set the Drop Number to match the Rddr setting of the meter.
- 3. Select the appropriate Red Lion Device.
- 4. Set the Protocol Mode to Abbreviated.

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1CM8 40] Prog,RS-232 Comms Port 40] RS-485 Comms Port - RLC Meter	Device Settings P Enable Device F Favour UT Writes Comms Delay: 0 m
BCP1 SPotocol 1 Protocol 2 Protocol 3 Protocol 4	Device Identification Drop Number: 1 Red Lion Device: PAXT/PAXC/PAXCP c.uss: Custer/Cu
	Device Settings Protocol Mode: Addresument Register Read Delay: Register Write Delay: Commond Delay: Standard
	Delete This Device

Ethernet Port Configuration

- 1. Click on *Ethernet*.
- 2. Set the Port Mode to the appropriate settings for the network that the ICM8 will be connected to.

Communications 	Port Settings Monual Configuration IP Address: 192 166 1 10 Network Made: 255 255 25 0 Gateway: 0 0 0 0 0 IP Roving: Deabled Image: Configuration Image: Configuration Image: Configuration IP Roving: Deabled Image: Configuration Image: Configuration Image: Configuration IP Roving: Deabled Image: Configuration Image: Configuration Image: Configuration IP Roving: Deabled Image: Configuration Image: Configuration Image: Configuration IP Roving: Deabled Image: Configuration Image: Configuration Image: Configuration IP Deable High Speed Image: Configuration Image: Configuration Image: Configuration Image: Configuration Port Reserve: Image: Configuration Image: Configuration Image: Configuration Image: Configuration Image: Configuration Port Reserve: Image: Configuration Image: Configuration Image: Configuration Image: Configuration Image: Configuration Image: Configuration Image: Conf
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Destination Device Configuration

- 1. Click on one of the available Ethernet protocols.
- 2. Click *Edit…* next to the Driver.
- 3. Select the Manufacturer and driver required for the application.

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4. Click on the device that appears below the port and configure its setting to match the device the ICM8 will be communicating with.

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	Devide Settings P Enable Device T Ferror UT Writes Commo Delay: 0 ms Device Settings Device Settings IP Address: 352 - 168 - 1 - 52 Protocol Options LINE Type: Use Dedicated Socket • LCNP Prog: Enable • Connection Timeout: 5000 ms
	Convertion Bodoff 2000 me Transaction Timeout: 2000 ms Delete This Device Add Gateway Block

- 5. Click the Add Gateway Block button.
- 6. Click on the block that appears below the device and then the *Edit...* button next to the Start Address.



- 7. Select the first destination register in the remote device.
 - a. All values from Red Lion Instruments are INTEGERS, some 32-bit, which may have an implied decimal precision. I.E. a meter configured to display 2 digits after the decimal place may show 1.23 on its display, but this will be transferred to the destination in the remote device as 123.
- 8. Click OK.
- 9. Click Edit... next to the Block Size.
- **10.** Enter the number of consecutive registers to be written to in the remote device.
- 11. Click OK.
- 12. Set the Direction.
 - a. G3 to Device is data that will be read from the Red Lion instrument and written to the remote device.
 - b. Device to G3 is data that will be read from the remote device and written to the Red Lion instrument.

# 2 / 1 0 8 X 0 4				_	
Commune string Commune stri	Block Settings Start Address: Block Ster: Direction: Block Control Request: Admonifedge: Export to	N007:0000 S G3 to Device • General Pile	Flore Flore Delete This Bo	Edt	I dd Edd

- **13.** Click on one of the destination registers below the block.
- 14. Click on the + next to the Red Lion instrument under the Available Mapping section to expand the mapping options.
- **15.** Click and drag *Registers* to the desired destination.



- 16. Type in the Address (Register ID) of the parameter to be associated with the destination register.
 - a. Refer to the <u>Register Identification Chart</u> in the communications section of the meter's manual.

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Communications Available Mappings: Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image: Science Sort = NCL Neter Image:	

- 17. Click OK.
- 18. Repeat steps 13 (or 5) through 17 as needed until all desired transfers are configured.

Edit View Link Help		
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Resources

Additional information on the available drivers can be found on our web site: <u>Cables and Drivers</u> <u>Tech Notes</u>

For more information: http://www.redlion.net/support/policies-statements/warranty-statement

