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.

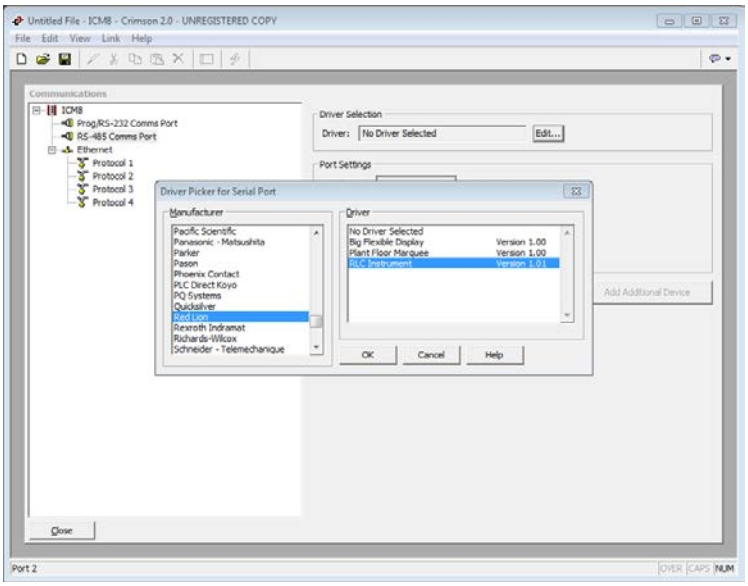
tYPE : rLC
bAUd : 9600 *1
dAtA : 7 *1
PAr : Odd *1
Addr : 1 *2
AbrU : YES

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

ICM8 Communication Configuration

Protocol Selection

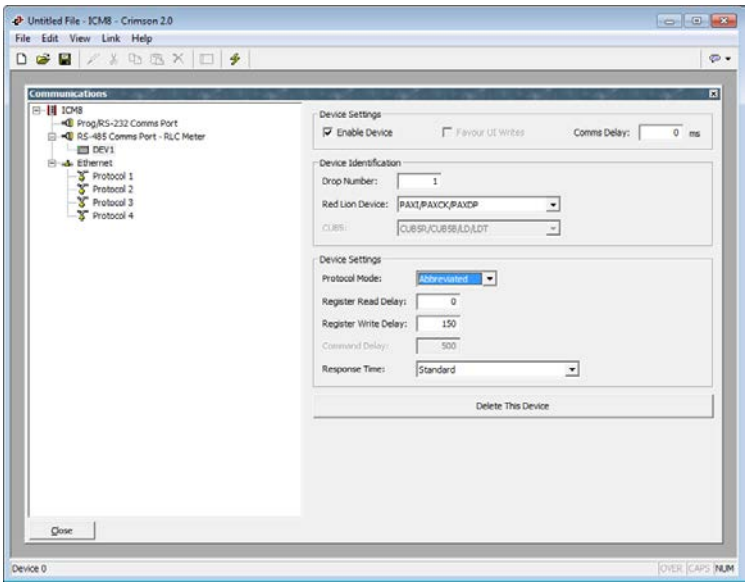
1. Click on the port to be configured.
2. Click *Edit…* next to the Driver.
3. Select Red Lion – RLC Instrument.



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

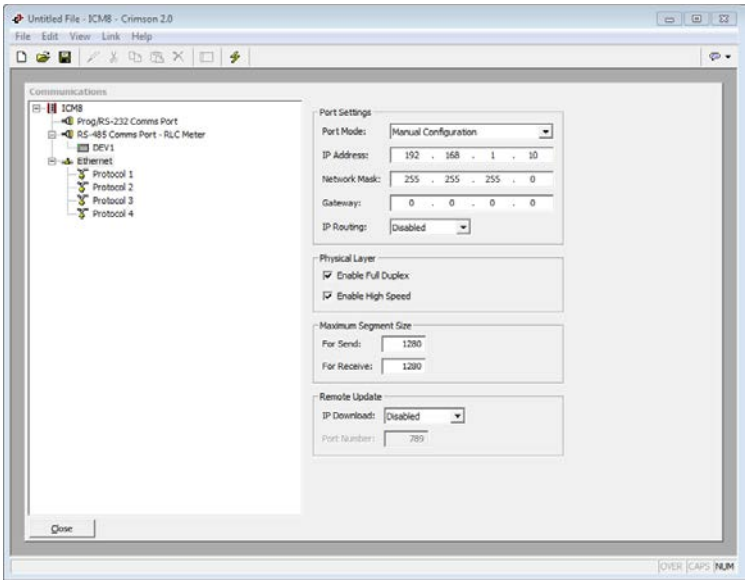
Red Lion Device Configuration

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



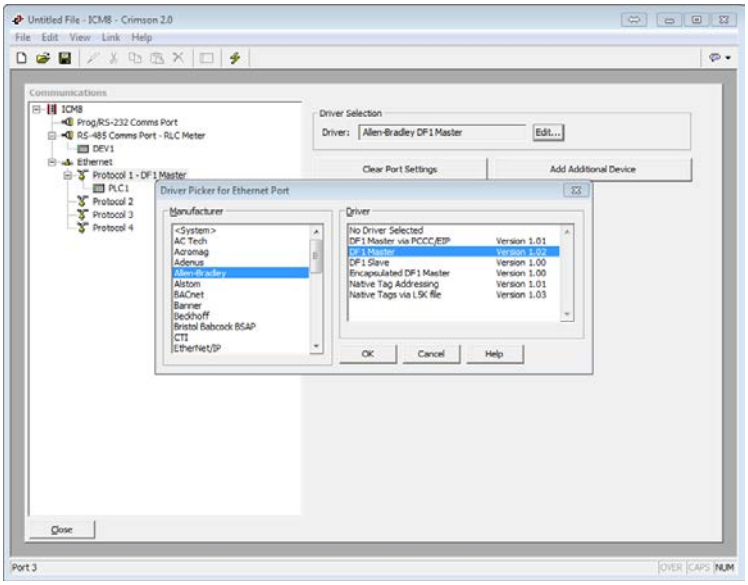
Ethernet Port Configuration

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

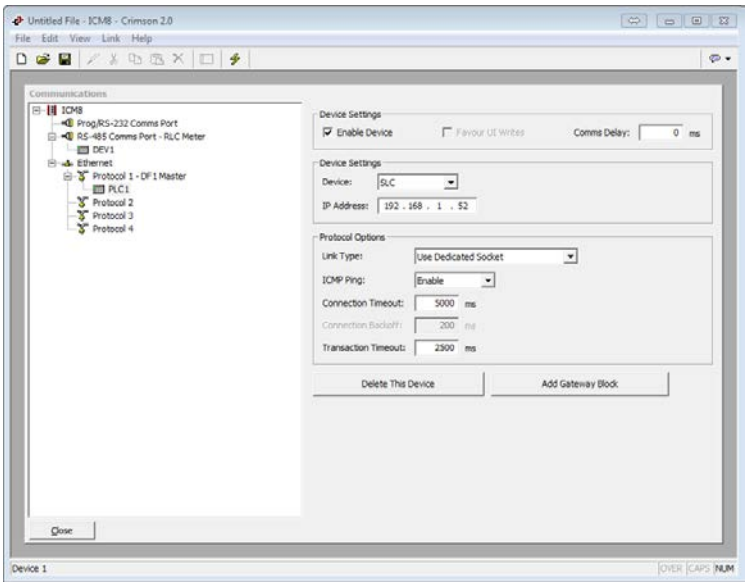


Destination Device Configuration

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.

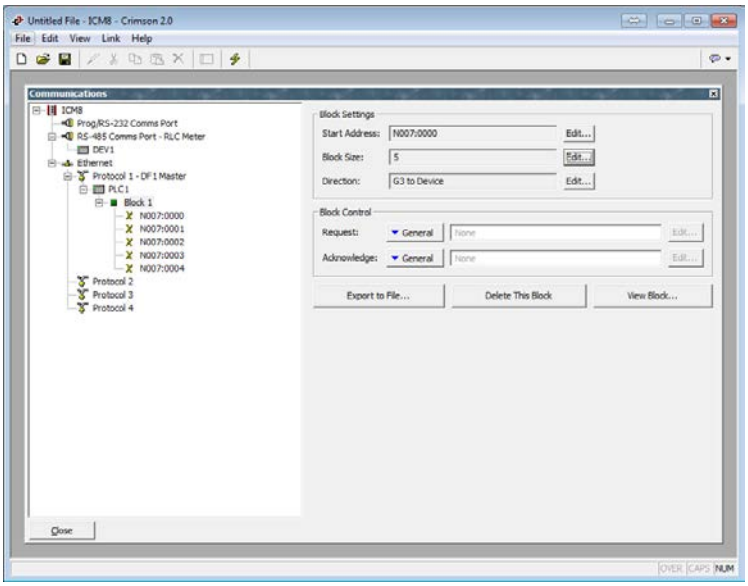


4. Click on the device that appears below the port and configure its setting to match the device the ICM8 will be communicating with.



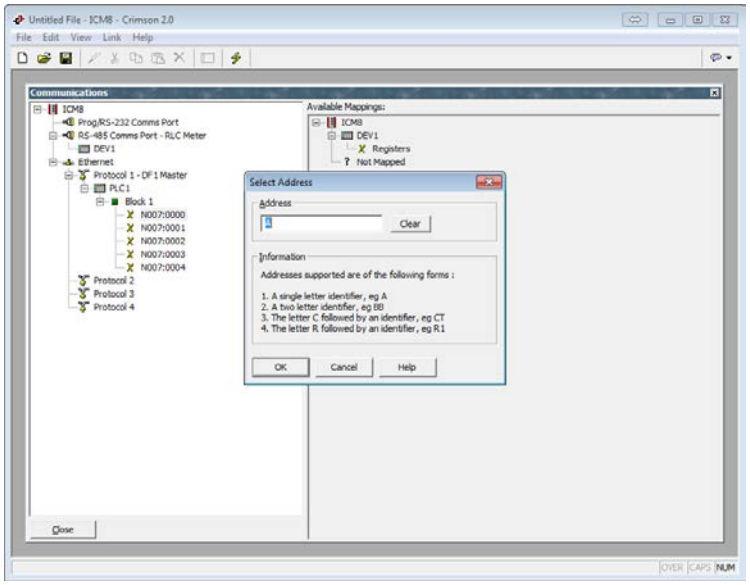
5. Click the *Add Gateway Block* button.
6. Click on the block that appears below the device and then the *Edit…* button next to the Start Address.

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.

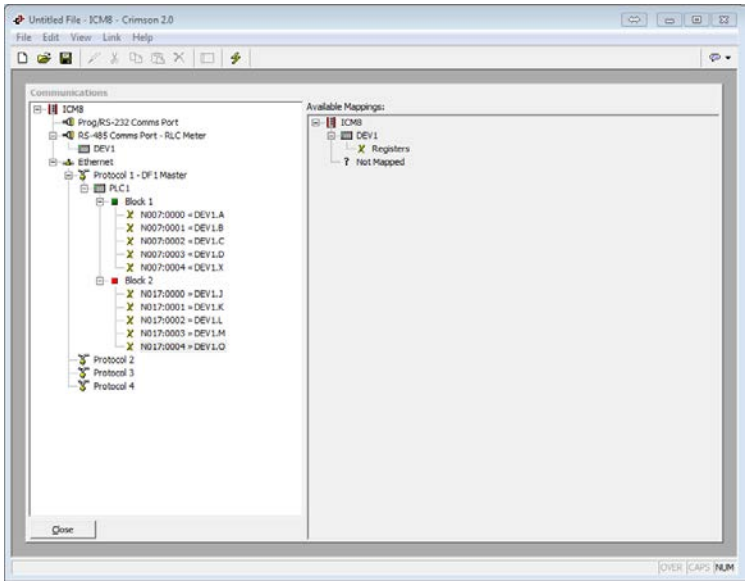


13. Click on one of the destination registers below the block.
14. Click on the + next to the Red Lion instrument under the Available Mapping section to expand the mapping options.
15. Click and drag *Registers* to the desired destination.

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



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



Resources

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

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