Powerware X-slot Modbus Card: Frequently Asked Questions

A. What is Modbus RTU? Modbus is a protocol (or language) spoken by industrially oriented equipment. SNMP and HTTP are examples of other protocols. RTU is an acronym for Remote Terminal Unit. This is the binary, better performing version of the protocol. We do not support the seldom-used/older ASCII version.

B. What is Jbus? Jbus is a slight variation of the Modbus standard.   It is predominantly used in Europe.

C. How Does a Customer Set-up the Card? To set-up the card the user configures it with the included serial cable and a PC running Hyperterminal. It's just like configuring other network devices; the user chooses a baud rate and a network address.

But the BMS doesn't know about the UPS yet. To take care of this, the Modbus card comes with a software package called Profiler. Profiler creates a custom Modbus register map. This is a fancy way of saying that it creates a file that tells the BMS what UPS it is and what it will be monitoring. This is similar to installing a MIB on an NMS. The principal difference is that the data is read-in in a more manual way (the MIB is compiled in the case of the NMS). This is typical of the way users work with a BMS so customers will be familiar with it. Profiler runs on Windows.

The Modbus card slides into an existing X-slot in the UPS. The Expansion Chassis comes with a preinstalled Modbus Card.

D. How does it connect to the network? The Modbus card connects to the network via RS-485 through either an isolated DB-9 port or terminal block. The terminal block allows conventional twisted pair cabling for daisy chaining. Alternatively RS-232 communications via a DB-9 port may be used. There's a figure on the datasheet that shows integration into a typical network.

E. What's Two-wire and Four Wire topology mean? It basically means that the daisy chaining connects together devices with two or four wires. The important thing to remember is that we support both so we meet the common topologies.

F. What does user-selectable termination mean? Daisy chain networks require a proper termination (or end). Usually a user has to purchase and install a termination resistor at the end of the chain. The Modbus Card comes with a user-selectable termination. So it may be placed at the end of a network and act as the termination point. This eliminates the hassle and expense of purchasing and installing a terminator.

G. What's selectable polarity resistance mean? It ensures that false data bits are not produced by idle voltage.

H. Will the Modbus Card work with every BMS? It should work with BMSs that support the Modbus protocol.