



## MODBUS TCP Interface to AB DH+ for DAQSTATION and MW100

**Industry:** All  
**Product:** Network Solutions  
DAQSTATION  
MW100

### Introduction

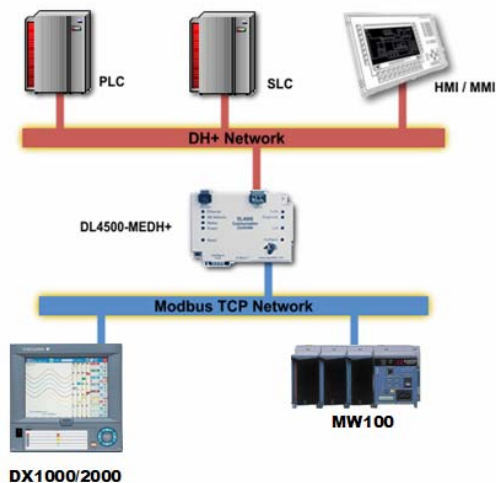
A manufacturer of lime using an Allen-Bradley Series 5 PLC wanted local data viewing and network connectivity. The PLC was wired directly to a rotary kiln and measured kiln temperature, pressure, rotary speed and material feed rate.

A ModbusTCP to DH+ gateway was used to interface the DAQSTATION Modbus TCP port to the Allen-Bradley PLC5 DH+ port. The customer's data from the PLC was available for local trending and logging at the DAQSTATION as well as available to other users via the DAQSTATION webserver interface over the Ethernet network.

### Application

Many PLC based process applications require robust data logging for production and environmental reporting. When a customer needs to display and record the information from the registers of an Allen-Bradley PLC, a computer with a DH+ interface card, SCADA software package and custom programming was typically used. PC based systems, however, cannot provide the same level of robust performance as a dedicated, non PC based data logger such as the new DAQSTATION DXAdvanced series.

Customers using Allen Bradley SLCs or Series 5 PLCs with DH+ (data highway plus) can now record and display information on DAQSTATION (DX100/200 DX1000/2000) and MW100 using MODBUS TCP (Ethernet). Replacing the PC and software with a Daqstation or MW100 plus gateway provides a more robust system with enhanced features for data viewing, logging and network access.



## Solution

Using the DAQSTATION provides the customer with data logging, redundant data storage, real time data viewing and report viewing. The DAQSTATION creates a cost efficient solution with a reliable real-time operating system, eliminating the need for pricey PCs and software licensing fees. Using a gateway from Equustek (list price around \$1900), the DX1000/2000 or MW100 can easily connect to the DH+ communication port of an Allen Bradley PLC's and the N and F registers of the PLC are accessed by the gateway and "mapped" to Modbus registers in the Yokogawa hardware. Once in a DAQSTATION or MW100, the data can be viewed over the local network using Internet Explorer. Historical data and reports can be transmitted via Email and FTP file transfer protocol over the network. The Allen-Bradley historical data values logged in the Yokogawa devices can be viewed later using Yokogawa viewer software.

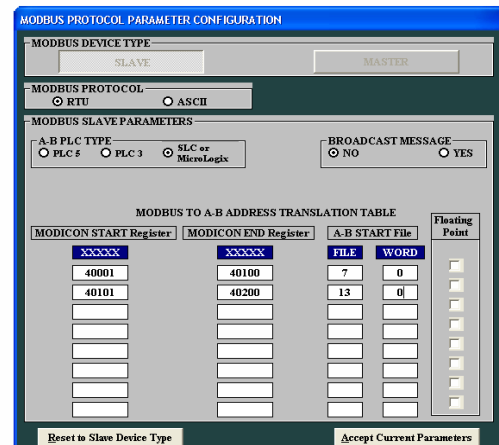
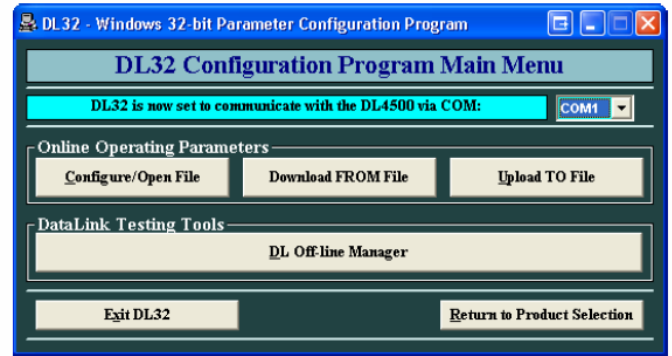
### Equipment needed

- Yokogawa DX1000/2000 with math or expanded channels, or MW100
- Equustek model DL4500-EDH+ interface module
- Serial crossover cable
- Ethernet crossover cable
- Allen-Bradley SLC or Series 5 PLC
- Computer for set up

### Equustek Gateway:



## Samples of Equustek Configuration Software



All necessary configuration software provided at no cost. In addition to the DH+ to MODBUS TCP function of the model DL4500, the Equustek DL3500 provides DH+ to MODBUS RTU (serial) connectivity which can be used with DX100/200 and DARWIN hardware.