



Polling, master/slave - the Modbus model.  
So, how about peer-to-peer Modbus/TCP? Sounds great, doesn't it?

The Modbus/TCP specification infers its possible, but can it be done and how? We've answered that challenging question at Control by developing a true peer-to-peer Modbus/TCP application for raw/ASCII data on our DeviceMaster UP intelligent gateway.

We have implemented this by allowing the receive channel, (device to the PLC), and the transmit channel, (PLC to device), to be independently configured as either Master or Slave. This allows the DeviceMaster UP to operate in the standard Modbus/TCP Slave and Master device modes, but also in true peer-to-peer Modbus/TCP communication in Dual Master Write and Dual Master Read modes.

### What are the benefits of this capability?

- No more polling. Data received from either serial or Ethernet devices can be written directly into PLC memory with no PLC data requests.
- Decreased receive latencies. No more polling rate induced latency issues.
- Decreased PLC overhead. By removing the need for polling, you can use your PLC to control more devices.
- Decreased Ethernet bandwidth.
- Easy-to-use interfaces designed to simplify configuration and PLC programming.
- Greatly increased flexibility. Each serial or Ethernet device interface on the DeviceMaster UP can be configured independently.



### How can you take advantage of this new capability in your system? Here are some scenarios:

- Data received from a barcode scanner, RFID reader, or weigh scale can be written directly into PLC memory with minimal latency. The PLC only needs to monitor a sequence counter for new data.
- Easily control read/write devices, such as a printer, from a slave Modbus/TCP PLC.
- Control a time critical device such as a servo or robotic arm by being able to transmit commands and receive responses with minimal latency.

Also, included is the patent pending DualConnectPlus technology. This provides dual connectivity between your serial or Ethernet device and a PLC and/or Application at the same time. The filtering and data extraction engine can filter your string, barcode, and RFID data and extract those UPC/EAN barcode and EPCglobal RFID tag parameters so you don't have to.



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