

Case Study

Modbus RTU and Veeder Root to Ethernet IP Integration

Overview

Our Client came to us looking for a protocol converter to integrate an EMCP4 Device which communicates over Modbus RTU and a Veeder Root Panel into an Ethernet IP PLC. This would be two devices integrated using the same device over to an Ethernet IP protocol-based PLC.

This was a unique situation for two reasons, one, usually integrations are done from a single protocol to another protocol. Fortunately, our Gateways support multiprotocol integration allowing us the ability to integrate many protocols simultaneously with one QuickServer.

Two, the client's technician was not fully aware of how to set up the instructions on their PLC (Ethernet/IP platform) side for the PLC to communicate properly with our device over Ethernet IP protocol. This part of the integration, configuring Third party devices, falls outside the scope of Chipkin's responsibility as they are not our devices, but often we do our best to help.



Chipkin's approach to the solution

Chipkin recommended a FieldServer QuickServer gateway and custom configuration services as a solution to complete the integration.

With this solution, Chipkin first generated and provided a configuration file based on the input information received by the client. The configuration file included all the points the client wanted to monitor from both the Veeder Root Panel and EMCP4 Device.

Then, Chipkin organized a remote login troubleshooting session with the client's technician. During the troubleshooting session, Chipkin first made sure that the data from the EMCP4 was being obtained properly by the FieldServer QuickServer device over Modbus RTU protocol and that the data from the Veeder root panel was being obtained properly by the over Veeder root protocol (this is done by checking and confirming the values which were obtained within the Data Array view under the View menu on the QuickServer Web GUI).

Once Chipkin confirmed that the data communications over Modbus RTU and Veeder root protocols were good, Chipkin then offered to help the client's technician to setup the PLC (Ethernet/IP platform) for the data communications with the FieldServer device over Ethernet IP protocol.

Chipkin also shared the Ethernet IP driver manual for the FieldServer device with the client's technician for his current and future reference whilst guiding him through the steps to setup their PLC (Ethernet/IP platform).

Once the client's technician set up the PLC for the Ethernet IP data communications with the help of Chipkin, the client was then able to receive all the data values properly over Ethernet IP protocol onto their PLC (Ethernet/IP platform).

Chipkin reported the above conclusion to the clients and thus reached a successful completion of this project and earned a happy client.

As a comment, the client provided Chipkin with the following kind words:

"I just wanted to say thank you for the support today. You definitely went above and beyond to help us determine the underlying cause of the problem. It looks like the SCADA system is now receiving all of the signals, and we now know where the issues are with our relay outputs from the generator controls to the Veeder Root system.

Again, I really appreciate the help and support, and look forward to working with you guys on future projects.
Thanks"