THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

PowerFlex Integration with Fisher ROC

May 26, 2021

Our Guest Panelists

Roger McClary
Automation Specialist
The Reynolds Company - Waco

2021 Online Events

Register to receive a calendar invite

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

- Tech Talks

- Stratix 5800/ Networks update

  Wed, June 9, 2021 @ 10am

- Rockwell Automation Integrated Services Agreements

  Wed, June 23, 2021 @ 10am

- User Groups

- System Redundancy Best Practices

  Wed, May 19, 2021 @ 10am

reynoldsonline.com

Upcoming Events

ROK VIRTUAL LIVE

A Rockwell Automation Virtual Event

Get Inspired to Innovate! Join us for ROKLive 2021, happening June 29-30, to explore the explosion of digital technologies in manufacturing today. We'll discuss how leading companies are applying analytics for actual insights, the newest collaboration tools designed for operations teams, and how we're tackling uncertainty in the supply chain.
This two-day virtual experience features exciting keynotes, discussions with industrial leaders, interactive value workshops, the Smart Industry Awards, and over 100 product and technology sessions – all focused around digital transformation.

Register at https://events.rockwellautomation.com/profile/108681

PowerFlex Drives & ROC 800

Modbus RTU Communications

Modbus/TCP

Ethernet/IP
Modbus/TCP

Micro870 Controller

Modbus/RTU

PowerFlex 525

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

Modbus/TCP

CompactLogix 5380

Modbus/RTU

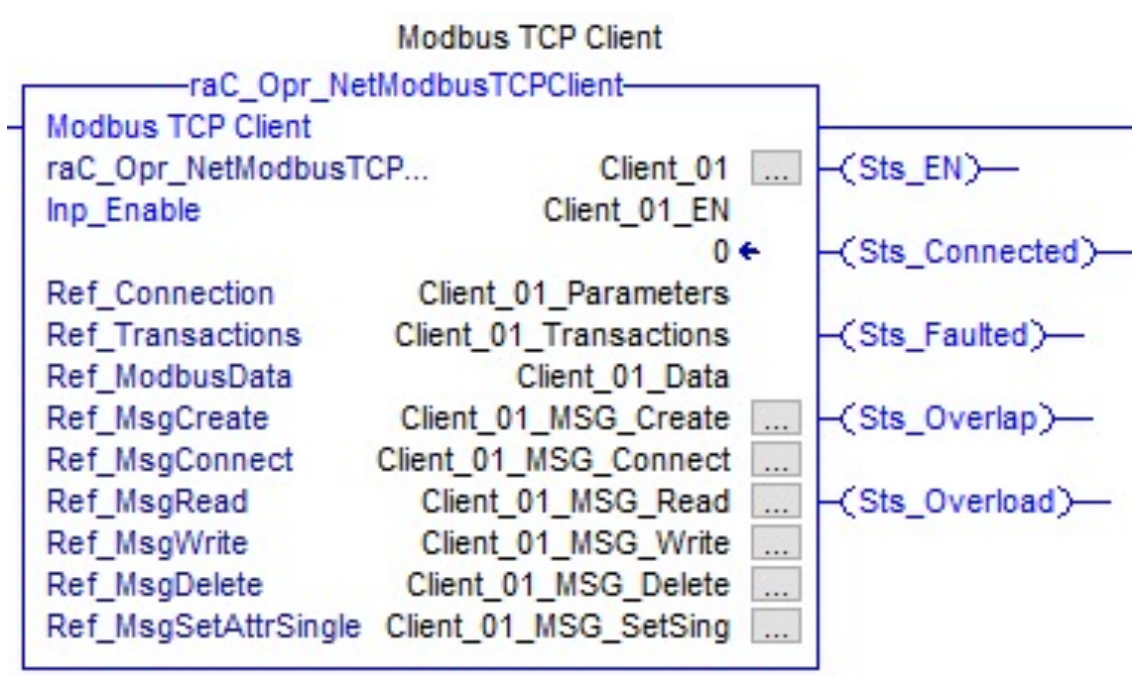
Ethernet/IP
Modbus/TCP

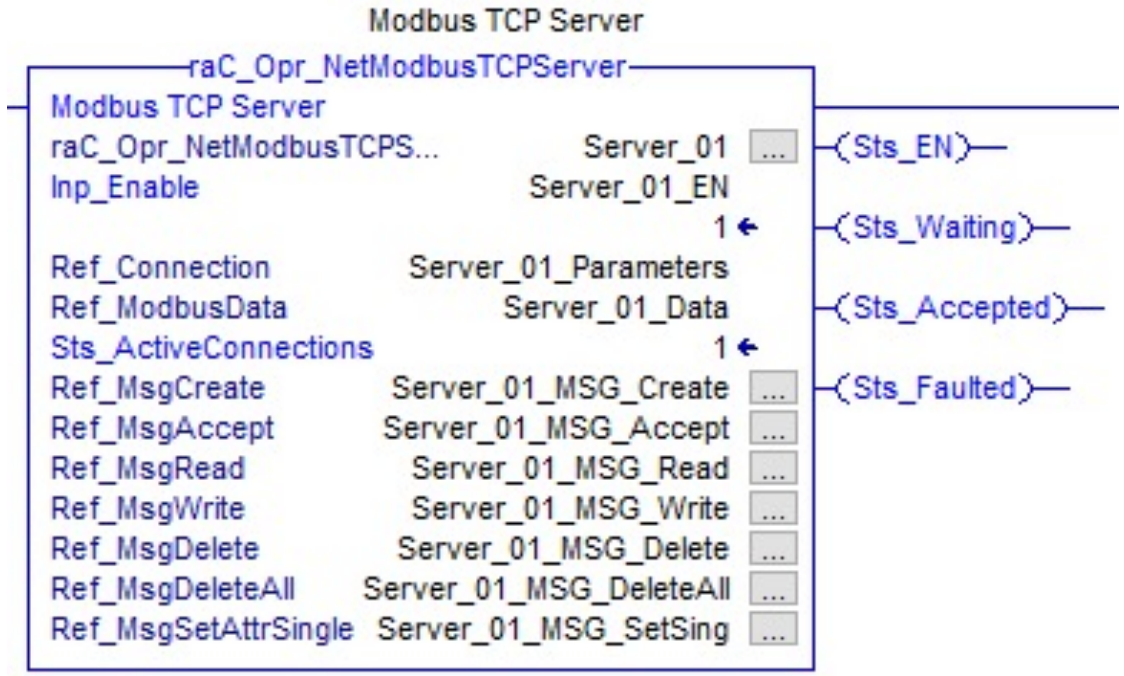
PowerFlex 525

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

New Modbus TCP AOI-based code





THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

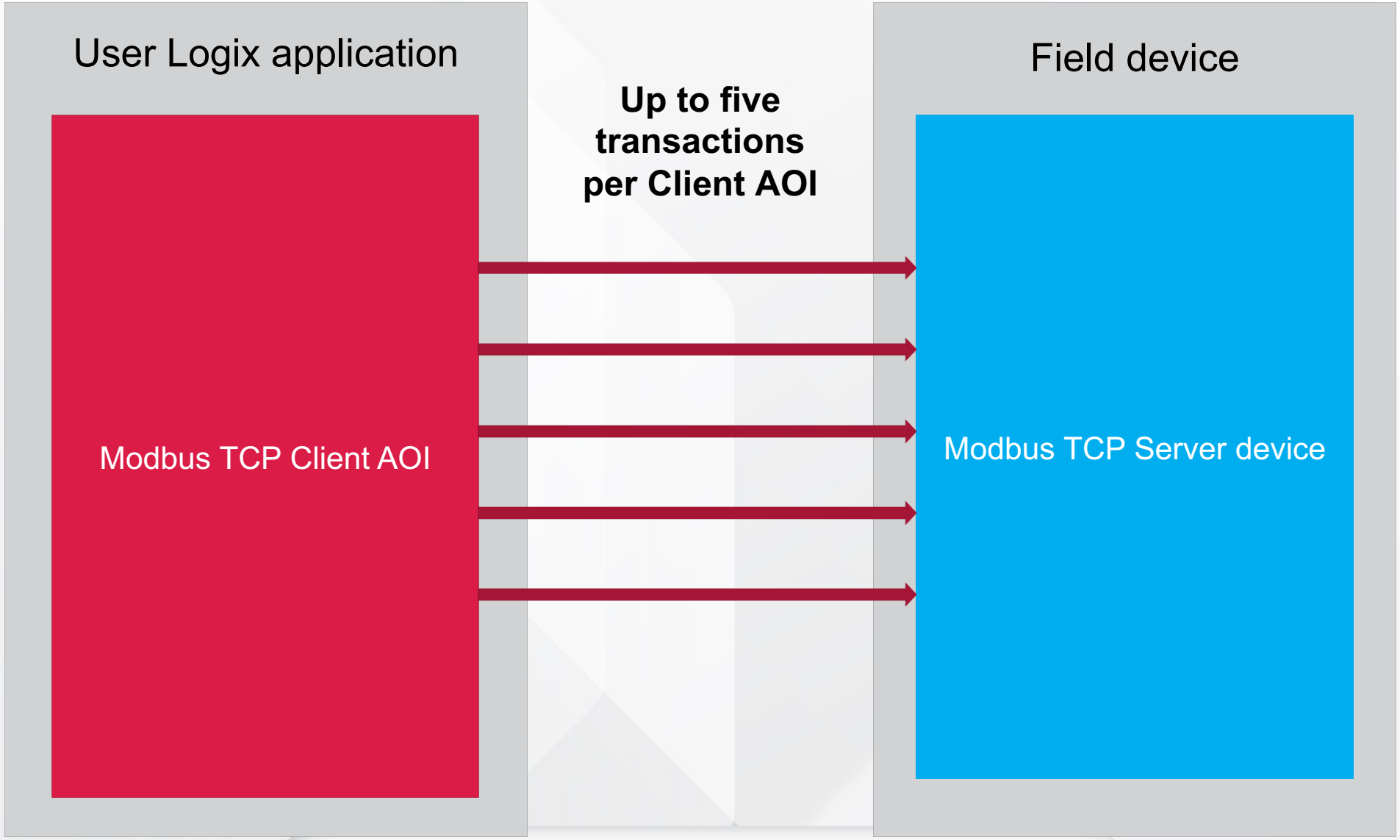
Availability

- Free download from the Sample Code Library
- Published on February 6, 2020
- Commercial Engineering contacts
  - Arkady Nabutovsky
  - Rich Ruggeri

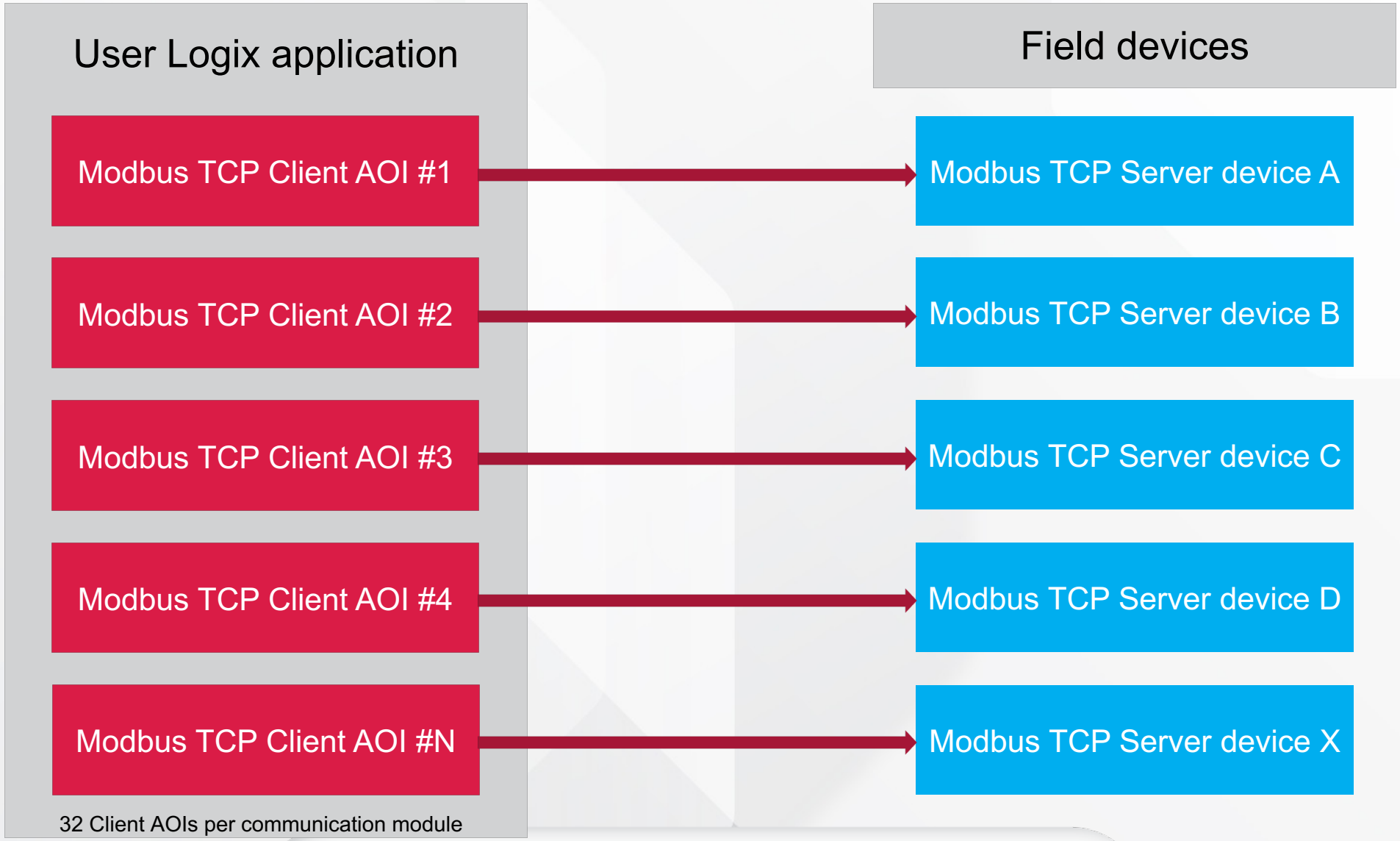
THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

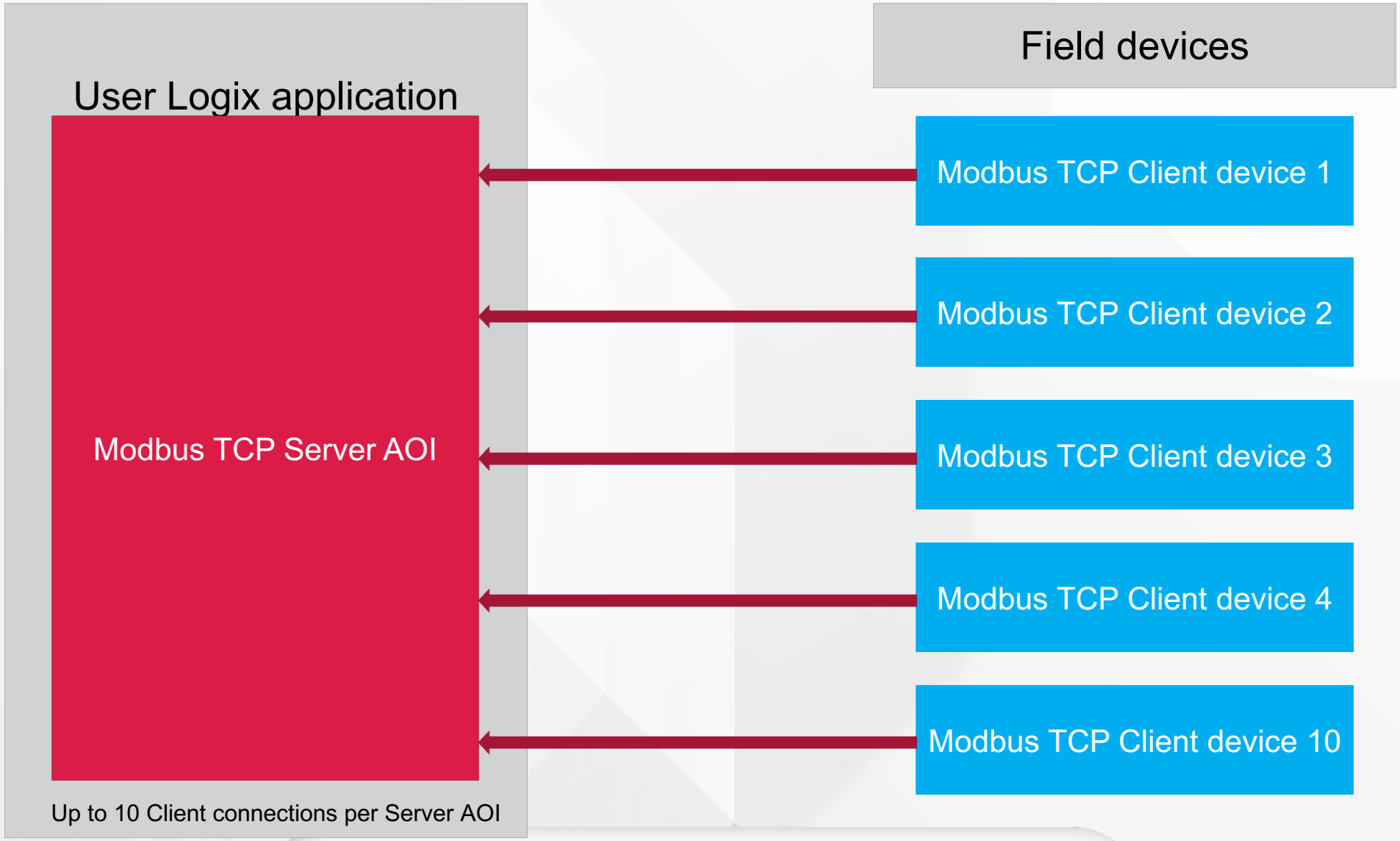
Client AOI functionality use case



Client AOI functionality use case



Server AOI functionality use case



Modbus protocol data flow

- Commonly used industrial protocol
- Developed in 1979 by Gould Modicon, Inc. for Modicon PLCs
- Currently administered by modbus.org
- Standard method for the transfer of simple information (bits and integers)
- Widely accepted, open and public-domain protocol
- Originally developed for serial communications (Modbus RTU and Modbus ASCII)
- Modbus TCP is Modbus implementation over Ethernet
- There are many non-standard extensions of the Modbus protocol

Modbus protocol data flow

- Devices communicate using a Client-Server (Master-Slave)
- Client can initiate transactions called “Queries” and send them to Server.
- Server responds by
  - Supplying the requested data to the client
  - Or taking the action requested in the query
  - Or sending an exception

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

Micro870 Controller

Connected Components Workbench™

Simplify standalone machine development for multiple industries with the Connected Components Workbench™ software. As part of our Integrated Architecture® system, Connected Components Workbench software provides device configuration, controller programming, and integration with Human Machine Interface (HMI) editor. This software helps reduce initial machine development time and cost.

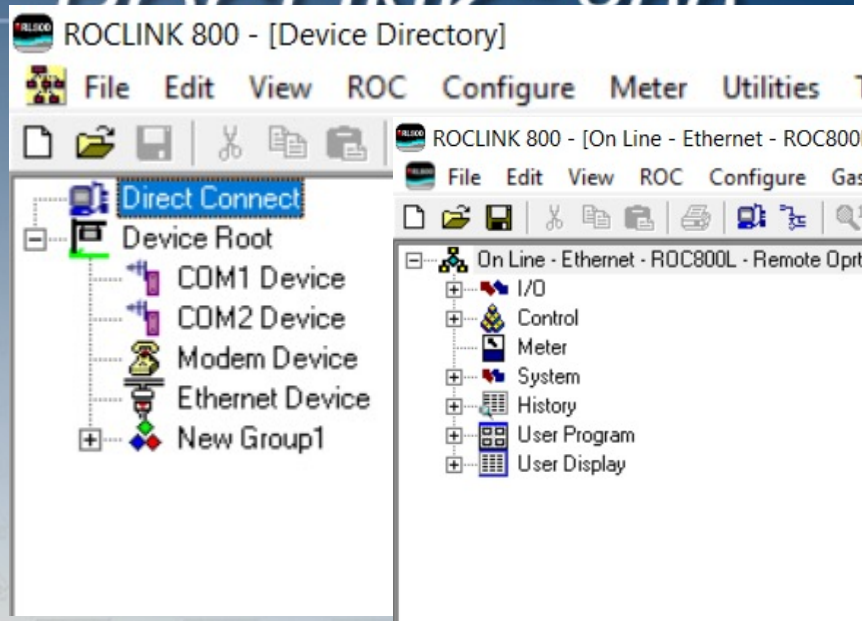
ROCLINK™ 800 Configuration Software

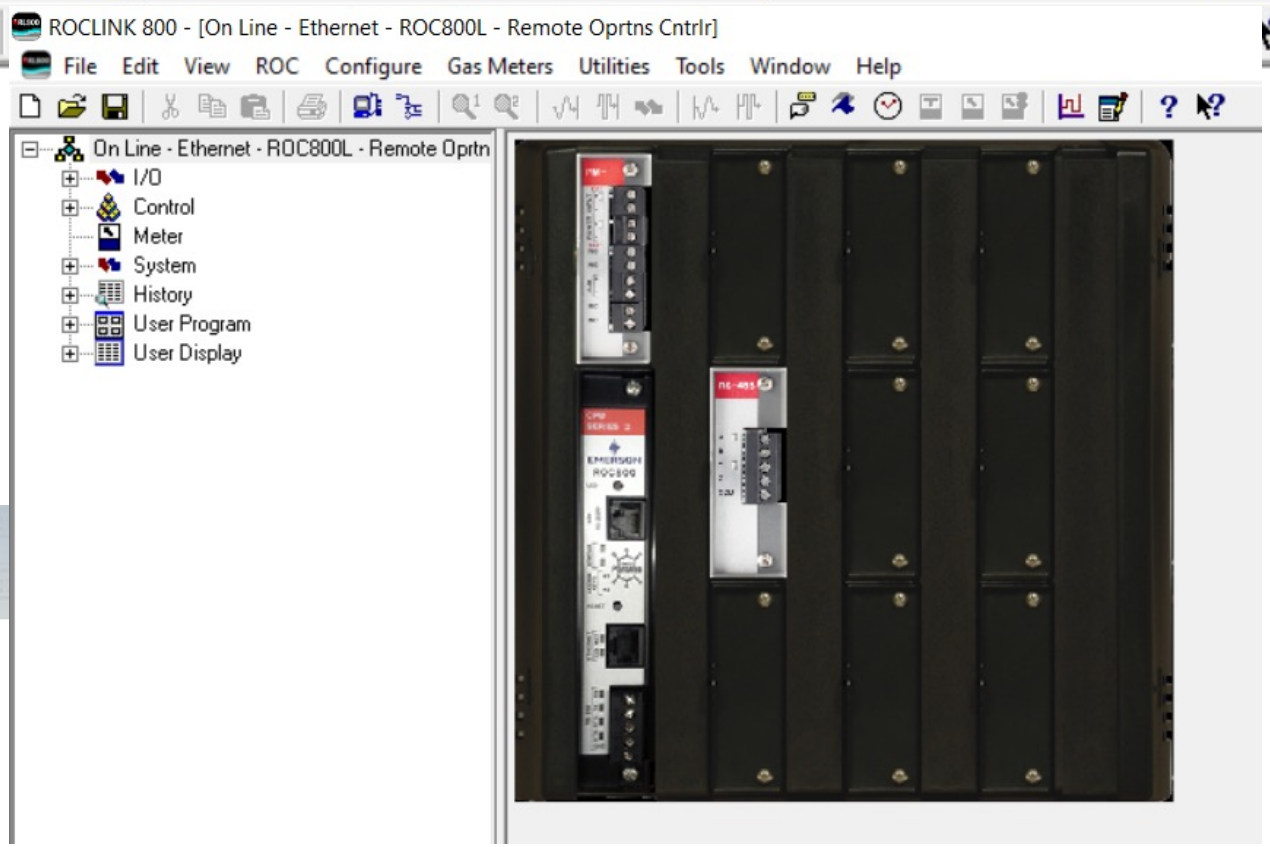
ROCLINK 800 Configuration Software incorporates the features you need for fast, efficient configuration and operation of ROC and FloBoss products.

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

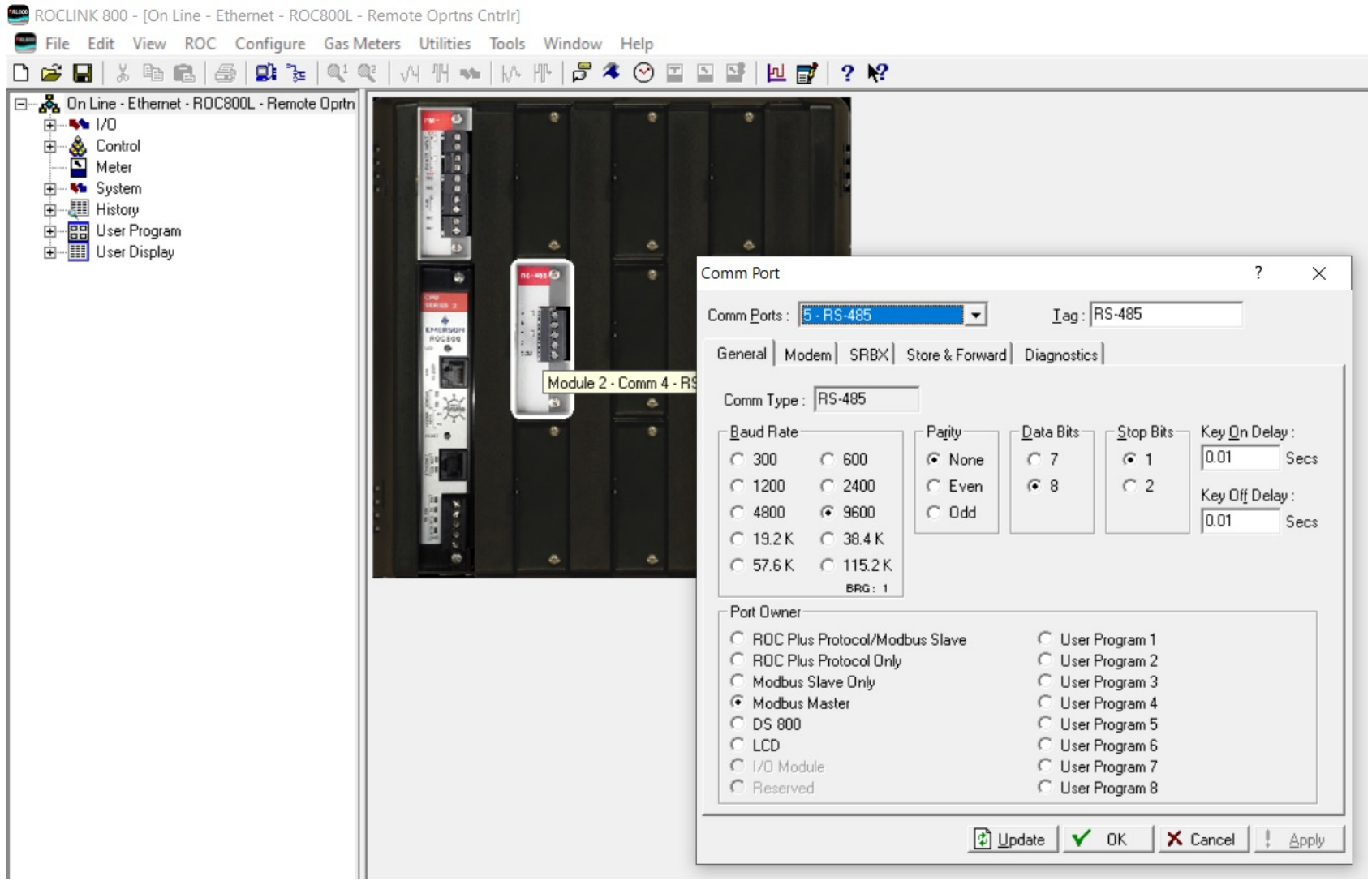
ROCLINK™ 800





THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation



THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

Modbus Configuration

Comm Port : 5 - RS-485

General | Scale Values | M

Byte Order
- Least Significant Byte
- Most Significant Byte

Slave Mode

Exception Status : No Er

Master Mode

Start Polling :

Starting Request : 1

Number of Requests : 6

Continuous Polling
- Enabled
- Disabled

Request Delay : 1

Modbus Configuration

Comm Port : 5 - RS-485

General | Scale Values | Master Table | Master Mode

Logical Point : 10 - MastTbl 10 (RS-485)

	RTU Address	Function Code	Sla Regi
1	1	16 - Preset Multiple Registers	0
2	1	16 - Preset Multiple Registers	2
3	2	6 - Preset Single Register	8192
4	2	6 - Preset Single Register	8193
5	2	3 - Read Holding Registers	8448
6	1	3 - Read Holding Registers	4
7	0	0 - Disabled	0
8	0	0 - Disabled	0
9	0	0 - Disabled	0
10	0	0 - Disabled	0
11	0	0 - Disabled	0
12	0	0 - Disabled	0
13	0	0 - Disabled	0
14	0	0 - Disabled	0
15	0	0 - Disabled	0
16	0	0 - Disabled	0
17	0	0 - Disabled	0
18	0	0 - Disabled	0
19	0	0 - Disabled	0
20	0	0 - Disabled	0

Modbus Configuration

General | Scale Values | Master Table | Master Modem | Registers | History Table

Table : 1 Tag : ROC To AB

Index	Start Register	End
1	100	101
2	102	103
3	104	104
4	105	105
5	106	106
6	107	107
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0

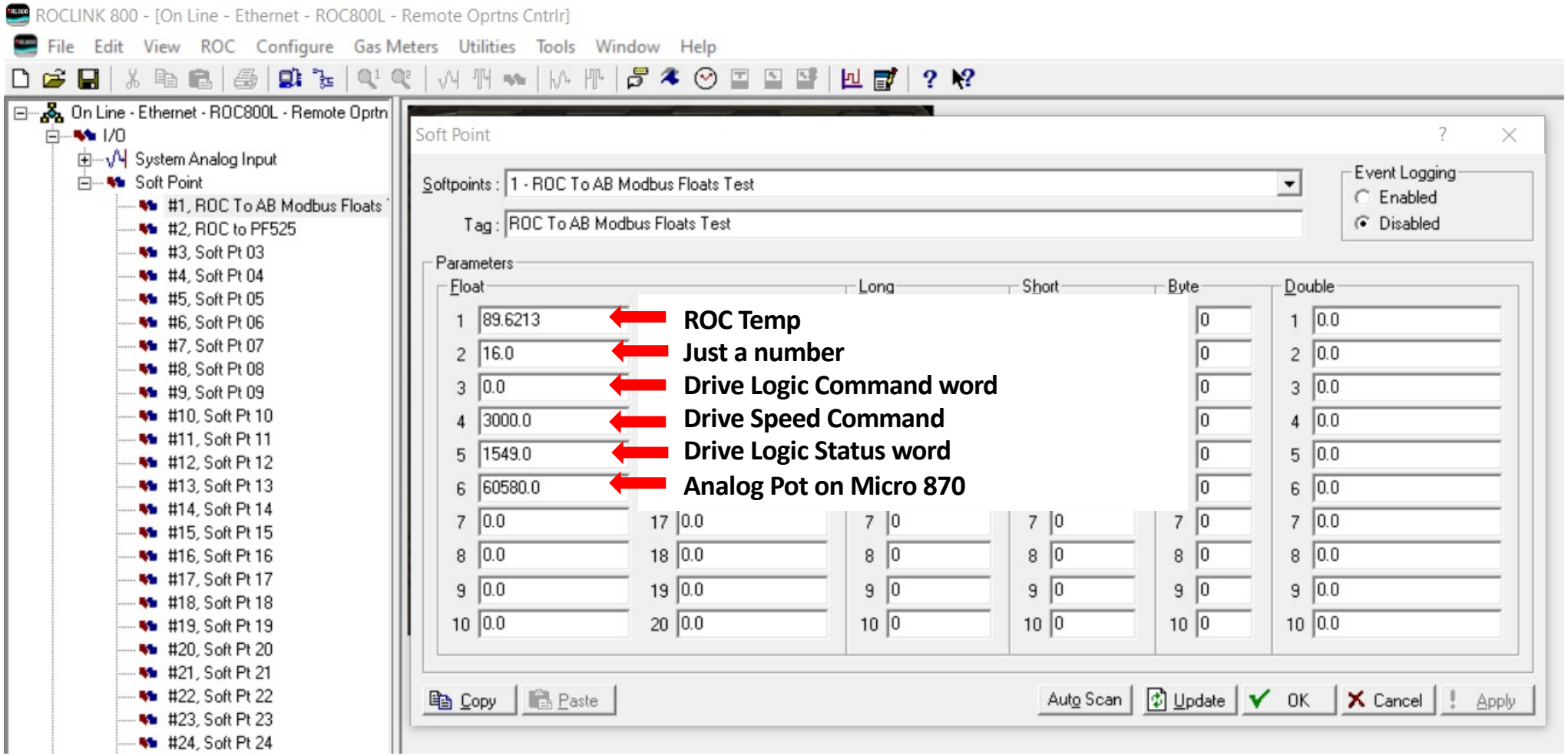
ROCLINK 800 - [On Line - Ethernet - ROC800L - Remote Oprtns Cntrlr]

File Edit View ROC Configure Gas Meters Utilities Tools Window Help

On Line - Ethernet - ROC800L - Remote Oprtn
- I/O
  - System Analog Input
  - Soft Point
    - #1, ROC To AB Modbus Floats
    - #2, ROC to PF525
    - #3, Soft Pt 03
    - #4, Soft Pt 04
    - #5, Soft Pt 05
    - #6, Soft Pt 06
    - #7, Soft Pt 07
    - #8, Soft Pt 08
    - #9, Soft Pt 09
    - #10, Soft Pt 10
    - #11, Soft Pt 11
    - #12, Soft Pt 12
    - #13, Soft Pt 13
    - #14, Soft Pt 14
    - #15, Soft Pt 15
    - #16, Soft Pt 16
    - #17, Soft Pt 17
    - #18, Soft Pt 18
    - #19, Soft Pt 19
    - #20, Soft Pt 20

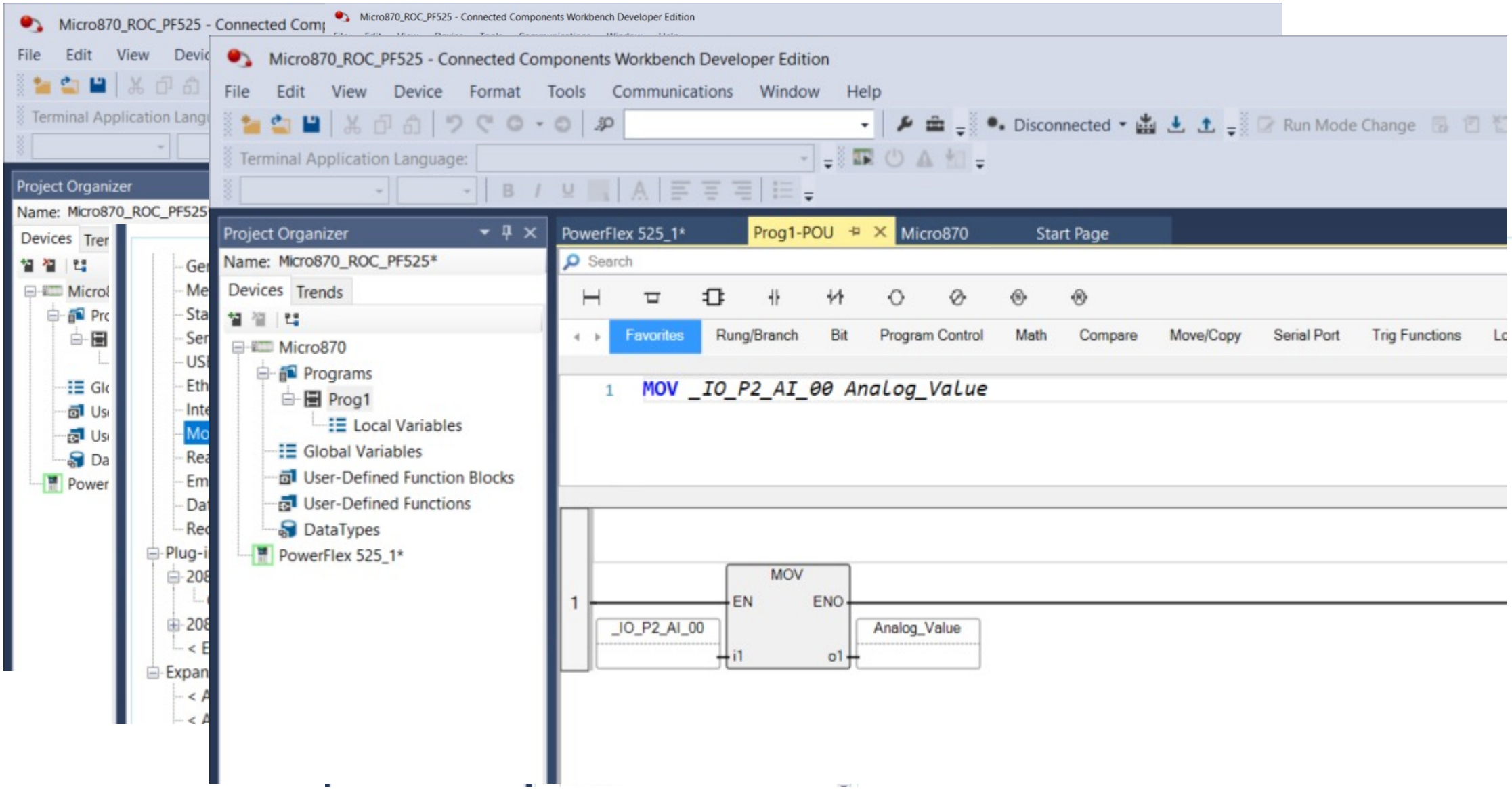
THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation



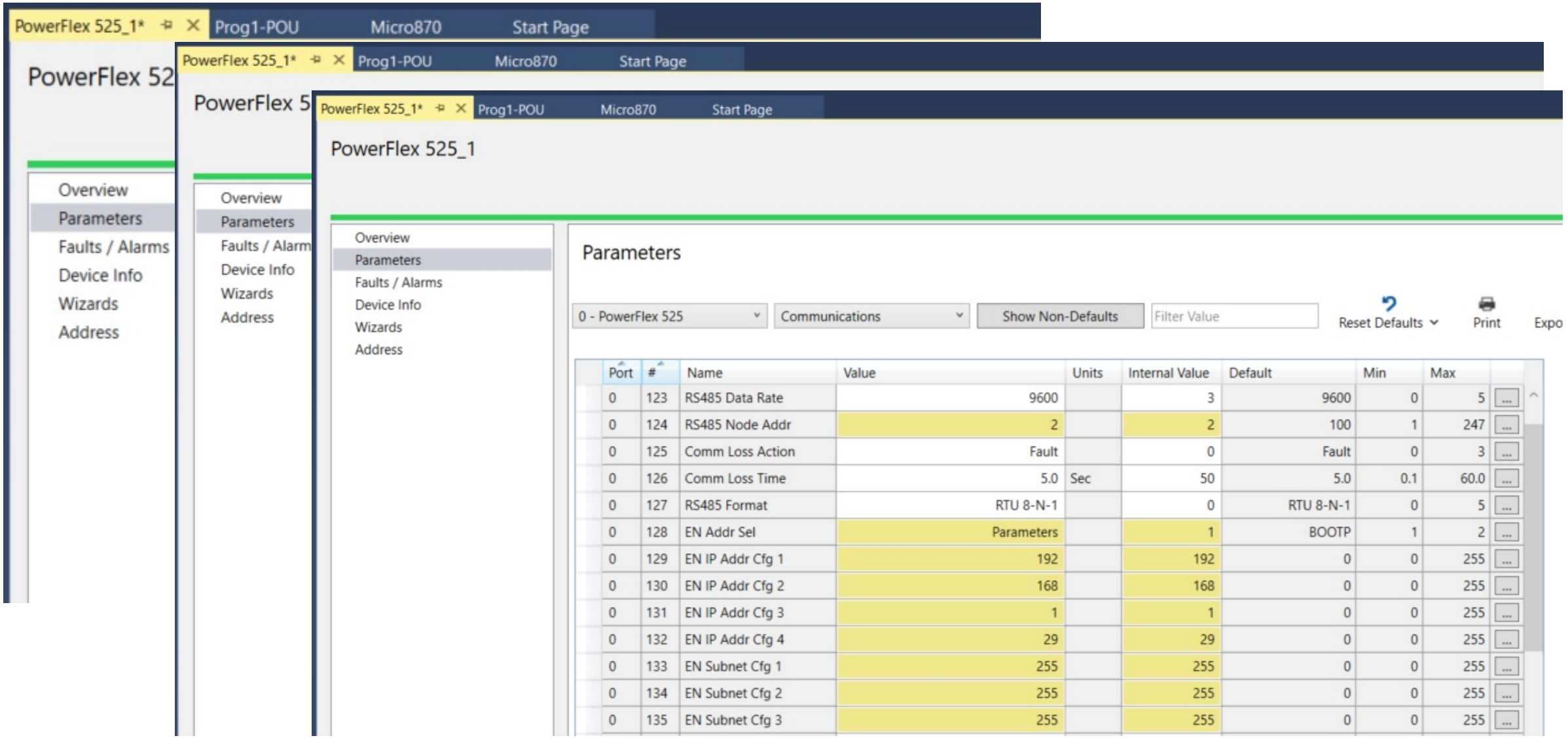
THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation



THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

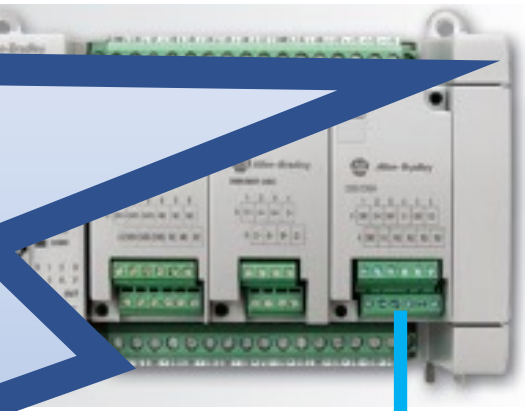


THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation

Mo

Micro870 Controller



Modb

LET'S SEE IT WORK ALREADY!!!!

THE REYNOLDS COMPANY
ELECTRICAL SUPPLY

Rockwell Automation