LESSON 7: Advance Remote Communications (Troubleshooting and Solutions).
Protocols supported.
Connecting a supervisory PLC through panel communications.
Common questions and problems.
WHAT ARE PROTOCOLS?

COMMUNICATION PROTOCOLS ARE LIKE LANGUAGES THAT THE PANEL USES.

WHICH PROTOCOLS DO WE SUPPORT?

ETHERNET IP FOR AB COMPACTLOGIX CONTROLLERS.

ETHERNET IP FOR AB MICROLOGIX CONTROLLERS.

MODBUS RTU – SERIAL RS485 OR 232C

MODBUS TCP/IP - ETHERNET

UP TO HOW MANY MYPRO TOUCH CONTROLLERS CAN WE CONNECT TO ONE PLC

EIGHT (8)
HOW TO CONNECT TO A PLC

FOR ETHERNET COMMUNICATION ENSURE YOUR NETWORK SETTINGS ARE SET PROPERLY.

1. SET PANEL IP ADDRESS. (REFER TO WEBINAR 6)
2. SET PLC IP ADDRESS
3. GO TO COMMUNICATION SETUP SCREEN AND MAKE PROPER DEVICE AND ADDRESS SELECTIONS AND SET COMMUNICATION TO RUN

FOR SERIAL COMMUNICATION ENSURE YOUR WIRING IS DONE PROPERLY.

1. FOLLOW MANUAL’S WIRING DIAGRAM, FOR 90% OF APPLICATIONS USE MOTHERBOARD’S RS PORT.
2. USE SERIAL PORT SETUP ON COMMUNICATION SETUP SCREEN TO MAKE PROPER OPTION SELECTIONS AND SET COMMUNICATION TO RUN.
HOW TO SET PLC IP ADDRESS

• **GO TO OFFLINE MENU**

![Image of System Menu](image1)

• **USE PASSWORD 1313 TO ENTER TO THE OFFLINE MENU, THEN SELECT PERIPHERAL SETTINGS**

![Image of Peripheral Settings](image2)

• **AFTER PERIPHERAL SETTINGS OPENS SELECT DEVICE/PLC SETTINGS FROM LIST**

![Image of Device/PLC Settings](image3)
ASSIGNING PLC IP ADDRESS CONT.

- CHOOSE ROCKWELL AUTOMATION, INC. FROM THE LIST

- ON THE FOLLOWING PAGE OPEN DEVICE FROM THE TOP MENU BUTTONS

- SELECT PLC TO COMMUNICATE TO AND ASSIGN IP ADDRESS OF PLC ON THIS PAGE

PLC 4 COMPACTLOGIX
PLC 5 MICROLOGIX

IP ADDRESS OF PLC CONTROLLER
Q&A POINT

QUESTIONS ?
HOW TO PING THE PANEL

ANSWER TO COMMON QUESTIONS

- HOW DO I KNOW THAT THE NETWORK CONFIGURATION WAS DONE PROPERLY?
  CONNECT YOUR COMPUTER TO NETWORK AND PING PANEL TO FIND IF THE MYPRO TOUCH IS VISIBLE IN THE NETWORK.

IMPORTANT POINT

YOUR COMPUTER NEEDS TO BE SETUP PROPERLY IN THE NETWORK AS WELL.

PING PANEL'S IP ADDRESS TO ENSURE THAT YOUR PANEL IS IN NETWORK
SETUP ON THE PLC

BEFORE TURNING COMMUNICATION TO ON (RUN). ENSURE THE FOLLOWING LIST CHECKS OUT

- Ensure both the PLC and MT Panel are in the same subnet with their static addresses programmed properly.
- From a computer in the network make sure you can ping both the PLC controller and the MT Panel.
- Ensure program in PLC are setup per the how to manuals found on the server and 365 share drive.
TO TURN ON COMMUNICATIONS GO TO:

1. SIGN ON TO PANEL WITH LEVEL 1 OR HIGHER CREDENTIALS.

2. GO TO CONTROLS SUMMARY

3. OPEN COMMUNICATION SETUP

4. SELECT CONTROLLER (DEVICE) MT PANEL WILL BE CONNECTING TO

5. ASSIGN ADDRESS OF MT PANEL. IF COMMUNICATING ONLY TO 1 INSERT 1 HERE

6. SELECT IF AUTO CONNECT IS NEEDED AFTER A COMMUNICATION FAILURE TAKES PLACE

NOTE: EXAMPLES SHOW MICROLOGIX
ANSWER TO COMMON QUESTIONS

- CAN I GET THE SENSOR VALUES OVER ETHERNET IP
  YES, PLEASE REFER TO ETHERNET IP ADDRESS LIST ON SERVER FOR DETAILS

- CAN I RUN AND STOP THE COMPRESSOR VIA COMMUNICATION
  YES BY Togg ling THE ADDRESS WHICH IS RELATIVE TO MODBUS COIL 00513

- CAN I LOAD AND UNLOAD THE COMPRESSOR VIA COMMUNICATION
  YES BY WRITING A x10 VALUE OF THE SLIDE VALVE POSITION TO THE APPROPRIATE REGISTER
PLC CONTROL SIMULATION
COMMON PROBLEMS

1. TRY TO CONNECT BUT IT KICKS OUT COMMUNICATION WITH THE MESSAGE BELOW SHOWING

   ![Image of communication error message](image1)

   Server: RKAED78: PLC5: Illegal write request because this device has been off scan

   Server IP Address: 192.168.21.35

2. IT DOESN'T RUN. (ENSURE TO HOLD BIT)

3. IT DOESN'T RECONNECT. (DO NOT CLOSE RECONNECTION WINDOW)
QUESTIONS?