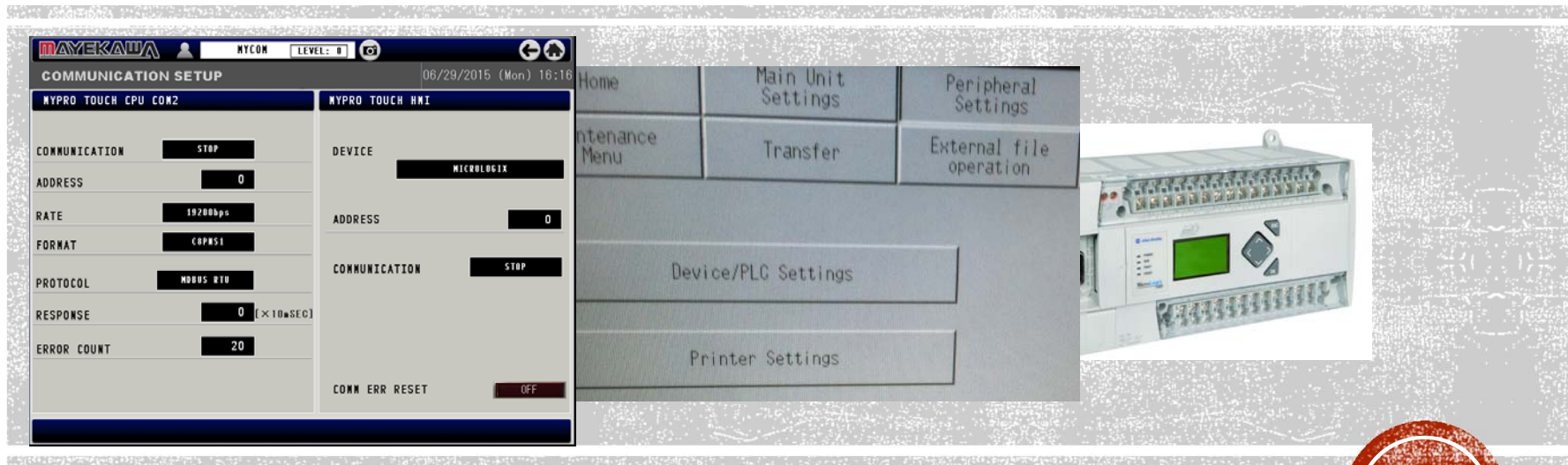
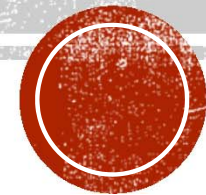


MYPRO TOUCH WEBINAR TRAINING



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



PROTOCOLS



WHAT ARE PROTOCOLS?

COMMUNICATION PROTOCOLS ARE LIKE LANGUAGES THAT THE PANEL USES.

WHICH PROTOCOLS DO WE SUPPORT?

ETHERNET IP FOR AB COMPACTLOGIX CONTROLLERS.

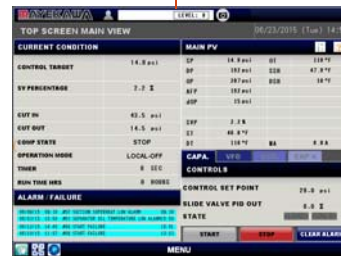
ETHERNET IP FOR AB MICROLOGIX CONTROLLERS.

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.



The screenshot shows the 'COMMUNICATION SETUP' screen for a MAYEKAWA MYCOM system. The screen is divided into two main sections: 'MYPRO TOUCH CPU COM2' and 'MYPRO TOUCH HMI'. The top bar includes the MAYEKAWA logo, a user icon, 'MYCOM', 'LEVEL: 0', and navigation icons. The date and time '06/29/2015 (Mon) 16:16' are displayed in the top right.

MYPRO TOUCH CPU COM2		MYPRO TOUCH HMI	
COMMUNICATION	STOP	DEVICE	MICROLOGIX
ADDRESS	0	ADDRESS	0
RATE	19200bps	COMMUNICATION	STOP
FORMAT	CBPMS1	CONN ERR RESET	OFF
PROTOCOL	MODBUS RTU		
RESPONSE	0 [×10mSEC]		
ERROR COUNT	20		

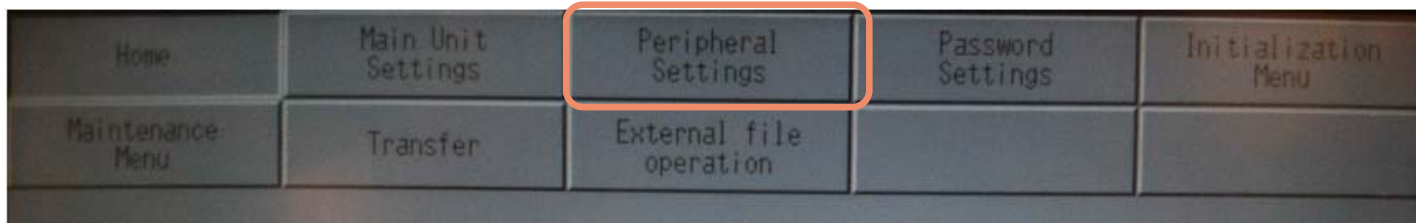
HOW TO SET PLC IP ADDRESS

- GO TO OFFLINE MENU

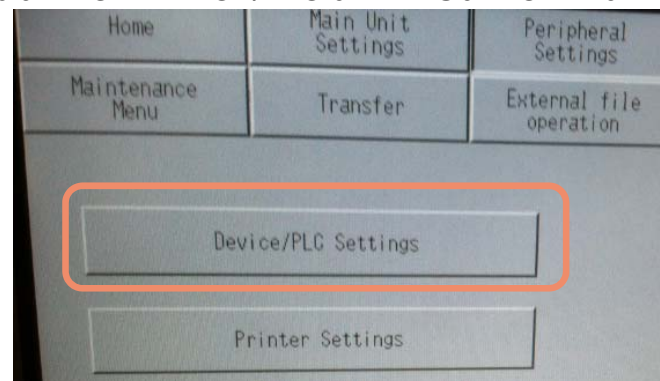


Figure 3: System Menu

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



- AFTER PERIPHERAL SETTINGS OPENS SELECT DEVICE/PLC SETTINGS FROM LIST

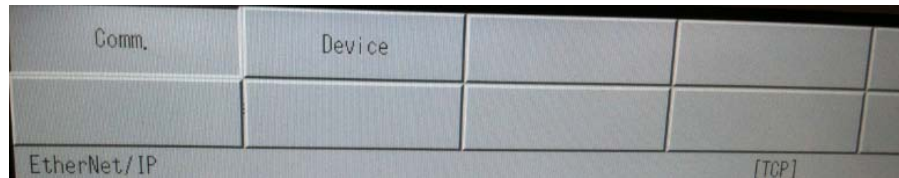


ASSIGNING PLC IP ADDRESS CONT.

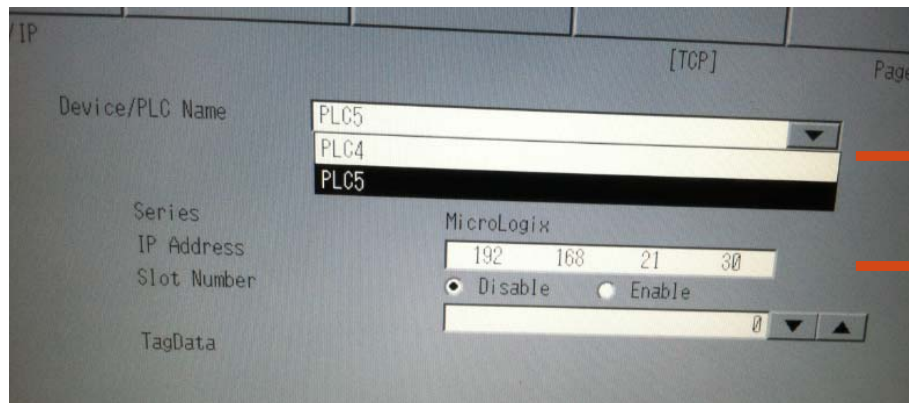
- CHOOSE ROCKWELL AUTOMATION, INC. FROM THE LIST



- 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

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\htakeuchi.MAYEKAWAUSA>ping 192.168.21.35

Pinging 192.168.21.35 with 32 bytes of data:
Reply from 192.168.21.35: bytes=32 time=1ms TTL=255
Reply from 192.168.21.35: bytes=32 time<1ms TTL=255
Reply from 192.168.21.35: bytes=32 time<1ms TTL=255
Reply from 192.168.21.35: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.21.35:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\htakeuchi.MAYEKAWAUSA>
```

PING PANEL'S IP ADDRESS TO ENSURE THAT YOUR PANEL IS IN NETWORK

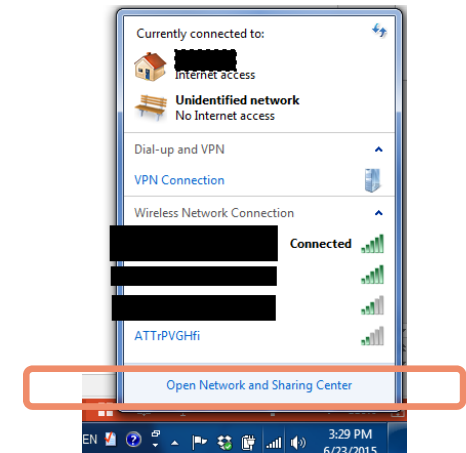
ANSWER TO COMMON QUESTIONS

- HOW DO I KNOW THAT THE NETWORK CONFIGURATION WAS DONE PROPERLY?

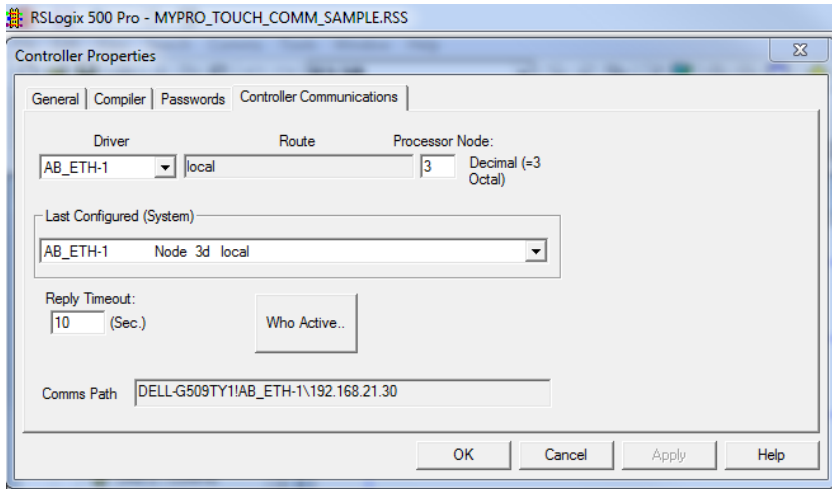
CONNECT YOUR COMPUTER TO NETWORK AND PING PANEL TO FIND IF THE MYPRO TOUCH IS VISIBLE IN THE NETWORK.

IMPORTANT POINT

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

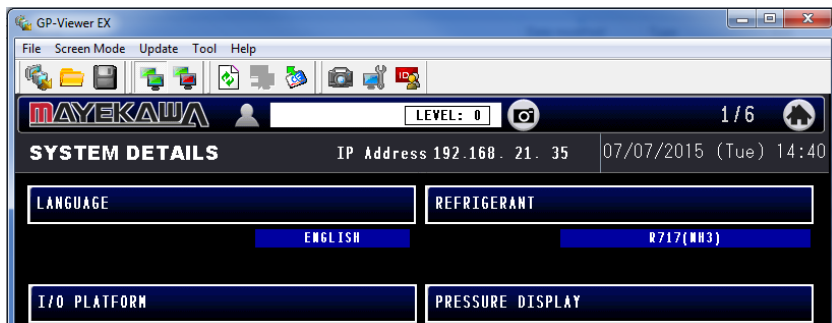


SETUP ON THE PLC

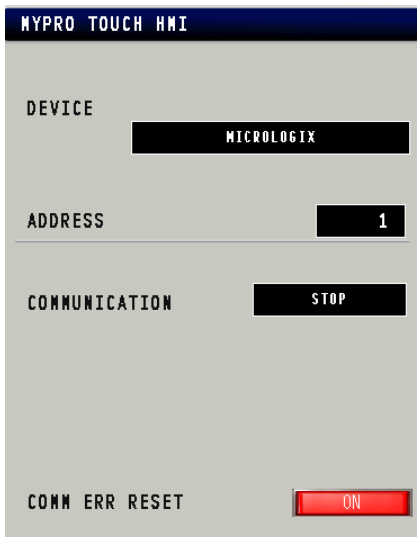
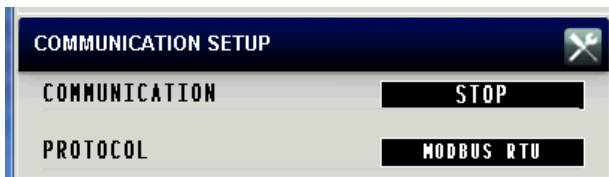
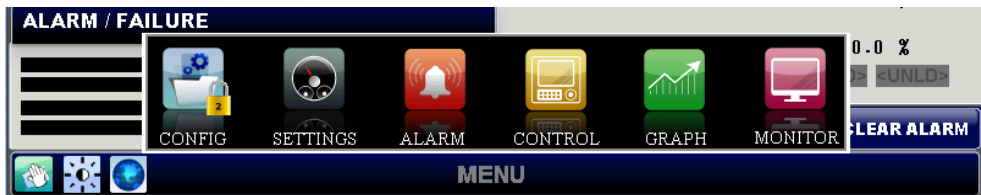


BEFORE TURNING COMMUNICATION TO ON (RUN). ENSURE THE FOLLOWING LIST CHECKS OUT

- 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.



TURN ON COMMUNICATIONS



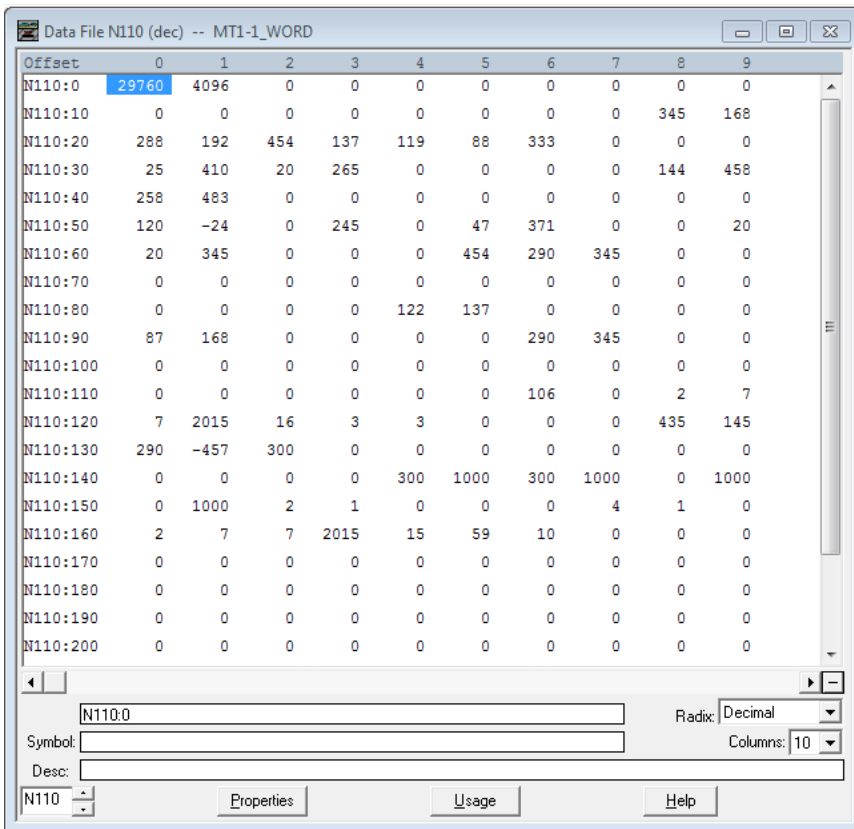
TO TURN ON COMMUNICATIONS GO TO:

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



DETAIL ON COMMUNICATION



The screenshot shows a window titled "Data File N110 (dec) -- MT1-1_WORD". It displays a table with 10 columns representing offsets from 0 to 9 and 17 rows representing registers from N110:0 to N110:200. The value for N110:0 is highlighted as 29760. Below the table are fields for Symbol (N110:0), Radix (Decimal), Columns (10), and Desc. Buttons for Properties, Usage, and Help are at the bottom.

Offset	0	1	2	3	4	5	6	7	8	9
N110:0	29760	4096	0	0	0	0	0	0	0	0
N110:10	0	0	0	0	0	0	0	0	345	168
N110:20	288	192	454	137	119	88	333	0	0	0
N110:30	25	410	20	265	0	0	0	0	144	458
N110:40	258	483	0	0	0	0	0	0	0	0
N110:50	120	-24	0	245	0	47	371	0	0	20
N110:60	20	345	0	0	0	454	290	345	0	0
N110:70	0	0	0	0	0	0	0	0	0	0
N110:80	0	0	0	0	122	137	0	0	0	0
N110:90	87	168	0	0	0	0	290	345	0	0
N110:100	0	0	0	0	0	0	0	0	0	0
N110:110	0	0	0	0	0	0	106	0	2	7
N110:120	7	2015	16	3	3	0	0	0	435	145
N110:130	290	-457	300	0	0	0	0	0	0	0
N110:140	0	0	0	0	300	1000	300	1000	0	1000
N110:150	0	1000	2	1	0	0	0	4	1	0
N110:160	2	7	7	2015	15	59	10	0	0	0
N110:170	0	0	0	0	0	0	0	0	0	0
N110:180	0	0	0	0	0	0	0	0	0	0
N110:190	0	0	0	0	0	0	0	0	0	0
N110:200	0	0	0	0	0	0	0	0	0	0

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 TOGGLE 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



MAYEKAWA MYCOM LEVEL: 0 07/07/2015 (Tue) 16:32

TOP SCREEN MAIN VIEW

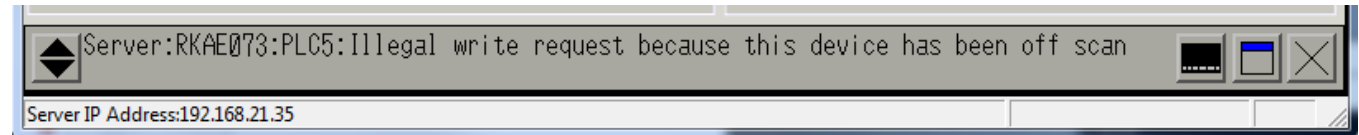
CURRENT CONDITION		MAIN PV	
CONTROL TARGET	34.5 psi	SP	34.5 psi ST 45.4 °F
SV PERCENTAGE	2.1 %	DP	168 psi DT 137 °F
CUT IN	43.5 psi	dOP	120 psi OT 119 °F
CUT OUT	14.5 psi	SVP	2.1 % MA 0.0 A
COMP STATE	STOP	CAPA. VFD EXP. EXP V.	
OPERATION MODE	COMM-OFF	CONTROLS	
TIMER	0 SEC	CONTROL SET POINT 29.0 psi	
RUN TIME HRS	0 HOURS	SLIDE VALVE PID OUT 0.0 %	
ALARM / FAILURE		STATE [RELOAD] [RUNLD]	
		START STOP CLEAR ALARM	

MENU

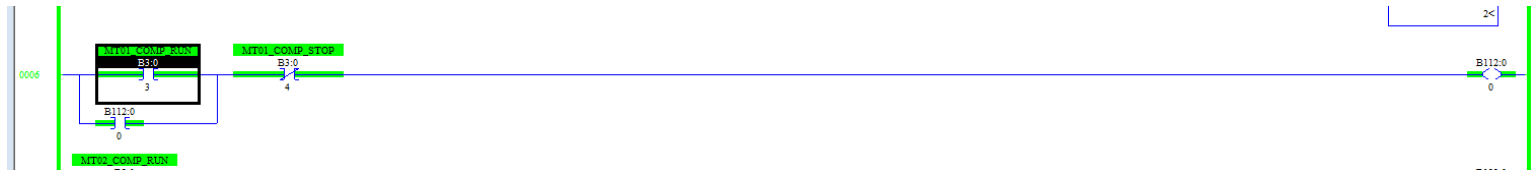


COMMON PROBLEMS

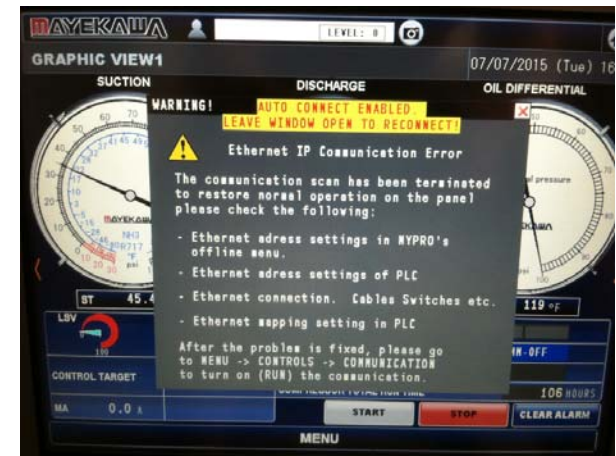
1. TRY TO CONNECT BUT IT KICKS OUT COMMUNICATION WITH THE MESSAGE BELOW SHOWING



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



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



QUESTIONS?

