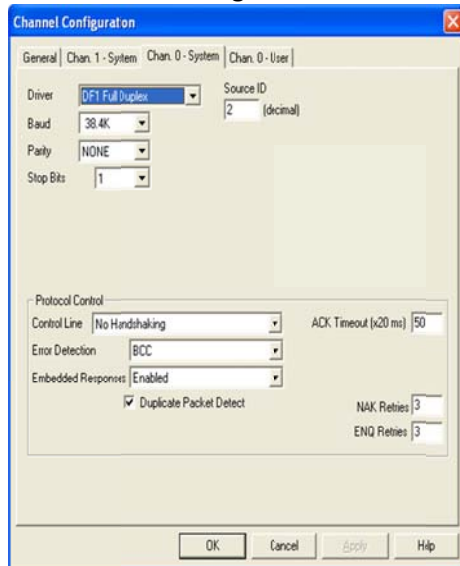


## Access any Allen Bradley Device with DF1 port, through EQ-DCM using Allen Bradley Ethernet Driver and DF1 Driver as well.

In this application basically we are adding Ethernet capability to the SLC500 while keeping the ability to access it through the RS232 DF1 port as well.

SLC500 CH0 was connected to CHB of the EQDCM, while CHA was connected to PC running RSLINX and RSLOGIX, EQ-DCM Ethernet port was connected through a switch to our Ethernet network.

SLC 500 CH0 settings were checked as shown



Start EQ32 configuration software and click on EQ-DCM



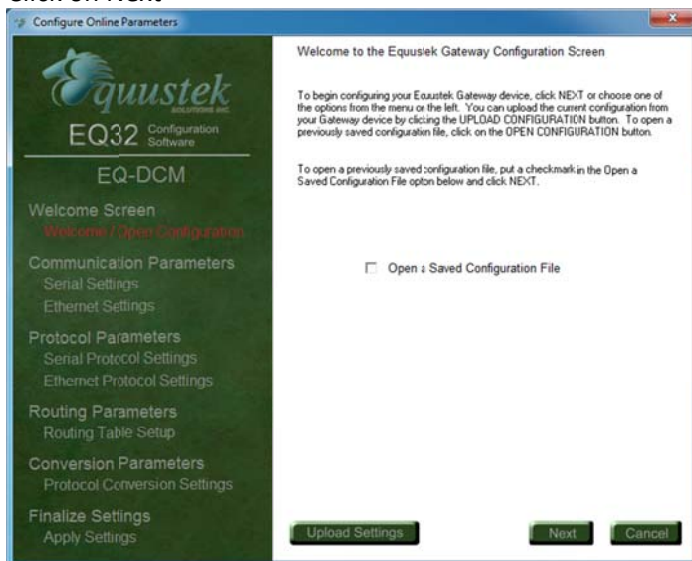
Click on AB Ethernet ASCII DF1



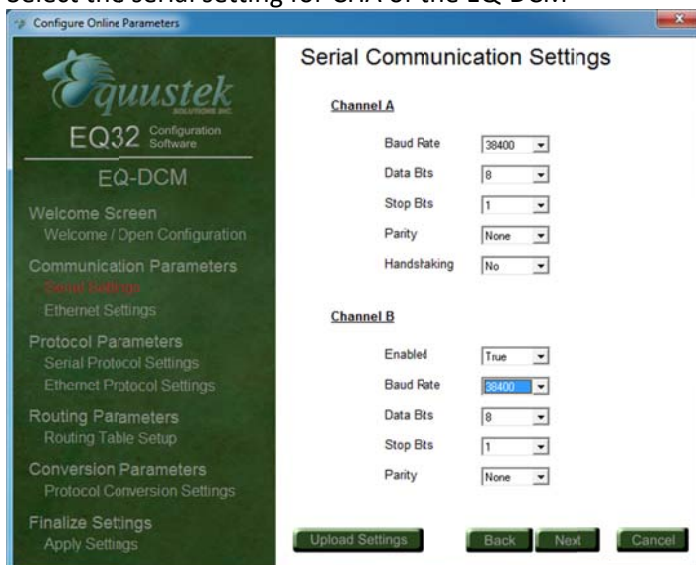
Select the serial port that is connected to the PC running EQ32, then click on Configure



Click on Next



Select the serial setting for CHA of the EQ-DCM



Enter your Ethernet settings

The screenshot shows the 'Configure Online Parameters' window with the 'Ethernet Communication Settings' tab selected. The left sidebar contains a navigation menu with the following items: Welcome Screen, Welcome / Open Configuration, Communication Parameters (Serial Settings, Ethernet Settings), Protocol Parameters (Serial Protocol Settings, Ethernet Protocol Settings), Routing Parameters (Routing Table Setup), Conversion Parameters (Protocol Conversion Settings), and Finalize Settings (Apply Settings). The main area displays the following settings: DHCP (Disabled), IP Address (192.168.2.95), Subnet Mask (255.255.255.0), Default Gateway (192.168.2.1), Speed (Auto Detect), and Socket Timeout (90 s). At the bottom are buttons for 'Upload Settings', 'Back', 'Next', and 'Cancel'.

**Configure Online Parameters**

**quustek**  
SOLUTIONS INC.  
EQ32 Configuration Software  
EQ-DCM

Welcome Screen  
Welcome / Open Configuration

Communication Parameters  
Serial Settings  
Ethernet Settings

Protocol Parameters  
Serial Protocol Settings  
Ethernet Protocol Settings

Routing Parameters  
Routing Table Setup

Conversion Parameters  
Protocol Conversion Settings

Finalize Settings  
Apply Settings

**Ethernet Communication Settings**

DHCP: Disabled

IP Address: 192.168.2.95

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.2.1

Speed: Auto Detect

Socket Timeout: 90 s

Upload Settings Back Next Cancel

Enter CHA Serial Protocol settings

The screenshot shows the 'Configure Online Parameters' window with the 'Serial Protocol Settings' tab selected. The left sidebar is identical to the previous screenshot. The main area displays settings for 'Channel A': Protocol (DF1) and 'DF1 Settings' (Communication Mode: Full Duplex, Error Checking: BCC). At the bottom are buttons for 'Upload Settings', 'Back', 'Next', and 'Cancel'.

**Configure Online Parameters**

**quustek**  
SOLUTIONS INC.  
EQ32 Configuration Software  
EQ-DCM

Welcome Screen  
Welcome / Open Configuration

Communication Parameters  
Serial Settings  
Ethernet Settings

Protocol Parameters  
Serial Protocol Settings  
Ethernet Protocol Settings

Routing Parameters  
Routing Table Setup

Conversion Parameters  
Protocol Conversion Settings

Finalize Settings  
Apply Settings

**Serial Protocol Settings**

**Channel A**

Protocol: DF1

**DF1 Settings**

Communication Mode: Full Duplex

Error Checking: BCC

Upload Settings Back Next Cancel

Enter CHB Serial Protocol settings

The screenshot shows the 'Configure Online Parameters' window with the 'Serial Protocol Settings' tab selected. The left sidebar is identical to the previous screenshots. The main area displays settings for 'Channel B': Protocol (DF1) and 'DF1 Settings' (Communication Mode: Full Duplex, Error Checking: BCC). At the bottom are buttons for 'Upload Settings', 'Back', 'Next', and 'Cancel'.

**Configure Online Parameters**

**quustek**  
SOLUTIONS INC.  
EQ32 Configuration Software  
EQ-DCM

Welcome Screen  
Welcome / Open Configuration

Communication Parameters  
Serial Settings  
Ethernet Settings

Protocol Parameters  
Serial Protocol Settings  
Ethernet Protocol Settings

Routing Parameters  
Routing Table Setup

Conversion Parameters  
Protocol Conversion Settings

Finalize Settings  
Apply Settings

**Serial Protocol Settings**

**Channel B**

Protocol: DF1

**DF1 Settings**

Communication Mode: Full Duplex

Error Checking: BCC

Upload Settings Back Next Cancel

Click on Next

**Configure Online Parameters**

**quustek**  
EQ32 Configuration Software

**EQ-DCM**

- Welcome Screen
- Welcome / Open Configuration
- Communication Parameters
- Serial Settings
- Ethernet Settings
- Protocol Parameters
- Serial Protocol Settings
- Ethernet Protocol Settings**
- Routing Parameters
- Routing Table Setup
- Conversion Parameters
- Protocol Conversion Settings
- Finalize Settings
- Apply Settings

**Ethernet Protocol Settings**

Protocol: **AB Ethernet**

**AB Ethernet Settings**

Currently No Configuration Needed

Upload Settings Back Next Cancel

Click on Add route

**Configure Online Parameters**

**quustek**  
EQ32 Configuration Software

**EQ-DCM**

- Welcome Screen
- Welcome / Open Configuration
- Communication Parameters
- Serial Settings
- Ethernet Settings
- Protocol Parameters
- Serial Protocol Settings
- Ethernet Protocol Settings
- Routing Parameters**
- Routing Table Setup**
- Conversion Parameters
- Protocol Conversion Settings
- Finalize Settings
- Apply Settings

**Routing Table Setup**

The routing table is used to define which port incoming message requests will be sent to. When the gateway device is searching the routing table, it will use the first entry that matches the defined criteria. Therefore, the order in which routing information is entered is important.

Slot	Source Port	Destination Range	Destination Port
		Low High	

Message Timeout: 10000 ms

Add Route Edit Route Delete Route Clear Routing Table

Upload Settings Back Next Cancel

Enter Route and click add route

**Add New Route**

**Enter New Route**

Slot	Source Port	Destination Range	Destination	IP Address
1		Low High	Port	

Add Route Cancel

When done with both routes click on Next

**Configure Online Parameters**

**quustek**  
EQ32 Configuration Software

**EQ-DCM**

- Welcome Screen
- Welcome / Open Configuration
- Communication Parameters
- Serial Settings
- Ethernet Settings
- Protocol Parameters
- Serial Protocol Settings
- Ethernet Protocol Settings
- Routing Parameters**
- Routing Table Setup**
- Conversion Parameters
- Protocol Conversion Settings
- Finalize Settings
- Apply Settings

**Routing Table Setup**

The routing table is used to define which port incoming message requests will be sent to. When the gateway device is searching the routing table, it will use the first entry that matches the defined criteria. Therefore, the order in which routing information is entered is important.

Slot	Source Port	Destination Range	Destination Port
		Low High	
1	Channel A	1 2	Channel B
2	Ethernet	1 2	Channel B

Message Timeout: 10000 ms

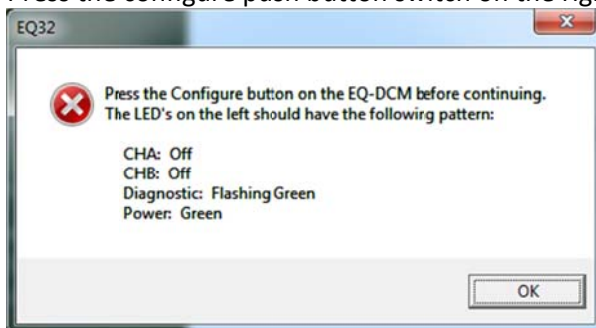
Add Route Edit Route Delete Route Clear Routing Table

Upload Settings Back Next Cancel

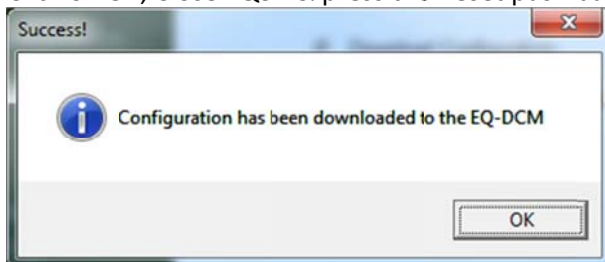
Click on Finish to download the configuration settings



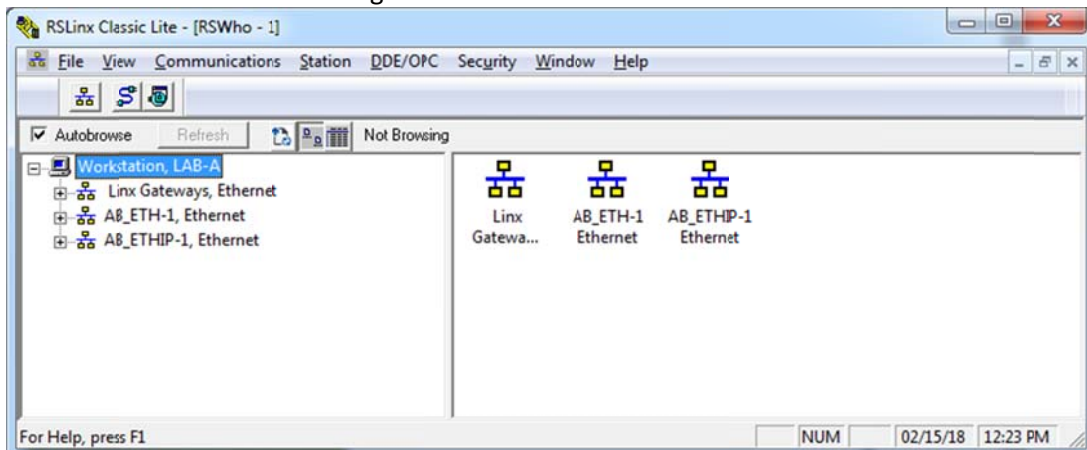
Press the configure push button switch on the right hand side of the unit then click on OK



Click on OK, Close EQ32 & press the Reset push button switch on the left hand side of the unit

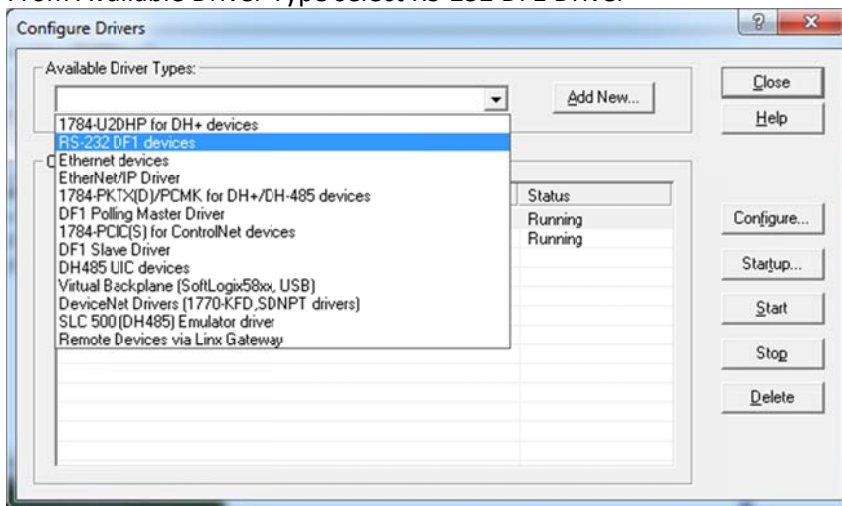


Start RSLINX and click on Configure Drivers

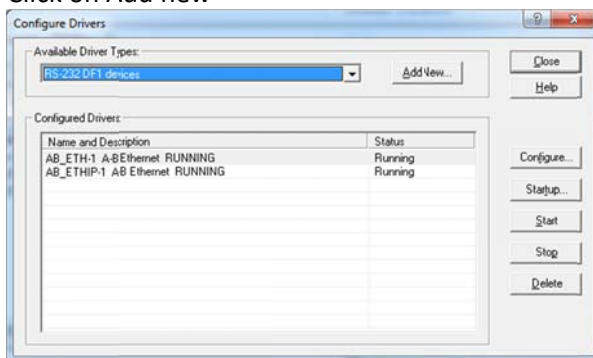




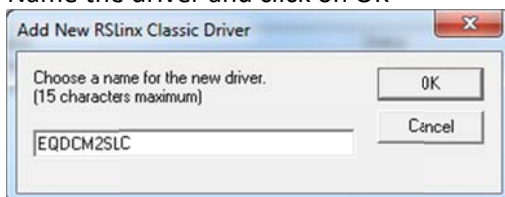
From Available Driver Type select RS-232 DF1 Driver



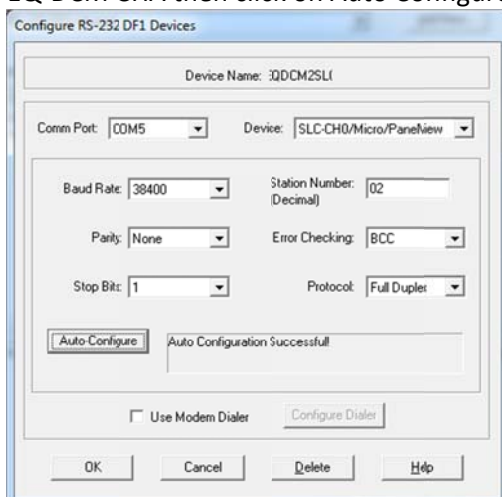
Click on Add new



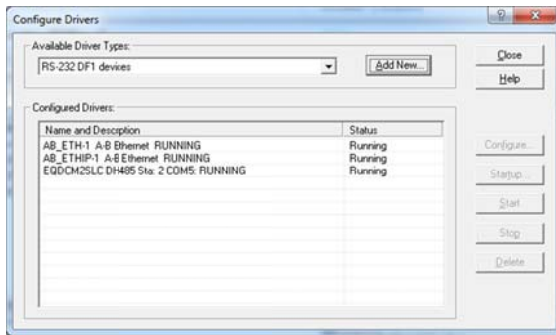
Name the driver and click on OK



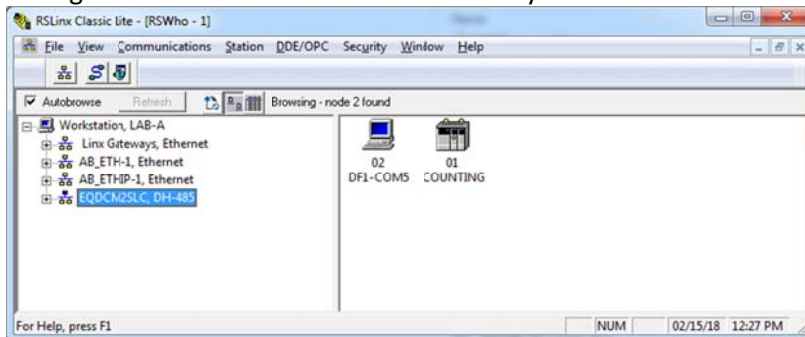
Enter Allen Bradley CH0 DF1 settings and select the COM port that is connected between the PC and the EQ-DCM CHA then click on Auto Configure, once successful click on Ok



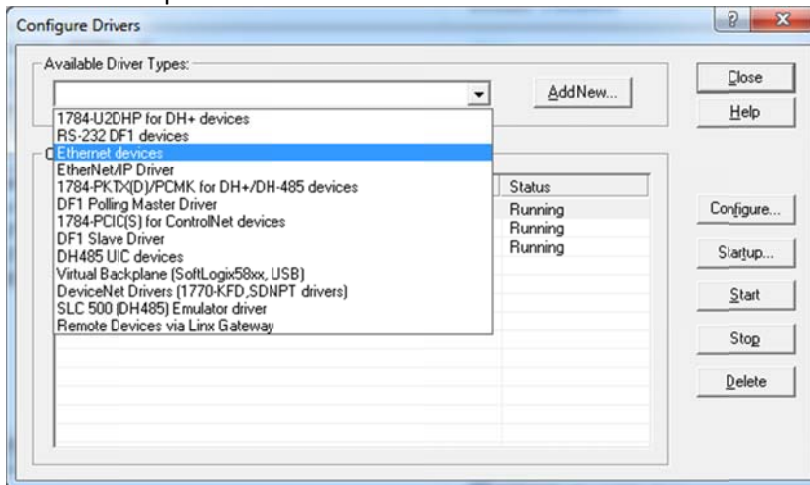
Click on Close



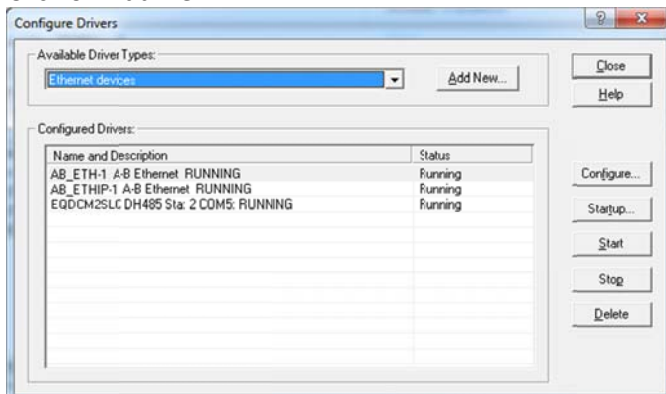
Open RSWHO and check mark Auto Browse while highlighting the DF1 driver created, then click Configure Drivers to create the Allen Bradley Ethernet driver



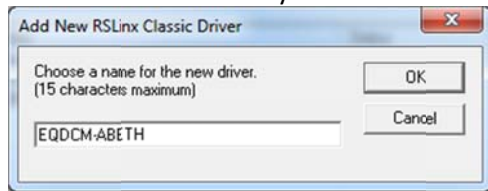
From the drop menu select Ethernet Devices



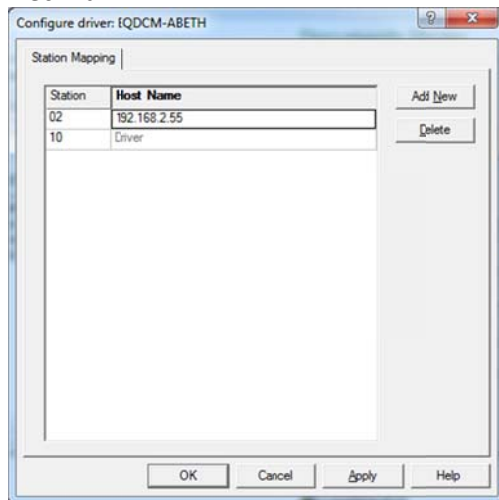
Click on Add New



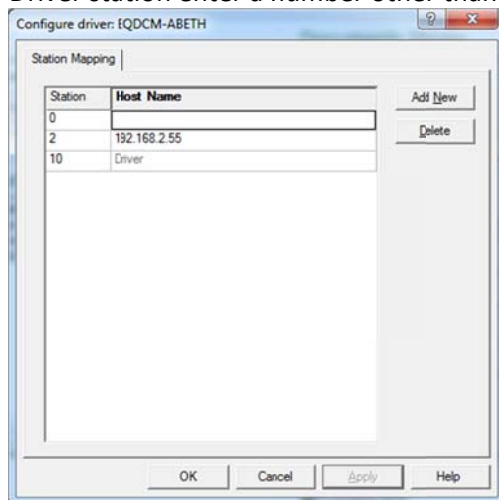
Name the Allen Bradley Ethernet Driver and click on OK



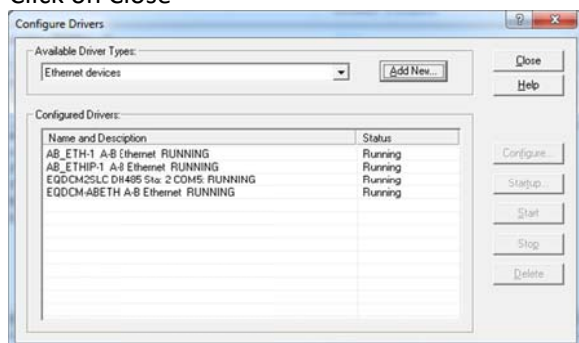
Enter the routing table, under Host name is the EQ-DCM IP address, Station 02 is CH0 node address in Decimal



Driver station enter a number other than the CH0 node address, after you click on Apply click on OK

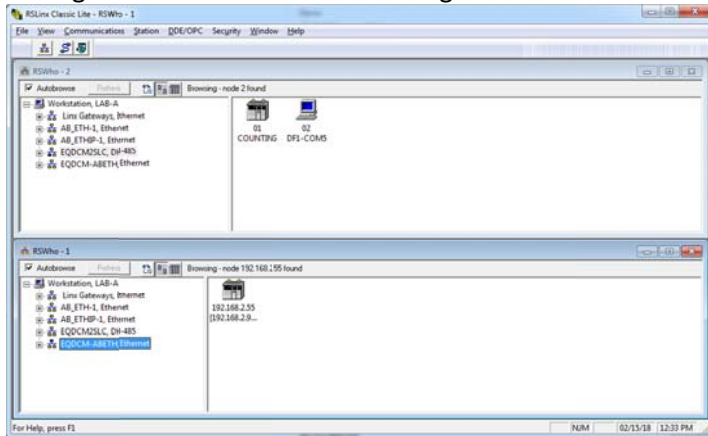


Click on Close

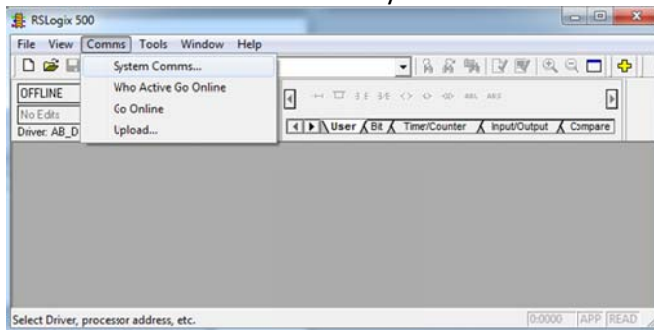




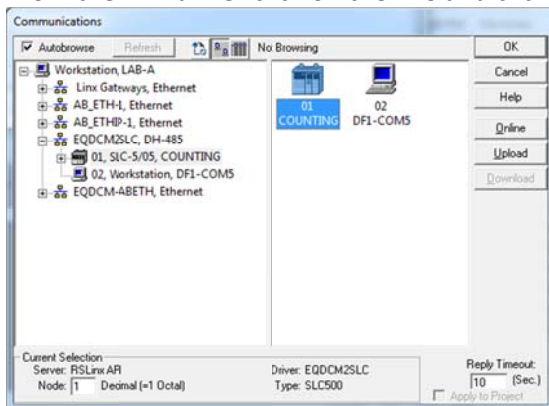
Open another RSWHO window, check mark auto browse and highlight the driver  
Now you have access to your Allen Bradley Device through both, CH0 DF1 port and at the same time having access to the same PLC through Ethernet.



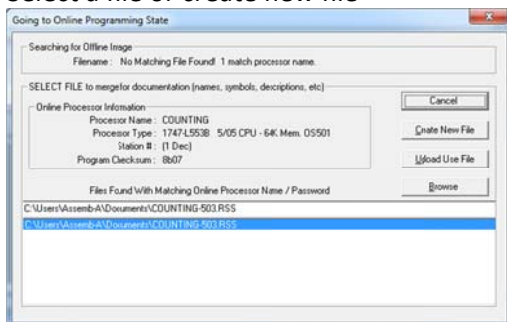
Start RSLOGIX500 and click on System Communication under Comms tab



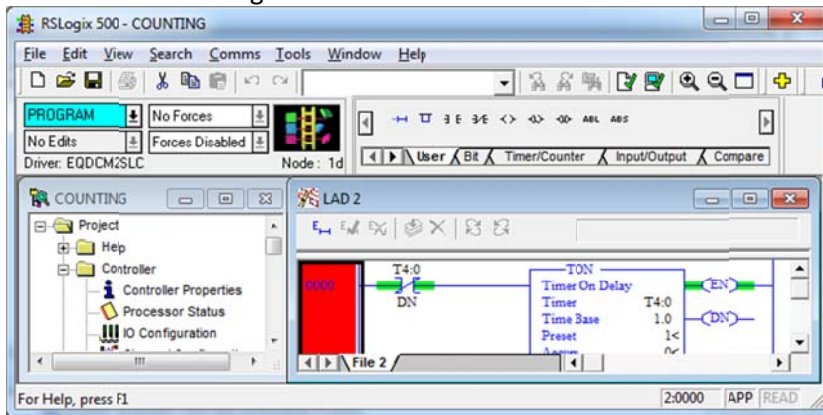
From the DF1 driver click on the PLC and click on Online



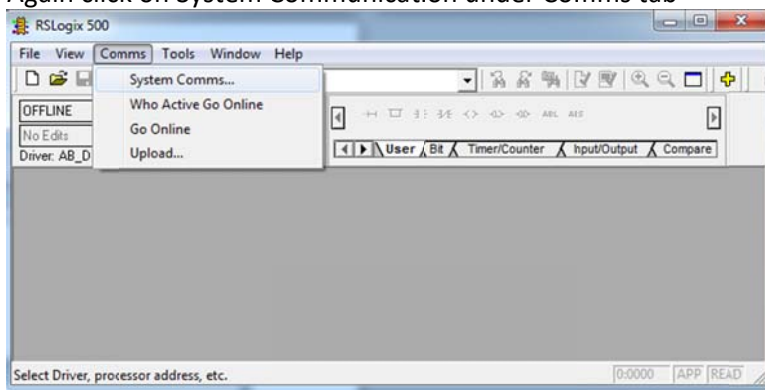
Select a file or create new file



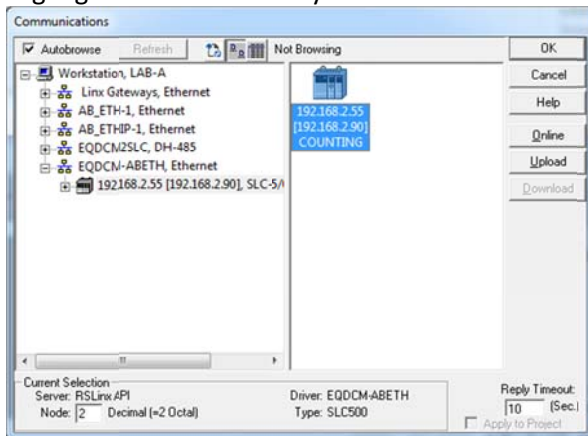
Online with PLC using RS232 DF1 driver



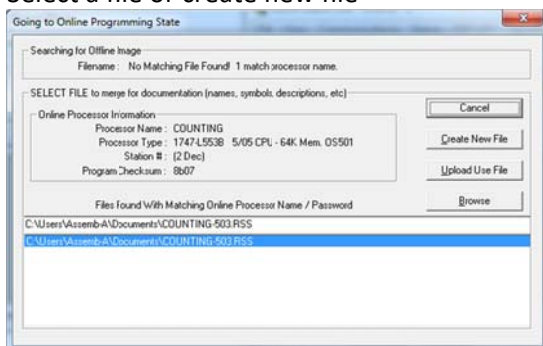
Again click on System Communication under Comms tab



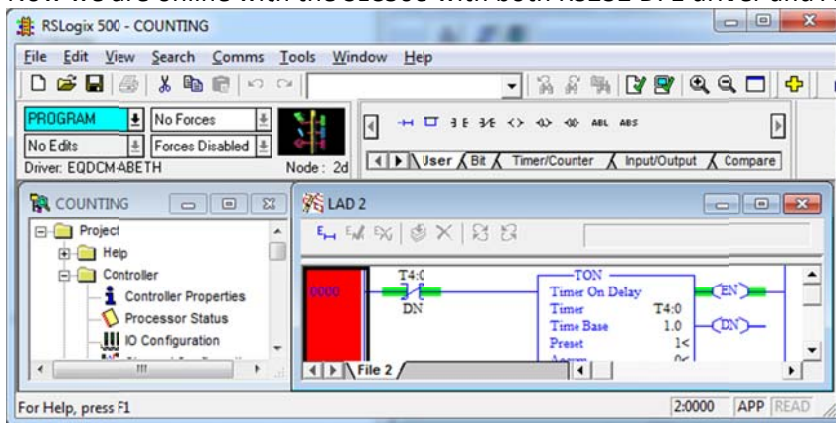
Highlight the Allen Bradley Ethernet Driver and select the PLC and click on Online



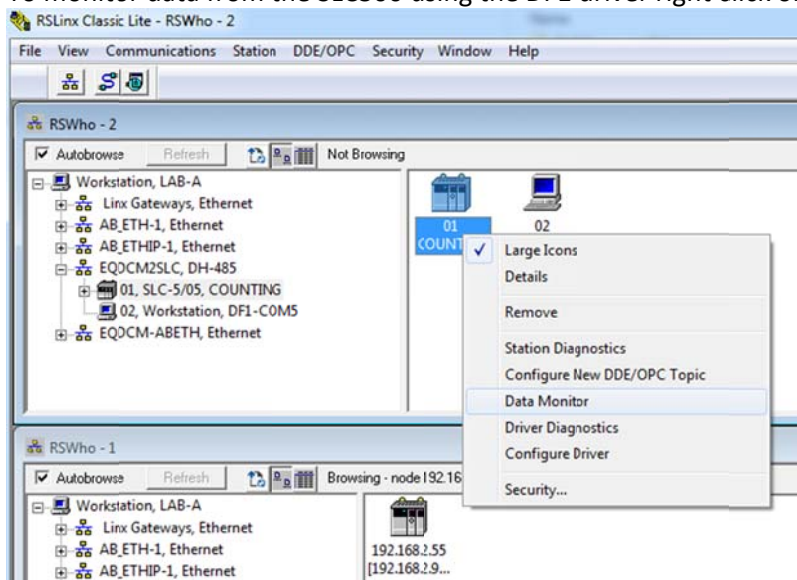
Select a file or create new file



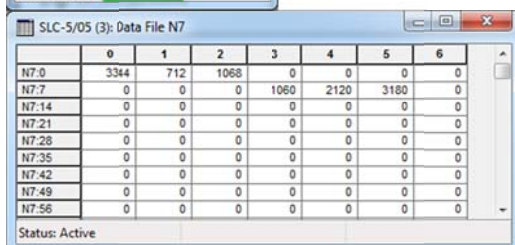
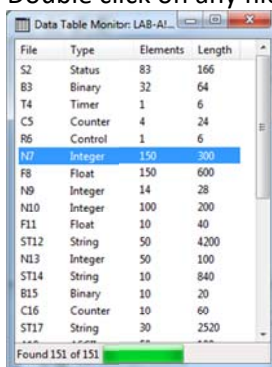
Now we are online with the SLC500 with both RS232 DF1 driver and Allen Bradley Ethernet Driver.



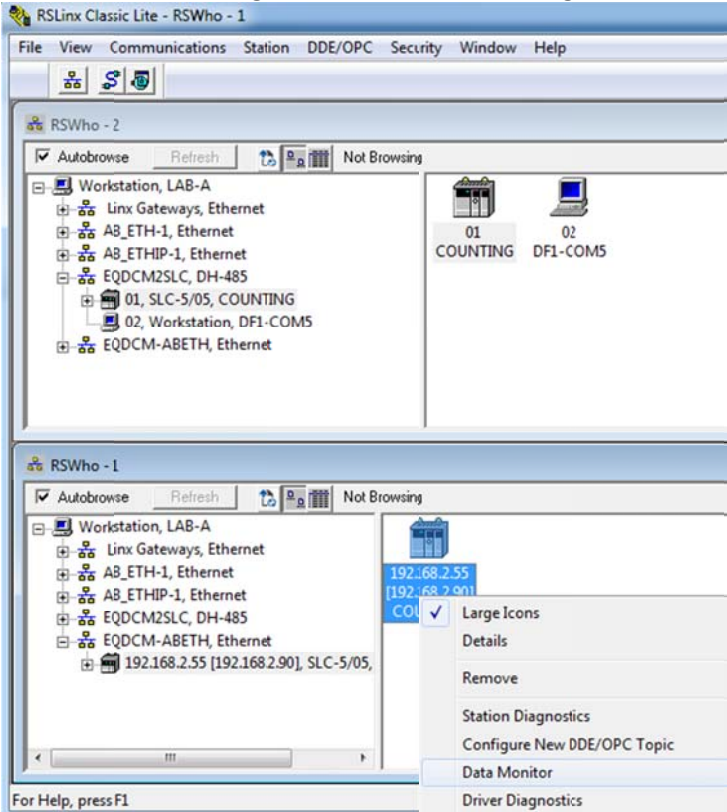
To monitor data from the SLC500 using the DF1 driver right click on the SLC icon & click on Data Monitor



Double click on any file that you want to monitor



To monitor data using the AB Ethernet driver right click on the SLC icon & click on Data Monitor



Data Table Monitor LAB-AI...

File	Type	Elements	Length
S2	Status	83	166
B3	Binary	32	64
T4	Timer	1	6
C5	Counter	4	24
R6	Control	1	6
N7	Integer	150	300
F8	Float	150	600
N9	Integer	14	28
N10	Integer	100	200
F11	Float	10	40
ST12	String	50	4200
N13	Integer	50	100
ST14	String	10	840
B15	Binary	10	20
C16	Counter	10	60
ST17	String	30	2520

Found 151 of 151

SLC-5/05 (7): Data File F8

	0	1	2	3	4	5	6	7	8	9
F8:0	15.67	22.11	33.33	0	0	0	0	0	0	0
F8:10	0	0	0	0	0	0	0	0	0	0
F8:20	0	0	0	0	0	0	0	0	0	0
F8:30	0	0	0	0	0	0	0	0	0	0
F8:40	0	0	0	0	0	0	0	0	0	0
F8:50	0	0	0	0	0	0	0	0	0	0
F8:60	0	0	0	0	0	0	0	0	0	0
F8:70	0	0	0	0	0	0	0	0	0	0
F8:80	0	0	0	0	0	0	0	0	0	0

Status: Active Selection: F8:0

Now you are able to see that through the EQ-DCM we were able to add Ethernet capability to the SLC500 while still being able to use the RS232 DF1 port as well.

RSWho - 2

FileViewCommunicationsStationDDE/OPCSecurityWindowHelp

AutobrowseRefreshNot Browsing

Workstation, LAB-A

Linx Gateways, Ethernet

AB\_ETH-1, Ethernet

AB\_ETHIP-1, Ethernet

EQDCM2SLC, DH-485

01, SLC-5/05, COUNTING

02, Workstation, DF1-COM5

EQDCM-ABETH, Ethernet

01  
COUNTING

02  
DF1-COM5

SLC-5/05 (3): Data File N7

	0	1	2	3	4	5	6
N7:0	3344	712	1068	0	0	0	0
N7:7	0	0	0	1060	2120	3180	0
N7:14	0	0	0	0	0	0	0
N7:21	0	0	0	0	0	0	0
N7:28	0	0	0	0	0	0	0
N7:35	0	0	0	0	0	0	0
N7:42	0	0	0	0	0	0	0
N7:49							

Status: Active

RSWho - 1

AutobrowseRefreshNot Browsing

Workstation, LAB-A

Linx Gateways, Ethernet

AB\_ETH-1, Ethernet

AB\_ETHIP-1, Ethernet

EQDCM2SLC, DH-485

EQDCM-ABETH, Ethernet

192.168.2.55 [192.168.2.90], SLC-5/05,

192.168.2.55  
[192.168.2.90]

SLC-5/05 (7): Data File F8

	0	1	2	3	4	5	6	7
F8:0	15.67	22.11	33.33	0	0	0	0	0
F8:8	0	0	0	0	0	0	0	0
F8:16	0	0	0	0	0	0	0	0
F8:24	0	0	0	0	0	0	0	0
F8:32	0	0	0	0	0	0	0	0
F8:40	0	0	0	0	0	0	0	0
F8:48	0	0	0	0	0	0	0	0
F8:56								

Status: Active

For Help, press F1

NUM02/15/1812:45 PM