PLC Connection Guide

AIBUS 5
Allen-Bradley CompactLogix/FlexLogix 8
Allen-Bradley DF1 13
Allen-Bradley DF1 (BCC) 15
Allen-Bradley DH485 17
Allen-Bradley EtherNet/IP (CompactLogix) 20
Allen-Bradley EtherNet/IP (CompactLogix) – Free Tag Names 23
Allen-Bradley EtherNet/IP (ControlLogix) – Free Tag Names 27
Allen-Bradley EtherNet/IP (DF1) 31
Allen Bradley PLC5 34
Altus ALNET-I 37
Baumuller 39
Cimon CM1-CP4A/ECO1A 41
Cimon CM1-SC02A 43
Copley Controls 45
CROUZET M3 (FBD) 47
CROUZET M3 (LAD) 49
Danfoss ECL Apex20 51
Danfoss FC Series 53
Danfoss VLT2800 Series 55
DELTA DVP 57
EMERSON PLC EC20 59
F930GOT Server 61
FATEK FB Series 63
Fuji NB Series 66
GE Fanuc CMM 68
GE Fanuc RX3i 71
GE Fanuc Series 90-30 (Ethernet) 73
GE Fanuc SNP-X 76
Han Young Series 79
Heng Yuan Sensor 80
HITACHI EH-SIO 82
HITACHI EHV Series (Ethernet) 85
HITACHI H/EH/EHV Series 87
HUST H4X 91
IAI X-SEL CONTROLLER 93
IDEC Micro 96

INOVANCE H2U/H1U 99
Intelligent Servo 101
Justfi controller 103
Kernel sistemi 105
KEYENCE KV-10/16/24/40/80/Visual KV Series 106
KEYENCE KV-5000 (Ethernet) 108
KEYENCE KV-700/1000/3000/5000 Series 110
Korenix 6550 112
Koyo CLICK 114
KOYO DIRECT 116
Koyo Ethernet 121
Lenze 123
LIYAN EX series 125
LS GLOFA Cnet 127
LS GLOFA GM3467 (LOADER) 129
LS MASTER-K Cnet 131
LS MASTER-K10S1 133
LS MASTER-K300S CPU 135
LS XGB/XGT 137
LS XGB/XGT FEnet (Ethernet) 139
LS XGL-CH2A Cnet 141
LS XGL-EFMT Fenet (Ethernet) 143
LS XGT/XGK CPU DIRECT 146
Master (Master-Slave Protocol) 148
Memobus (Yaskawa MP Series Controllers) 151
Memory Map 156
MITSUBISHI A1S 158
MITSUBISHI A2A 161
MITSUBISHI A2US 164
MITSUBISHI A3N/A1SH 166
MITSUBISHI AJ71 169
MITSUBISHI FX0n/FX2 171
MITSUBISHI FX232/485BD 173
MITSUBISHI FX2n 176
MITSUBISHI FX3u (Ethernet) 178
MITSUBISHI FX3u/FX3G 185
MITSUBISHI MELSEC-Q (Ethernet) 187
MITSUBISHI Q00/Q00UJ/Q01/QJ71 192
MITSUBISHI Q00J 197

MITSUBISHI Q00U/Q01U/Q02U/QnUD/QnUDH 199
MITSUBISHI Q00UJ/QnU/QnUD/QnUDH/QnUDEH (mini USB) 201
MITSUBISHI Q02H 203
MITSUBISHI Q06H 205
MITSUBISHI QJ71E71 (Ethernet) 207
MODBUS ASCII 214
MODBUS RTU 217
MODBUS RTU (0x/1x Range Adjustable) 220
MODBUS RTU (zero-based addressing) 228
MODBUS Server (Modbus RTU Slave) 232
MODBUS TCP/IP (Ethernet) 234
MODBUS TCP/IP (zero-based addressing) 236
MODBUS TCP/IP 32Bit 238
Moeller XC-CPU101 240
Modicon Twido 242
OEMAX Series 244
OMRON C/CQM1 Series 246
OMRON CJ1/CS1 248
OMRON CJ1/CS1 (Ethernet) 250
OMRON E5CN 253
Panasonic FP 255
Panasonic FP (Ethernet) 258
Panasonic FP2 (Ethernet) 261
Panasonic MINAS A4 264
Parker ACR9000 268
Parker Compax3 270
Parker SLVD Series 273
SAIA PCD PGU Mode 275
SAIA PCD S-BUS Mode 277
SAIA S-BUS (Ethernet) 287
Schleicher XCS 20C 289
Schleicher XCX 300 291
SEW Movilink 294
SIEMENS S7/1200 (Ethernet) 296
SIEMENS S7/200 301
SIEMENS S7/200 (Ethernet) 303
SIEMENS S7/300 305
SIEMENS S7/300 (Ethernet) 307
SIEMENS S7/300 MPI 309

SIEMENS S7/400 (Ethernet)....311
SIMATIC TI505....316
TAIAN TP02 Series....319
TAIAN TP03 Series....321
TECO Inverter....323
TELEMECANIQUE UniTelway....326
Toshiba T Series....328
Toshiba TC mini Series....331
Toshiba VF-S11....333
VIGOR....336
YAMAHA ERCD....338
YASKAWA SMC3010....340
YASKAWA SMC 3010 (Ethernet)....343
Yokogawa FA-M3....346
Yokogawa FA-M3 (Ethernet)....352
MT6050i/MT8050i Com Port Pin Assignment....355

AIBUS

UDIAN Automation AI-501, AI-518, AI-519, AI-701, AI-702M, AI-704M, AI-706M, AI-719
http://www.yudian.us

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	AIBUS		
Com port	RS485 2W	RS232	
Baud rate	9600	9600, 19200	
Parity bit	None		
Data Bits	8		
Stop Bits	2		
HMI Station No.	0		
PLC Station No.	1	0-100	

Online Simulator	YES	
Extend address mode	NO	

PLC Setting:

Communication mode	

Device address:

AI-518

Bit/Word	Device Type		Format	Range	Memo
W	0	00H	dd		SV/STEP
W	1	01H	dd	-1999~+9999	HIAL
W	2	02H	dd	-1999~+9999	LoAL
W	3	03H	dd	0~9999	dHAL
W	4	04H	dd	0~9999	dLAL
W	5	05H	dd	0~2000	dF
W	6	06H	dd	0~4	CtrL
W	7	07H	dd	0~9999	M5
W	8	08H	dd	1~9999	P
W	9	09H	dd	0~2000	t
W	10	0AH	dd	0~125	CtI
W	11	0BH	dd	0~37	Sn (read only)
W	12	0CH	dd	0~3	dIP (read only)
W	13	0DH	dd	-1999~+9999	dIL
W	14	0EH	dd	-1999~+9999	dIH
W	15	0FH	dd	0~9999	ALP
W	16	10H	dd	-1999~+4000 0.1□	Sc
W	17	11H	dd	0~48	Op1
W	18	12H	dd	-110~+110%	oPL
W	19	13H	dd	0~110%	oPH
W	20	14H	dd	0~127	CF (read only)
W	21	15H	dd	0~19.2K	Baud rate（bAud） /808Pstatus word: run:0 suspend:4 stop:12 (read only)
W	22	16H	dd	0~100	ADDR
W	23	17H	dd	0~20	dL
W	24	18H	dd	0~127	Run
W	25	19H	dd	0~9999	Loc

AI-701

Bit/Word	Device Type		Format	Range	Memo
W	1	01H	dd	-9990~+30000	HIAL
W	2	02H	dd	-9990~+30000	LoAL
W	3	03H	dd	-9990~+30000	HdAL
W	4	04H	dd	-9990~+30000	LdAL
W	5	05H	dd	0~2000	AHYS
W	11	0BH	dd	0~37	InP (read only)
W	12	0CH	dd	0~3	dPt
W	13	0DH	dd	-9999~+30000	SCL
W	14	0EH	dd	-9999~+30000	SCH
W	15	0FH	dd	0~4444	AOP
W	16	10H	dd	-1999~+4000 0.1□	Scb
W	17	11H	dd	0~48	Opt
W	21	15H	dd	0~19.2K	Baud rate（bAud） /808P status word run:0 suspend:4 stop:12 (read only)
W	22	16H	dd	0~80	ADDR
W	23	17H	dd	0~40	FILt
W	25	19H	dd	0~255	Loc

Wiring diagram:

RS-485:

MT8000 PLC[485]

9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

AI-518/518P

RS485 port

4 COMM A	
3 COMM B	

Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

Allen-Bradley CompactLogix/FlexLogix

Allen-Bradley ControlLogix, CompactLogix, FlexLogix CH0 DF1

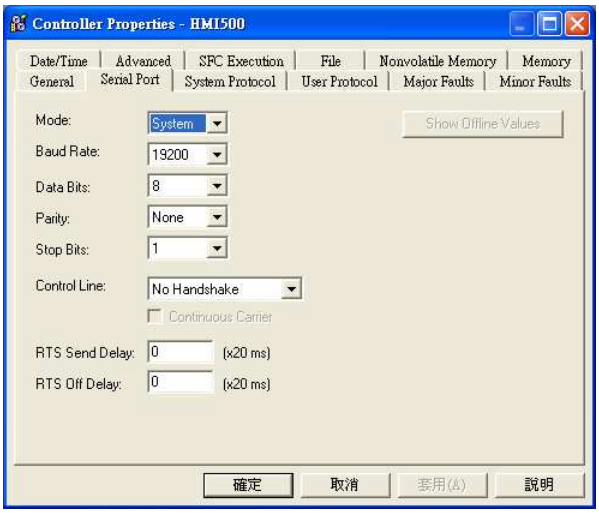
http://www.ab.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley CompactLogix/FlexLogix		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

PLC Setting:

Communication mode	**DF1 Full Duplex protocol 19200, None, 8, 1 (default)** **Error Check: BCC, Station Address: 1**



Device address:

Bit/Word	Device Type	Format	Range	Memo
B	B_BOOL	fffddd(dd)	File no. ff: 3, 10~255 Element no. ddd: 0~255 Bit no. (dd): 0~15	Bit data file
B	N_BOOL	fffddd(dd)	File no. ff: 7, 10~255 Element no. ddd: 0~255 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~255)
W	Bx_INT	fffddd	File no. fff: 3, 10~255 Element no. ddd: 0~255	Bit data file word level
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Preset Value (T4, T10~255)
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Accumulator Value (C5, C10~255)
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
F	Fx_REAL	fffddd	File no. fff:0~255 Element no. ddd:0~255	Floating point data file (F008, F010~F255)
DW	Nx_INT	Fffddd	File no. fff:0~255 Element no. ddd:0~255	Integer data file (N7, 10~255)

Wiring diagram:

RS-232: ControlLogix, CompactLogix CPU CH0

MT8000 RS232
9P D-SUB Female

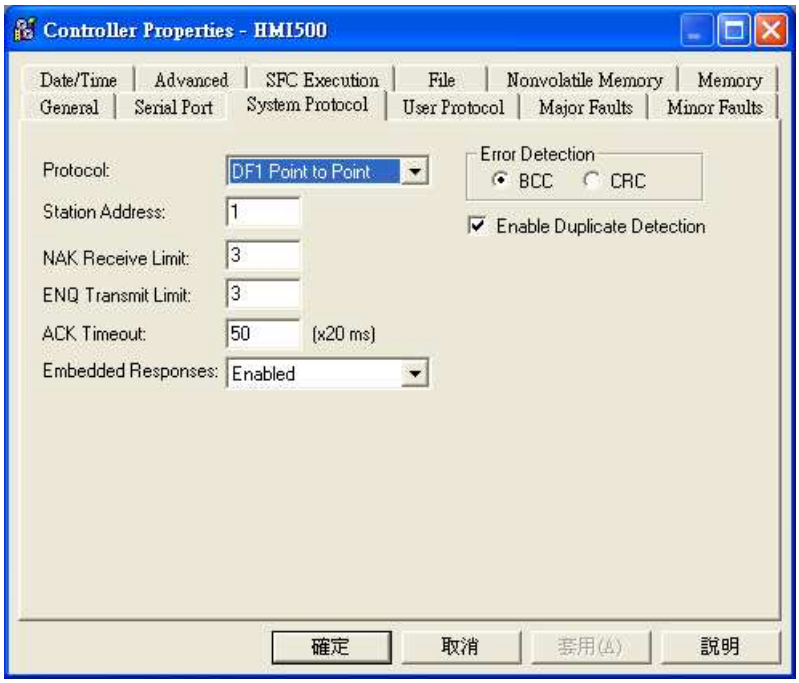
COM1	COM2	COM3
3 TX	4 TX	7 TX

AB CPU CH0
RS-232
9P D-SUB Male

2	RD

2 RX	6 RX	8 RX		3	TD
5 GND	5 GND	5 GND		5	GND

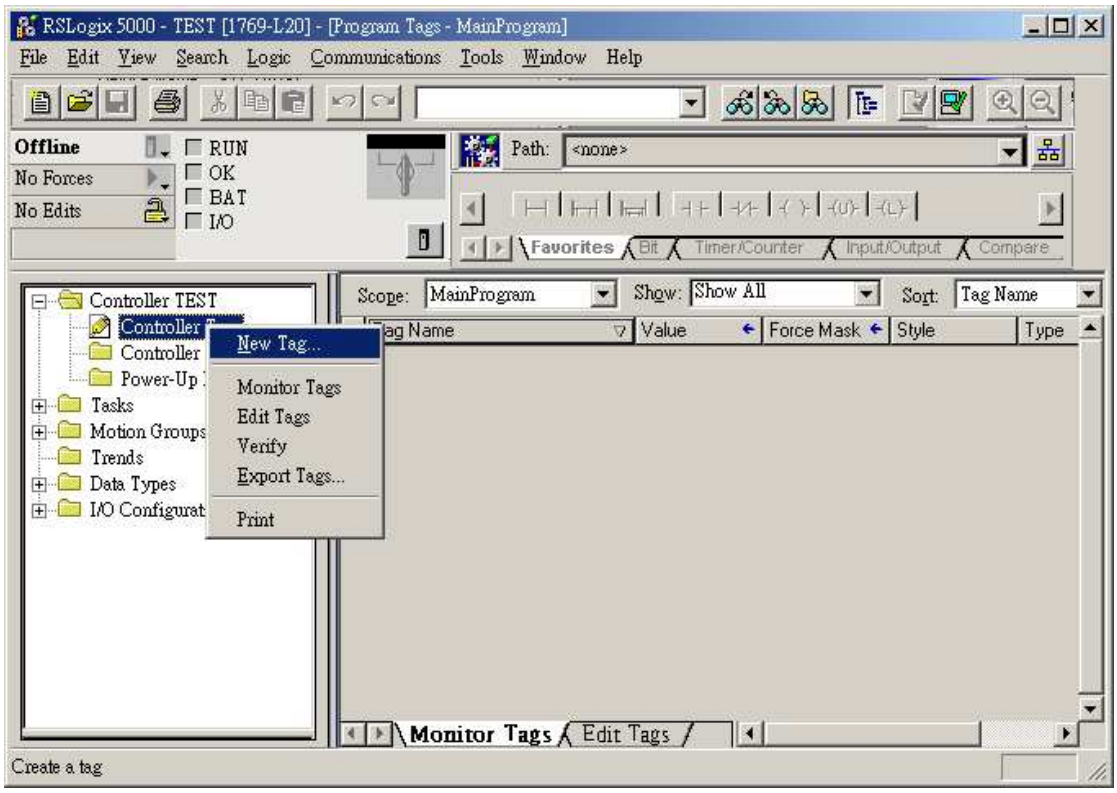
ControlLogix, CompactLogix CPU CH0 setting:

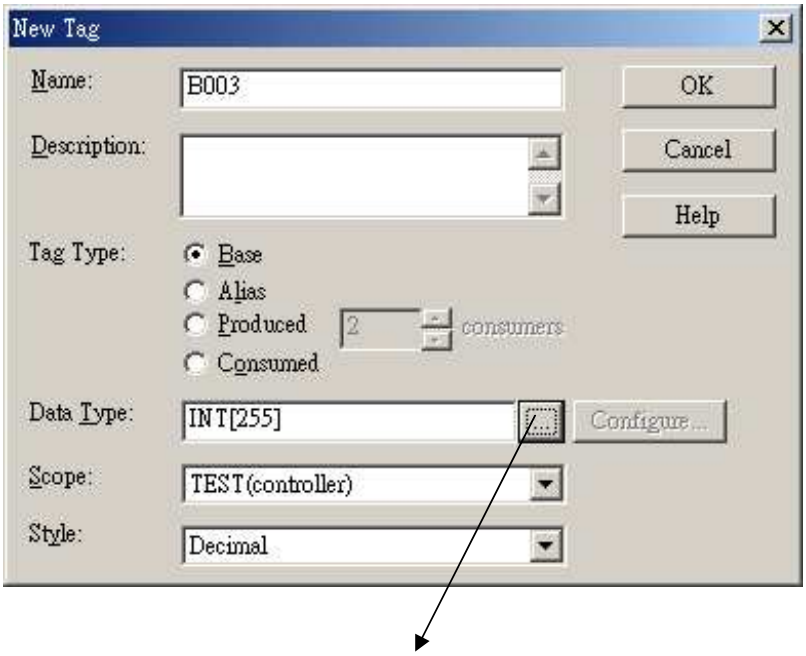


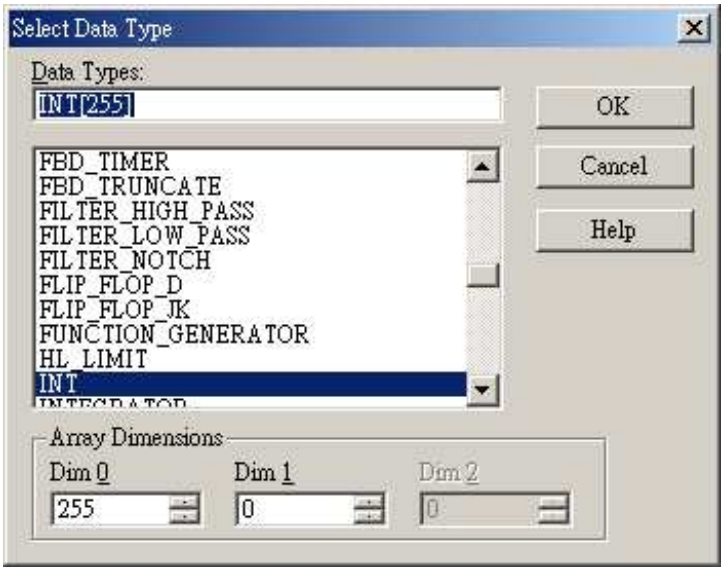
Create the Tag:

The name format must use 4 chars like B003, T004, C005, N007, F008.

Two or three chars are not available. For example B03 or B3.


RSLogix 5000 - TEST [1769-L20] - [Program Tags - MainProgram]
File Edit View Search Logic Communications Tools Window Help
Offline
No Forces
No Edits
RUN
OK
BAT
I/O
Path: <none>
Favorites Bit Timer/Counter Input/Output Compare
Controller TEST
Controller
Controller
Power-Up
Tasks
Motion Groups
Trends
Data Types
I/O Configurat
New Tag...
Monitor Tags
Edit Tags
Verify
Export Tags...
Print
Scope: MainProgram
Show: Show All
Sort: Tag Name
Tag Name
Value
Force Mask
Style
Type
Monitor Tags Edit Tags
Create a tag


New Tag
Name: B003
Description:
Tag Type:
Base
Alias
Produced 2 consumers
Consumed
Data Type: INT[255]
Configure...
Scope: TEST(controller)
Style: Decimal
OK
Cancel
Help



Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

Allen-Bradley DF1

Allen-Bradley MicroLogix 1000, 1100, 1200, 1400, 1500, SLC 5/03, 5/04, 5/05

http://www.ab.com

Note: Allen-Bradley DF1 driver is used CRC checksum.

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	AB DF1		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

PLC Setting:

Communication mode	**DF1 Full Duplex protocol 19200, None, 8, 1 (default)** **Error Check: CRC**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status (S) bit level
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
B	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
B	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
W	S	ddd	ddd:0~254	Status (S)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	TfnSV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Preset Value
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	TfnPV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Accumulator Value
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	CfnSV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Preset Value

Bit/Word	Device Type	Format	Range	Memo
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	CfnPV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Accumulator Value
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)

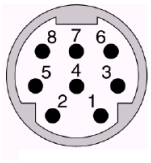
Wiring diagram:

RS-232: MicroLogix 1000, 1100, 1200, 1400, 1500

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

MicroLogix RS232
mini-DIN 8pin



4	RXD
7	TXD
8	GND

RS-232: SLC5/03, 04, 05 CH0

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

AB CPU CH0
RS-232
9P D-SUB Male

2	RD
3	TD
5	GND

Driver Version:

Version	Date	Description of Changes
V2.10	Apr/17/2009	

Allen-Bradley DF1 (BCC)

Allen-Bradley MicroLogix 1000, 1100, 1200, 1500, SLC 5/03, 5/04, 5/05
http://www.ab.com

Note: Allen-Bradley DF1 BCC is the same as Allen-Bradley DF1. the only different is this driver use BCC checksum.

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	AB DF1		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

PLC Setting:

Communication mode	**DF1 Full Duplex protocol 19200, None, 8, 1 (default)** **Error Check: CRC**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status (S) bit level
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
B	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
B	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
W	S	ddd	ddd:0~254	Status (S)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	TfnSV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Preset Value
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)

Bit/Word	Device Type	Format	Range	Memo
W	TfnPV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Accumulator Value
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	CfnSV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Preset Value
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	CfnPV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Accumulator Value
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)

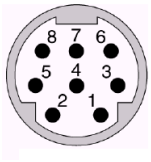
Wiring diagram:

RS-232: MicroLogix 1000, 1100, 1200, 1500

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

MicroLogix RS232
mini-DIN 8pin



4	RXD
7	TXD
8	GND

RS-232: SLC5/03, 04, 05 CH0

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

AB CPU CH0
RS-232
9P D-SUB Male

2	RD
3	TD
5	GND

Driver Version:

Version	Date	Description of Changes
V2.10	Apr/17/2009	

Allen-Bradley DH485

Allen-Bradley MicroLogix 1000, 1100, 1200, 1500, SLC 5/03, 5/04, 5/05
http://www.ab.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley DH485		
Com port	RS485 2W	RS232	
Baud rate	19200	9600, 19200	
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station NO.	0	2	
PLC Station NO.	1	1-31	

Online Simulator	YES		
Extend address mode	NO		

PLC Setting:

Communication mode	**DH485 protocol 19200 (default)** **Set the Max. Node Address as exactly how many PLCs you have.**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
B	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
B	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
B	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status file
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	TfnSV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Timer Preset Value
W	TfnPV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Timer Accumulator Value
W	CfnSV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Counter Preset Value
W	CfnPV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Counter Accumulator Value
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)
W	S	ddd	ddd:0~254	Status file

Wiring diagram:

RS-485: SLC500 Fixed type, SLC5/01,02,03 CH1.

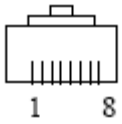
MT8000 can't connect to 1747-AIC PERIPHERAL PORT

MT8000 RS485
9P D-SUB

COM1	COM3
1 RX- 2 RX+ 5 GND	6 Data- 9 Data+ 5 GND

AB SLC500 DH485
RJ8 clip style ports

2	SDB
1	SDA
7	GND



RJ8 connector

RS-232: MicroLogix 1000, 1100, 1200, 1500 must set DH485 protocol.

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

MicroLogix RS232
mini-DIN 8pin

4	RXD
7	TXD
8	GND

RS-232: SLC5/03,04,05 CH0 must set DH485 protocol.

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

AB CPU CH0
RS-232
9P D-SUB Male

2	RD
3	TD
5	GND

Caution: AB DH485 supports MT8000 X and iH series only.

Driver Version:

Version	Date	Description of Changes
V1.20	Apr/17/2009	

Allen-Bradley EtherNet/IP (CompactLogix)

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet
http://www.ab.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet (CompactLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	1		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Bx_BOOL	ffddd(dd)	File no. ff: 3, 10~99 Element no. ddd: 0~999 Bit no. (dd): 0~15	Bit data file
B	Nx_BOOL	ffddd(dd)	File no. ff: 7, 10~99 Element no. ddd: 0~999 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~99)
W	Bx_INT	fffddd	File no. fff: 3, 10~255 Element no. ddd: 0~255	Bit data file word level
W	Nx_INT	fffddd	File no. fff:0~255 Element no. ddd:0~255	Integer data file (N7, 10~99)
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
F	Fx_REAL	fffddd	File no. fff:0~255	Floating point data file (F8)

			ddd:0~255	
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Preset Value (T4, T10~255)
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Accumulator Value (C5, C10~255)

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		**Wire color**	**Ethernet Hub or Switch RJ45**	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet: Direct connect (crossover cable)

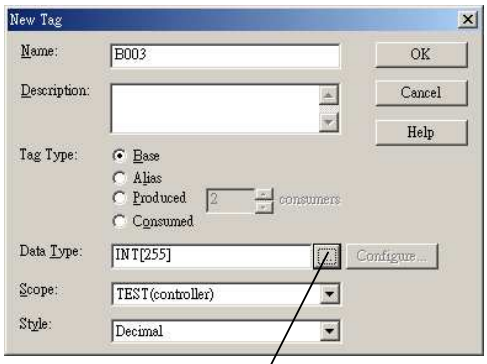
MT8000 Ethernet RJ45		**Wire color**	**CPU Ethernet port RJ45**	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

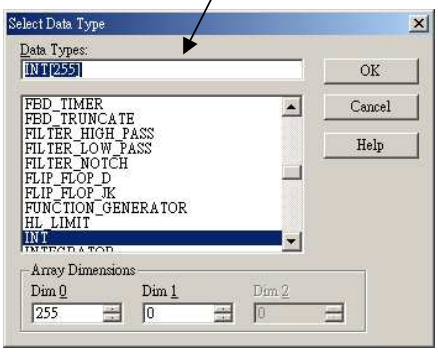
RSLogix 5000 setting

Create the Tag:

The name format must use 4 chars like B003, T004, C005, N007, F008.

Two or three chars are not available. For example B03 or B3.





Driver Version:

Version	Date	Description of Changes
V1.10	Dec/30/2008	

Allen-Bradley EtherNet/IP (CompactLogix) – Free Tag Names

Allen-Bradley CompactLogix, FelxLogix Ethernet

http://www.ab.com

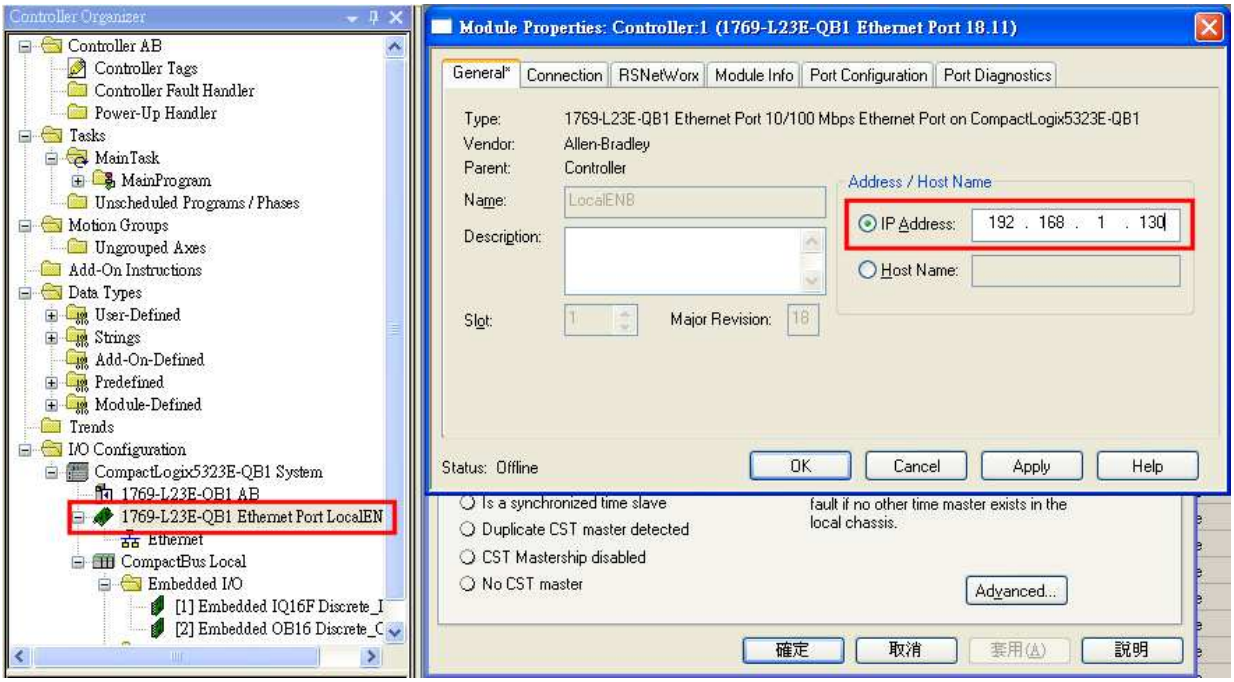
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP-Tag (CompactLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	1		

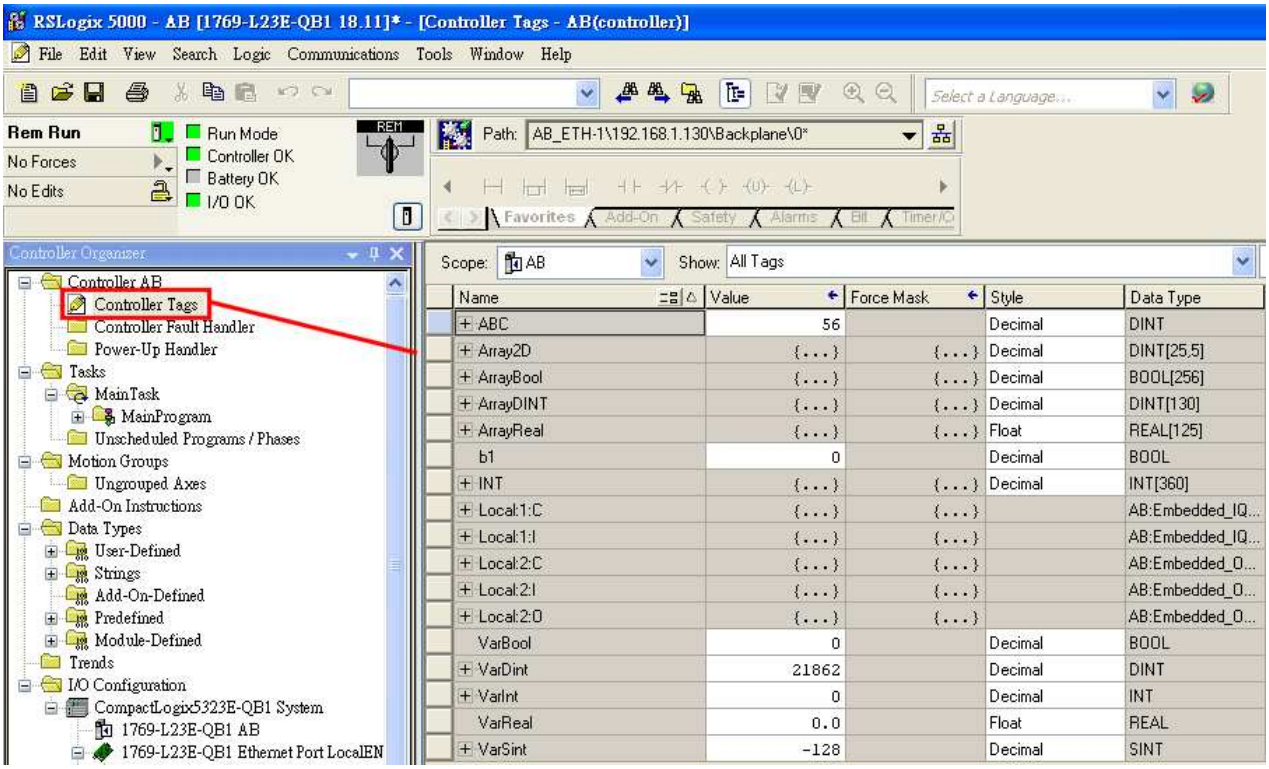
PLC Setting:

Communication mode	

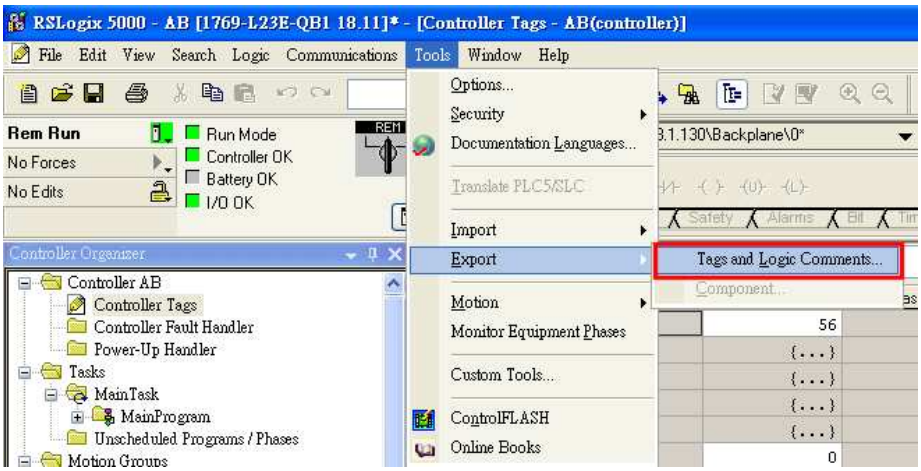
1. Set PLC IP address.



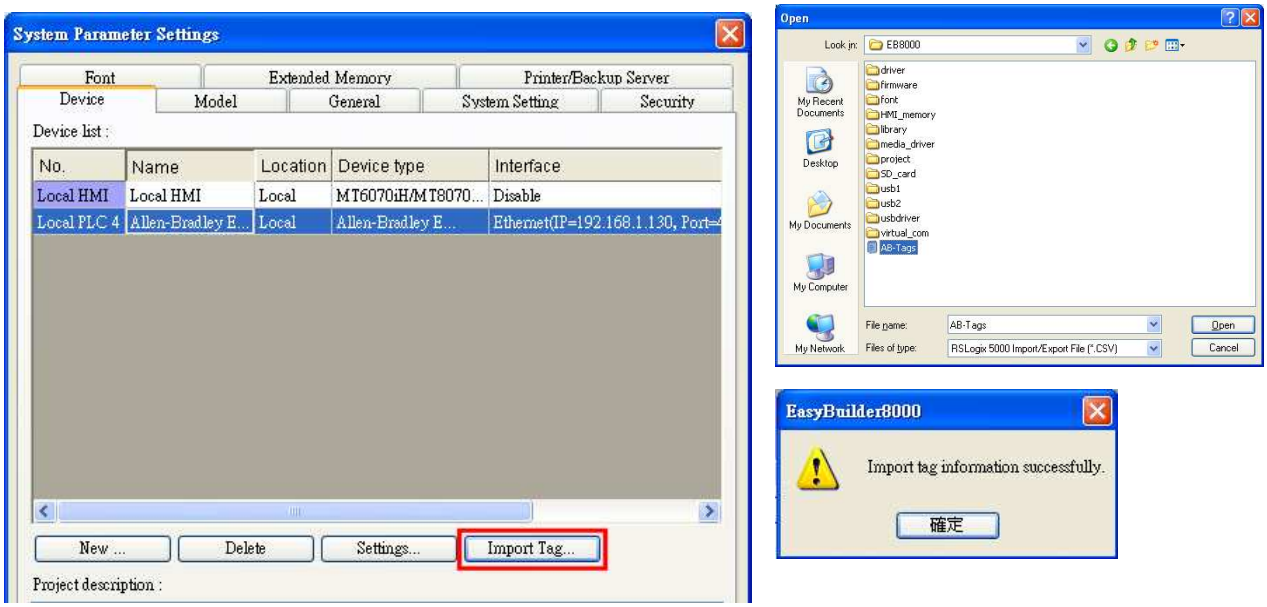
2. Create Tags.



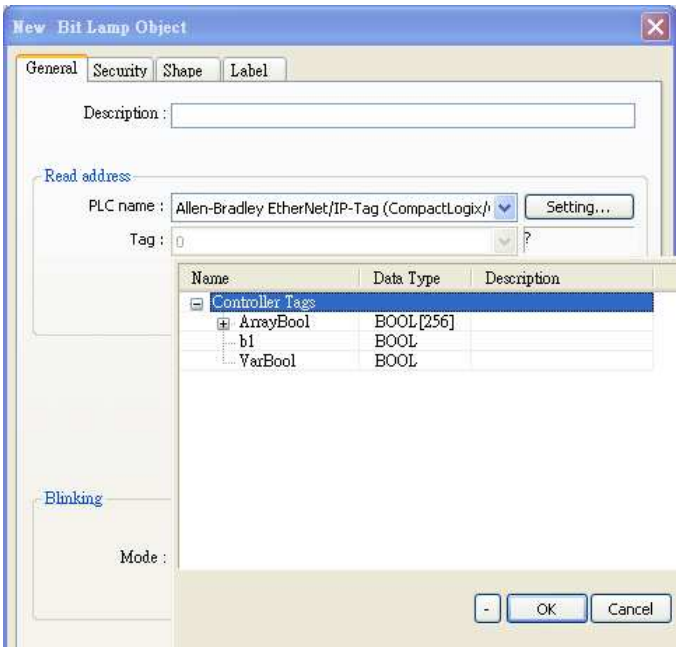
3. Export Tags data to CSV file.



4. In EB8000, create Allen-Bradley EtherNet/IP-Tag (CompactLogix) driver.
Input PLC IP address. In System Parameter Settings dialog click [Import Tag…] button.



5. In object dialog, select PLC, click Tag and select a controller tag.



Device address:

PLC Data Type Name	Bit/Word	EB8000 Data format	Memo
BOOL	Boolean	Bit object	
INT	Integer	16-bit signed, ASCII	-32768~32767
DINT	Double Integer	32-bit signed	-2^{31}~(2^{31}-1)
REAL	Single Precision Float	32-bit Float	IEEE 754

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	CPU Ethernet port RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Allen-Bradley EtherNet/IP (ControlLogix) – Free Tag Names

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet

http://www.ab.com

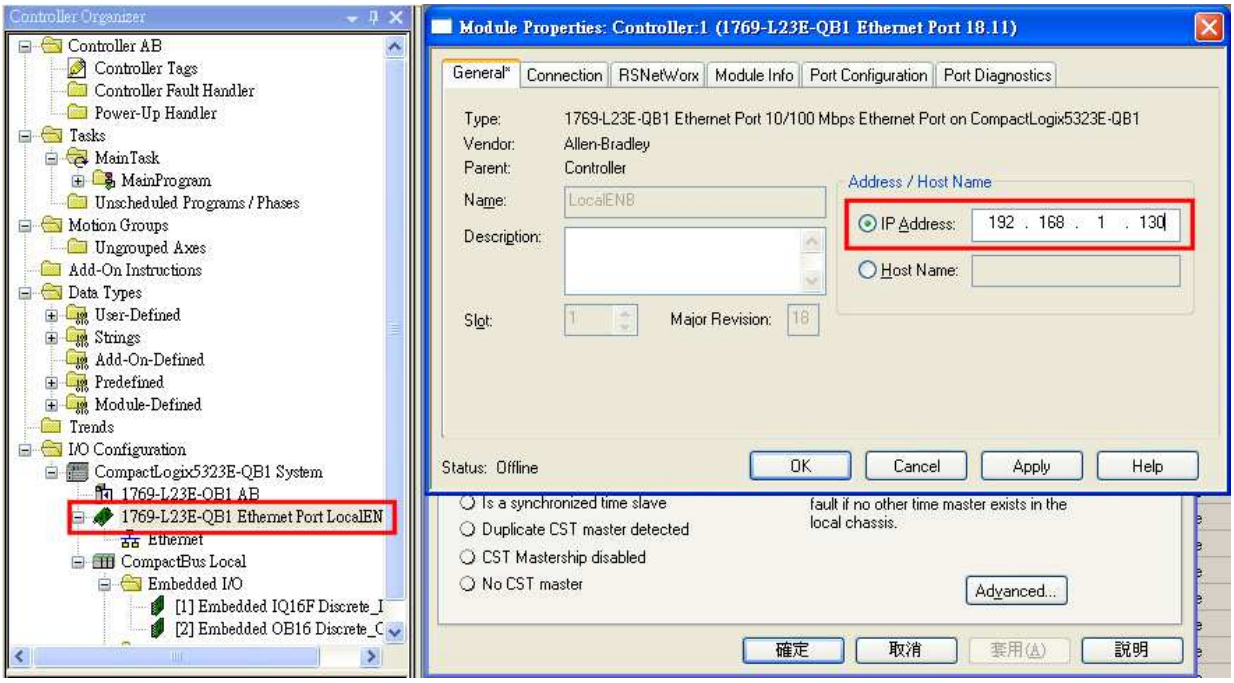
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP-Tag (ControlLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	The same as CPU Slot No.		

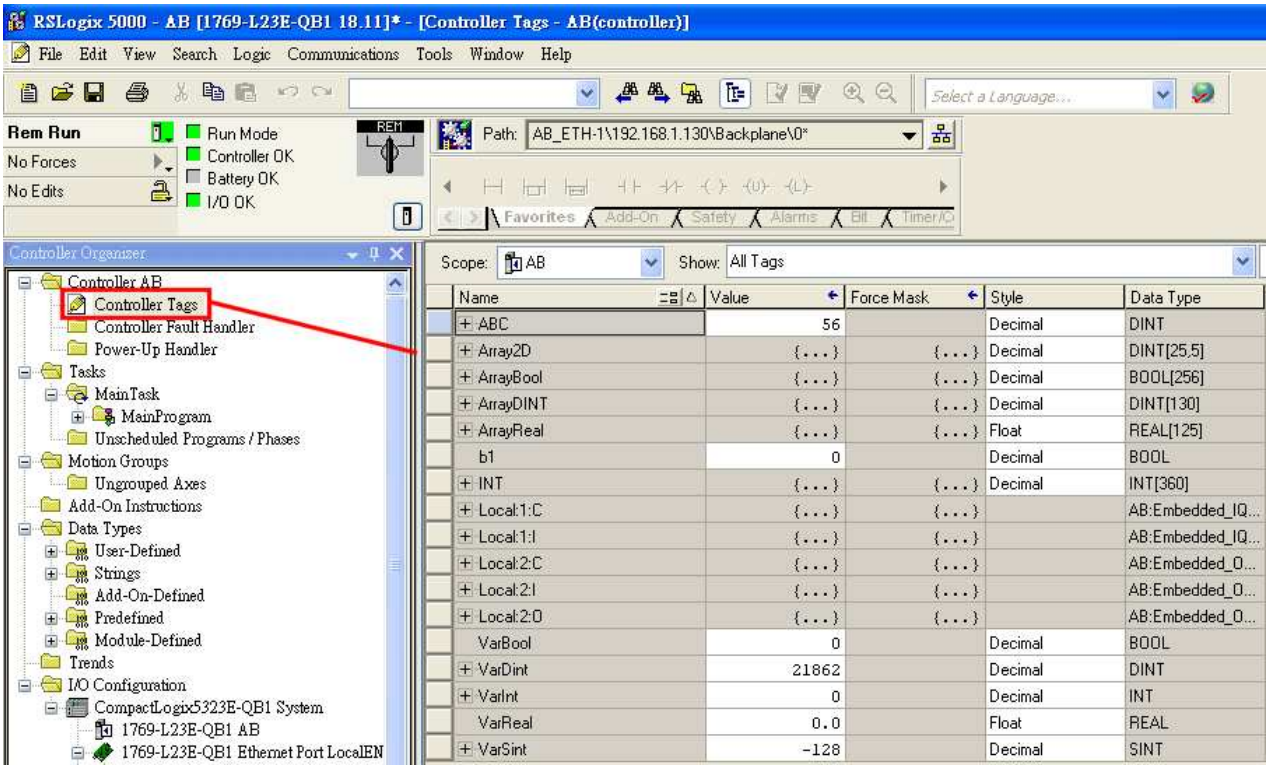
PLC Setting:

Communication mode	

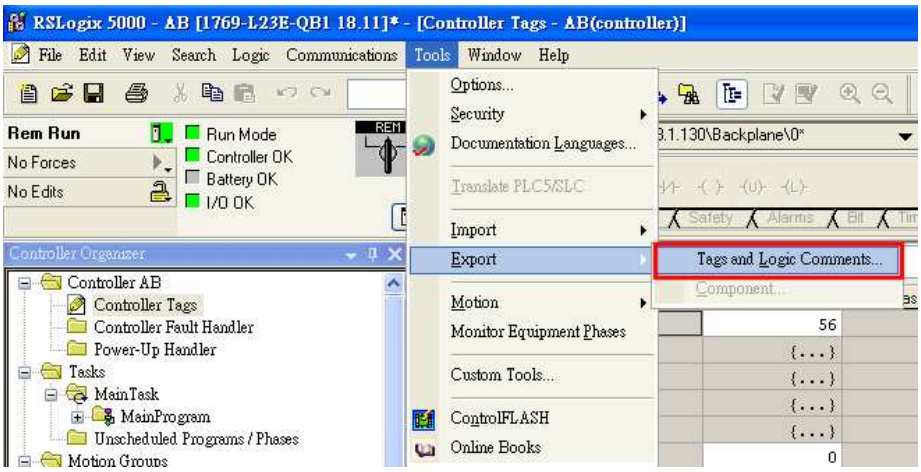
1. Set PLC IP address.



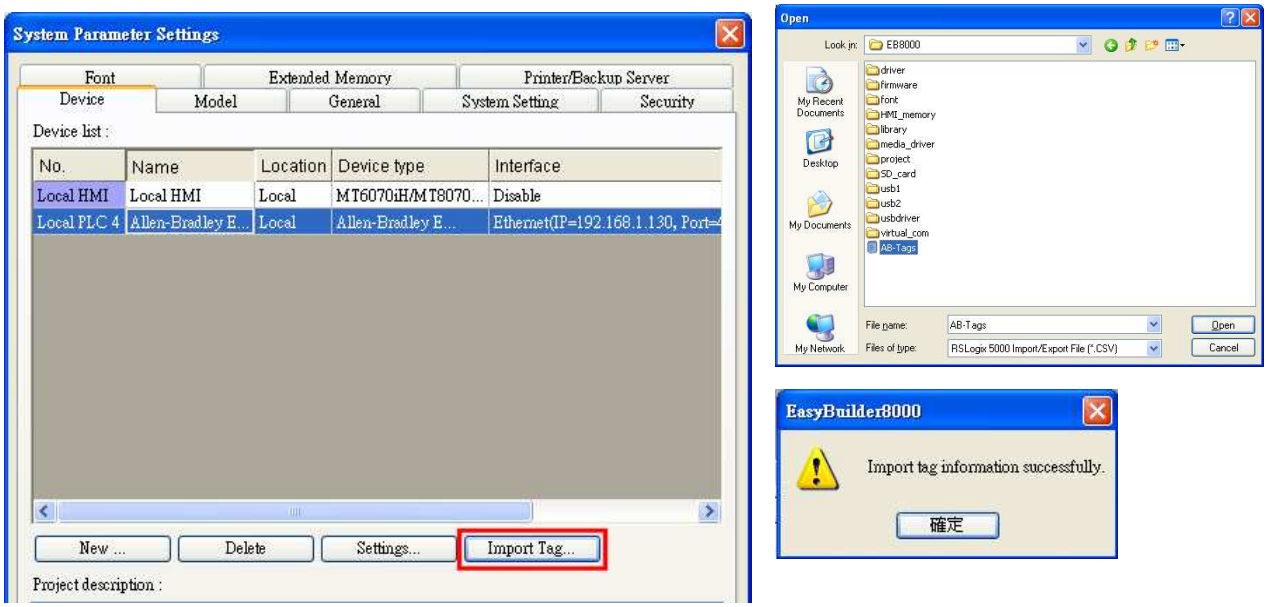
2. Create Tags.



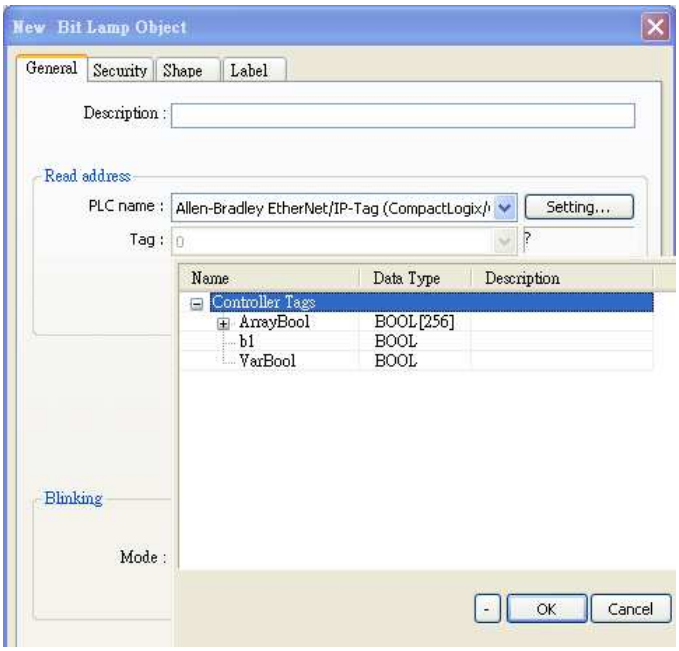
3. Export Tags data to CSV file.



4. In EB8000, create Allen-Bradley EtherNet/IP-Tag (ControlLogix) driver.
Input PLC IP address. In System Parameter Settings dialog click [Import Tag…] button.



5. In object dialog, select PLC, click Tag and select a controller tag.



Device address:

PLC Data Type Name	Bit/Word	EB8000 Data format	Memo
BOOL	Boolean	Bit object	
INT	Integer	16-bit signed, ASCII	-32768~32767
DINT	Double Integer	32-bit signed	-2^{31}~(2^{31}-1)
REAL	Single Precision Float	32-bit Float	IEEE 754

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	CPU Ethernet port RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Allen-Bradley EtherNet/IP (DF1)

Allen-Bradley MicroLogix 1100, 1400, SLC5/05 Ethernet port.
MicroLogix1000, 1200, 1500, SLC 5/03, 5/04 with 1761-NET-ENI

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP (DF1)		
Com port	Ethernet		
TCP Port no.	44818		
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

Communication mode	**Port Setting: 10/100 Mbps Full Duplex/Half Duplex**

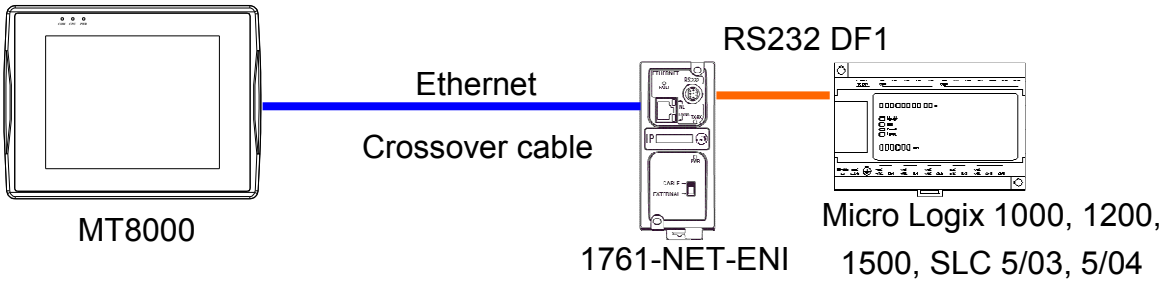
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
B	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)

32bit Float	F8	ddd	ddd:0~254	Floating point data file (F8)
32bit Float	Ffn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Floating point data file (F8, 10~254)
DW	Lfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Driver version 2.00 or above support

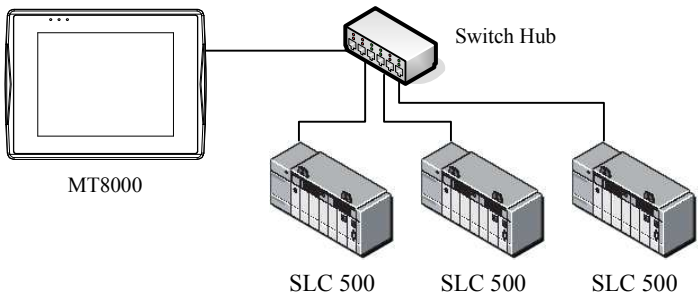
Wiring diagram:

Ethernet: Direct connect (crossover cable)

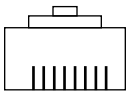


MT8000 Ethernet RJ45		Wire color	PLC RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet:



MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



1 8

RJ45 connector

Driver Version:

Version	Date	Description of Changes
V1.9	Apr/17/2009	
V2.00	Dec/21/2009	Add Lfn register

Allen Bradley PLC5

http://www.ab.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	AB PLC5		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

PLC Setting:

Communication mode	**DF1 Full Duplex protocol 19200, None, 8, 1 (default)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:7,9~254 Element no. ddd:0~254	Integer data file (V2.5.0 or newer)
W	Ffn	fffddd	File no. fff:8,9~254	Floating point data file (V2.5.0 or

Bit/Word	Device Type	Format	Range	Memo
			Element no. ddd:0~254	newer)

Allen-Bradley PLC-5 Family PLCs using the DF1 Full Duplex protocol.

For the PLC-5/10, PLC-5/15 and PLC-5/25 the MT8000 should be connected to:

- the DF1 port on the 1785-KE module;

for the PLC-5/11, PLC-5/20, PLC-5/30 and PLC-5/40 the MT8000 should be connected to:

- the Channel 0 Port on the PLC.

Wiring diagram:

RS-232: PLC5 CPU CH0

EasyView MT8000

9P D-SUB

COM1 [RS232]	COM2 [RS232]	COM3 [RS232]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

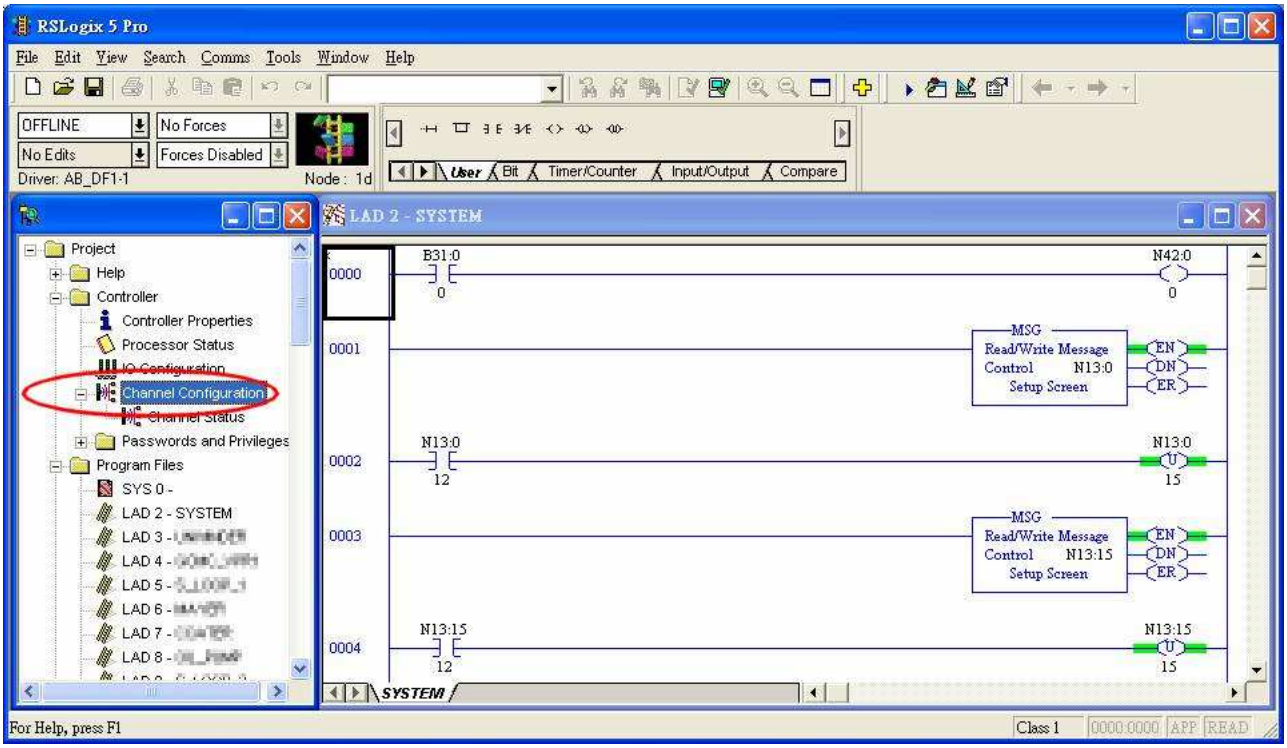
AB CPU CH0 RS-232

25P D-SUB

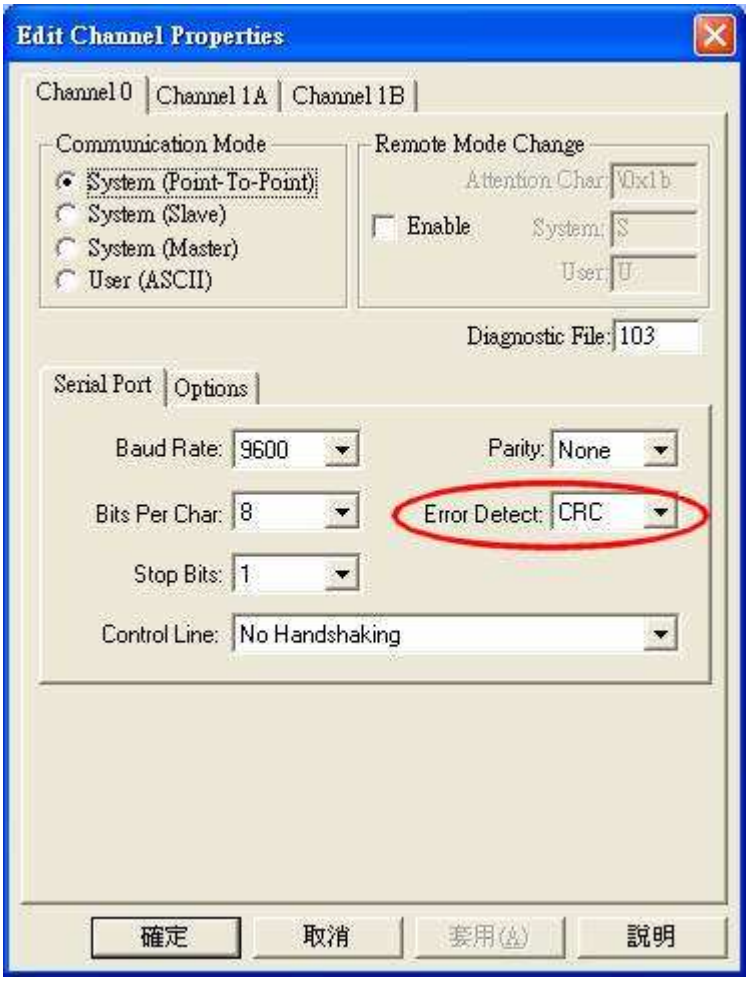
3 RXD
2 TXD
7 GND

Note:

The default error check of AB PLC5 is BCC, whereas our driver is CRC.



Access “Channel Configuration” from RSLogix5, under Channel 0 tab, please select CRC for Error Detect.



Driver Version:

Version	Date	Description of Changes
V1.20	Apr/17/2009	

Altus ALNET-I

Altus SeriesMode : PO3042, PO3142, PO3242, PO3342, PL103 ,PL104, PL105, QK800, QK801, QK2000.

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Altus ALNET-I		
Com port	RS232		
Station no.	0		
Baud rate	9600		
Parity bit	even		
Data Bits	8		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Device Range
B	M_Bit	dddd(h)	0~ 1023f	Memories
B	A	ddd(h)	0 ~ 511f	Auxiliary Relays
B	E	ddd(h)	0 ~ 511f	Input Relays
B	D_Bit	dddd(dd)	0 ~ 102331	Decimals
B	F_Bit	dddd(dd)	0 ~ 102331	Reals
B	I_Bit	dddd(dd)	0 ~ 102331	Integers
B	S	ddd(h)	0 ~ 511f	Output Relays
W	M	dddd	0 ~ 1023	Memories
DW	D	dddd	0 ~ 1023	Decimals
DW	F	dddd	0 ~ 1023	Reals
DW	I	dddd	0 ~ 1023	Integers
W	TM	hhhh	0 ~ FFFF *	Memory Tables
DW	TD	hhhh	0 ~ FFFF *	Decimal Tables
DW	TF	hhhh	0 ~ FFFF *	Real Tables
DW	TI	hhhh	0 ~ FFFF *	Integer Tables

Note: TM, TD, TF and TI in PLC software's format is TXA[B], M, D, F, I types are X.

B address range is 0 ~ FF and A address range is 0 ~ FF; the device type is AABB, the range is depend on the PLC settings.

For example Model PO3242 “ A ” range is ”0” and “B” range is 0 ~ 7.

Wiring diagram:

PLC PO3042, PO3142, PO3242, PO3342

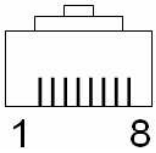
MT8000 RS232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

PLC COM1 RS232

RJ45 Port

3	RX
2	TX
5	GND



PLC PL103, PL104, PL105

MT8000 RS232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

PLC COM1 RS232

9P D-SUB

1	RX
7	TX
5	GND

PLC QK800,QK801,QK2000.

MT8000 RS232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

PLC COM1 RS232

9P D-SUB

3	RX
2	TX
7	GND

Driver Version:

Version	Date	Description of Changes
V0.01	Jul/24/2009	

Baumuller

http://www.baumuller.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Baumuller		
Com port	RS485 4W COM1		
Baud rate	19200	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	Defaults	

Baumuller Servo Setting:

Communication mode	**RK 512 Protocol，19200，8，1，EVEN**

Device address:

Bit/Word	Device Type	Format	Range	Device Range
B	DB0_bit	ddd(h)	ddd:0~255 (h): 0~f	DB0_bit~DB29_bit
W	DB0	ddd	ddd:0~255	DB0~DB29

Wiring diagram:

RS-485 4W:

MT8000 HMI COM1

RS485 4W 9P D-SUB

Female

1 RX-	
2 RX+	
3 TX-	
4 TX+	
5 GND	

Baumuller servo
RS-422 9P D-SUB
Female

1 TXD-
9 TXD+
5 RXD-
6 RXD+
8 GND

Driver Version:

Version	Date	Description of Changes
V1.10	Apr/17/2009	

Cimon CM1-CP4A/ECO1A

Cimon CM1 series, CP4A module
http://www.kdtsys.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Cimon CM1-CP4A/ECO1A		
Com port	RS232		
PLC station No.	1		
Baud rate	38400		
Data bit	8		
Parity bit	None		
Stop bit	1		

PLC Setting:

Bit/Word	Device type	Format	Range	Memo
B	X	dd(h)	0 ~ 23F	0-1F read only
B	Y	dd(h)	0 ~ 23F	
B	M	ddd(h)	0 ~ 511F	
B	K	ddd(h)	0 ~ 127F	
B	T	dddd	0 ~ 1023	
B	C	dddd	0 ~ 1023	
B	L	ddd(h)	0 ~ 127F	
B	F	ddd(h)	0 ~ 127F	Read only
W	D	dddd	0 ~ 4999	
W	S	dd	0 ~ 99	Max. range: 99
W	TS	dddd	0 ~ 1023	
W	TC	dddd	0 ~ 1023	
W	CC	dddd	0 ~ 1023	
W	CS	dddd	0 ~ 1023	

Wiring diagram:

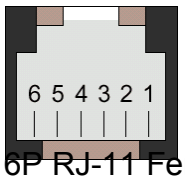
EasyView MT8000 HMI

9P D-SUB

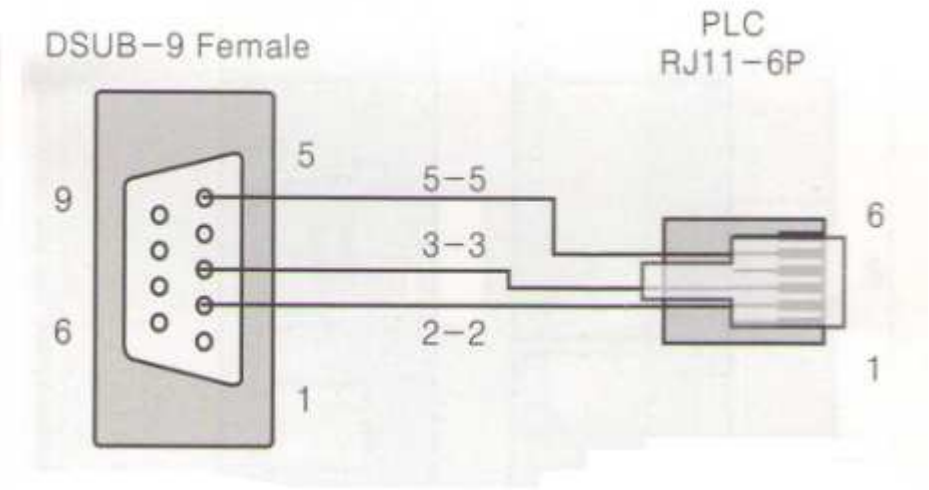
COM1 [RS232]	COM2 [RS232]	COM3 [RS232]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

CM1-CP4A
6P RJ-11 Female

3 RXD
2 TXD
5 GND



6P RJ-11 Female



Driver Version:

Version	Date	Description of Changes
V1.00	Nov/30/2009	

Cimon CM1-SC02A

Cimon CM series, SC02A module
http://www.kdtsys.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Cimon CM1-SC02A		
Com port	RS232	RS485, RS232	
PLC station No.	1		
Baud rate	38400		
Data bit	8		
Parity bit	None		
Stop bit	1		

PLC Setting:

Bit/Word	Device type	Format	Range	Memo
B	X	dd(h)	0 ~ 23F	0-1F read only
B	Y	dd(h)	0 ~ 23F	0-F read only
B	M	ddd(h)	0 ~ 511F	
B	K	ddd(h)	0 ~ 127F	
B	T	dddd	0 ~ 1023	
B	C	dddd	0 ~ 1023	
B	L	ddd(h)	0 ~ 127F	
B	F	ddd(h)	0 ~ 127F	Read only
W	D	dddd	0 ~ 4999	
W	S	dd	0 ~ 99	Max. range: 99
W	TS	dddd	0 ~ 1023	
W	TC	dddd	0 ~ 1023	
W	CC	dddd	0 ~ 1023	
W	CS	dddd	0 ~ 1023	

Wiring diagram:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Cimon CM1-SC02A
RS-232
9P D-SUB Male

2	RD
3	TD
5	GND

Driver Version:

Version	Date	Description of Changes
V1.00	Nov/30/2009	

Copley Controls

Digital Servo Driver & Controllers, Xenus, Xenus Micro, Accelnet, Accelnet Micro, Stepnet series
http://www.copleycontrols.com/motion/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Copley Controls		
Com port	RS232		
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0	0-127	

PLC Setting:

	ASCII format

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Flash INT 16	hhh	0~FFF	For Register is INT16 or U16
W	RAM INT 16	hhh	0~FFF	For Register is INT16 or U16
W	Flash INT 32	hhh	0~FFF	For Register is INT32 or U32
W	RAM INT 32	hhh	0~FFF	For Register is INT32 or U32

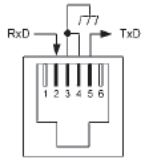
Wiring diagram:

Xenus, Xenus Micro, Accelnet

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Xenus Micro Panel
RS-232 RJ11
J7 cable connector



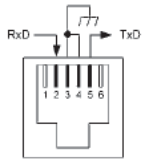
2	RXD
5	TXD
3, 4	GND

Stepnet

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Stepnet
RS232 RJ11
J8 cable connector



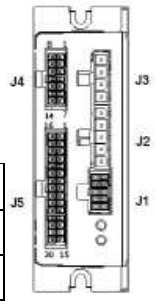
2	RXD
5	TXD
3, 4	GND

Accelnet Micro

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Accelnet Micro Panel
RS-232
J5 cable connector



14	RXD
29	TXD
15	GND

Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

CROUZET M3 (FBD)

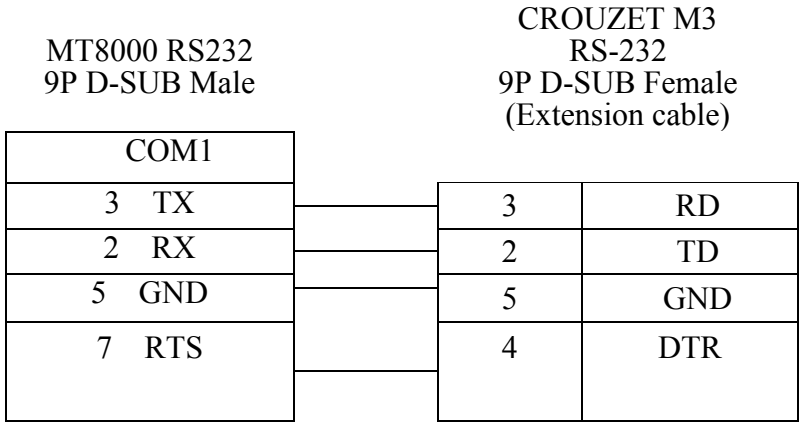
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	CROUZET M3 (FBD)		
Com port	RS232		
Baud rate	115200		
Data bit	7		
Parity bit	EVEN		
Stop bit	1		
Station no.	1		

Device address:

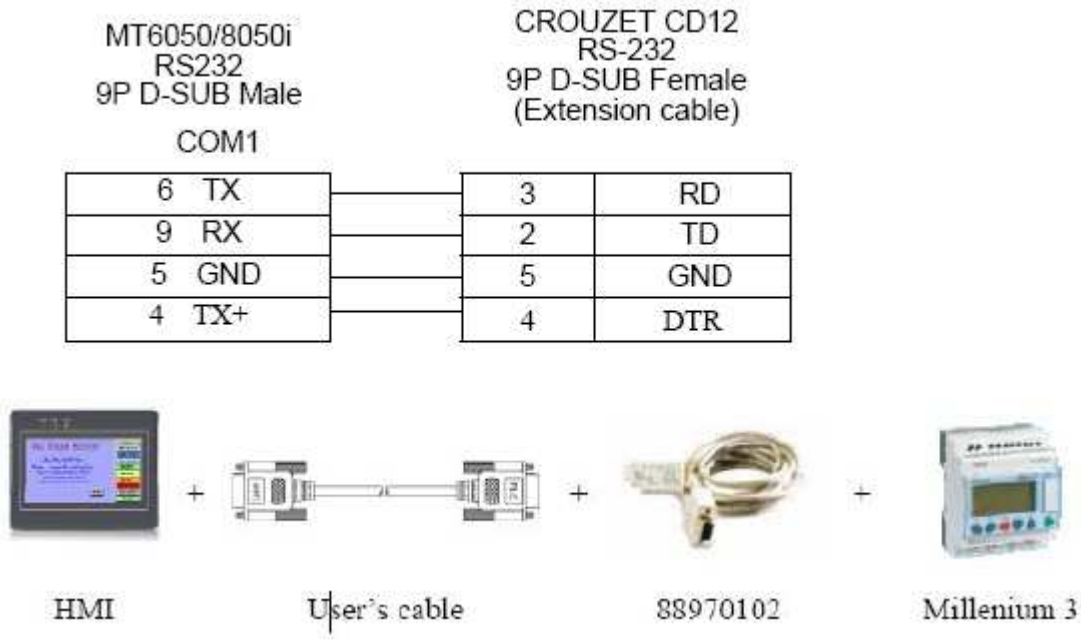
Bit/Word	Device Type	Format	Range	Memo
B	SLI_Bit	dd(f)	1(0)~24(f)	Serial link input
B	SLO_Bit	dd(f)	25(0)~48(f)	Serial link output (read only)
W	IA	dd	1 ~ 99	Analogy input (default: 1 ~ 4)
W	SL_IN	dd	1~24	Serial link input
W	SL_OUT	dd	25~48	Serial link output (read only)

Wiring diagram:



(3m serial link cable)

Note: Please use 3m serial link cable (Accessories from Millenium 3) and extension cable (as above) to communicate with MT8000/6000 series.



CROUZET M3 (LAD)

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	CROUZET M3 (LAD)		
Com port	RS232		
Baud rate	115200		
Data bit	7		
Parity bit	EVEN		
Stop bit	1		
Station no.	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dd	1 ~ 99	Input (default: 1 ~ 4)
B	O	dd	1 ~ 99	Output (default: 1 ~ 4)
B	M	dd	1 ~ 28	Relay
B	SLI_Bit	dd(f)	1(0)~24(f)	Serial link input
B	SLO_Bit	dd(f)	25(0)~48(f)	Serial link output (read only)
W	IA	dd	1 ~ 99	Analogy input (default: 1 ~ 4)
W	T	dd	1 ~ 12	Timer
W	C	dd	1 ~ 16	Counter
W	SL_IN	dd	1~24	Serial link input
W	SL_OUT	dd	25~48	Serial link output (read only)

Wiring diagram:

MT8000 RS232
9P D-SUB Male

COM1	
3 TX	
2 RX	
5 GND	
7 RTS	

CROUZET M3
RS-232
9P D-SUB Female
(Extension cable)

3	RD
2	TD
5	GND
4	DTR

(3m serial link cable)

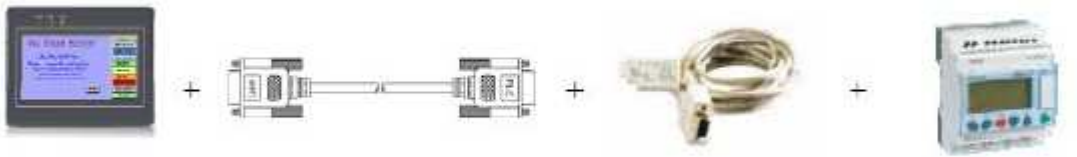
Note: Please use 3m serial link cable (Accessories from Millenium 3) and extension cable (as above) to communicate with MT8000/6000 series.

MT6050/8050i
RS232
9P D-SUB Male

COM1	
6 TX	
9 RX	
5 GND	
4 TX+	

CROUZET CD12
RS-232
9P D-SUB Female
(Extension cable)

3	RD
2	TD
5	GND
4	DTR



HMI + User's cable + 88970102 + Millenium 3

Danfoss ECL Apex20

http://www.danfoss.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Danfoss ECL Apex20		
Com port	RS232		
Baud rate	9600		
Parity bit	None		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		

Device address:

Device Type	Format	Range	Memo
Flag	DDDD	0-8191	
Input	DDD	0-511	
Output	DDD	0-511	
Register	DDDD	0-4095	
Counter	DDDD	0-1599	
Timer	DDDD	0-1599	
Reg_Float	DDDD	0-4095	Support 32-bit float format

EB8000 device addresses range may different with PLC extended mode, please refer EB8000's addresses range as above.

ddd:Decimal

Wiring diagram:

RS232:

MT8000 RS232
9P D-SUB Male

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

ECL Apex20 Controller
9P D-SUB Female

2 RXD
3 TXD
5 GND
7 RTS
8 CTS

RS485:

MT8000 RS-485
9P D-SUB Female

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

ECL Apex20 Controller
Port# 1

11
12

MT8000 RS-485
9P D-SUB Female

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

ECL Apex20 Controller
Port# 0

29
28

Driver Version:

Version	Date	Description of Changes
V1.10	Dec/30/2008	

Danfoss FC Series

FC051, FC100, FC200, FC300, VLT Micro Driver.
http://www.danfoss.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Danfoss FC Series		
Com port	RS485		
Baud rate	9600		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		

Device address:

Bit/Word	Device Type		Format	Range	Memo
Word	Parameter	09	DDD	0-1000	Set Parameter
Dword	Reference	10	DDD	0-0	Control Bus Reference
Dword	Para_Index	11	DDD(DD)	0-999999	Set Parameter(Index)

Para_Index 310.1=31001, Para_Index310.0=31000

Wiring diagram:

RS485:

MT8000 RS-485
9P D-SUB Female

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

FC RS485

69
68

***RW100 Set PCD1 Control Word. of station 1**
***RW101 read PCD1 Status Word of station 1**
***RW102 Set PCD2 Control Word. of station 2**
***RW103 read PCD2 Status Word of station 2**
***RW104 Set PCD3 Control Word. of station 3**
***RW105 read PCD3 Status Word of station 3**

***RW106 Set PCD4 Control Word. of station 4**

***RW107 read PCD4 Status Word of station 4**

Driver Version:

Version	Date	Description of Changes
V1.00	Mar/05/2010	

Danfoss VLT2800 Series

VLT2800 series

http://www.danfoss.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Danfoss VLT2800 Series		
Com port	RS485 2W	RS485 2W	
Baud rate	9600	9600	
Parity bit	Even	Even	
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1	0-126	**According to PLC**

PLC Setting:

Communication mode	9600, Even,8,1 (default)

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Reference	dd	0	Control Bus Reference
DW	Parameter	ddd	ddd:0~1000	Set Parameter

It is relate to station number, if station number is 1,control word is RW100,RW101,if station number is 2,the control word is RW102,RW103…following this rule.

Wiring diagram:

RS-485:

MT8000 RS485
9P D-SUB

COM1	COM3
1 RX- 2 RX+ 5 GND	6 Data- 9 Data+ 5 GND

VLT2800 RS485

69	D-
68	D+

Driver Version:

Version	Date	Description of Changes
V1.10	Otc/06/2008	

DELTA DVP

DELTA DVP series
http://www.deltadriver.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	DELTA DVP		
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0 ~ 23417 (Octal)	Input
B	Y	ooo	0 ~ 23417 (Octal)	Output
B	M	dddd	0 ~ 9999	Auxiliary Relay
B	S	dddd	0 ~ 9999	Step Relay
B	T	dddd	0 ~ 9999	Timer
B	C	dddd	0 ~ 9999	Counter
B	TV	dddd	0 ~ 9999	Timer
W	CV	ddd	0 ~ 127	Counter
W	CV2	ddd	232 ~ 255	Double word counter
W	D	dddd	0 ~ 9999	Data Register

Wiring diagram:

1. RS232: CPU port

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

DELTA DVP CPU port
8p mini DIN

4	RXD
5	TXD
3/8	GND

8Pin Mini-Din Female

2. RS485: CPU port

MT8000 RS232

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

DELTA DVP
RS-485 port

-
+

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

EMERSON PLC EC20

Support Emerson PLC EC20 Series. (Modbus RTU Protocol)

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	EMERSON PLC EC20		
Com port	RS232	RS232, RS422, RS485	
Baud rate	9600	9600, 19200,115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-255	

PLC Setting:

Communication mode	**Modbus RTU protocol**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Y	ooo	0-377 (octal) 256point	0000-0255
B	X	ooo	0-377 (octal) 256point	1200-01455 0000-0255
B	M	dddd	0-1999	2000-3999
B	SM	ddd	0-255	4400-4655
B	S	ddd	0-991	6000-6991
B	T	ddd	0-255	8000-8255
B	C	ddd	0-255	9200-9455
W	D	dddd	0-7999	0000-7999
W	SD	ddd	0-255	8000-8255
W	Z	dd	0-15	8500-8515

W	T	ddd	0-255	9000-9255
W	C	ddd	0-199	9500-9699
DW	C_Double	ddd	200-255	9700-9811
DW	D_Double	dddd	0-7998	0000-7999

Wiring diagram:

MT8000 RS232

9P D-SUB Male

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Emerson EC20

COM1

RXD
TXD
GND

Driver Version:

Version	Date	Description of Changes
V1.10	Dec/30/2008	

F930GOT Server

F930GOT general-purpose communication Type 1

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	F930GOT Server		
Com port	RS232		
Baud rate	38400	9600, 115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RW_Bit	dddddf	dddd:0~65535 f:0~f	
W	RW	ddddd	dddd:0~65535	

In PLC name pull down menu don't select F930GOT Server.

Please select Local HMI, Device type=RW.

Wiring diagram:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Micro Computer
board (RS232)

	RD
	TD
	GND

Protocol:

Read Command:

PC ➔ HMI

02	'0'	Read address	Size	CR

02	30	30	30	30	30	30	32	0D

Read RW0 1word(2bytes) STX=0x02, '0'=Read command, CR=0x0D

Read address (hexadecimal)

0~FFFF = RW0~65535

Size (hexadecimal)

2~FE = 2~254 bytes = 1~127 word.

Size must be even.

HMI➔PC (response)

02	Data1	Data2	…….	CR

02	30	30	31	30	0D

RW0 = 0x0010 = 16

Write Command:

PC ➔ HMI

02	'1'	Read address	Size	Data1	Data2	…….	CR

02	31	30	30	30	30	30	32	12	34	0D

Write RW0=0x1234

Read address (hexadecimal)

0~FFFF = RW0~65535

Size (hexadecimal)

2~FE = 2~254 bytes = 1~127 word.

Size must be even.

HMI➔PC (response)

06

ACK = 0x06

FATEK FB Series

FATEK FBs series, FB MC series.

FB MA series need FB-DTBR converter.

http://www.fatek.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	FATEK FB Series		
Com port	RS232	RS232/RS485/Ethernet	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	0-255	Must match the PLC's port setting.

PLC Setting:

Communication mode	
Select	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	dddd	dddd : 0~9999	Input
B	Y	dddd	dddd : 0~9999	Output
B	M	dddd	dddd : 0~9999	Internal Relay
B	S	dddd	dddd : 0~9999	Step Relay
B	T	dddd	dddd : 0~9999	Timer
B	C	dddd	dddd : 0~9999	Counter
B	PLC_MODE	d	d : 0	PLC mode
W	R	dddd	dddd : 0~9999	Data Register
W	D	dddd	dddd : 0~9999	Data Register
W	RT	dddd	dddd : 0~9999	Timer Register
W	RC	dddd	dddd : 0~9999	Counter Register
W	DRT	dddd	dddd : 0~9999	Double word Timer Register
W	DRC	ddd	ddd : 200~255	Double word Counter Register
W	WX	dddd	dddd : 0~9999	Input word

W	WY	dddd	dddd : 0~9999	Output word
W	WM	dddd	dddd : 0~9999	Internal Relay word

Wiring diagram:

1. RS232: FBs Port0

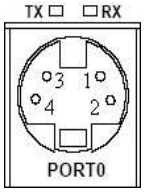
MT8000 RS232

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FBs

4P Mini-Din Male

4 RX
3 TX
2 GND



4P Mini-Din

2. RS232: FBs communication module

MT8000 RS232

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FBs communication module

9P D-SUB Male

3 RX
2 TX
5 GND

3. RS485: FBs communication module

MT8000 RS-485] 2w

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

FBs communication module

3P Terminal Block

D-
D+

4. RS232: CPU port

MT8000 RS232

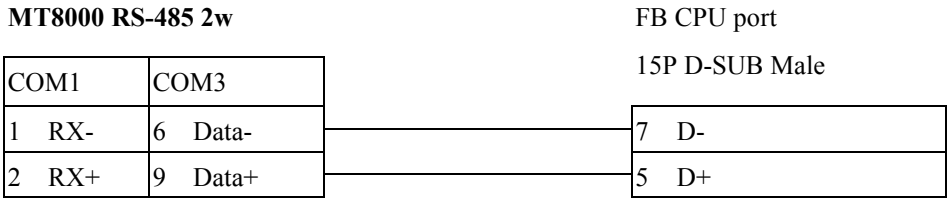
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FB CPU port

15P D-SUB Male

1 RX
2 TX
6 GND
3 RTS
4 CTS

5. RS485: CPU port



Driver Version:

Version	Date	Description of Changes
V1.40	Jul/09/2010	Add PLC mode device type

Fuji NB Series

http://www.fujielectric.co.jp/fcs/eng/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Fuji NB Series		
Com port	RS485 4W		
Baud rate	19200		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		

PLC Setting:

Communication mode	NITP protocol / PLC Password (default is 0)

Device address:

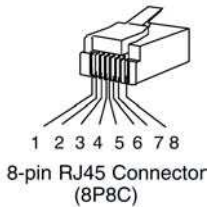
Bit/Word	Device Type	Format	Range	Memo
B	Y	hhh	0~7ff	Output Relay
B	X	hhh	0~3ff	Input Relay
B	M	hhh	0~fff	Internal Relay
B	L	hhh	0~fff	Latch Relay
B	C	hh	0-ff	Counter
B	M_Spe	hhhh	8000-81ff	Special Relay
B	T	hhh	0-1ff	Timer
W	CV	hhh	0-3ff	Counter value
W	TV	hhh	0-3ff	Timer value
W	D	hhhh	0-1fff	Data Register
W	D_Spe	hhhh	8000-80ff	Special Register

Wiring diagram:

MT8000 HMI
COM1 [RS485]4w
9P D-SUB

1 RX-		4 TX-
2 RX+		3 TX+
3 TX-		6 RX-
4 TX+		5 RX+
5 GND		

FUJI NB Series
RJ45 8p connector



8-pin RJ45 Connector
(8P8C)

Driver Version:

Version	Date	Description of Changes
V1.10	May/05/2009	

GE Fanuc CMM

http://www.ge.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	GE Fanuc CMM		
Com port	RS232	RS232/RS485	
Baud rate	19200	9600,19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	Does not apply to this protocol

PLC Setting:

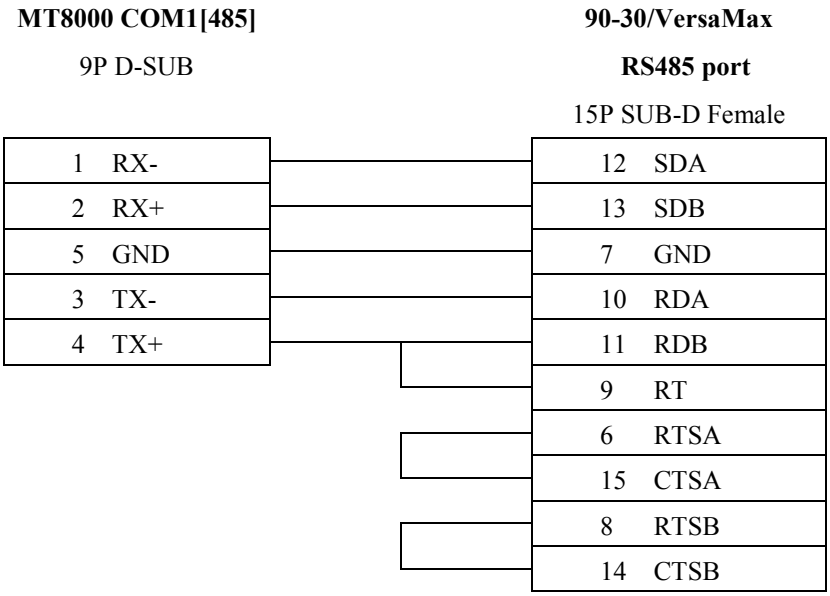
Refer to related PLC manual

Device address:

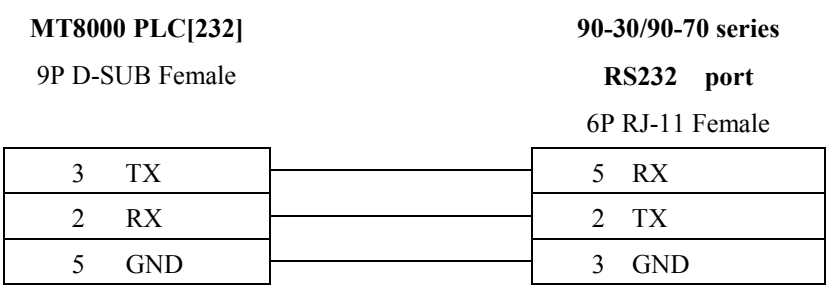
Bit/Word	Device Type	Format	Range	Memo
B	I	ddd	1-10000	Input relay
B	Q	ddd	1-10000	Output relay
B	M	ddd	1-10000	Auxiliary relay
B	G	ddd	1-7680	
B	T	ddd	1-256	
W	AI	ddd	1-10000	Analog input register
W	AQ	ddd	1-10000	Analog output register
W	R	ddd	1-32640	Data register
B	SA	ddd	1-128	
B	SB	ddd	1-128	
B	SC	ddd	1-128	
B	S	ddd	1-128	

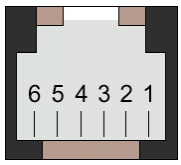
Wiring diagram:

CPU port(90-30/VersaMax)



CPU port(90-30 series CPU351/352/363/364)





6P RJ-11 Female

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

VersaMax series
RS232 port
9P SUB-D Female

3 RX
2 TX
5 GND

CPU port(VersaMax series CPU001/002/005/E05)

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

VersaMax series

RS232 port

9P SUB-D Female

3 RX
2 TX
5 GND

Driver Version:

Version	Date	Description of Changes
V1.00	20090709	

GE Fanuc RX3i

http://www.ge.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Fanuc RX3i		
Com port	RS232	RS232,RS485	
PLC station No.	1	1~99	
Baud rate	19200	1200~115200	
Data bit	8		
Parity bit	Odd	None,Even,Odd	
Stop bit	1	1 or 2	

PLC Setting:

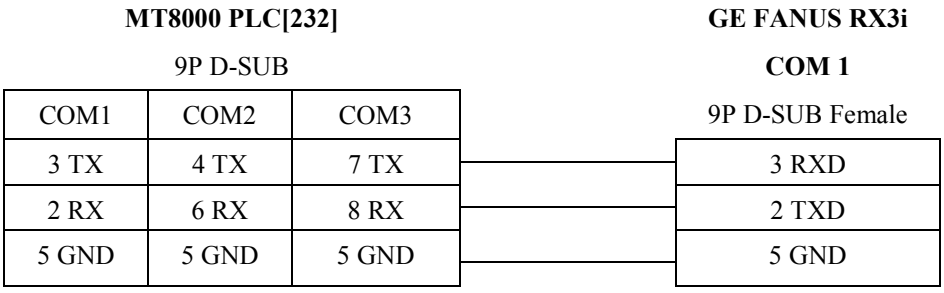
Refer to related PLC manual

Device address:

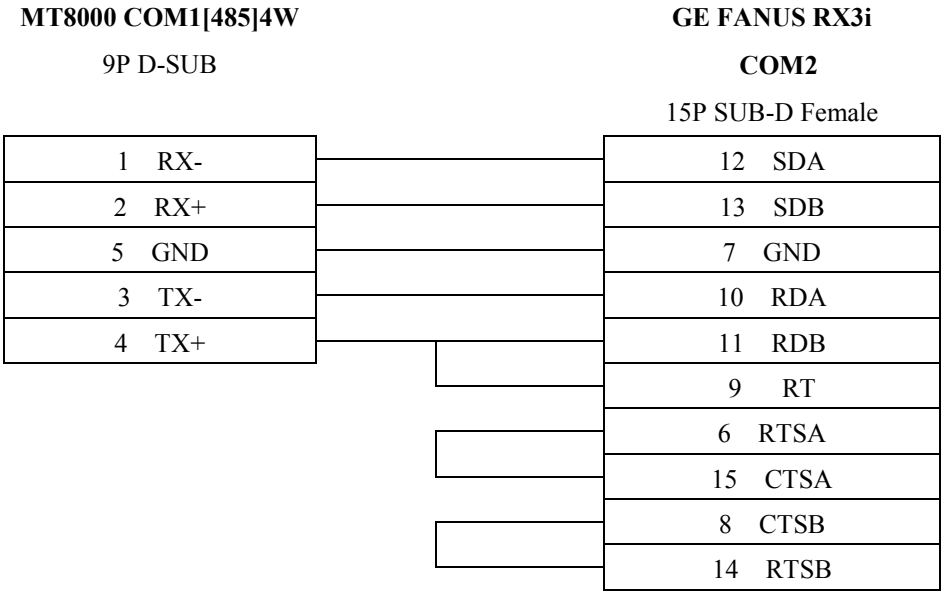
Bit/Word	Device type	Format	Range	Memo
B	I	ddddd	1 ~ 32768	
B	Q	ddddd	1 ~ 32768	
B	M	ddddd	1 ~ 32768	
B	G	dddd	1~7680	
B	T	dddd	1 ~ 1024	
B	SA	ddd	1 ~ 128	
B	SB	ddd	1 ~ 128	
B	SC	ddd	1 ~ 128	
B	S	ddd	1 ~ 128	
W	AI	dd	1 ~ 64	
W	AQ	dd	1 ~ 64	
W	R	dddd	1~2048	

Wiring diagram:

RS-232



RS-485



Driver Version:

Version	Date	Description of changes
V1.00	Oct/1/2010	

GE Fanuc Series 90-30 (Ethernet)

GE 90-30 series, CPU model 374plus

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	GE fanuc series 90-30 (Ethernet)		
Com port	Ethernet		
PLC station No.	1	1~99	
Port No.	18245		

Device address:

Bit/Word	Device type	Format	Range	Memo
B	I_bit	dddd	1 ~ 2048	
B	Q_bit	dddd	1 ~ 2048	
B	M_bit	dddd	1 ~ 4096	
B	G_bit	dddd	1 ~ 1280	
B	T_bit	ddd	1 ~ 256	
B	SA_bit	dd	1 ~ 32	Read Only
B	SB_bit	dd	1 ~ 32	Read Only
B	SC_bit	dd	1 ~ 32	Read Only
B	S_bit	dd	1 ~ 32	Read Only
W	I	dddd	1 ~ 2033	Address increases 8 words, ex: I1, I9, I17, I25…..
W	Q	dddd	1 ~ 2033	the rule is same as above, ex:Q1, Q9, Q17…
W	M	dddd	1 ~ 4081	the rule is same as above, ex:M1, M9, M17..
W	G	dddd	1 ~ 1256	the rule is same as above, ex:G1, G9, G17…
W	T	ddd	1 ~ 241	the rule is same as above, ex:T1, T9, T17….
W	SA	dd	1 ~ 17	Read Only, the rule is same as above

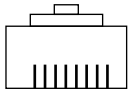
W	SB	dd	1 ~ 17	Read Only, the rule is same as above
W	SC	dd	1 ~ 17	Read Only, the rule is same as above
W	S	dd	1 ~ 17	Read Only, the rule is same as above
W	R	dddd	1 ~ 9999	
W	AI	dddd	1 ~ 2048	
W	AQ	ddd	1 ~ 512	

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45

				Ethernet Hub or Switch RJ45
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



1 8

RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45				Modbus TCP Device RJ45	
1	TX+	White/Orange	———	3	RX+
2	TX-	Orange	———	6	RX-
3	RX+	White/Green	———	1	TX+
4	BD4+	Blue	———	4	BD4+
5	BD4-	White/Blue	———	5	BD4-
6	RX-	Green	———	2	TX-
7	BD3+	White/Brown	———	7	BD3+
8	BD3-	Brown	———	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.20	Jun/29/2009	

GE Fanuc SNP-X

GE Fanuc 90 & VersaMax series PLC
http://www.ge.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	GE Fanuc SNP-X		
Com port	RS485 4w	RS232/RS485	
Baud rate	19200	9600,19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	Does not apply to this protocol

PLC Setting:

Refer to related PLC manual

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	ddd	1-10000	Input relay
B	Q	ddd	1-10000	Output relay
B	M	ddd	1-10000	Auxiliary relay
B	G	ddd	1-7680	
B	T	ddd	1-256	
W	AI	ddd	1-10000	Analog input register
W	AQ	ddd	1-10000	Analog output register
W	R	ddd	1-32640	Data register
B	SA	ddd	1-128	
B	SB	ddd	1-128	
B	SC	ddd	1-128	
B	S	ddd	1-128	

Wiring diagram:

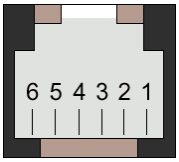
Memo：90 VersaMax series PLC of GE FANUC includes such series as 90-30, 90-70, VersaMax Micro, VersaMax Nano and VersaMax,etc., CPU of 90-30series can pass RS485 serial com port on module, utilize SNP serial communication protocol of GE to connect with EasyView MT8000HMI, In addition, CPU331/340/341/350/351/352/360/363/364 can also connect through CMM311 Communication Module, CPU351/352/363/364 also can connect through serial com port on CPU Unit；90-70 series CPU can also connect through CMM711 Communication Module or connect through serial com port on CPU Unit；Relevant software and hardware are set up concretely please consult the technical manual that GE GE Fanuc offered.

CPU port(90-30/VersaMax)

MT8000 COM1[485] 9P D-SUB		**90-30/VersaMax** **RS485 port** 15P SUB-D Female
1 RX-		12 SDA
2 RX+		13 SDB
5 GND		7 GND
3 TX-		10 RDA
4 TX+		11 RDB
		9 RT
		6 RTSA
		15 CTSA
		8 RTSB
		14 CTSB

CPU port(90-30 series CPU351/352/363/364)

MT8000 PLC[232] 9P D-SUB Female		**90-30/90-70 series** **RS232 port** 6P RJ-11 Female
3 TX		5 RX
2 RX		2 TX
5 GND		3 GND



6P RJ-11 Female

MT8000 RS232 9P D-SUB				VersaMax series RS232 port 9P SUB-D Female
COM1	COM2	COM3		
3 TX	4 TX	7 TX		3 RX
2 RX	6 RX	8 RX		2 TX
5 GND	5 GND	5 GND		5 GND

CPU port(VersaMax series CPU001/002/005/E05)

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

VersaMax series
RS232 port
9P SUB-D Female

3	RX
2	TX
5	GND

Driver Version:

Version	Date	Description of Changes
V1.20	Jan/09/2009	

Han Young Series

Temperature Controller
http://hynux.com/kor/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Heng Young Seires		
Com port	RS485 4W		Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	1	0-255	Must match the PLC's port setting.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	ddd	1-699	
W	D	ddd	1-699	

Wiring diagram:

MT8000 PLC[485]

RS485 4w 9Pin D-Sub

1	RX-
2	RX+
3	TX-
4	TX+

Han Young

RS485

32	TX-
31	TX+
34	RX-
33	RX+

Driver Version:

Version	Date	Description of Changes
V1.20	May/20/2009	

Heng Yuan Sensor

EU sereis, EU5 series, EU10 series.

http://www.hysensor.com.cn

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Heng Yuan Sensor		
Com port	RS485 2W		
Baud rate	9600		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	2	1-31	

Online Simulator	YES	
Extend address mode	YES	

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Parameter	ddd	ddd:0~1000	

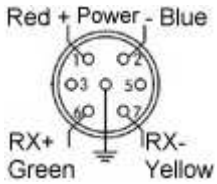
Wiring diagram:

EU05 series

MT8000 PLC[485]

9P D-SUB

COM1	COM3		RS485 port
1 RX-	6 Data-	——	7 RX- (Yellow)
2 RX+	9 Data+	——	5 RX+ (Green)
5 GND	5 GND	——	4 GND (Black)



Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

HITACHI EH-SIO

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	HITACHI EH-SIO		
Com port	RS232	RS232, RS485	Must match the PLC's port setting.
Baud rate	19200	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	Even	Even	Must match the PLC's port setting.
Data Bits	7	7	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**19200,E,7,1(default)**
Select	

Device address :

Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh(h)	hhhh: 0~FFFF (h):0~F	External Input-bit(X)
B	Y	hhhh(h)	hhhh: 0~FFFF (h):0~F	External Output-bit(Y)
B	M	hhhh(h)	hhhh: 0~FFFF (h):0~F	Data area-bit(M)
B	T	hhhh(h)	hhhh: 0~FFFF (h):0~F	Timer(T)
B	R	hhhh(h)	hhhh: 0~FFFF (h):0~F	Internal Output(R)
B	L	hhhh(h)	hhhh: 0~FFFF	Link area-bit(L)

			(h):0~F	
W	TC	hh	hh: 0~FF	Timer/Counter current value
W	WX	hhhh	hhhh: 0~270F	External Input-word(X)
W	WY	hhhh	hhhh: 0~270F	External Output-word(Y)
W	WR	hhhh	hhhh: 0~270F	Internal Output-word(R)
W	WL	hhhh	hhhh: 0~270F	Link area-word(L)
W	WM	hhhh	hhhh: 0~270F	Data area-word(M)

Wiring diagram:

EH-SIO port1/port 2 RS232

MT8000 RS-232

9P D-SUB

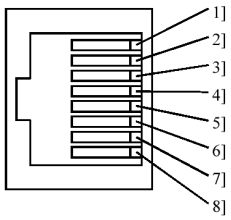
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND
8 CTS		

HITACHI EH-SIO

port1 / port 2

8pin RJ45 Male

6 RD
5 SD
1 SG
8 RS
4 PHL
7 DR



Port 1 / Port 2

8pin RJ45

Female

EH-SIO port2 RS485 4wire（RS422）：

EasyView MT8000 HMI

PLC RS485port

9PinD-SUB FEMALE

1 RX-	5 TX-
2 RX+	4 TX+
3 TX-	6 RX-
4 TX+	7 RX+
5 GND	1 SG

Hitachi EH-SIO

EH-SIO port2 RS485 2wire：

EasyView MT8000 HMI
PLC RS485 port
9PinD-SUB FEMALE

1 RX-	
2 RX+	
3 TX-	
4 TX+	
5 GND	

Hitachi EH-SIO

	5 TX-
	4 TX+
	6 RX-
	7 RX+
	1 SG

HITACHI EHV Series (Ethernet)

HITACHI Web site: http://www.hitachi-ies.co.jp/english/products/plc/index.htm

HMI Setting:

Parameters	recommend	Option	Notes
PLC type	HITACHI EHV		
Com port	Ethernet		
Port no.	3004	3004~3007	

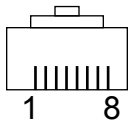
Device address:

Bit/Word	Device type	Format	Range	Memo
B	X	hhhh(h)	0~FFFF(F)	External Input-bit(X)
B	Y	hhhh(h)	0~FFFF(F)	External Output-bit(Y)
B	M	hhhh(h)	0~FFFF(F)	Data area-bit(M)
B	T	ddddd	0~65535	Timer(T)
B	R	hhhh(h)	0~FFFF(F)	Internal Output(R)
B	L	hhhh(h)	0~FFFF(F)	Link area-bit(L)
W	TC	dddd	0~2559	Timer/Counter current value
W	WX	hhhh	0~FFFF	External Input-word(X)
W	WY	hhhh	0~FFFF	External Output-word(Y)
W	WR	hhhh	0~FFFF	Internal Output-word(R)
W	WL	hhhh	0~73FF	Link area-word(L)
W	WM	hhhh	0~7FFF	Data area-word(M)

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	HITACHI EHV Ethernet RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.00	Jan/12/2010	

HITACHI H/EH/EHV Series

Compatible PLCs	
Family	Model
HITACHI H series	EH-150, Micro-EH, H20, H40, H64, H200, H250, H252, H300, H302, H700, H702, H1000, H1002, H2000, H4010

HITACHI Web site: http://www.hitachi-ies.co.jp/english/products/plc/index.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	HITACHI H-Series		
Com port	RS232	RS232, RS485	Must match the PLC's port setting.
Baud rate	19200	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	Even	Even	Must match the PLC's port setting.
Data Bits	7	7	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	0	0-255	Does not apply to this protocol.

Online Simulator	YES	Broadcast command	NO
Extend address mode	NO		

PLC Setting:

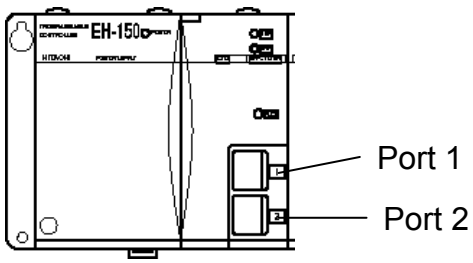
Communication mode	**19200,E,7,1(default)**
Select	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh(h)	hhh: 0~FFFF (h):0~F	External Input-bit(X)
B	Y	hhh(h)	hhh: 0~FFFF (h):0~F	External Output-bit(Y)
B	M	hhh(h)	hhh: 0~FFFF (h):0~F	Data area-bit(M)
B	T	hhh(h)	hhh: 0~FFFF (h):0~F	Timer(T)
B	R	hhh(h)	hhh: 0~FFFF (h):0~F	Internal Output(R)
B	L	hhh(h)	hhh: 0~FFFF (h):0~F	Link area-bit(L)
W	TC	hhh	hhh: 0~FF	Timer/Counter current value
W	WX	hhh	hhh: 0~270F	External Input-word(X)
W	WY	hhh	hhh: 0~270F	External Output-word(Y)
W	WR	hhh	hhh: 0~270F	Internal Output-word(R)
W	WL	hhh	hhh: 0~270F	Link area-word(L)
W	WM	hhh	hhh: 0~270F	Data area-word(M)

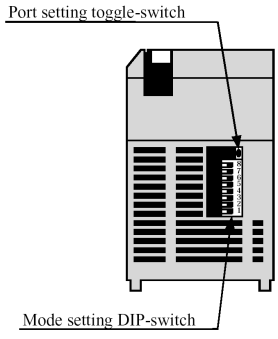
Wiring diagram:

WARNING: If your communications cable is not wired exactly as shown in our cable assembly instructions, damage to the MT8000 or loss of communications can result.



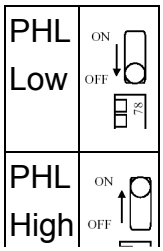
CPU TYPE	Port 1	Port 2
EH-150/CPU 104A	RS-232	RS-232
EH-150/CPU 208A	RS-232	RS-232
EH-150/CPU 308A	RS-232/RS-485	RS-232
EH-150/CPU 316A	RS-232/RS-485	RS-232
EH-150/CPU 448A	RS-232/RS-485	RS-232

Switch Number				
1	OFF	Normal mode		
2	OFF	TRNS0 operation		
3, 4	3	4	Port1 transmission speed	
	ON	ON	4,800 bps	Doesn't support
	OFF	ON	9,600 bps	
	ON	OFF	19,200 bps	Default
	OFF	OFF	38,400 bps	



5	ON	Dedicated port		
6	6	PHL	Port2 transmission speed	
	ON	Low	9,600 bps	
	ON	High	38,400 bps	
	OFF	Low	4,800 bps	Doesn't support
	OFF	High	19,200 bps	Default
7	OFF	(System mode)		Do not turn on.
8	OFF	(System mode)		Do not turn on.

Toggle-Switch



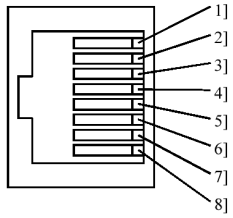
EH-150 port1/port 2 RS232

MT8000 RS-232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND
8 CTS		

HITACHI EH-150
port1 / port 2
8pin RJ45 Male

6 RD
5 SD
1 SG
8 RS
4 PHL
7 DR



Port 1 / Port 2
8pin RJ45
Female

EH150port1 RS485 4wire（RS422）：

EasyView MT8000 HMI
PLC RS485port
9PinD-SUB FEMALE

1 RX-
2 RX+
3 TX-
4 TX+
5 GND

Hitachi EH-150
port1
8PinRJ45port

5 TX-
4 TX+
6 RX-
7 RX+
1 SG

EH150port1 RS485 2wire：

EasyView MT8000 HMI
PLC RS485 port
9PinD-SUB FEMALE

1 RX-
2 RX+
3 TX-

Hitachi EH-150 port1
8PinRJ45 port

5 TX-
4 TX+
6 RX-

4	TX+	7	RX+
5	GND	1	SG

H series CPU RS232 port

MT8000 PLC[232]

9P D-SUB Male

COM1	
3	TX
2	RX
5	GND
8	CTS

HITACHI H series CPU RS232

15p D-SUB Male

3	RXD
2	TXD
9	SG
4	RTS
10	SG
5	CTS
7	DSR
8	PHL
14	PV12

MICRO-EH port1 RS232

MT8000 RS-232

9P D-SUB

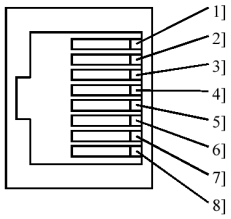
COM1		COM2		COM3	
3	TX	4	TX	7	TX
2	RX	6	RX	8	RX
5	GND	5	GND	5	GND
8	CTS				

HITACHI

MICRO-EH port1

8pin RJ45 Male

6	RD
5	SD
1	SG
8	RS
4	PHL
7	DR



Port 1

8pin RJ45

Driver Version:

Version	Date	Description of Changes
V1.10	Oct/22/2009	Fixed HMI occupies the control right of CPU module
V1.0	Dec/30/2009	

HUST H4X

HUST CNC Controller H4 Series
http://www.hust.com.tw/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	HUST H4X		
Com port	RS-232		CPU port
PLC Station No.	Null		
Baud rate	38400		9600,19200,38400,57600
Data bit	7		
Parity bit	Even		
Stop bit	2		
Turn delay	5		

Device address:

Bit/Word	Device Type	Format	Range	Memo
DW	VM	ddddd	1 ~ 99999	Please refer to specification of Controller for registers range.
DW	R	ddd	0 ~ 255	Mapping to VM 10000~10255 (read only)
DW	Cn	ddd	0 ~ 255	Mapping to VM 10256~10511 (read only)
DW	Tm	ddd	0 ~ 255	Mapping to VM 10512~10767 (read only)
B	I	ddd	0 ~ 255	Mapping to VM 10800 ~ 10807 (read only)
B	O	ddd	0 ~ 255	Mapping to VM 10808 ~ 10815 (read only)
B	C	ddd	0 ~ 255	Mapping to VM 10816 ~ 10823 (read only)
B	S	ddd	0 ~ 255	Mapping to VM 10824 ~ 10831 (read only)

B	A	ddd	0 ~ 255	Mapping to VM 10832 ~ 10863 (read only)
B	VM_bit	ddddd(dd)	1 ~ 99999(31)	Bit address (dd): 00~31。

Wiring diagram:

MT8000 RS-232 / 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

HUST CNC Controller

RS232 Port

RXD
TXD
GND

Driver Version:

Version	Date	Description of Changes
V1.00	Sep/22/2009	

IAI X-SEL CONTROLLER

http://www.iai-robot.co.jp/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	IAI X-SEL Series		
Com port	RS485 4W		
Baud rate	9600	9600~19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	
Mode Setting Switch	
Parity Check	
Sum Check	

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Servo_On_Off	d	1~8	Address 1~8 represent the corresponding axis. Write 1 means ON and 0 means OFF.
W	Servo_Origin	d	1~8	Address 1~8 represent the corresponding axis. Back to origin.
W	RunProgram	d	0	Data written indicates which program to run.
W	EndProgram	d	0	Data written indicates which program to stop.
W	SoftWareReset	d	0	Reset soft ware.

W	CurrentAxisPos	d	1~8	For reading current position. The state of current axis is put in RW axis*100. i.e., for the state of axis 2, 2*100=200, so it is in RW200.
W	PointMove	d	1~8	Address 1~8 represent the corresponding axis. The data written indicates which point to reach. Put parameters ACC, DEC, SPEED in axis*100+1, axis*100+2 and axis*100+3 respectively.
W	JoggingMove	d	1~8	Jogging. Address 1~8 represent the corresponding axis. Put parameters ACC, DEC, SPEED and Position in axis*100+11, axis*100+12, axis*100+13 and axis*100+14 respectively.
W	AbsoluteMove	d	1~8	Jog to the set absolute coordinate. Address 1~8 represent the corresponding axis. Put parameters ACC, DEC, SPEED and Position in axis*100+21, axis*100+22, axis*100+23 and axis*100+24 respectively.
W	PointChange	d	1~8	To change the value of the point. Address 1~8 represent the corresponding axis. Put parameters ACC, DEC, SPEED and Position in axis*100+31, axis*100+32, axis*100+33 and axis*100+34 respectively.

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Every model of CPU is different; we suggest user to refer to PLC manual's Device List.

Wiring diagram:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3		Host RS232
3 TX	4 TX	7 TX	——	RX
2 RX	6 RX	8 RX	——	TX
5 GND	5 GND	5 GND	——	GND

IDEC Micro

IDEC Micro3, Micro3C, MicroSmart, OpenNet Controller series
http://www.idec.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	IDEC Micro		Support Extend address mode
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	1	1	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	255 (for 1:1 connect)	0-255	255 or same as the PLC setting

Online Simulator	YES	
Extend address mode	YES	Don't set the PLC Station No.= 255

PLC Setting:

Communication mode	**9600,E,7,1(default), Use Computer Link Protocol**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd(o)	ddd=0~2047, (o)=0~7	Input(I)
B	Y	ddd(o)	ddd=0~2047, (o)=0~7	Output(Q)
B	M	ddd(o)	ddd=0~2047, (o)=0~7	Internal Relay(M)
W	RT	ddd	ddd=0~9999	Timer(T)
W	RC	ddd	ddd=0~9999	Counter(C)
W	D	ddd	ddd=0~9999	Data Register(D)

Wiring diagram:

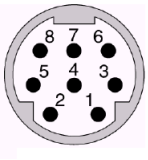
RS232: Micro3C, MicroSmart, OpenNet Controller CPU Ladder Port

MT8000 RS232

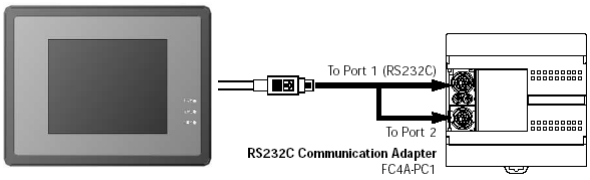
CPU port 1 or port2 RS-232

8P mini DIN Male

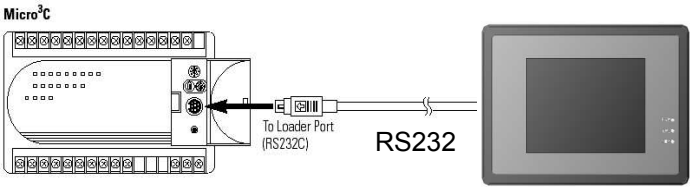
COM1	COM2	COM3		
3 TX	4 TX	7 TX		4 RXD
2 RX	6 RX	8 RX		3 TXD
5 GND	5 GND	5 GND		7 GND



8Pin mini DIN Female Pin



MT8000 MicroSmart



MT8000

RS485: Micro3 CPU Port, MicroSmart with FC4A-PC2 RS485 Communication Adapter

MT8000 RS-485

CPU Port RS-485

8P mini DIN Male

COM1	COM3		
1 RX-	6 Data-	2	RXD-
2 RX+	9 Data+	1	RXD+
5 GND	5 GND	7	GND

8Pin mini DIN Female Pin

RS485: Micro3C, OpenNet Controller Data Link Terminals,
MicroSmart with FC4A-PC3 RS485 Communication Adapter

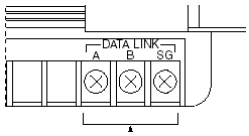
MT8000 RS-485

9P D-SUB Female

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Data Link Terminals

A	RXD-
B	RXD+
SG	GND



Driver Version:

Version	Date	Description of Changes
V1.20	Jun/19/2009	

INOVANCE H2U/H1U

http://www.inovance.cn/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	INOVANCE H2U/H1U		
Com port	RS485 4W		
Baud rate	9600	9600~19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	
Mode Setting Switch	
Parity Check	
Sum Check	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~377	Input Bits
B	Y	ooo	0~377	Output Bits
B	M	dddd	0~7999	Auxiliary Relay
B	SM	dddd	8000~9999	Special Auxiliary Relay
B	T	ddd	0~255	Timer Relay
B	C	ddd	0~255	Counter Relay
W	TV	ddd	0~255	Timer Memory
W	CV	ddd	0~199	Counter Memory
DW	CV2	ddd	200~255	Counter Memory (32bit)
W	D	dddd	0~7999	Data Registers
W	SD	dddd	8000~9999	Special Data Register

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Every model of CPU is different, we suggest user to refer to PLC manual's Device List.

Wiring diagram:

RS-485 4W:

MT800 Com1 RS-485] H2U/H1U

RS-422 8P Din

9P D-SUB

1	RX-	4	TX-
2	RX+	7	TX+
3	TX-	1	RX-
4	TX+	2	RX+
5	GND	3	GND

Intelligent Servo

Intelligent Servo supports IDM640, IDM240.
http://www.techsoftmotion.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Intelligent Servo		
Com port	RS232		
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Register_32bit	hhh	0~9999	32bit signed
DW	Register_H	hhh	0~9999	32bit Hex
W	UDP	hhh	hhh:0	Send UDP command
W	STOP	hhh	hhh:0	Send STOP command

Wiring diagram:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Servo(RS232)

3	RD
2	TD
5	GND

Driver Version:

Version	Date	Description of Changes
V1.00	Nov/06/2009	

Justfi controller

Justfi weighing instruments, Industrial Batching Controller supports XK31CB4, XK31CB6.
http://www.justfi.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Justfi controller		
Com port	RS232		
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Func	dd	dd:0~99	Read/Write
DW	Func_DW	dd	dd:0~99	Read/Write
W	RW	hhh	hhh:0	Weight (Read only)
W	RF	hhh	hhh:0	Read result (Read only)
W	RT	hhh	hhh:0	Read total (Read only)
W	RG	hhh	hhh:0	Read prescription group
W	RC	hhh	hhh:0	Circle
W	RB	hhh	hhh:0	Read Status (Read only)
W	MZ	hhh	hhh:0	Zero (Write only)
W	MT	hhh	hhh:0	Tare (Write only)
W	CT	hhh	hhh:0	Clear tare (Write only)
W	DT	hhh	hhh:0	Clear total (Write only)
W	BB	hhh	hhh:0	Start (Write only)
W	HB	hhh	hhh:0	Stop (Write only)
W	BD	hhh	hhh:0	Discharge (Write only)
W	WP1t …. …. RP6F	hhh	hhh:0	Read/Write Recipe

Wiring diagram:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

CB4(RS232)

	RD
	TD
	GND

Driver Version:

Version	Date	Description of Changes
V1.00	Nov/04/2009	

Kernel sistemi

Kernel systemi DMX 30
http://www.kernel.modena.it/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Kernel sistemi		
Com port	RS232	RS485	
Baud rate	19200	9600	
Parity bit	N		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		Must match the PLC's port setting

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	D	hhhh	0~ffff	

Wiring diagram:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Port2 RS232
9P D-SUB Female

2	RX
3	TX
5	GND

Driver Version:

Version	Date	Description of Changes
V1.0.0	Feb/04/2010	

KEYENCE KV-10/16/24/40/80/Visual KV Series

KEYENCE KV series, KV16~80

http://www.keyence.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-16		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		Must match the PLC's port setting.

PLC Setting:

Communication mode	**None**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RLY	dddbb0	0-179150	bb:0~15
B	DM_Bit	ddd(h)	0-65535f	
W	DM	ddd	0-65535	
W	TM	ddd	0-31	
W	T	ddd	0-9999	
W	Timer_Curr	ddd	0-9999	Timer_Current
W	Timer_Preset	ddd	0-9999	
W	C	ddd	0-9999	
W	Counter_Curr	ddd	0-9999	Counter_Current
W	Counter_Preset	ddd	0-9999	

Precaution:

If you use the Relay(bit) register, Please place zero behind address.

For example, If you want to read Relay(bit)100, you just set the address as "1000".

Wiring diagram:

RS232: CPU port

MT8000 RS-232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KEYENCE PLC

OP-26486

2	RXD
3	TXD
5	GND

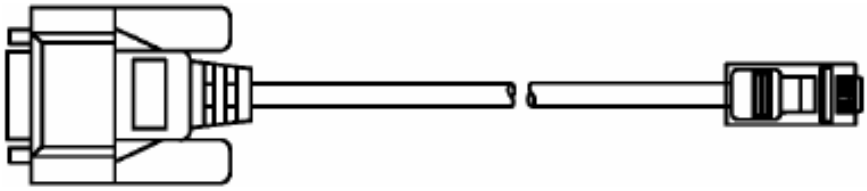
MT8000 RS-232 9P D-SUB

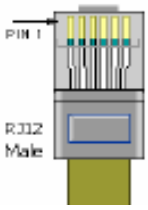
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KEYENCE PLC

RJ11

4	RXD
2	TXD
3	GND





Driver Version:

Version	Date	Description of Changes
V1.30	Apr/17/2009	

KEYENCE KV-5000 (Ethernet)

http://www.keyence.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-5000 (Ethernet)		
Com port	Ethernet		
PLC IP	192.168.0.10		Must match the PLC's port setting.
TCP port	8501		Must match the PLC's port setting.
PLC Station No.	0		Must match the PLC's port setting.

PLC Setting:

Communication mode	**None**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RLY	ddd(h)0	0-19999	
B	MR	ddd(h)	0-19999	
B	LR	ddd(h)	0-19999	
B	CR	ddd(h)	0-19999	
W	DM	ddd	0-1999	
W	TM	ddd	0-99	
W	CM	ddd	0- 65535	
W	EM	ddd	0- 65535	
W	T	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer Current
W	Timer_Preset	ddd	0-999	Timer Preset
W	C	ddd	0-999	
W	Counter_Current	ddd	0-999	
W	Counter_Preset	ddd	0-999	

Precaution:

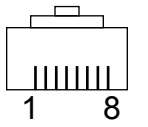
If you use the RLY(bit) register, Please place zero behind address.

For example, If you want to read RLY 100, you just set the address as "1000".

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	KV-5000 Ethernet RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/25/2009	

KEYENCE KV-700/1000/3000/5000 Series

http://www.keyence.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-1000		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		Must match the PLC's port setting.

PLC Setting:

Communication mode	None

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RLY	ddd(h)0	0~19999	
B	MR	ddd(h)	0~19999	
B	LR	ddd(h)	0~19999	
B	CR	ddd(h)	0~19999	
B	DM_Bit	ddd(h)	0~19999	
W	DM	ddd	0-1999	
W	TM	ddd	0-99	
W	CM	ddd	0~65535	
W	EM	ddd	0~65535	
W	T	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer_Current
W	Timer_Preset	ddd	0-999	
W	C	ddd	0-999	

W	Counter_Curr	ddd	0-999	Counter_Current
W	Counter_Preset	ddd	0-999	

Precaution:

If you use the Relay(bit) register, Please place zero behind address.For example, If you want to read Relay(bit)100, you just set the address as “1000”.

Wiring diagram:

RS232: CPU port

MT8000 RS-232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KEYENCE PLC

OP-26486

2 RXD
3 TXD
5 GND

Driver Version:

Version	Date	Description of Changes
V2.20	Jul/28/2009	

Korenix 6550

http://www.korenix.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Korenix 6550/ 6520		Modbus protocol
COM port	Ethernet		
PLC station No.		0	
Port No.	502		

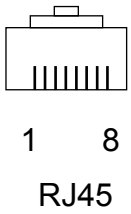
Device address:

Bit/Word	Device type	Format	Range	Memo
W	3X	ddddd	1~65535	
W	4X	ddddd	1~65535	
W	5X	ddddd	1~65535	
W	6X	ddddd	1~65535	
B	0X	ddddd	1~65535	
B	1X	ddddd	1~65535	
B	3x_Bit	ddddd	1~65535	
B	4x_Bit	ddddd	1~65535	
B	6x_Bit	ddddd	1~65535	

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45			Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45			Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.61	Apr/17/2009	

Koyo CLICK

KOYO CLICK PLC series
http://www.automationdirect.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	CLICK		
Com port	RS232		
Baud rate	38400	Communications Port1 (fixed)	Reference PLC Specification
Parity bit	Odd	Communications Port1 (fixed)	Reference PLC Specification
Data Bits	8	Communications Port1 (fixed)	Reference PLC Specification
Stop Bits	1	Communications Port1 (fixed)	Reference PLC Specification
PLC Station No.	1	Communications Port1 (fixed)	Reference PLC Specification

Device address:

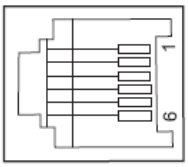
Bit/Word	Device Type	Format	Range	Memo
B	X	d(dd)	001 ~ 816	Input Status (Read Only)
B	Y	d(dd)	001 ~ 816	Output Status
B	C	dddd	1 ~ 2000	Control Bit
B	T	ddd	1 ~ 500	Timer Status (Read Only)
B	CT	ddd	1 ~ 250	Counter Status (Read Only)
B	SC	dddd	1 ~ 1000	System Control Bit (Read Only)
W	DS	dddd	1 ~ 4500	Data Registers
W	DD	dddd	1 ~ 1000	Data Registers (Double word)
W	DH	dddd	1 ~ 500	Data Registers
W	DF	dddd	1 ~ 500	Data Registers (Double word)
W	XD	d	0 ~ 8	Input Status Registers (Read Only)
W	YD	d	0 ~ 8	Output Status Registers
W	TD	ddd	1 ~ 500	Timer Current Values (Read Only)
W	CTD	ddd	1 ~ 250	Counter Current Values (Double word/Read Only)
W	SD	dddd	1 ~ 1000	System Data Registers (Read Only)
W	TXT	dddd	1 ~ 1000	Text Data Registers

ddd: Decimal / hhh:Hexadecimal / ooo:Octal

Wiring diagram:

KOYO CLICK PLC Com Port:

6 pin RJ12 Phone Type Jack – both ports



Port 1 Pin Descriptions		
1	0V	Power (-) connection (GND)
2	5V	Power (+) connection
3	RXD	Receive data (RS-232)
4	TXD	Transmit data (RS-232)
5	NC	No connection
6	0V	Power (-) connection (GND)

Port 2 Pin Descriptions		
1	0V	Power (-) connection (GND)
2	5V	Power (+) connection
3	RXD	Receive data (RS-232)
4	TXD	Transmit data (RS-232)
5	RTS	Request to send
6	0V	Power (-) connection (GND)

RS-232: KOYO CLICK PLC

EasyView MT8000 9P D-SUB

KOYO CLICK PLC RS-232 6 Pin RJ12 Jack

COM1[RS232]	COM2[RS232]	COM3[RS232]		
3 TX	4 TX	7 TX	———	3 RXD
2 RX	6 RX	8 RX	———	4 TXD
5 GND	5 GND	5 GND	———	1 GND

Driver Version:

Version	Date	Description of Changes
V1.20	Oct/20/2009	Fixed the bit addresses X, Y and word addresses XD, YD are not able to read/write correctly.
V1.10	Apr/17/2009	

KOYO DIRECT

KOYO DirectLogic series PLC DL05, DL06，DL105, DL205, DL305 and DL405 series

http://www.automationdirect.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KOYO DIRECT		
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200, 38400	
Parity bit	Odd	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	1-90	

PLC Setting:

	1. The PLC must not have a password. 2. PLC must be set for Full Duplex operation. 3. PLC must be set for No Hardware Handshaking. 4. The PLC must be set to use the 'K' Sequence Protocol. 5. Set the mode switch to the TERM mode 6. When using the D4-440 CPU, you must set the station number to 1.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	oooo	0 ~ 4000	Input Bits
B	Y	oooo	0 ~ 4000	Output Bits
B	C	ooooo	0 ~ 10000	Control Relays
B	T	oooo	0 ~ 1000	Timer Status Bits
B	CT	oooo	0 ~ 1000	Counter Status Bits
B	S	oooo	0 ~ 2000	
B	SP	oooo	0 ~ 2000	
B	GX	ooooo	0 ~ 10000	

B	GY	ooooo	0 ~ 10000	
W	Timer	oooo	0 ~ 1000	
W	Counter	oooo	0 ~ 1000	
W	V	oooo	0 ~ 77777	V Memory

Wiring diagram:

1. CPU unit: DL05/DL06/DL105/DL230/DL240/DL250/DL350/DL450 RS232 port

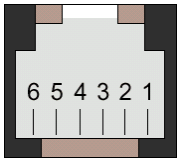
MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KOYO DirectLogic PLC
RS232 port
6P RJ12 phone jack

3	RX
4	TX
1	GND



RJ12 6Pin
Female

2. CPU unit: DL06/DL250 CPU Port2 RS232

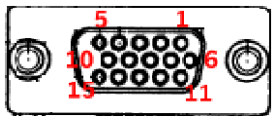
MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KOYO DirectLogic PLC
CPU RS232 Port2
15P D-SUB Female

3	RX
2	TX
7	GND
4	RTC
5	CTS



15P D-SUB Female

3. CPU unit: DL06/DL250 CPU Port2 RS422

MT8000

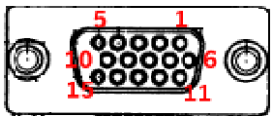
COM1 [RS-485] 4w

9P D-SUB

1	RX-
2	RX+
5	GND
3	TX-
4	TX+

KOYO DirectLogic PLC
CPU RS422 Port2
15P D-SUB Female

10	TX-
9	TX+
7	GND
6	RX-
13	RX+
11	RTS+
14	CTS+
12	RTS-
15	CTS-



Note: DL06/DL250 CPU Port2 include RS232 and RS422

4. CPU unit: DL430/DL440/DL450 CPU unit Port0 RS232

MT8000 RS232

9P D-SUB

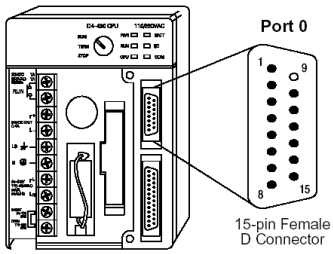
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KOYO DirectLogic PLC

DL405 CPU RS232 Port0

15P D-SUB Female

3	RX
2	TX
13	GND
1	YOP
7	CTS
2	YOM
4	ONLINE
14	GND



5. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS232

MT8000 RS232

9P D-SUB

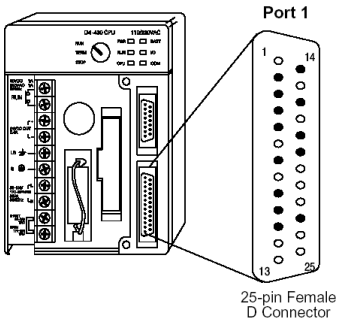
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

KOYO DirectLogic PLC

DL305/405 CPU RS232 Port

25P D-SUB Female

3	RX
2	TX
7	GND
4	RTC
5	CTS



6. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS422

MT8000

COM1[RS-485]4w

9P D-SUB

1	RX-
2	RX+
5	GND
3	TX-
4	TX+

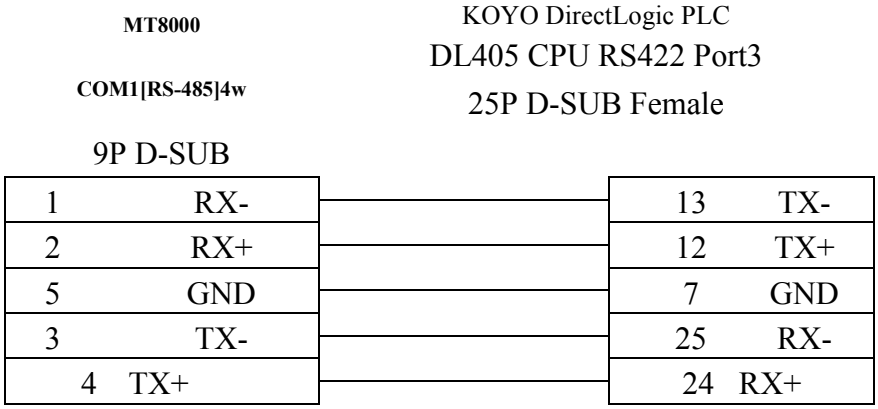
KOYO DirectLogic PLC

DL305/405 CPU RS422 Port

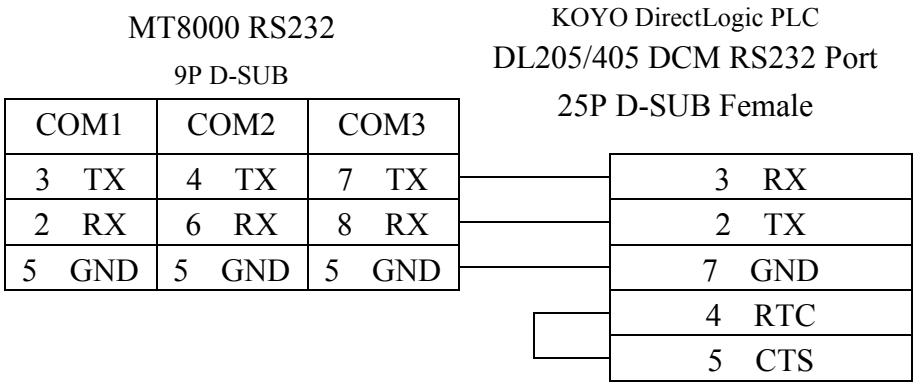
25P D-SUB Female

16	TX-
14	TX+
7	GND
10	RX-
9	RX+
19	RTS+
11	CTS+
18	RTS-
23	CTS-

7. CPU unit: DL450 CPU unit Port3 RS422



8. Communication unit: DL205 series D2-DCM and DL405 series D4-DCM RS232



Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

Koyo Ethernet

KOYO DirectLogic series, model H0-ECOM100, H2-ECOM100
http://www.automationdirect.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KOYO ETHERNET		
Com port	Ethernet, UDP/IP		
PLC Station No.	No need to set station no.	0	
TCP/IP port	28784		

Device address:

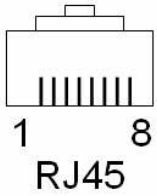
Bit/Word	Device Type	Format	Range	Memo
B	GX	oooo	0~3777	Global I/O
B	X	oooo	0~1777	Real Word Inputs
B	SP	oooo	0~1777	Special Purpose Relays
B	GY	oooo	0-3777	More Global I/O
B	Y	oooo	0-1777	Real Word Outputs
B	C	oooo	0-3777	Control Relays
B	S	ooo	0-1777	Stage Status Bits
B	T	ooo	0-377	Timer Status Bits
B	CT	ooo	0-377	Counter Status Bits
W	V	ooooo	0-41237	V-memory
W	CMM_32	hhh	001-200	GX, X, SP
W	CCM_33	hhh	001-340	GY,Y,C,S,Y,CT,V
W	CCM_31	hhhh	1-42A0	V

EB8000 device addresses range may different with PLC extended mode, please refer EB8000's addresses range as above.
ddd:Decimal, hhh:Hexadecimal, ooo:Octal

Wiring diagram:

Ethernet port

MT8000 Ethernet Wire color RJ45			Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45			Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.10	Jul/03/2009	

Lenze

PLC Model No. : 9300/8200 series

Pass-through 2102IB fieldbus module:RS485(LECOM B)

http://www.lenze.de

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Lenze		
Com port	RS485	RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7,8	
Stop Bits	1	1, 2	
HMI Station No.	0	0-255	
PLC Station No.	1	0-255	

PLC Setting:

Communication mode	**Same as the MT500 setting**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	CNB	ddd(dd)	0-999915	
W	CI	ddd	0-819200	
W	CD	ddd	0-819200	
W	CF	ddd	0-819200	
W	CNI	ddd	0-9999	integer
W	CND	ddd	0-9999	DWord
W	CNF	ddd	0-9999	DWord(float point)

Wiring diagram:

EasyView MT8000 HMI

RS485 9 Pin D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+

Lenze 2102IB LECOM-B

RS485 Plug-in terminal 4-pole

72	T/R(A)
71	T/R(B)

Driver Version:

Version	Date	Description of Changes
V1.10	Apr/17/2009	

LIYAN EX series

LIYAN PLC Ex/Ex1s/Ex1n/Ex2n series
http://www.liyanplc.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX0n/FX2		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600	9600~115200	Must match the PLC's port setting.
Parity bit	Even	Even, Odd, None	Must match the PLC's port setting.
Data Bits	7	7,8	Must match the PLC's port setting.
Stop Bits	1	1,2	Must match the PLC's port setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	0	0-255	Must match the PLC's port setting.

PLC Setting:

Communication mode	**9600,7,1,Even**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input relay
B	Y	ooo	0-377	Output relay
B	M	ddd	0-9999	Internal bit memory
B	T	ddd	0-255	Timer bit memory
B	C	ddd	0-255	Counter bit memory
W	TV	ddd	0-255	Timer register
W	CV	ddd	0~199	Counter Register
W	D	ddd	0-9999	data Register
W	CV2	ddd	200-255	Counter Register(Double word)
W	SD	ddd	8000-9999	Special data register

Wiring diagram:

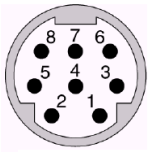
Ex,Ex1s,Ex1n,Ex2n series RS232

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

LIYAN Ex series
CPU RS232 Port
8P miniDin Female

4	RXD
7	TXD
8	GND



8Pin miniDin
Female

Driver Version:

Version	Date	Description of Changes
V1.10	Aug/12/2009	

LS GLOFA Cnet

LS GLOFA GM6/GM7 CPU port. G7L-CUEB / G6L-CUEB / G4L-CUEA / G3L-CUEA Cnet module.
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS GLOFA Cnet		
Com port	RS232	RS232/RS485 2W/4W	
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0	0~31	

PLC Setting:

Communication mode	9600,N,8,1(default), Cnet protocol
Communication module	Applicable mode: 1 Dedicated communication

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	IX	hhhh(dd)	0~270F15	Input
B	QX	hhhh(dd)	0~270F15	Output
B	MX	ddddd	0~32767	Internal relay
W	MW	ddddd	0~32767	Data register
DW	MD	ddddd	0~16383	Double word

d:(Decimal) h:(Hexadecimal)

Wiring diagram:

RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

LG GLOFA GM
CPU port
RS232 9P D-SUB

4	RXD
7	TXD
5	GND

RS-232: Communication Module(G7L-CUEB / G6L-CUEB / G4L-CUEA / G3L-CUEA Cnet RS232)

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

LG GLOFA GM

RS232 9P D-SUB

2	RXD
3	TXD
5	GND
1	CD
7	RTS
8	CTS
4	DTR
6	DSR

RS485 4wire: Communication Module(G7L-CUEC / G6L-CUEC / G4L-CUEA / G3L-CUEA Cnet RS422)

MT8000

COM1[RS-485]4w

9P D-SUB

1 RX-	SDA
2 RX+	SDB
3 TX-	RDA
4 TX+	RDB
5 GND	GND

RS422 port

Driver Version:

Version	Date	Description of Changes
V1.60	Apr/16/2009	

LS GLOFA GM3467 (LOADER)

LS GLOFA series GM3, GM4, GM6, GM7 CPU port
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS GLOFA GM3467(LOADER)		
Com port	RS-232		
PLC Station no.			
Baud rate	38400		
Data bit	8		
Parity bit	N		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	MX	ddddd	0~524272	
B	IX	dd.D.dd	00000~63763	00.0.0 ~63.7.63 (dd.D.dd)
B	QX	dd.D.dd	00000~63763	00.0.0 ~63.7.63 (dd.D.dd)
W	MW	dddd	0~32767	
W	MD	ddddd	0~16383	

Wiring diagram:

RS-232:

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

LS GLOFA series
RS-232
9P D-SUB Female

2	RD
3	TD
5	GND

Driver Version:

Version	Date	Description of Changes
V1.20	Feb/11/2010	Modify the addressing

LS MASTER-K Cnet

LS MASTER-K series: K80S, K200S, K300S, K1000S
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS MASTER-K Cnet		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	38400	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0	0-31	Must match the PLC's port setting.

Online Simulator	YES	
Extend address mode		

PLC Setting:

Communication mode	**38400, None, 8, 1**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~255F	I/O Relay (P)
B	K	ddd(h)	0~255F	Keep Relay (K)
B	M	ddd(h)	0~255F	Auxiliary Relay (M)
B	L	ddd(h)	0~255F	Link Relay (L)
B	F	ddd(h)	0~255F	Special Relay (F)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value
W	D	dddd	0~9999	Data Register (D)

d: Decimal h: Hexadecimal

Wiring diagram:

MT8000 RS232 9P D-SUB				CPU port Cnet I/F RS232
COM1	COM2	COM3		9P D-SUB Female
3 TX	4 TX	7 TX	———	4 RX
2 RX	6 RX	8 RX	———	7 TX
5 GND	5 GND	5 GND	———	5 GND

If connect with Cnet module please refer Cnet module's document.

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

LS MASTER-K10S1

LS MASTER-K10S1
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS MASTER-K10S1		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0		Must match the PLC's port setting.

PLC Setting:

Communication mode	**9600, None, 8, 1**
Select	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~255F	I/O Relay (P)
B	K	ddd(h)	0~255F	Keep Relay (K)
B	M	ddd(h)	0~255F	Auxiliary Relay (M)
B	L	ddd(h)	0~255F	Link Relay (L)
B	F	ddd(h)	0~255F	Special Relay (F)
B	T	ddd	0~255	Timer (T)
B	C	ddd	0~255	Counter (C)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value

W	D	dddd	0~9999	Data Register (D)

d: Decimal h: Hexadecimal

Wiring diagram:

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

CPU port RS232

9P D-SUB Female

2 RX
3 TX
5 GND

Driver Version:

Version	Date	Description of Changes
V1.00	Sep/08/2009	

LS MASTER-K300S CPU

LS MASTER-K series: K80S, K120S, K200S, K300S, K1000S
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LG MASTER-K300S		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	38400	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0	0-31	Must match the PLC's port setting.

Online Simulator	YES	
Extend address mode		

PLC Setting:

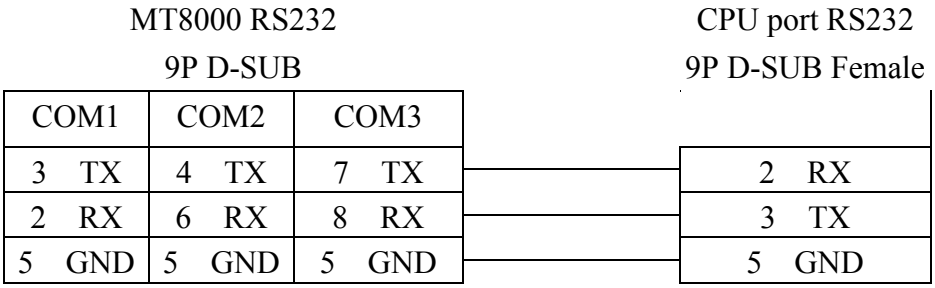
Communication mode	**38400, None, 8, 1**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~255F	I/O Relay (P)
B	K	ddd(h)	0~255F	Keep Relay (K)
B	M	ddd(h)	0~255F	Auxiliary Relay (M)
B	L	ddd(h)	0~255F	Link Relay (L)
B	F	ddd(h)	0~255F	Special Relay (F)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value
W	D	dddd	0~9999	Data Register (D)

d: Decimal h: Hexadecimal

Wiring diagram:



Driver Version:

Version	Date	Description of Changes
V1.10	Dec/30/2008	

LS XGB/XGT

LS XGB/XGT Series
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS XGB/XGT		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	115200	9600~115200	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7, 8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		
PLC Station No.	1	0-31	Must match the PLC's port setting.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~127F	I/O device_2,048 points
B	M	ddd(h)	0~255F	Internal device_4,096 points
B	L	dddd(h)	0~1279F	Communication device_20,480 points
B	K	dddd(h)	0~2559F	Preservation device_4,096 points
B	F	ddd(h)	0~255F	Special device_4,096 point
B	T	ddd	0~255	Timer device_256 point
B	C	ddd	0~255	Counter device_256 point
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
B	U_Bit	dh.dd(h)	dh:0~3f dd:0~31 (h):0~f	XGK-CPUE:hh(0~1f)
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	N	dddd	0~3935	Communication data register_3,936 words

W	Z	ddd	0~127	Index register_128 words
W	T	ddd	0~255	Timer current value register_256 words
W	C	ddd	0~255	Counter current value register_256 words

d:Decimal h:Hexadecimal

Wiring diagram:

RS-232:

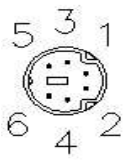
MT8000 RS232
9P D-SUB

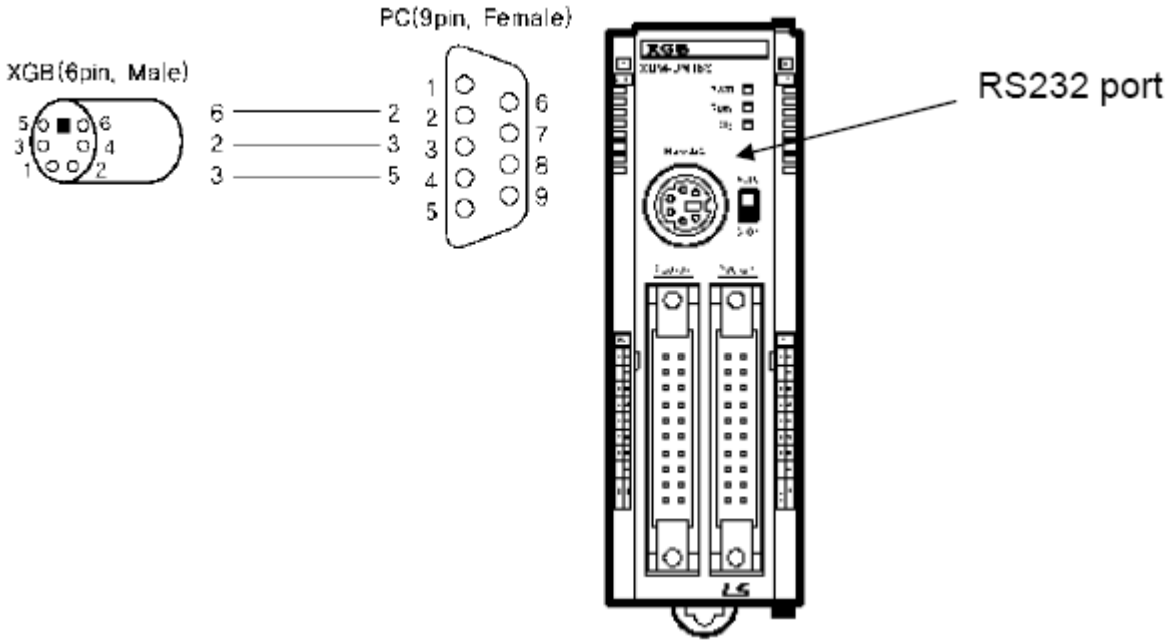
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

XGB main unit
RS232 6pin

2	RXD
6	TXD
3	GND

6pin female pinout





Driver Version:

Version	Date	Description of Changes
V1.30	Apr/17/2009	

LS XGB/XGT FEnet (Ethernet)

LS XGB/XGT with XBL-EMTA
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS XBB/XGT FEnet		
Com port	Ethernet		
PLC Station no.	0	0~255	
TCP/IP port	2004		

PLC Setting:

Communication mode	FEnet Potocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~127F	I/O device_2,048 points
B	M	ddd(h)	0~255F	Internal device_4,096 points
B	L	dddd(h)	0~1279F	Communication device_20,480 points
B	K	dddd(h)	0~2559F	Preservation device_4,096 points
B	F	ddd(h)	0~255F	Special device_4,096 point
B	T	ddd	0~255	Timer device_256 point
B	C	ddd	0~255	Counter device_256 point
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
B	U_Bit	dh.dd(h)	dh:0~3f dd:0~31 (h):0~f	
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	N	dddd	0~3935	Communication data register_3,936 words

W	Z	ddd	0~127	Index register_128 words
W	T	ddd	0~255	Timer current value register_256 words
W	C	ddd	0~255	Counter current value register_256 words

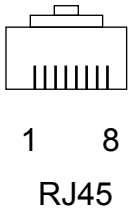
d:(Decimal) h:(Hexadecimal)

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45 — Wire color — Ethernet Hub or Switch RJ45

1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45 — Wire color — TCP Device RJ45

1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.20	Apr/17/2009	

LS XGL-CH2A Cnet

LS XGT series communication module XGL-CH2A
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS XGL-CH2A Cnet		
Com port	RS232	RS232/RS485 2W/4W	
Baud rate	19200	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	dddd(h)	0~2047F	I/O device
B	M	dddd(h)	0~2047F	Internal device
B	L	dddd(h)	0~2047F	Communication device
B	K	dddd(h)	0~2047F	Preservation device
B	F	dddd(h)	0~2047F	Special device(write available from 1025)
B	T	dddd	0~2047	Timer device
B	C	dddd	0~2047	Counter device
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~19999F	Data register_Bit expression (D0000.0)
B	U_Bit	dh.dd(h)	hh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	N	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	T	dddd	0~2047	Timer current value register
W	C	dddd	0~2047	Counter current value register

Bit/Word	Device Type	Format	Range	Memo
W	R	ddddd	0~32767	
W	ZR	ddddd	0~32767	
W	TS	dddd	0~2047	Setup value
W	CS	dddd	0~2047	Setup value

d:(Decimal) h:(Hexadecimal)

Wiring diagram:

RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

XGL-CH2A
CH1
RS232 9P D-SUB

2	RXD
3	TXD
5	GND

RS485 4wire:

MT8000

COM1[RS-485]4w

9P D-SUB

1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

XGL-CH2A

CH2

5P terminal.

Driver Version:

Version	Date	Description of Changes
V1.20	Nov/30/2009	

LS XGL-EFMT Fenet (Ethernet)

LS XGT series XGL-EFMT Ethernet module.
http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS XGL-EFMT FEnet (Ethernet)		
Com port	Ethernet		
Port no.	2004		
HMI Station No.	0		
PLC Station no.	0		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	dddd(h)	0~2047F	I/O device
B	M	dddd(h)	0~2047F	Internal device
B	L	dddd(h)	0~2047F	Communication device
B	K	dddd(h)	0~2047F	Preservation device
B	F	dddd(h)	0~2047F	Special device(write available from 1025)
B	T	dddd	0~2047	Timer device
B	C	dddd	0~2047	Counter device
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_BIT	dddd(h)	0~32767F	Data register_Bit expression (D0000.0)
B	U_BIT	dh.dd(h)	dh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	N	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	T	dddd	0~2047	Timer current value register

Bit/Word	Device Type	Format	Range	Memo
W	C	dddd	0~2047	Counter current value register
W	R	ddddd	0~32767	
W	ZR	ddddd	0~32767	

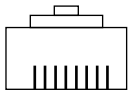
d:(Decimal) h:(Hexadecimal)

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45 — Ethernet Hub or Switch RJ45

1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45 — XGL-EFMT RJ45

1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-

6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.20	Nov/30/2009	

LS XGT/XGK CPU DIRECT

LS XGT/XGK CPU RS232 port

http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	LS XGT/XGK CPU DIRECT		
Com port	RS232	RS232/RS485	
Baud rate	19200	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	dddd(h)	0~2047F	I/O device
B	M	dddd(h)	0~2047F	Internal device
B	L	dddd(h)	0~2047F	Communication device
B	K	dddd(h)	0~2047F	Preservation device
B	F	dddd(h)	0~2047F	Special device(write available from 1025)
B	T	dddd	0~2047	Timer device
B	C	dddd	0~2047	Counter device
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~19999F	Data register_Bit expression (D0000.0)
B	U_Bit	hhdd(h)	hh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	N	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	T	dddd	0~2047	Timer current value register
W	C	dddd	0~2047	Counter current value register
W	R	ddddd	0~32767	

W	ZR	ddddd	0~32767	
W	TS	dddd	0~2047	Setup value
W	CS	dddd	0~2047	Setup value

d:(Decimal) h:(Hexadecimal)

Wiring diagram:

RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

XGT main unit
RS232 9P D-SUB

2	RXD
3	TXD
5	GND

Driver Version:

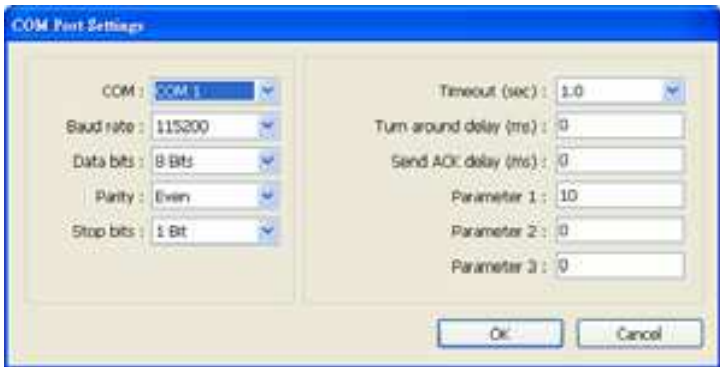
Version	Date	Description of Changes
V1.00	Nov/30/2009	

Master (Master-Slave Protocol)

To connect MT8000 with MT500, MT500 has to set as [Slave].

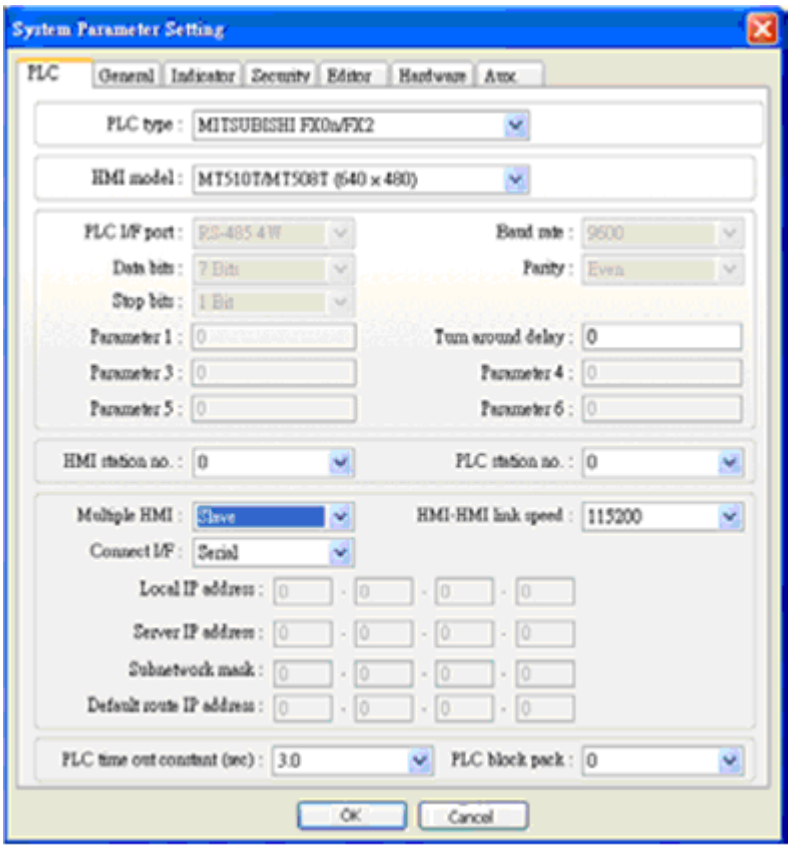
HMI Setting:

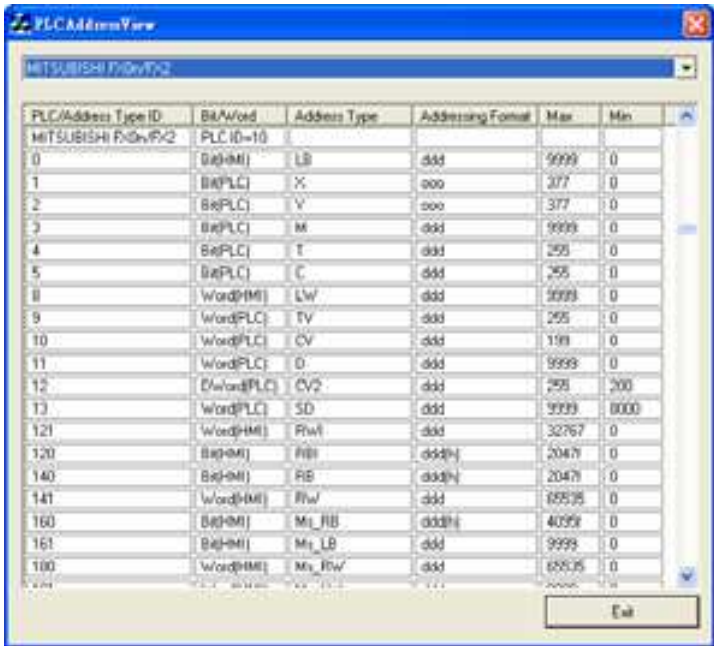
Parameters	Recommend	Option	Notes
PLC type	Master (Master-Slave Protocol)		
Com port	RS232		
Baud rate	115200	38400, 115200	
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No. Parameter 1	0 MT500 PLC ID	Use PLCAddressView.exe find PLC ID.	



PLC Setting:

Communication mode	MT500 Multiple HMI set Slave


System Parameter Setting
PLC
General
Indicator
Security
Editor
Hardware
Aux
PLC type :
MITSUBISHI FX0n/FX2
HMI model :
MT510T/MT508T (640 x 480)
PLC I/F port :
Baud rate :
Data bits :
Parity :
Stop bits :
Parameter 1 :
Turn around delay :
0
Parameter 3 :
Parameter 4 :
Parameter 5 :
Parameter 6 :
HMI station no. :
0
PLC station no. :
0
Multiple HMI :
Slave
HMI-HMI link speed :
115200
Connect I/F :
Serial
Local IP address :
Server IP address :
Subnetwork mask :
Default route IP address :
PLC time out constant (sec) :
3.0
PLC block pack :
0
OK
Cancel


PLC Address View
MITSUBISHI FX0n/FX2
PLC/Address Type ID
Bit/Word
Address Type
Addressing Format
Max
Min
MITSUBISHI FX0n/FX2
PLC ID=10
0
1
2
3
4
5
8
9
10
11
12
13
121
120
140
141
160
161
180
Exit

Device address:

Bit/Word	MT500	MT8000	Range	Memo
B	Ms_RB	RW_Bit	ddd:0~4095 (h): 0~f	
B	Ms_LB	LB	dddd:0~9999	
W	Ms_RW	RW	ddd:0~65535	
W	Ms_LW	LW	ddd:0~9999	

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

Memobus (Yaskawa MP Series Controllers)

YASKAWA MP2200, MP2300, MP2300S, MP9xx communication module

http://www.yaskawa.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Memobus		
Com port	RS485/Ethernet	RS232/RS485 2w/4w, Ethernet	Must match the PLC's port setting.
Baud rate	19200	9600~57600	Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		Dose not apply to this protocol.
PLC Station No.	1	1-31	Must match the PLC's port setting.
TCP Port No.	502	default	Ethernet Module only

PLC Setting:

Communication mode	MEMOBUS, Slave, RTU
Select	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	MB_1	ddddh	dddd:0~9999, h: 0~f	MB 0~9999
B	MB_2	ddddh	dddd:10000~65535, h: 0~f	MB 10000~65535
B	IB	hhhh	hhhh : 0~A7FF	Read only
W	IW	hhhh	hhhh : 0~A7FF(8FFF)*	Read only
DW	IL	hhhh	hhhh : 0~A7FE(8FFE)*	Read only
F	IF	hhhh	hhhh : 0~A7FE(8FFE)*	Read only
W	MW	ddddd	ddddd:0~65534	Holding Register
DW	ML	ddddd	ddddd:0~65533	Double word
F	MF	ddddd	ddddd:0~65533	Floating point

*: When connect via Ethernet interface the max range of IW, IL and IF would be restricted.

Wiring diagram:

1. RS-232: 217IF-01, 218IF-01

MT8000 RS232

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

217IF-01 RS232
9P D-SUB Female

3 RX
2 TX
7 GND

2. RS-485 2w: 217IF-01

MT8000 RS-485 2w

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

217IF-01 RS422/485
14P connector

2, 4 D-
1, 3 D+
14 GND

3. RS485 4w: 217IF-01

MT8000 RS-485 2w

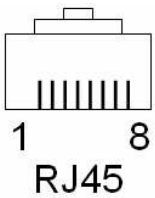
COM1	
1	RX-
2	RX+
3	TX-
4	TX+
5	GND

217IF-01 RS422/485
14P connector

2 TX-
1 TX+
4 RX-
3 RX+
14 GND

4. Ethernet:

MT8000 Ethernet RJ45	Wire color	Ethernet Hub or Switch RJ45
1 TX+	White/Orange	1 RX+
2 TX-	Orange	2 RX-
3 RX+	White/Green	3 TX+
4 BD4+	Blue	4 BD4+
5 BD4-	White/Blue	5 BD4-
6 RX-	Green	6 TX-
7 BD3+	White/Brown	7 BD3+
8 BD3-	Brown	8 BD3-

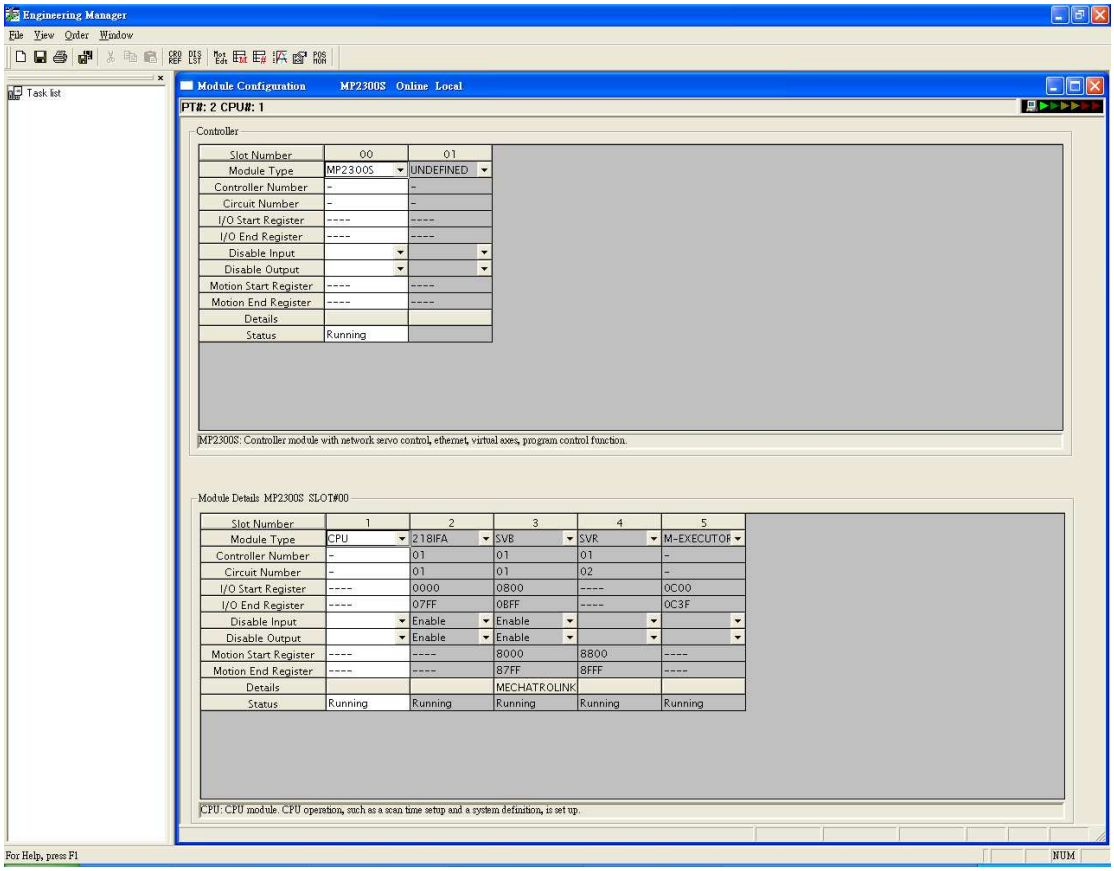


Ethernet: Direct connect (crossover cable)

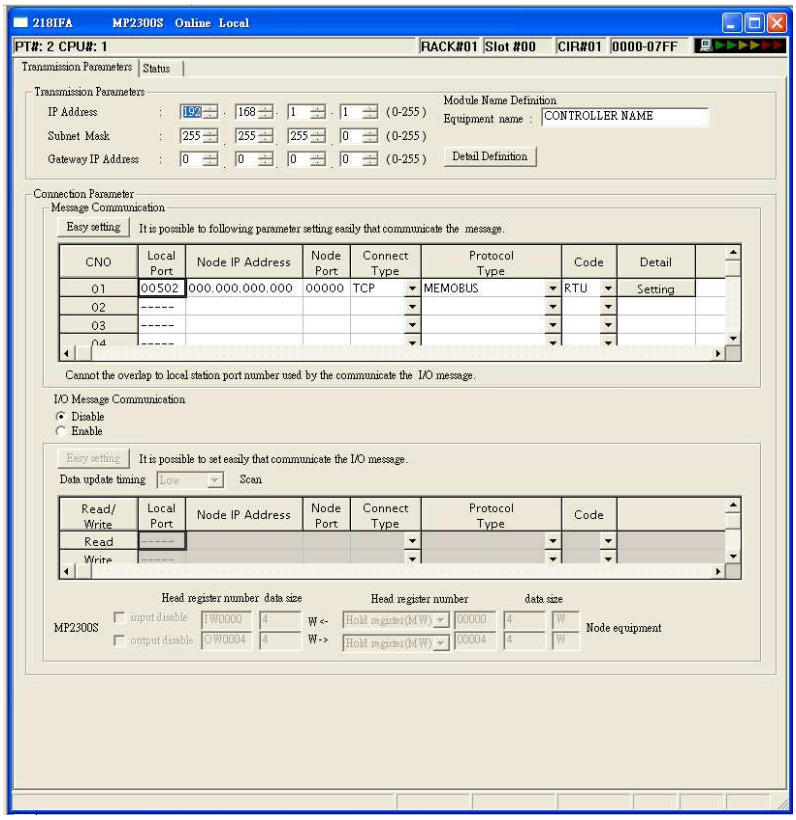
MT8000 Ethernet RJ45		Wire color		Ethernet Module RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

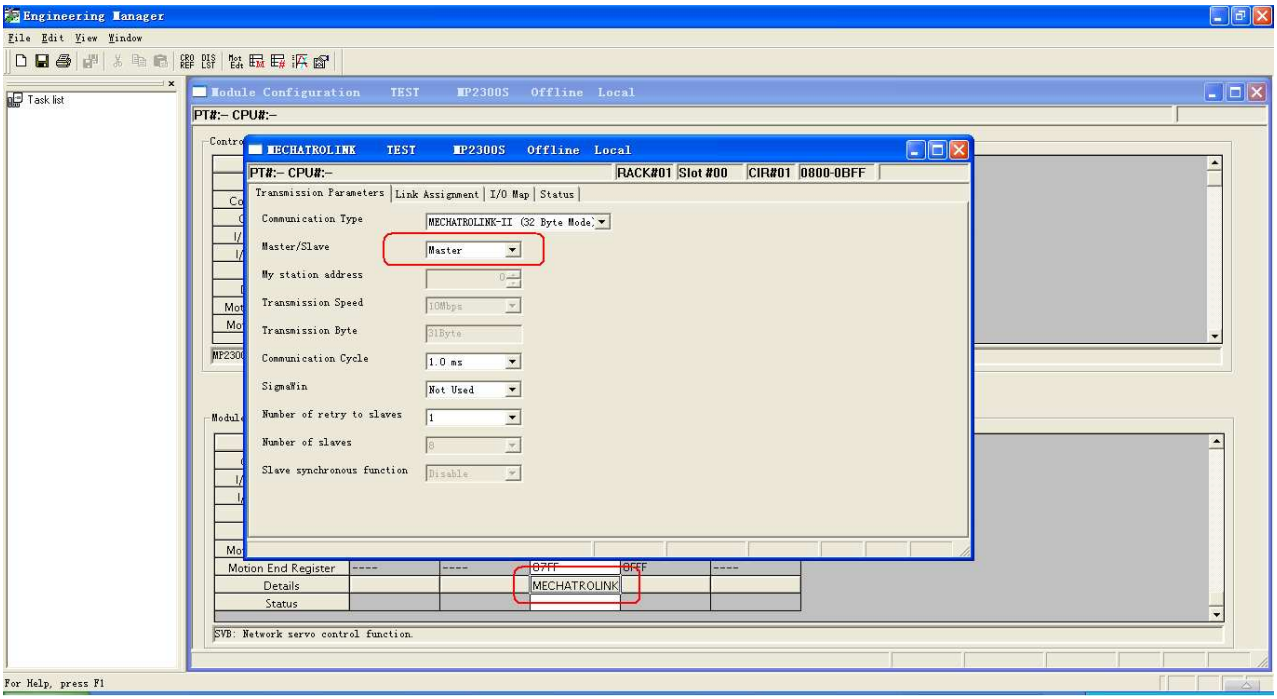
PLC Ethernet Setting:

1. User MPE720 program software, Open Module Configuration. Double click “218IFA”.



2. In Transmision Parameters input MP2300S IP address, subnet Mask, Gateway IP. In Connection Parameter, CNO -1 input: Local Port=502, Node IP address=000.000.000.000, Node Port=00000, Connect Type=TCP, Protocol Type=MEMOBUS, Code=RTU.





3. Close all dialogs and save to MP2300S.

Note:

1. Only CNO 01 able to auto communication with one HMI. other CNO need create ladder program to communication.

Driver Version:

Version	Date	Description of Changes
V1.40	Apr/21/2009	

Memory Map

Memory Map protocol is similar to IBM 3764R communication protocol. The MT8000 reserves 512 words of Data memory for use with this protocol. The MT8000 must update the values in these words. The MT8000 uses the words to display data and control parts status on its screen. When touch actions are taken, data is sent to the other once, and then update the memory in it. The MT8000 is always responsible for updating the Data memory.

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Memory Map		
Com port	RS232	RS232, RS485 4W, 2W	RS232 default
Baud rate	115200	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8		
Stop Bits	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	MB	ddd(h)	ddd:0~9999 (h): 0~F	
W	MW	ddd	ddd:0~9999	

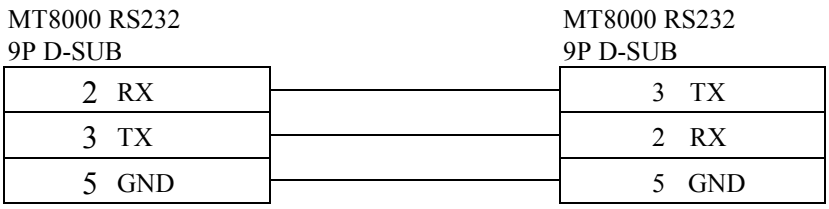
The MB and MW are using same area to store data.

MW 0 = MB 000000 ~ MB 0000F

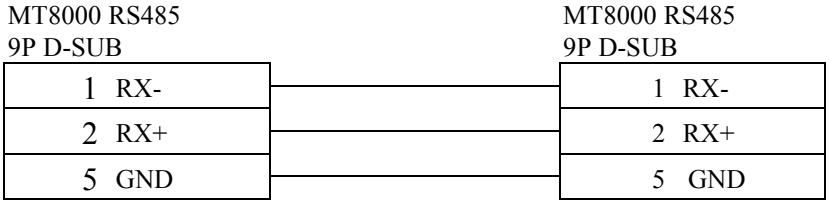
MW 1 = MB 000100 ~ MB 0001F

Wiring diagram:

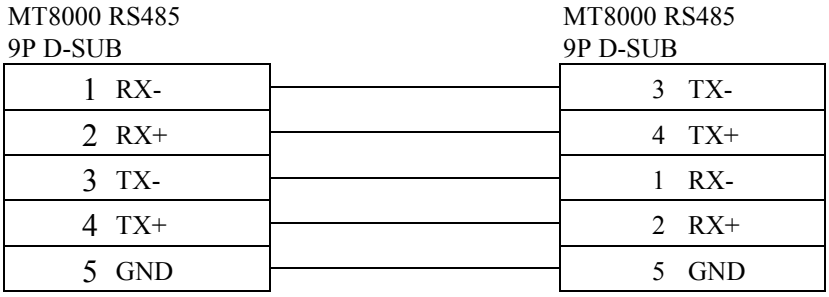
RS-232:



RS-485 2W:



RS-485 4W:



NOTE :

For Memory map information, please refer user manual [chapter 31 Memory Map communication].

Driver Version:

Version	Date	Description of Changes
V1.00	Mar/19/2009	

MITSUBISHI A1S

MITSUBISHI A1S
http://www.mitsubishi-automation.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A1S		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**9600, Odd, 8, 1**

Device address:

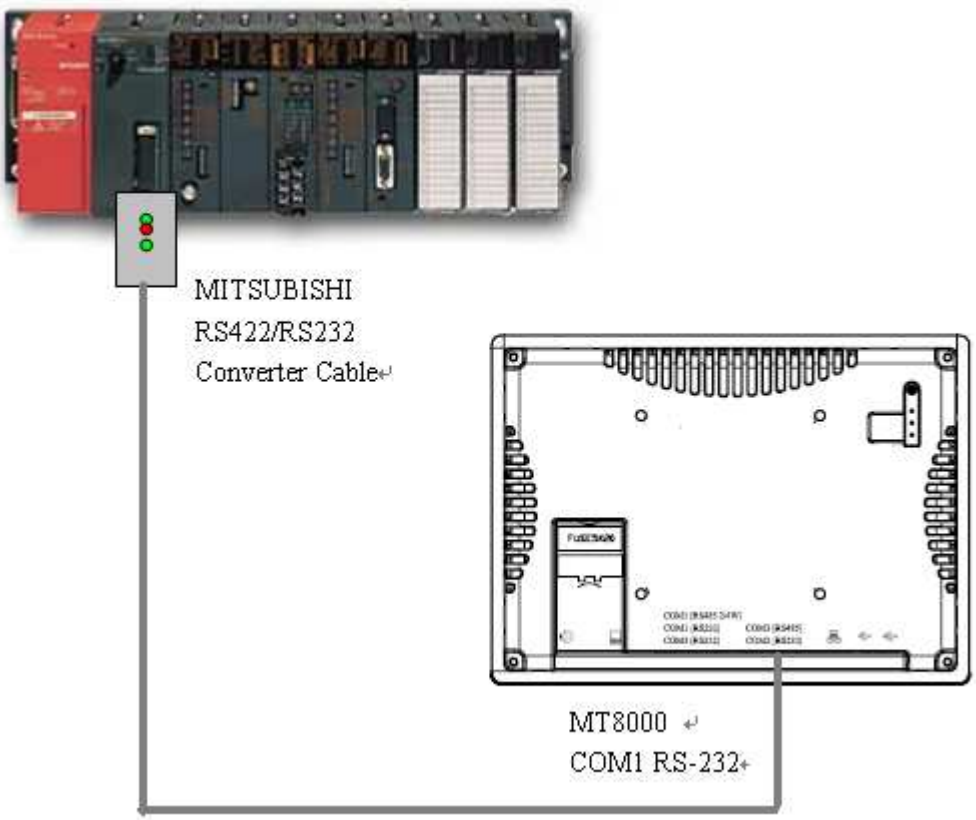
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0-ffff	Input Relay
B	Y	hhhh	0-ffff	Output Relay
B	M	ddddd	0-65535	Auxiliary Relay
B	B	hhhh	0-ffff	
B	F	ddddd	0-65535	
W	TV	ddddd	0-65535	Timer Memory
W	CV	ddddd	0-65535	Counter Memory
W	D	ddddd	0-65535	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal

Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

MITSUBISHI AnS CPU



Mitsubishi **RS-422** **DB25 Male**		PLC programming Cable		**MT8000** **COM1 RS232** 9P D-SUB Female	
2	RX+		RD	3	TD
3	TX+		TD	2	RD
4	DSR+		GND	5	GND
7	GND		RTS	8	CTS
15	RX-		CTS	7	RTS
16	TX-				
17	DSR-				

Driver Version:

Version	Date	Description of Changes
V1.00	Sep/18/2009	

MITSUBISHI A2A

MITSUBISHI A2A

http://www.mitsubishi-automation.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A2A		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**9600, Odd, 8, 1**

Device address:

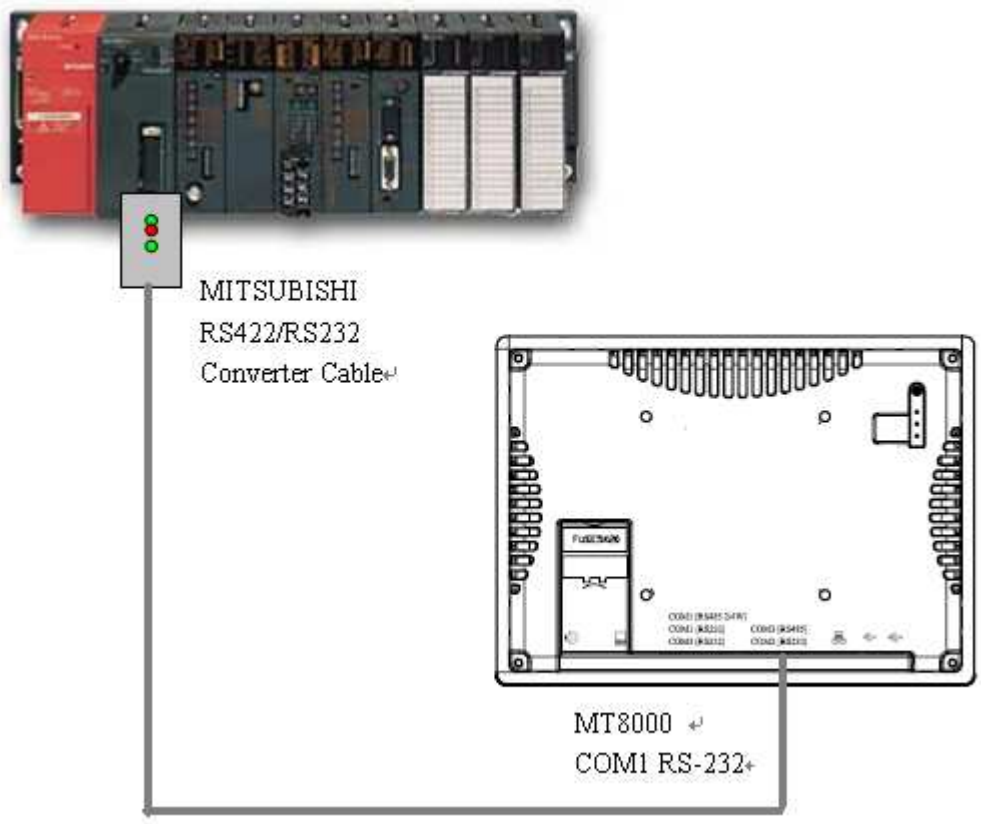
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0-270f	Input Relay
B	Y	hhhh	0-270f	Output Relay
B	M	dddd	0-9999	Auxiliary Relay
B	B	hhhh	0-ffff	
B	F	ddddd	0-65535	
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-255	Counter Memory
W	D	dddd	0-9999	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal

Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

MITSUBISHI AnS CPU



Mitsubishi **RS-422** **DB25 Male**		PLC programming Cable		**MT8000** **COM1 RS232** 9P D-SUB Female	
2	RX+		RD	3	TD
3	TX+		TD	2	RD
4	DSR+		GND	5	GND
7	GND		RTS	8	CTS
15	RX-		CTS	7	RTS
16	TX-				
17	DSR-				

Driver Version:

Version	Date	Description of Changes
V1.00	Aug/12/2009	

MITSUBISHI A2US

MITSUBISHI A2US
http://www.mitsubishi-automation.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A2US		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**9600, Odd, 8, 1**

Device address:

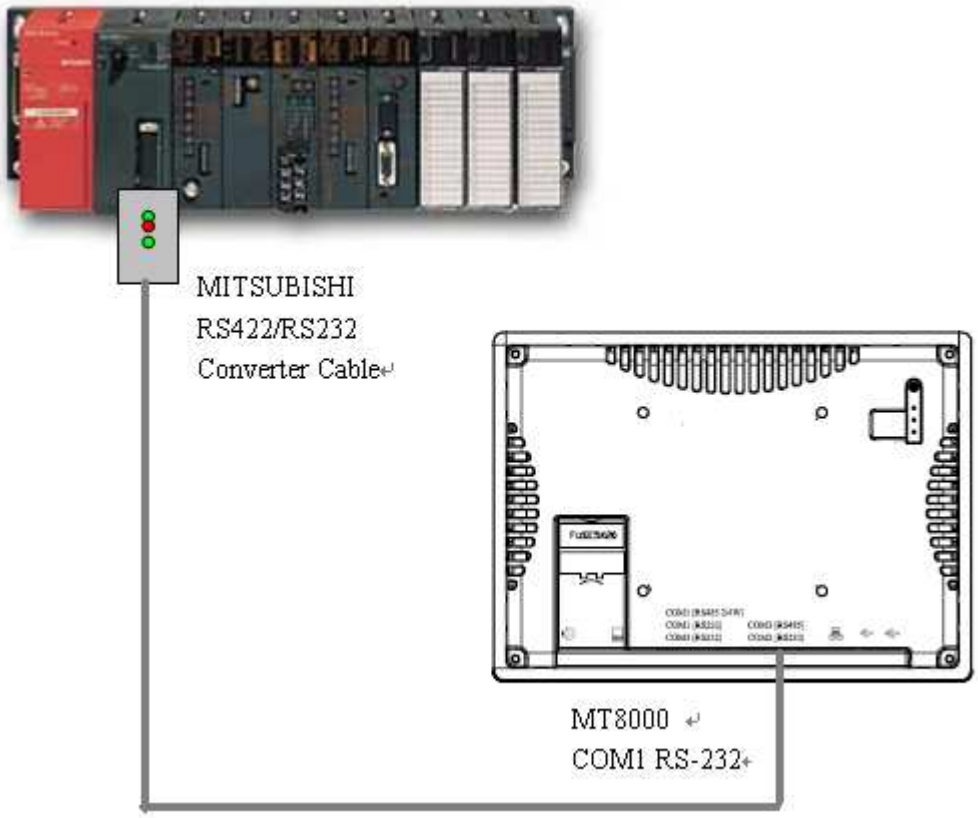
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0-270f	Input Relay
B	Y	hhhh	0-270f	Output Relay
B	M	dddd	0-9999	Auxiliary Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-255	Counter Memory
W	D	dddd	0~9999	Data Register

d: Decimal h: Hexadecimal

Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

MITSUBISHI AnS CPU



Mitsubishi **RS-422** **DB25 Male**		PLC programming Cable		**MT8000** **COM1 RS232** 9P D-SUB Female	
2	RX+		RD	3	TD
3	TX+		TD	2	RD
4	DSR+		GND	5	GND
7	GND		RTS	8	CTS
15	RX-		CTS	7	RTS
16	TX-				
17	DSR-				

Driver Version:

Version	Date	Description of Changes
V1.00	Mar/20/2009	

MITSUBISHI A3N/A1SH

MITSUBISHI A3N/A3A/A1SH/A2SH
http://www.mitsubishi-automation.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A3N/A1SH		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**9600, Odd, 8, 1**

Device address:

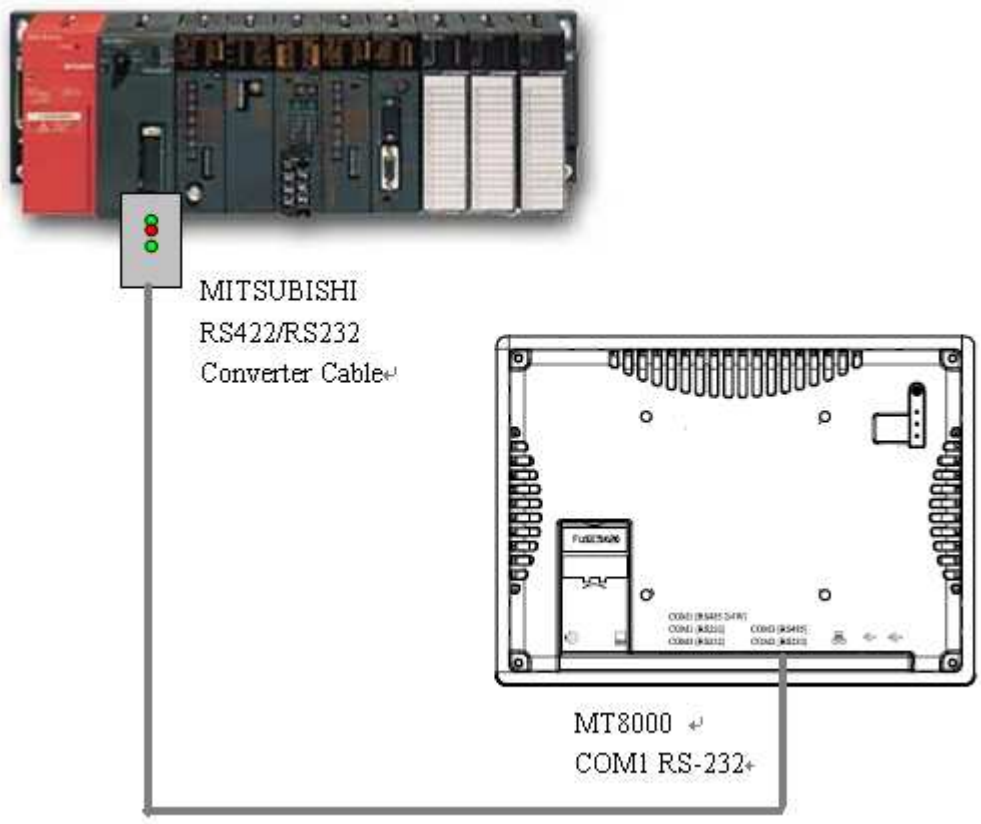
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0-ffff	Input Relay
B	Y	hhhh	0-ffff	Output Relay
B	M	ddddd	0-65535	Auxiliary Relay
B	B	hhhh	0-ffff	
B	F	ddddd	0-65535	
W	TV	ddddd	0-65535	Timer Memory
W	CV	ddddd	0-65535	Counter Memory
W	D	ddddd	0-65535	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal

Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

MITSUBISHI AnS CPU



Mitsubishi		PLC		**MT8000**	
RS-422		programming		**COM1 RS232**	
		Cable			
DB25 Male				9P D-SUB Female	
2	RX+		RD	3	TD
3	TX+		TD	2	RD
4	DSR+		GND	5	GND
7	GND		RTS	8	CTS
15	RX-		CTS	7	RTS
16	TX-				
17	DSR-				

Driver Version:

Version	Date	Description of Changes
V1.00	Oct/20/2009	

Note: This driver is not available for On-Line Simulation.

MITSUBISHI AJ71

Mitsubishi A series PLC with AJ71C24 communication module using the Computer Link protocol.
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI AJ71	MITSUBISHI AJ71(AnA/AnU CPU) MITSUBISHI AJ71	
Com port	RS485 4W	RS485 4W, RS232	
Baud rate	19200	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	Computer Link protocol 9600, Even, 8, 1 (default)
Mode Setting Switch	**Format 1**
Parity Check	**Enable**
Sum Check	**Enable**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	hhh: 0~270F (hex-decimal)	Input Bits
B	Y	hhh	hhh: 0~270F (hex-decimal)	Output Bits
B	M	dddd	dddd:0~9999	Internal Relays
W	TV	ddd	ddd:0~255	Timer Preset Value
W	CV	ddd	ddd:0~255	Counter Preset Value
W	D	dddd	ddd:0~9999	Data Registers

Wiring diagram:

RS-485 4W:

MT800 Com1 RS-485] AJ71C24

9P D-SUB RS-422

1	RX-	SDB
2	RX+	SDA
3	TX-	RDB
4	TX+	RDA
5	GND	GND

RS-232: A1SJ71UC24-R2

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

RS232 port
9P D-SUB Female

2 RXD
3 TXD
5 GND
1 DCD
4 DTR
6 DSR
7 RTS
8 CTS

Driver Version:

Version	Date	Description of Changes
V1.40	Feb/09/2009	

MITSUBISHI FX0n/FX2

Mitsubishi FX0s/FX0n/FX1s/FX2 PLC
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX0n/FX2	Mitsubishi FX0n/FX2	
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/115200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	7	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	must same as the PLC setting

PLC Setting:

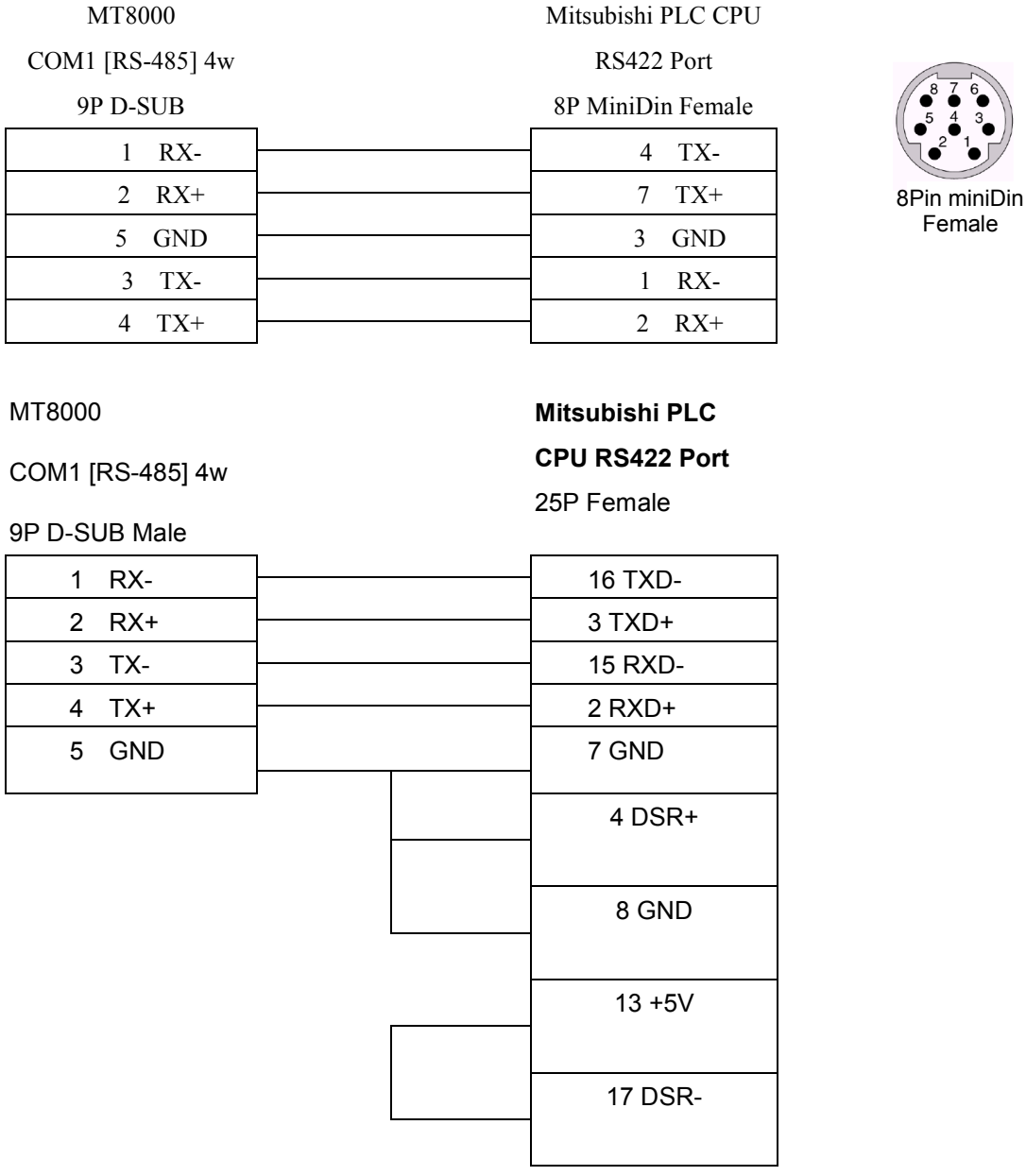
Communication mode	9600,Even,7,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	ddd	0-9999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
B	D_Bit	dddd(dd)	0-9999(0~15)	Data Register Bit (D)
B	S	dddd	0-4095	States
B	SM	dddd	8000-9999	Special Aux. Relays
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register

DW	CV2	ddd	200-255	Counter Memory(D Word)
W	SD	ddd	8000-9999	Special Data Register

Wiring diagram:



Driver Version:

Version	Date	Description of Changes
1.10	August 27.2009	Add address type [S], [SM], [D_bit]

MITSUBISHI FX232/485BD

Mitsubishi FX0n/FX2/FX2n COM For Communication Module BD
FX2N-485-BD, FX2N-232-BD, FX1N-485-BD and FX1N-232-BD
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX232/485BD		
Com port	RS232/RS485	RS232/RS485 2w/4w	in accordance with the BD module
Baud rate	19200	9600/19200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	7	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-15	must same as the PLC setting

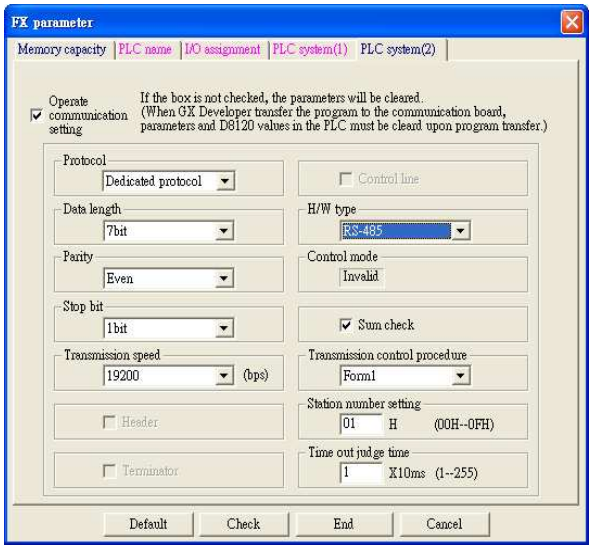
Note: we suggest the turn around delay to set 8. (For i series)

Online Simulator	YES	Extend address mode	YES
Broadcast command			

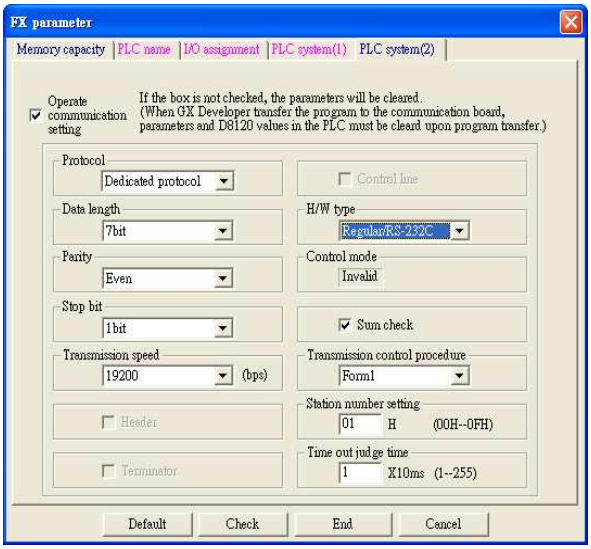
PLC Setting:

Communication mode	Must set PLC station when use the BD Module

Register D8120 setting: set b9 and b8 of BFM#0 as 0



FX2N-485-BD, FX1N-485-BD



FX2N-232-BD, FX1N-232-BD

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	ddd	0-9999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register
W	CV2	ddd	200-255	Counter Memory(D Word)

Wiring diagram:

Communication Module RS232BD:

MT8000 RS232

9P D-SUB

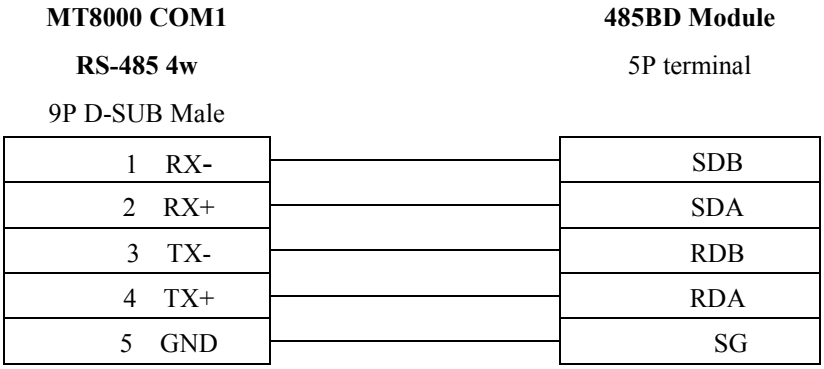
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

232BD Module

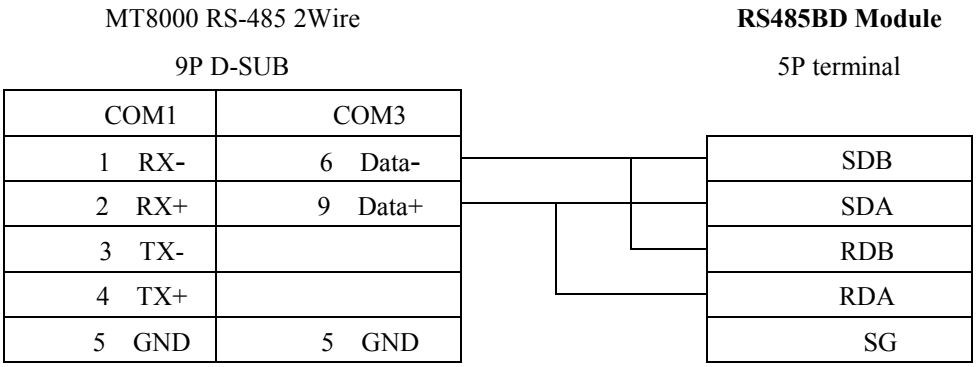
9P D-SUB Female

2 RXD
3 TXD
5 GND

Communication Module RS485BD:



Communication Module RS485BD:



Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

MITSUBISHI FX2n

Mitsubishi FX1n/FX2n series PLC
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX2n	Mitsubishi FX2n	
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/115200	
Parity bit	Even		
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

PLC Setting:

Communication mode	9600,Even,7,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	dddd	0-7999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
B	SM	dddd	8000-9999	Special Auxiliary Relay
B	D_Bit	dddd(dd)	0~7999(0~15)	Data Register Bit (D)
B	S	dddd	0~4095	State Relay (S)
W	TV	ddd	0-255	Timer Memory

Bit/Word	Device Type	Format	Range	Memo
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-7999	Data Register
DW	CV2	ddd	200-255	Counter Memory(D Word)
W	SD	ddd	8000-9999	Special Data Register

Wiring diagram:

MT8000 COM1 [RS-485]4w 9P D-SUB		Mitsubishi FX series PLC CPU RS422 Port 8P MiniDin Female
1 RX-		4 TX-
2 RX+		7 TX+
3 TX-		1 RX-
4 TX+		2 RX+
5 GND		3 GND

8Pin miniDin Female

Driver Version:

Version	Date	Description of Changes
V1.60	Sep/10/2009	

MITSUBISHI FX3u (Ethernet)

MITSUBISHI FX SERIES, Module: FX3U-ENET
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX3u (Ethernet)		
Com port	Ethernet		
PLC Station No.	0 (default)		Refer Module Setting
TCP/IP port	5001(default)		Refer Module Setting

Device address:

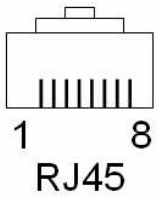
Bit/Word	Device type	Format	Range	Memo
B	X	ooo	0 ~ 377	Input
B	Y	ooo	0 ~ 377	Output Relay
B	M	dddd	0 ~ 7679	Internal Relay
B	S	dddd	0 ~ 4095	Step Relays
B	T	ddd	0 ~ 511	Timer Contacts
B	C	ddd	0 ~ 255	Counter Contacts
B	SM	dddd	8000 ~ 8511	Special Int. Relays
B	D_Bit	dddd(dd)	0-799915	Data Register Bit Access
W	TV	ddd	0 ~ 511	Timer Value
W	R	ddddd	0 ~ 32767	File Register
W	CV	ddd	0 ~ 199	Counter Value
W	D	dddd	0 ~ 7999	Data Registers
W	CV2	ddd	200 ~255	Counter Value
W	SD	dddd	8000 ~ 8511	Special Data Registers

ddd: (Decimal), hhh:(Hexadecimal), ooo:(Octal).

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



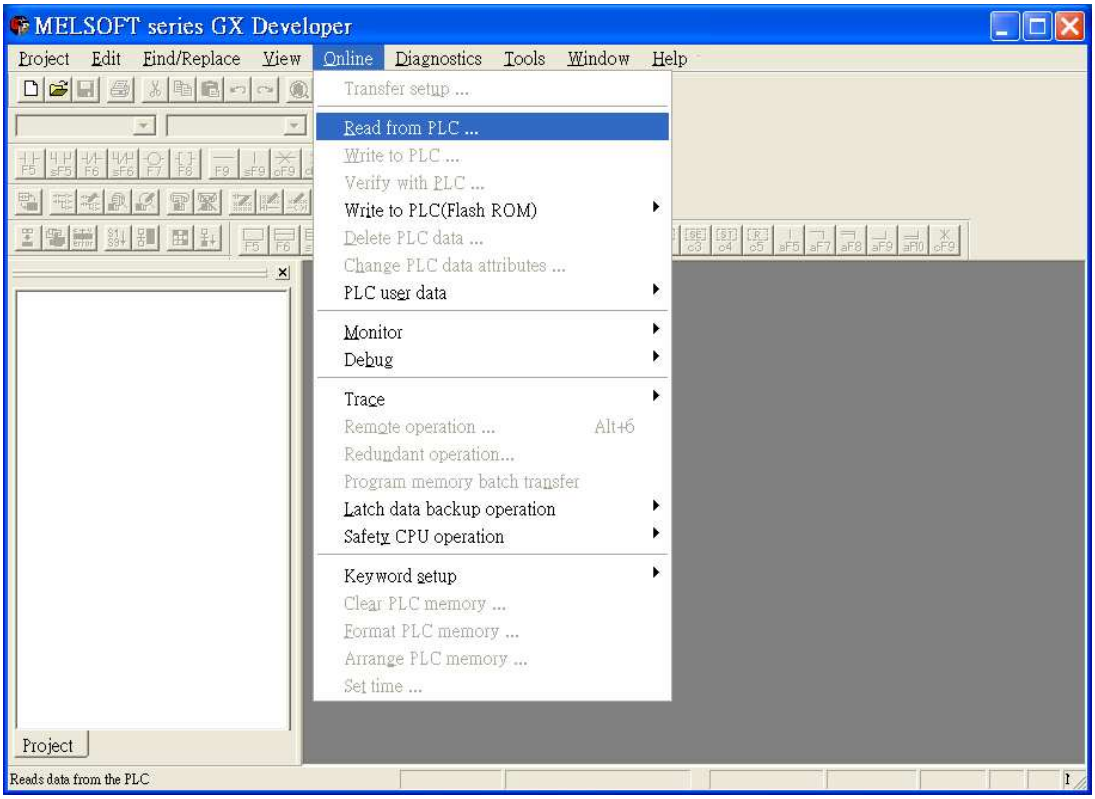
Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Fx3u-ENET module setting:

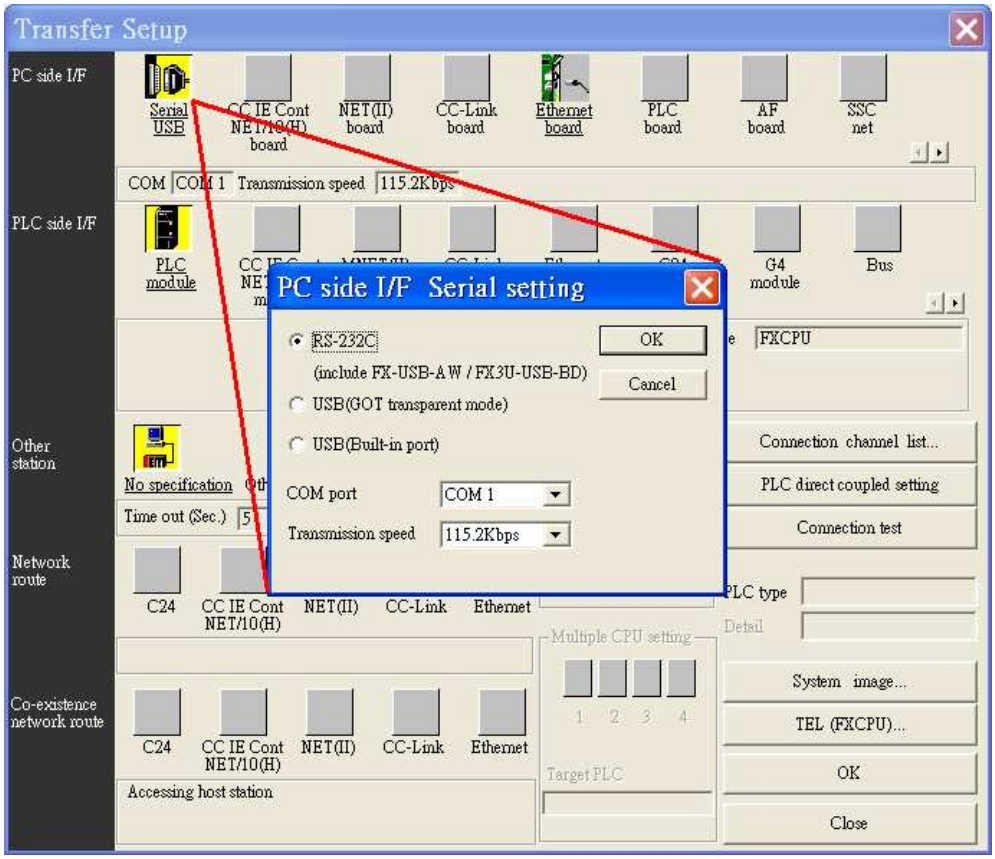
Before using Ethernet module, using GX Developer / FX Configurator-EN to set the Ethernet module, the FX3u-ENET module settings as below steps.

1. Open GX Developer, select “Read from PLC” in Online list.

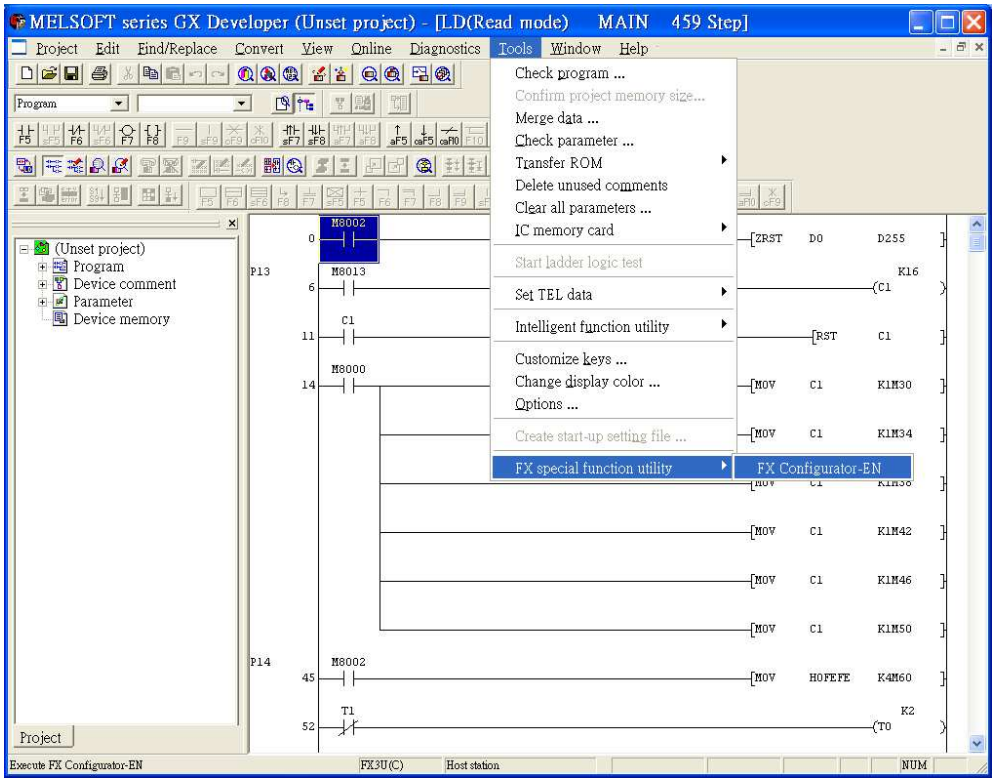


2. Select “FXCPU” in PLC series.

3. Users have to connect PLC via series port for setting IP address at first time.

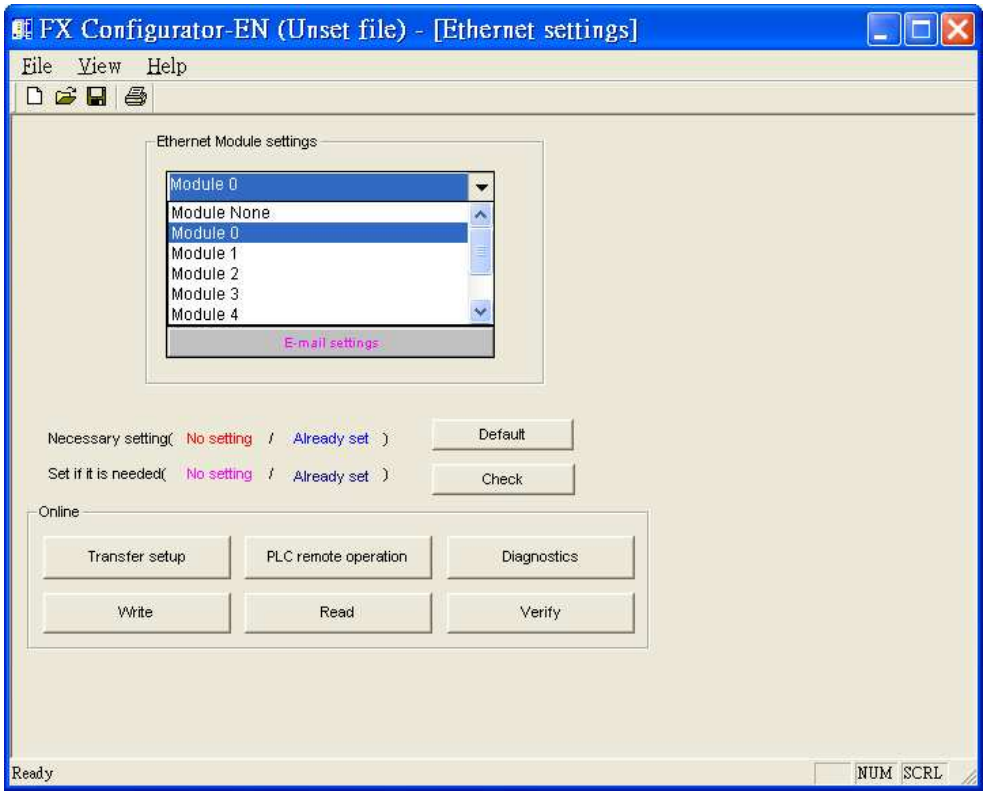


4. After finishing the PLC settings, select Tools/FX special function utility/FX Configurator-EN

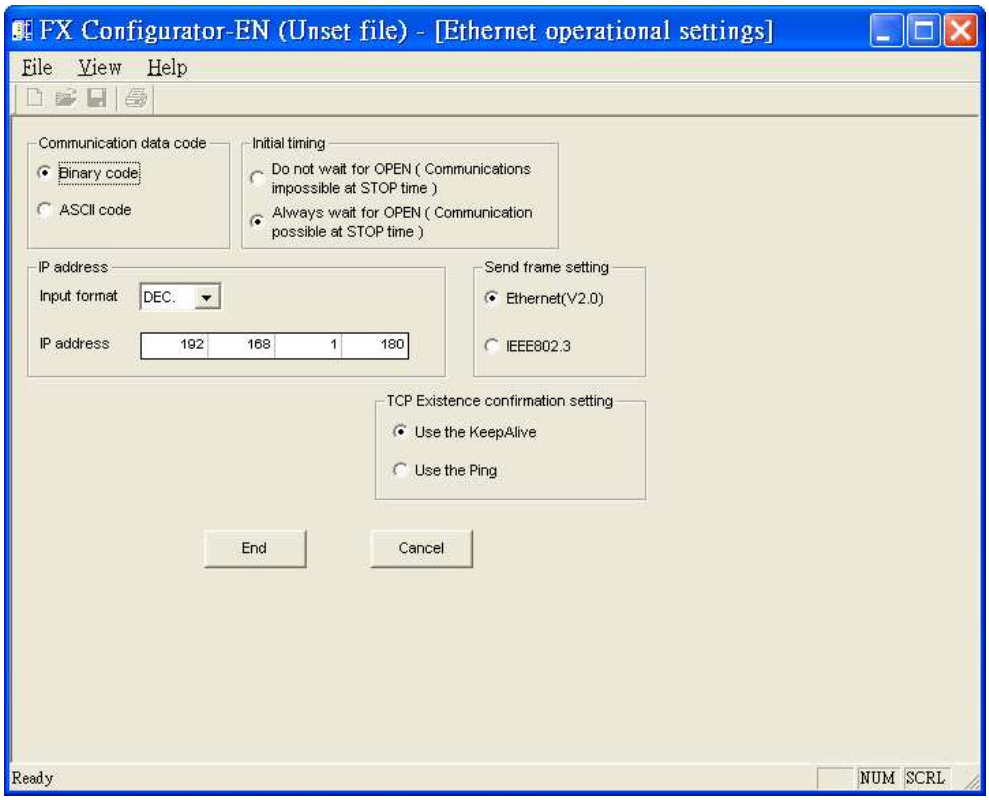


5. Select “Module 0” in Ethernet Module settings.

(If more than one module, please setting modules step by step)



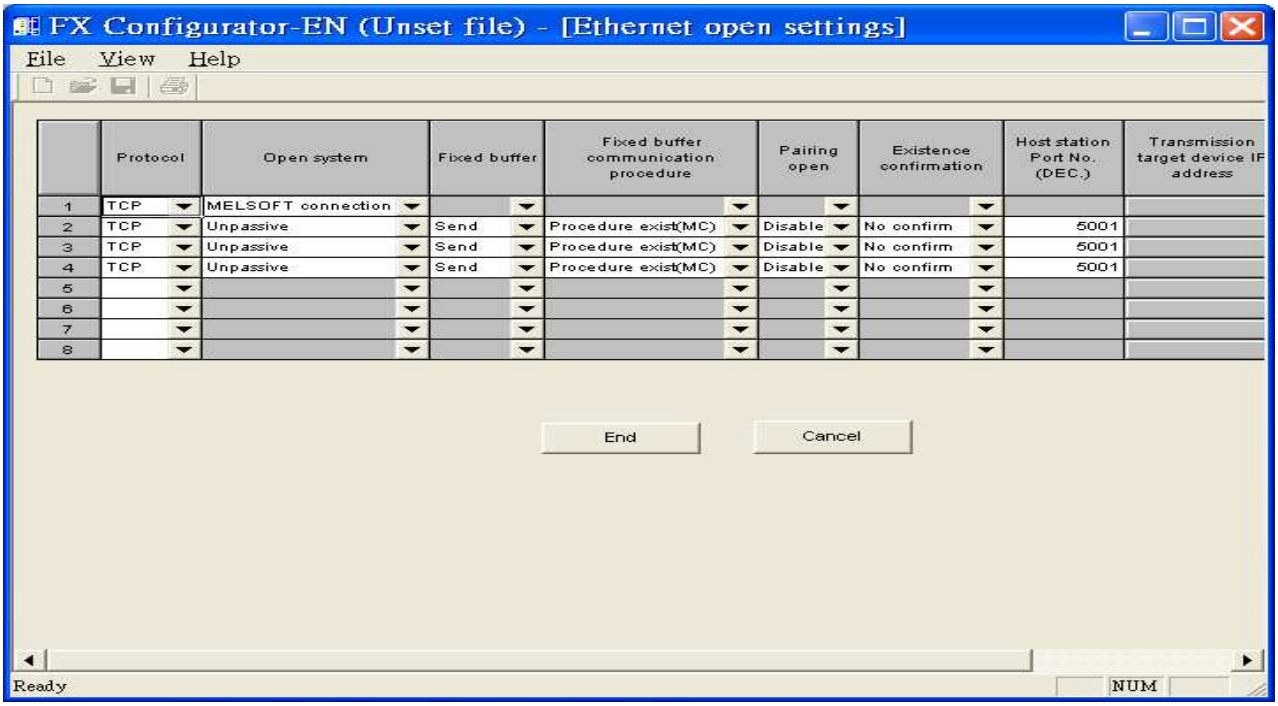
6. In Ethernet operational settings, select the related parameters and IP address and then press ”End” to finish the settings.



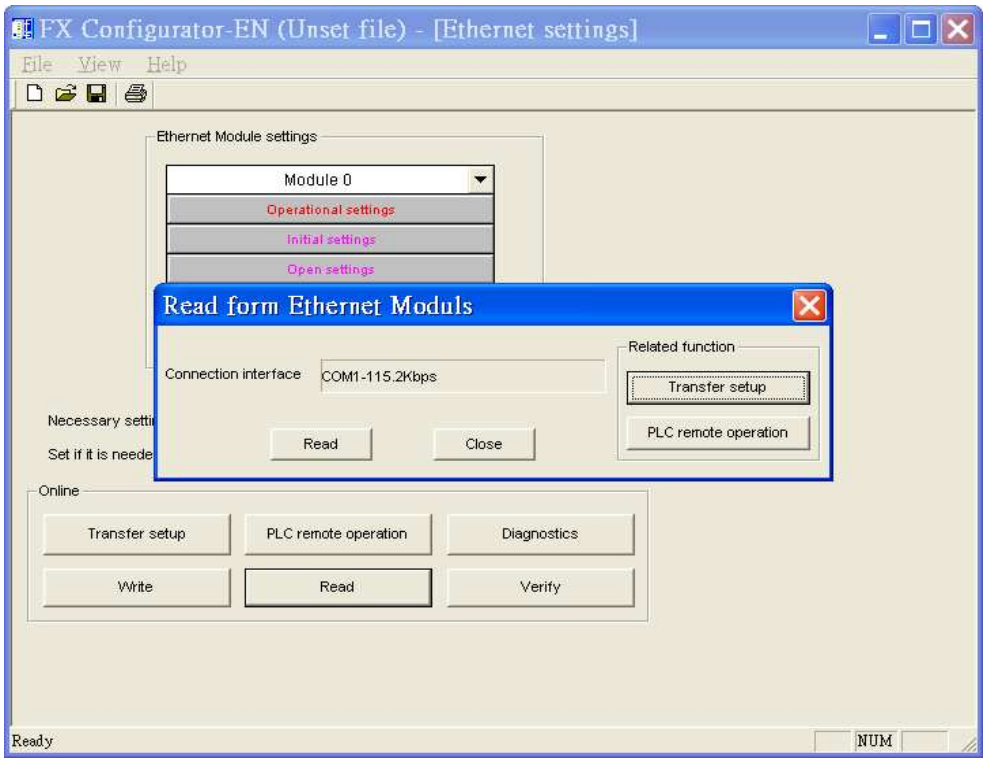
7. In Ethernet open settings, press “End” after setting the below parameters.

1	TCP	MELSOFT connection					
2	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001
3	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001
4	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001

(The first Protocol means using GX Developer to communicate with module, The max. “Fixed buffer communication preocedure” is 4 units.)



8. After setting the parameters to PLC, restart for using Ethernet communication.



Driver Version:

Version	Date	Description of Changes
V1.00	Feb/12/2009	

MITSUBISHI FX3u/FX3G

Mitsubishi FX3U/FX3UC/FX3G
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX3u		
Com port	RS485 4w	RS232/RS485 2w/4w	
Baud rate	9600	9600/19200	must same as the PLC setting
Parity bit	Even		must same as the PLC setting
Data Bits	7		must same as the PLC setting
Stop Bits	1		must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	0		Does not apply to this protocol

Online Simulator	YES (9600 baud rate only)	Extend address mode	NO

PLC Setting:

Communication mode	9600,Even,7,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~377	Input Relay
B	Y	ooo	0~377	Output Relay
B	M	dddd	0~7679	Auxiliary Relay
B	SM	dddd	8000~9999	Special Relay (M)
B	S	dddd	0~4095	State Relay (S)
B	T	ddd	0~511	Timer Relay (T)
B	C	ddd	0~199	Counter Relay (C)
B	D_Bit	dddd(dd)	dddd=0~7999 (dd)=0~15	Data Register Bit (D)

Bit/Word	Device Type	Format	Range	Memo
W	TV	ddd	0~511	Timer Memory (T)
W	CV	ddd	0~199	Counter Memory (C)
DW	CV2	ddd	200~255	Counter Memory(D Word)
W	D	dddd	0~7999	Data Register (D)
W	SD	dddd	8000~9999	Special Data Register (D)
W	R	ddddd	0~32767	Extended Register (R)

Wiring diagram:

MT8000
COM1[RS-485]4w
9P D-SUB

1	RX-
2	RX+
3	TX-
4	TX+
5	GND

Mitsubishi FX series PLC
CPU RS422 Port
8P MiniDin Female

4	TX-
7	TX+
1	RX-
2	RX+
3	GND

8Pin miniDin
Female

Driver Version:

Version	Date	Description of Changes
V1.40	Apr/15/2009	

MITSUBISHI MELSEC-Q (Ethernet)

MITSUBISHI Q series (Q03UDE, Q04UDEH, Q06UDEH, Q10UDEH, Q13UDEH, Q20UDEH, Q26UDEH), MELSEC-Q protocol application to CPU of Ethernet interface or Ethernet module.
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI MELSEC-Q		
Com port	Ethernet		
PLC Station No.	It must same as the PLC setting	255	Q13UDEH has to set 255
Parameter1	Networking no. (it must the same as PLC setting)	0~255	Q13UDEH has to set 0
TCP/IP port	It must same as the PLC setting		Advice to set port no. to 4999

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	SM	dddd	0 ~ 2047	Special Relay
B	X	hhhh	0 ~ 1FFF	Input Relay
B	Y	hhhh	0 ~ 1FFF	Output Relay
B	M	dddd	0 ~ 8191	Internal Relay
B	L	dddd	0 ~ 8191	Latch Relay
B	F	dddd	0 ~ 2047	Annunciator
B	V	dddd	0 ~ 2047	Edge Relay
B	B	hhhh	0 ~ 1FFF	Link Relay
B	TS	dddd	0 ~ 2047	Timer Contact
B	TC	dddd	0 ~ 2047	Timer Coil
B	SS	dddd	0 ~ 2047	Retentive Timer Contact
B	SC	dddd	0 ~ 2047	Retentive Timer Coil
B	CS	dddd	0 ~ 1023	Counter Contact
B	CC	dddd	0 ~ 1023	Counter Coil
B	SB	hhh	0 ~ 7FF	Special Link Relay
B	S	dddd	0 ~ 8191	Step relay
B	DX	hhhh	0 ~ 1FFF	Direct Input
B	DY	hhhh	0 ~ 1FFF	Direct Output
W	SD	dddd	0 ~ 2047	Special register

W	D	ddddd	0 ~ 12287	Data Register
W	W	hhhh	0 ~ 1FFF	Link Register
W	TN	dddd	0 ~ 2047	Timer Current value
W	SN	dddd	0 ~ 2047	Retentive Timer Current value
W	CN	dddd	0 ~ 1023	Counter Current value
W	SW	hhh	0 ~ 7FF	Special Link Register
W	Z	dd	0 ~ 15	Index Register
W	R	ddddd	0 ~ 32767	File Register
W	ZR	hhhhh	0 ~ FE7FF	File Register

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

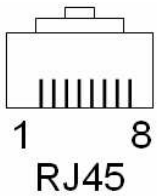
Every mdel of CPU is different, we suggest user to refer to MITSUBISHI MELSEC-Q manual's Device List.

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45 — Ethernet Hub or Switch RJ45

1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



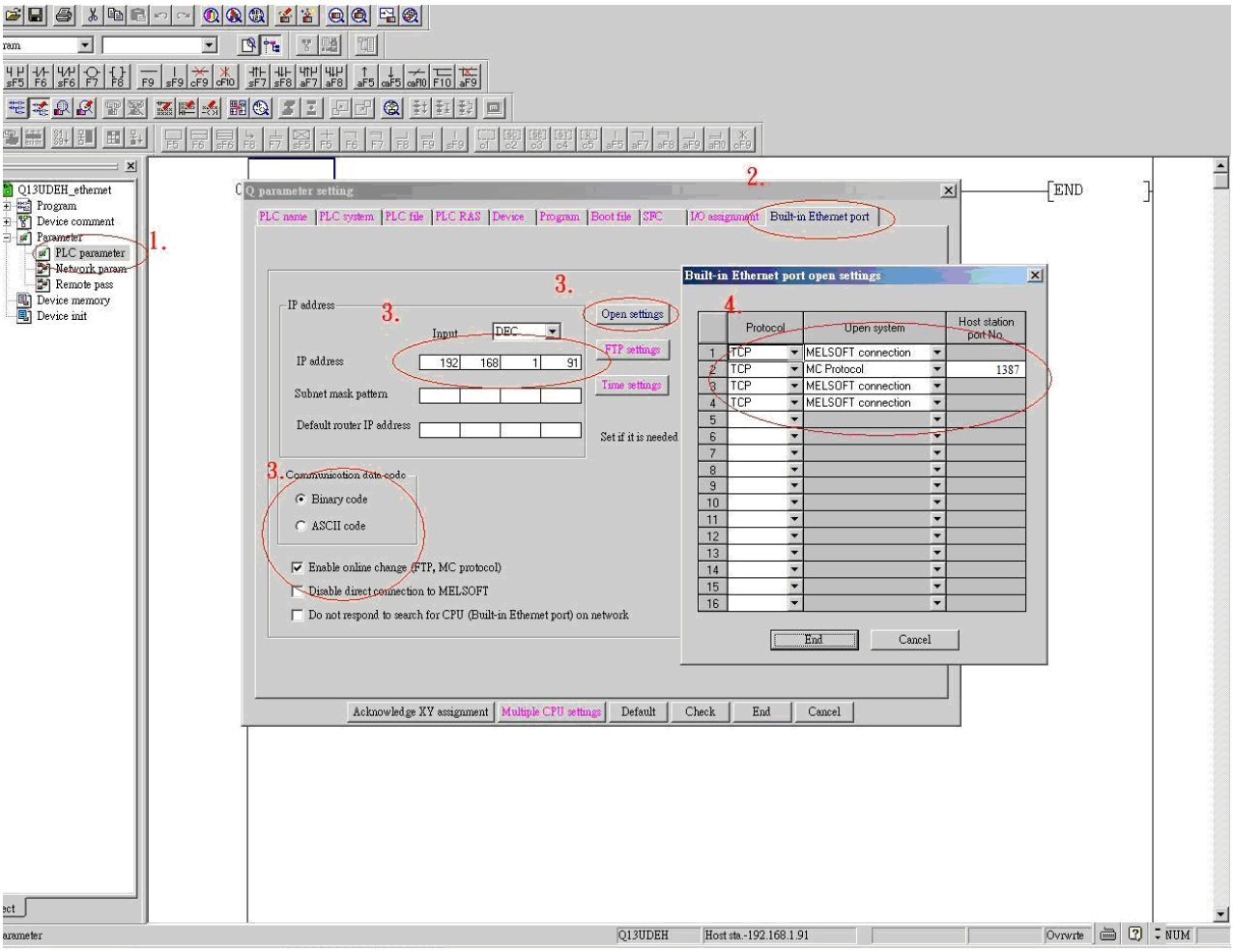
Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45 — Modbus TCP Device RJ45

1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

MITSUBISHI Q series Ethernet module setting:

Remark: If using QJ71E71 module, please refer MITSUBISHI QJ71E71 connection guide.



1. Click PLC parameter
2. Built-in Ethernet port.
3. Click Open settings and then set the IP address and communication data code
4. Set the MC protocol-TCP Port No.1387 (Hex) and in EB8000 TCP port is 4999 (Dec).

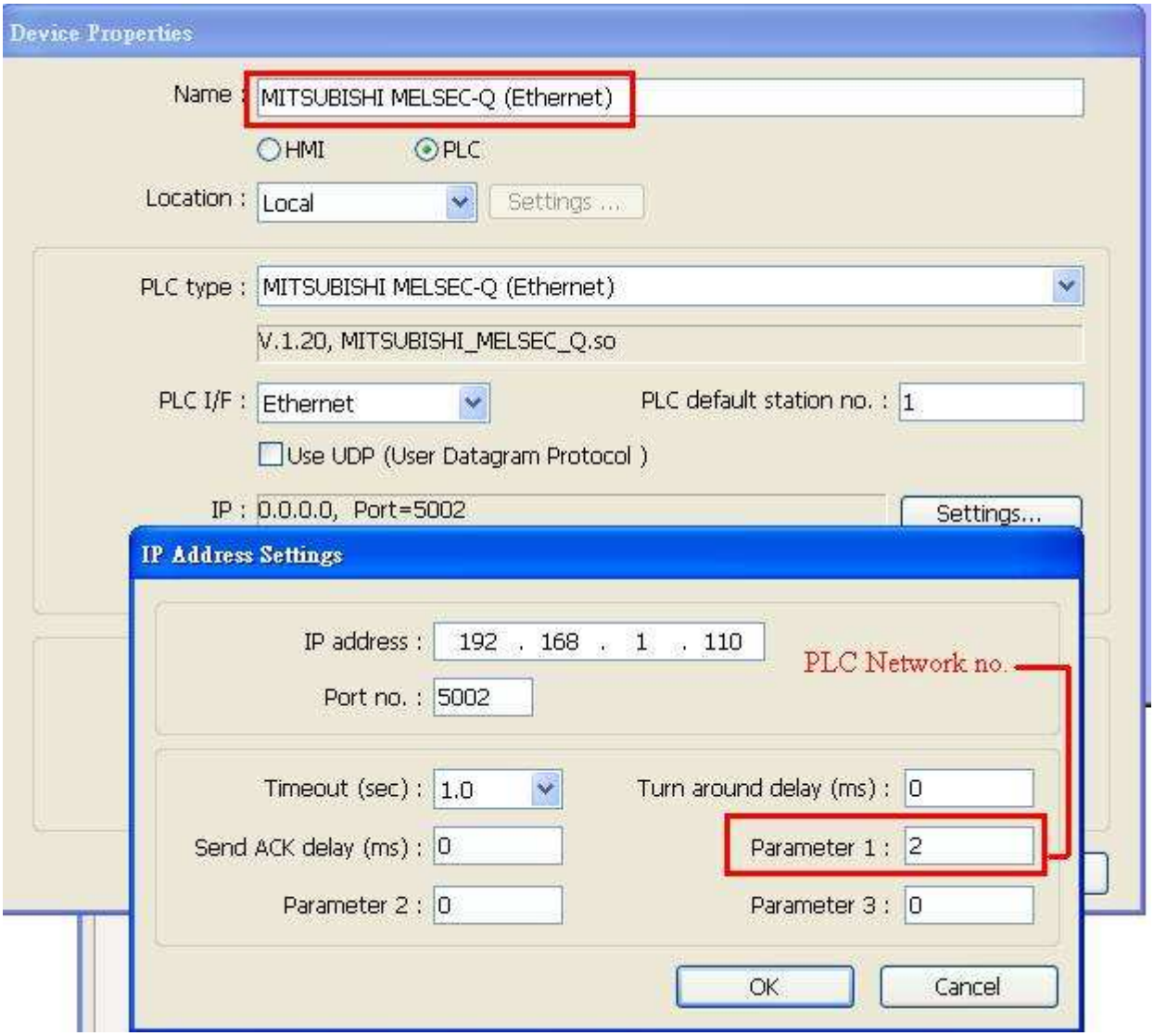
Note: In EB8000, please fill in network no. in Parameter 1 as PLC setting.

For example,

From below picture, the Network no. is 2

	Module 1
Network type	Ethernet
Starting I/O No.	0000
Network No.	2
Total stations	
Group No.	1
Station No.	1
Mode	On line
	Operational settings
	Initial settings
	Open settings
	Router relay parameter
	Station No.<->IP information
	FTP Parameters
	E-mail settings

Users have to set 2 in Parameter 1 in EB8000.



Driver Version:

Version	Date	Description of Changes
1.00	Jun/16/2009	Add address type [S], [SM], [D_bit]

MITSUBISHI Q00/Q00UJ/Q01/QJ71

Mitsubishi Q series PLC with QJ71C24 communication module, Q00, Q00J, Q00UJ, Q01, Q02H, Q06H, Q12H, Q25H, Q12PH, Q25PH CPU port.
http://www.mitsubishi-automation.com

HMI Setting:

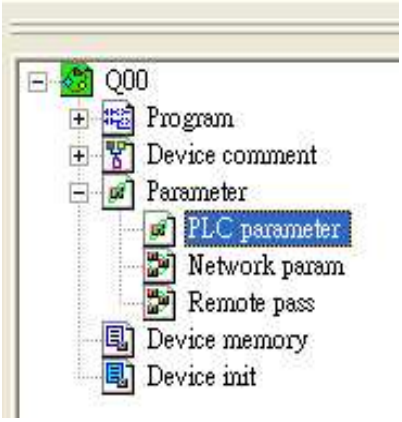
Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Melsec_QJ71		
Com port	RS232	RS485 4W, RS232	
Baud rate	9600	9600~115200	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES
Extend address mode	NO

PLC Setting:

Communication mode	

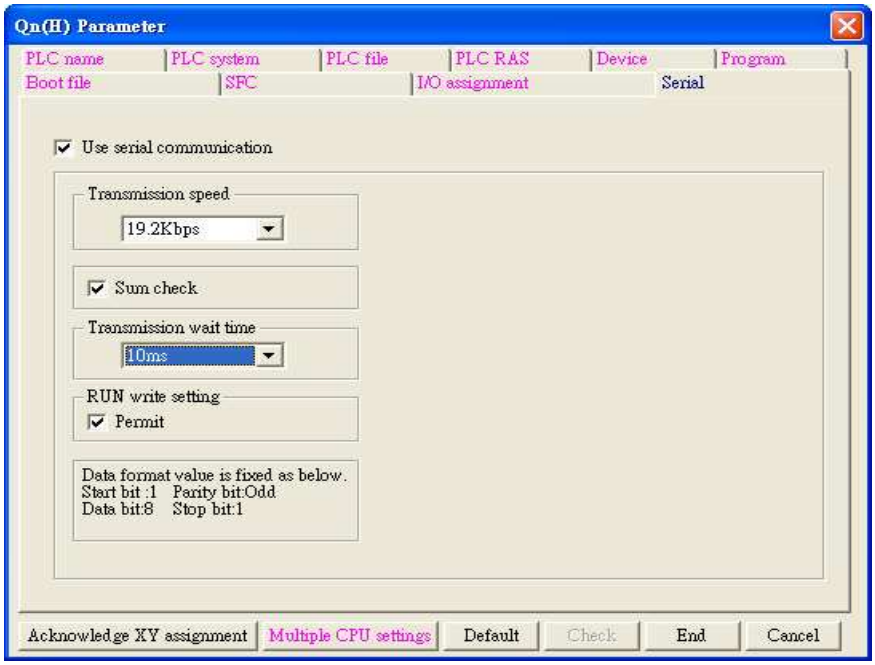
Q00, Q01 CPU port setting:



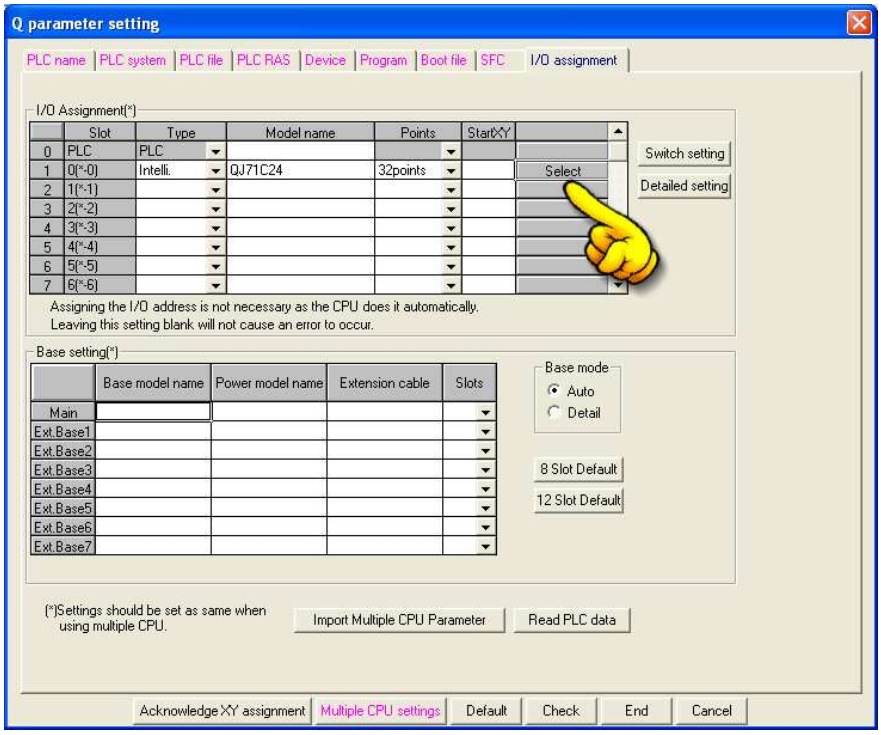
1. In the GX Developer “PLC data list” click the “PLC parameter”
2. In the “PLC parameter” select “Serial” page.
3. Select “Use serial communication”
4. Set the “Transmission speed”. 9600~115200.
5. Select “Sum check”
6. Select “Transmission wait time” to 10ms.
7. Select “RUN write setting”
8. Click “End” close the dialog.
9. Write the PLC Parameter to PLC.

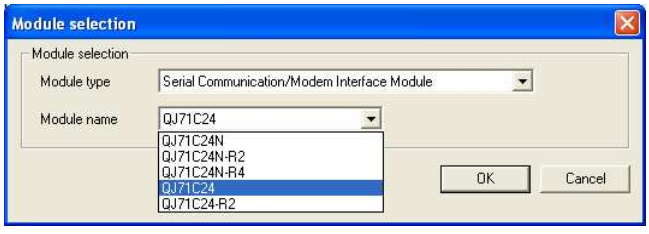
10. RESET the PLC, the parameter will active.

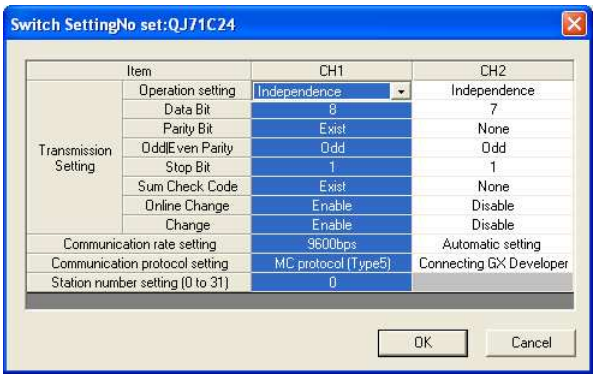
Note: Please check “Permit” in “RUN write setting” item.



QJ71 setting:







Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil
B	CS	ddd	0~1023	Counter Contact
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input
B	DY	hhh	0~1FFF	Direct Output
B	TS	ddd	0~2047	Timer Contact
W	W	hhh	0~1FFF	Link Register
W	TN	ddd	0~2047	Timer Current Value
W	SN	ddd	0~2047	Retentive Timer Current Value
W	CN	ddd	0~1023	Counter Current Value
W	R	ddddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	d	0~9	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Wiring diagram:

RS-485 4W:

MT8000 COM1

RS-485 4w

9P D-SUB Male

1	RX-
2	RX+
3	TX-
4	TX+
5	GND

QJ71C24 CH.2

RS-422

SDB
SDA
RDB
RDA
GND

RS-232:

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

QJ71C24 CH.1

RS232 port

9P D-SUB Male

2	RXD
3	TXD
5	GND
1	DCD
4	DTR
6	DSR
7	RTS
8	CTS

Q00, Q01 CPU port RS-232:

MT8000 RS232

9P D-SUB

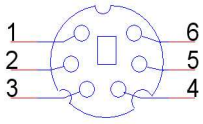
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q00, Q01

CPU port

Mini-DIN 6pin

3	RXD
4	TXD
5	GND



MINI-DIN 6Pin

Female

Q00UJ CPU port RS-232:

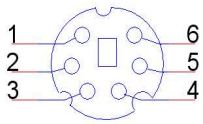
MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q00UJ
CPU port
Mini-DIN 6pin

3	RXD
4	TXD
5	GND
6	CTS
1	RTS



MINI-DIN 6Pin

Female

Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

MITSUBISHI Q00J

MITSUBISHI Q00J CPU

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q00J		
Com port	RS-232		CPU port
PLC Station No.			
Baud rate	115200		9600,19200,38400,57600,115200
Data bit	8		
Parity bit	Odd		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	SM	dddd	0~1023	
B	X	hhh	0 ~ 7FF	
B	Y	hhh	0 ~ 7FF	
B	M	dddd	0 ~ 8191	
B	L	dddd	0 ~ 2047	
B	F	dddd	0 ~ 1023	
B	V	dddd	0 ~ 1023	
B	B	hhh	0 ~ 7FF	
B	SB	hhh	0 ~ 3FF	
W	SD	ddd	0~1023	
W	W	hhh	0 ~ 7FF	
W	T	dddd	0 ~ 511	
W	SW	hhh	0 ~ 3FF	
W	Z	dddd	0 ~ 9	
W	C	dddd	0 ~ 511	
W	D	dddd	0 ~ 11135	

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Wiring diagram:

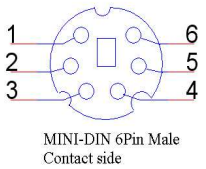
RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q00
CPU port
Mini-DIN 6pin

3	RXD
4	TXD
5	GND



MINI-DIN 6Pin
Female

MT8-Mitsubishi-Q-3M cable is able to connect MT8000 and Mitsubishi Q series directly.
ftp://ftp.weintek.com/MT8000/eng/DataSheet/RZC000043_MT8_MITSUBISHI_Q_3M.pdf

Driver Version:

Version	Date	Description of Changes
V1.10	Sep/18/2009	

MITSUBISHI Q00U/Q01U/Q02U/QnUD/QnUDH

MITSUBISHI Q00U, Q01U, Q02U, Q03UD, Q04UDH, Q06UDH, Q10UDH, Q13UDH, Q20UDH, Q26UDH CPU

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02U		
Com port	RS232	RS485 4W, RS232	CPU port connect directly
Baud rate	115200	115200 only	9600,19200,38400,57600,115200 For Q00UJ, only 9600 available
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
PLC Station No.	No		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0~1FFF	Input Relay
B	Y	hhhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhhh	0~1FFF	Link Relay
B	SB	hhh	0~7FF	Special Link Relay
W	W	hhhh	0~1FFF	Link Register
W	T	dddd	0~0247	Timer Current Value
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~19	Index Register
W	C	dddd	0~1023	Counter Current Value
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Note:

EB8000 doesn't support MITSUBISHI Q02U CPU to do on-line simulation on PC.

When using Q02U driver, HMI needs 10 seconds to initial the PLC Q02U driver. Before finishing

initial, we suggest users don't wrire data to PLC, or it could cause the "PLC no response" ; and if the wiring diagram or the data are incorrect, it could cause PLC locked. If the PLC locked, users have to restart PLC or reinstall PLC module.

Wiring diagram:

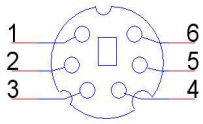
RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q02
CPU port
Mini-DIN 6pin

4	RXD
3	TXD
5	GND
6	CTS
1	RTS



MINI-DIN 6Pin
Female

Driver Version:

Version	Date	Description of Changes
V1.40	Jul/08/2009	

MITSUBISHI Q00UJ/QnU/QnUD/QnUDH/QnUDEH (mini USB)

MITSUBISHI Q00UJ, Q00U, Q01U, Q02U, Q03UDE, Q03UD, Q04UDEH, Q04UDH, Q06UDEH, Q06UDH, Q10UDEH, Q10UDH, Q13UDEH, Q13UDH, Q20UDEH, Q20UDH, Q26UDEH, Q26UDH USB Port

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02U		
Com port	USB		CPU port connect directly
Baud rate			
Parity bit			
Data Bits			
Stop Bits			
PLC Station No.			

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0~1FFF	Input Relay
B	Y	hhhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhhh	0~1FFF	Link Relay
B	SB	hhh	0~7FF	Special Link Relay
W	W	hhhh	0~1FFF	Link Register
W	T	dddd	0~0247	Timer Current Value
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~19	Index Register
W	C	dddd	0~1023	Counter Current Value
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Note:
EB8000 doesn't support MITSUBISHI Q02U CPU to do on-line simulation on PC.
When using Q02U driver, HMI needs 10 seconds to initial the PLC Q02U driver. Before finishing initial, we suggest users don't wrire data to PLC, or it could cause the "PLC no response" ; and if the wiring diagram or the data are incorrect, it could cause PLC locked. If the PLC locked, users have to restart PLC or reinstall PLC module.

Driver Version:

Version	Date	Description of Changes
V1.00	Feb/09/2010	

MITSUBISHI Q02H

Mitsubishi Q02/Q02H CPU port.
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02H		
Com port	RS232	RS485 4W, RS232	
Baud rate	115200	115200 only	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil
B	CS	ddd	0~1023	Counter Contact

Bit/Word	Device Type	Format	Range	Memo
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input
B	DY	hhh	0~1FFF	Direct Output
B	TS	ddd	0~2047	Timer Contact
W	W	hhh	0~1FFF	Link Register
W	TN	ddd	0~2047	Timer Current Value
W	SN	ddd	0~2047	Retentive Timer Current Value
W	CN	ddd	0~1023	Counter Current Value
W	R	ddddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	d	0~9	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Wiring diagram:

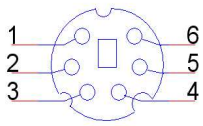
RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q02
CPU port
Mini-DIN 6pin

4	RXD
3	TXD
5	GND
6	CTS
1	RTS



MINI-DIN 6Pin
Female

Driver Version:

Version	Date	Description of Changes
V1.40	Aug/19/2009	
V1.50	Jan/05/2010	Fixed communication problem

MITSUBISHI Q06H

Mitsubishi Q06H CPU port.
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q06H		
Com port	RS232	RS485 4W, RS232	
Baud rate	115200	115200 only	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil

Bit/Word	Device Type	Format	Range	Memo
B	CS	ddd	0~1023	Counter Contact
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input
B	DY	hhh	0~1FFF	Direct Output
B	TS	ddd	0~2047	Timer Contact
W	W	hhh	0~1FFF	Link Register
W	TN	ddd	0~2047	Timer Current Value
W	SN	ddd	0~2047	Retentive Timer Current Value
W	CN	ddd	0~1023	Counter Current Value
W	R	ddddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	d	0~9	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Wiring diagram:

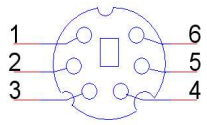
RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Q02
CPU port
Mini-DIN 6pin

3	RXD
4	TXD
5	GND
6	CTS
1	RTS



MINI-DIN 6Pin
Female

Driver Version:

Version	Date	Description of Changes
V1.40	Jun/03/2009	

MITSUBISHI QJ71E71 (Ethernet)

Mitsubishi Q type, MELSEC-Q series PLC (Q00J, Q00, Q01, Q02, Q02H, Q06H, Q12H, Q25H, Q12PH, Q25PH) QJ71E71-100 Ethernet module.
http://www.mitsubishi-automation.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI QJ71E71 [V1.00]		
Com port	Ethernet		
PLC Station No.	2	1~99	
TCP/IP port	5002		

Note: MITSUBISHI QJ71E71 only supports PLC Network no. 1.
If PLC's Network no. is not 1, please use "MISTSUBISHI MELSEC-Q(Ethernet)" driver and fill in the Network no. in Parameter 1. Please refer MISTSUBISHI MELSEC-Q(Ethernet) for further information.

Device address:

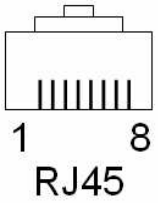
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0~1FFF	Input Relay
B	Y	hhhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhhh	0~1FFF	Link Relay
B	SB	hhhh	0~2047	Special Link Relay
B	DX	hhhh	0~1FFF	Direct Input
B	DY	hhhh	0~1FFF	Direct Output
W	W	hhhh	0~2FFF	Link Register
W	R	dddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~15	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

Ddd: Decimal, hhh: Hexadecimal

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

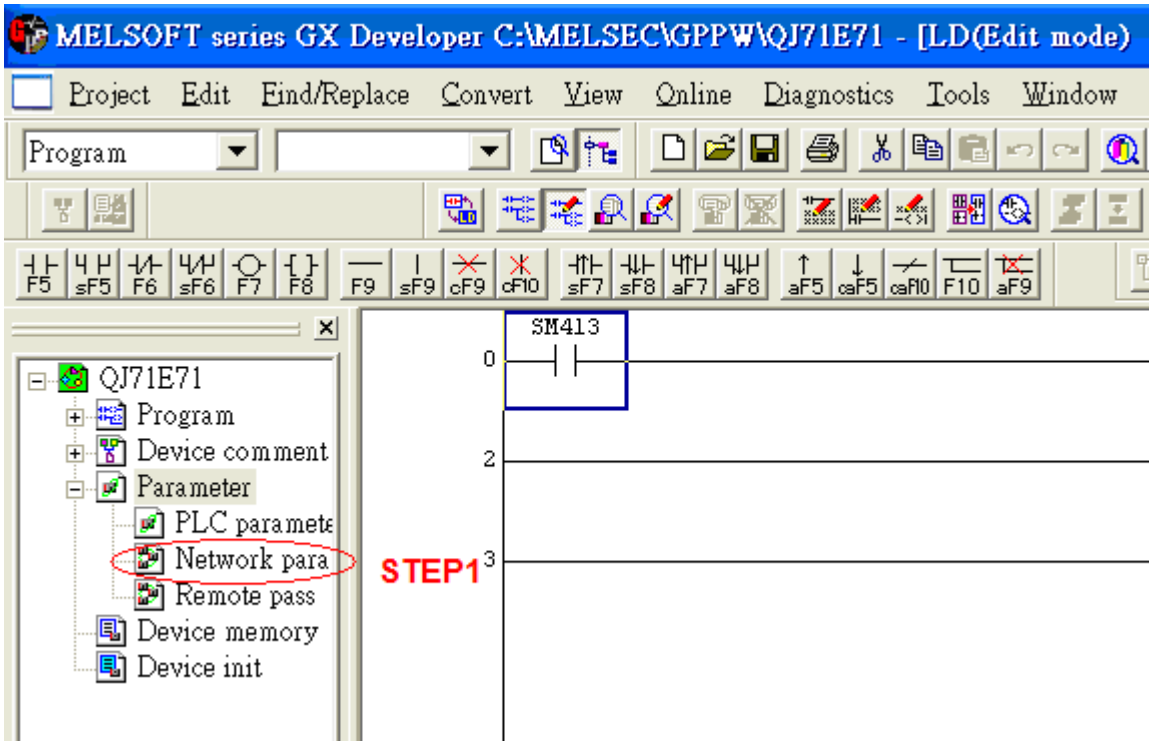


Ethernet: Direct connect (crossover cable)

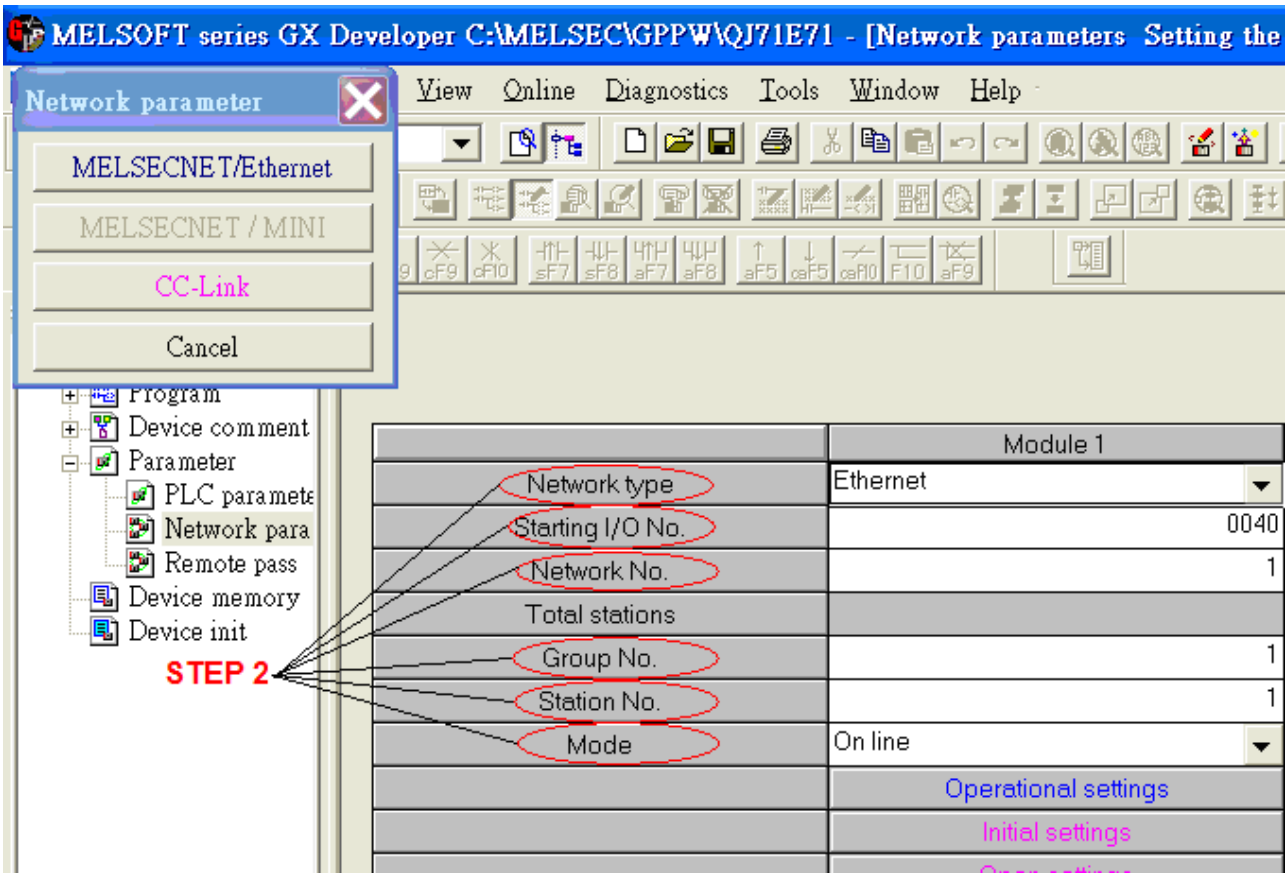
MT8000 Ethernet RJ45		Wire color	Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

QJ71E71-100 Ethernet module settings:

1. Use Q-CPU's USB or RS232 setting PLC parameters.

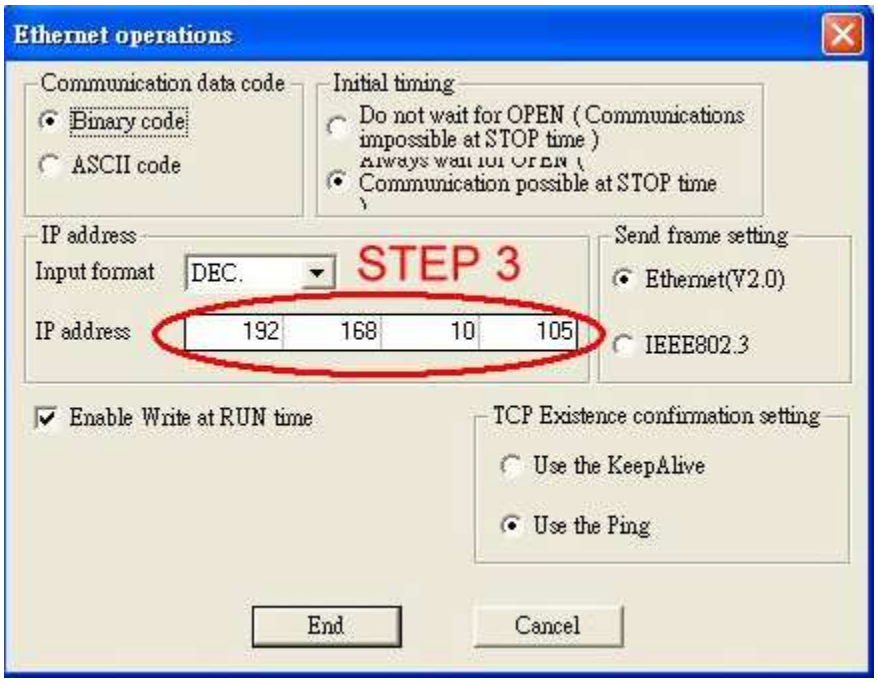


2. Click Operational setting to set IP information.



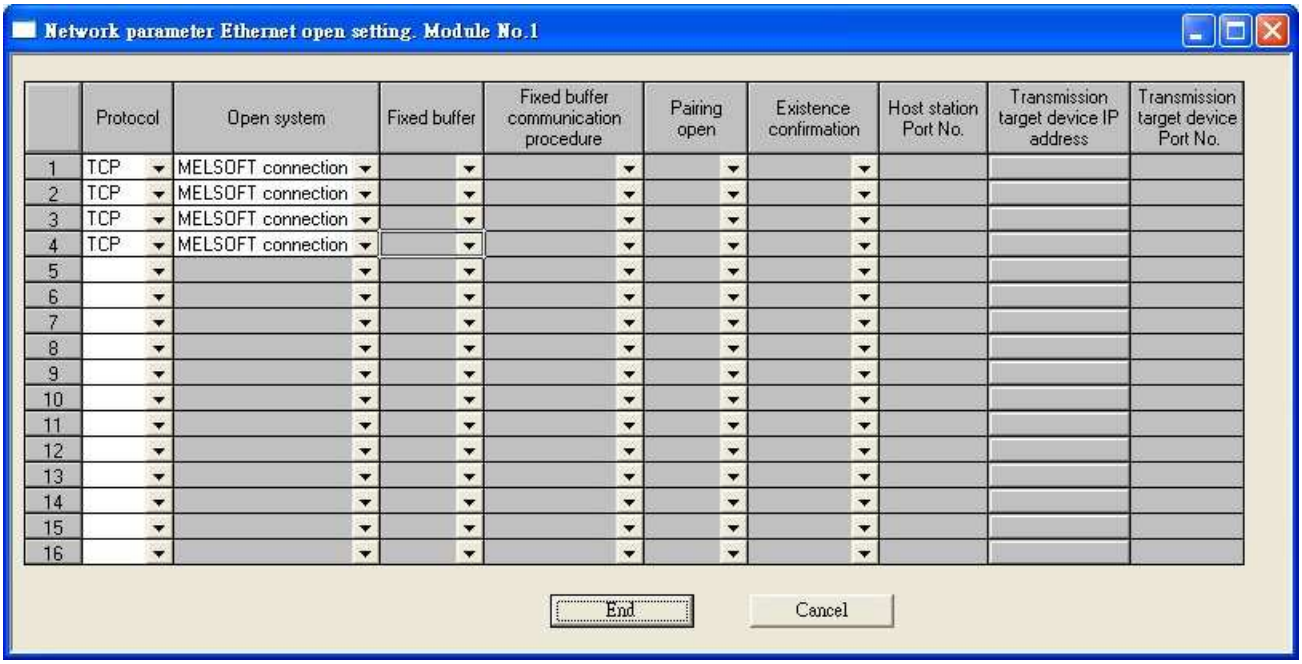
	Module 1	Module 2
Network type	Ethernet	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line	
	Operational settings	
	Initial settings	
	Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt settings	

3. Select Ethernet (2.0) for communicating with HMI.

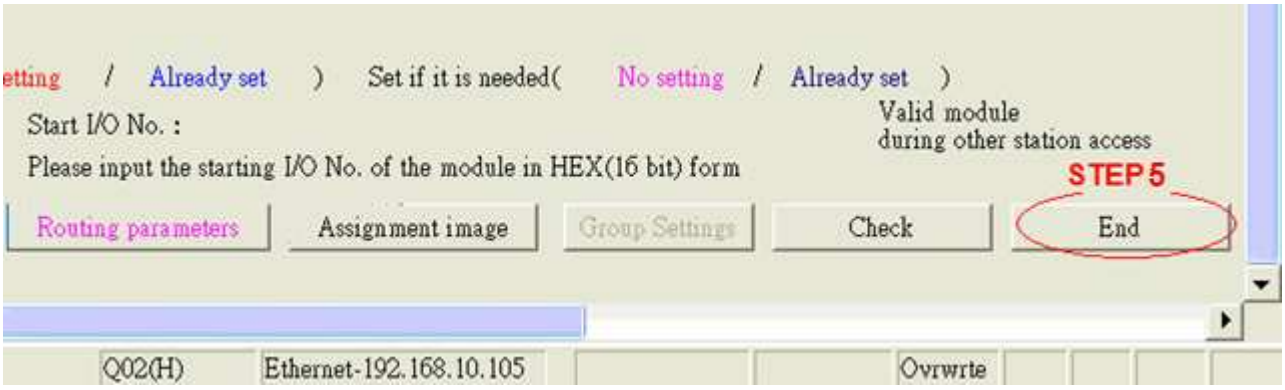


4. Click “Open settings” to set the system.

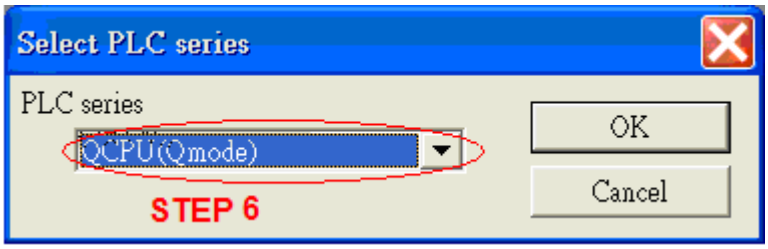
	Module 1	Module 2
Network type	Ethernet	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line	
	Operational settings	
	Initial settings	
	STEP 4 Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt settings	



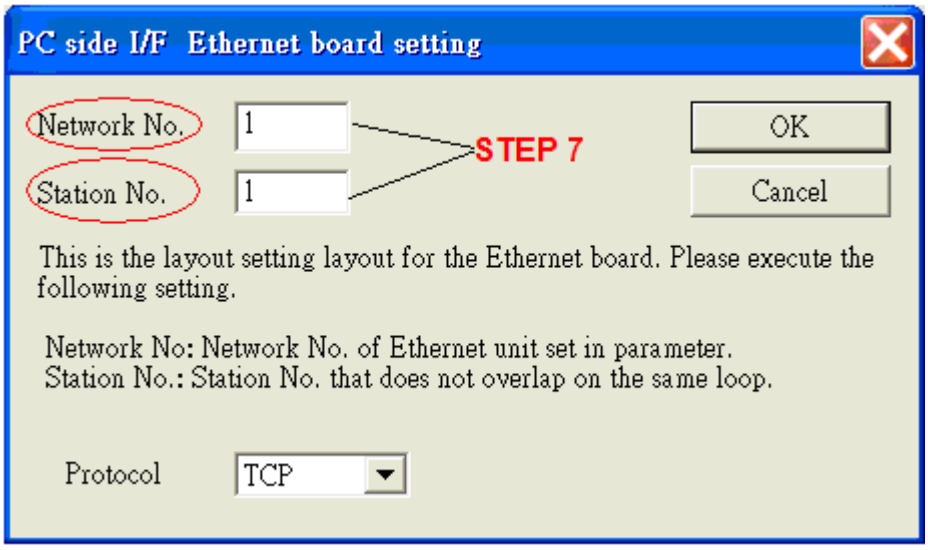
5. Press END to finish settings.



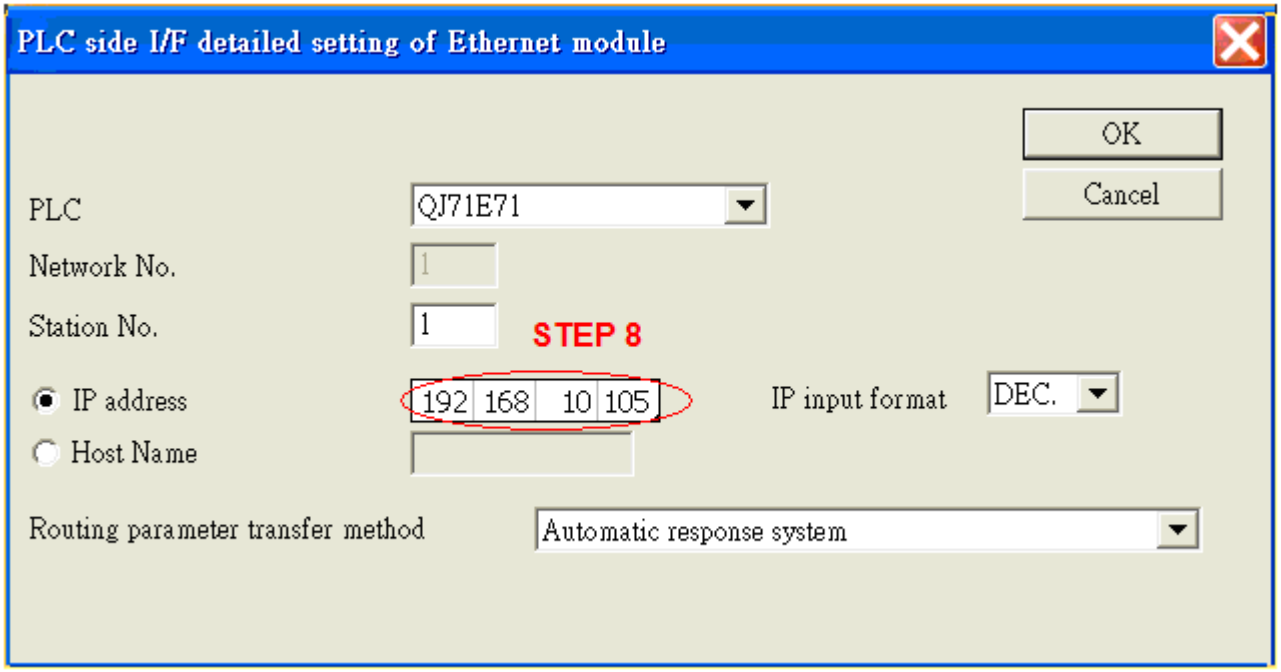
6. Restart PLC software and select [READ FROM PLC], click QCPU(Qmode) and press OK.



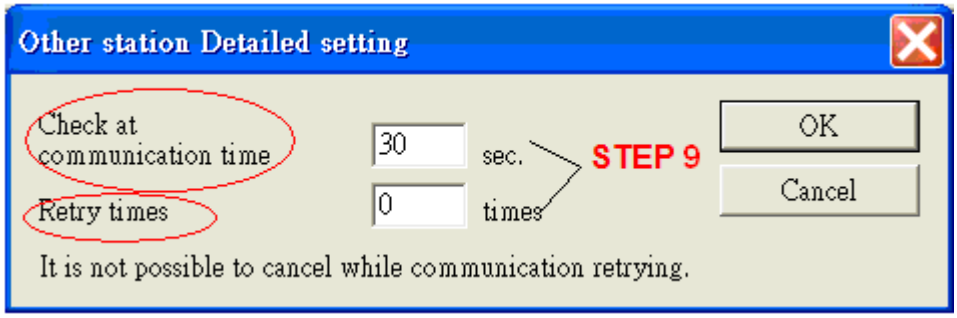
7. Select “Ethernet board” in PC Side I/F to set Network and Station no..(the Station no.1 is PC’s station no. not Ethernet module’s, range from 2~64, the Network no. can not the same as PC’s number)



8. Select “Ethernet module” in PLC Side I/F to set QJ71E71’s IP address.(IP address = Network Parameter’s IP address)



9. In “Other station”, click “Other station(Single network)” setting “Check at communication time” and “Retry times”.



After finishing settings as above, click “Connection test” for testing the communication and sending the PLC’s program.

Driver Version:

Version	Date	Description of Changes
V2.10	Feb/05/2009	

MODBUS ASCII

MODBUS ASCII CONTROLLER

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Modbus ASCII		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/ 115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	Modbus ASCII protocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output bit
B	1x	ddddd	1-65535	Input bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	ddddd(dd)	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register

Modbus RTU function code:

0x	0x01 Read coil	0x05 write single coil
1x	0x02 Read discrete input	N/A for write operation
3x	0x04 Read input register	N/A for write operation
4x	0x03 Read holding register	0x10 write multiple register

3xbit is equivalent to 3x

4xbit is equivalent to 4x

Wiring diagram:

MODBUS RS232 PORT

MT8000 RS-232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Modbus ASCII

Controller RS232

Port

RXD
TXD
GND
RTS
CTS

MODBUS RS422/485 PORT

MT8000

COM1 RS-485 4w

1 RX-
2 RX+
3 TX-
4 TX+
5 GND

Modbus ASCII Controller

RS422 Port

TX-
TX+
RX-
RX+
GND

MT8000 RS-485 2Wire

9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Modbus ASCII

Controller RS485

D-
D+
GND

Driver Version:

Version	Date	Description of Changes
V1.40	Apr/17/2009	

MODBUS RTU

MODBUS RTU CONTROLLER

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Modbus RTU		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	Modbus RTU protocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output bit
B	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
B	1x	ddddd	1-65535	Input bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	ddddd(dd)	100-6553515	Output Register bit
B	6x_Bit	ddddd(dd)	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write
W	4x_32Bit	ddddd	1-65535	4x High/low byte swap

NOTE:

Address type “5x” are mapping to Hold Reg. The communication protocol of 5x is almost same as “4x” except “5x”making double word swap.

If 4x has following information

Address	1	2	3	4	5	6	...
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20001		0x40003		0x60005		

For 5x, it become

Address	1	2	3	4	5	6	...
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10002		0x30004		0x50006		

Modbus RTU function code:

0x	0x01 Read coil	0x05 write single coil
0x_multi_coils	0x01 Read coil	0x0f write multiple coil
1x	0x02 Read discrete input	N/A for write operation
3x	0x04 Read input register	N/A for write operation
4x	0x03 Read holding register	0x10 write multiple register
5x	0x03 Read holding register	0x10 write multiple register

(note: reverse word order in double word format)

3xbit is equivalent to 3x

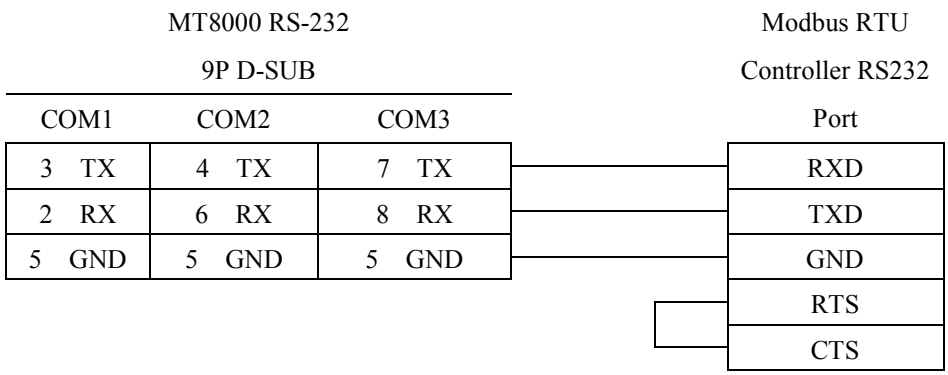
4xbit is equivalent to 4x

6x	0x03 Read holding register	0x06 write single register

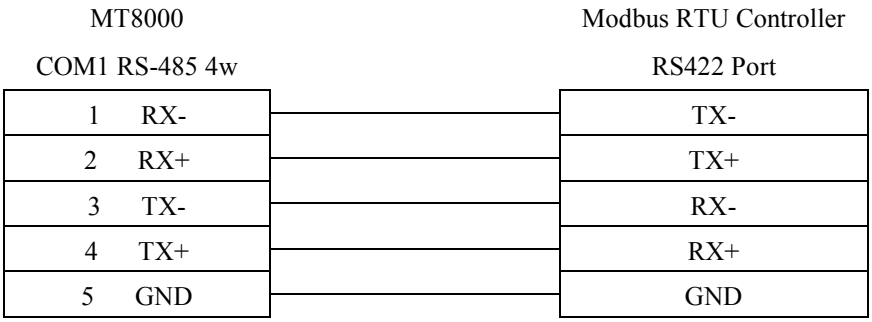
(note: use 6x device is limited to device of one word only)

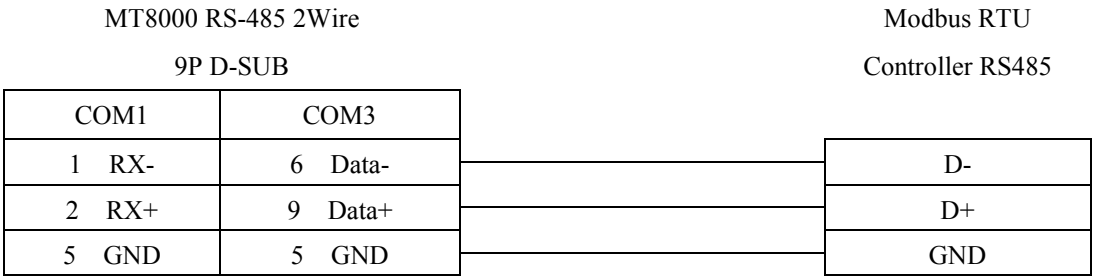
Wiring diagram:

MODBUS RS232 PORT



MODBUS RS422/485 PORT





Driver Version:

Version	Date	Description of Changes
V1.70	Aug/26/2009	
V1.80		To turn LB9200 off when return code is error.
V1.90	Dec/24/2009	Fixed when receiving data from modbus rtu over 8 bytes, LW9570 can not calculate correctly.

MODBUS RTU (0x/1x Range Adjustable)

MODBUS RTU CONTROLLER

http://www.modbus.org

HMI Setting:

Parameters	Recommendation	Options	Notes
PLC Type	Modbus RTU		
Com Port	RS485	RS232/RS485	
Baud Rate	9600	9600/19200/38400/57600/115200	
Parity Bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES
Extend Address Mode	YES

PLC Setting:

Communication Mode	Modbus RTU protocol

Device Address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output Bit
B	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
B	1x	ddddd	1-65535	Input Bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register Bit (read only)
B	4x_Bit	ddddd(dd)	100-6553515	Output Register Bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x Double Words Swap
W	6x	ddddd	1-65535	4x Single Word Write

NOTE:
Address type “5x” is mapping to Hold Reg. The communication protocol of “5x” is almost same as “4x” except that “5x”makes double words swap.
If 4x contains the following information:

Address	1	2	3	4	5	6	...
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20001		0x40003		0x60005		

For 5x, it becomes:

Address	1	2	3	4	5	6	...
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10002		0x30004		0x50006		

Modbus RTU function code:

0x	0x01 Read coil	0x05 Write single coil
0x_multi_coils	0x01 Read coil	0x0f Write multiple coil
1x	0x02 Read discrete input	N/A for writing operation
3x	0x04 Read input register	N/A for writing operation
4x	0x03 Read holding register	0x10 Write multiple register
5x	0x03 Read holding register	0x10 Write multiple register

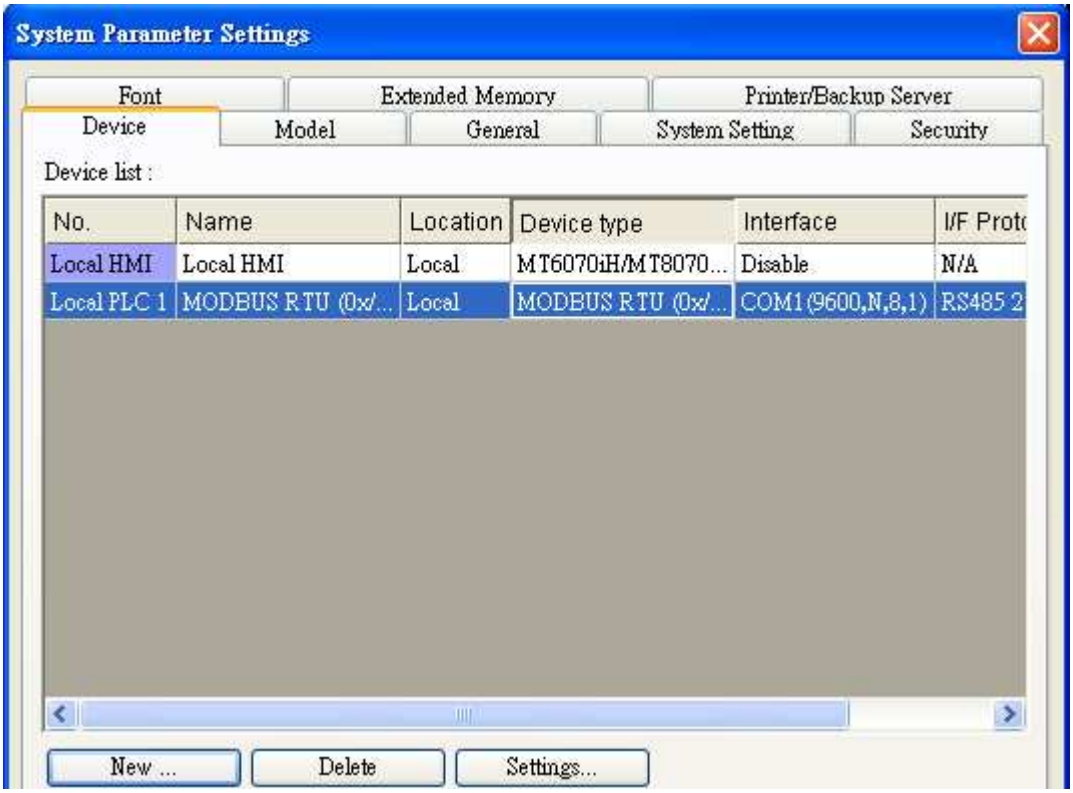
(Note: reverse word order in double words format)
3xbit is equivalent to 3x
4xbit is equivalent to 4x

6x	0x03 Read holding register	0x06 write single register

(Note: using 6x device is limited to device of one word only)

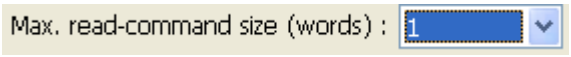
Setting Illustrations:

1. Go to [System Parameter Settings] , click [New] to add a new device -Modbus RTU (0x 1x range adjustable) , as shown below:

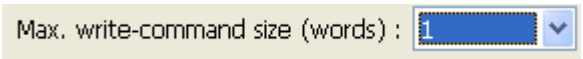


2. After adding Modbus RTU (0x 1x Range Adjustable) driver, [Add Address Range Limit] button will be enabled as below. Users can set maximum read/write command size here.

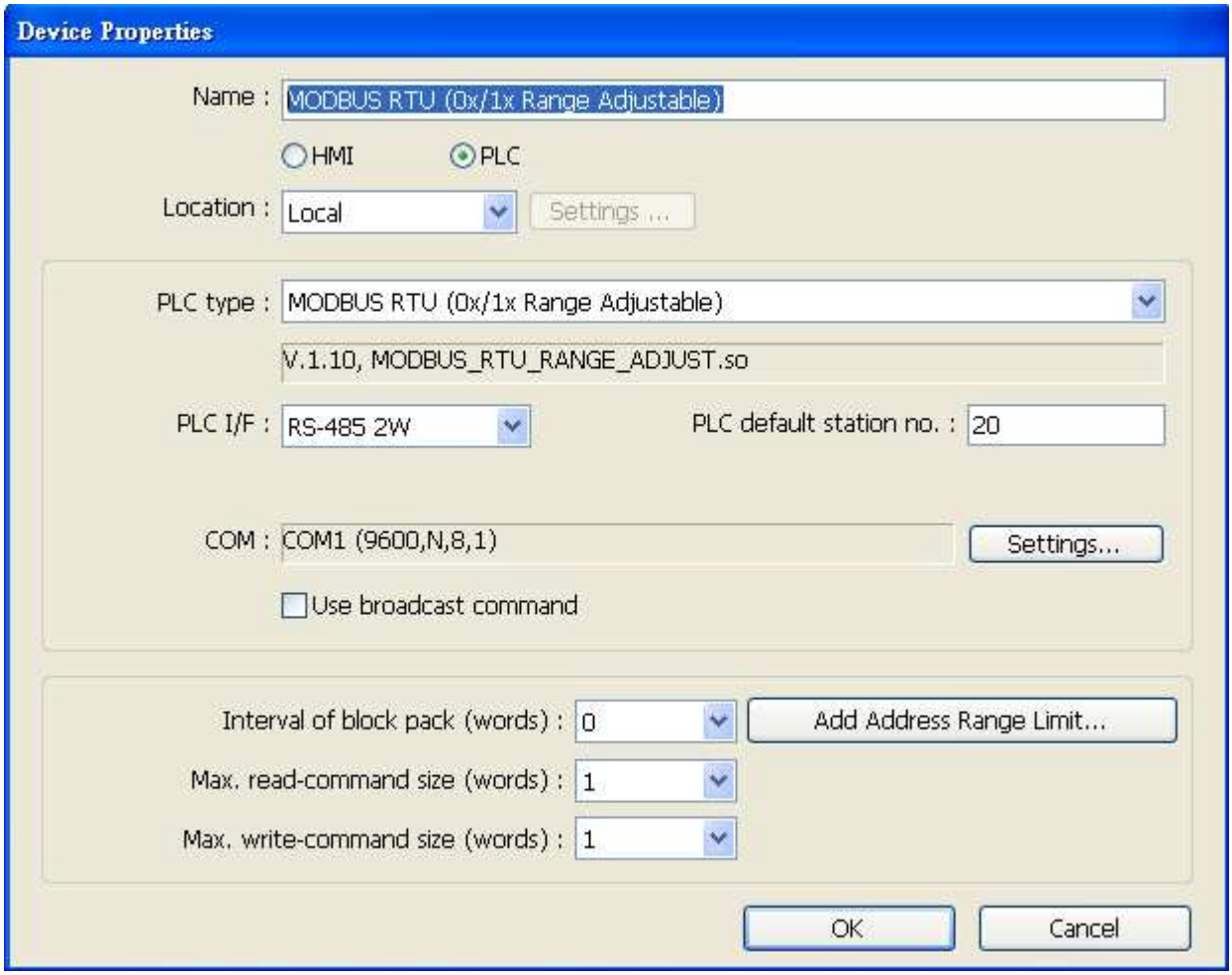
   - Max.read-command size (words): Pull down to select PLC reading range.



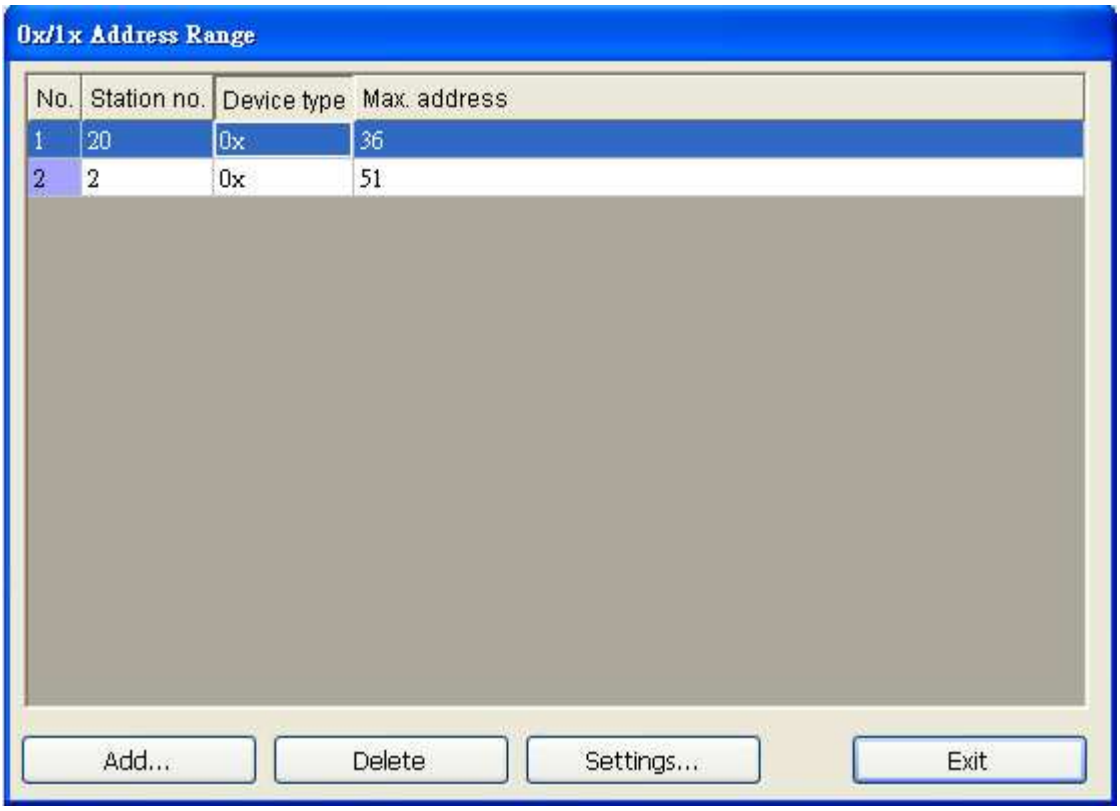
   - Max.write-command size (words): Pull down to select PLC writing range.



Note: Setting [Add Address Range Limit] is enabled only when bit address is not a multiple of 16bit.



3. Click [Add Address Range Limit] button, Users can define 0x and 1x address range in [0x 1x Address Range] dialogue box, referring to bit range of the device used.



Add：Set [Station No.], [Device Type], [Max. Address] then click [OK] to finish adding as below:

Delete：The selected items will be deleted.

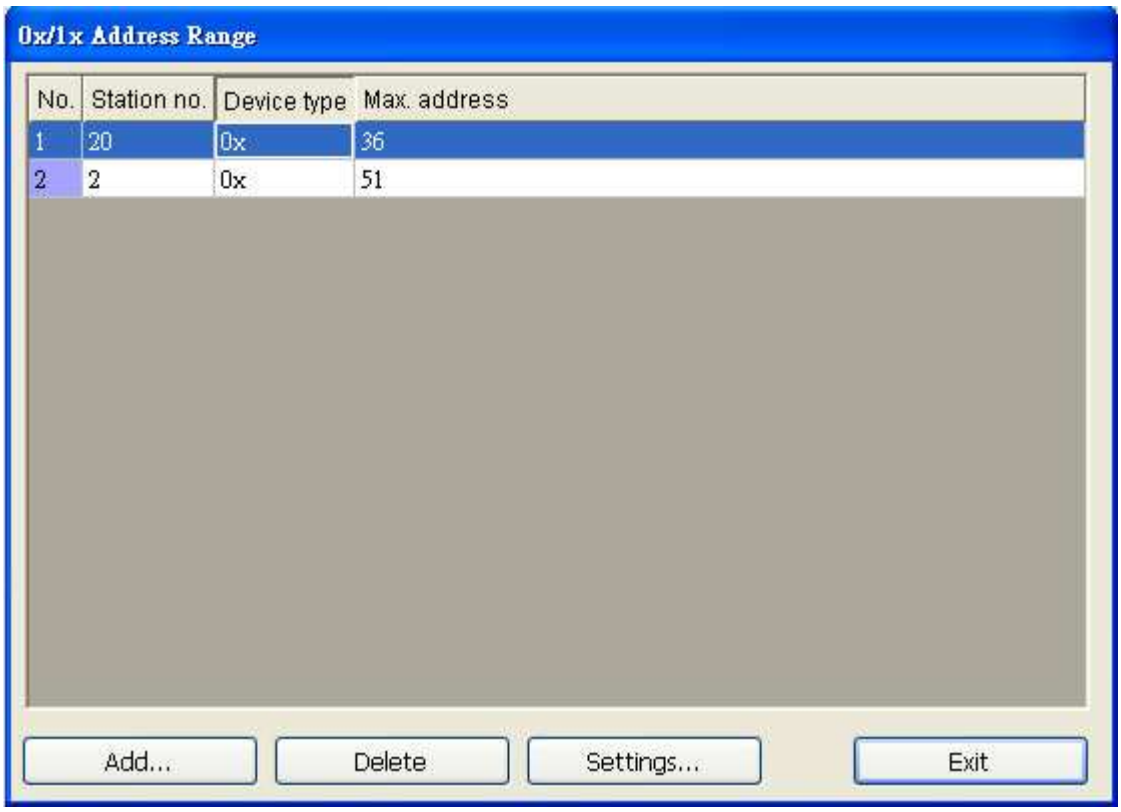
Settings：Set [Station No.], [Device Type], [Max. Address] then click [OK] to finish adding as below:

Example：

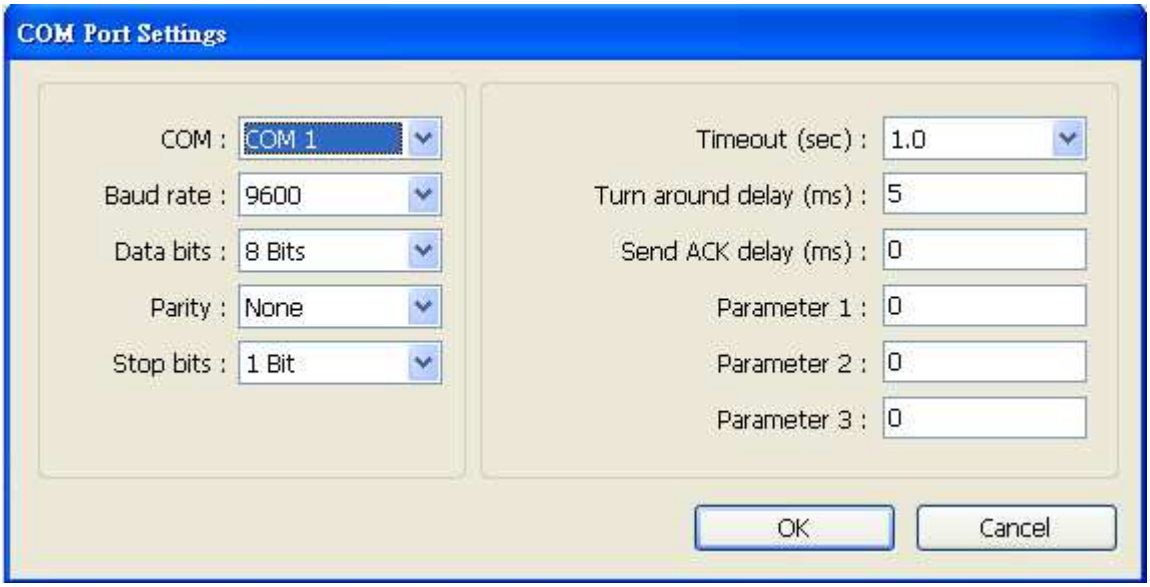
Take D2 and D8 of SCON as example, the settings depend on maximum bit range of different PLC types. Set [Station No.] and address first.

For D2, set [Station No.] to **20**, [Device Type] **0x**, [Max. Address] **36**.

For D8, set [Station No.] to **2**, [Device Type] **0x**, [Max. Address] **51**.



Note: If connecting with 2 or more PLC, click [Settings] in [Device Properties], and set **4** to [Turn around delay] as below.



After completing all settings above, users can now communicate with the devices.

Wiring diagram:

MODBUS RS232 PORT

MT8000 RS-232 9P D-SUB			Modbus RTU Controller RS232 Port
COM1	COM2	COM3	
3 TX	4 TX	7 TX	RXD
2 RX	6 RX	8 RX	TXD
5 GND	5 GND	5 GND	GND
			RTS
			CTS

MODBUS RS422/485 PORT

MT8000 COM1 RS-485 4w		Modbus RTU Controller RS422 Port
1	RX-	TX-
2	RX+	TX+
3	TX-	RX-
4	TX+	RX+
5	GND	GND

MT8000 RS-485 2Wire

9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Modbus RTU

Controller RS485

D-
D+
GND

MODBUS RTU (zero-based addressing)

MODBUS RTU CONTROLLER

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Modbus RTU		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	Modbus RTU protocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	0-65535	Output bit
B	1x	ddddd	0-65535	Input bit (read only)
B	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
B	3x_Bit	ddddd(dd)	0-6553515	Input Register bit (read only)
B	4x_Bit	ddddd(dd)	0-6553515	Output Register bit
W	3x	ddddd	0-65535	Input Register (read only)
W	4x	ddddd	0-65535	Output Register
DW	5x	ddddd	0-65535	4x double word swap
W	6x	ddddd	0-65535	4x single word write

NOTE:

Address type “5x” are mapping to Hold Reg. The communication protocol of 5x almost same as “4x” except “5x”making double word swap.

If 4x have following information

Address	1	2	3	4	5	6	...
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20001		0x40003		0x60005		

For 5x, it become

Address	1	2	3	4	5	6	...
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10002		0x30004		0x50006		

Modbus RTU function code:

0x 0x01 Read coil 0x05 write single coil

0x_multi_coils 0x01 Read coil 0x0f write multiple coil

1x 0x02 Read discrete input N/A for write operation

3x 0x04 Read input register N/A for write operation

4x 0x03 Read holding register 0x10 write multiple register

5x 0x03 Read holding register 0x10 write multiple register

(Note: reverse word order in double word format)

3xbit is equivalent to 3x

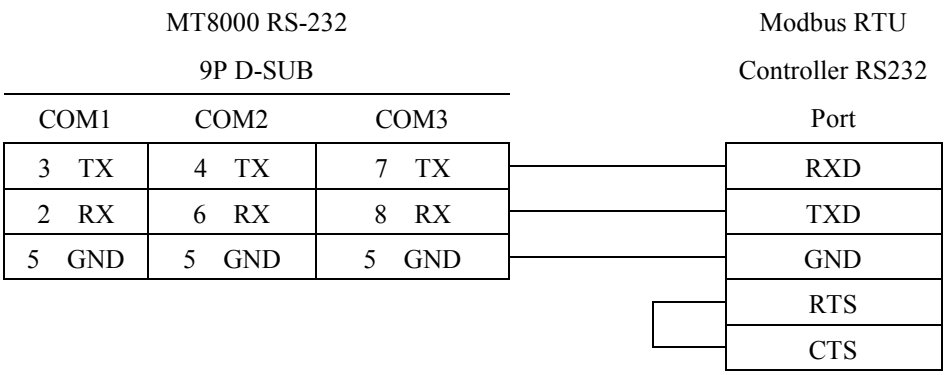
4xbit is equivalent to 4x

6x 0x03 Read holding register 0x06 write single register

(Note: use 6x device is limited to device of one word only)

Wiring diagram:

MODBUS RS232 PORT



MODBUS RS422/485 PORT

MT8000 COM1 RS-485 4w

1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

Modbus RTU Controller RS422 Port

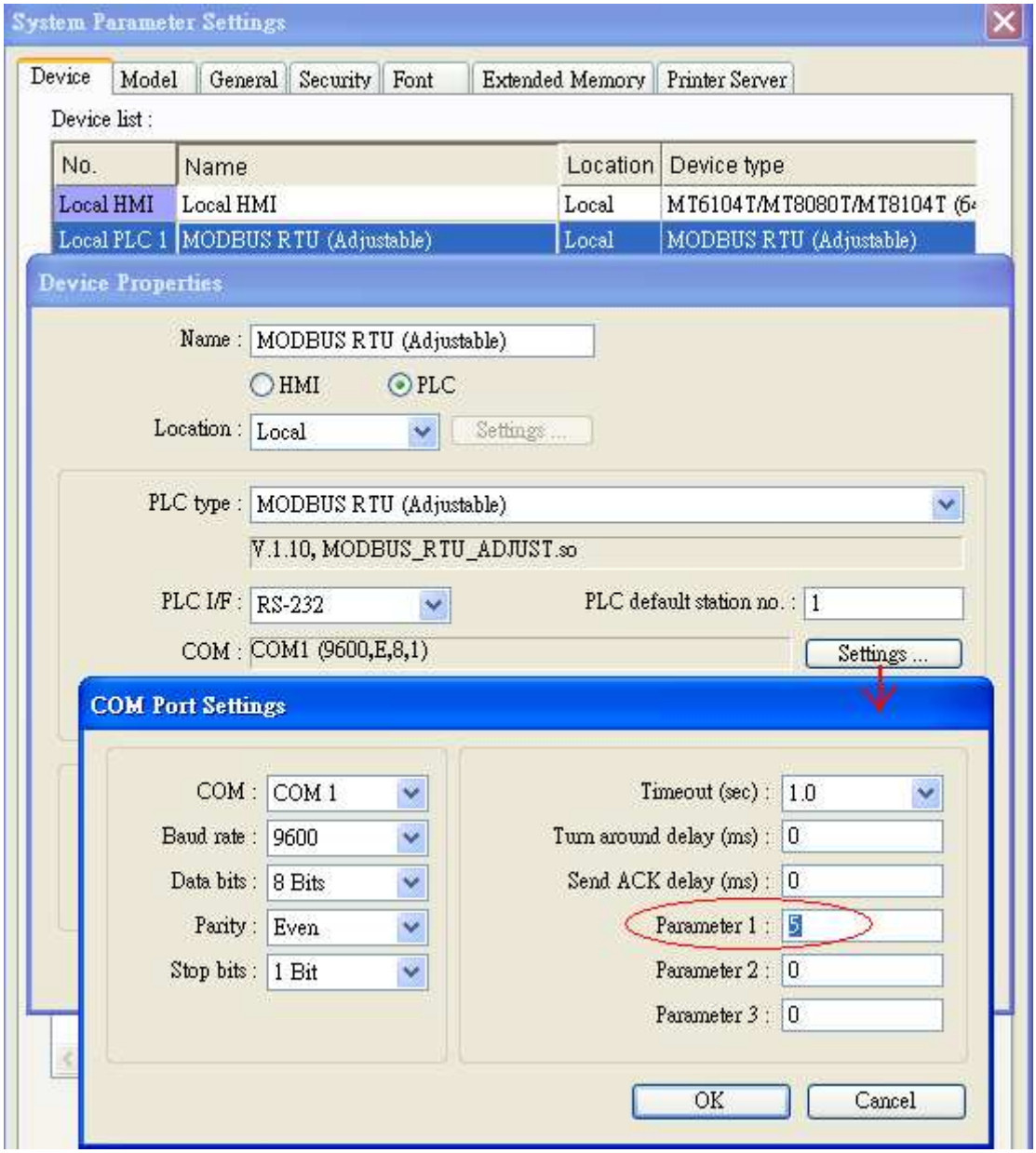
MT8000 RS-485 2Wire 9P D-SUB

COM1	COM3	
1 RX-	6 Data-	D-
2 RX+	9 Data+	D+
5 GND	5 GND	GND

Modbus RTU Controller RS485

Note: MODBUS RTU (adjustable) usage

Users can decide the address range via setting value on Parameter 1. For example, when users set 5 to Parameter 1, the address range become 5~65535.



Driver Version:

Version	Date	Description of Changes
V1.30	Aug/26/2009	

MODBUS Server (Modbus RTU Slave)

HMI Setting:

Parameters	Recommend	Option	Option	Notes
PLC type	Modbus Server			
Com port	RS232	RS232, RS485	Ethernet	
Baud rate	9600	9600~115200		
Parity bit	Even	Even, Odd, None		
Data Bits	8	8		
Stop Bits	1	1		
HMI Station No.	0		0	
PLC Station No.	1	1-31	0	**HMI Modbus station No.**
Port no.			502	

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

PLC Setting:

Communication mode	**Modbus RTU protocol**

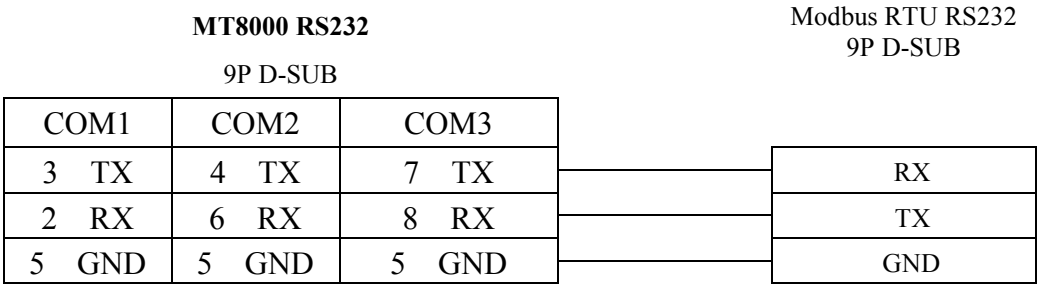
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	LB	dddd	0~9998	Mapping to 0x/1x 1~9999
W	LW	dddd	0~9998	Mapping to 3x/4x 1~9999
W	RW	ddddd	0~55536	Mapping to 3x/4x 10000~65536

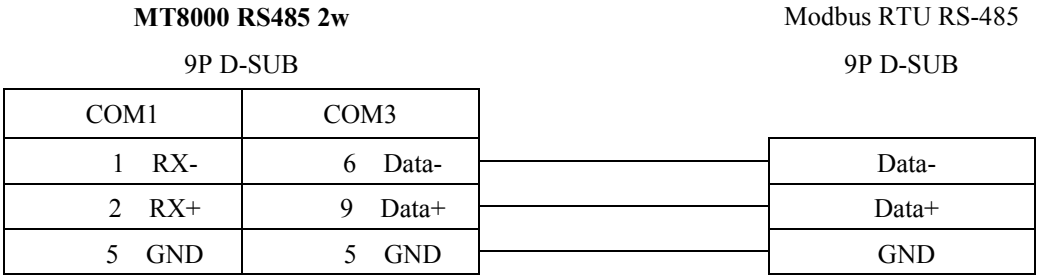
LB0 = 0x0001, LB1 = 0x0002, LW0 = 3x0001, LW1 = 3x0002
Modbus RTU Server doesn't support function Code 06(to preset single register), please use function code 16(0x10, preset multiple register).

Wiring diagram:

RS-232:



RS-485:



Precaution: Setting more than one Modbus server in HMI device list is useless.

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

MODBUS TCP/IP (Ethernet)

Modbus RTU TCP/IP device.

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	1	0~255	
TCP/IP port	502		

PLC Setting:

Communication mode	

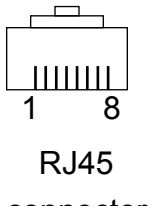
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	1x	ddddd	1-65535	Output bit
B	0x	ddddd dd	1-65535	Input bit
B	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
B	3x_bit	ddddd dd	100-6553515	Input Register bit (read only)
B	4x_bit	ddddd dd	100-6553515	Output Register bit
B	6x_bit	Ddddd dd	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

MODBUS TCP/IP (zero-based addressing)

Modbus RTU TCP/IP device.

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	0	0~255	
TCP/IP port	502		

PLC Setting:

Communication mode	

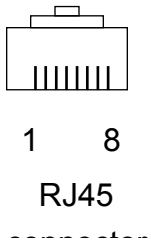
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	0-65535	Output bit
B	1x	ddddd dd	0-65535	Input bit (read only)
B	3x_bit	ddddd dd	0-6553515	Input Register bit (read only)
B	4x_bit	ddddd	0-6553515	Output Register bit
W	3x	ddddd	0-65535	Input Register (read only)
W	4x	ddddd	0-65535	Output Register
DW	5x	ddddd	0-65535	4x double word swap

Wiring diagram:

Ethernet::

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.40	Aug/27/2009	

MODBUS TCP/IP 32Bit

Modbus RTU TCP/IP device.

http://www.modbus.org

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	1	0~255	
TCP/IP port	502		

PLC Setting:

Communication mode	

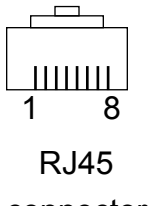
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	1x	ddddd	1-65535	Output bit
B	0x	ddddd dd	1-65535	Input bit
B	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
B	3x_bit	ddddd dd	100-6553515	Input Register bit (read only)
B	4x_bit	ddddd dd	100-6553515	Output Register bit
B	6x_bit	ddddd dd	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write
W	4x_32Bit	ddddd	1-65535	4x High/low byte swap

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Modbus TCP Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Moeller XC-CPU101

MOELLER XC100/200 series

http://www.moeller.net

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Moeller XC-CPU101		
Com port	RS232		
Baud rate	38400	4800~57600	
Parity bit	None		
Data Bits	8		
Stop Bits	2		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	
B	QX	ddo	dd:0~15, o:0~7	
B	IX	ddo	dd:0~15, o:0~7	
W	MW	dddd	1~4095	
W	QW	dd	0~15	
W	IW	dd	0~15	

Wiring diagram:

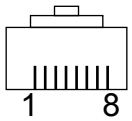
RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

CPU RS-232
8P RJ45

8	RD
5	TD
4	GND



RJ45

Driver Version:

Version	Date	Description of Changes
1.00	Apr/01/2010	

Modicon Twido

http://www.modicon.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Modbus RTU		Support Extended Address mode.
Com port	RS485	RS232/RS485	Must match the PLC's port setting.
Baud rate	19200	19200	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must set 8 for RTU mode
Stop Bits	1	1	Must set 8 for RTU mode
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	0-247	Must match the PLC's port setting.

PLC Setting:

Communication mode	**19200, None, 8, 1**
Select	**Modbus RTU Slave**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x or 1x	dddd	0~9999	%Mi
W	3x or 4x	dddd	0~9999	%MWi

Wiring diagram:

MT8000 RS-485
9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Port 1 RS485 port
8P mini-din Female

2 B(-)
1 A(+)
5 DTP
7 GND

8Pin miniDin Female

MT8000 RS-485
9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Port2 RS485 port
3Pin Terminal

B(-)
A(+)
GND

MT8000 RS232
9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Port2 RS232
9P D-SUB Female

2	RX
3	TX
5	GND

OEMAX Series

OEMax NX7/NX7s Controllers.

http://www.oemax.co.kr

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OEMAX series		
Com port	RS232		
Baud rate	9600	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	R	ddd(dd)	ddd:0~255 (dd): 0~15	
B	L	ddd(dd)	ddd:0~255 (dd): 0~15	
B	M	ddd(dd)	ddd:0~1999 (dd): 0~15	
B	K	ddd(dd)	ddd:0~255 (dd): 0~15	Keep contact
B	F	ddd(dd)	ddd:0~991 (dd): 0~15	Special contact
B	TC	ddd	ddd: 0~255	Timer/Counter
W	W	ddd	ddd:0~7999	Data register
W	SV	ddd	ddd:0~255	Timer/Counter Set Value
W	PV	ddd	ddd:0~255	Timer/Counter Preset Value
W	SR	ddd	ddd:0~255	Special register
W	WR	ddd	ddd:0~255	
W	WL	ddd	ddd:0~255	
W	WM	ddd	ddd:0~1999	
W	WK	ddd	ddd:0~255	
W	WF	ddd	ddd:0~991	

Wiring diagram:

RS-232:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

PLC Port1 RS232
9P D-SUB Female

3	RXD
2	TXD
5	GND

OMRON C/CQM1 Series

OMRON C, CPM, CPL, CQM Series (Host Link Protocol),
http://oeiweb.omron.com/oei/Products-PLC.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON C/CQM1 Series		
Com port	RS232	RS232, RS422, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	2	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-31	**Host Link Station No.**

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	**Host Link protocol**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	IR	dddd(dd)	0-409515	I/O and internal Relay
B	HR	dddd(dd)	0-409515	Hold Relay
B	LR	dddd(dd)	0-409515	Link Relay
B	IR (Force Set/Reset)	dddd(dd)	0-409515	
B	HR(Force Set/Reset)	dddd(dd)	0-409515	
B	LR(Force Set/Reset)	dddd(dd)	0-409515	
B	AR	ddd(dd)	0-409515	Auxiliary Relay
W	AR_W	dddd	0-4095	
W	IR_W	dddd	0-4095	

W	HR_W	dddd	0-4095	
W	LR_W	dddd	0-4095	
W	TC	ddd	255	
W	DM	dddd	9999	Data register

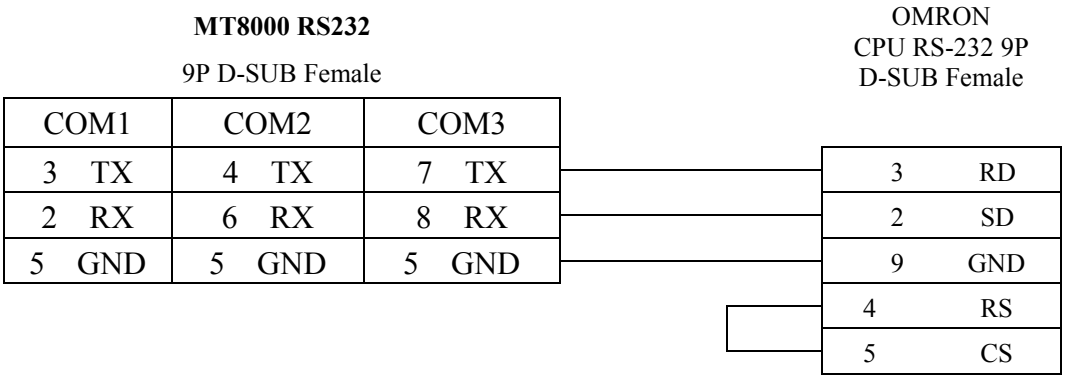
Wiring diagram:

CPU Port(CPM2A,CQM1/1H,C200H/HS/ALPHA series)

Communication Module:

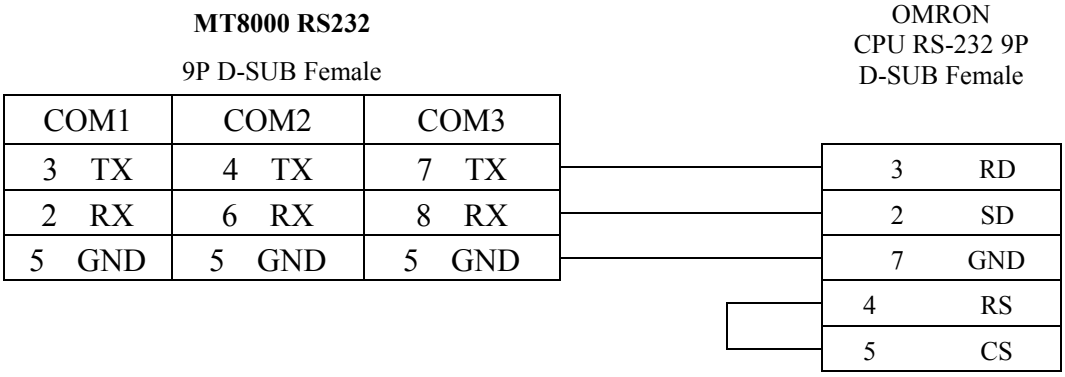
CPM1-CIF01 adapter(for CPM1/CPM1A/CPM2A series,CQM1/CQM1H series)

CPM1H-SCB41 communication module(for CQM1H-CPU51/61)



C200h-LK201,3G2A6-LK201 communication module

C200HW-COM02/03/04/05/06 communication module



Driver Version:

Version	Date	Description of Changes
V1.60	Sep/25/2009	

OMRON CJ1/CS1

OMRON CP1L, CP1H, CJ1M, CJ1H, CJ1G, CS1H and CS1G. (Host Link Protocol FINS command), this driver supports Extend Addressing mode.
http://oeiweb.omron.com/oei/Products-PLC.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON CJ1/CS1		
Com port	RS232	RS232, RS422, RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	2	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-31	**Host Link Station No.**

Online Simulator	YES	Extend address mode	YES
Broadcast command	NO		

PLC Setting:

Communication mode	**Host Link protocol**

Device address:

Bit/Word	Device Type	Format	Range	Memo
Bit	D_bit	ddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)
Bit	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)
Bit	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)
Bit	CIO_bit	ddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)
Bit	A_bit	ddd(dd)	ddd:0~959 (dd): 0~15	Auxiliary Relay (AR)
Bit	T_bit	ddd	ddd:0~4095	Timer (TIM)
Bit	C_bit	ddd	ddd:0~4095	Counter (CNT)
Word	D	ddd	ddd:0~32767	Data Memory (DM)
Word	H	ddd	ddd:0~511	Holding Area (HR)

Bit/Word	Device Type	Format	Range	Memo
Word	W	ddd	ddd:0~511	Work Area (WR)
Word	CIO	ddd	ddd:0~6143	Channel I/O (CIO)
Word	A	ddd	ddd:0~959	Auxiliary Relay (AR)
Word	T	ddd	ddd:0~4095	Timer (TIM)
Word	C	ddd	ddd:0~4095	Counter (CNT)
Word	EM0~EMC	dddd	dddd:0-6149	Extend Memory

Wiring diagram:

RS-232:

MT8000 RS232

9P D-SUB Female

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

OMRON
CPU RS-232 9P
D-SUB Female

3	RD
2	SD
9	GND
4	RS
5	CS

CP1H/CP1L CP1W-CIF11 RS422

MT8000

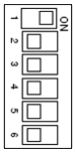
COM1 [RS-485] 4w

9P D-SUB Male

CP1W-CIF11

RS422 Port

1 RX-	SDA
2 RX+	SDB
3 TX-	RDA
4 TX+	RDB
5 GND	FG



CP1W-CIF11
SW1 ON
OFF
OFF
OFF
OFF
OFF

Driver Version:

Version	Date	Description of Changes
V1.40	Arp/17/2009	

OMRON CJ1/CS1 (Ethernet)

OMRON CJ1M, CJ1H, CJ1G, CS1H and CS1G. (Ethernet FINS),
http://oeiweb.omron.com/oei/Products-PLC.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON CJ1/CS1 (Ethernet)		
Com port	Ethernet		
TCP port	9600		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Communication mode	**FINS Ethernet protocol**

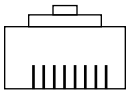
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	D_bit	ddddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)
B	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)
B	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)
B	CIO_bit	dddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)
B	A_bit	ddd(dd)	ddd:0~959 (dd): 0~15	Auxiliary Relay (AR) (Read only)
B	T_bit	dddd	ddd:0~4095	Timer (TIM)
B	C_bit	dddd	ddd:0~4095	Counter (CNT)
W	D	ddddd	ddd:0~32767	Data Memory (DM)
W	H	ddd	ddd:0~511	Holding Area (HR)
W	W	ddd	ddd:0~511	Work Area (WR)
W	CIO	dddd	ddd:0~6143	Channel I/O (CIO)
W	A	ddd	ddd:0~959	Auxiliary Relay (AR) (Read only)
W	T	dddd	ddd:0~4095	Timer (TIM)
W	C	dddd	ddd:0~4095	Counter (CNT)

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



1 8

RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	OMRON Ethernet RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-

7 BD3+	White/Brown		7 BD3+
8 BD3-	Brown		8 BD3-

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

OMRON E5CN

OMRON E5CN series Temperature controller with communication option.
E5EN/CN/GN series
http://oeiweb.omron.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON E5CN		
Com port	RS485 2W		
Baud rate	9600	9600/19200/38400/57600 /115200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7,8	
Stop Bits	2	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	0	0-99	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	9600, Even, 7, 2 (default)

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Status	dd	0-31	Page40
DW	C0	hhhh	0-5	Read only (Hex) Page34
DW	C1	hhhh	0-1C	Read/Write (Hex) Page35
DW	C3	hhhh	0-1D	Read/Write (Hex) Page36
W	Operation00_00	hh	0	Communications writing OFF (disabled)
W	Operation00_01	hh	0	Communications writing ON(Enabled)
W	Operation01_00	hh	0	Run
W	Operation01_01	hh	0	Stop
W	Operation02_00	hh	0	Multi-SP Set point 0

Bit/Word	Device Type	Format	Range	Memo
W	Operation02_01	hh	0	Multi-SP Set point 1
W	Operation02_02	hh	0	Multi-SP Set point 2
W	Operation02_03	hh	0	Multi-SP Set point 3
W	Operation03_00	hh	0	AT cancel
W	Operation03_01	hh	0	AT execute
W	Operation04_00	hh	0	Write mode (Backup)
W	Operation04_01	hh	0	Write mode (Ram)
W	Operation05_00	hh	0	Save RAM data
W	Operation06_00	hh	0	Software reset
W	Operation07_00	hh	0	Move to setup area 1
W	Operation08_00	hh	0	Move to protect level

Wiring diagram:

MT8000 RS-485 2Wire

9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

OMRON E5CN

12 B
11 A
GND

Driver Version:

Version	Date	Description of Changes
V1.20	Sep/16/2009	

Panasonic FP

NAIS(Matsushita) FP series include FP-X, FP-Σ, FP0, FP1, FP2, FP2SH, FP10SH and FP3 Ethernet support FP-X with AFPX-COM5.
http://pewa.panasonic.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	RS232	RS232/RS485 Ethernet	Must match the PLC's port setting.
Baud rate	9600	9600, 19200, 38400, 57600, 115200	Must match the PLC's port setting.
Parity bit	Odd	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	1	0-255	Must match the PLC's port setting. **FP3 must set 0.**

PLC Setting:

Communication mode	**9600,O,8,1(default)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	dddd(h)	0~9999F	Input(X)
B	Y	dddd(h)	0~9999F	Output(Y)
B	R	dddd(h)	0~9999F	Internal Relay(R)
B	L	dddd	0~9999	Link Relay(L)
B	L_Bit	dddd(h)	0~9999F	
B	T	dddd	0~9999	Timer(T)
B	C	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)

W	DT	ddddd	0~99999	Data Register(DT)
W	LD	dddd	0~8447	Link Register(LD)
W	WX	dddd	0~9999	Input(WX) (read only)
W	WY	dddd	0~9999	Output(WY)
W	WR	dddd	0~9999	Internal Relay(WR)
W	WL	dddd	0~9999	Link Relay(WL)
W	FL	ddddd	0~99999	File register(FL)

Wiring diagram:

MT8000 RS232

9P D-SUB

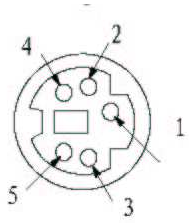
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FP0, FP2, FP2SH,FPM

CPU Tool port

5P mini DIN RS-232

3 RXD
2 TXD
1 GND



Mini Din 5 Pin

Female

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FP0 CPU RS232

3P terminal

R
S
G

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

FP1, FP2, FP2SH,FP10SH CPU

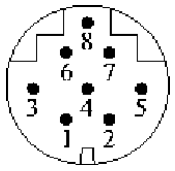
9p D-SUB Male RS232

3	RXD
2	TXD
7	GND
4	RTS
5	CTS
8	CD
9	ER

MT8000
COM1[RS-485]4w 9P
D-SUB

1 RX-	2	TXDA
2 RX+	5	TXDB
3 TX-	3	RXDA
4 TX+	6	RXDB
5 GND	1	GND

FP1 CPU RS422 port
Hirose 8Pin Port



Hirose 8Pin Port

MT8000
COM1[RS-485]4w 9P
D-SUB

1 RX-	9	TXDA
2 RX+	2	TXDB
3 TX-	10	RXDA
4 TX+	3	RXDB
5 GND	7	GND
	4	RTS+
	5	CTS+
	11	RTS-
	12	CTS-

FP3 CPU RS422 port
15P D-SUB Female

Driver Version:

Version	Date	Description of Changes
V1.40	Jul/23/2009	
V1.80	Apr/12/2010	Add FL device type

Panasonic FP (Ethernet)

NAIS(Matsushita) FP series include FP-X, FP-Σ, FP0, FP1, FP2, FP2SH, FP10SH and FP3
Ethernet support FP-X with AFPX-COM5.
http://pewa.panasonic.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	Ethernet		
Port no.	9094		
PLC Station no.	0	0~255	

PLC Setting:

Communication mode	

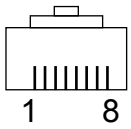
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	dddd(h)	0~9999F	Input(X)
B	Y	dddd(h)	0~9999F	Output(Y)
B	R	dddd(h)	0~9999F	Internal Relay(R)
B	L	dddd	0~9999	Link Relay(L)
B	L_Bit	dddd(h)	0~9999F	
B	T	dddd	0~9999	Timer(T)
B	C	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)
W	DT	ddddd	0~99999	Data Register(DT)
W	LD	dddd	0~8447	Link Register(LD)
W	WX	dddd	0~9999	Input(WX) (read only)
W	WY	dddd	0~9999	Output(WY)
W	WR	dddd	0~9999	Internal Relay(WR)
W	WL	dddd	0~9999	Link Relay(WL)
W	FL	ddddd	0~99999	File register(FL)

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45			Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

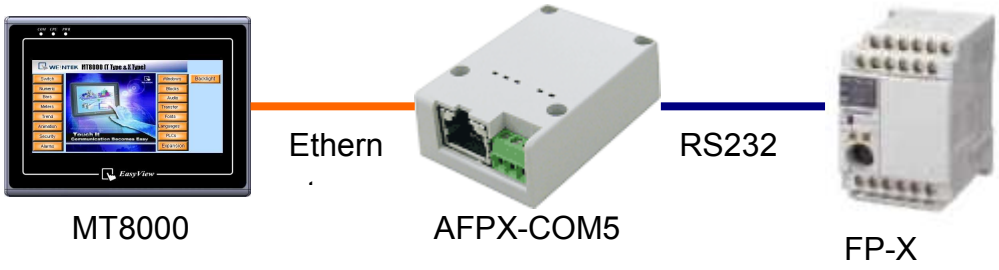


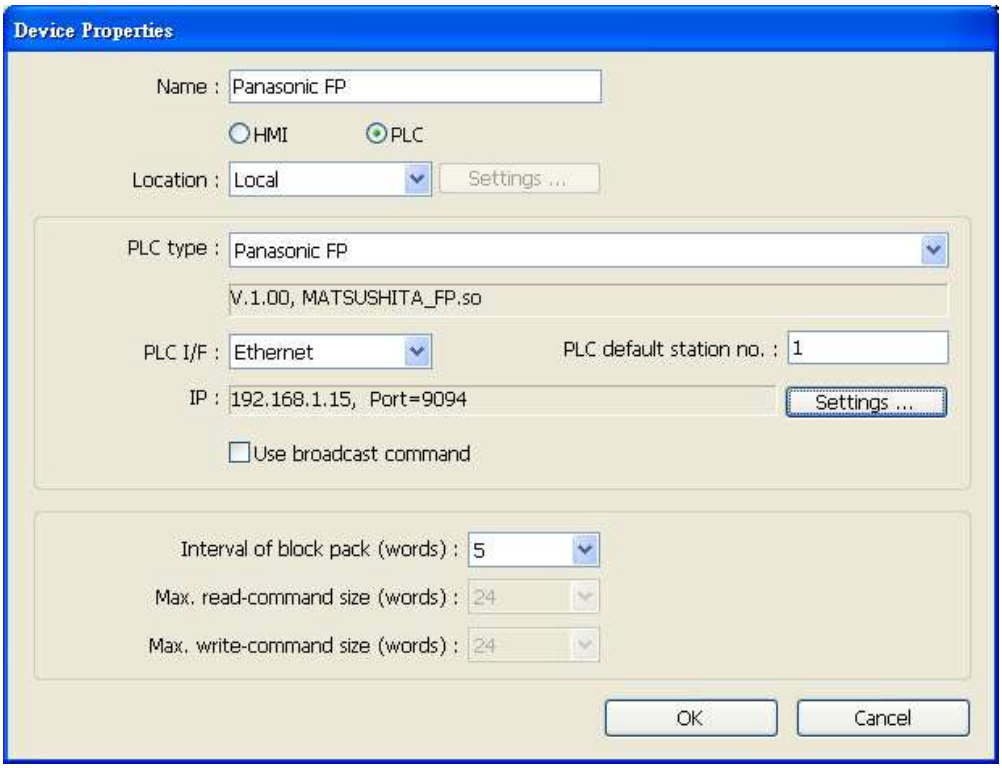
RJ45

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45			XGL-EFMT RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet connect
TCP port: 9094





Driver Version:

Version	Date	Description of Changes
1.80	April. 12.2010	

Panasonic FP2 (Ethernet)

NAIS(Matsushita) FP2 series include FP2, FP2SH, FP10SH CPU.
http://pewa.panasonic.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	Ethernet		
Port no.	8500		
PLC Station no.	0	0~255	

PLC Setting:

Communication mode	

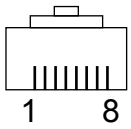
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	dddd(h)	0~9999F	Input(X)
B	Y	dddd(h)	0~9999F	Output(Y)
B	R	dddd(h)	0~9999F	Internal Relay(R)
B	L	dddd	0~9999	Link Relay(L)
B	L_Bit	dddd(h)	0~9999F	
B	T	dddd	0~9999	Timer(T)
B	C	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)
W	DT	ddddd	0~99999	Data Register(DT)
W	LD	dddd	0~8447	Link Register(LD)
W	WX	dddd	0~9999	Input(WX) (read only)
W	WY	dddd	0~9999	Output(WY)
W	WR	dddd	0~9999	Internal Relay(WR)
W	WL	dddd	0~9999	Link Relay(WL)

Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color RJ45				Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+	
2	TX-	Orange	2	RX-	
3	RX+	White/Green	3	TX+	
4	BD4+	Blue	4	BD4+	
5	BD4-	White/Blue	5	BD4-	
6	RX-	Green	6	TX-	
7	BD3+	White/Brown	7	BD3+	
8	BD3-	Brown	8	BD3-	



RJ45

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color RJ45			XGL-EFMT RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
1.00	March. 15.2010	

Panasonic MINAS A4

Panasonic MINAS A4 series Servo Drive

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	PANASONIC MINAS A4		
Com port	RS232		
Axis no.	0 (master station only)	0 ~ F (slave)	
Baud rate	9600		
Parity bit	None		
Data Bits	8		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	Command 01	d	0 ~ 0	cpu version (Numeric format:16-bit Hex)
W	Command 05	d	0 ~ 0	driver version (ASCII / 12 words)
W	Command 06	d	0 ~ 0	motor version (ASCII / 12 words)
B	Command 20	d	0 ~ 7	States (Note 3)
W	Command 21	d	0 ~ 0	command pulse counter (Numeric format: 32-bit Signed)
W	Command 22	d	0 ~ 0	feedback pulse counter (Numeric format: 32-bit Signed)
W	Command 24	d	0 ~ 0	present speed (Numeric format: 16-bit Unsigned)
W	Command 25	d	0 ~ 0	present torque (Numeric format: 16-bit Unsigned)
W	Command 26	d	0 ~ 0	present deviation counter (Numeric format: 32-bit Signed)
B	Command 27	d	0 ~ 31	input signal (Note 3)
B	Command 28	d	0 ~ 31	output signal (Note 3)
W	Command 84	d	0 ~ 0	write parameter to EEPROM (Note 1)
W	Command 90	d	0 ~ 0	present Alarm Data (Numeric format: 16-bit Unsigned)

W	Command 91	d	1 ~ 14	Alarm History (Note 4) (Numeric format: 16-bit Unsigned)
W	Command 92	d	1 ~ 14	Batch Alarm (Note 4) (Numeric format: 16-bit Unsigned)
W	Command 93	d	0 ~ 0	clear alarm history (include EEPROM) (Note 1)
W	Command 94	d	0 ~ 0	alarm clear (Note 1)
W	Command 9B	d	0 ~ 0	Absolute clear (Note 1)
W	Parameter	hh	0 ~ 7F	Individual Parameter (range: 0x00 ~ 0x7F) (Note 2)

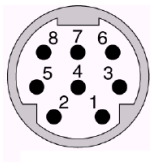
Note:

1. Command 84,Command 93,Command 94 and Command 9B are write only.(These commands are able to use Set Bit Object and execute the write command after trigger Set Bit Object.). Except these four commands, others are read only.
2. Parameter read/write: Use Device type to define address control from 00~7F
   For example: “address_00” is mapping to “Parameter_00”. (Please refer detail with Panasonic MINAS A4 series user manual.)
3. Device address type can define MINAS A4 Driver’s command list.
   Command 20, Command 27 and Command 28 are Bit type, use “Operating range” to map communication order status.
   For example: “Command 20_3” means “Read state_CCW.
   (Please refer detail with Panasonic MINAS A4 series user manual)
4. Command 91 and Command 92 are word type, use “Operating range” to map the record of 14 alarms.
   For example: “Command 91_1” means “Read alarm data_First alarm.

Wiring diagram:

MT8000 RS232 9P D-SUB			MINAS A4 Driver 8p Mini-DIN Male CNX4 Port / RS232	
COM1	COM2	COM3		
3 TX	4 TX	7 TX	5	RXD
2 RX RRX	6 RX	8 RX	3	TXD
5 GND	5 GND	5 GND	4	GND

MT8000 RS485 2w 9P D-SUB		MINAS A4 Driver 8p Mini-DIN Male	MINAS A4 Driver 8p Mini-DIN Male
COM1	COM3	CNX3 Port/RS485 2w	CNX4 Port/RS485 2w
1 RX-	6 Data-	7 D-	7 D-
2 RX+	9 Data+	8 D+	8 D+

	MINAS A4 Driver CNX3 Port	MINAS A4 Driver CNX4 Port
 8P Mini-Din Female MINAS A4 Driver CNX3 / CNX4 Port	7 D-	3 TX
	8 D+	5 RX
	4 GND	4 GND
		7 D-
		8 D+

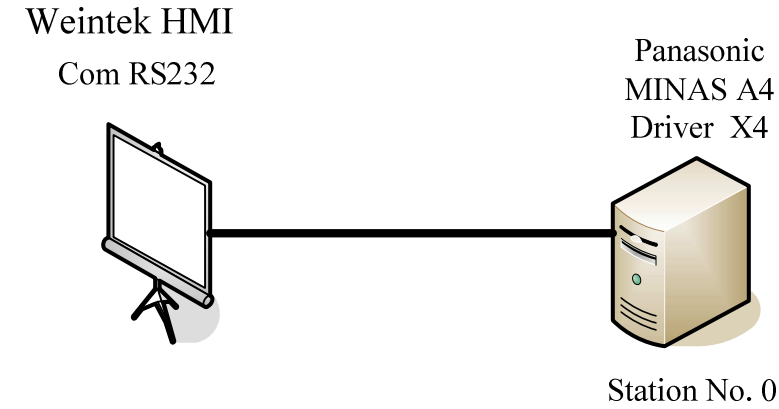
RS485 cable / DVOP1970-005

MINAS A4 Driver 8p Mini-DIN Male	MINAS A4 Driver 8p Mini-DIN Male
7 D-	7 D-
8 D+	8 D+
4 GND	4 GND

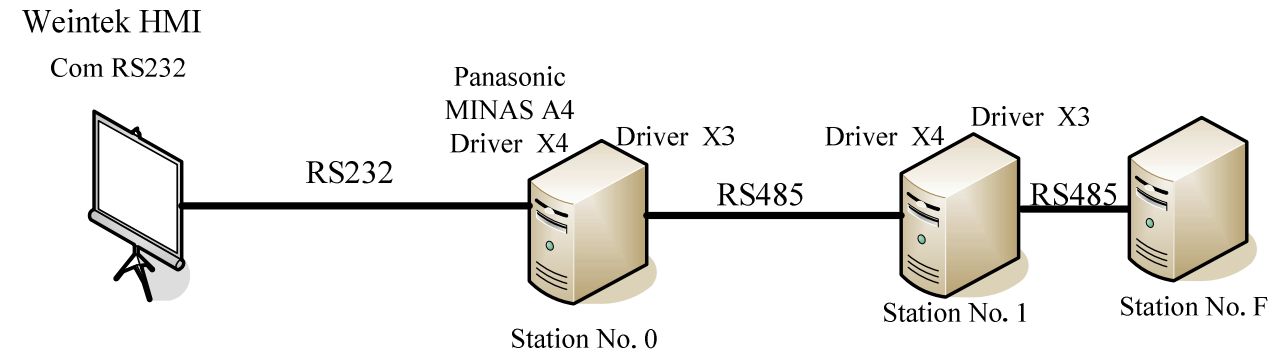
RS232 cable / DVOP1960

MINAS A4 Driver 9P D-SUB Female	MINAS A4 Driver 8p Mini-DIN Male
3 RXD	5 RXD
2 TXD	3 TXD
5 GND	4 GND

HMI connect with one Device



HMI connect with multi devices



Driver Version:

Version	Date	Description of Changes
V0.01	Jul/23/2009	

Parker ACR9000

Parker ACR9000

http://www.parkermotion.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Parker ACR9000		
Com port	RS232	RS485 4W / RS232	must same as the PLC setting
Baud rate	38400	1200 - 38400	must same as the PLC setting
Parity bit	None	Even, Odd, None	must same as the PLC setting
Data Bits	8	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0		
PLC Station No.	0		must same as the PLC setting

Online Simulator	YES	Extend address mode	

PLC Setting:

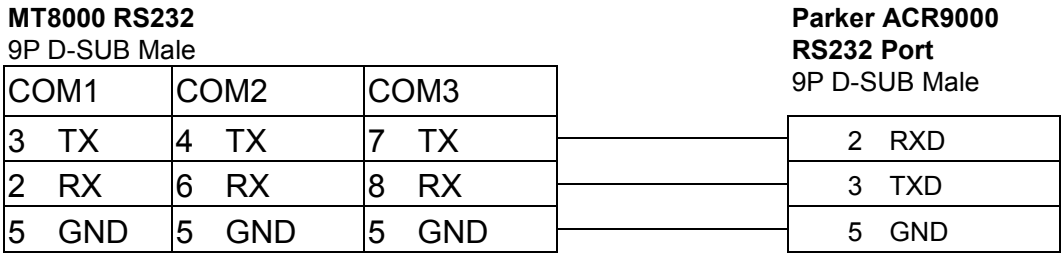
Communication mode	38400,None,8,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P_Low16bit	DDDDDdd	0~9999915	
B	P_High16bit	DDDDDdd	0~9999915	

Bit/Word	Device Type	Format	Range	Memo
W	P_Int32	DDDDD	0~99999	
W	P_Float	DDDDD	0~99999	

Wiring diagram:



Driver Version:

Version	Date	Description of Changes
V1.00	Sep./30/2008	

Parker Compax3

Parker Compax3 Servo Drive
http://www.parker.com

HMI Setting:

RS232

Parameters	Recommend	Option	Notes
PLC type	Parker Compax3 [V1.50]		
Com port	RS-232		Must match the PLC's port setting.
Baud rate	115200		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	0	0	Must be 0 for RS232

RS485

Parameters	Recommend	Option	Notes
PLC type	Parker Compax3 [V1.50]		
Com port	RS-485 2W		Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	1	1-99	Range from 1 to 99 for RS485, according to the PLC's setting.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	R_Low16bit	dddddddd(h)	0~99999999(f)	
B	R_High16bit	dddddddd(h)	0~99999999(f)	
DW	Register_Int	dddddd	0~999999	For Register is INT32 or U32
DW	Register_float	dddddd	0~999999	For Register is INT32 or U32
W	Register_Short	dddddd	0~999999	For Register is INT16 or U16

Wiring diagram:

RS232:

EasyView MT8000

RS232 9P D-SUB

COM1 [RS232]	COM2 [RS232]	COM3 [RS232]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Parker Compax3 PLC

X10 9P D-SUB

2 RXD
3 TXD
5 GND

RS485:

EasyView MT8000

RS-485 2w D-SUB

COM1[485]	COM3[485]
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

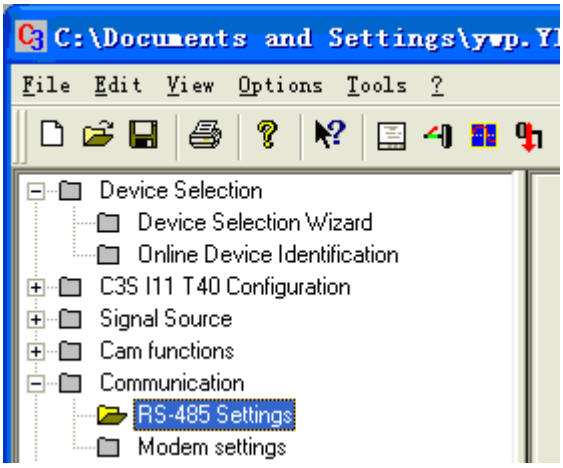
Parkar Compax3 PLC

X10 9P D-SUB

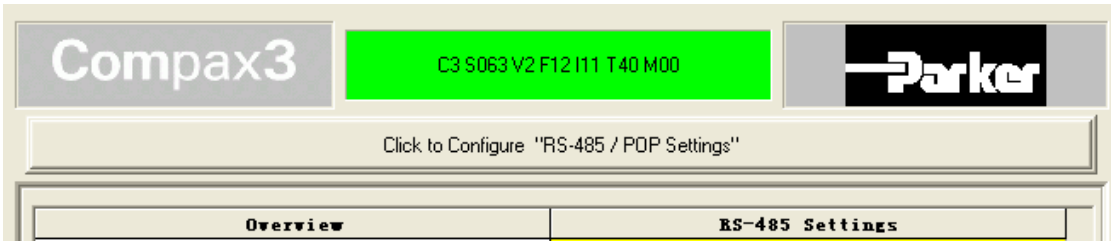
3 RXD
7 TXD
5 GND
1 Enable RS485
9 +5V

How to setting Compax 3 servo to RS485 mode?

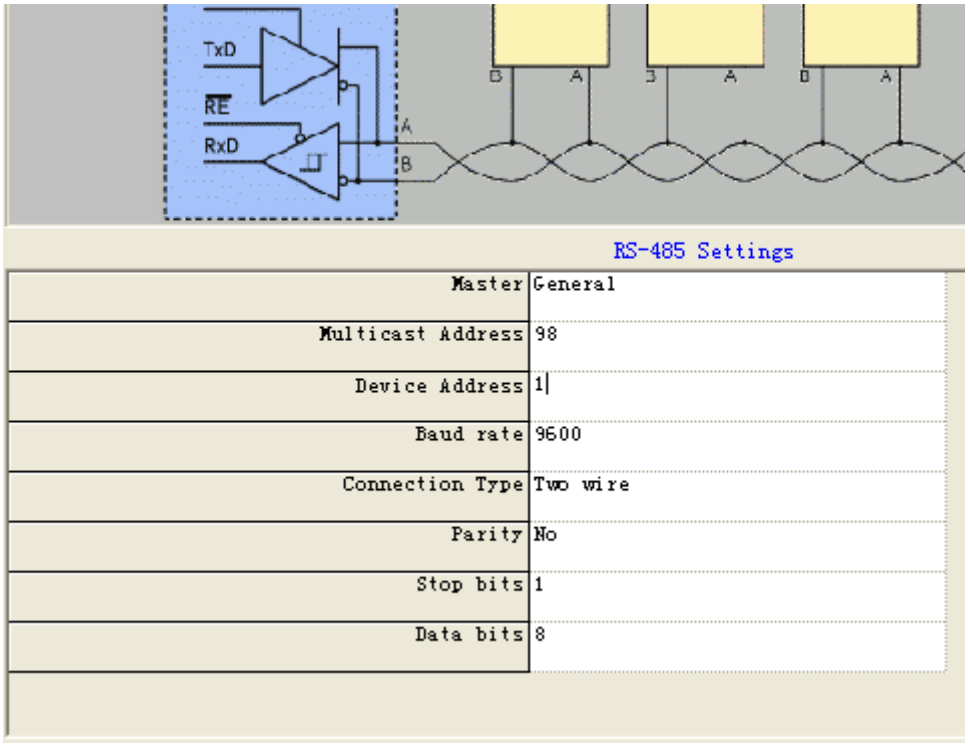
1. Open C3 ServoManager2, select “Communication”=> “RS-485 Settings”.



2. Click to Configure “RS-485/POP Settings”.



3. Setting parameters as below



4. Downloading settings to Compax3 Servo.
5. Setting EB8000 system parameter and connecting with PLC for communication of HMI and Servo.

Parker SLVD Series

Parker SLVD Servo, SLVD1N, SLVD2N, SLVD5N, SLVD7N, SLVD10N, SLVD15N, SLVD17N.
http://www.parker.com/portal/site/PARKER/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Parker SLVD Series		
Com port	RS485 4w		
Baud rate	9600	9600/19200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	8	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0		
PLC Station No.	0		0-31

Online Simulator	YES	Extend address mode	

PLC Setting:

Communication mode	9600,Even,8,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Par_Binary	DDD(DD)	0~4999(15)	Set a bit of Parameter
W	Par_One_Word	DDD	0~4999	Set 2 bytes Parameter
W	Par_One_Byte	DDD	0~4999	Set 1 byte Prarmeter
DW	Par_Two_Word	DDD	0~4999	Set 4 bytes Parameter

Wiring diagram:

MT8000

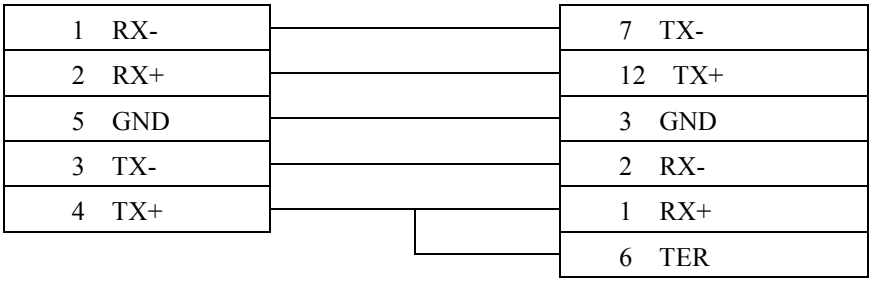
COM1[RS-485]4w

9P D-SUB

Parker SLVD Servo

Serial LINK X1

15P D-Sub



Driver Version:

Version	Date	Description of Changes
V1.00	Jan/28/2010	

SAIA PCD PGU Mode

SAIA PCD series PGU mode.
http://www.saia-burgess.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SAIA PCD PGU mode	SAIA PCD S-BUS mode	PDS driver
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7,8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

PLC Setting:

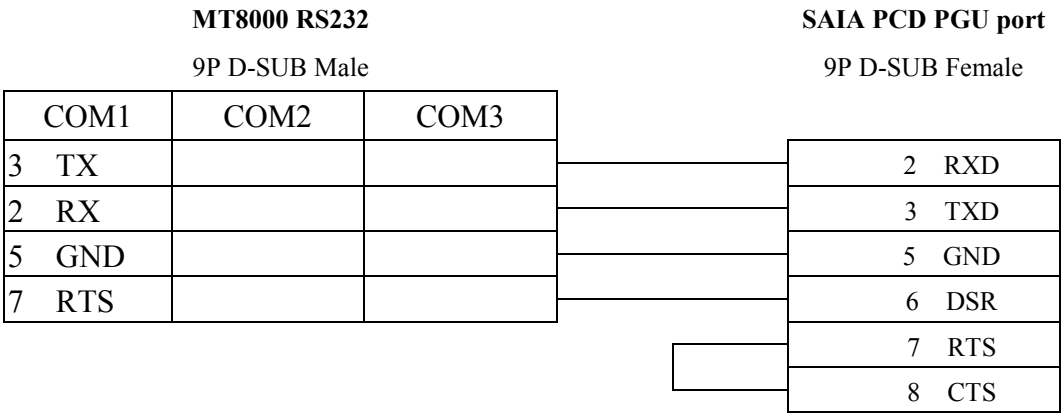
Communication mode	**9600,E,7,1(default)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Flag	ddd	ddd=0~8191	
B	Input	ddd	ddd=0~511	
B	Output	ddd	ddd=0~511	
D	Register	ddd	ddd=0~4095	
D	Counter	ddd	ddd=0~1599	
D	Timer	ddd	ddd=0~450	
D	Reg_Float	ddd	ddd=0~4095	support single float point

Wiring diagram:

RS232:



6 DSR(Of PGU Port):PGU connected

Driver Version:

Version	Date	Description of Changes
V1.02	Dec/30/2008	

SAIA PCD S-BUS Mode

SAIA PCD series S-Bus mode.
http://www.saia-burgess.com/

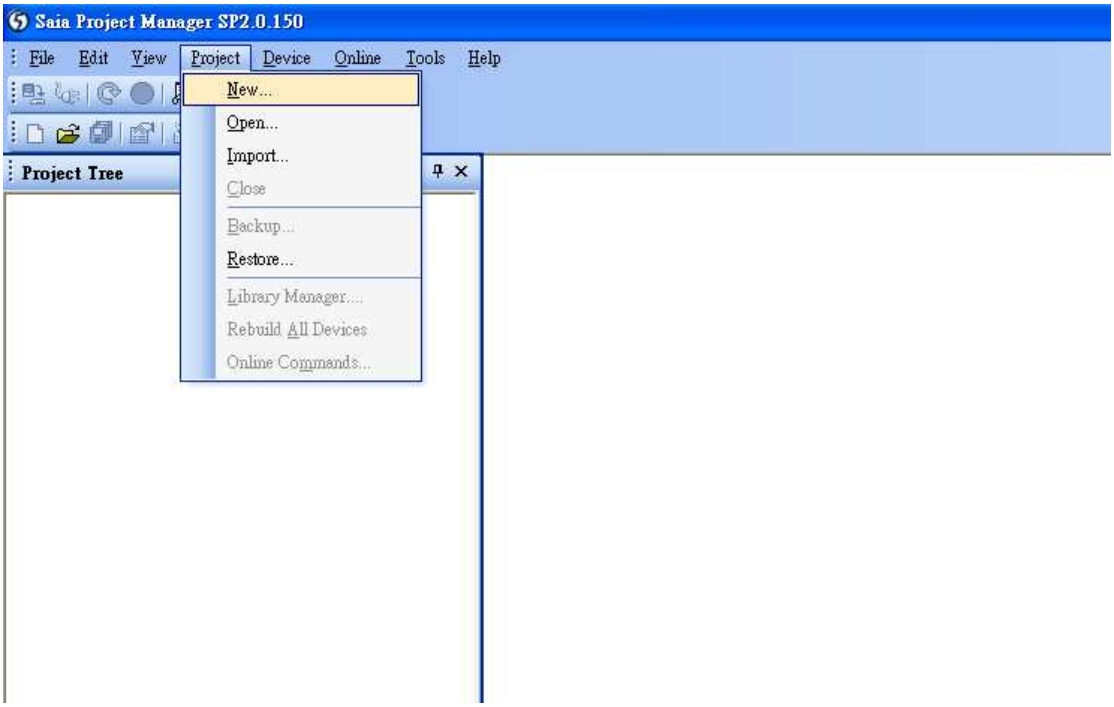
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SAIA PCD S-BUS mode	SAIA PCD PGU mode	PDS driver
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

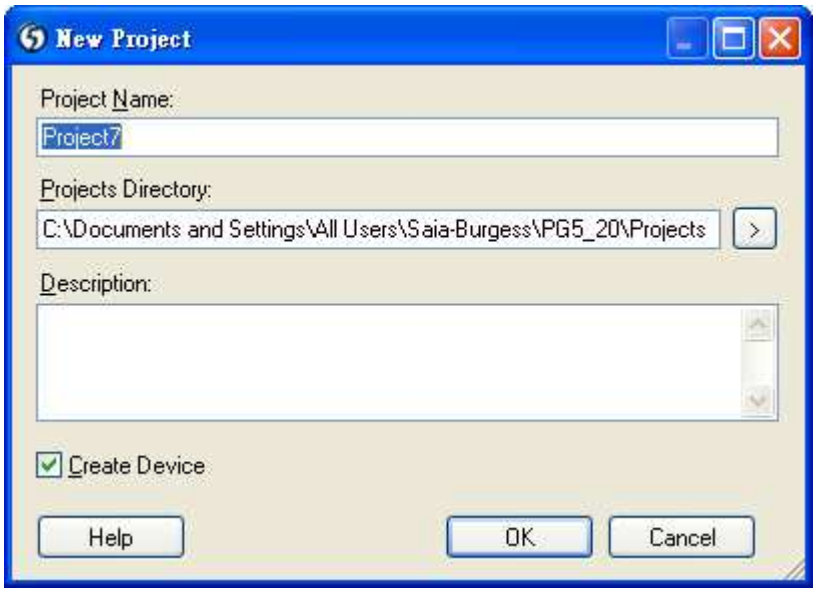
PLC Setting:

Communication mode	**9600,N,8,1(default)**
RS232	**Port 0-Type:RS232**
RS485 2W	**S-BUS Mode:Data(S2),Port 1-Type:RS485**

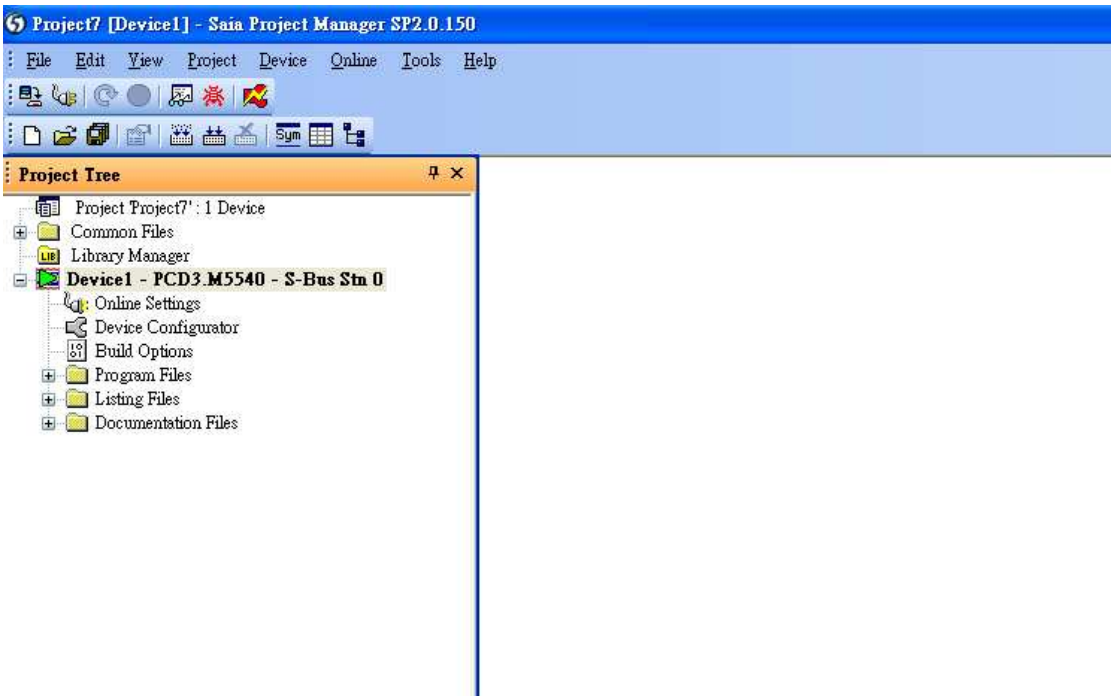
1. Open Saia Project Manager SP2.0.150 and create a new project



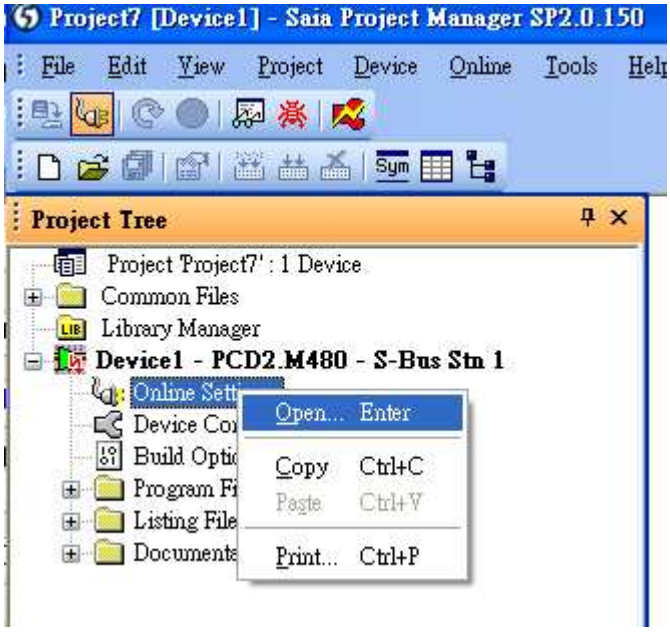
2. Give a project name



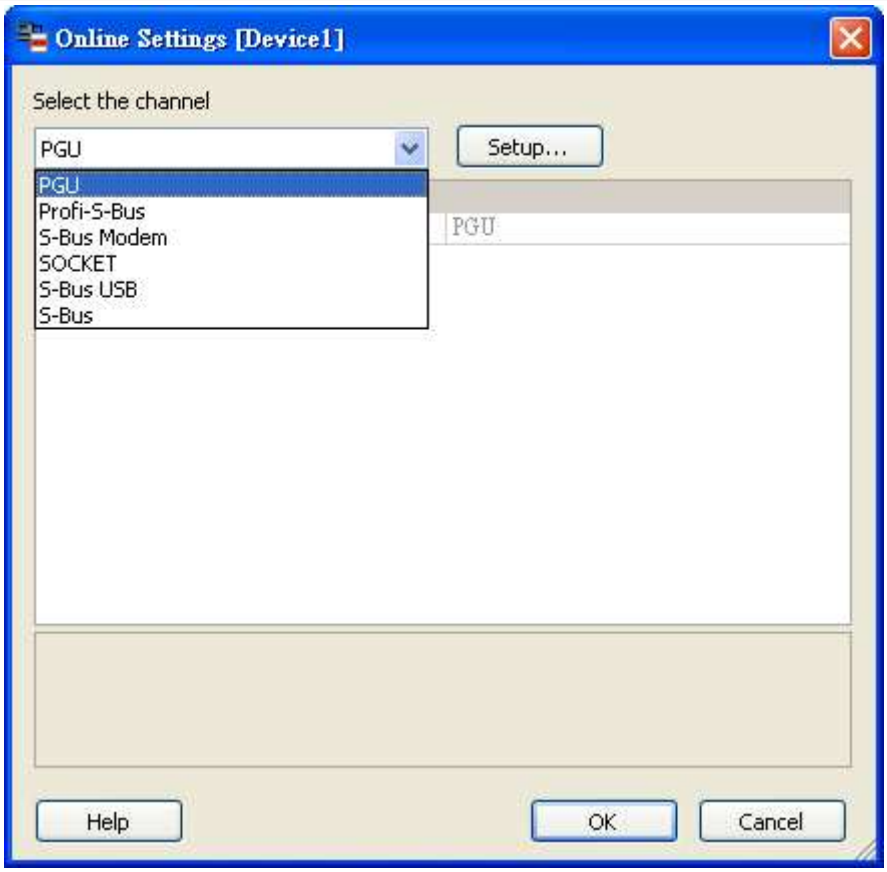
3. Create a new project as below,



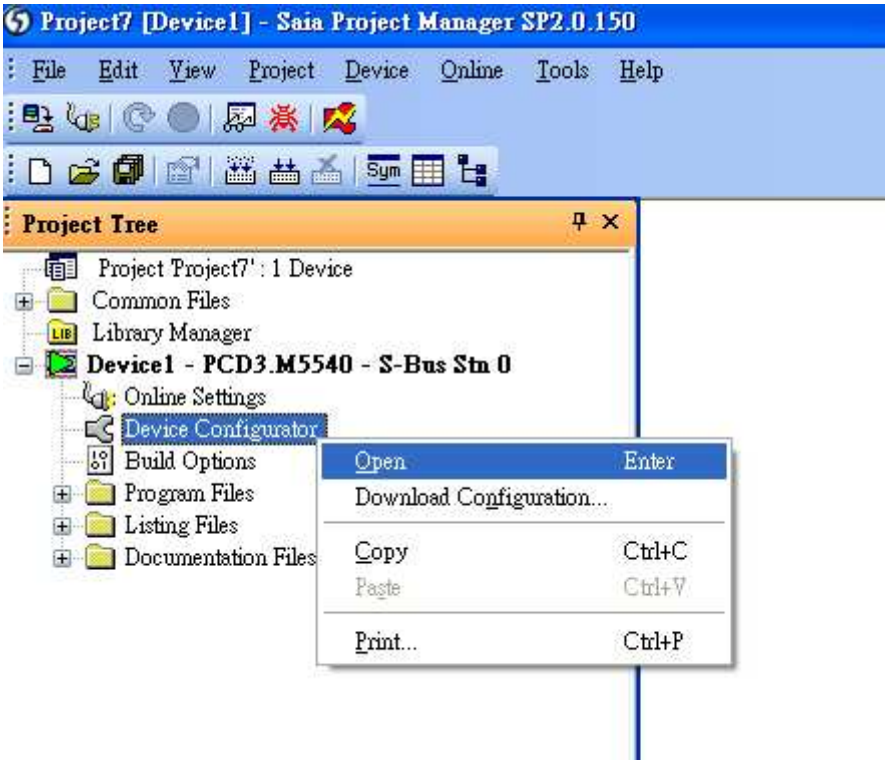
4. Go to Online Setting



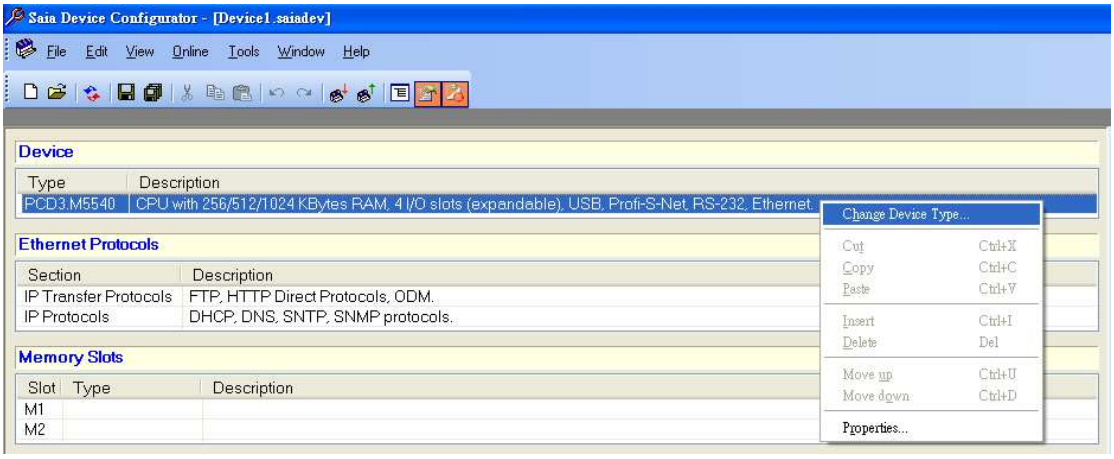
5. Select PGU

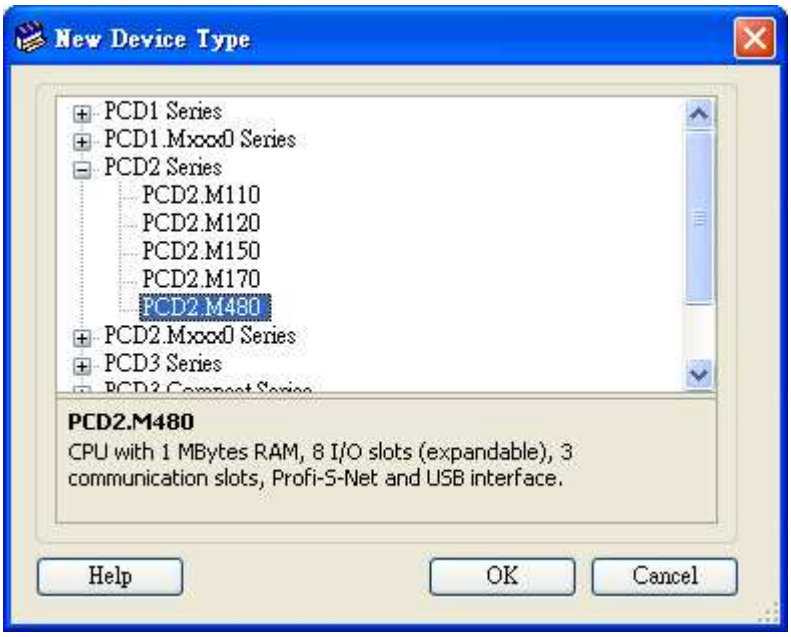


6. Go to ”Device Configurator”

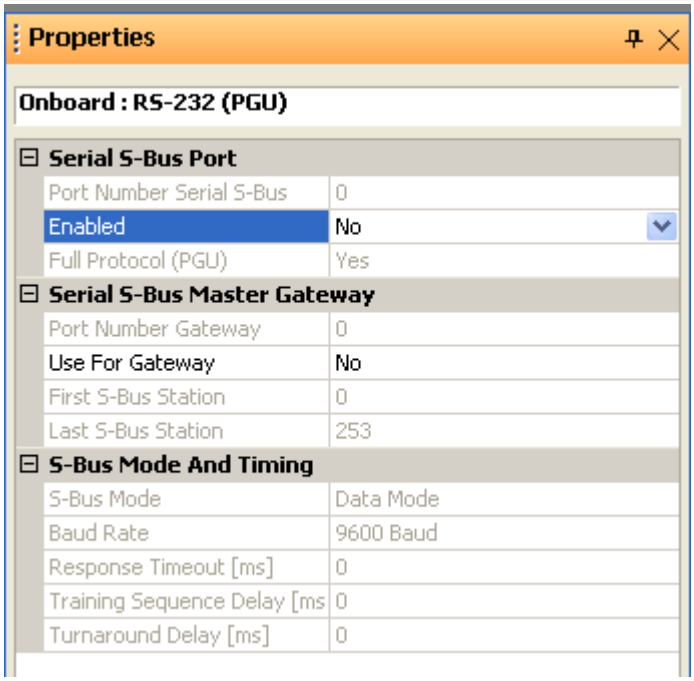


7. Press ” Change Device Type” to select your PLC model.

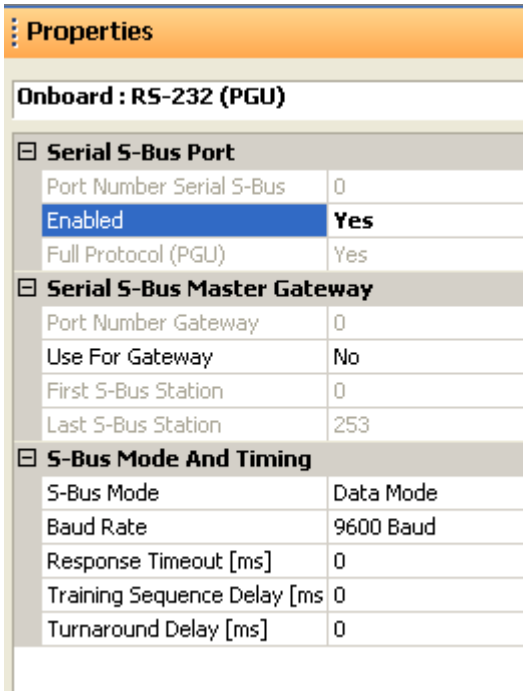




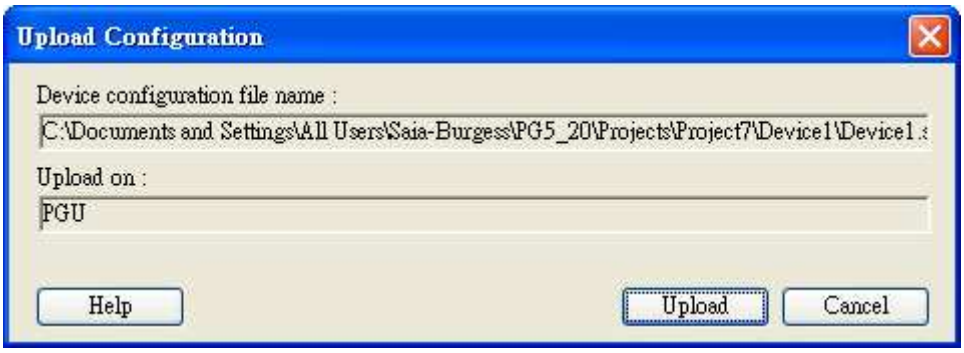
8. Select RS232(PGU) in Type and then right click mouse on Onboard Communications and select ” Properties”



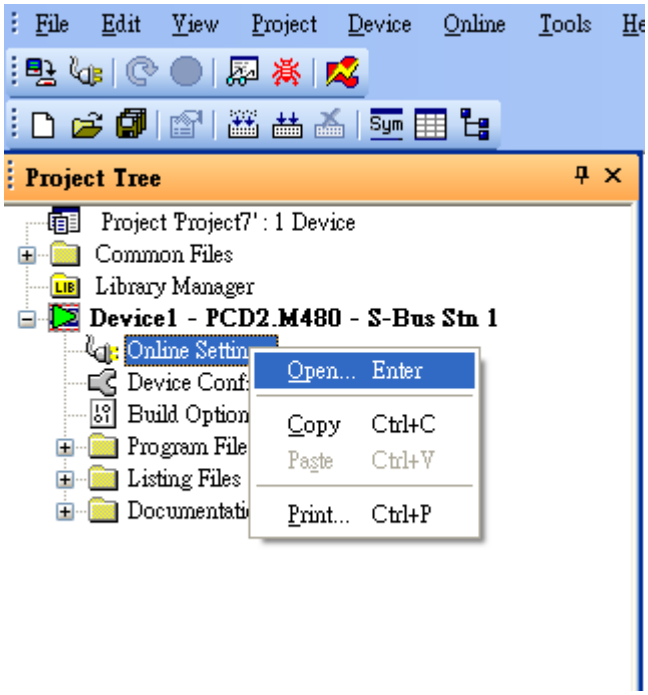
9. Select Yes in Series S-Bus Port : Enabled

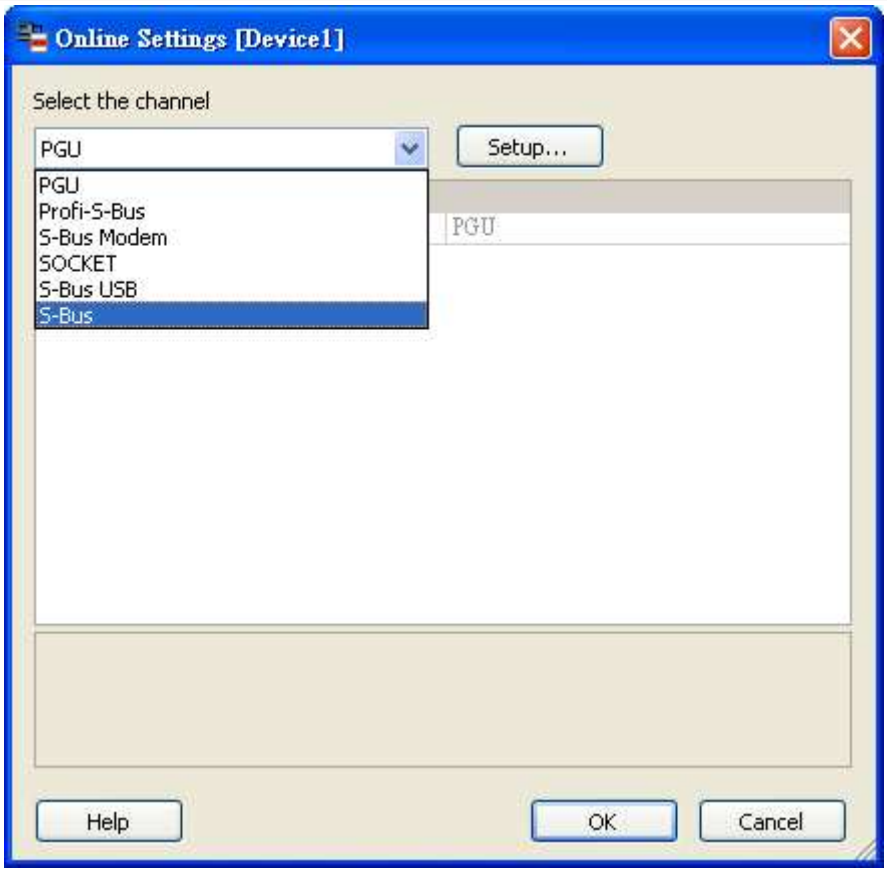


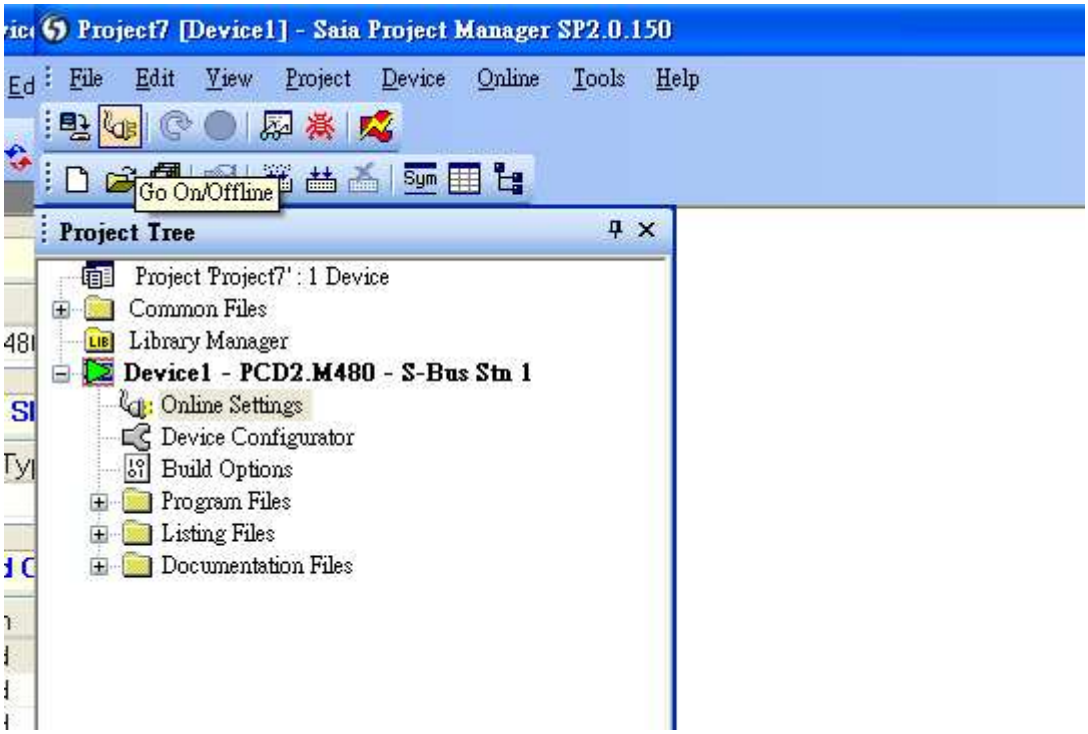
10. Setting parameters in S-Bus Mode And Timing and upload to PLC.



11. Go to Online Settins >> Open to select S-Bus for finishing the PLC settings.




Online Settings [Device1]
Select the channel
PGU
Setup...
PGU
Profi-S-Bus
S-Bus Modem
SOCKET
S-Bus USB
S-Bus
PGU
Help
OK
Cancel

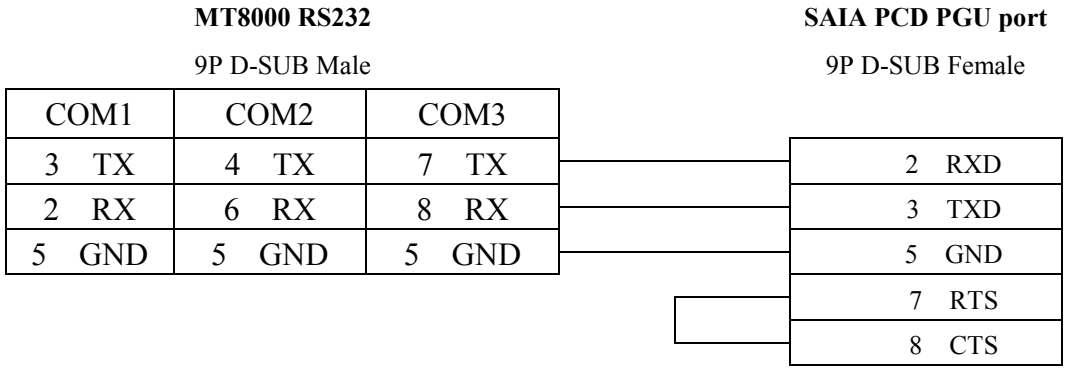

Project7 [Device1] - Saia Project Manager SP2.0.150
File
Edit
View
Project
Device
Online
Tools
Help
Go On/Offline
Project Tree
Project 'Project7' : 1 Device
Common Files
Library Manager
Device1 - PCD2.M480 - S-Bus Stn 1
Online Settings
Device Configurator
Build Options
Program Files
Listing Files
Documentation Files

Device address:

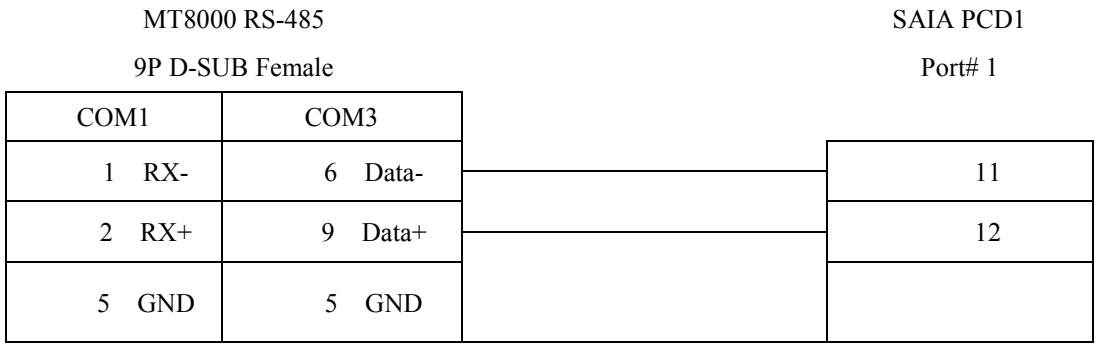
Bit/Word	Device Type	Format	Range	Memo
B	Flag	DDDD	0~8191	
B	Input	DDDD	0~1023	
B	Output	DDDD	0~1023	
B	Reg_Bit	DDDDdd	0~1638331	dd:Bit no. (00~31)
D	Register	DDDDD	0~16383	
D	Counter	DDDD	0~1599	
D	Timer	DDDD	0~1599	
D	Reg_Float	DDDDD	0~16383	support single float point

Wiring diagram:

RS232:



RS485:



MT8000 RS-485 9P D-SUB Female			SAIA PCD1 Port# 0
COM1	COM3		
1 RX-	6 Data-		29
2 RX+	9 Data+		28
5 GND	5 GND		

Driver Version:

Version	Date	Description of Changes
V1.10	Dec/30/2009	

SAIA S-BUS (Ethernet)

SAIA PCD series S-Bus mode.(Ethernet).
http://www.saia-burgess.com/

HMI Setting:

Parameters	recommend	Option	Notes
PLC type	SAIA SBUS (Ethernet)		UDP protocol
Com port	Ethernet		
Port no.	5050		
PLC Station No.	1		The same as PLC setting

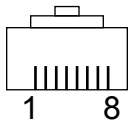
Device address:

Bit/Word	Device type	Format	Range	Memo
B	Flag	DDDD	0~8191	
B	Output	DDDD	0~1023	
B	Input	DDDD	0~1023	Read Only
B	Reg_Bit	DDDDDdd	0~1638331	dd : Bit no. (00~31)
DW	Register	DDDDD	0~16383	
DW	Counter	DDDD	0~1599	
DW	Timer	DDDD	0~1599	
DW	Reg_Float	DDDD	0~16383	

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	SAIA SBUS Ethernet RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.00	Aug/17/2010	
V1.10	Dec/3/2010	Add Reg_Bit register.

Schleicher XCS 20C

Schleicher XCx-Systems Ethernet port.
Schleicher XCS series, 20C model
http://www.schleicher-electronic.com

HMI Setting:

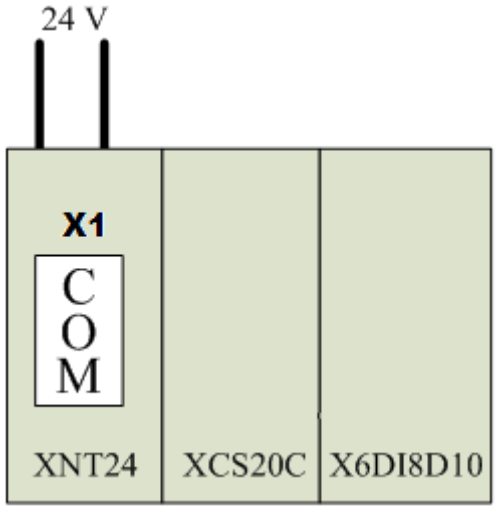
Parameters	Recommend	**Option**	**Notes**
PLC type	**Schleicher XCS20**		
Com port	**RS232**		
Baud rate	38400		
Parity bit	N		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.			

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	IX	ddddd(o)	ddd:0~65535 (o): 0~7	Input %IX
B	QX	ddddd(o)	ddd:0~65535 (o): 0~7	Output %QX
B	MX	ddddd(o)	ddd:0~65535 (o): 0~7	%MX
W	IW	ddddd	ddd:0~65535	%IW
W	QW	ddddd	ddd:0~65535	%QW
W	MW	ddddd	ddd:0~65535	%MW
DW	ID	ddddd	ddd:0~65535	%ID
DW	QD	ddddd	ddd:0~65535	%QD
DW	MD	ddddd	ddd:0~65535	%WD

- word address must be even.

Wiring diagram:



MT8000 RS232
9P D-SUB Female

Schleicher XCS20
RS-232 X1
9P D-SUB Male

COM1	COM2	COM3			
3 TX	4 TX	7 TX		2	RD
2 RX	6 RX	8 RX		3	TD
5 GND	5 GND	5 GND		5	GND

Driver Version:

Version	Date	Description of Changes
V1.00	Nov/30/2009	

Schleicher XCX 300

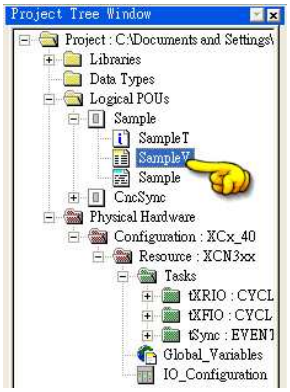
http://www.schleicher-electronic.com

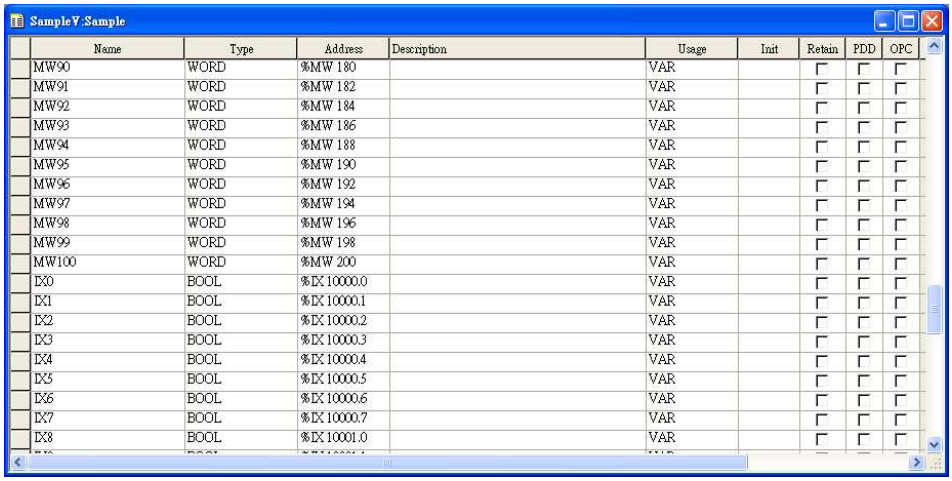
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Schleicher XCX 300		
Com port	Ethernet	RS232, RS422, Ethernet	
TCP Port no.	20547		
HMI Station No.	0		
PLC Station No.	0		

PLC Setting:

Must create variable for HMI access.





Name	Type	Address	Description	Usage	Init	Retain	PDD	OPC
MW90	WORD	%MW 180		VAR				
MW91	WORD	%MW 182		VAR				
MW92	WORD	%MW 184		VAR				
MW93	WORD	%MW 186		VAR				
MW94	WORD	%MW 188		VAR				
MW95	WORD	%MW 190		VAR				
MW96	WORD	%MW 192		VAR				
MW97	WORD	%MW 194		VAR				
MW98	WORD	%MW 196		VAR				
MW99	WORD	%MW 198		VAR				
MW100	WORD	%MW 200		VAR				
IX0	BOOL	%IX 10000.0		VAR				
IX1	BOOL	%IX 10000.1		VAR				
IX2	BOOL	%IX 10000.2		VAR				
IX3	BOOL	%IX 10000.3		VAR				
IX4	BOOL	%IX 10000.4		VAR				
IX5	BOOL	%IX 10000.5		VAR				
IX6	BOOL	%IX 10000.6		VAR				
IX7	BOOL	%IX 10000.7		VAR				
IX8	BOOL	%IX 10001.0		VAR				

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	IX	ddddd(o)	ddddd:0~65535 (o): 0~7	Input %IX
B	QX	ddddd(o)	ddddd:0~65535 (o): 0~7	Output %QX
B	MX	ddddd(o)	ddddd:0~65535 (o): 0~7	%MX
W	IW	ddddd	ddddd:0~65535	%IW
W	QW	ddddd	ddddd:0~65535	%QW

W	MW	ddddd	ddddd:0~65535	%MW
DW	ID	ddddd	ddddd:0~65535	%ID
DW	QD	ddddd	ddddd:0~65535	%QD
DW	MD	ddddd	ddddd:0~65535	%MD

* word address must be even.

Wiring diagram:

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		**Wire color**	**PLC RJ45**	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

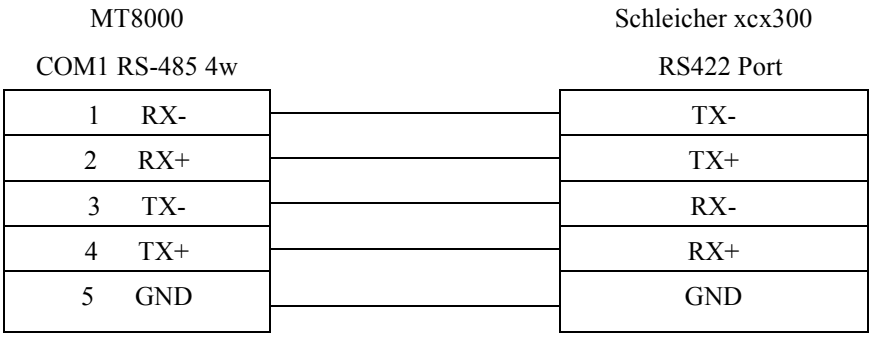
Ethernet Hub:

MT8000 Ethernet RJ45		**Wire color**	**Ethernet Hub or Switch RJ45**	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

RS232 port

MT8000 RS-232 9P D-SUB			Schleicher xcx300 RS232 Port
COM1	COM2	COM3	
3 TX	4 TX	7 TX	RXD
2 RX	6 RX	8 RX	TXD
5 GND	5 GND	5 GND	GND

RS422 port



Driver Version:

Version	Date	Description of Changes
V1.00	Nov/30/2009	
V1.10	Jul/1/2010	Support RS232, RS422 interface connection

SEW Movilink

SEW Eurodrive series, model MOVITRAC-07 inverter, MovitracB
http://sg.sew-eurodrive.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SEW Eurodrive MOVITRAC		
Com port	RS-485		
PLC Station No.	0	0~255	
Baud rate	9600		
Data bit	8		
Parity bit	Even		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	INDEX	DDDddddd	DDD(000~255) ddddd(08000~25000)	D: Sub Index d: Index
B	INDEX_Bit	DDDddddd(h)	DDD(000~255) ddddd(08000~25000) h(0~f)	D: Sub Index d: Index h: Index_bit

- The MOVITRAC-07 doesn't support Sub index（other series maybe support）, please fixed to input 000.
- When input D and d, the correct format example as follow：Sub index 15, Index 8359, Format is 01508359

Wiring diagram:

EasyView MT8000
RS-485 2W (COM 1)

MOVITRAC-07
RS-485

Pin 1 (D -) → Green

Pin 2 (D +) → Red

Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

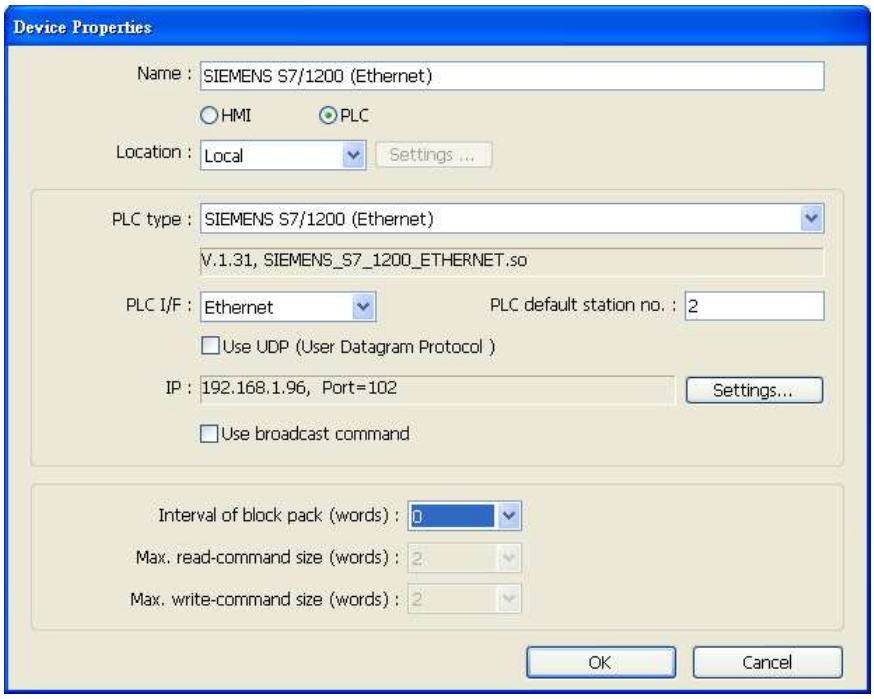
SIEMENS S7/1200 (Ethernet)

Siemens S7/1200 series Ethernet
http://www.ad.siemens.com

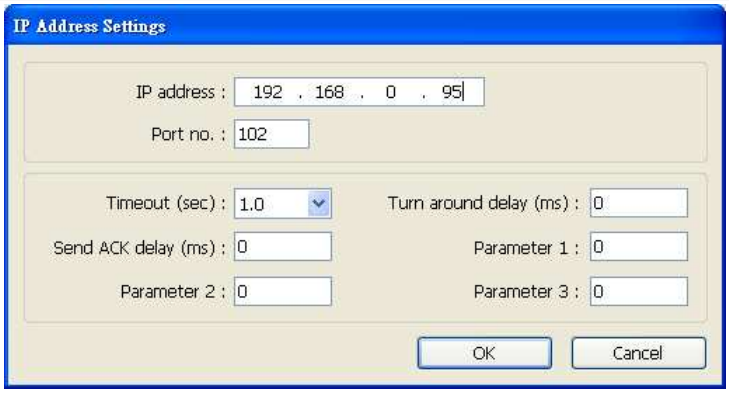
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/1200 (Ethernet)		
Com port	Ethernet		
HMI Station No.	0		
PLC Station No.	2		
TCP port	102		
Interval of block pack	0		

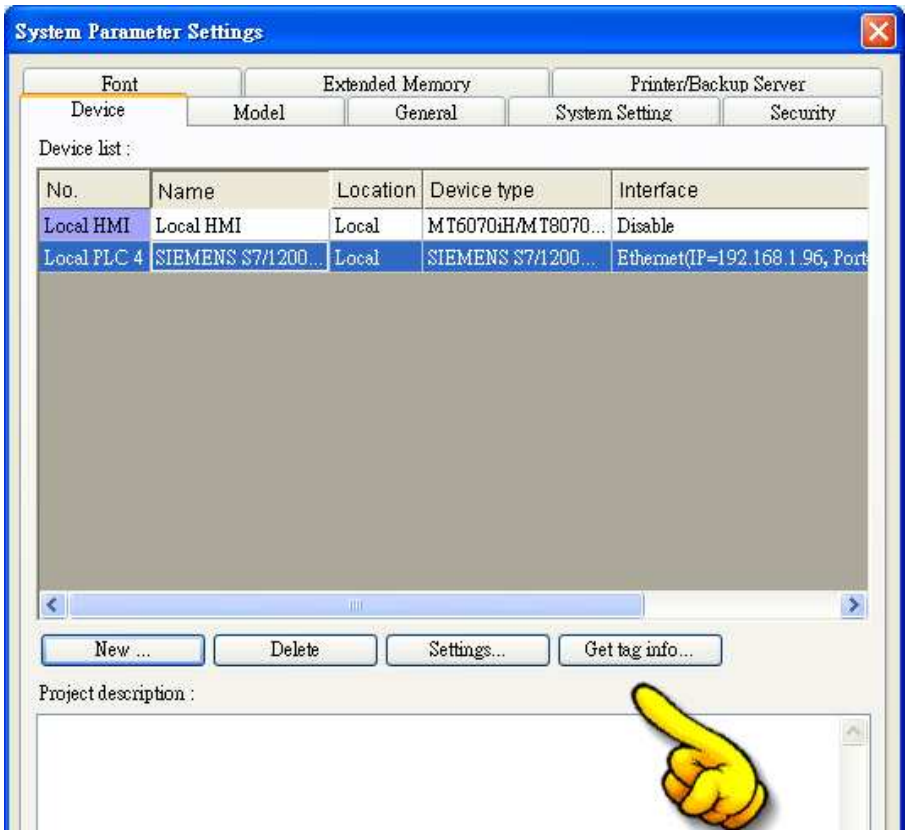
1. In S7-1200 program software creates PLC program and tag and then download to PLC. Select Go offline, EB8000 will connect to PLC and get tag data.
2. In PLC type select"SIEMENS S7/1200 (Ethernet)". Set Interval of block pack (words) to 0.



3. Click "Settings…", input PLC IP address.

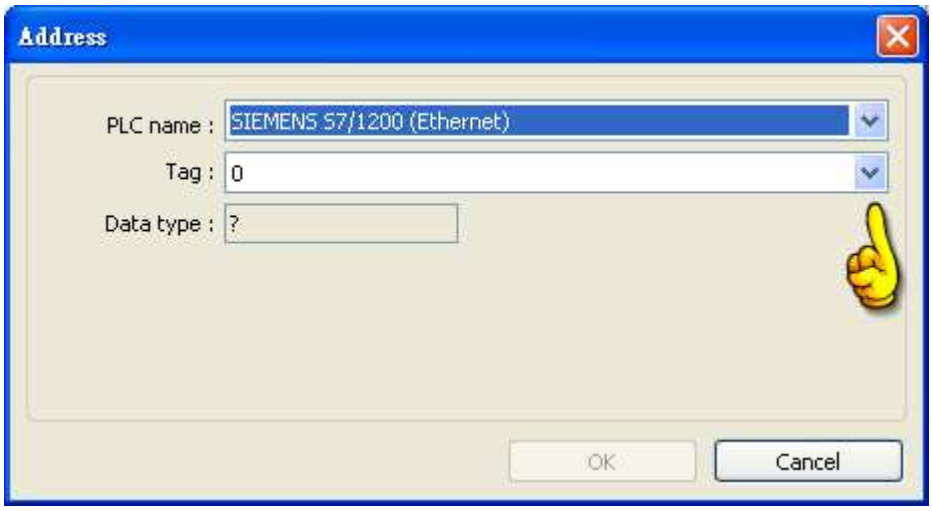


4. Check the PLC has not any PC connected. Click “Get tag info…”, it will show a successful message.

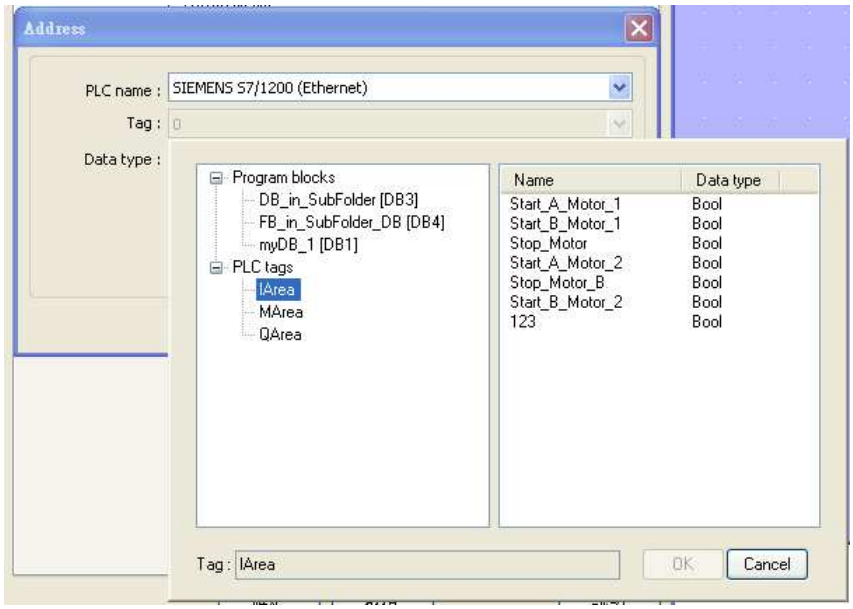


5. Create an object and click read address “Setting…”

In PLC name select S7-1200 then click Tag.



Select PLC tag.



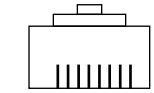
Support Device Type:

S7-1200 Data type	EB8000 Data format	Memo
Bool	bit	
Word	16-bit BCD, Hex, Binary, Unsigned	
Int	16-bit BCD, Hex, Binary, Signed	
DWord	32-bit BCD, Hex, Binary, Unsigned	
Dint	32-bit BCD, Hex, Binary, Signed	
Real	32-bit Float	
Array	Word array for ASCII input and ASCII display	Length=word

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	S7-1200 Ethernet RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Notification:

On-line Simulation	OK	
Multi-PLC connect	OK	

Driver Version:

Version	Date	Description of Changes
V1.00		

SIEMENS S7/200

Siemens S7/200 series PLC (CPU212/214/215/216/221/222/224/226/226XM)
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/200		
Com port	RS485 2w	RS485 2w	
Baud rate	9600	9600, 19200, 187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Even	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
PLC Station No.	2		Must same as the PLC setting
Turn around delay (ms)	5		
Reserved 1	30		ACK delay time

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

PLC Setting:

Communication mode	**Set station number as 2**

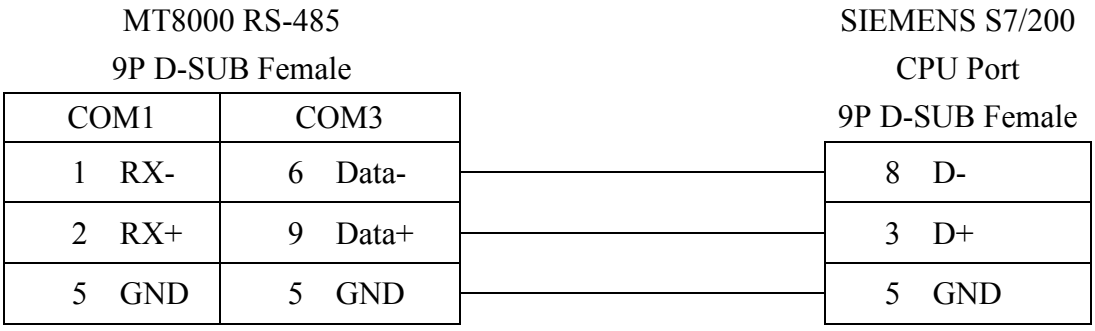
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	VW.Bit	ddddd(o)	0-102397	V Memory bit address
W	VB	ddddd	0-10239	
W	VW	ddddd	0-10239	V memory

W	VW_Odd	ddddd	0-10239	V memory
DW	VD	ddddd	0-10239	V memory double word
DW	VD_Odd	ddddd	0-10239	V memory double word
W	VD_String	ddddd	0-10239	String
W	VD_String_Odd	ddddd	0-10239	String
W	VW_String	ddddd	0-10239	String
W	VW_String_Odd	ddddd	0-10239	String
W	MB	ddddd	0-10239	byte memory
W	MW	ddddd	0-10239	Word memory
W	MW_Odd	ddddd	0-10239	Word memory
W	T	ddd	0-127	Timer
W	C	ddd	0-127	Counter

* Double word and Floating point value must use VD device type.

Wiring diagram:



Driver Version:

Version	Date	Description of Changes
V2.30	Aug/17/2009	

SIEMENS S7/200 (Ethernet)

Siemens S7/200 Ethernet Series PLC(CPU212/214/215/216/221/222/224/226/226XM)
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/200 (Ethernet)		Must match the PLC's port setting.
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	1	0-31	Must match the PLC's port setting.

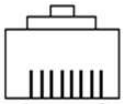
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	VW.Bit	ddddd(o)	0-102397	V Memory bit address
W	VW	ddddd	0-10239	V memory
W	VW_String	ddddd	0-10239	String
DW	VD	ddddd	0-10239	V memory double word
DW	VD_String	ddddd	0-10239	String

- Double word and Floating point value must use VD device type.

Wiring diagram:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orang	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brow	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Ethernet Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.20	Dec/30/2008	

SIEMENS S7/300

Siemens S7/300 series PLC
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300		
Com port	RS232		
Baud rate	19200, 38400, 187.5K	9600~187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	2		Must same as the PLC setting

PLC Setting:

Communication mode	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be

				multiple of 4)

* Double word and Floating point value must use DBDn device type.

Wiring diagram:

MT8000 RS232

9P D-SUB Male

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

SIEMENS S7/300 PC adapter RS232 Port

9P D-SUB Male

2 RXD
3 TXD
5 GND
7 RTS
8 CTS

MT8000 RS232

9P D-SUB Male

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Systeme Helmholz SSW7-TS

9P D-SUB Male

2 RXD
3 TXD
5 GND
7 RTS
8 CTS
4 DTR
6 DSR

Driver Version:

Version	Date	Description of Changes
V2.60	Jul/08/2009	
V2.70	Nov/16/2009	Add MD register (32-bit format)

SIEMENS S7/300 (Ethernet)

Siemens S7/300 Ethernet Series PLC
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/300 (Ethernet)		Must match the PLC's port setting.
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	1	0-31	Must match the PLC's port setting.

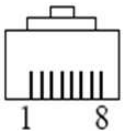
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be multiple of 4)

* Double word and Floating point value must use DBDn device type.

Wiring diagram:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orang	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brow	7	BD3+
8	BD3-	Brown	8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Ethernet Device RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.60	Jul/09/2009	Improved communication performance
V1.70	Nov/16/2009	Add MD register (32-bit format)

SIEMENS S7/300 MPI

Siemens S7/300 series PLC
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300 MPI		
Com port	RS485 2w		
Baud rate	187.5K		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
PLC Station No.	2		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be multiple of 4)Data register double word

* Double word and Floating point value must use DBDn PLC device type.

Wiring diagram:

MT8000iV series HMI

RS485 2w 9P D-SUB Male

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

S7-200 PPI / 9P D-SUB Male

S7-300 MPI / 9P D-SUB Male

8 D-
3 D+
5 GND

Driver Version:

Version	Date	Description of Changes
V1.10	Jul/09/2009	
V1.20	Nov/16/2009	Add MD register (32-bit format)

SIEMENS S7/400 (Ethernet)

Siemens S7/400 Ethernet PLC
http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/400 (Ethernet)		Must match the PLC's port setting.
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	0	0-31	Must match the PLC's port setting.
Link Type	PG	PC, OP	Must match the PLC's port setting.
Rack	0	0-7	Must match the PLC's port setting.
CPU slot	3	2-31	Must match the PLC's port setting.

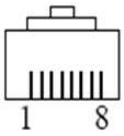
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be multiple of 4)

* Double word and Floating point value must use DBDn device type.

Wiring diagram:

MT8000 Ethernet RJ45		Wire color		Ethernet Hub or Switch RJ45	
1	TX+	White/Orang		1	RX+
2	TX-	Orange		2	RX-
3	RX+	White/Green		3	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		6	TX-
7	BD3+	White/Brow		7	BD3+
8	BD3-	Brown		8	BD3-



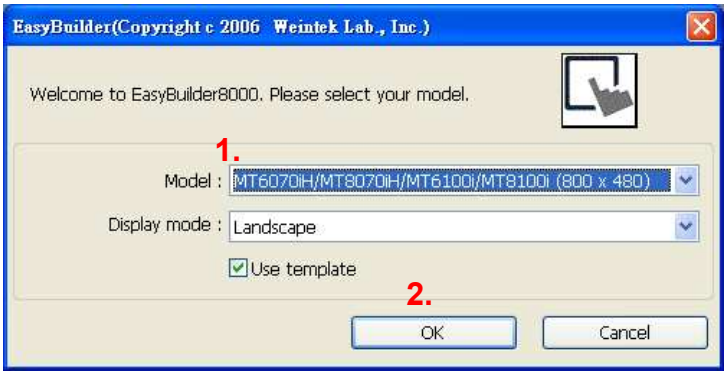
RJ45 connector

Ethernet: Direct connect (crossover cable)

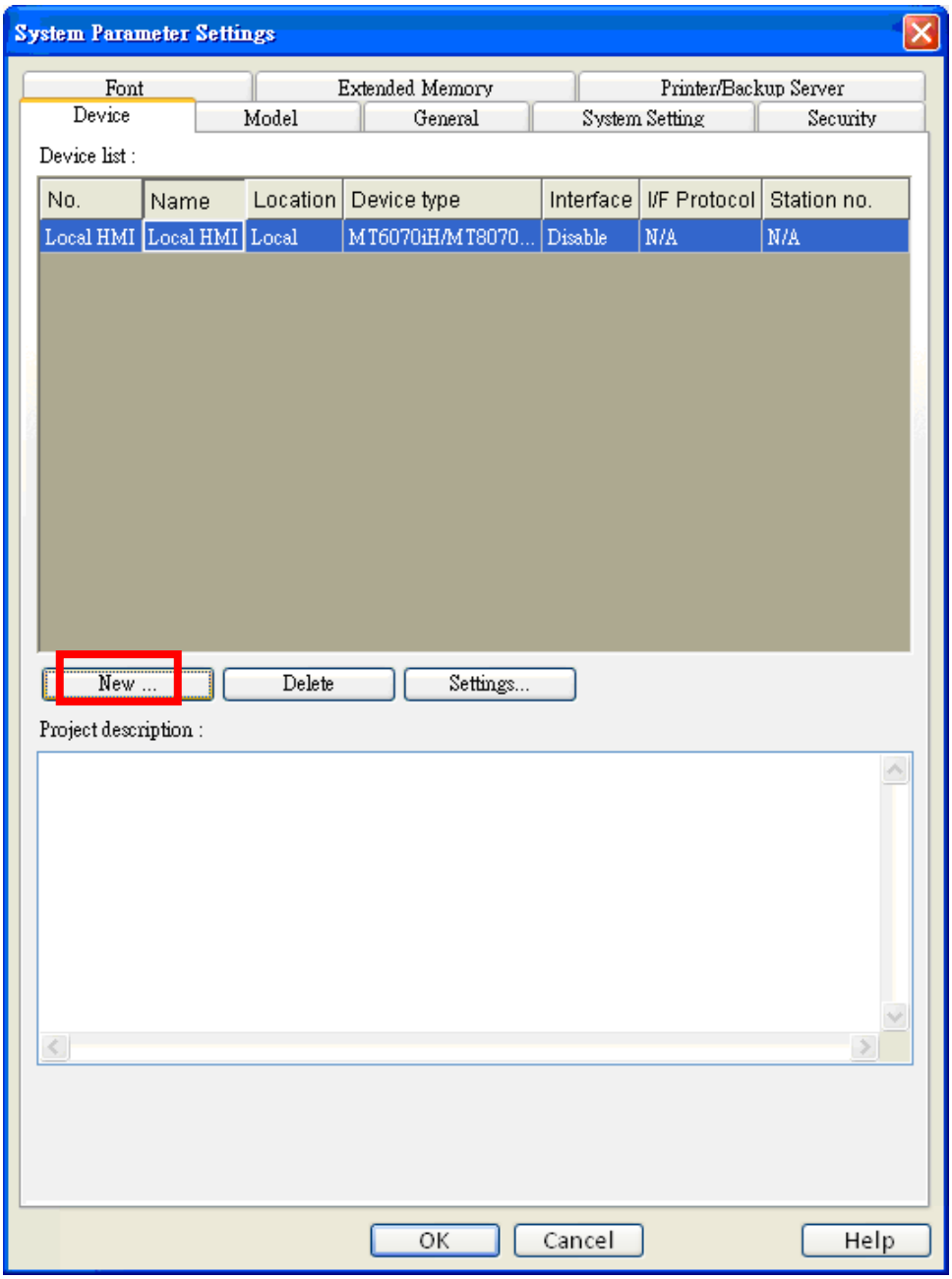
MT8000 Ethernet RJ45		Wire color		Ethernet Device RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

EB8000 Device Setting Steps

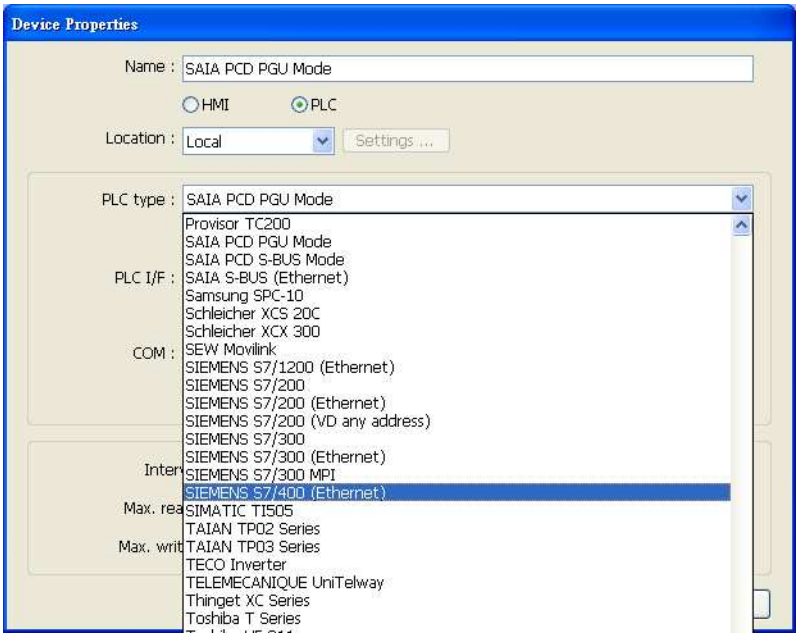
1. Open EB8000, and File -> NEW, select HMI model and press ok button



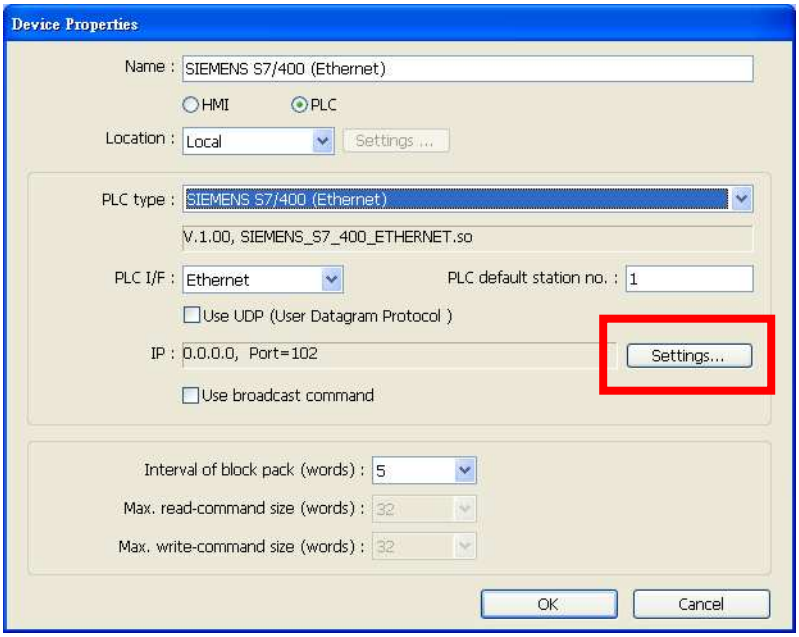
2. Then, you will see the window of ”system parameter settings” as below, press “New” button.



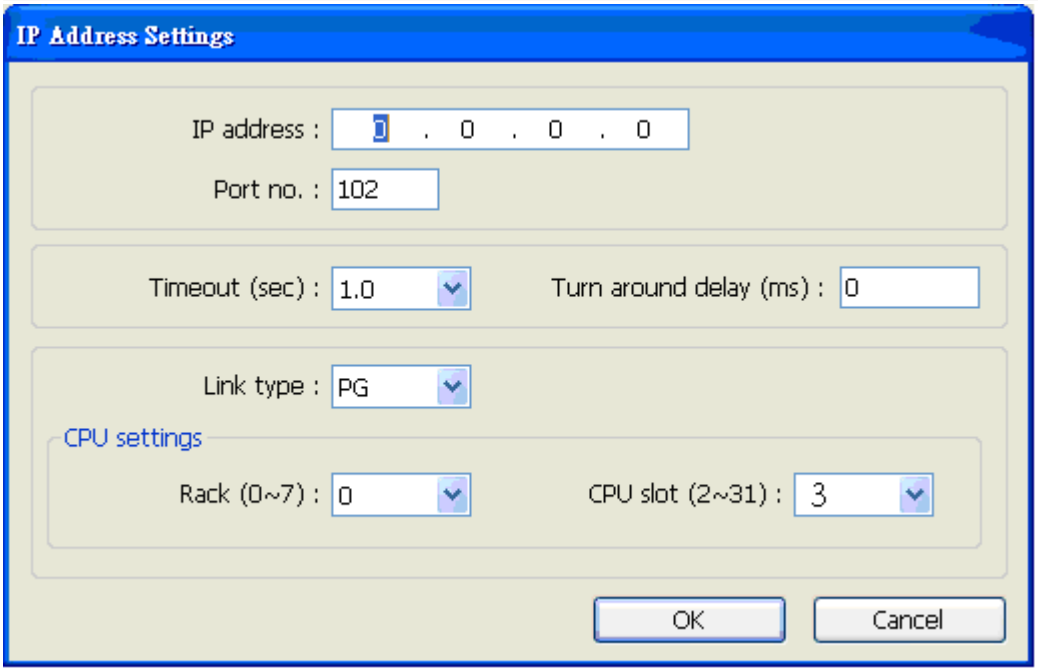
3. Select “SIEMENS S7/400(ETHERNET)” .



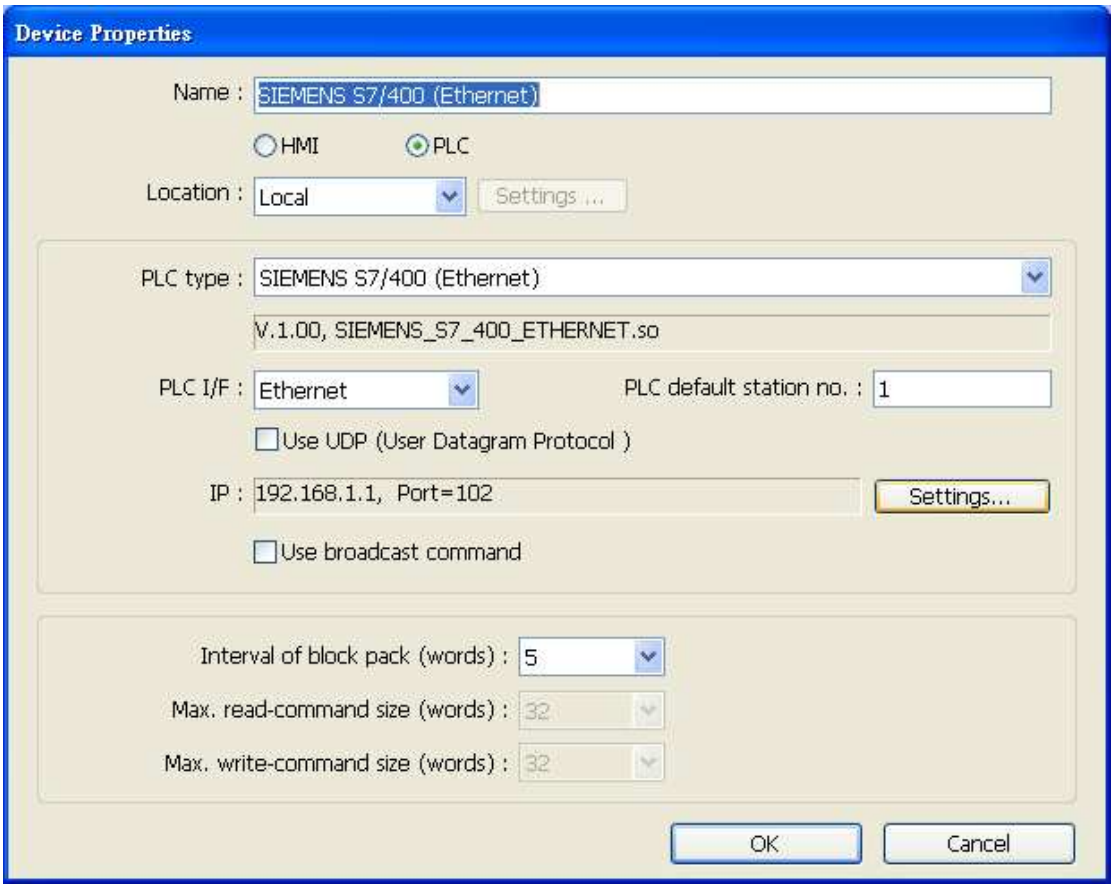
4. Press “Settings” button.



5. Setting S7/400 IP, Port, Link type, Rack and CPU slot.(have to match PLC)



6. The setting will be finished As below,.



SIMATIC TI505

SIMATIC TI505 Series PLCs: TI520, TI525, TI530, TI535, TI545, TI555, TI560, TI565, TI575
Using the NITP protocol in a point-to-point single master, single slave format.
http://www.ad.siemens.de/simatic/controller/index_76.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIMATIC TI505		
Com port	RS232	RS232, RS485(4W)	
Baud rate	19200	19200	
Parity bit	Odd	Odd	
Data Bits	7	7	
Stop Bits	1	1	
PLC Station No.	0	Does not apply	

PLC Setting:

Communication mode	NITP protocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	CR	ddddd	ddddd:1~65535	Internal Relay
B	X	ddddd	ddddd:1~65535	Discrete input coils
B	Y	ddddd	ddddd:1~65535	Discrete output coils
W	V	ddddd	ddddd:1~65535	User data registers
W	STW	ddddd	ddddd:1~65535	Status word registers
W	TCP	ddddd	ddddd:1~65535	Timer/counter preset values
W	TCC	ddddd	ddddd:1~65535	Timer/counter current values
W	WX	ddddd	ddddd:1~65535	Word discrete inputs
W	WY	ddddd	ddddd:1~65535	Word discrete outputs

Wiring diagram:

RS-232:

MT8000 HMI

9P D-SUB

COM1 [RS232]	COM2 [RS232]	COM3 [RS232]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

SIMATIC TI505
25Pin D-SUB

3 RXD
2 TXD
7 GND
4 RTS
5 CTS
6 DSR
8 DCD
20 DTR

RS-232:

MT8000 HMI

9P D-SUB

COM1 [RS232]	COM2 [RS232]	COM3 [RS232]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

SIMATIC TI505
9Pin D-SUB

2 RXD
3 TXD
5 GND
7 RTS
8 CTS
1 DCD
4 DTR
6 DSR

RS485 4W:

MT8000HMI

COM1 RS-485/4w

9P D-SUB

1	RX-
2	RX+
3	TX-
4	TX+
5	GND

SIMATIC TI505
9Pin D-SUB

7	DO(-)
1	DO(+)
8	DI(-)
5	DI(+)
6	GND

Driver Version:

Version	Date	Description of Changes
V1.10	Apr/22/2009	

TAIAN TP02 Series

TAIAN TP02 series

http://www.taian-technology.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Taian TP02		
Com port	RS485 4W/2W	RS485 4W/2W	MMI 422 port:4W; RS485 terminals:2W
Baud rate	19200	9600, 19200, 38400	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	2	1, 2	
PLC Station No.	1	0-255	

PLC Setting:

RS422 port:WS041=120,WS042=1;

RS485 terminals:WS044=120,WS045=1.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	1~384	Input relay
B	Y	ddd	1~384	Output relay
B	C	dddd	1~2048	Auxiliary relay
W	X	ddd	1-369 (must be 1 or a multiple of plus 1)	Input register
W	Y	ddd	1-369 (must be 1 or a multiple of plus 1)	Output register
W	V	dddd	1~1024	Auxiliary register
W	D	dddd	1~2048	Auxiliary register
W	WS	ddd	1~128	System register
W	C	dddd	1-2033 (must be 1 or a multiple of plus 1)	Auxiliary relay register
W	WC	ddd	1~912	Constant register

Wiring diagram:

TP02 Series MMI RS422 port

MT8000 RS-485 4w 9P D-SUB		TP02 series PLC CPU RS422 port 9P D-SUB Female	
1	RX-	8	TX-
2	RX+	3	TX+
3	TX-	7	RX-
4	TX+	2	RX+

TP02 Series RS485 Terminals

MT8000 RS-485 2w 9P D-SUB		TP02 series PLC RS485 Terminals	
1	RX-		T/R-
2	RX+		T/R+

Driver Version:

Version	Date	Description of Changes
V1.10	Jan/25/2010	

TAIAN TP03 Series

TECO (TAIAN TP03) series PLC http://www.teco.com.tw/sa/en/

HMI Setting:

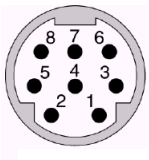
Parameters	Recommend	Option	Notes
PLC type	TAIAN TP03 Series		
Com port	RS485 4w		
Baud rate	19200	9600, 19200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	2	1	
PLC Station No.	1	1-31	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	C	dddd	0 ~ 9999	
B	M	dddd	0 ~ 9999	
B	S	dddd	0 ~ 9999	
B	T	dddd	0 ~ 9999	
B	X	ooo	0 ~ 377	
B	Y	ooo	0 ~ 377	
W	D	dddd	0 ~ 9999	
W	V	dddd	0 ~ 9999	
W	Z	dddd	0 ~ 9999	
W	T_Curent	dddd	0 ~ 9999	
W	C_Curent	dddd	0 ~ 9999	
W	T_Preset	dddd	0 ~ 9999	
W	C_Preset	dddd	0 ~ 9999	

Wiring diagram:

MT8000 RS-485 4w 9P D-SUB		TP03 PC/PDA port 8 Pin mini DIN	
1	RX-	4	TX-
2	RX+	7	TX+
5	GND	3	GND
3	TX-	1	RX-
4	TX+	2	RX+



8 Pin mini DIN Female

Driver Version:

Version	Date	Description of Changes
V1.00	Apr/22/2009	

TECO Inverter

TECO Inverter series, 7300CV model

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	TECO Inverter		
Com port	RS232	RS232/RS485	
Baud rate	38400		
Parity bit	None		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1		

Device address:

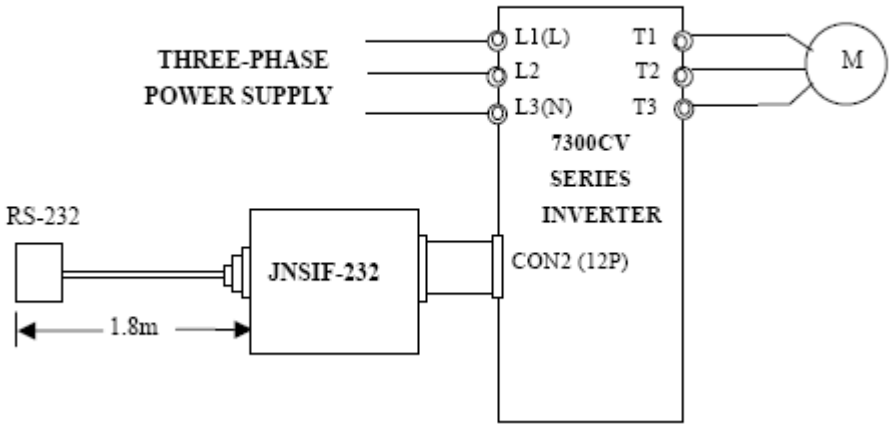
Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output bit
B	1x	ddddd	1-65535	Input bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	ddddd(dd)	100-6553515	Output Register bit
B	0x (0x0f)	ddddd	1-65535	Write Multiple Coils
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write

Wiring diagram:

MT8000

JNSIF-232

JNSIF-232Wiring Diagram:



MT8000 RS-232 9P D-SUB		TECO Inverter RS232
COM1		
3 TX		2 RX
2 RX		3 AX
5 GND		5 GND
7 RTS		7 VCC

Driver Version:

Version	Date	Description of Changes
V1.00	Jul/27/2009	

TELEMECANIQUE UniTelway

Modicon TSX Micro&Nano&Neza series PLC

http://www.modicon.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Telemecanique UniTelWay		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	5	1-8	Must set by manual
PLC Station No.	0	0-3	

Online Simulator	YES	Extend address mode	YES
Broadcast command	NO		

PLC Setting:

Communication mode	**UniTelWay protocol, set PLC as master**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	S	ddd	0-32767	Internal relay
B	M	ddd	0-32767	Auxiliary relay
B	MW.B	ddd(dd)	0-999915	Data register bit
W	MW	ddd	0-9999	Data register

Wiring diagram:

TSX37-XX/TSX07-XX CPU

MT8000 RS-485

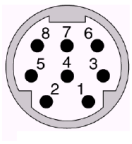
9P D-SUB

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

TSX series CPU port

8P mini-din Female

2 D-
1 D+
7 GND



8Pin miniDin Female

Driver Version:

Version	Date	Description of Changes
V1.20	Sep/24/2009	

Toshiba T Series

Toshiba T series, S2E

http://www.tic.toshiba.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Toshiba T Serial		
Com port	RS232	RS232/RS485	In accordance with plc port
Baud rate	9600	9600, 19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	In accordance with PLC setting

Online Simulator	YES	Extend address mode	YES
Broadcast command			

PLC Setting:

Communication mode	**Must set PLC node ID**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd(h)	0-9999f	Input Bit
B	Y	ddd(h)	0-9999f	Output Bit
B	R	ddd(h)	0-9999f	Auxiliary Bit
B	S	ddd(h)	0-9999f	Special Bit
W	T	ddd	0-9999	Timer Register
W	C	ddd	0-9999	Counter Register
W	D	ddd	0-9999	Data Memory
W	SW	ddd	0-9999	Special Register
W	XW	ddd	0-9999	Input Register
W	YW	ddd	0-9999	Output Register
W	RW	ddd	0-9999	Auxiliary Register

Wiring diagram:

RS232

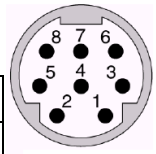
MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Toshiba T1 PRG port

8P mini-D



8 RXD
6 TXD
5 GND
4 RTS
7 CTS

MT8000 RS232

9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

Toshiba T2 PRG port

9P D-SUB Female

2 RXD
3 TXD
5 GND
7 RTS
8 CTS

RS485

MT8000 COM1

RS485

9P D-SUB

1 RX-
2 RX+
3 TX-
4 TX+
5 GND

Toshiba T2 LINK port

15P D-SUB Female

11 TXB
3 TXA
10 RXB
2 RXA
7 SG
5 RTSA
4 CTSA
13 RTSB
12 CTSB

Driver Version:

Version	Date	Description of Changes
V1.00	Sep/15/2009	

Toshiba TC mini Series

TOSHIBA MACHINE CO., JAPAN
Web Site: http://www.toshiba-machine.co.jp

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Provisor TC200	Provisor TC200	
Com port	RS232	RS232	In accordance with plc port
Baud rate	9600	9600, 19200	Must same as the PLC setting
Parity bit	None	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	0		Does not apply to this protocol

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	Y_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	R_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	L_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
W	V	hhh	0-fff	
W	P	hhh	0-fff	
W	D	hhh	0-fff	
W	R	hhh	0-fff	
W	L	hhh	0-fff	

Wiring diagram:

RS232

MT8000 HMI

RS232 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

TC mini series

9P D-SUB

3 RXD
2 TXD
5 GND
7 RTS
9 CTS

Toshiba VF-S11

Toshiba Invertor Protocol(ASCII code)

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Toshiba VF-S11		
Com port	RS485(2 wire)	RS422, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-99	

Online Simulator	YES	Extend address mode	YES
Broadcast command	YES		

PLC Setting:

Communication mode	**9600 E,8,1, Station No=0**

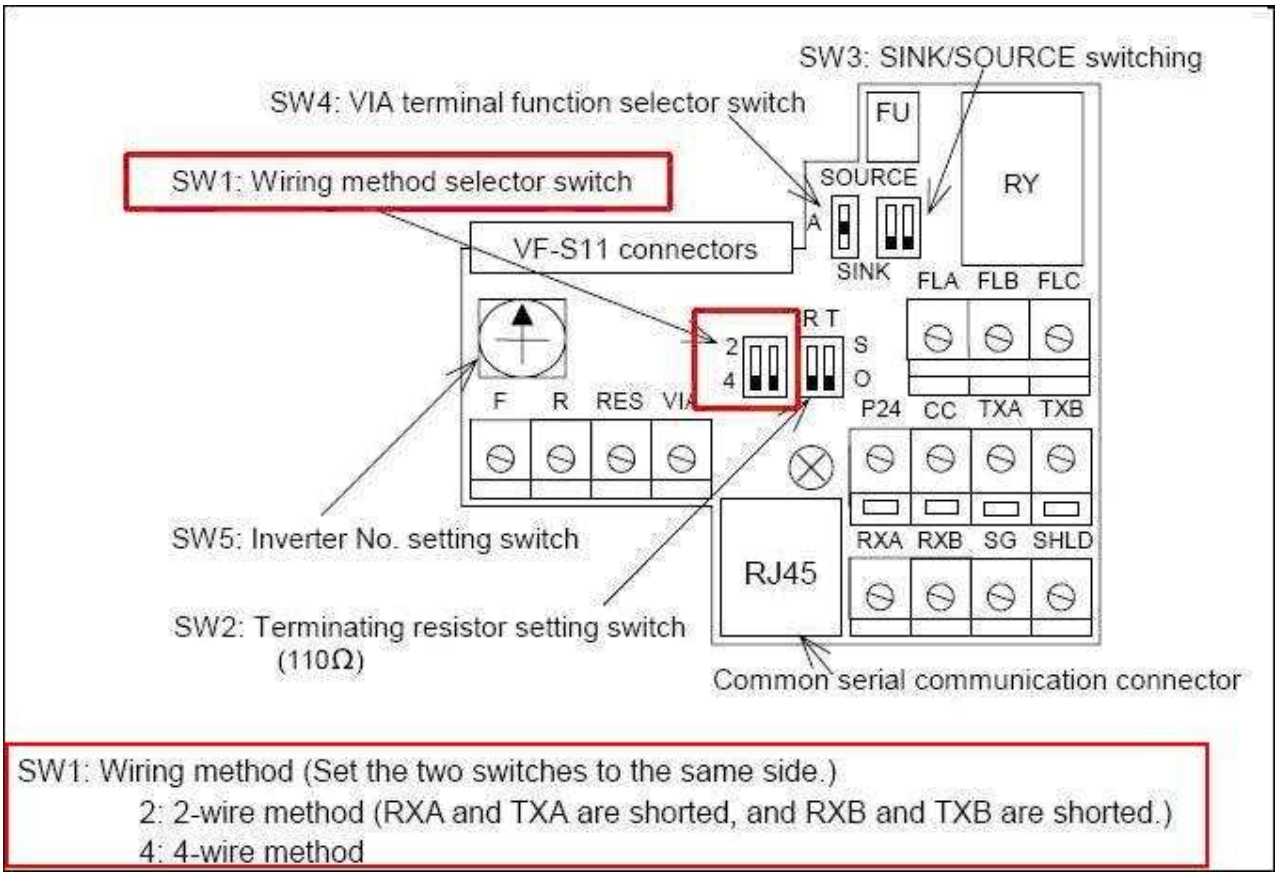
Device address:

Bit/Word	Device Type	Format	Range	Memo
Word	Communication No.	HHH	HHH:0~ 0FFF	Parameters and data memory
Bit	Comm.No.Bit	HHH(DD)	HHH(DD):0-FFF(15)	

Wiring diagram:

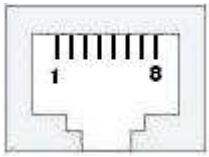
Pay Attention:

Before you connect the VF-S11, make sure you to put both switches of SW1 to the related position. (SW1: Wiring method selector switch)



RS-485

MT8000 RS-485 9P D-SUB		TOSHIBA VFFS1-VFPS1 RJ45
COM1	COM3	
1 RX-	6 Data-	5
2 RX+	9 Data+	4
5 GND	5 GND	8



Driver Version:

Version	Date	Description of Changes
V1.20	Aug/31/2009	

VIGOR

VIGOR M Series
http://www.vigorplc.com.tw/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	VIGOR		
Com port	RS232	RS232, RS485 4wires,	
Baud rate	19200		
Parity bit	Even		
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

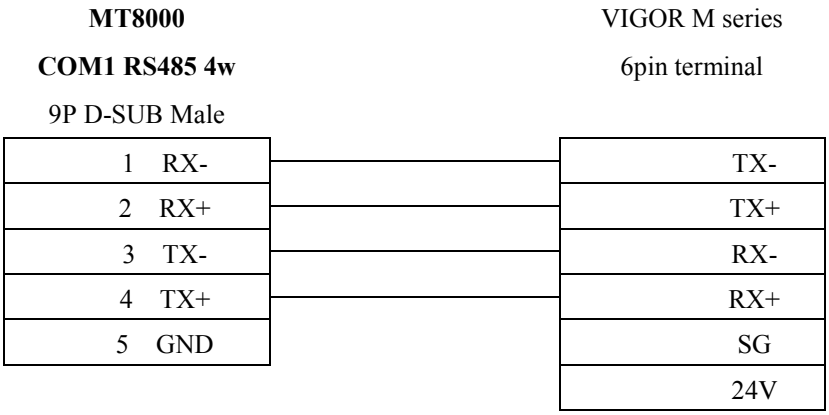
Communication mode	None

Device address:

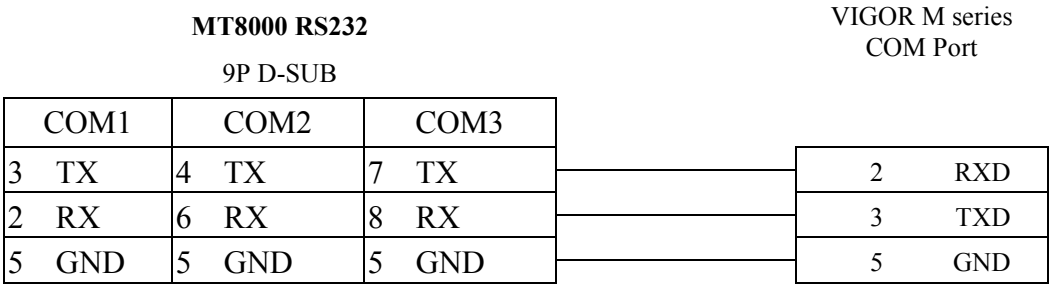
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~177	
B	Y	ooo	0~177	
B	M	dddd	0~4095	
B	S	ddd	0~999	
B	T	ddd	0~255	
B	C	ddd	0~255	
W	TV	ddd	0~255	
W	CV	ddd	0~255	
W	D	dddd	0~4095	
W	DL	dddd	0~4095	Double word

Wiring diagram:

RS-485 4wire:



RS-232:



Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

YAMAHA ERCD

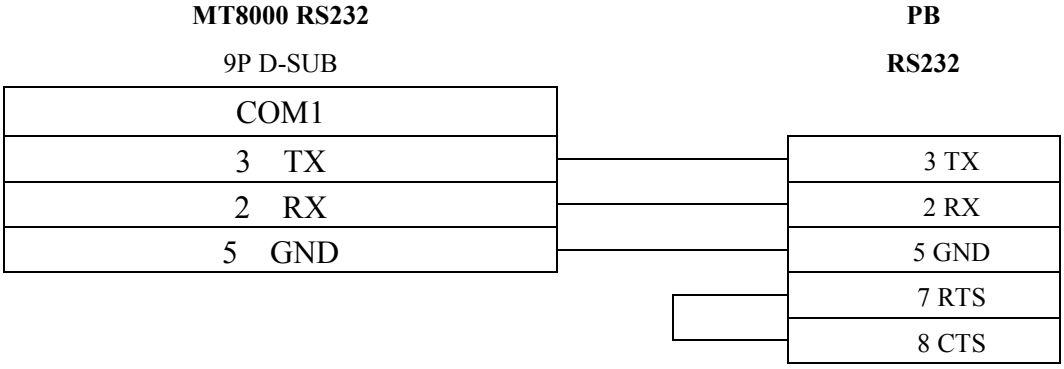
HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	YAMAHA ERCD		
Com port	RS232		
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
Baud rate	9600	1200-19200	Must match the PLC's port setting.
Parity bit	Odd	None/Even/Odd	Must match the PLC's port setting.
PLC station No.	**0**		Do not need to set the station No.

Device address:

Bit/Word	Device type	Format	Range	Memo
Word	P	ddd	0-999	Read/Write, PNT point data
Word	SWI	ddd	0	Write only，RW0=program number，Switches program number to be run
Word	ORG	ddd	0	Write only，Returns to origin
Word	Reset	ddd	0	Write only，Reset program
Word	RUN	ddd	0	Write only，Starts automatic operation
Word	MOVD	ddd	0	Write only，Directly moves to specified position RW1=X-axis position(mm), RW2=speed
Word	X_ADD	ddd	0	Write only，X + command
Word	X_SUB	ddd	0	Write only，X - command

Wiring diagram:



Driver Version:

Version	Date	Description of Changes
V1.10	Aug/08/2009	

YASKAWA SMC3010

YASKAWA SMC Series Servo Motor Controller

HMI Setting:

Parameters	Recommend	Option	Notes
Device type	YASKAWA SMC 3010		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity bit	None		
Data Bits	8		
Stop Bits	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	AF	d	0 ~ 1	
B	BN	d	0 ~ 1	Write only
B	BP	d	0 ~ 1	Write only
B	BV	d	0 ~ 1	Write only
B	CB	dddd	0 ~ 9999	Write only
B	CM	d	0 ~ 1	Read only
B	DV	d	0 ~ 1	
B	EB	d	0 ~ 1	
B	OE	d	0 ~ 1	
B	RS	d	0 ~ 1	Write only
B	ST	d	0 ~ 1	Write only
B	TB	d	0 ~ 1	Read only
B	V_bit	DDDdd	DDD:0~999, dd:0~31	*2
DW	AC	d	0 ~ 4	
DW	DC	d	0 ~ 4	
DW	BL	d	0 ~ 4	
W	CD	d	0 ~ 2	Write only
W	CE	d	0 ~ 2	
DW	DE	d	0 ~ 4	
DW	DP	d	0 ~ 4	
W	DT	d	0 ~ 2	

Bit/Word	Device Type	Format	Range	Memo
W	EC	d	0 ~ 2	
DW	EM	d	0 ~ 4	
W	ER	d	0 ~ 2	
W	FA	d	0 ~ 2	
DW	FL	d	0 ~ 4	
W	FV	d	0 ~ 2	
DW	GR	d	0 ~ 4	
DW	JG	d	0 ~ 4	
DW	MM	d	0 ~ 4	
W	MT	d	0 ~ 2	
W	NA	d	0 ~ 2	
W	OP	d	0 ~ 2	
DW	PA	d	0 ~ 4	Write only
DW	PR	d	0 ~ 4	
DW	SP	d	0 ~ 4	
W	TC	d	0 ~ 2	Read only
W	TM	d	0 ~ 2	
W	TW	d	0 ~ 2	
DW	VA	d	0 ~ 4	
DW	VD	d	0 ~ 4	
DW	VS	d	0 ~ 4	
DW	IL	d	0 ~ 4	
DW	IT	d	0 ~ 4	
DW	KD	d	0 ~ 4	
DW	KI	d	0 ~ 4	
DW	KP	d	0 ~ 4	
DW	OF	d	0 ~ 4	
DW	TL	d	0 ~ 4	
DW	VR	d	0 ~ 4	
DW	VT	d	0 ~ 4	
DW	PF	d	0 ~ 4	*1
DW	VF	d	0 ~ 4	
DW	V	DDD	0 ~ 999	*2
F	F	DDD	0 ~ 999	*2

Note:

*1 PF is the communication parameter of SMC_3010, default is 10.4, if the value is not 10.4, all values will be displayed incorrect.

*2 User define integer variable V000~V999, floating point variable F000~F999.

Wiring diagram:

MT8000 RS232
9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

SMC3010 CN6 RS232
9 pin male D-sub

3	RXD
2	TXD
5	GND
7	RTS
8	CTS

Driver Version:

Version	Date	Description of Changes
V1.2.0	Feb/10/2010	

YASKAWA SMC 3010 (Ethernet)

YASKAWA SMC Series Servo Motor Controller

HMI Setting:

Parameters	Recommend	Option	Notes
Device type	YASKAWA SMC 3010		
Com port	Ethernet	Port:23	
Baud rate			
Parity bit			
Data Bits			
Stop Bits			

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	AF	d	0 ~ 1	
B	BN	d	0 ~ 1	Write only
B	BP	d	0 ~ 1	Write only
B	BV	d	0 ~ 1	Write only
B	CB	dddd	0 ~ 9999	Write only
B	CM	d	0 ~ 1	Read only
B	DV	d	0 ~ 1	
B	EB	d	0 ~ 1	
B	OE	d	0 ~ 1	
B	RS	d	0 ~ 1	Write only
B	ST	d	0 ~ 1	Write only
B	TB	d	0 ~ 1	Read only
B	V_bit	DDDdd	DDD:0~999, dd:0~31	*2
DW	AC	d	0 ~ 4	
DW	DC	d	0 ~ 4	
DW	BL	d	0 ~ 4	
W	CD	d	0 ~ 2	Write only
W	CE	d	0 ~ 2	
DW	DE	d	0 ~ 4	
DW	DP	d	0 ~ 4	
W	DT	d	0 ~ 2	

Bit/Word	Device Type	Format	Range	Memo
W	EC	d	0 ~ 2	
DW	EM	d	0 ~ 4	
W	ER	d	0 ~ 2	
W	FA	d	0 ~ 2	
DW	FL	d	0 ~ 4	
W	FV	d	0 ~ 2	
DW	GR	d	0 ~ 4	
DW	JG	d	0 ~ 4	
DW	MM	d	0 ~ 4	
W	MT	d	0 ~ 2	
W	NA	d	0 ~ 2	
W	OP	d	0 ~ 2	
DW	PA	d	0 ~ 4	Write only
DW	PR	d	0 ~ 4	
DW	SP	d	0 ~ 4	
W	TC	d	0 ~ 2	Read only
W	TM	d	0 ~ 2	
W	TW	d	0 ~ 2	
DW	VA	d	0 ~ 4	
DW	VD	d	0 ~ 4	
DW	VS	d	0 ~ 4	
DW	IL	d	0 ~ 4	
DW	IT	d	0 ~ 4	
DW	KD	d	0 ~ 4	
DW	KI	d	0 ~ 4	
DW	KP	d	0 ~ 4	
DW	OF	d	0 ~ 4	
DW	TL	d	0 ~ 4	
DW	VR	d	0 ~ 4	
DW	VT	d	0 ~ 4	
DW	PF	d	0 ~ 4	*1
DW	VF	d	0 ~ 4	
DW	V	DDD	0 ~ 999	*2
F	F	DDD	0 ~ 999	*2

Note:

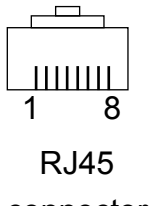
*1 PF is the communication parameter of SMC_3010, default is 10.4, if the value is not 10.4, all values will be displayed incorrect.

*2 User define integer variable V000~V999, floating point variable F000~F999.

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	SMC 3010 Ethernet module RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.0.0	Feb/22/2010	

Yokogawa FA-M3

FA-M3 CPU SP35-5N, SP55-5N CPU port, F3LC11 Computer Link module.
http://www.yokogawa.com/itc/itc-index-en.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Yokogawa FA-M3		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity Bit	Even	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

PLC Setting:

Communication mode	**Use Personal Communication Link** **Use checksum** **Use End Character**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	201-71664(discontinuous)	
B	Y	ddd	201-71664(discontinuous)	
B	I	ddd	1-16384	
B	L	ddd	1-71024(discontinuous)	
B	M	ddd	1-9984	
W	D	ddd	1-8192	
W	B	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	

W	Z	ddd	1-512	

Wiring diagram:

RS-232: CPU port

MT8000 RS232 9P D-SUB — CPU port cable KM11 RS-232

MT8000 RS232

9P D-SUB

COM1	COM2	COM3		
3 TX	4 TX	7 TX		3 RXD
2 RX	6 RX	8 RX		2 TXD
5 GND	5 GND	5 GND		5 GND

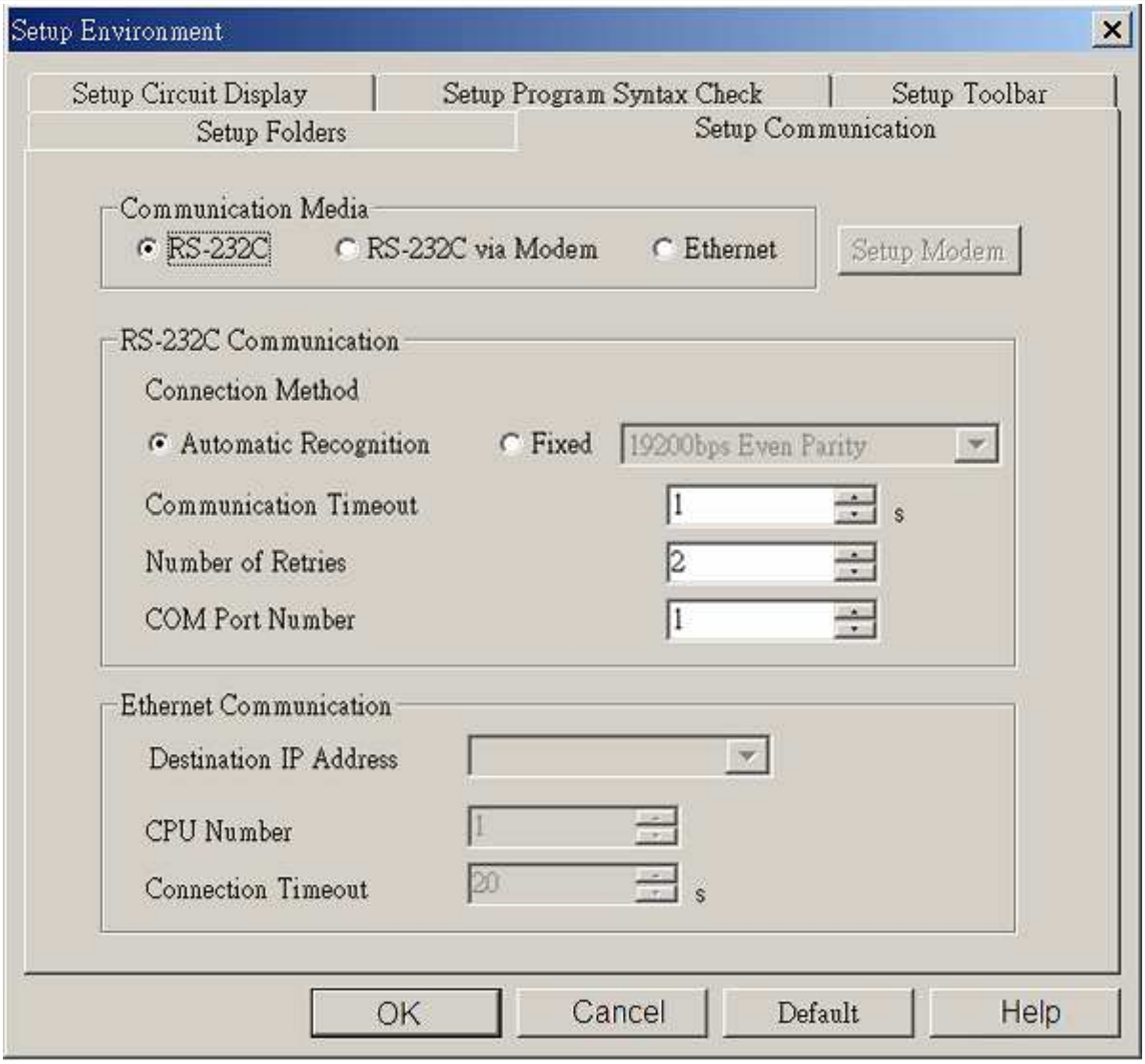
RS-232: LC11

MT8000 RS232 9P D-SUB Female — LC11 Computer Link module RS232 Port

COM1	COM2	COM3	
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND
			7 RTS
			8 CTS

How to get the WideField communication setting

If you want get the WideField communication setting, select [Tool]->[Set Environment] default is Automatic. Using the Automatic Recognition, Wide Field software will connect the Current PLC and get the PLC communication setting. If you have know the PLC communication configuration, you alse can select the Fixed mode ,It will connect the PLC quickly.



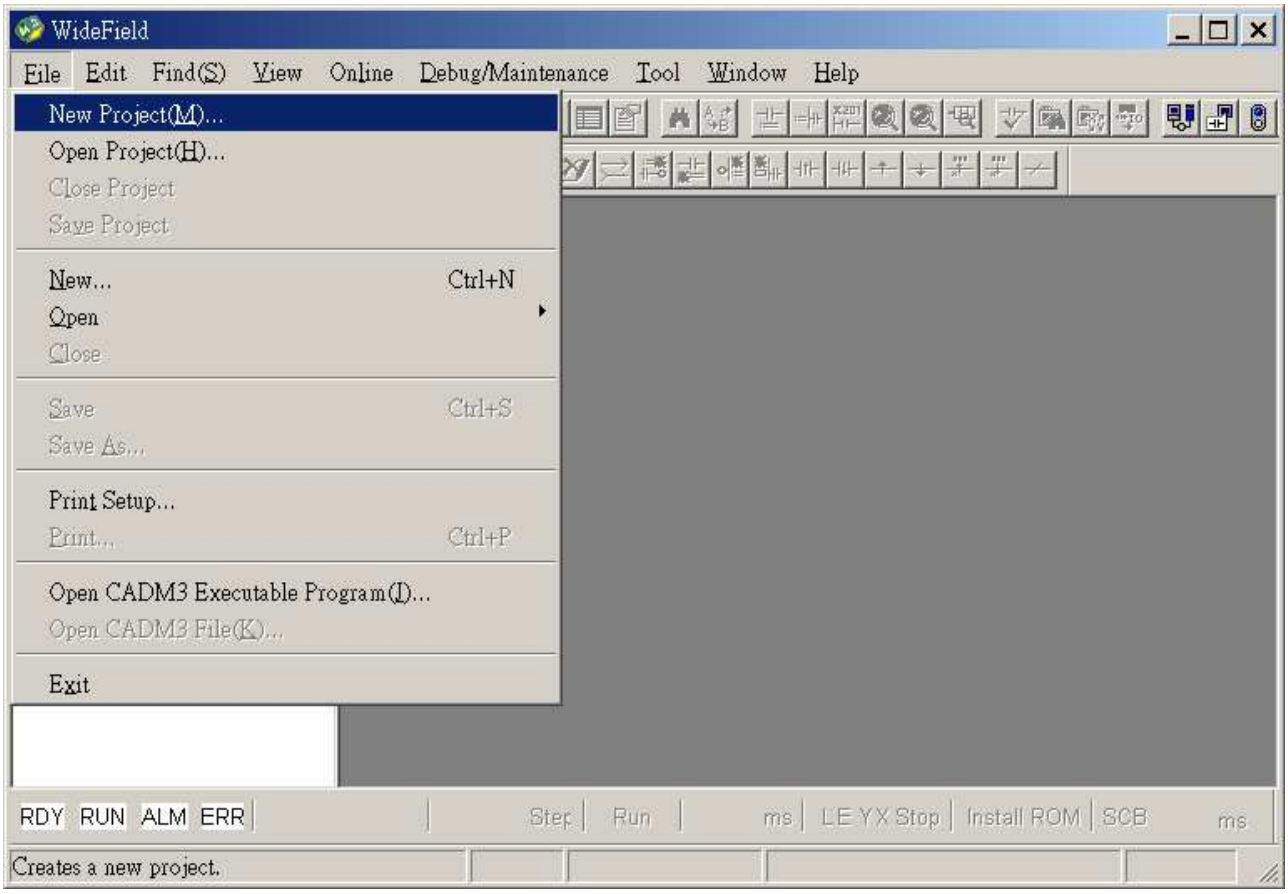
P.S Because use Personal computer link, when you connecting to PLC it will delay about 20sec for test communication.

How to Setting YOKOGAWA PLC Communcation configuration.

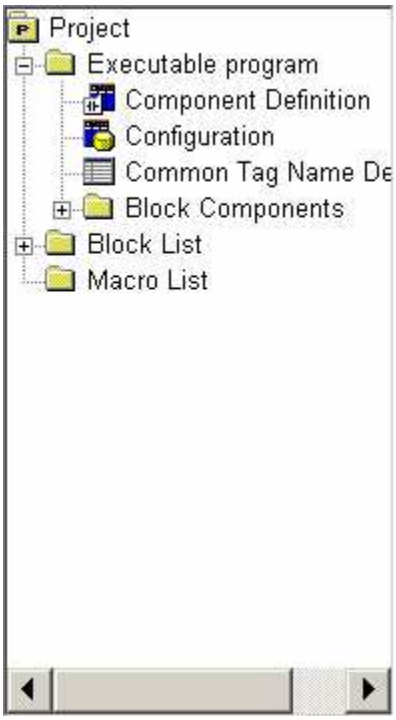
YOKOGAWA FA-M3

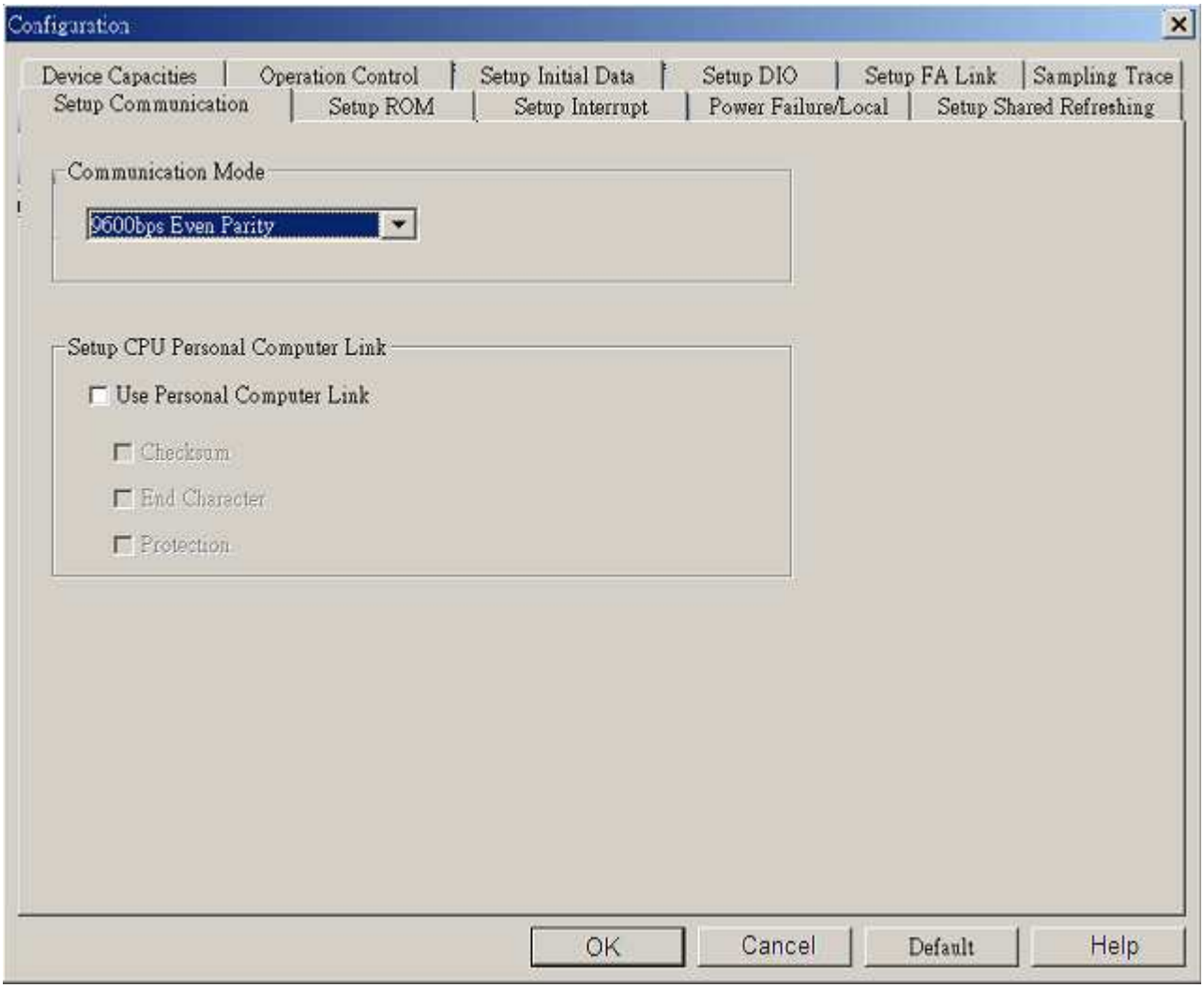
CPU SP55-5N (same SP35-5N)

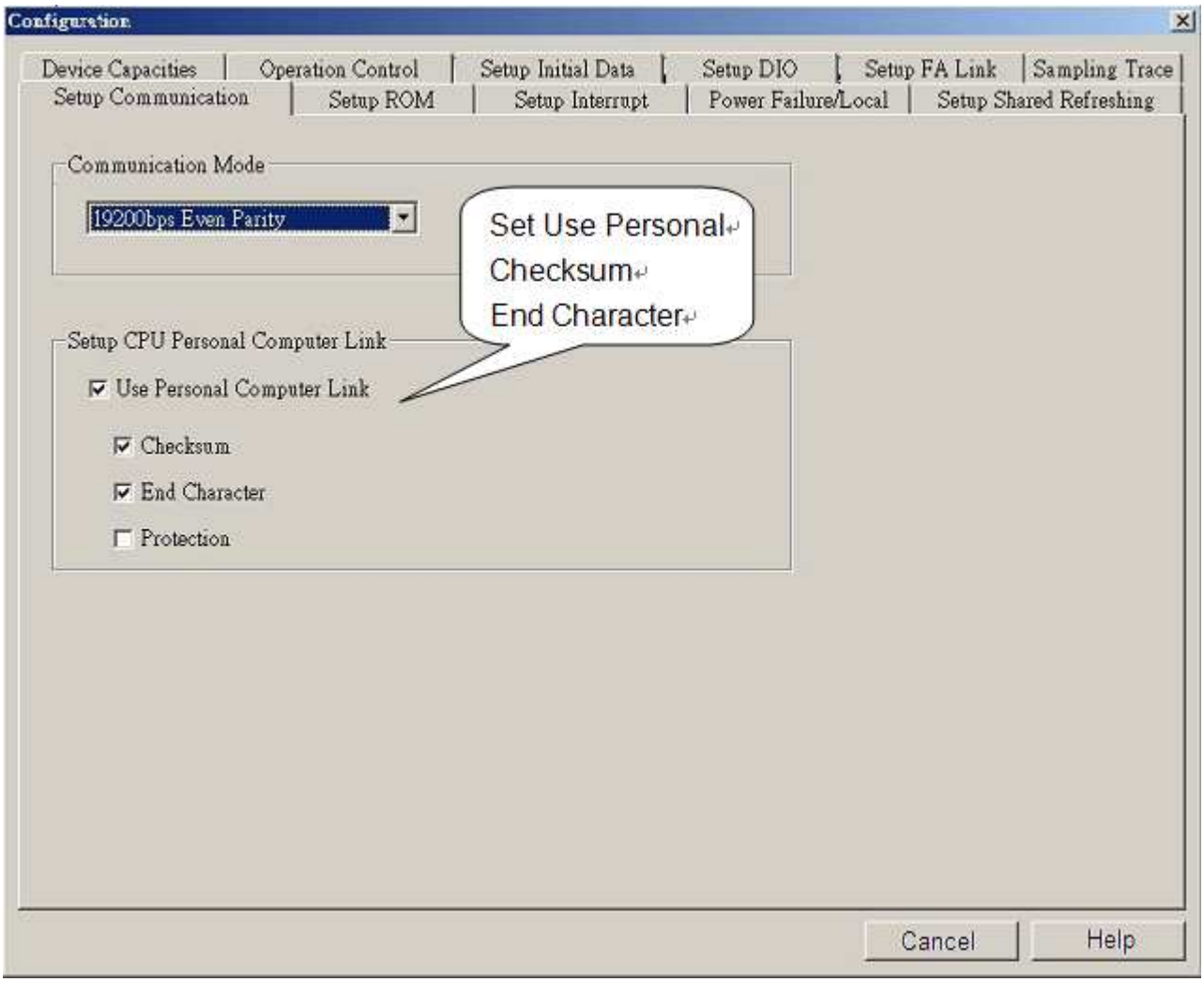
[File]->[New Project] to create a new project



click “Configuration” for setup communication.




Configuration
Device Capacities
Operation Control
Setup Initial Data
Setup DIO
Setup FA Link
Sampling Trace
Setup Communication
Setup ROM
Setup Interrupt
Power Failure/Local
Setup Shared Refreshing
Communication Mode
9600bps Even Parity
Setup CPU Personal Computer Link
Use Personal Computer Link
Checksum
End Character
Protection
OK
Cancel
Default
Help



Driver Version:

Version	Date	Description of Changes
V1.10	Jan/01/2009	

Yokogawa FA-M3 (Ethernet)

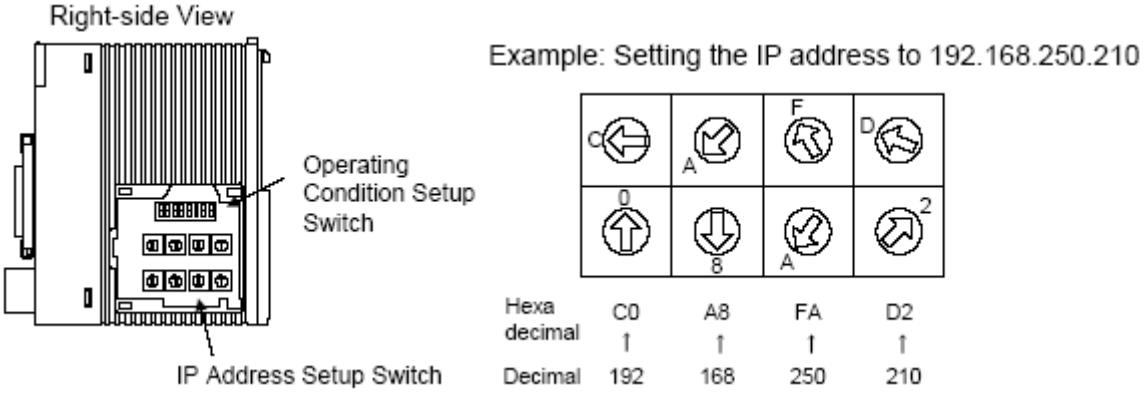
FA-M3 CPU SP35-5N, SP55-5N with F3LE01-5T/F3LE11-0T Ethernet module.
http://www.yokogawa.com/itc/itc-index-en.htm

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Yokogawa FA-M3 (Ethernet)		
Com port	Ethernet		
TCP port no.	12289		
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

Communication mode	**Set IP Address** **Set all condition setup switch OFF.**



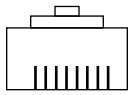
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	201-71664(discontinuous)	
B	Y	ddd	201-71664(discontinuous)	
B	I	ddd	1-16384	
B	L	ddd	1-71024(discontinuous)	
B	M	ddd	1-9984	
W	D	ddd	1-8192	
W	B	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	
W	Z	ddd	1-512	

Wiring diagram:

Ethernet:

MT8000 Ethernet RJ45		**Wire color**	**Ethernet Hub or Switch RJ45**	
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



1 8

RJ45 connector

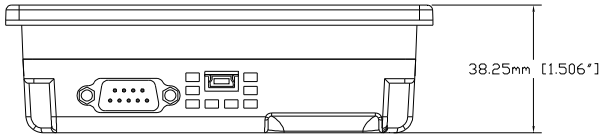
Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		**Wire color**	**FA-M3 Ethernet module RJ45**	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Driver Version:

Version	Date	Description of Changes
V1.00	Dec/30/2008	

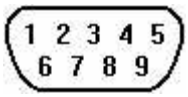
MT6050i/MT8050i Com Port Pin Assignment



Bottom View

MT6050i/MT8050i

Pin assignment of the 9 Pin, Male,



Pin assignment of the 9 Pin, Male, SUB-D, COM1 [RS-232]/ [RS-485], COM3 [RS-485] Port. Only Com1[RS485 2W] support MPI 187.5K.

Pin#	Symbol	Com1[RS485]		Com1[RS232]	Com3[RS485]
		4 wire	2 wire		
1	Rx-	Rx-	Data-		
2	Rx+	Rx+	Data+		
3	Tx-	Tx-			
4	Tx+	Tx+			
5	GND	GND			
6	TxD			Transmit	
7	Data-				Data-
8	Data+				Data+
9	RxD			Receive	

Wiring diagram:

MT6050i COM1 [RS-232]

9P D-SUB Female

9 RXD	
6 TXD	
5 GND	

PLC RS-232

Communication Com Port interface

TXD
RXD
GND

MT6050i COM1 [RS-485 2w]

9P D-SUB Female

1 Data-	
2 Data+	

PLC RS-485 2w

Communication Com Port interface

Data-
Data+

MT6050i COM3* [RS-485 2w]

9P D-SUB Female

7 Data-	
8 Data+	

PLC RS-485 2w

Communication Com Port interface

Data-
Data+

*RS485 2W COM3 is only available for MT6050iv2

MT6050i COM1 [RS-485 4w]

9P D-SUB Female

1 RX-	
2 RX	
3 TX-	
4 TX+	

PLC RS-485 2w

Communication Com Port interface

TX-
TX+
RX-
RX+