

SIEMENS S7/1200 (Ethernet)

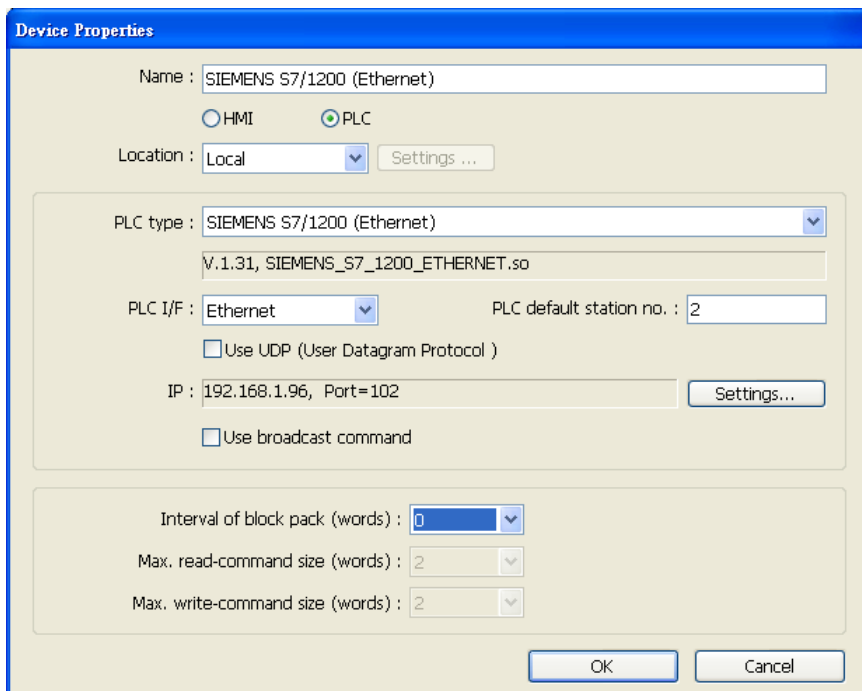
Siemens S7/1200 series Ethernet

<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.



Device Properties

Name : SIEMENS S7/1200 (Ethernet)

☐ HMI ☒ PLC

Location : Local

PLC type : SIEMENS S7/1200 (Ethernet)

PLC I/F : Ethernet

☐ Use UDP (User Datagram Protocol)

IP : 192.168.1.96, Port=102

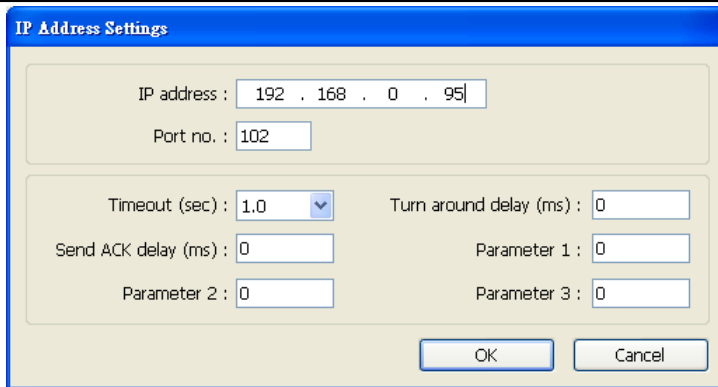
☐ Use broadcast command

Interval of block pack (words) : 0

Max. read-command size (words) : 2

Max. write-command size (words) : 2

3. Click “Settings...”, input PLC IP address.



IP Address Settings

IP address : 192 . 168 . 0 . 95

Port no. : 102

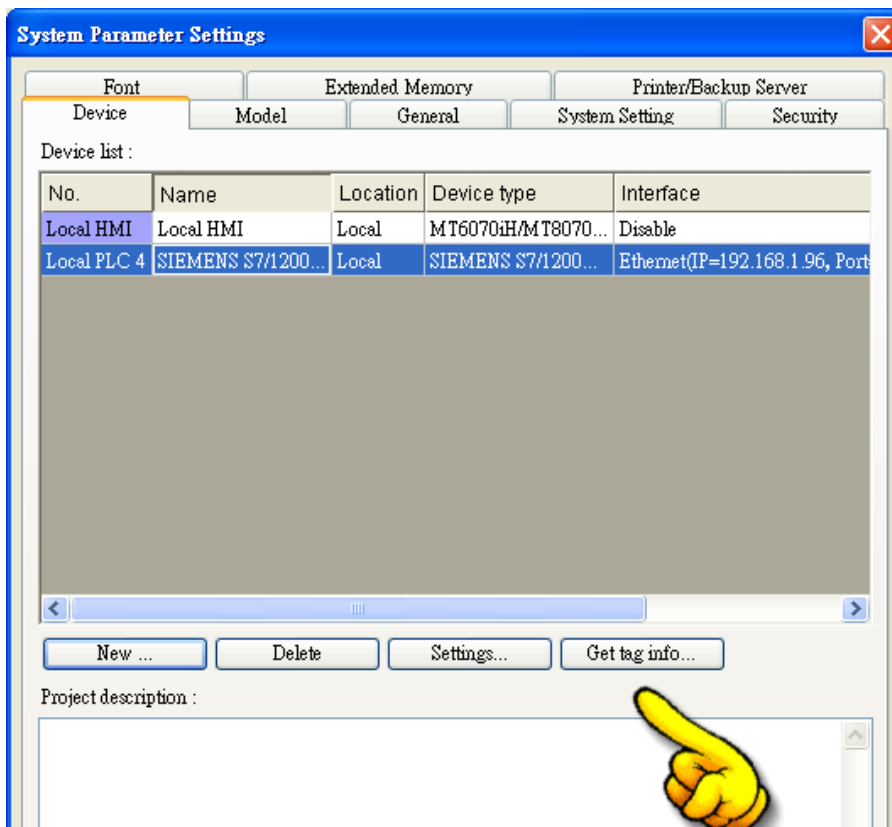
Timeout (sec) : 1.0 Turn around delay (ms) : 0

Send ACK delay (ms) : 0 Parameter 1 : 0

Parameter 2 : 0 Parameter 3 : 0

OK Cancel

4. Check the PLC has not any PC connected. Click “Get tag info...”, it will show a successful message.



System Parameter Settings

Font Extended Memory Printer/Backup Server


Device Model General System Setting Security

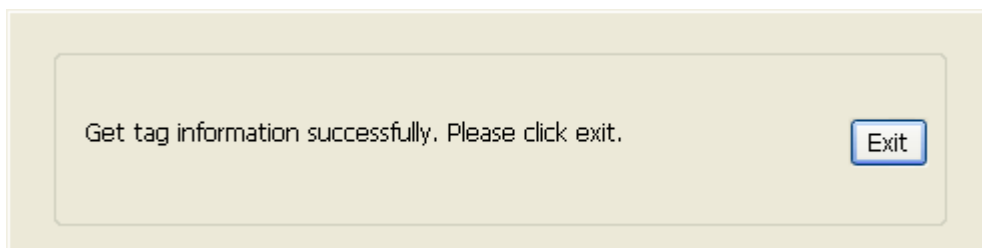
Device list :

No.	Name	Location	Device type	Interface
Local HMI	Local HMI	Local	MT6070iH/MT8070...	Disable
Local PLC 4	SIEMENS S7/1200...	Local	SIEMENS S7/1200...	Ethernet(IP=192.168.1.96, Port

New ... Delete Settings... Get tag info...

Project description :

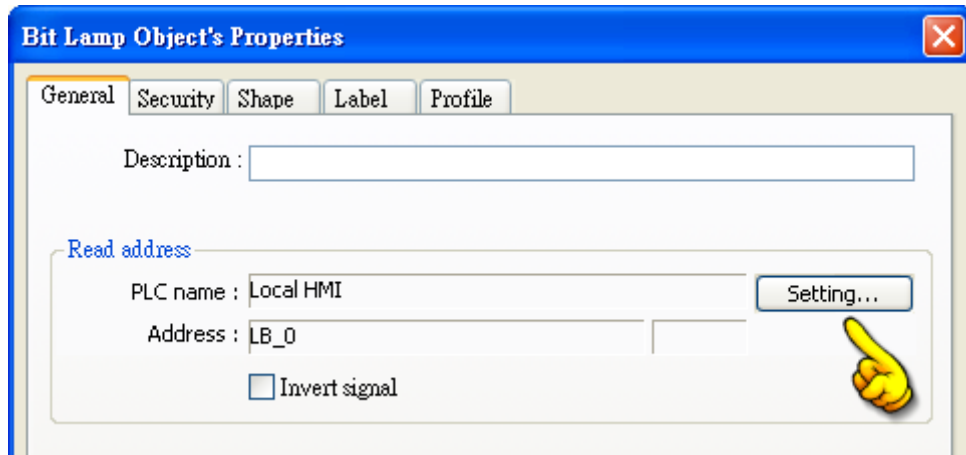




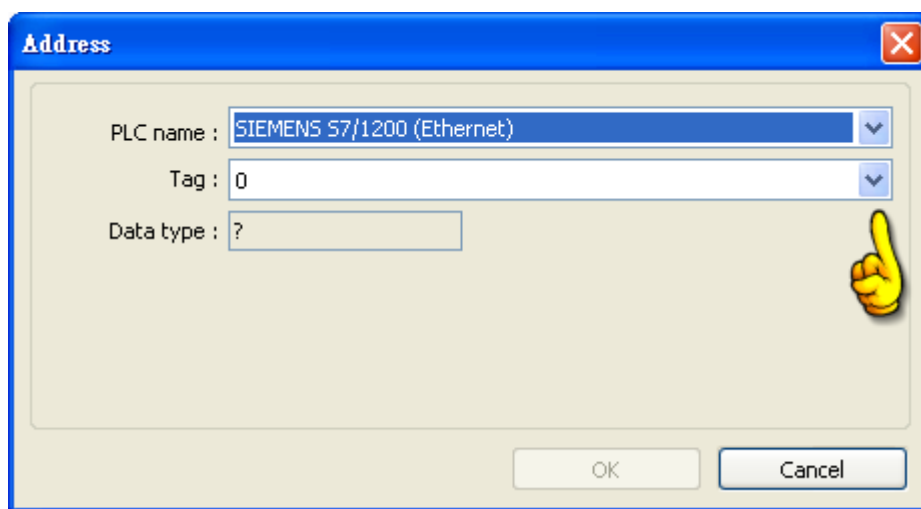
Get tag information successfully. Please click exit.

Exit

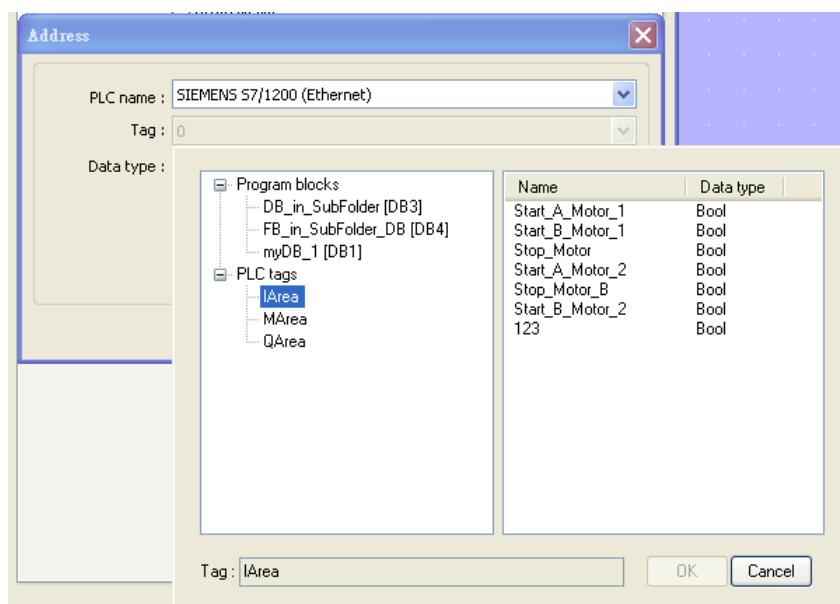
5. Create an object and click read address “Setting...”



In PLC name select S7-1200 then click Tag.



Select PLC tag.



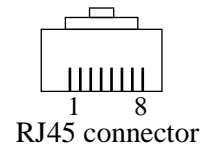
Support Device Type:

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-



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
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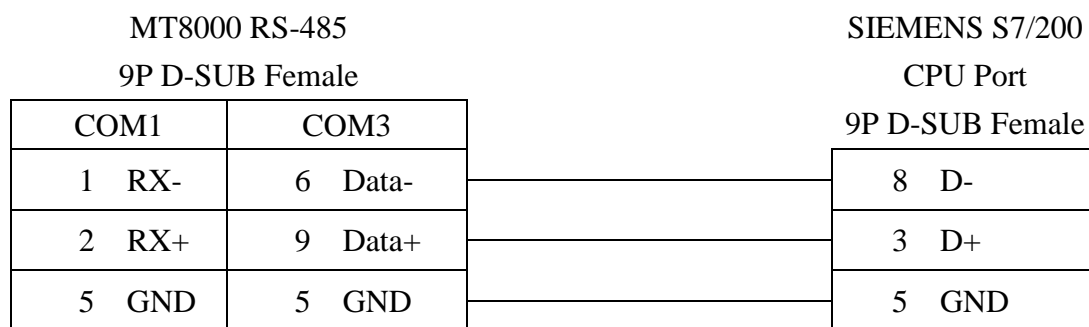
Device address:

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	dddddd(o)	0-102397	V Memory bit address
W	VB	dddddd	0-10239	
W	VW	dddddd	0-10239	V memory

W	VW_Odd	dddddd	0-10239	V memory
DW	VD	dddddd	0-10239	V memory double word
DW	VD_Odd	dddddd	0-10239	V memory double word
W	VD_String	dddddd	0-10239	String
W	VD_String_Odd	dddddd	0-10239	String
W	VW_String	dddddd	0-10239	String
W	VW_String_Odd	dddddd	0-10239	String
W	MB	dddddd	0-10239	byte memory
W	MW	dddddd	0-10239	Word memory
W	MW_Odd	dddddd	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	dddd(o)	0-102397	V Memory bit address
W	VW	dddd	0-10239	V memory
W	VW_String	dddd	0-10239	String
DW	VD	dddd	0-10239	V memory double word
DW	VD_String	dddd	0-10239	String

- Double word and Floating point value must use VD device type.

Wiring diagram:

MT8000 Ethernet Wire color
Ethernet Hub or Switch RJ45
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/Brow		7	BD3+
8	BD3-	Brown		8	BD3-



1 8 RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color
Ethernet Device
RJ45
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	
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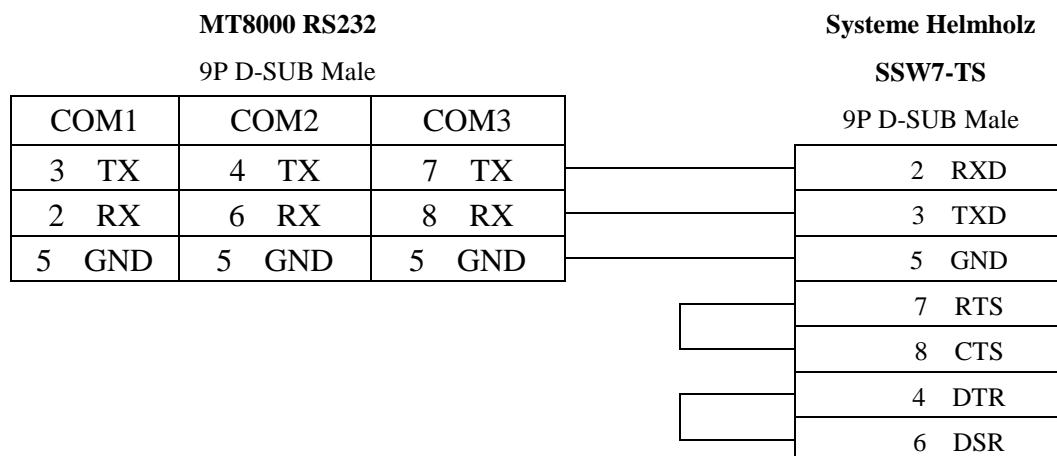
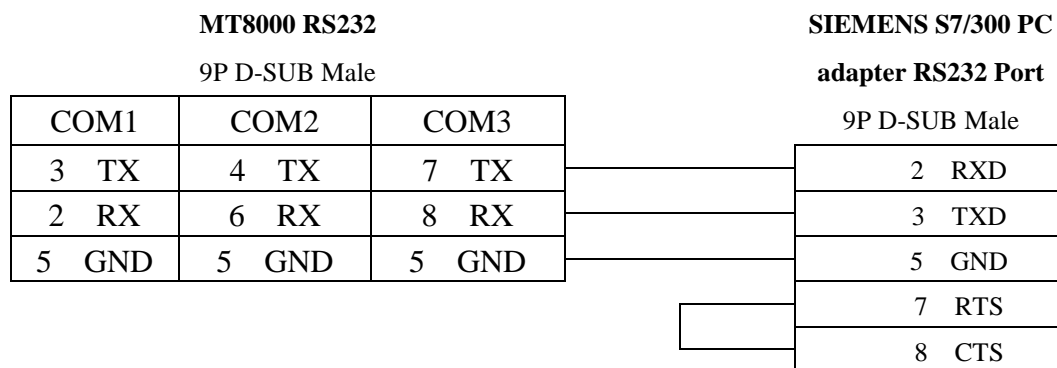
Device address:

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)
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* Double word and Floating point value must use DBDn device type.

Wiring diagram:



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 Wire color
Ethernet Hub or Switch RJ45
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/Brow		7	BD3+
8	BD3-	Brown		8	BD3-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color
Ethernet Device
RJ45
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:

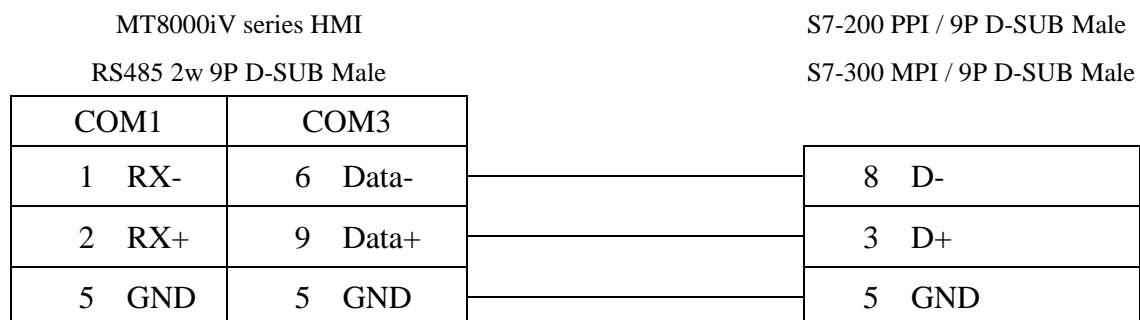
Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300 MPI		
Com port	RS485 2w		
Baud rate	187.5K		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
PLC Station No.	2		

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:



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 Wire color

Ethernet Hub or Switch RJ45
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 Wire color

Ethernet Device
RJ45
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