

Allen-Bradley EtherNet/IP-Tag (CompactLogix/ControlLogix)

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet

<http://www.ab.com>

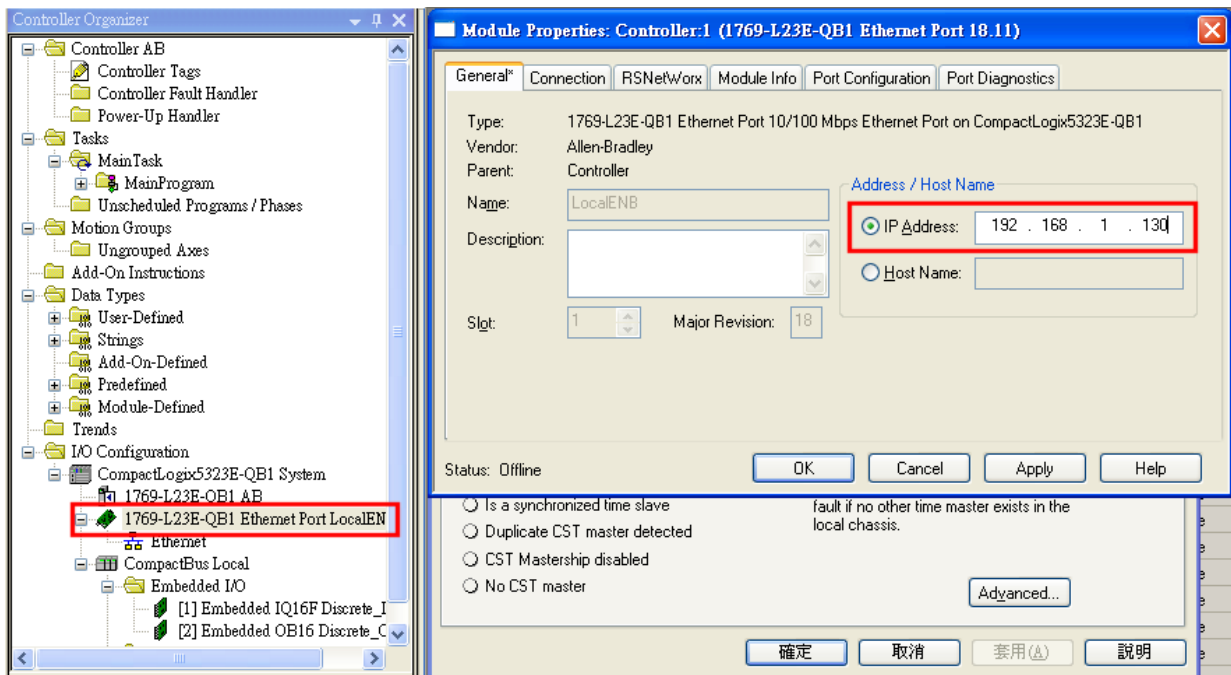
HMI Setting:

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

PLC Setting:

Communication mode	
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1. Set PLC IP address.



2. Create Tags.

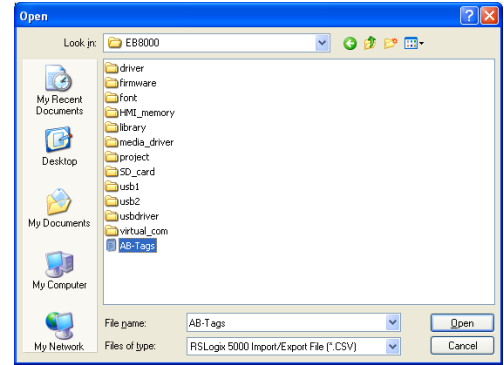
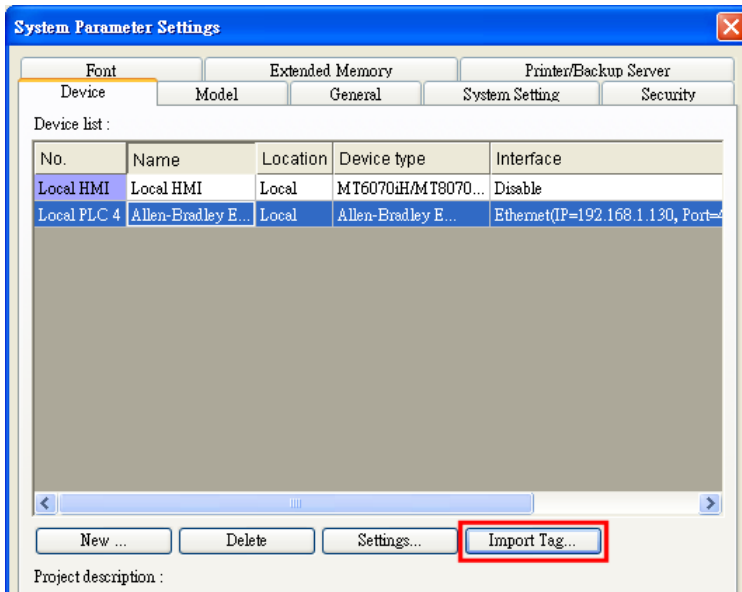
The screenshot shows the RSLogix 5000 software interface. The Controller Organizer on the left shows a tree view with 'Controller AB' expanded, and 'Controller Tags' highlighted with a red box. A red arrow points from this box to the 'Tags' table on the right. The table has columns for Name, Value, Force Mask, Style, and Data Type. The table contains the following data:

Name	Value	Force Mask	Style	Data Type
+ ABC	56		Decimal	DINT
+ Array2D	{...}	{...}	Decimal	DINT[25,5]
+ ArrayBool	{...}	{...}	Decimal	BOOL[256]
+ ArrayDINT	{...}	{...}	Decimal	DINT[130]
+ ArrayReal	{...}	{...}	Float	REAL[125]
b1	0		Decimal	BOOL
+ INT	{...}	{...}	Decimal	INT[360]
+ Local:1:C	{...}	{...}		AB:Embedded_IQ...
+ Local:1:I	{...}	{...}		AB:Embedded_IQ...
+ Local:2:C	{...}	{...}		AB:Embedded_O...
+ Local:2:I	{...}	{...}		AB:Embedded_O...
+ Local:2:O	{...}	{...}		AB:Embedded_O...
VarBool	0		Decimal	BOOL
+ VarDint	21862		Decimal	DINT
+ VarInt	0		Decimal	INT
VarReal	0.0		Float	REAL
+ VarSint	-128		Decimal	SINT

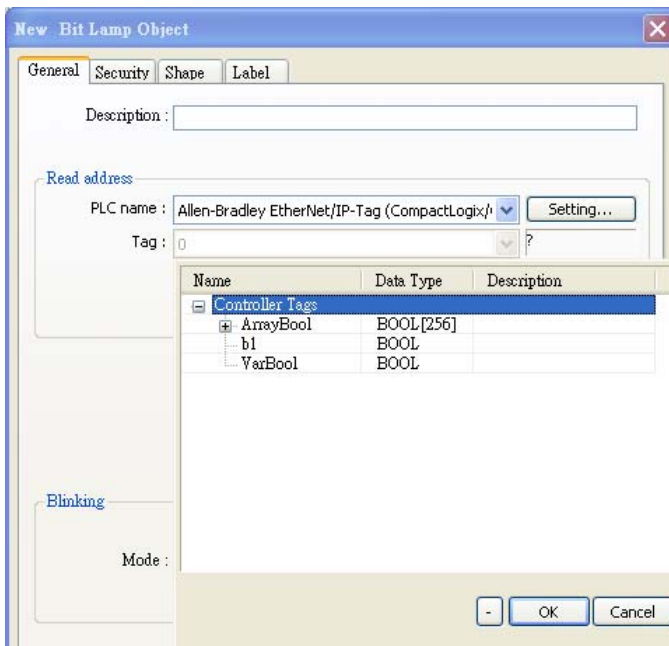
3. Export Tags data to CSV file.

The screenshot shows the RSLogix 5000 software interface with the 'Tools' menu open. The 'Export' option is highlighted, and a red box is drawn around the 'Tags and Logic Comments...' sub-option. The Controller Organizer on the left shows 'Controller Tags' selected.

4. In EB8000, create Allen-Bradley EtherNet/IP-Tag (CompactLogix/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.



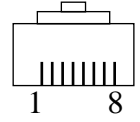
Device address:

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	$-2^{31} \sim (2^{31}-1)$
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-



RJ45 connector

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-