

Pass-through

Table of Contents

1. Overview and Operation.....	3
2. Setting up the Screen	6
3. Addresses.....	10

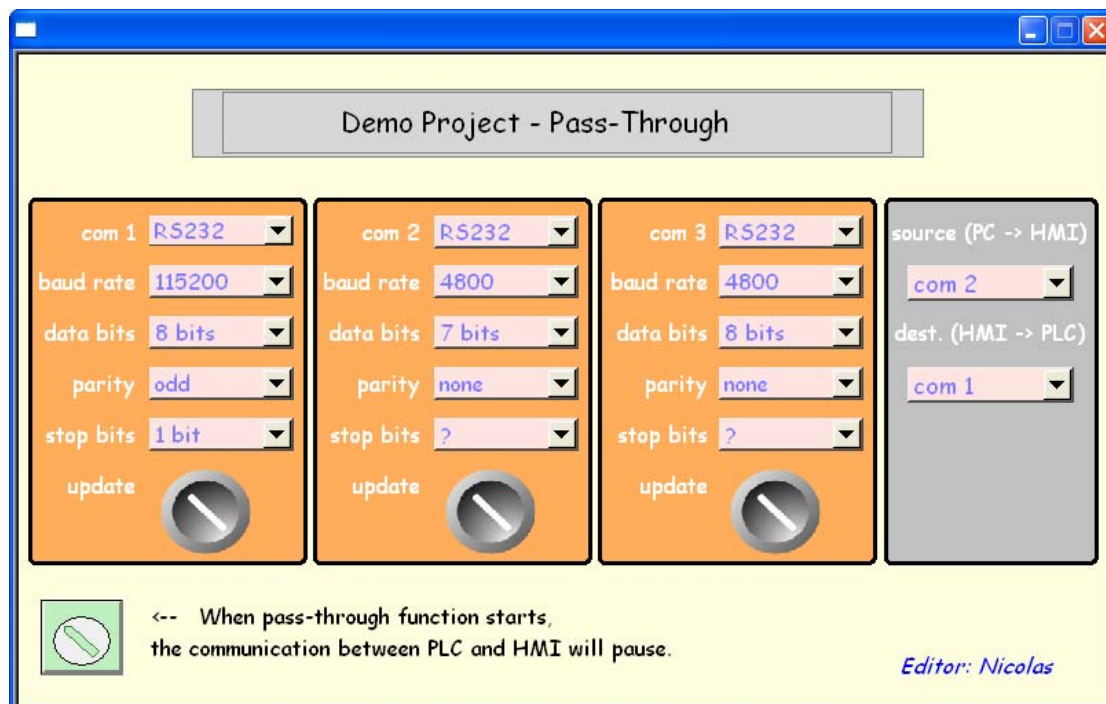
1. Overview and Operation

Overview

This demo project demonstrates the usage of pass-through function. If not launching pass-through function directly from Project Manager / Utility Manager, setting relevant parameters of registers can do as well.

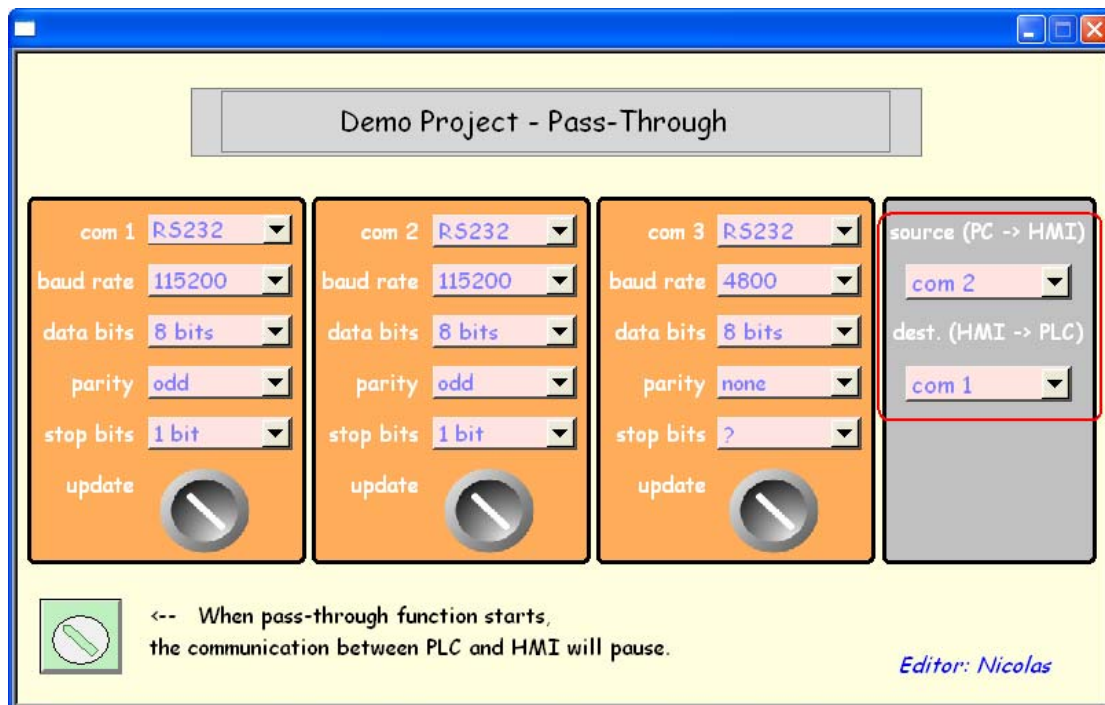
With Option List Object the communication parameters can be easily selected and pass-through function can be used and updated directly on HMI.

This project demonstrates Panasonic FP PLC as an example.

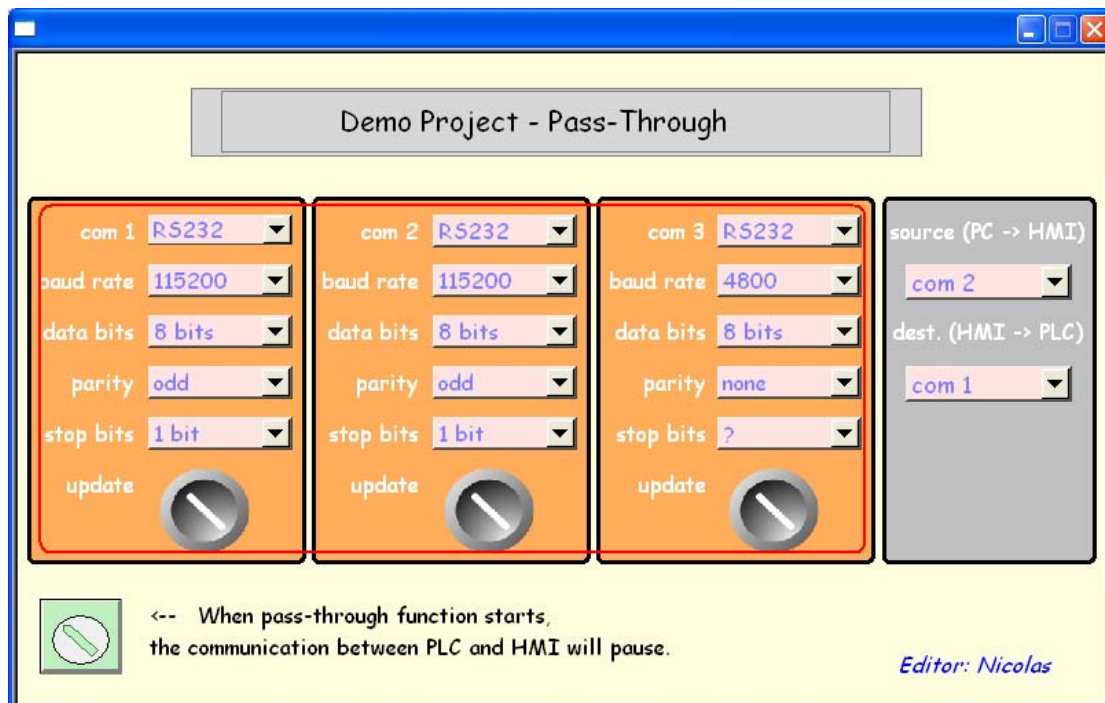


Operation

Select source com port and destination com port.



Adjust relevant communication parameters, push update button to update.



Note that when pass-through function successfully starts, the communication with PLC relevant addresses will pause.

Demo Project - Pass-Through

com 1	com 2	com 3	source (PC -> HMI)
RS232	RS232	RS232	com 2
baud rate: 115200	baud rate: 115200	baud rate: 4800	dest. (HMI -> PLC)
data bits: 8 bits	data bits: 8 bits	data bits: 8 bits	com 1
parity: odd	parity: odd	parity: none	
stop bits: 1 bit	stop bits: 1 bit	stop bits: ?	
update	update	update	

<-- When pass-through function starts, the communication between PLC and HMI will pause.

Editor: Nicolas

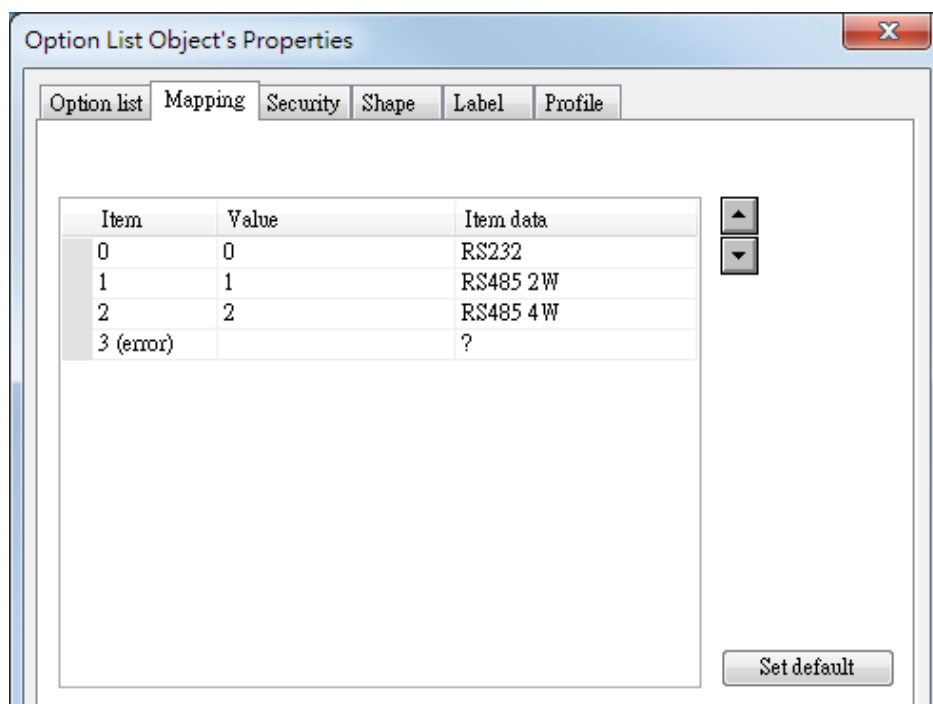
2. Setting up the Screen

1. Create 15 Option List Objects, respectively set system registers from LW-9550 ~ LW-9564 to be monitor addresses. The following takes LW-9550 as an example.

Option list tab:

The screenshot shows the 'Option List Object's Properties' dialog box. The 'Option list' tab is selected. The 'Description' field is empty. Under the 'Attribute' section, 'Mode' is set to 'Drop-down List', 'Item no.' is set to '3', 'Direction' is set to 'Down', and 'Source of item data' is set to 'Predefine'. The 'Background' is set to a black color swatch, and 'Selection' is set to a yellow color swatch. The 'Monitor address' section shows 'PLC name' as 'Local HMI' and 'Address' as 'LW-9550 (16bit) : COM 1 mode(0:RS232,1)'. A 'Setting...' button is next to the PLC name. The address is also labeled as '16-bit Unsigned'.

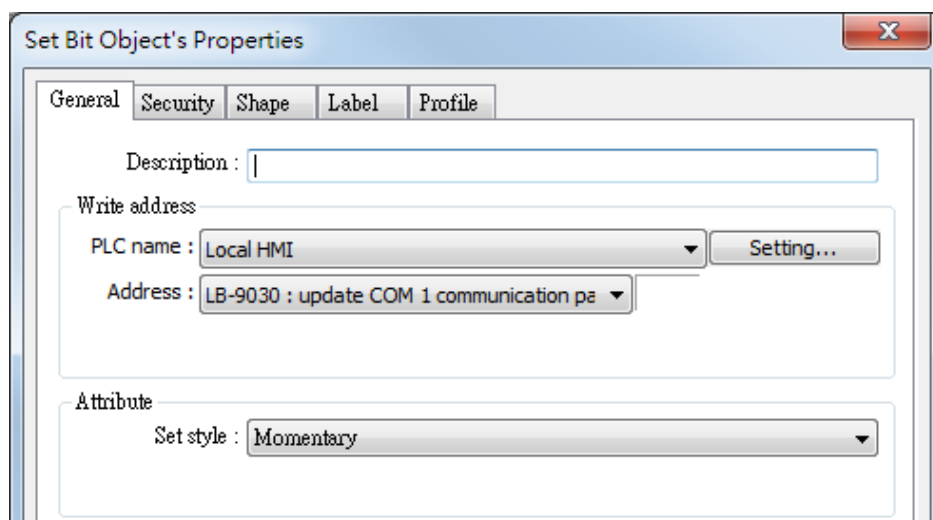
[Source of item data] set to Predefine; [Monitor address] set to LW-9550; [Item no.] must be set according to the range of the register, for LW-9550, the available value range is 0 ~ 2, which means 3 states in total, therefore set to 3, and adjust the relevant properties as required.

Mapping tab:

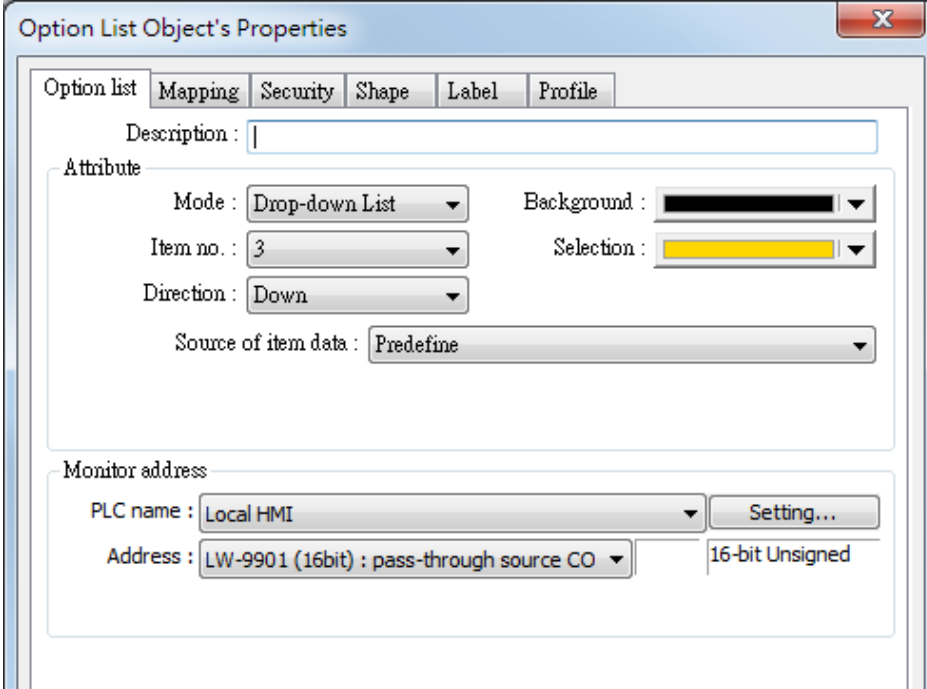
Since the available value range for LW-9550 is 0 ~ 2, please fill in 0, 1, 2 respectively in [Value] column. In [Item data] column, fill in the corresponding usage: RS232, RS485 2W, RS485 4W.

Please refer to the demonstration above to set the rest 14 Options List Objects

2. Create 3 Set Bit Objects, respectively set [Write address] to LB-9030 ~ LB-9032 for updating COM port 1 ~ 3 communication parameter settings. Set [Attribute] to Momentary.



3. Create 2 Option List Objects, respectively set system registers from LW-9901 ~ LW-9902 to be monitor addresses. The following takes LW-9901 as an example.

Option list tab:

The image shows a software dialog box titled "Option List Object's Properties". It has several tabs: "Option list", "Mapping", "Security", "Shape", "Label", and "Profile". The "Option list" tab is selected. Inside the dialog, there is a "Description" text field. Below it is an "Attribute" section containing several settings: "Mode" is set to "Drop-down List", "Background" is a black color swatch, "Item no." is set to "3", "Selection" is a yellow color swatch, "Direction" is set to "Down", and "Source of item data" is set to "Predefine". At the bottom is a "Monitor address" section with "PLC name" set to "Local HMI" and a "Setting..." button. The "Address" is set to "LW-9901 (16bit) : pass-through source CO", and there is a "16-bit Unsigned" checkbox.

[Source of item data] set to Predefine; [Monitor address] set to LW-9901; [Item no.] must be set according to the range of the register, for LW-9901, the available value range is 1 ~ 3, which means 3 states in total, therefore set to 3, and adjust the relevant properties as required.

Mapping tab:

Item	Value	Item data
0	1	com 1
1	2	com 2
2	3	com 3
3 (error)		

Since the available value range for LW-9901 is 1 ~ 3, please fill in 1, 2, 3 respectively in [Value] column. In [Item data] column, fill in the corresponding usage: COM1, COM2, COM3.

Please refer to the demonstration above to set another Option List Object.

Upon completion of the settings, it is recommended to create a PLC relevant register for confirming if pass-through function already starts executing.

3. Addresses

The addresses of objects used in this demonstration are listed below.

Object	Address	Object ID	Description
Window 4			
Option List	LW-9550	OL_0	COM1 mode
	LW-9555	OL_1	COM2 mode
	LW-9560	OL_2	COM3 mode
	LW-9551	OL_3	COM1 baud rate
	LW-9556	OL_4	COM2 baud rate
	LW-9561	OL_5	COM3 baud rate
	LW-9552	OL_6	COM1 databits
	LW-9557	OL_7	COM2 databits
	LW-9562	OL_8	COM3 databits
	LW-9553	OL_9	COM1 parity
	LW-9558	OL_10	COM2 parity
	LW-9563	OL_11	COM3 parity
	LW-9554	OL_12	COM1 stop bits
	LW-9559	OL_13	COM2 stop bits
	LW-9564	OL_14	COM3 stop bits
Set Bit	LB-9030	SB_0	Update COM1 com. parameters
	LB-9031	SB_1	Update COM2 com. parameters
	LB-9032	SB_2	Update COM3 com. parameters
Option List	LW-9901	OL_16	Pass-thru source com port
	LW-9902	OL_17	Pass-thru destination com port
Toggle switch	Y_0	TS_0	PLC communicaiton confirmation