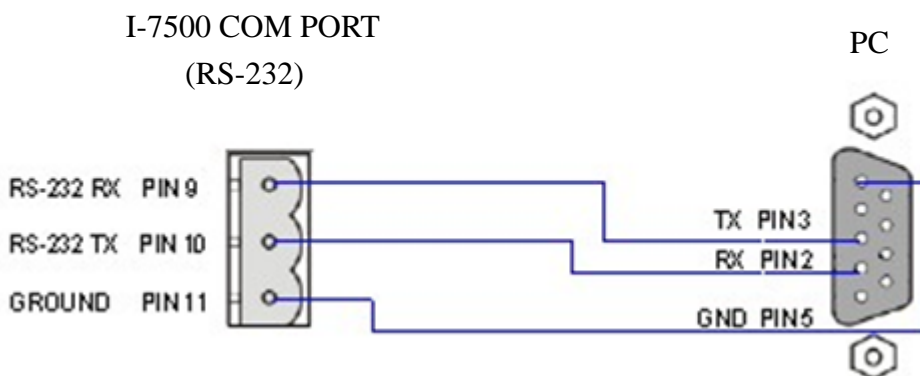
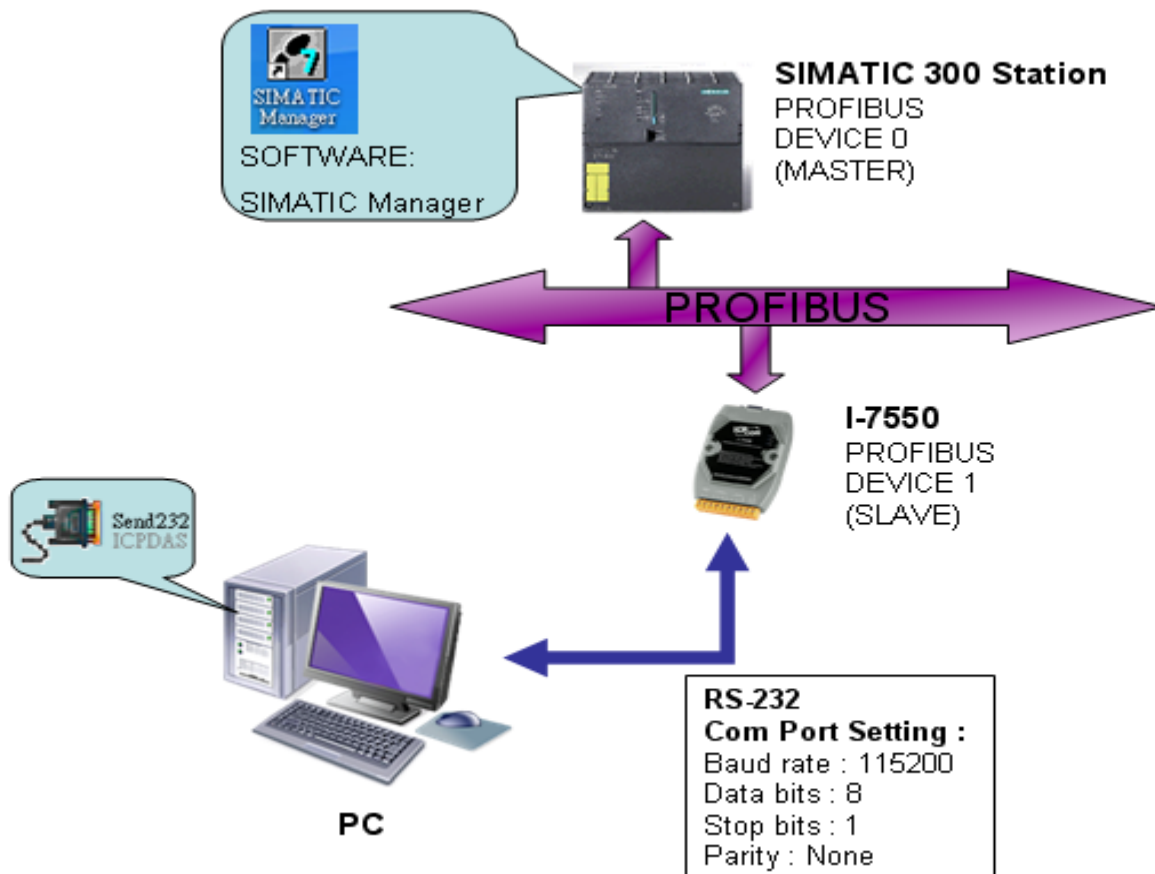


How to send and receive data at SIMATIC STEP 7

1. Hardware Configuration



2. Check the below before send and receive data

- (1) RUN LED must be on. It means the I-7550 is ready to send and receive data.



- (2) Confirm the I-7550's Com Port setting is the same with RS-232 tool (ex: Send232, the user can download Send232 from

http://ftp.icpdas.com/pub/cd/8000cd/napdos/7188e/tcp/pcdiag/source/send232.vb6_2.0.1/)

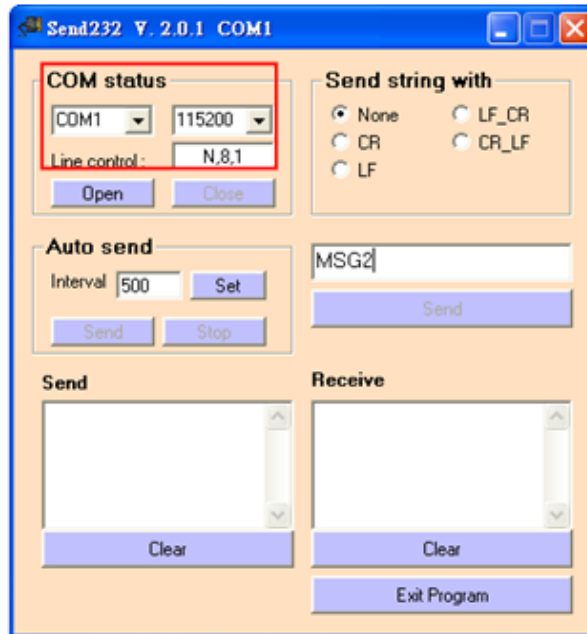
Com Port Settings: baud rate-115200, data bits-8, stop bits-1, parity-none

The screenshot shows the SIMATIC Manager HW Config interface. The main window displays a hardware rack configuration for a SIMATIC 300 Station. The rack contains a CPU 313C-2 DP(1) and an I-7550 DP master system. A red box highlights the I-7550 icon, with the instruction "1. Double Click I-7550 icon".

The Properties dialog box for the DP slave is open, showing the "General" tab. The "Parameters" section is expanded to "Device-specific parameters". A red box highlights the "band rate", "parity", and "data" settings, with the instruction "2. Set com port settings".

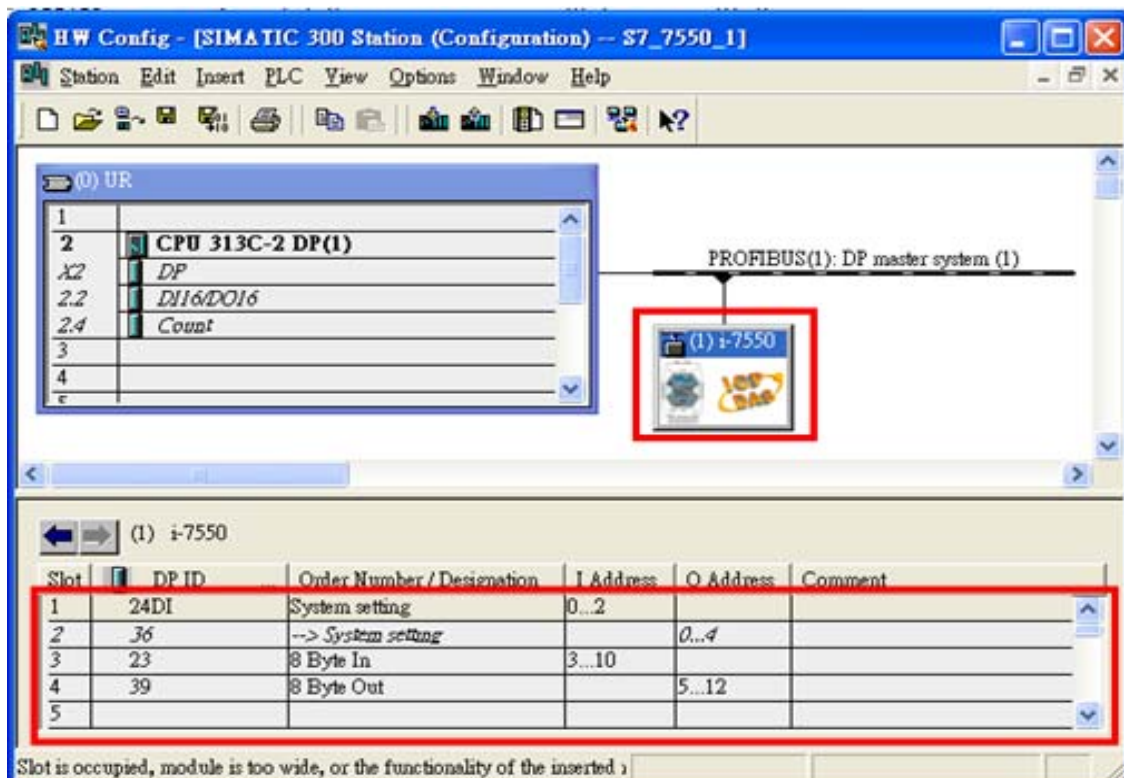
| Parameter | Value |
|--------------------------|-------------------------|
| band rate | 115200 baud |
| parity | none |
| data | 8 data bit |
| end char of input data | CR |
| input fixed length data | Disable |
| unit of time out value | 1 ms |
| diagnosis of time out | None |
| Hex parameter assignment | 00,00,00,08,00,01,01,00 |

1. Set com port settings



3. SIMATIC STEP 7 Edit

(1) HW Config – configure I-7550 (ex: System setting module x1, 8 Byte In module x1, 8 Byte Out module x1)



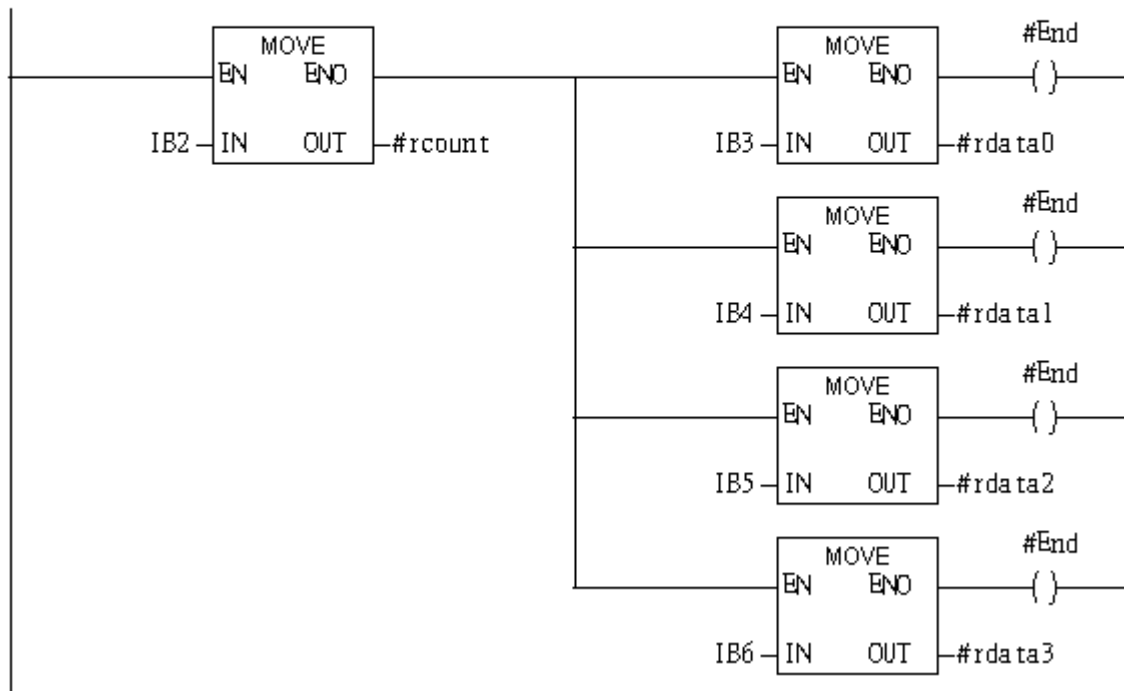
(2) S7 program edit

Variables used in the example LD Program:

| Contents Of: 'Environment\Interface\TEMP' | | | |
|-------------------------------------------|-----------|---------|--------------------|
| Name | Data Type | Address | Comment |
| End | Bool | 24.0 | |
| rcount | Byte | 25.0 | receive data count |
| rdata0 | Byte | 26.0 | |
| rdata1 | Byte | 27.0 | |
| rdata2 | Byte | 28.0 | |
| rdata3 | Byte | 29.0 | |

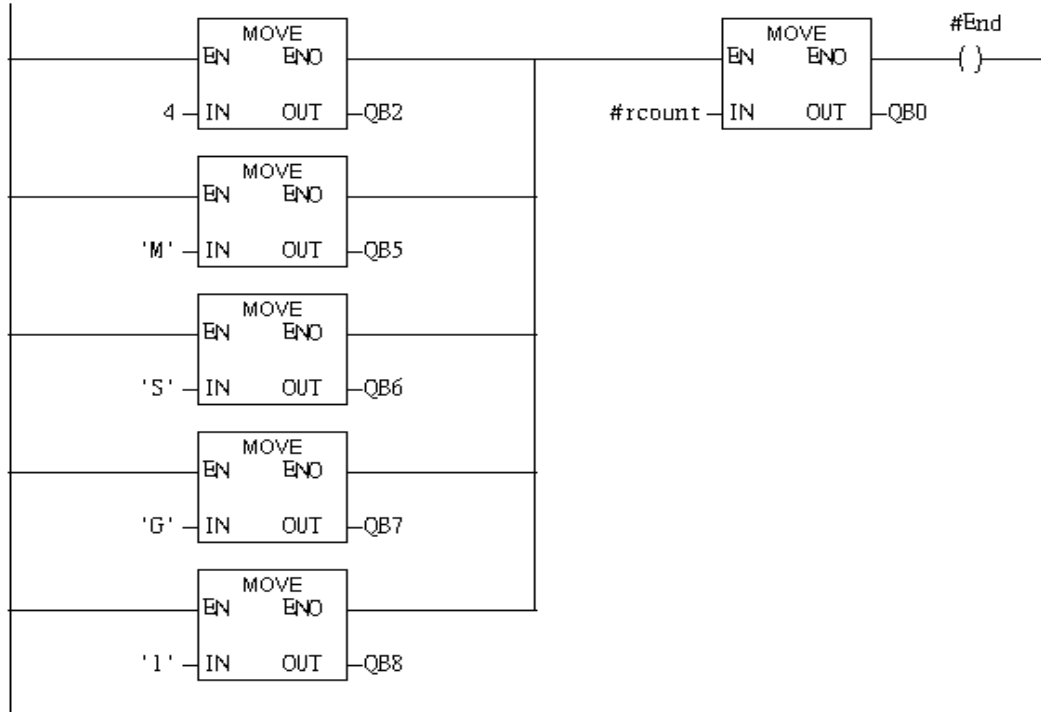
Network 1: receive data

receive data, IB2 is received data count
IB3-6 are received data

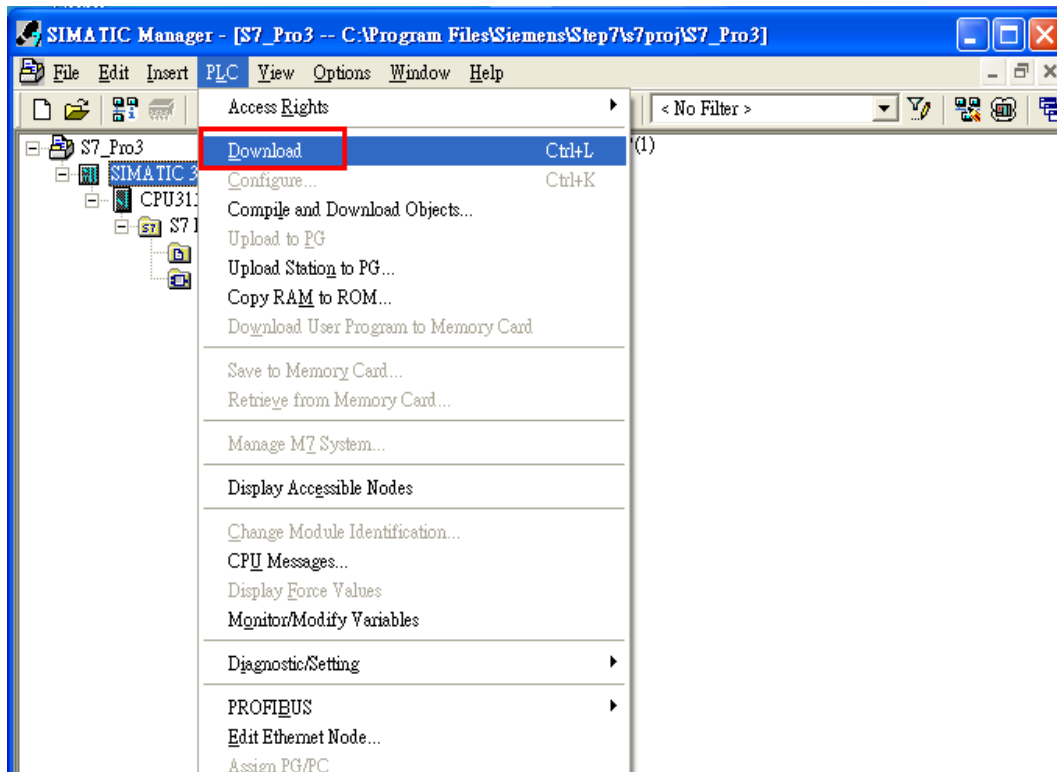


Network 2 : Send data

Send data, QB2 is data length, QB0 is data output command
QB5-8 are outputted data

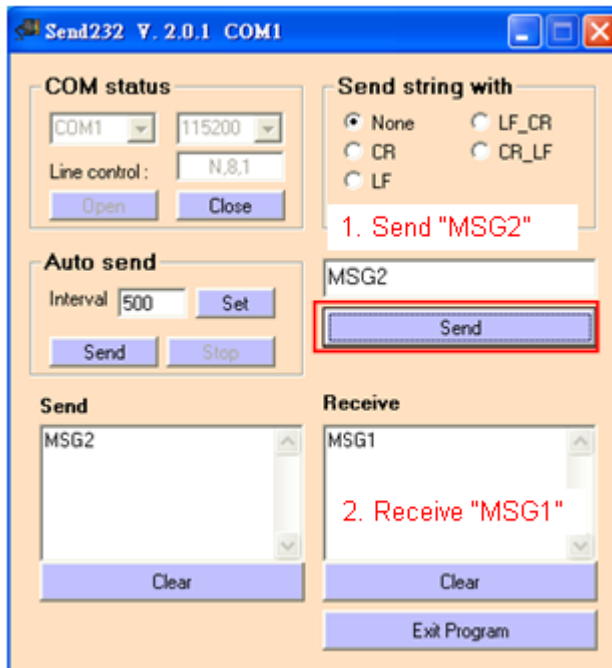


(3) S7 program download



4. Communication test

(1) Click "Send" button to send "MSG2" to PLC and PLC will Send "MSG1" to PC



(2) PLC receives the "MSG2" message (rdata0='M', rdata1='S', rdata2='G', rdata3='2').

Network 1: receive data

receive data, IB2 is received data count
IB3-6 are received data

