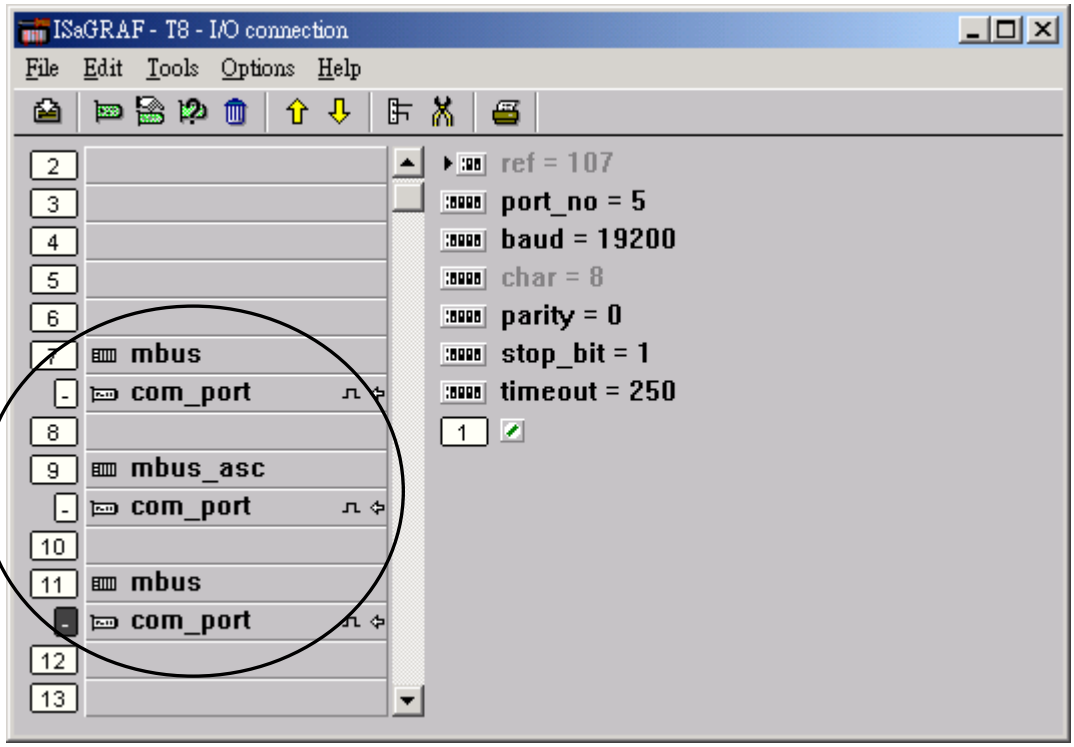
How to use multi-port Modbus Master on the ISaGRAF PACs?

- Each Modbus RTU (RS-232/485/422) port supports **32** Modbus devices
- iP-8xx7, I-8xx7, uPAC-7186EG, and I-7188EG support **2** Modbus RTU/ASCII Master ports
- XPAC supports 33 Modbus RTU/ASCII Master ports

To use multi-ports of Modbus RTU or ASCII Master in ISaGRAF PAC, please connect “mbus” or “mbus_asc” in the ISaGRAF I/O connection windows as below.

If you can not find “mbus_asc” in your ISaGRAF, please visit https://www.icpdas.com/en/download/show.php?num=368&nation=US&kind1=&model=&kw=isagraf to download the I/O library. Also the latest driver can be downloaded here.

In this example, there are two Modbus RTU Master (at COM2 & COM3) and one Modbus ASCII Master (at COM5).



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Then using below function blocks in your ISaGRAF Ladder or Function block program.

Note:

1. The “SLAVE_” setting in the below function blocks means Port No. & slave No.
   Port No. = SLAVE / 1000
   slave No. = SLAVE mod 1000

   For example,
   if SLAVE = **2**001, Port No. = COM**2** & slave No. = 1
   if SLAVE = **9**002, Port No. = COM**9** & slave No. = 2
   if SLAVE = **10**002, Port No. = COM**10** (MSP1:) & slave No. = 2;

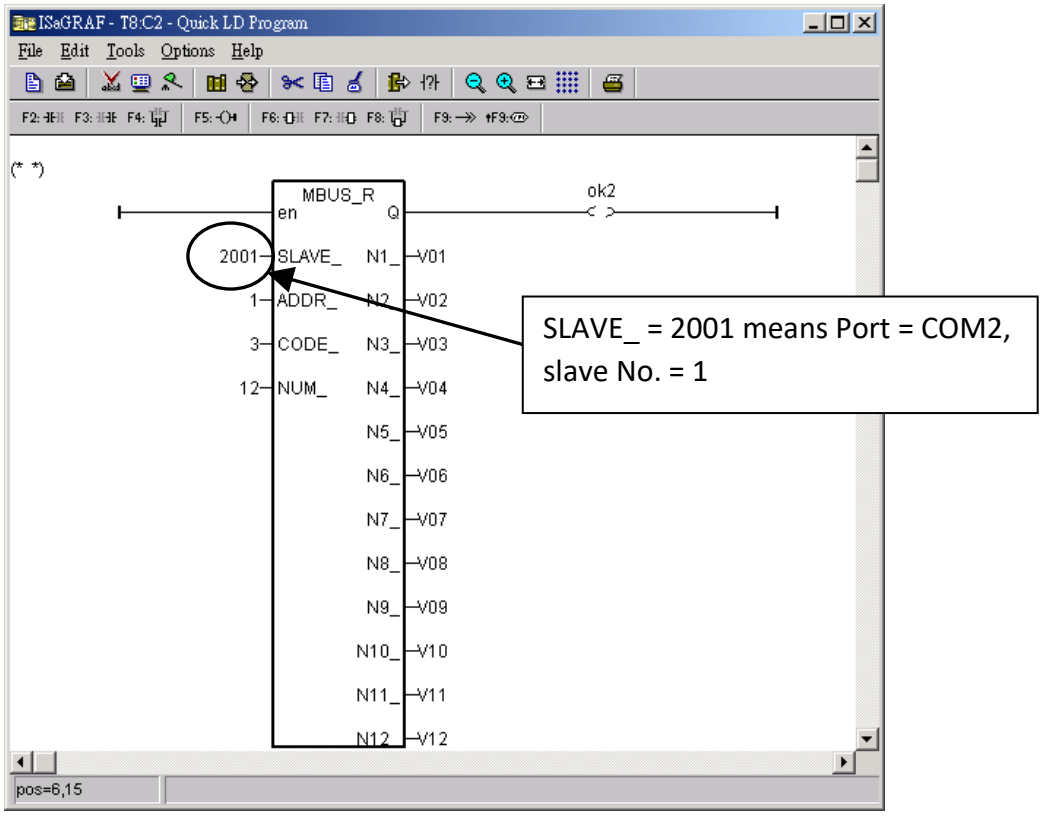
2. If you are using I-8112/8114/8142/8144 in ISaGRAF PAC, please plug these boards in the PAC first and then run “Start” – “Programs” - "PAC Utility" - "Com" - "New Card Wizard" - "Slot Scan", then click on "Save New Module" to properly set each extra COM port.

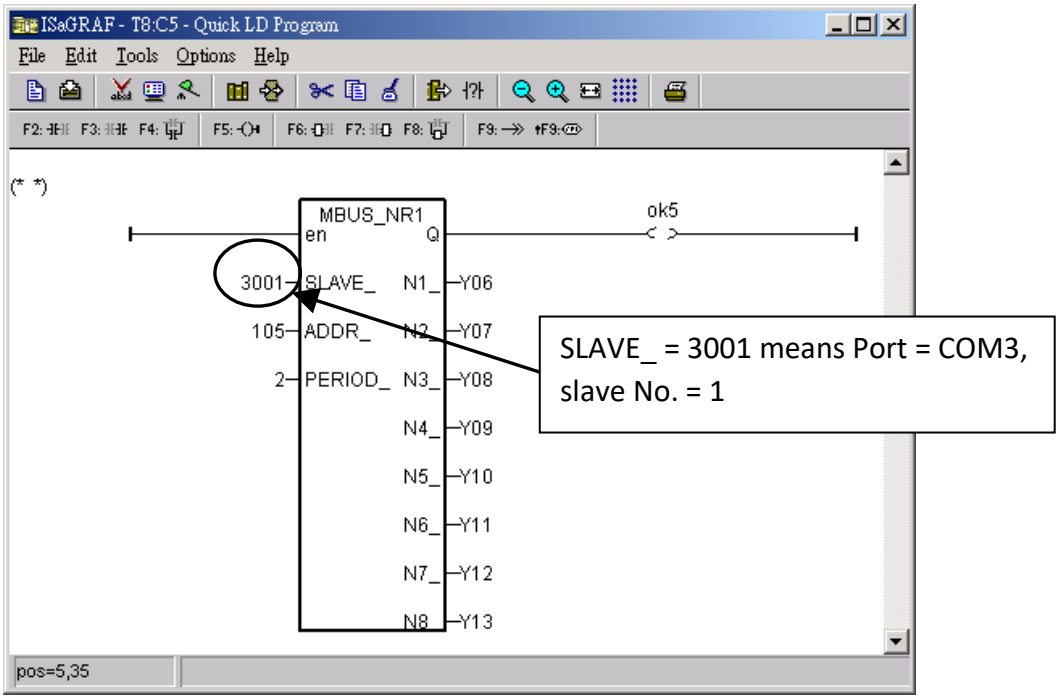
Mbus_R	Read max. 12 word-value (-32768 ~ +32767) using Modbus function code 3 or 4 Read max. 192 bit-value using Modbus function code 1 or 2
Mbus_R1	Same as Mbus_R but with one extra setting – Period. Read words or bits with a specified period time (unit is second)
Mbus_N_R	Read 8 word-value (-32768 ~ +32767) using Modbus function code 3
Mbus_NR1	Same as Mbus_N_R but with one extra setting – Period. Read 8 words with a specified period time (unit is second)
MBUS_B_R	Read 8 bit-value using Modbus function code 1
MBUS_BR1	Same as Mbus_B_R but with one extra setting – Period. Read 8 bits with a specified period time (unit is second)
MBUS_N_W	Write max. 4 word-value (-32768 ~ +32767) using Modbus function code 6 or 16
MBUS_B_W	Write max. 4 bit-value using Modbus function code 5 or 15
MBUS_WB	Write max. 16 bit-value using Modbus function code 15

Then follow below Ladder or Function block program.

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For example:





Click the link for more ISaGRAF FAQ:
http://www.icpdas.com/en/faq/index.php?kind=280#751

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