Q: How to use i-7017Z module in ISaGRAF PAC?

Ans:

ISaGRAF PAC supports the i-7017Z module since below driver version. This module provides 10 differential analog input channels, or can be used to measure 20 single-ended analog input channels by different software setting. In addition, it is not necessary to add external resistors for measuring the current input, please enable the current input mode by the internal jumper setting. Please make sure your ISaGRAF PAC driver version is correct before using it.

   WP-8xx7 / 8xx6 : 1.02 or later
   VP-25W7 / 23W7 : 1.02 or later
   Wincon-8xx7 / 8xx6 : 3.44 or later
   i-8417 / 8817 / 8437 / 8837 : 4.02 or later
   i-8437-80 / 8837-80 : 4.02 or later
   uPAC-7186EG : 1.01 or later
   i-7186EG : 3.02 or later
   i-7186XG : 3.02 or later

Please download the new released driver and the "ICP DAS Utilities For ISaGRAF" at http://www.icpdas.com/products/PAC/i-8000/isagraf-link.htm

i-7017Z Input Type:

10 differential channels: voltage range +/-500mV, +/-1V, +/-5V, +/-10V
          current range +/-20mA, 0~20mA, 4~20mA (by jumper selected)
20 single-ended channels : voltage range +/-500mV, +/-1V, +/-5V, +/-10V.
No support for measuring the current input in 20−Channel mode.
Please visit http://www.icpdas.com/products/Remote_IO/i-7000/i-7017z.htm for More information about i-7017Z.

The "i7017z10" and "i7017z20" function blocks are for reading the channel values of the i-7017Z module. Please use "I7017z10" for 10-Ch. differential inputs. Please use "i7017z20" for 20-Ch. Single-end inputs (Note: 20-Ch. mode no supporting current input).

DCON utility should be at least Rev. 5.0.0 for supporting i-7017Z to set the communication parameter, channel mode and Input type. The i-7017Z data format setting should be **2's compliment format.** Then please use the correct "i7017z20" or "i7017z10" function block in accordance with the DCON utility setting. Please download DCON utility at
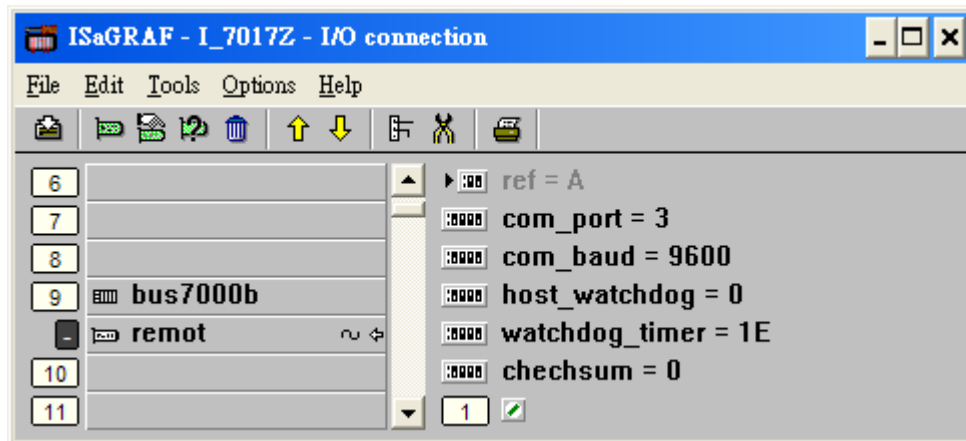
ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/dcon_utility/setup/

Please refer to chapter 6 of the "User's Manual of the ISaGRAF Embedded controllers" for more information about programming the RS-485 Remote I/O.

For example:

The i-7017Z setting: please set baud rate to 9600, watchdog and checksum to dis-

able, address to 1,and set channel mode to differential type. The channel 1~5 are to measure +/-10V; the last 5 channels are to measure 4~20mA.

TYP1_ to TYP10_ cab be16#07,16#1A and 16#0.(only for I7017z10)
4mA~20mA : 16#07 (channel value is 0 ～ 32767)
0mA~20mA : 16#1A (channel value is 0 ～ 32767)
Other range type : 16#0 (channel value is -32768 ～ 0 ～ 32767)

In this example, the setting of TYP1_ to TYP5_ should be 16#0; the setting of TYP6_ to TYP10_ should be 16#7.