FAQ-043: How to setup Wincon-8xx7 as TCP/IP Client to communicate to PC or other TCP/IP Server device? Or Wincon automatically report data to PC via TCP/IP ?

The Wincon-8xx7 / 8xx6 supports TCP/IP Client since its driver version of 3.30. Please visit <u>http://www.icpdas.com/products/PAC/i-8000/isagraf-link.htm</u> for new released driver. And please also visit <u>http://www.icpdas.com/products/PAC/i-8000/isagraf.htm</u> to download the "ICP DAS Utilities For IsaGRAF.zip" to remove it and restore it to your ISaGRAF installed in PC. Then you will find IO connection - "Tcp_Clie" & c-function - "Tcp_send" & "Tcp_recv"



The IsaGRAF demo program is Wdemo_32.pia. & Wdemo_33.pia (It can be download at <u>ftp://ftp.icpdas.com/pub/cd/wincon_isagraf/napdos/isagraf/wincon/demo/</u>)

To setup W-8xx7 as TCP/IP Client, please connect IO complex equipment - "Tcp_clie" first in the IO connection windows as below. Max 4 TCP/IP Client can be setup in one Wincon-8xx7.

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4					:0000	Se	nd_Time_Gap1 = 250	
5					:8998	ро	rt2 = 14001	
6					:8998	to_	_ip2 = N/A	
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The "Time_to_sleep" setting ranges from 10 to 600, or 0. unit is second. If setting as 0, The TCP/IP sending connection is always connected unless the TCP/IP has communication problem. Setting as 10 to 600 sec, means if no message is sending persist for such a long time, the connection will be disconnected (TCP/IP connection will be disconnected). If there is new message requested to send, the TCP/IP connection will be connected again.

The "this_ip" setting is only necessary if your Wincon is W-8x47 / W-8x46. Please enter the "IP address of the ethernet port in this controller". For W-8x37/8x36 has only one Ethernet port (One IP address only), you don't need to specify it.

The "port?" specify the remote PC or device 's TCP/IP server's port number.

The "to_ip?" setting default is "N/A", which means "Not Avaliable". If setting an IP address to it, the related TCP/IP client will be setting up.

The "Send_Time_Gap?" setting is the minimum "Time Gap" in milli-second to send out each TCP/IP message one by one. For example, if setting as 250, the 2nd message will not be sent out if the "Time Gap" since the first message sent out is less than 250 ms. The value can be 10 to 5000 ms depends on the remote device or PC 's TCP/IP server property.

After the "Tcp_Clie" is well setup. Use may call "Tcp_send" to send message out. To receive response from remote TCP/IP server, please call "Tcp_send"

Tcp_send

TCP Client send message to remote PCs or device's TCP/IP server (via ethernet)



*** Target : Wincon-8xx6/8xx7 (since driver version of 3.30)

Note:

The sending buffer for Wincon is 4096 bytes. That means max. 4096 bytes in one PLC scan can be send to remote IP. If sending buffer is full, the oldest mesage will be drop to release space for new "tcp_send()" request.

parameter :

ID_	Integer	send to which connection, can be 1 to 4. The related "ip address" and "port No." is defined in "tcp_clie" (IO complex equipment)
Msg_	Message	The message to send
return value:		
Q_	Boolean	True: send OK, False: parameter error(For example, setting ID_ as 8) or related connection is not defined in IO connection - "Tcp_ clie".

Tcp_recv

TCP Client receive message from remote PC or device's TCP/IP server (via ethernet)



*** Target : Wincon-8xx6/8xx7 (since driver version of 3.30)

Note:

The receiving buffer size is 4096 bytes. If the receiving buffer is full, the oldest message will be drop to release space for receiving new coming data.

Parameter:

ID_	Integer	send to which "Tcp_Clie" connection, can be 1 to 4. The related
		"ip address" and "port No." is defined in IO connection: "Tcp clie"

return value:

Msg_	Message	the received message.	If Msg_ = "	(empty message), i	t means no
		message coming.			

There is an useful "Tcp_Server" tool can be run in PC to simulate the TCP/IP server device. It resides at Wincon-8xx7 CD-ROM:\napdos\isagraf\some_utility\ (or visit <u>ftp://ftp.icpdas.com/pub/cd/wincon_isagraf/napdos/isagraf/some_utility/</u> to download), please copy "Tcp_server folder to your PC", then open a command prompt, and key-in " tcp3 <port_No> " , for example "tcp3 14001"

This utility wait Tcp/IP Client (W-8xx7) requesting to connect, and then receive message from it, and then reply a same message back to the Tcp/IP client.

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