How to use The ISaGRAF PAC plus i-87113DW - the master card of the Carlson Strain Guage Inputs ?

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The following ISaGRAF PACs can support the i-87113DW (the master card of Carlson Strain Guage Inputs) plus the DN-1618U-Test1 (daughter board). Please make sure if your ISaGRAF PAC has the correct ISaGRAF driver installed.

	ISaGRAF driver version	I/O Slot number supported
XP-8xx7-CE6	Version 1.03 or later	$1 \sim 7$, max 7 i-87113DW (the leftmost is slot-1)
WinPAC-8xx7	Version 1.23 or later	$0 \sim 7$, max 8 i-87113DW (the leftmost is slot-0)
VP-25W7/23W7	Version 1.14 or later	$0 \sim 2$, max 3 i-87113DW (the leftmost is slot-0)

Each i-87113DW can connect max. four DN-1618U-Test1 daughter boards. Each DN-1618U-Test1 can connect max. 8 channels of Carlson Strain Guage Inputs. So each i-87113DW can measure max. $8 \times 4 = 32$ channels.)

The new released ISaGRAF driver : <u>http://www.icpdas.com/products/PAC/i-8000/isagraf-link.htm</u>



This figure is only for introduction. The dimension and configuration should depend on the real application.

Every DN-1618U-Test1 has one 8-bit dip-switch to set its NET-ID. If only one DN-1618U-Test1 connected by the i-87113DW, please set its NET-ID to 1 (turn its Dip 1 to "ON" position). If two connected, please set the first one as 1, the other DN-1618U-Test1 should set as 2. (turn its Dip 2 to "ON"). If three connected, please set the first one as 1, the second one as 2, the last DN-1618U-Test1 as 3 (turn its Dip 1 and 2 to "ON"). If there is four DN-1618U-Test1 connected, please set the first one as 3 and the last DN-1618U-Test1 as 4 (turn its Dip 3 to "ON" position).

Write program to use i-87113DW

Please make sure if the "i_87113d" - I/O complex equipment has been installed into the ISaGRAF workbench. The file name is "i_87113d.xia" (visit <u>www.icpdas.com</u> > FAQ > Software > ISaGRAF > 128).



To program the i-87113DW, please connect the " i_87113d " in the associated slot No. , then set its proper parameters for all connected channels.

- ISaGRAF - TEST1 - Programs				
<u>File Make Project Tools Debug Options H</u> elp				
🕒 🖬 🚭 🕦 🗅 🗈 💼 🚿 💥 🗛 🕎 🔆 Select board/equipmen	ıt			
Begin: Ica Internet I	DI & 8 CH. DO			
10 con i 87054c: 16 CH. 1/0 &	Cnt (Max. 100Hz)			
- ISaGRAF - TEST1 - I/O connection	Cnt (Max. 100Hz)			
File Edit Tools Options Help				
🖴 🖿 🎇 🖄 🛍 🕆 🕂 🕞 🐰 🖼 📋 197063.18018464444.1.1	Cnt (Max. 100Hz) <u>N</u> ote			
i 87082c: 2 Counter & 2	read_back DO			
i_87088w: 8-Ch PWM + 1	8-Ch D/I or Counte			
i 87089: Master card of V	W sensors			
i_87117: % CH. WaveFor	rm card			
ISaGRAF - TEST1 - I/O connection	Inge 1E)			
File Edit Tools Options Help				
	Sample_rate : Unit is ms (0.001 sec).			
	Value can be $2000 \sim 600000$. It means			
0 Fer = 87 13D	the scan time-interval of channel to			
$\blacksquare \blacksquare \square \square$	channel.			
$ = Board_1 + Ho = I $	daughter_num:The amount of			
Board 3 0 4 1	DN1618U-Test1 boards connected.			
	value can be $1 \sim 4$.			
\sim	Chx range : Can be 2A, 20 or 2B			
	$2A \cdot (B1 + B2) < 3200$ ohm			
ISaGRAF - TEST1 - I/O connection	2A.(K1+K2) < 3200 01111			
<u>File Edit T</u> ools <u>Options H</u> elp	20: $(R1+R2) < 350$ ohm			
🙆 📼 🗟 🕫 🕦 🔒 🗘 🕕	2B: (R1+R2) < 200 ohm			
□ ► :::::::::::::::::::::::::::::::::::				
1 m i 87113d	0*)			
- E Board 1 ~ ↔				
- ⊨ Board_2 · · • rest_tim · 1-Ch_Integ	er output to dynamically change the			
• Board_3 •• "rest time". Unit is second. Can be $0 \sim 36000$. It means the				
- ■ Board_4 •• time to rest after one so	can cycle (one cycle will scan all			
E 📼 rest_tim 🔪 💀 🔹 channels connected by	the in i-87113DW).			
2				

* Ecah channel of the i-87113DW has 5 input-pins as listed in the next page.

* Each channel of the i-87113DW has two integer values which are stored as long interger format. If user want to define the modbus network address to these ISaGRAF variables, please define them to occupy 2 modbus number. Please refer to section 4.2 of the "User's manual of the ISaGRAF PAC")



📷 ISaGRAF - TEST1 - I/O connectio		
<u>File Edit T</u> ools <u>Options H</u> elp		
🙆 🖻 🗟 🎾 🍵 🗘 🥀 🕞	Χ 🖴	
	:sous ref = 87113D1	
1 m i_87113d	▶ ::: Sample_rate = 3000	
🕒 📼 Board_1 🛛 🕹 💳	aughter_num = 1	
- ⊨ Board_2 ~ ◆	BREE Chx_range = 2A	
- ⊫ Board_3 ~ ↔	1 Z 4 Each channel has two	long
- 📼 Board_4 🛛 💠	integer. They are R1 a	and R2
_ <u></u> ⊨ rest_tim ~ +	resistor value, unit is	0.01 ohm .
2	Eor instance 123456	means
	1234 56 ohm	means
4		1
	Each DN1618U-1est	l can
	connect 8 channels (1	6 integers)
	12 4	
11	13 2	
12	14 2	
13	15 🖉	
14	16 🗷	