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

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 x 4 = 32 channels.)

The new released ISaGRAF driver :

http://www.icpdas.com/en/download/show.php?num=368&nation=US&kind1=&model=&kw=isagraf



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

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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 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 1, the second one as 2, the third 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

https://www.icpdas.com/en/faq/index.php?kind=280#751 > 128).



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To program the i- parameters for a	-87113DW, plea ll connected cha	se connec annels.	ct the	"i_87113d	d" in the	e associated s	ot No. , the	n set its proper	
ISaGRAF - TE	ST1 - Programs			×					
<u>File Make Projec</u>	rt <u>T</u> ools De <u>b</u> ug <u>C</u>	ptions <u>H</u> elr	2						
🖹 🖬 🍄 🗓		🗶 ite 🛛	<u> </u>	Select board.	/equipme	ent			
Begin:	HICH LD1	Г	10 01	i_87054: Isola i_87054c: 16	ated 8 CH. 3 CH. 1/0 - {	. DI & 8 CH. DO & Cnt (Max. 100Hz)		<u>э</u> к	
- 📻 ISaGRAF - 1	IEST1 - I/O connec	ction		i_87055: 8 Cl i_87055c: 16	H. DI & 8 C 3 CH. I/O - {	CH. DÓ & Cnt (Max. 100Hz)		ancel	
<u>File E</u> dit <u>T</u> ools	s <u>O</u> ptions <u>H</u> elp			i_87058c: 8 ( i_87063;  sol	CH. D/I & ated 4 CH.	Cnt (Max. 100Hz)			
	ዾ 🏛 🛛 🗘 🕀 🛛 🖪	- 👗 🖷		i_87063c: 8 (	CH. 1/0 &	Cnt (Max. 100Hz)		ote	
0	4	<u> </u>		i_87082f: 2 F	requency (	2 10au_back 20 & 2 D0 • 9 Ch D /L or Cours			
				i 87089: Ma	ster card of	F 8-Ch D71 or Cours f VW sensors			
				i_871130.Ca	H. WaveF	n Gauage Input orm card		irds	
ISaGRAF -	- TEST1 - I/O cont	nection				- D × inge 1E	) <u> </u>	ipments	
<u>File Edit T</u> o	ols <u>O</u> ptions <u>H</u> elp					Sample rate	• Unit is m		
	12 💼 🕆 🕂	JF X   €	<b>3</b>			-Value can be	e 2000 ~ 600	)000. It means	
			ref =	87113D1		the scan time-interval of channel to			
	7113d	18995	Samp	bter_num :	3000	channel.			
- 📼 Bo	and 2 $\sim$	5 :0000	Chx	range = 2A		daughter_n	<b>um</b> :The amo	ount of	
- 📼 Bo;	ard_3 ~ ~ <	۶ [1	<ul> <li>-</li> <li>-</li> </ul>			DN1618U-Test1 boards connected.			
- 📼 Boa	ard_4 ~ ~ <	2				value can be 1 ~ 4.			
- 📼 res	t_tim ∾ ব					Chx_range: Can be 2A, 20 or 2B			
	RAF - TESTI - I/	O connectio	on			2A: (R1+R	2) < 3200	ohm	
<u>File</u>	dit <u>T</u> ools <u>O</u> ptions	<u>H</u> elp				20: (R1-	+R2) < 350	ohm	
	an 🗟 🞾 🍈 🕇	<b>₽</b>	X (	<b>=</b>		$2B^{\circ}$ (R1+R2) < 200 obm			
		-		ref = 8711	3D9	20. (1111)	21 < 200	UIIII	
	m i_87113d		1	rest_tin	<b>ne</b> (* init 61	:00 *)			
ª <b>-</b>   ₹ <b>-</b>	⇒ Board_1 ≂ Board_2	ν¢ N¢		±:	Ch. Intor		بالدمندم مرياء	-barras tha	
 3 -	⇒ Board_2 ≕ Board_3	~ ¢	resi_ "rest	time". Ur	it is sec	cond Can be	$0 \sim 360$	Change the	
ब -	ॼ Board_4	~ \$	the t	ime to rest	t after o	one scan cycle	(one cycle v	vill scan all	
	∍ rest_tim	~ ¢	chan	nels conne	ected by	, the in i-8711	3DW).		
2_									
- P									
* Ecah channel o	f the i-87113DW	/ has 5 inr	out-pi	ins as listed	d in the	next page.	-		
* Each channel of the i-87113DW has two integer values which are stored as long interger format. If user									
modbus number. Please refer to section 4.2 of the "User's manual of the ISaGRAF PAC".									
		500000			/		, ,		
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	GRAF - TESTI - I dit Tools Options i_87113d Board_1 Board_2	/O connecti	0n 3000 ref = 871 ▶ 300 Sample_ 3000 Chx_ran	13D1 rate = 30 ge = 2A	/A A B C /C	- IX	4/4
- - - - - - - - - - - - - - - - - - -	E Board_3 E Board_4 F rest_tim	∩ ↔ ∩ ↔ ∩ ↔	1 2 4 3 4 4 5 6 6 7 7 8 7 9 7 10 7 11 7 12 7 13 7 14 7 15 7 16 7 Co., Ltd. Techn	ical Docu	Each channe integer. They resistor value For instance, 1234.56 ohm Each DN1618 8 channels (1	I has two lon v are R1 and l e, unit is 0.1 123456 mea 3U-Test1 can 6 integers)	g 32 01 ohm . ans connect