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How to use the XV Board within the WP-5238-CE7 PAC?

Download FAQ-010 Demo

The XV board belongs to the Modbus Slave I/O board. Before using the I/O board, users must plug it into the WP-5238-CE7, and then enable the WP-5238-CE7 as a Modbus Master. Visit the XV board Selection Guide for more details: http://www.icpdas.com/en/product/guide+PACs+WinCE_PACs+WP-5000-CE7_WP-5000#967

The user can find all the following Win-GRAF demo projects on the CD-ROM (\Napdos\Win-GRAF\demo-project\) or download them on

https://www.icpdas.com/en/download/show.php?num=712&nation=US&kind1=&model=&kw=win-graf

Demo	File Name	Description
<u>XV107, XV107A</u>	demo_XV107.zip	Read 8 DI, Write 8 DO
<u>XV110</u>	demo_XV110.zip	Read 16 DI
<u>XV111, XV111A</u>	demo_XV111.zip	Read 16 DO, Read 1 DO
<u>XV116</u>	demo_XV116.zip	Read 5 DI, Write 6 D0
XV308 1 XV308 2 XV308 3	demo_XV308_1.zip demo_XV308_2.zip demo_XV308_3.zip	1. Read 8 AI, Read 8 DI 2. Read 8 AI, Write 8 DO 3. Read 8 AI, Write 4 DO, Read 4 DI
<u>XV310</u>	demo_XV310.zip	Read 4 AI, Write 4 DO, Read 4 DI, Write 4 AO

1.1. The Common Setting:

1. Mouse click the "Open Fieldbus Configuration" tool button to open the "I/O Drivers" window.

Vorkspace	10 0	Irivers *	111 m 108 1		79 HD 18	≝) ²⁰ '			H Z	X
		Hind MODBUS Master Hind MODBUS Master Hind A A A A A A A A A A A A A A A A A A A	5200,N,8,1 nput Bits (1) [18] Coil Bits (1) [18]					Name XV107_DI_00 XV107_DI_01 XV107_DI_02 XV107_DI_03 XV107_DI_04	Type BOOL BOOL BOOL BOOL	^
Initial values		Request	Slave/Unit	Address	Nb Item	Activation	Period (ms)	XV107_DI_04	BOOL	
- 10 Binding Configuration	Ш	<2> Read Input Bits	1	1	8	Periodic	50	<	3	
	ġ,þ	<15> Write Coil Bits	1	1	8	On Change	0	Name V	alue	
Variables	84	<		j			>	<)	>
	Buil	d								×

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 2. Double click on "RTU: COM:115200,N,8,1" to open the "MODBUS Master Port" window as the figure above. <u>Note:</u> All the demo projects listed in above table enable the WP-5238-CE7 as a Modbus RTU Master device and set the "Com. Port" as "COM0:115200,N,8,1". 									
	MODBUS	Master Port							
	○ MOL Add Port Pr <u>o</u> t	DBUS on Ethern ress: : ocol:	using it as the SCII Master, ma ASCII:COM0:11	Modbus odify it to 5200,N,8	OK Cancel D 3,1"				
	© <u>Seri</u> ⊆om Delay be Dela	al MODBUS-RTI 1. port: COM etween reques 1y (ms): 0	U 10:115200,N,8,1 ts						
Configure the Al/ If you want to use stop the Win-GRA "DCON_Utility_Pr	AO channel the AI/AO chan F driver in the F CO_CE_200.exe	nnel of the PAC and th	e XV Board (e.g nen configure e	., XV308, each AI/A	, XV310) in the O channel by	e WP-5238-C using	E7. First,		
1. Click the "Wir window, and	GRAF_WP_52	<u>e.</u> 38" (or th End Driver	e small icon on " button.	the task	bar) to open t	he Win-GRA	F driver		
My Device Re Internet Explorer isqlw35 Microsoft WordPad My Documents PAC_Utility Virtu	agEdit manager CRAF 2-5238 Vordows Embedded Comp	Win-GRAF-WF WP-5238 This prod Project n Elapsed t	2-5238 3 driver Version 1.01 , Ju luct is licensed. ame : demo_XV110 , ime : 0. 0: 0:19	II.16,2014 VMDB size : 30	D8928 End Driver Stop the W	ок in-GRAF driv	/er		
			Co. Itd Techni		ment				

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2. Click "My Device" on the desktop and then get into the path "\System_Disk\Tools\dcon_utility_pro" to run the "DCON_Utility_Pro_CE_200.exe".

<u>File Edit View Go Favo</u>	rites 🛛 💠 🕨 🗙 😭	Ⅲ ▼	×
Address \System_Disk\Tools\dcor	n_utility_pro		-
auto_config	Cmd_config	🗁 language	
🗁 log_report	🗁 remote_config	🗁 system	
🔊 CE7_PlatformBase_arm.dll	🔊 CmdParser.dll	🔊 CommuIO.dll	
DCON_Utility_Pro_CE_200.exe	🔊 IOModule.dll	🔊 PACNET.dll	
Netform.dll	🔊 Protocol.dll	🔊 Utility.dll	
	—	—	

3. Click the COM Port button to set the "COM Port" as "COM0", set the "Baud Rate" as "115200" and set the "Format" as "N,8,1", and then click "OK".

DCON Utility Pro 2.0.0.0 for CE7 arm(WP5231)	×
Start Address 0 End Address 1	COM Port Option X
ID Addr Baud Rate Checks Format Sta	COM Port Timeout
	COM0[Backplane] 200 ms
	Baud Rate Protocol Checksum Format
	● N,8,1 O N,8,2 O E,8,1 O O,8,1
<u>ا</u>	

4. After clicking the Search (►) button, the XV Board (e.g., XV308) will show in the window. Then, double click this item to get into the setting window.

DCON Utility Pro 2.0.0.0 for CE7 arm(WP5231) X	
Start Address 0 End Address 1	
ID Addr Baud Rate Checks Format Status Description XV308 1[1h] 115200 Disable N,8,1 [Modbus RTU]8*AI + 8 Uni	
Double-click COM:0[N,8,1] Address: 1[01h] Baud Rate: 115200 Checksum: Disable	
ICP DAS Co., Ltd. Technical Document	

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5. In the "Config set the "Fast I	guration" tab, se Mode" as "Fast	t the "Dat Mode" an	a Format" as "E d uncheck the '	Engineeri 'Reverse	ng Format" (r DI State (INIT	ecommende *)".	d setting),
хүз	08 Firmware[A102]					
Cor	nfiguration AI/AI Ala	arm DO/Alar	rm Host WDT DI	About			
Pro	otocol(INIT*)	lodbus RTU	V				
Ad	dress 1	<u>^</u>	01H				
Ba	ud Rate(INIT*)	15200	V				
Pa	rity(INIT*)	,8,1-None Pa	rity 💌				
Che	ecksum(INIT*) 🔽	isable					
Da	ata Format 🛛 🖻	ngineering Fo	rn 💌				
Fa	st Mode Fa	ast Mode					
	sponse Delay 0 Reverse DI State (IN	IT*))		Set Modu	ule Configurati	ons	

6. In the "AI/AI Alarm" tab, to configure the proper ranges and values for each AI channel, and remember to select any AI channel (e.g., "CH:00") you want to use, then click the "Set Alarm" button.

CH:00	-00003 [-000.003]	[08] +/- 10 V v 1	0	-10	Disable 🔻
CH:01	-00004 [-00.0040]	[09] +/- 5 V v 5		-5	Disable 💌
CH:02	-00052 [-00.0052]	[05] +/- 2.5 V 💌 2	.5	-2.5	Disable 💌
🔽 СН:03	-00011 [-00.0011]	[0A] +/- 1 V 💌 1		-1	Disable 💌
🔽 CH:04	-00022 [-000.022]	[0D] +/- 20 m/ 💌 2	0	-20	Disable 💌
🔽 CH:05	-00005 [-000.005]	[08] +/- 10 V 💌 1	0	-10	Disable 💌
CH:06	-00006 [-000.006]	[08] +/- 10 V 💌 1	0	-10	Disable 💌
CH:07	-00001 [-000.001]	[08] +/- 10 V 💌 1	0	-10	Disable 💌
					Set Alarm

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XV308:

Type Code	Range	Data Format	Minimum	Maximum
05		Engineering	-25000	+25000
05	+/-2.5 V	Hexadecimal	8000h	7FFFh
06	1 / 20 m A	Engineering	-20000	+20000
00	+/-20 MA	Hexadecimal	8000h	7FFFh
07	14 m A ~ 120 m A	Engineering	+4000	+20000
07	+4 mA [~] +20 mA	Hexadecimal	0000h	FFFFh
08	+/-10 V	Engineering	-10000	+10000
08		Hexadecimal	8000h	7FFFh
00		Engineering	-5000	+5000
09	+/-5 V	Hexadecimal	8000h	7FFFh
0.0	. / 1 . /	Engineering	-10000	+10000
UA	+/-1 V	Hexadecimal	8000h	7FFFh
00	1/20 mA	Engineering	-20000	+20000
00	+/-20 MA	Hexadecimal	8000h	7FFFh
1 ^	$0 m \Lambda \simeq \pm 20 m \Lambda$	Engineering	0	+20000
IA	0 IIIA +20 IIIA	Hexadecimal	0000h	FFFFh

Note:

- 1. For easy to use, recommended to use the data format "Engineering". (E.g., "+/-2.5 V" will show as "-25000 to +25000" and "+4 mA to +20 mA" will show as "+4000 to +20000")
- 2. When using these "Type Code" 06, 07, 0D, 1A, please check if the position of eight hardware jumpers on the XV board are correct.

Refer to the data sheet:

http://www.icpdas.com/web/product/download/io_and_unit/local_io/xv_board/document/data_sheet/XV308.pdf

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Note:

When using the XV308, you need to click the "Set Power On" and "Set Safe Value" button (do not choose any DO Status) in the "DO/Alarm" tab.

(V308 Firmware[A102]											
Configuration AI/AI /	Configuration AI/AI Alarm DO/Alarm Host WDT DI About										
DO Status											
Set Power On Read DO Read Power ON V Set Safe Value Read Safe Value Do not choose any DO Sta Then, click the "Set Power and "Set Safe Value" butto											
Alarm Status											
H:0 H:1 Clear Clear	H:2 H:3 H Clear Clear	H:4 H:5 H:6 H:7 Clear Clear Clear Clear									
L:0 L:1 Clear Clear	L:2 L:3 L Clear Clear	L:4 L:5 L:6 L:7 Clear Clear Clear Clear									

 Finally, back to the "Configuration" tab and click the "Set Module Configuration" button (Step5) to finish the AI/AO configuration, and then close the "DCON_Utility_Pro_CE_200.exe". In addition, click the "Win_GRAF_WP_5238" on the desktop to run the Win-GRAF driver (like Step 1).

XV310 - Analog Input:

Follow the similar way like the steps above to configure the AI/AO of the XV310.

Type Code	Range	Data Format	Minimum	Maximum
05		Engineering	-25000	+25000
05	+/-2.5 V	Hexadecimal	8000h	7FFFh
06	1/20 mA	Engineering	-20000	+20000
00	+/-20 MA	Hexadecimal	8000h	7FFFh
07	14 m A ~ 120 m A	Engineering	+4000	+20000
07	+4 MA +20 MA	Hexadecimal	0000h	FFFFh
00	. / 10. /	Engineering	-10000	+10000
08	+/-10 V	Hexadecimal	8000h	7FFFh
00	00 ./ 5./	Engineering	-5000	+5000
09	+/-3 V	Hexadecimal	8000h	7FFFh
0.4	. / 1 \/	Engineering	-10000	+10000
UA	+/-1 V	Hexadecimal	8000h	7FFFh
00	1/20 mA	Engineering	-20000	+20000
UD	+/-20 IIIA	Hexadecimal	8000h	7FFFh
1 Δ	0 m 4 ~ + 20 m 4	Engineering	0	+20000
IA	0 IIIA +20 IIIA	Hexadecimal	0000h	FFFFh
		Co. Itd. Toobaire! D		

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Note:

- 1. For easy to use, recommended to use the data format "Engineering". (E.g., "+/-2.5 V" will show as "-25000 to +25000" and "+4 mA to +20 mA" will show as "+4000 to +20000")
- 2. When using these "Type Code" 0, 1, 06, 07, 0D, 1A, please check if the position of eight hardware jumpers on the XV board are correct.

Refer to the data sheet:

http://www.icpdas.com/web/product/download/io and unit/local io/xv board/document/data sheet/ XV310.pdf

XV310 - Analog Output:

Type Code	Range	Data Format	Minimum	Maximum
0	0 m 4 ~ + 20 m 4	Engineering	0	+20000
U	0 IIIA +20 IIIA	Hexadecimal	0000h	FFFFh
1	14 m A ~ 1 20 m A	Engineering	+4000	+20000
1 +4	+4 MA +20 MA	Hexadecimal	0000h	FFFFh
2	0\/~+10.\/	Engineering	0	+10000
2	00 +10 0	Hexadecimal	0000h	FFFFh
2	1/ 10 1/	Engineering	-10000	+10000
5	+/-10 V	Hexadecimal	8000h	7FFFh
Δ	0.11 ~ 15.11	Engineering	0	+5000
4	0 0 +5 0	Hexadecimal	0000h	FFFFh
E	. / E \/	Engineering	-5000	+5000
5	+/-> V	Hexadecimal	8000h	7FFFh

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1.1.1. Connecting the XV107/ XV107A (8 DI, 8 DO)

The XV107/XV107A is an 8-channel digital input and 8-channel digital output board. This section provides a Win-GRAF demo project - "demo_XV107.zip". First, go to <u>Section 1.1</u> for the information of the XV Board before using it.

Demo description:

This demo added two data blocks. One is used to read 8 DI data and the other is used to write 8 DO data.

1. Mouse double click the 1st data block (i.e., <2> Read Input Bits) to open the setting window.



Note: (See the figure above) The "Offset" value starts at "0" and the Modbus address of variable is equal to the "Offset" value plus 1 (Base address). Moreover, if you set the "Operation" as "Error report", the "Offset" value for the mapping variable (Date Type: DINT) must set to "**0**".



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2. Mouse double click the 2nd data block (i.e., <15> Write Coil Bits) to open the setting window.								

Workspace **IO Drivers** HXX ⊟ demo_XV107 E Ma MODBUS Master Name Туре 目 Exception programs 📥 品 RTU: COM0:115200,N,8,1 XV107 DI 05 BOOL ~ 묢 🛓 🚞 Programs 🗄--*🛢 <2> Read Input Bits (1) [1..8] XV107 DI 06 BOOL • XV107 DI 07 I Main BOOL 0 📩 🚞 Watch (for debugging) +0: XV107_D0_00 XV107 status DINT Soft Scope XV107 DO 00 BOOL Symbol Operation Offset Mask Storage Initial values XV107_D0_00 XV107_DO_01 BOOL Default Data exchange n FFFF **1** Binding Configuration XV107_DO_02 BOOL XV107 DO 01 Data exchange FFFF Default 1 XV107_D0_03 BOOL XV107_D0_04 BOOL § g Global defines 🄅 XV107_D0_02 Data exchange 2 FFFF Default 🚰 Variables XV107_D0_03 3 FFFF Data exchange Default 8+ 🖪 Types XV107_D0_05 BOOL XV107_D0_04 FFFF Default Data exchange 4 XV107_DO_06 BOOL -XV107_D0_05 Data exchange 5 FFFF Default N407 DO 07 BOOI XV107_D0_06 Data exchange 6 FFFF Default 1 3 FFFF XV107_D0_07 7 Default Data exchange Name Value < **MODBUS Master Request** Request OK Description: 1 Slave/Unit: The Net-ID (fixed to "1") of the Slave device (i.e., XV board). MODBUS Request <5> Write single coil bit ~ <6> Write single holding register <15> Write Coil Bits 2145 Write Helding Desiste Write DO data. Data block 1 Base address: Start from addr. 1 and 8 Nb items: write eight data. Activation O Periodic: ms 0 On call (on error) On change Write only when data changed. Misc. 100 ms Timeout: An exception occurs if no 1 Nb trials: respond for 100 ms.

Classification	14/: 0		lich EAO A	210					
	win-G		IISN FAQ-	100	D-+			Daza	10 / 25
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 1.1.2. Connect The XV110 is a 16 "demo_XV110.zip Demo description 1. Mouse double 	cting th 5-chanr 5". Firs <u>n:</u> This e click	ne XV110 nel digital t, go to <u>S</u> demo ad "<2> Rea	(16 DI) input boa ection 1.1 ded one d d Input Bit	ard. This sect for the infor lata block that ts" to open tl	ion prov mation o at used t ne settir	ides a of the o writ	Win-GRA XV Board e 16 DI da dow.	F demo pro before usin ata.	oject - Ig it.
Workspace	1	0 Drivers	•	•		0			
	F		DBUS Master	122.56255			^	Name	Туре
Exception programs	ams	8 D-8	RTU: COM0:115	200,N,8,1 nut Bits (1) [1 - 16]				XV110_D XV110_D	LOO BOOL
📕 🏦 Main		'I		Operation	0#	oot Mask	Storage	XV110_D	_02 BOOL
🖨 📑 Watch (for debu	ugging)	XV110_DI_	00	Data exchange	0	FFFF	Default	XV110_D	LO3 BOOL
Initial values		XV110_DI_	D1	Data exchange	1	FFFF	Default	XV110_D XV110_D	105 BOOL
📲 🚮 Binding Configu	ration	XV110_DI_	U2 N3	Data exchange Data exchange	2	FFFF	Default Default	XV110_D	06 BOOL
🦰 👌 Global defines	e	XV110_DI_	D4	Data exchange	4	FFFF	Default	XV110_D	LO7 BOOL
	E	XV110_DI_	05	Data exchange	5	FFFF	Default	XV110_D XV110_D	1_08 BOOL
	E	XV110_DI_	06 07	Data exchange Data exchange	6	FFFF	Default Default	XV110_D	E10 BOOL
		XV110_DI_	08	Data exchange	8	FFFF	Default	XV110_D	L11 BOOL
		XV110_DI_	09	Data exchange	9	FFFF	Default	XV110_D	12 BOOL
		XV110_DI_ XV110_DI	1U 11	Data exchange Data exchange	10	FFFF	Default Default	XV110_D	E14 BOOL
		XV110_DI_	12	Data exchange	12	FFFF	Default	XV110 D	15 BOOL
		XV110_DI_	13	Data exchange	13	FFFF	Default	XVIIU_ST	atus Diivi
		XV110_DI_	14 15	Data exchange Data exchange	14	FFFF	Default	Name	Value
		XV110_stat	us	Error report	0	FFFF	Default		
			M		Pagnaet		>		
			1010	Request	wednest				
Note: (See the fig	gure ab	ove)		Description:	1				ж
The "Offset" value	e start	s at "0" a	nd	Description	-				
the Modbus addr	ess of	variable i	s	<u>S</u> lave/Unit:	1		The Net	-ID (fixed to	"1") of the
equal to the "Offs	set" va	lue plus :		MODBUS Reques	t		Slave de	vice (i.e., X	V board).
(Base address). N	loreov	er, if you	set	<1 > Read Coil	Bits			~	
the "Operation" a	as " Err o	or report	",	<2> Read Inpl <3> Read Hold	ut Bits ling Registr		8		
the "Offset" value	e for th	ne mappi	ng	24 > Dood Top	t Dogistor	-	Read DI	data.	
variable (Date Typ	pe: DIN	NT) must	set	Data block					
to " 0 ".		,		Base <u>a</u> ddress:	1				
				<u>N</u> b items:	16		Start fro read 16	m addr. 1 a data.	nd
			1	Activation					
				• Periodic:	50	ms	0		
				On call	1				
				On change			Read ev	ery 50 ms.	
			r	Misc.	line	10 ageneration			
				Timeout:	100	ms	An exce	ption occur	s if no
				Nb trials:	1		respond	for 100 ms	
			ICP DAS	Co., Ltd. Tech	nnical Do	cume	nt		



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2. Mouse doub	le click the 2nd of the grams	data block DBUS Master RTU: COM0:1152	(i.e., <1> R	ead Coil Bit	s) to open th	e setting v	window.
Programs Main Watch (for det Watch (for det Initial values Binding Config Sa Global defines	e Symbol	"E <15> Write Co "E <1> Read Co Error repo us	all Bits [1] [116] i Bits [1] [11] rt: XV111_status Operation Error report	Offset 0	Mask Storage FFFF Default	XV111_E XV111_E XV111_E XV111_E XV111_E XV111_E XV111_S	00_11 BOOL 00_12 BOOL 00_13 BOOL 00_14 BOOL 00_15 BOOL tatus DINT
Variables			1			Name	Value
<u>Note:</u> The value	"Offset" value st e plus 1 (Base ad MODBUS N	arts at "O" dress). Iaster Requ	and the M	odbus addr	ess of variable	is equal t	o the "Offset"
	Request	on:			ОК		
	Slave/Un	it: 1		he Net-ID (fixed to "1") o	f the	
	MODBUS	lequest	5	lave device	(i.e., XV board	d).	
	<1> Re <2> Re <3> Re <4> Do	ad Coil Bits ad Input Bits ad Holding Re ad Isput Deci	gisters F	Read DO dat	ta.		
	Data block Base <u>a</u> do <u>N</u> b items	ress: 1	- S	itart from a ead one da	ddr. 1 and ta.		
	Activation Period On ca On ch	lic: 50 Il ange	ms	o Read every !	50 ms.		
	Misc. <u>T</u> imeout: Nb trials:	100	ms 4 r	An exception respond for	n occurs if no 100 ms.		
		ICP DAS	Co., Ltd. Te	chnical Doc	ument		

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1.1.4. Connecting the XV116 (5 DI, 6 Relay)

The XV116 is a 5-channel digital input and 6-channel relay output board. This section provides a Win-GRAF demo project - "demo_XV116.zip". First, go to <u>Section 1.1</u> for the information of the XV Board before using it.

Demo description:

This demo added two data blocks. One is used to read 5 DI data and the other is used to write 6 DO data.

1. Mouse double click the 1st data block (i.e., <2> Read Input Bits) to open the setting window.



Note: (See the figure above) The "Offset" value starts at "0" and the Modbus address of variable is equal to the "Offset" value plus 1 (Base address). Moreover, if you set the "Operation" as "Error report", the "Offset" value for the mapping variable (Date Type: DINT) must set to "**0**".





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1.1.5. Connecting the XV308 (8 AI, 8 DIO)

The XV308 is a 8-channel analog input and 8-channel digital input/output board. This section provides three Win-GRAF demo projects - "demo_XV308_1.zip", "demo_XV308_2.zip" and "demo_XV308_3.zip". First, go to Section 1.1 to view the XV Board instructions and then configure each AI channel by using "DCON_Utility_Pro_CE_200.exe".

Demo description: (demo_XV308_1)

This demo added two data blocks, one is used to read 8 AI data and the other is used to read 8 DI data.

1. Mouse double click the 1st data block (i.e., <4> Read Input Registers) to open the setting window.



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2. Mouse double click the 2nd data block (i.e., <2> Read Input Bits) to open the setting window.

Workspace	10 Drivers									K.
⊡ (j) demo_XV308_1		5 Master				~	7 Nam	ie	Туре	
🗄 🛅 Exception programs	品 · 品 RTU	COM0:115200,N,8,1					XV	308_AI_7	INT	~
E Programs	*8	4> Read Input Register:	s (1) [18]				XV	308_status	DINT	
💼 🏦 Main		2> Read Input Bits (1) [3	3340]	-		×	I XV	308_DI_U	BOOL	
Soft Scope	Symbol	Оре	ration	Offset	Mask	Storage		308_DL2	BOOL	
Initial values	XV308_DI_0	Data	exchange	0	FFFF	Default	XV	308 DI 3	BOOL	
	XV308_DI_1	Data	exchange	1	FFFF	Default	XV	308_DI_4	BOOL	
🚽 🔰 🚽 Global defines		Data	exchange	3	FFFF	Default	XV	308_DI_5	BOOL	
Variables	B⊥ XV308_DI_4	Data	exchange	4	FFFF	Default	XV	308_DI_6	BOOL	
	XV308_DI_5	Data	exchange	5	FFFF	Default	XV	308_01_7	BUUL	~
	×V308_D1_6	Data	exchange	6	FFFF	Default	Name		(alue	=
	XV308_DI_7	Data	exchange	7	FFFF	Default	Traine		alao	
	<	-1111				>	<	V III		>
	MODBUS Master Request Description: Slave/Unit:	Request	The Net-I	D (fixe	o ed to	"1") of t	he			
	MODBUS Reque	st	Slave dev	ice (i.	e. <i>,</i> XV	/ board).				
	<1 > Read Coi	Bits	^							
	<2> Read In <3> Read Hol	ding Registers	Read DI d	ata.						
	Data block									
	Base <u>a</u> ddress:	33								
	<u>N</u> b items:	8	Start fron read eigh	n add t data	r. 33 a ı.	and				
	Activation	Eq. 1 mc								
	enouic:	50 113	U			_				
	On change		Read eve	ry 50	ms.					
	Misc.									
	Timeout	100 ms					1			
	Tunoodei		An excep	tion o	ccurs	if no				
	Nb trials:	1	respond f	or 10	0 ms.					
			-	1.1			J			
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Demo description: (demo_XV308_2)

This demo added two data blocks, one is used to read 8 AI data and the other is used to write 8 DO data.

1. Mouse double click the 1st data block (i.e., <4> Read Input Registers) to open the setting window.

Workspace	101	Drivers								ZΧ
demo_XV308_2 Exception programs Programs Main	围 品 "目	← Mo MODBUS Master	er 3:115200,N,8,1 ad Input Registers (1) [18] rite Coil Bits (1) [18]			 • •	Name Mame Clo XV308_4 XV308_4 XV308_4	bal va N_O N_1	Type riables INT INT	^
🖨 🛅 Watch (for debugging)	0	Symbol	Operation	Offset	Mask	Storage	XV308_A	¥I_2	INT	-
Initial values Initial values		XV308_AI_0 XV308_AI_1 XV308_AI_2 XV308_AI_3 XV308_AI_4 XV308_AI_5 XV308_AI_6 XV308_AI_7 XV308_status	Data exchange Data exchange Data exchange Data exchange Data exchange Data exchange Data exchange Data exchange Data exchange Error report	0 1 2 3 4 5 6 7	FFFF FFFF FFFF FFFF FFFF FFFF FFFF FFFF	Default Default Default Default Default Default Default Default	XV308_4 XV308_4 XV308_4 XV308_4 XV308_4 XV308_4 XV308_4 XV308_5 XV308_5 Name	41_3 41_4 41_5 41_6 41_7 status	INT INT INT INT DINT	<u>></u>
		<	I.			>	<	ULE		>

Note: The "Offset" value starts at "0" and the Modbus address of variable is equal to the "Offset" value plus 1 (Base address). Moreover, if you set the "Operation" as "Error report", the "Offset" value for the mapping variable (Date Type: DINT) must set to "0".

Request Description:			
Slave/Unit:	1	The Net-ID (fixed to "1") of Slave device (i.e., XV board)	the
Construction of the second	Bits g Registers Registers		
Data block		Read Al data.	
Base <u>a</u> ddress: <u>N</u> b items:	3	Start from addr. 1 and read eight data.	
Activation Periodic: On call	50 ms	0	
On change	1	Read every 50 ms.	
<u>T</u> imeout: Nb trials:	100 ms	An exception occurs if no respond for 100 ms.	
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2. Mouse double click the 2nd data block (i.e., <15> Write Coil Bits) to open the setting window.

Other VY308_2 Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs Image: Selection programs <thimage: programs<="" selection="" th=""> Image: Selection</thimage:>	Workspace	10 Drivers									X
Image: Status Image: Status<	⊡ demo XV308_2		JS Master				~	Vam	e	Type	
Image: Solid Soli	Exception programs		U: COM0:115200.N.8.1					XV	308 status	DINT	~
Image: State of the state		·····	<4> Read Input Register	s (1) [18]			=	XV	308 DO 0	BOOL	-
Work for debugged Symbol Description N/308_D0_0 Data exchange 1 FFFF Default N/308_D0_3 BOOL Widely Glob defines N/308_D0_3 Data exchange 2 FFFF Default N/308_D0_5 BOOL Widely Glob defines N/308_D0_3 Data exchange 2 FFFF Default N/308_D0_5 BOOL Widely Glob defines N/308_D0_5 Data exchange 3 FFFF Default N/308_D0_5 BOOL Widely Glob defines N/308_D0_5 Data exchange 5 FFFF Default N/308_D0_7 BOOL Widely Glob defines N/308_D0_7 Data exchange 5 FFFF Default N/308_D0_7 BOOL Widely Glob defines N/308_D0_7 Data exchange 7 FFFF Default N/308_D0_7 BOOL Widely Glob defines N/308_D0_7 Data exchange 7 FFFF Default N/308_D0_7 BOOL Widely Glob defines N/308_D0_7 Data exchange T FFFF Default N/308_D0_7 BOOL N/308_D0_7 BOOL N/308_	🔲 🎟 Main		<15> Write Coil Bits (1) [181				XV	308 DO 1	BOOL	5
Sort Scope Wrade D0_0 Date exchange Diffeet Mail Kingge Wrade D0_1 Date exchange 1 FFFF Detauk Wrade D0_2 Date exchange 1 Wrade D0_2	watch (for debugging)		-172		\frown		×.	XV	308 DO 2	BOOL	
Initial values 0	Soft Scope	Symbol	Оре	eration	Offset	Mask	Storage	XV	308 DO 3	BOOL	
W380_D0_2 Date exchange 1 FFFF Detail W380_D0_5 BOOL W380_D0_2 W380_D0_3 Date exchange 3 FFFF Detail W380_D0_5 BOOL W380_D0_5 Date exchange 3 FFFF Detail W380_D0_7 BODE W380_D0_7 BODE W380_D0_7 W380_D0_7 W380_D0_7 Bote exchange S FFFF Detail W380_D0_7 W380_D0_7 Bote exchange S FFFF Detailt W380_D0_7 Wate W380_D0_7 Bote exchange S FFFF Detailt Wate Wate Wate S FFFF Detailt Wate Wate S	Initial values	XV308_D0_0	Data	exchange	0	FFFF	Default	XV	308 DO 4	BOOL	-
Sig Global defines WX388_D0_3 Date exchange 2 FFFF Default WX388_D0_5 BOOL Waakdes Bit WX388_D0_5 Date exchange 4 FFFF Default WX388_D0_7 BOOL Waakdes Bit WX388_D0_5 Date exchange 5 FFFF Default WX388_D0_7 BOOL WX388_D0_5 Date exchange 5 FFFF Default Write		XV308_D0_1	Data	exchange	1	FFFF	Default	XV	308 DO 5	BOOL	5 2
Waidber Wide D0_4 Date exchange 3 FFFF Default W308_D0_7 Base exchange S FFFF Default S FFFF Default Ware W308_D0_5 Date exchange S FFFF Default S FFFF Default Ware Value W308_D0_7 Base exchange T FFFF Default Name Value W308_D0_7 Base exchange T FFFF Default Name Value W308_D0_7 Base exchange T FFFF Default Name Value W308_D0_7 Base exchange T FFF Default Name Value Ware Value T FFF Default Name Value Value Start form addr. 1 Items: Start form addr. 1 and write eight data. Native foil bit Start form addr. 1 and write eight data. Native foil bit On call On call Native foil bit Immout Immout Native foil bit Immout Native foil bit Native foil bit Native foil bit Native foil bit Native f		₹\$ XV308_D0_2	Data	exchange	2	FFFF	Default	XV	308 DO 6	BOOL	
Image: Types Image: Types Data exchange Image: Types Image: Types Image: Types Image: Types Image:		XV308_D0_3	Data	exchange	3	FFFF	Default	XV	308 DO 7	BOOL	-
WX302_00_5 Data exchange 5 FFFF Default Name Value WX302_00_5 Data exchange 7 FFFF Default Name Value WX303_00_5 Data exchange 7 FFFF Default Name Value WX303_00_5 Data exchange 7 FFFF Default Name Value W00DBUS Master Request OK OK Stave float to "1") of the Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave float to "1") of the	E Types	₽ XV308_D0_4	Data	exchange	4	FFFF	Default			3	8
W308_00_7 Data exchange 0 PTFF Default Value W00BUS Master Request Image 0 Image 0 Image 0 Save/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). Image 0 Image Image <t< td=""><td></td><td>XV308_D0_5</td><td>Data</td><td>exchange</td><td>5</td><td>FFFF</td><td>Default</td><td>Mana</td><td>9</td><td>alua.</td><td>20.</td></t<>		XV308_D0_5	Data	exchange	5	FFFF	Default	Mana	9	alua.	20.
WODBUS Master Request Request Description: Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). <5> Write single coll bit <6> Write only when data. Data block Base address: Start from addr. 1 and Write only when data changed. Msc. Imeout: 1 An exception occurs if no respond for 100 ms.		XV308_D0_6	Data	exchange	5	FFFF	Default	Name	Y	alue	
WODBUS Master Request Pescription: Slave/Unit: 1 MODBUS Request Vite single coll bit <5> Write single coll bit <6> Write DO data. Data block Base address: Wp Items: 8 Start from addr. 1 and Write only when data changed. Write only when data changed. Msc. Imeout: 1 Nb trials: 1 An exception occurs if no respond for 100 ms.		XV308_D0_7	Data	exchange	1	FFFF	Derault			1	-
MODBUS Master Request OK Pescription: OK Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). <5> Write single coll bit <5> Write single coll bit <5> Write coll Bits It Start from addr. 1 and write eight data. Activation ms On call Or change Write only when data changed. Misc. 1 Immodul: 1 Nb trials: 1		5	- 1111-				2	5	2.00		>
MODBUS Master Request OK OK Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). Start from addr. 1 and write eight data. Start from addr. 1 and write eight data. Write only when data changed. Misc.											
MODBUS Master Request Description: Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). <5> Write single coll bit <5> Write single holding register <15> Write Coll Bit <15> Write Lollene Desistor Write DO data. Data block Base address: 1 Start from addr. 1 and write eight data. Activation On call On change Write only when data changed. Misc. Imeout: 100 Motivities:											
Request OK Description: Image: Control of the start from addr. 1 and write eight data. Start from addr. 1 and write eight data. Activation Image: Control of the start from addr. 1 and write eight data. On call Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Modeling: Image: Control of the start from addr. 1 and write eight data. Activation Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Misc. Image: Control of the start from addr. 1 and write eight data. Image: Control of the start from addr. 1 and the star		TODDING Marter									
Request OK Description: Image: Construction of the service of		MODBUS Masie	r Kequesi								
Description: OK Slave/Unit: 1 MODBUS Request Slave device (i.e., XV board). <s> Write single coil bit Slave device (i.e., XV board). <s> Write single holding register Write DO data. Data block Base address: 1 Mb items: 8 Start from addr. 1 and write eight data. Activation 0 (on error) On call (on error) Write only when data changed. Misc. 1 An exception occurs if no respond for 100 ms.</s></s>		Request			-	-					
Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). (S> Write single coll bit (S> Write single holding register (S> Write Do data. Data block Base address: 1 Write DO data. Data block Base address: 1 Start from addr. 1 and write eight data. Activation Periodic: 0 ms 0 On call On call On change Write only when data changed. Misc. Imeout: 100 ms An exception occurs if no respond for 100 ms.		Description	1		1 L	OK					
Slave/Unit: 1 The Net-ID (fixed to "1") of the Slave device (i.e., XV board). MODBUS Request Slave device (i.e., XV board). Start single holding register Write DO data. Data block Base address: 1 Start from addr. 1 and write eight data. Activation 0		Description									
MODBUS Request Slave device (i.e., XV board). <5> Write single coil bit <6> Write single holding register <15> Write Coil Bits Write DO data. Data block Base address: 1 Nb items: 8 Start from addr. 1 and write eight data. Activation 0 (on error) On call (on error) Write only when data changed. Misc. 1 ms An exception occurs if no respond for 100 ms.		Slave/Linit:	1			ما ۲۰۰	(1/) of th				
MODBUS Request Slave device (i.e., XV board). <5> Write single coll bit <6> Write single holding register Write DO data. Data block Base address: Base address: 1 Nb items: 8 Start from addr. 1 and write eight data. Activation 0 On call (on error) On change Write only when data changed. Misc. 1 Imeout: 100 Nb trials: 1		Signatorial						ie			
Image: Start from addr. 1 and write eight data. Activation On call On call On change Write only when data changed. Misc. Image: Notice in the second of t		MODBUS Reque	et -	Slave devi	ice (i.e	e., XV	board).				
Vite single coll bit <6> Write single holding register <6> Write Single holding register <12 Write Coll Bits		MODDOD Reque			1						
<6> Write single holding register <1		<5> Write sin	igle coil bit	~							
Write Uniting Desiration Write DO data. Data block Base address: 1 Start from addr. 1 and write eight data. Activation Periodic: On call On call On change Write only when data changed. Misc. Imeout: 100 Misc. Imeout: 1 An exception occurs if no respond for 100 ms.		<6> Write sin	igle holding register								
Write DO data. Data block Base address: 1 Nb items: 8 Activation Periodic: 0 On call On call On change Write only when data changed. Misc. Imeout: 100 Nb trials: 1 Misc. Timeout: 100 Nb trials: 1 Misc.		212 CUVIER	Ioldina Dodictore								
Data block Base address: Nb items: 8 Start from addr. 1 and write eight data. Activation Periodic: 0 0 n call 0 n change Write only when data changed. Misc. Imeout: 100 ms An exception occurs if no respond for 100 ms.				Write DO	data.						
Base address: 1 Nb items: 8 Start from addr. 1 and write eight data. Activation Periodic: On call On call On change Write only when data changed. Misc. Imeout: 100 Misc. Imeout: 1 An exception occurs if no respond for 100 ms.		Data block									
Nb items: 8 Start from addr. 1 and write eight data. Activation Periodic: On call On call On change Write only when data changed. Misc. Timeout: 100 ms An exception occurs if no respond for 100 ms.		Base address:	1								
Nb items: 8 Start from addr. 1 and write eight data. Activation O periodic: On call On call On change Write only when data changed. Misc. Timeout: 100 ms An exception occurs if no respond for 100 ms.						4					
Activation Periodic: On call On call On change Write only when data changed. Misc. Imeout: 100 Misc. Imeout: 1 An exception occurs if no respond for 100 ms.		<u>N</u> b items:	8	Start from addr. 1 ai			iù				
Activation Periodic: On call On call On change Write only when data changed. Misc. Iimeout: Nb trials: 1 An exception occurs if no respond for 100 ms.			L	write eigh) .						
Periodic: ms On call (on error) On change Write only when data changed. Misc. Immode Immodult 1 Nb trials: 1 An exception occurs if no respond for 100 ms.		Activation			31						
On call On call On change Write only when data changed. Misc. Timeout: Nb trials: 1 An exception occurs if no respond for 100 ms.		O Periodic	ms	α							
On call (on error) On change Write only when data changed. Misc. Imeout: Immout: 100 Nb trials: 1 An exception occurs if no respond for 100 ms.					1						
On change Write only when data changed. Misc. Timeout: 100 ms An exception occurs if no respond for 100 ms.		O On call		(on error)							
Misc. <u>Timeout:</u> Nb trials: 1 1 1 1 1 1 1 1 1 1 1 1 1		On change	•	Write only	wwbo	n dat	a change	h			
Timeout: 100 ms Nb trials: 1 An exception occurs if no respond for 100 ms.		Micc		write only	y whe	nuat	a change	u.			
Timeout: 100 ms Nb trials: 1 An exception occurs if no respond for 100 ms.		(Filber	In the second second								
Nb trials: 1 An exception occurs if no respond for 100 ms.		Timeout:	100 ms								
Nb trials: 1 respond for 100 ms.				An except	tion of	ccurs	if no				
		Nb trials:	1	respond f	or 100) ms.					
		1	- 74 - 77								
		<u>T</u> imeout: Nb trials:	100 ms	An except respond f	tion of or 100	ccurs) ms.	if no				
				Technical	ocum	ont					
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Demo description: (demo_XV308_3)

This demo added three data blocks, the 1st one is used to read 8 AI data, the 2nd one is used to write 4 DO data and the 3rd one is used to read only 4 DI data.

1. Mouse double click the 1st data block (i.e., <4> Read Input Registers) to open the setting window.

Workspace	10 0	lrivers							
⊟@ demo_XV308_3	旧	白 品 RTU: COM	0:115200,N,8,1				^	🍸 Name	Туре
🗄 🔚 Exception programs		⊕ ~*⊟ <4> Re	ad Input Registers (1) [18]		\			XV308 AI 1	INT 🔮
📩 🖂 Programs	110	🗄 – * <15> W	/rite Coil Bits (1) [14]	- 1				XV308 AI 2	INT
💷 Main		⊞*∎ <2> Re	ad Input Bits (1) [3340]				~	XV308_AI_3	INT
🖨 📄 Watch (for debugging)	0	Sumbol	Operation	Offset	Mask	Storage	-	XV308_AI_4	INT
Soft Scope		XV308_AI_0	Data exchange	0	FFFF	Default	^	XV308_AI_5	INT
Rinding Configuration		XV308_AI_1	Data exchange	1	FFFF	Default			INT
Sa Clabal defines	216	XV308_AI_2	Data exchange	2	FFFF	Default		XV300_AI_7	DINT
	é's	XV308_AI_3	Data exchange	3	FFFF	Default	=		DINT
	84	XV308_AI_4	Data exchange	4	FFFF	Default		XV308_DO_0	BOOL
I ypes	-	XV308_AI_5	Data exchange	5	FFFF	Default		XV308_D0_1	BUUL
	*	XV308_AI_6	Data exchange	6	FFFF	Default	_		2
		XV308_AI_7	Data exchange	7	FFFF	Default	Y	Name \	/alue
	100	\$				>		<	

Note: The "Offset" value starts at "0" and the Modbus address of variable is equal to the "Offset" value plus 1 (Base address).

Description:		ОК	
<u>S</u> lave/Unit:	1	The Net-ID (fixed to "1") of	the
MODBUS Reques	st -	Slave device (i.e., XV board).
<2> Read Inp <3> Read Hole <4> Read Inp	ut Bits ding Registers ut Registers		
ZEN Weite dier	ala cail bit	Read AI data.	
Data block	4		
No items:	8	Start from addr. 1 and read eight data.	
Activation			
• Periodic:	50 ms	0	
○ On call ○ On change		Read every 50 ms.	
Misc.			
<u>T</u> imeout:	100 ms	An exception occurs if no	٦
Nb trials:	1	respond for 100 ms.	
	18		_

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2. As the figure below, mouse double click the 2nd data block (i.e., <15> Write Coil Bits) to view the setting window.

workspace	IO Drivers					
⊡…(j) demo_XV308_3	📙 🖃 Mo MODBUS Mas	ster		^	🝸 Name	Туре
🗄 🛅 Exception programs	유 白 品 RTU: CON	40:115200,N,8,1			XV308_AI_7	INT
📩 🔂 Programs	••• •• •• •• •• •• •• •• •• •• •• •• ••	ead Input Registers (1) [18]	2		XV308_state	us DINT
🛄 🎹 Main	🚊 🗄 🗄 🗄 🗄	Write Coil Bits (1) [14] 🛛 🍗 👘		_	XV308_DO_	0 BOOL
🚊 🛁 Watch (for debugging)	🗁 🗄 🕂 🔁 🔁 🔁	ead Input Bits (1) [3340]		~	XV308_DO_	1 BOOL
Soft Scope	Sumbol	Operation	Offeet Mask	Storage	XV308_DO_	2 BOOL
🛅 Initial values		Data evchange	0 FFFF	Default	XV308_DO_	3 BOOL
	XV308 DO 1	Data exchange	1 FFFF	Default	XV308_DI_4	BOOL
§g Global defines	XV308 DD 2	Data exchange	2 FFFF	Default		POOL
🚰 Variables	BI XV308 DO 3	Data exchange	3 FEEF	Default		
🛄 🖪 Types	B+ <			>	Name	Value
	MODBUS Master Re	quest		×		
	Request			_		
	Description:		ОК			
			Capcel			
	Slave/Unit: 1		Cancer		_	
		The Net-	ID (fixed to "2	L") of the		
	MODBUS Request	sp avel2		, voard)		
	<5> Write single of	coil bit		Joaru).		
	<6> Write single h	nolding register	Bh .			
	<15> Write Coil Bi	ts Register Write DC) data			
		white DC	uala.			
	Data block					
	Base address: 1			_		
		Start fror	n addr. 1 and			
	Nb items: 4	write fou	r data			
	a construction	White fou	n uutu.			
	Activation					
	O Periodic: 0	ms 0				
	🔵 On caḷi 👘					
	💿 On change 🔶	Write on	ly when data	changed.		
	Misc.			-		
	-	00 mc				
	Imeout:			:f no		
	The second se		puon occurs	11 (10		
	Nb tripler	8	•			

3. As the figure below, mouse double click the 3rd data block (i.e., <2> Read Input Bits) to view the setting window.

Workspace	10 [)rivers								X
⊡ 🗊 demo_XV308_3	E	🖃 Modbus Master				~		Name	Туре	
🗄 🚞 Exception programs	묘	🖮 🚠 RTU: COM0:11	5200,N,8,1					XV308_DO_1	BOOL	^
🛓 🛅 Programs	*	🗄 🗝 🔁 <4> Read Ir	nput Registers (1) [18]	2				XV308_DO_2	BOOL	
🔤 Main		🗄*🛢 <15> Write	Coil Bits (1) [14]	3				XV308_DO_3	BOOL	
🚊 🚞 Watch (for debugging)	Þ		nput Bits (1) [3340]	\sim		~		XV308_DI_4	BOOL	
Soft Scope		Sumbol	Operation	Offeet	Maak	Storage	4	XV308_DI_5	BOOL	
📰 Initial values			Data avalance	A Oliset	FECE	Default	-	XV308_DI_6	BOOL	
		AV300_DI_4	Data exchange	4	FFFF	Default		XV308_DI_7	BOOL	~
💮 § g Global defines	é,s	AV300_DL_3	Data exchange	0		Default		<	>	
🚮 Variables		XV308_DI_6	Data exchange	5		Default	N	lame 11	Value	2
📕 Types	∎+	XV308_DI_7	Data exchange	(FFFF	Derault	H		Value	_
		<				>	<			>
		ICP DAS C	o., Ltd. Technical D	ocum)	ent					

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Note: When using read DI data must start f	g the XV308 to a, the address from "33".	MODBUS M Request Descriptio Slave/Unit MODBUS Re <1> Rea <2> Rea <3> Rea <1> Data block Base addr Nb items: Activation © Periodi O On call O On call O On cha	aster Request	The N Slave Rea Start only Read	Net-ID (fixed t device (i.e.,) d DI data.	o "1") of the (V board).					

1.1.6. Connecting the XV310 (4 AI, 2 AO, 4 DI, 4 DO)

The XV310 is a 4-ch analog input, 2-ch analog output, 4-ch digital input and 4-ch digital ouput board. This section provides a Win-GRAF demo projects - "demo_XV310.zip".

First, go to <u>Section 1.1</u> to view the XV Board instructions and then configure each AI channel by using "DCON_Utility_Pro_CE_200.exe".

Demo Description

This demo added four data blocks. The 1st one is used to read 4 AI data, the 2nd is used to write 4 DO data, the 3rd is used to read 4 DI data and the 4th is used to write 2 AO data.

1. Mouse double click the 1st data block (i.e., <4> Read Input Registers) to open the setting window.

Workspace	10 0	Drivers								ΗZ	×
⊡@ demo_XV310	目	🗐 - Ma MODBUS Ma:	ster				▲ 5	Name		Туре	
Exception programs Frograms Main Watch (for debugging) Sat Crass		Image: Second state st						Global v XV310_AL_0 XV310_AL_1 XV310_AL_2 XV310_AL_2 XV310_AL_3			<
Initial values			white Holding Hegisters (1) [5554]	\square		1 -	<u> </u>	XV310_A	ō n	INT	
		Symbol	Operation	Offset	Mask	Storage		XV310 A	0 1	INT	
🚽 👸 g Global defines	¢,	XV310_AI_0 XV310_AI_1	Data exchange Data exchange	1	FFFF	Default		XV310_st	tatus	DINT]
Variables	B	XV310_AI_2	Data exchange	2	FFFF	Default		XV310_D	0_0	BOOL	Y
		XV310_AI_3	Data exchange	3	FFFF	Default		<		>	
	1	XV310_status	Error report	0	FFFF	Default	1	Name	Va	alue	
	4 3	10 Drivers Variab	les /		,		2 4	(F		>

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Note: The "Offs plus 1 (Ba for the ma	et" value starts se address). Mo apping variable	at "0" and preover, if (Date Type	the Mod you set th e: DINT) n	bus ado ne "Ope nust be	dress of eration" e set to '	variable is as "Error "0".	s equ repo	al to the	e "Offset' "Offset" v	' value value
	MODBUS	Master Requ	iest				×			
	Request Descrip Slave/L	tion:		The		OK Cancel) () of	the		
	MODBUS	Request		Slave	e device	(i.e., XV b	oard)).		
	<2> R <3> R <4> R <5 M	ead Input Bits ead Holding Ri ead Input Rec wite single soil	egisters listers	Read	AI data	1.		<u> </u>		
	Data blo Base ar	ck Idress: 1	1			1				
	<u>N</u> b item	15: 4		Start read	from ac four da	ddr. 1 and ta.				
	Activatio	n odic: 50	ms							
		tall thange		Read	every 5	0 ms.				
	Misc. <u>T</u> imeou	t: 100	ms		Ť			-		
	Nb trial	s: 1		An ex respo	xceptior ond for	n occurs if 100 ms.	no			
2. Mouse doubl	e click the 2nd (10 Drivers *	data block	(i.e., <15:	> Write	e Coil Bit	s) to view	the s	setting v	vindow.	
		MODBUS Master						Nan	ne	Туре
🗄 📃 Exception pro	ograms 🐰 🗄 🗠	品 RTU: COMO:	15200,N,8,1					XV	'310_AO_1	INT 🔺
Programs	*8	⊞*• ⊟ <4> Read	I Input Registers	s (1) [14] 41	2			X	/310_status	DINT
🖻 📲 Watch (for de	ebugging)	⊕* ⊟ <2> Read	Input Bits (1) [3	33361					310_00_0 /310_00_1	BOOL
Soft Sco	pe H	🗄 📲 <16> Writ	e Holding Regis	sters (1) [33.	.34]				310 DO 2	BOOL
	Curshal		0.000	ration	06	wate Maade C	Larage.	≝ xv	/310_DO_3	BOOL
📲 🚮 Binding Confi	guration	DO 0	Data	exchange	0115	FFFF De	efault	- XV	/310_DI_0	BOOL
§g Global define:	s 🔅 XV310	DO 1	Data	exchange	1	FFFF De	efault	XV	/310_DI_1	BOOL
Variables	■ ×V310_	D0_2	Data	exchange	2	FFFF De	efault	<		
I ypes		DO_3	Data	exchange	3	FFFF De	efault	Name	Va	alue
	* <						1	> <		>

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		MODBUS	Master R	eguest				5	×		
		Peques	F.								
		Descri	intion:					ок)		
					TL		. (<u></u>	2		
		<u>S</u> lave/	Unit:		Ine	e Net-ID (of the S	slave			
	MODBUS Requ				dev	/ice (i.e.,		aru).			
		<5>	Write single	coil bit		~					
		<6>	Write single	holding register	r						
		2165	Write Haldi	na Dogistore	Wr	ite DO da	ata.				
		Data bl	ock								
		Base 3	address:								
		Nh ite	ms:	1	Sta	rt from a	ddr. 1	and			
		0.00		55	wri	write four data.					
		Activati	ion						-		
		OPer	riodic:	ms	0						
		Oon	i call I change		(or	error)					
		- Con	r change		Wr	ite only v	when d	ata ch	anged.		
		Misc.									
		Limeo	ut:	.00	An	An exception occurs if no					
		Nb tria	als:		respond for 100 ms.						
		1	2. 2.	50 							
3. Mouse double	e click th	ne 3rd d	ata block	(i.e., <2> R	ead Ir	nput Bits)) to vie	w the	setting wind	dow.	
Morkenasa	10) Drivore *									
e i demo_XV310	E	E E Mo M	IODBUS Maste	ſ					A Name		Туре
Exception pro	grams 3		RTU: COMO	:115200,N,8,1 d Incut Begisters ()	1111-111				XV310		300L 🔺
🕂 📑 Programs	*		*•• <15> Wi	ite Coil Bits (1) [14	i) [[4] []	3			XV310	1	BOOL
🖨 — 🧰 Watch (for del	bugging) 🎽] *⊟ <2> Rea	d Input Bits (1) [33.	.36]	241			XV310	_DO_3	300L
Initial values						.34]	Lucas	Lei	XV310		BOOL
- 10 Binding Config	guration	Symbol XV310_D	1_0	Data ex	ion Ichange	0	FFFF	Default	XV310	_DI_2	BOOL
Variables	¢	XV310_D	I_1	Data ex	change	1	FFFF	Default	XV31L	I_DI_3	
🛄 🖪 Types		↓ XV310_D XV310 D	1_2 1 3	Data ex Data ex	change change	2	FFFF	Default Default	Name	Va	ue
		<	_				10.0493	122.262.20	> <		>
					- ch :- i -		nont				
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Note: When u	using the XV310	MODBUS M Request Description Slave/Un MODBUS F <1> Rec <2> Rec <3> Rec <4> no Data block Base add	Aaster Request	The Slav Read	Net-ID (fixed e device (i.e., d DI data.	to "1") of the XV board).	e
to read DI dat address must	a, the base be set to "33".		4	Start read	from addr. 33 four data.	3 and	
		Activation ② Perioc ③ On ca ③ On ch Misc. Ţimeout: Nb trials:	dic: 50	ms 0 Read	d every 50 ms exception occu ond for 100 n	urs if no ns.	
4. Mouse double	e click the 4th d	ata block ((i.e., <16> Write 15200,N,8,1 Input Registers (1) [14] a Coil Bits (1) [14] Input Bits (1) [3336] a Holding Registers (1) [3 Operation Data exchange Data exchange	e Holding 3. 34]	4 Set Mask Storage FFFF Default FFFF Default	Name XV310 XV310 XV310 XV310 XV310 XV310 XV310 XV310 XV310 XV310	AI_1 INT AI_2 INT AI_3 INT AO_0 INT AO_1 INT status DINT Value
		ICP DAS (Co., Ltd. Techni	ical Docu	ment		

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Author Note: W XV310 to v the base a set to "33' Click the link for m https://www.icpo	Janice Hong Then using the write AO data, ddress must be ". more Win-GRAF das.com/en/faq	Version MODBUS Request Descrip Slave/U MODBUS <6> W <15> <16> Data blog Base ac Nb item Activatio O Peric O On c Misc. Timeoul Nb trial: FAQ: /index.phy	1.0.0 Master Request tion: nit: 1 Request /rite single holding r Write Coil Bits Write Holding Regis s: 2 n odic: 0 :all thange :: 100 s: 1	Date	Jan. 2016 Pe Net-ID (fixed ave device (i.e. Write AO dat Start from addivite two data (on error) rite only when an exception o espond for 100	Page OK OK OK OK OK OK OK OK OK OK	25 / 25
		ICP DAS	Co., Ltd. Techn	ical Doci	ument		