

MONITOUCH

TECHNICAL INFORMATION

TI-HMI-0003v100EN

Establish communication between a Monitouch HMI and a S7-1200/1500 PLC

Туре	
Software version	
Required options	
Use	
Date	
Version	
Author	
Revised	
Approved	
Languages	

HMI All versions Not required Fuji technical staff 01/03/2016 1.0.0 xxxxxxxx xxxxxxxx xxxxxxxx English

This document describes how to establish communication between a Monitouch HMI and a S7-1200/1500 PLC.

1- Open V-SFT 6 Software and select the desired model and click [OK].

dit Model Sel	ection		×
Edit Model			
V910* i W			•
Installation			
Landscape			•
Size			
1024 x 600			•
Color			
32K-Color w/	blinking		•
			*
OK		Cance	I

2- In the Device selection window, select SIEMENS and S7-1200/1500 Ethernet ISO TCP, then click [Finish].

PLC1 Connection Device Selection						
Connected Device	PLC 🔹					
Maker	Siemens					
Model	S7-1200/1500(Ethernet ISOTCP)					
Target Port No.	LAN 🔻					
	<u>Recent Devices ></u>					
	Finish Cancel					





Insert in the "PLC Table", the IP address of the S7-1200/1500 unit.
 Then select the number you have configured on the "Plc Table" at the "Connect To" setting.



PLC Tab	le		×
PLC T	able		
No.	Port Name	IP Addres	s 🔺
0	PORT_LAN	192.168.1	.10
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
•			•
		[Close







4- Finally enable the PUT/GET communication acces in the CPU properties at TIA PORTAL software.

<		>
PLC_1 [CPU 1511-1 PN]	🖳 Properties 🚺 Info 📋 🖳 Diagnostics	
General IO tags Sys	tem constants Texts	
Cycle		^
System and clock memory	Connection mechanisms	
 System diagnostics 		
Web server	Permit access with PUT/GET communication from remote partner (PLC, HMI, OPC,)	0
Display		
User interface languages		
Time of day	13	
Protection		
System power supply		
Configuration control		
Connection resources		
Overview of addresses 🗸 🗸		*





5- It is possible to import all the tags from the SIEMENS TIA Portal, with the tag import tool. Prepare the DBs on TIA PORTAL before Tag import.

Please note that before importing, all Data Blocks must have "optimized block access" option <u>unselected</u>.

So please check if any of the DBs has "optimized block access" selected and change it, if necessary.

Siemens - Project1		
roject Edit View Insert	Online Options Tools Window Help	
Project tree		PNI ▶ Prog
Devices		
	Data_block_1	
▼ Project1	Name	Data type
Add new device	1 🕣 👻 Static	
Devices & networks	2 Add new>	
▼ 📑 PLC_1 [CPU 1511-1 P	4]	
Device configura		
🖁 Online & diagno		
🗢 🔂 Program blocks		
Add new block	_	
Main [OB1]		
Data_block_1 .		
Technology object	Open	
External source file	Snapshot of the monitor values	
PLC tags	Apply spanshot values as start values	
PLC data types	http://sidepsilocitalacs as state talacs is	
Watch and force ta	₩ Cut Ctrl+X	
Traces	Copy Ctrl+C	
Device proxy data	Paste Ctrl+V	
Program info	Copy as text	
PLC alarms	X Delete Del	
Text lists	Rename F2	
<	Compile	
✓ Details view	Download to device	
	✓ Go online Ctrl+K	General
News	Go offline Ctrl+M	
Name	Generate source from blocks	
	Cross-reference information Shift+E11	
	Cross-references F11	
	Call structure	
	Assignment list	
	Switch programming language	
	Know-how protection	
	Print Ctrl+P	
<	Print preview	

Right click over DB and select "Properties".

ta_block_1 [DB1]	
General	
General Information	Attributes
Time stamps	
Compilation	Only store in load memory
Attributes Download with	Data block write-protected in the device
	OK Cancel

Uncheck the "optimized block access" option and then compile the project



MONITOUCH

6- Open a TAG DATABASE table in the V-SFT software.

() () () () () () () () () () () () () (Ŧ									S	creen
File Home	Parts Edit	View	Screen S	etting	Tran	sfer	System	Setting	Tool	Help	
Registration Item V Screen	Overlap Swite	ch Lamp	123 Data Display * Pa	r s s s s s t z s Entry Tts	Trend	Alarm	Time Display	Shap	De Text Graph	Pattern T	
Project View	Ψ×		Screen [0]	Edit ()	×					
System Setting Select Option	*		- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1		10 OC 11 OC			1997 - 1997 -		14. 15. 1 14. 15. 1	· ·
Font Setting					: ·:			: .			
Hardware Setting	ion 🕨	· · ·									· ·
Marm Server		· · ·									0 - 3 6. 9
Add/Delete Other Setti	ngs	Tao	Database	Edit	Σ	3					
Registration Item	*										•••
Select Option	Þ			No.	0						
Message	•		[OK	Cance						6. 2 9 3
Overlap Library	•			t							6. 2
Macro Block	Þ	а са с 2 (2 1 2									<u></u>
Tag Database	-										· ·
Add/Delete Other Setti	ngs										•

Click Tag Database and then click [OK]

7- When TAG DATABASE is opened it is possible to click the [Tag Import] icon, placed in the upper ribbon menu called "Edit", to start the importing of the tags.



Click [Tag Import] icon



🔀 Abrir	1000			X
C v siempl	O IMPORTAR TAGS STRUC 5 NI 🕨 TestImp	ortTagsSTRUCT 🕨 👻	€ Buscar TestImp	ortTagsSTRUCT 🔎
Organizar 👻 Nueva	carpeta		8	= • 🔳 🔞
🔶 Favoritos	Nombre	Fecha de modifica	Тіро	Tamaño
📜 Descargas	AdditionalFiles	24/02/2016 12:30	Carpeta de archivos	
😌 Dropbox	MI 艇	16/02/2016 12:48	Carpeta de archivos	
🧮 Escritorio	\mu Logs	16/02/2016 12:48	Carpeta de archivos	
Sitios recientes	\mu System	24/02/2016 12:30	Carpeta de archivos	
	J TMP	16/02/2016 12:48	Carpeta de archivos	
🧊 Bibliotecas	UserFiles	16/02/2016 12:48	Carpeta de archivos	
Documentos	TestImportTagsSTRUCT.ap13	16/02/2016 13:12	Archivo AP13	8 KB
📔 Imágenes	▲			
🎝 Música				
Vídeos	- · · ·			
1 Equipo				
System (C:)				
Non	nbre:		Siemens S7-1500) File (*.ap11;*.a 🔻
			Abrir	Cancelar

Select the TIA PORTAL file.

Import	Tag	Туре	Array	No. of Elements 🔺
~	Bloquededatos_1_STRUCT1_VAR1	Word		
✓	Bloquededatos_1_STRUCT1_VAR2	Word		
 Image: A start of the start of	Bloquededatos_1_STRUCT1_VAR3	Word		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		E
 Image: A start of the start of	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Word		
~	Bloquededatos_1_STRUCT1_STRUCT1_	Bit		
	Bloquededatos 1 STRUCT1 STRUCT1	Bit		-
•	III			•

Check the tag list and click [OK]





8- All the tags are imported into V-SFT software, and they are ready to be used.

	🔽 Screen [0] Edit () 🏲 Tag Database[0] Edit 🗙 .								
ID	Tag	Туре	Array	No. of Elements	Device				
0	Bloquededatos_1_STRUCT1_VAR1	Word			DB0001:0000				
1	Bloquededatos_1_STRUCT1_VAR2	Word			DB0001:0002				
2	Bloquededatos_1_STRUCT1_VAR3	Word			DB0001:0004				
3	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0006.0				
4	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0006.1				
5	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0006.2				
6	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0008.0				
7	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0008.1				
8	Bloquededatos_1_STRUCT1_STRUCT1_	Word			DB0001:0010				
9	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0012.0				
10	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0012.1				
11	Bloquededatos_1_STRUCT1_STRUCT1_	Word			DB0001:0014				
12	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0016.0				
13	Bloquededatos_1_STRUCT1_STRUCT1_	Bit			DB0001:0016.1				
14	Bloquededatos_1_STRUCT1_STRUCT1_	Word			DB0001:0018				
15									

Document history.

Version	Changes applied	Date	Written	Revised	Approved
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