# NAPOPC.CAN DA Server

User's Manual

## Warranty

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## **Revision & Hardware**

Revision			
Version	Date	Author	Description
2.1	2010/08/10	Johney	Support VxCAN v2.0
2.0	2009/12/24	Johney	Support Virtual CAN Technique
1.0	2009/7/20	T.H.	Release version

#### Hardware

Version	Supported Hardware
	1. PISO-CAN 200/400
	2. PISO-CAN 200U/400U
	3. PEX-CAN 200i
2.1	4. I-7530(A)
2.1	5. I-7530-FT
	6. I-7540D
	7. I-7565
	8. I-7565-H1/H2
	1. PISO-CAN 200/400
	2. PISO-CAN 200U/400U
2.0	3. PISO-CAN 200E
2.0	4. I-7530(A)
	5. I-7540D
	6. I-7565
	1. PISO-CAN 200/400
1.0	2. PISO-CAN 200U/400U
	3. PISO-CAN 200E

## Contents

1.	GENERAL INFORMATION	
	1.1 NAPOPC.CAN INTRODUCTION	4
	1.2 Software Installation of NAPOPC.CAN DA Server	5
	1.3 NAPOPC.CAN DA Server Interface Introduction	9
	1.3.1 Screen Features – File	9
	1.3.2 Screen Features – Add	
	1.3.3 Screen Features – Edit	
	1.3.4 Screen Features – View	
	1.3.5 Screen Features – Help	21
		22
2.	CAN DATA ITEM DESCRIPTION	
2.	2.1 Analysis of CAN message format	
<ol> <li>2.</li> <li>3.</li> </ol>	2.1 Analysis of CAN message format QUICK START	
2. 3.	2.1 Analysis of CAN message format QUICK START	23 
2. 3.	2.1 Analysis of CAN message format QUICK START 3.1 Operational Guidelines for the initial 3.2 Connect to NAPOPC.CAN DA Server	
2. 3.	2.1 Analysis of CAN message format QUICK START 3.1 Operational Guidelines for the initial 3.2 Connect to NAPOPC.CAN DA Server 3.2.1 FactorySoft OPC Client Program	23 23 23 26 26 28 28
2. 3.	<ul> <li>2.1 ANALYSIS OF CAN MESSAGE FORMAT</li> <li>2.1 ANALYSIS OF CAN MESSAGE FORMAT</li> <li>3.1 OPERATIONAL GUIDELINES FOR THE INITIAL</li> <li>3.2 CONNECT TO NAPOPC.CAN DA SERVER</li></ul>	23 

## **1. General Information**

## 1.1 NAPOPC.CAN Introduction

NAPOPC.CAN supports OPC server for the virtual CAN port. Users just plug the CAN card or the CAN converter in the IPC and make some simple configuration in the friendly interface of NAPOPC.CAN, and they can apply any software(iFix, InduSoft, Citect, LabView...) which supports OPC protocol to communication with CAN devices by ICPDAS CAN card and converter. Therefore, users can easily to achieve different CAN application through a variety of CAN bus product lines of ICPDAS by NAPOPC.CAN.



Figure 1.1 Application structure of the NAPOPC.CAN DA Server

## 1.2 Software Installation of NAPOPC.CAN DA Server

The software Installation for NAPOPC.CAN DA Server is demonstrated in the following descriptions. After finishing the procedure, the software, demos and manual will be in your PC.

The software of NAPOPC.CAN DA Server can be used in Windows 2000 / XP environments. For these Windows operation systems, the recommended installation procedure is given as follows:

Step 1: You can get the Installing software "NAPOPC.CANServer2.0.exe" from the "CD:\fieldbus\_cd\can\pci\pisocan200\_400\CAN\_OPC\_Server\NAPOPC.CANServer2.0.exe" or you can download it from <u>http://ftp.icpdas.com/pub/cd/fieldbus\_cd/can/pci/piso-</u> can200\_400/can\_opc\_server/napopc.canserver1.0.exe

- Step 2: Please double-click "NAPOPC.CANServer2.0.exe" to run the setup.
- Step 3: The first screenshot of setup is shown as follows, please press "Next" button to continue the process.



Step 4: After confirm the Installation path, please press "Next" button.



Step 5: Please press "Install" button. The setup process will start.



Step 6: The setup process is running.

NAPOPC.CAN DA Server Setup	
Setup Status	
NAPOPC.CAN DA Server Setup is performing the requested operations.	
Installing	
C:\WINDOWS\system32\CAN_DataCenter.dll	
91%	
unstaiioniela	Cancel

Step 7: When finishing the setup process of NAPOPC.CAN DA Server, it will automatically install the OPC Data Access 2.0 Components software.



Step 8: Please press "Next" button to start setup process.



Step 9: Please press "Finish" button to finish the setup process.



The installing folder is in the following directory:

#### "C:\ICPDAS\ICP DAS OPC Suite\NAPOPC.CAN"

NAPOPC.CAN DA Server User's Manual (V 2.1) 2010/08/10

Step 10: Launch the OPC server from the start menu [Start]-[Programs]-[ICPDAS]-[IPC DAS OPC Suite]-[NAPOPC.CAN].

## The program files picture is shown as follows.

🛅 ICPDAS 🔹 🕨	🛅 DCON Utility	•	
	🛅 ET-M8194H	•	
	🛅 PISO-CAN	•	
	🛅 LinPAC-8000 SDK	•	
	🛅 I-7565-DNM	•	
	🛅 PISO-DNM100	•	
	🛅 CAN_Gateway	•	
	🛅 VxComm2K	•	
	🛅 Modbus Utility	•	
	🛅 EZ Data Logger	•	
	🛅 NAPOPC	•	
	🛅 ICP DAS OPC Suite	🔸 🛅 NAPOPC.CAN 🕠	🜉 NAPOPC.CAN
			📓 NAPOPC.CAN_Manual
			🛅 OPC Client
			🛅 Demo

## 1.3 NAPOPC.CAN DA Server Interface Introduction

<u>File A</u> dd <u>E</u> dit <u>V</u> iew Options <u>H</u> elp					
New Open Save As Device Group Tag Debug Search	Monitor	Copy Pest	Delete Preview Print Manual	Web Mail	About Exit
VxCAN_Port_00	Type CAN Out	Port 1	Data		Description
Ready				\ ∀xCAN	Port 01 bas 2 Tags

Figure 1.1 Software main screen

### 1.3.1 Screen Features – File

All configuration settings can be saved into configuration file by clicking the "File/ Save" or "File/ Save As ..." menu item. The OPC server will automatically load the last configuration file with every launch.

🜉 ICPDAS NA	POPC.CAN DA	Server v2.0 -	Untitle
<u>File A</u> dd <u>E</u> dit	<u>V</u> iew Options	<u>H</u> elp	
New	Ctrl	l+N	3
<u>O</u> pen	Ctrl	l+O <b>545</b>	$\otimes$
Save	Ctrl	l+S Group	Tag
Save <u>A</u> s	Ctrl	l+L	Item :
<u>1</u> C:\ICPDAS\.	\Untitled.tdb		
E <u>x</u> it	Alt	+F4	

#### 1. New

Clean current project and create a new project



#### 2. Open

Load old NAPOPC.CAN project.



Select the project file you want, and then open.

Open	? 🛛
Look jn: [	My Documents 💽 🔶 🖆 🎫 🗸
My Music My Picture	s
File <u>n</u> ame:	Untitled
Files of <u>t</u> ype:	Tag Configuration Files (*.tdb)

#### 3. Save

Save current NAPOPC.CAN project



#### 4. Save As...

Save NAPOPC.CAN project as a new one



Give a new file name, and then save.



#### 5. Exit

Click on the "File/ Exit " menu item or the "Exit" Toolbar to exit the

NAPOPC.CAN DA Server.

ucpdas napope.	CAN DA Server	v2.0 -	Untitle	ed														
<u>File A</u> dd <u>E</u> dit <u>V</u> iew	Options <u>H</u> elp																$\sim$	
<u>N</u> ew	Ctrl+N		3	Cor.	<b>1</b>	-73	9.0		n An	$\checkmark$		D						
<u>O</u> pen	Ctrl+O	69.6	$\sim$	50			Š		U.S.	$\sim$	1 and		Ø	V	$\square$			
<u>S</u> ave	Ctrl+S	Group	Tag	Debug	Search	Monitor	Cut	Сору	Past	Delete	Preview	Print	Manual	Web	Mail	Abou	Exit	
Save <u>A</u> s	Ctrl+L		Item	Name		Туре		Po	rt			Data				Descrip	ption	
1 CALCED ASS MUSER	1 111		<mark>(</mark> ≻⊖⊂⊿	AN_Tag2		CAN Out		1		t	00000000	0000000	000000					
I CACIDASOIIIIIE	u.u.D		<b> ∯</b> ⊖CI	AN_Tag1		CAN In		1		ť	5AD10000	0000000	000000					
Exit	Alt+F4																	
		·																

If some OPC clients are connecting to this server, it will show this warning message box to remind user to disconnect the OCP clients before closing the server.

NAPOPO	C.CAN DA Server
♪	OPC Clients are currently connected to this server, Exit anyway?
	Yes No

### 1.3.2 Screen Features – Add

#### 1. New Device

Create new device in NAPOPC.CAN DA Server



Device Properties	×					
VxCAN Port Setting	OK					
VxCAN Port CAN Device Name CAN Device ID CAN Port         OK           00         I-7530         01           01         I-7565         09 01						
VxCAN Port 00	1					
ACC 0 00 ACM 0 FF 125K						
ACC1 00 ACM1 FF BT0 00						
ACC 2 00 ACM 2 FF						
ACC 3 00 ACM 3 FF						
Simulate CAN Message						

#### VxCAN Port:

Selecting the CAN port which is shown in the table.

#### Acceptance Code :

Define Acceptance Code.

#### Acceptance Mask :

Define Acceptance Mask.

#### Baud Rate :

The Baud Rate combo box has eight kinds of baud rate, 10K, 20K, 50K, 125K, 250K, 500K, 800K, and 1M. (This version is not supported "User Define" baud rate)

#### 2. New Group

Create new group in NAPOPC.CAN DA Server

(This version is not supported)



#### 3. New Tag

Create new tag in the NAPOPC.CAN DA Server



#### Name :

Any "Tag Name" may be used, but avoid names with spaces or punctuation such as "|!.,". The clients will use the "Device Name" and "Tags" to access its value. Hence the "Tag Name" cannot be a duplicate of another tag in the same group.

#### Description :

Users can specify the description text for this tag. This can be blank.

#### Туре :

To specify the command to be used for this tag, it can select "CAN\_In" or "CAN\_Out" to define the CAN Port type.

Туре	Description
CAN_In	OPC server has received from the CAN network
	data stored in this data item. The data can only be
	read
CAN_Out	Client sends the data to write in this data item, OPC
	server put this data item which extracted from the
	data sent to the CAN network, the client can not
	read data from this data item.

#### VxCAN Port No. :

Indicating the VxCAN port number which the user is setting.

### 1.3.3 Screen Features – Edit

#### 1. Cut

Cut the tag in NAPOPC.CAN DA Server



#### 2. Copy

Copy the Tag in NAPOPC.CAN DA Server



#### 3. Paste

Paste the Tag in NAPOPC.CAN DA Server



#### 4. Delete

#### Delete the Device / Group / Tag in NAPOPC.CAN DA Server



#### 5. Properties

Clicking the "Properties" menu item or double click the Device or Tag to edit the Device's or Tag's properties in NAPOPC.CAN DA Server



Device Properties							
VxCAN Port Setting         OK           VxCAN Port CAN Device Name CAN Device ID CAN Port         O           00         I-7530         01           01         I-7565         09 01							
VxCAN Port 00	▼ - Acceptance Mask	Baud Rate					
ACC 0 00	ACM 0 FF	125K 💌					
	ACM 1 FF	BTO 00					
ACC 3 00	ACM 2 FF	BT 1 00					
Simulate CAN Message							

Configure CAN Device (for the detail, refer to "1.3.2")

Configure CAN Tag (for the detail, refer to "1.3.2")

Tag Properties	×
Settings	
Name CAN_Tag1	
Description	
Device Type	
VxCAN Port No. 0 Type CAN In	
OK Cancel Apply	

<mark>g Prope</mark> Settings	<mark>rties</mark> CAN Messag	se Read & Wi	rite												
Port 1 N 11-b	Port 2 Mode	Port 3 Po ID(hex) 7FF	rt4 RTR No	. ] • [8	Dlen 3 💌	D0(h)	D1(h	CA D2(	N Da N Da D	ra (h) D	D40 EE	) DS	SSION (h) D6(h) F AA	D7(h)	nction
11-b 29-b 02 03 04	it ID it ID 11-bit ID 29-bit ID 11-bit ID	ID 1FFFFFFF 7FF 1FFFFFFF 7FF	No Yes N N N	8 2 8 3 8 4		D1 BB BB BB BB	D2 I CC I CC I CC I CC I	D3 D D E DD E DD E DD E	4 D E F E F E F E F	5 I 7 A 7 A 7 A 7 A		D7 BB BB BB BB BB			Add Modify Delete
No. 01	Mode 11-bit ID	ID 7FF	RTR	Ler 8	22	D1 22	D2 1 55 4	03 E	4 D	5 I	D6	D7 88			Send Receive
02 03 04 05 06 07 08	11-bit ID 11-bit ID 11-bit ID 11-bit ID 11-bit ID 11-bit ID 11-bit ID	744 744 744 744 744 744 744 744 744 744	N N N N N	8 8 8 8 8 8	22 22 22 22 22 22 22 22 22 22	22 22 22 22 22 22 22 22 22	55 4 55 4 55 4 55 4 55 4	14 5 14 5 14 5 14 5 14 5 14 5 14 5	5 61 5 61 5 61 5 61 5 61 5 61 5 61		77 77 77 77 77 77 77	88 88 88 88 88 88 88 88 88			Clear Goto Last Scrolling
	11-01110		14	0		22	(	CA	NI	, Re	ce	ptic	on Fu	Inct	ion Cancel Apply

#### CAN message transmission and reception dialog

We provide a friendly CAN bus dialog to allow users to send/receive the CAN messages to/from CAN network easily. This dialog can test CAN devices on the CAN network. It supplies several functions, such as sending CAN messages, receiving CAN messages, storing CAN messages, and so forth.

The operation features will show as follows.

#### Add:

Users can key in the CAN message into the text boxes above the transmission list, then click "add" button to insert this CAN message into the transmission list.

#### Modify :

To modify the content of some CAN message in the transmission list, select this CAN messages in the transmission list firstly. Then, this CAN message information will be shown in the text boxes above the transmission list. Users can modify the CAN message in these text boxes directly. Finally, click "Modify" button to save the modification in the transmission list.

#### Delete :

If some CAN message in the transmission list is useless, users can select it and click "Delete" button to delete this CAN message from the transmission list.

#### Send :

After users select one CAN message from the transmission list, click "Send" button to send this CAN message once from the selected CAN port.

#### Receive :

Click this button to receive the CAN message from the specific CAN port.

#### Clear :

Click this button to clear all CAN messages shown in the reception list.

#### Goto Last :

Click this button to show the last received CAN message.

#### Scrolling :

The reception list is always scrolled automatically to the last received CAN message.

### 1.3.4 Screen Features – View

<u>40</u> 1	CPDAS N	APOPC.CAN	DA Server	r v2.0 -	Untitle	ed										
File	<u>A</u> dd <u>E</u> d	it <u>V</u> iew Optio	ons <u>H</u> elp				$\frown$									
New	Open (	✓ <u>M</u> onitor S ✓ <u>S</u> tatus Bar	Ctrl+U : Ctrl+B	alara Broup	No. Tag	Debug	Search Monitor	Cut	Сору	Past	X Delete	Preview	Print	(2) Manual	<b>Web</b>	[
· ···· •	🕈 VxCAN	P			Item	Name	Туре		Po	rt		$\sim$	Data			
					<b>i ¦</b> ⊖C.	AN_Tagi	l CAN In		0	l	$\mathcal{C}$		?			
					<mark> </mark> ¦₩⊖C.	AN_Tag2	2 CAN Ou	t	0	l	t	00000000	0000000	000000		

#### Monitor :

Use the "Monitor" function to see values of tags by checking the "View/ Monitor" menu item. Uncheck the item to stop monitoring.

#### Status Bar :

To show or not show the Status Bar

#### Tool Bar :

To show or not show the Tool Bar

CAN DA	Server v2.0 - Untitle	1									
Options	Help										
ave As	User's Manual ICP DAS O <u>n</u> line <u>M</u> ail to ICP DAS	F1	onitor	X Cut	Copy	iast Deleta	Preview	Print Manual	Web	Mail	About Exit
		/	Trees		Devel			Dete			Provinctions.
	bout MAPOPC CAM	Di Server	Type		ron			Data	_		Description
	About NAPOPC.CAN	DA Server	LAN In		<u>- Γοπ</u> 0			Pata ?			Description
	About NAPOPC.CAN	DA Server N_Tag2	JAN In CAN Out		0 0		t00000000	20000000000000000000000000000000000000			Description

## 1.3.5 Screen Features – Help

### User's Manual / Help :

Click on the "Help/User's Manual" menu item or the "Help" Toolbar refer to the user's manual.

NAPOPC.CAN DA Server User's Manual (V 2.1) 2010/08/10

#### ICP DAS Online :

Click on the "Help/ ICP DAS Online" menu item or the "Wed" Toolbar to browse our web.

#### Mail to ICP DAS :

Click on the "Help/ Mail ICP DAS" menu item or the "Mail" Toolbar to contact us by Outlook Express.

#### About NAPOPC.CAN DA Server :

Click on the "Help/ About NAPOPC.CAN DA Server" menu item or the About Toolbar to see the "About NAPOPC.CAN DA Server" dialog box.



## 2. CAN Data Item Description

On the server for each device of PCI Interface CAN card and each CAN port, there are two fixed data types : "CAN\_In" and "CAN\_Out".

Туре	Description
CAN_In	OPC server has received from the CAN network
	data stored in this data item. The data can only be
	read
CAN_Out	Client sends the data to write in this data item, OPC
	server put this data item which extracted from the
	data sent to the CAN network, the client can not
	read data from this data item.

Both "CAN\_In" and "CAN\_Out" are stored as a string format.

## 2.1 Analysis of CAN message format

This data item will be display at four modes, which represent the meaning of the following.

Mode	ID	RTR
t	2.0A(11 bit)	0
Т	2.0A(11 bit)	1
е	2.0B(29 bit)	0
Е	2.0B(29 bit)	1

Four CAN message formats are shown below.

Mode	ID	Dlen	D0	D1	D2	D3	D4	D5	D6	D7
t	7FF(11 bit)	1~8	00	11	22	33	44	55	66	77
Т	7FF(11 bit)	1~8	00	11	22	33	44	55	66	77
е	1FFFFFFF(29 bit)	1~8	00	11	22	33	44	55	66	77
Е	1FFFFFFF(29 bit)	1~8	00	11	22	33	44	55	66	77

## Example :

Items	Description
t	Standard frame, Data frame
7FF	CAN frame ID
8	CAN data Length
00	CAN Data byte 1
11	CAN Data byte 2
22	CAN Data byte 3
33	CAN Data byte 4
44	CAN Data byte 5
55	CAN Data byte 6
66	CAN Data byte 7
77	CAN Data byte 8

#### t 7FF 8 00 11 22 33 44 55 66 77

#### Example :

#### T 7FF 8

Items	Description
Т	Standard frame, Remote frame
7FF	CAN frame ID
8	CAN data Length

### Example :

#### e 1FFFFFF 8 00 11 22 33 44 55 66 77

Items	Description
е	Extended frame, Data frame
1FFFFFFF	CAN frame ID
8	CAN data Length
00	CAN Data byte 1
11	CAN Data byte 2
22	CAN Data byte 3
33	CAN Data byte 4
44	CAN Data byte 5
55	CAN Data byte 6
66	CAN Data byte 7
77	CAN Data byte 8

## Example :

#### E 1FFFFFF 8

Items	Description			
E Extended frame, Remote frame				
1FFFFFFF	CAN frame ID			
8	CAN data Length			

## 3. Quick Start

### 3.1 Operational Guidelines for the initial

Step 1. Install the CAN PCI interface card driver first

http://ftp.icpdas.com/pub/cd/fieldbus\_cd/can/pci/pisocan200\_400/win2k\_xp/setup/piso-can\_2k\_xp.exe

Step 2. Install the NAPOPC.CAN DA server

http://ftp.icpdas.com/pub/cd/fieldbus\_cd/can/pci/pisocan200\_400/CAN\_OPC\_Server/NAPOPC.CANServer2.0.exe

Step 3. Launch the OPC server by executing

"C:\ICPDAS\ ICP DAS OPC Suite\ NAPOPC.CAN\ NAPOPC.CAN.exe".

Step 4. Search Modules. Refer to the "1.3.2 Screen Features – Add – New Device" to add VxCAN port and configure CAN device.

🜉 ICPDAS NA	POPC.CAN	DA Server v	2.0 - Untitle
<u>F</u> ile <u>A</u> dd <u>E</u> dit	<u>V</u> iew Optio	ons <u>H</u> elp	
New Open S	ave Save A:	s Device	Froup Tag
VxCAN_P	'ort_00 'ort_01		Item I (A⇔⊂L (A⇔⊂L) (A⇔⊂L)
Device Properties - YxCAN Port Setting - WxCAN Port - CAN Devi 00 1-755 01 1-756	ice Name CAN Device 80 01 01 55 09 01	ID CAN Port	OK Cancel
VxCAN Port 00	•		
Acceptance Code	Acceptance Mask	Baud Rate	
ACC 0 00	ACM 0 FF	125K	]
ACC 2 00	ACM 2 FF	BT0 00	
ACC 3 00	ACM 3 FF	BT1 00	
Simulate CAN Message			

Step 5. Add tags for the VxCAN port. Refer to the "1.3.2 Screen Features – Add – New Tag" for more information.

	ICPDAS NAPOPC.CAN DA Server v2.0 - Untitled
	File Add Edit View Options Help
	New Open Save Save As Device Group Tag Debug Search
	VxCAN_Port_00 VxCAN_Port_01
Гад Рторет	ties 🔀
Settings	
Na	me CAN Tagi
Descript	ion
Device	Туре
VxCAI	N Port No. 0 Type CAN In
,	OK Cancel Apply

- Step 6. Save the Configuration. Save the configuration by clicking "File/Save" menu item.
- Step 7. Close OPC server. Close NAPOPC.CAN DA server by clicking "File/Exit" menu item.
- Step 8. Connect to NAPOPC.CAN DA server. Users can run the OPC client program to connect to the OPC server by linking the name of "NAPOPC.CAN".
- Step 9. When an OPC Client connects to "NAPOPC.CAN", the NAPOPC.CAN DA server will be executed automatically and minimized to the system tray.



## 3.2 Connect to NAPOPC.CAN DA Server

This OPC is defined by the OPC Foundation, so any client program supporting OPC can connect to the NAPOPC.CAN server.

### 3.2.1 FactorySoft OPC Client Program

Step 1: Click on the "OPC/ Connect..." menu item.

Step 2: Select the "NAPOPC.CAN (NAPOPC.CAN DA Server)" OPC server.

Select OPC Server	×
Server Name NAPOPC.CAN	OK Cancel
Server Node ("\\server" or "server" or "www	/.server.com") Refresh List
Available servers 1.0 • FactorySoftInProc.1 (InProc OPC Server) FactorySoftModbusShell.1 (FactorySoft M FactorySoftSample.1 (FactorySoft Modbu FactorySoftShell) - (FactorySoftShell) NAPOPC.CAN (NAPOPC CAN DA Server) NAPOPC.Svr.1 (NAPOPC DA Server) National Instruments. Variable Engine.1 (N Studio Scada.OPC (Studio Scada OPC Server)	2.0 fodbus Shell) DPC Rapid Serv s OPC Sample) ational Instrume /er)

Step 3: Click on the "OPC/ Add Item" menu item to add existing tags.

Step 4: Browse the tree list, then double-click on the tag or click the Add Item button to add.

Add Item				
Access Path Item Name Browse items	PISO-CAN4	00_0.CAN_1 In Filter:  *	CAN 1 CAN 1 CAN 2 CAN 2 CAN 2 CAN 3 CAN 3 CAN 4 CAN 4 CAN 4	Add Item Done Item Properties In Out In Out In Out In Out Out
Data Type - © Use nati © Bool © Short	ve type	C Long C Doub! C String	le :	

Step 5: Click on the "Done" button to close.

Step 6: The window shows the values of selected tags.

🏶 NAPOPC.CAN - FactorySoft OPC Client 📃 🗖 🔀					
<u>Fil</u> e OPC <u>V</u> iew <u>H</u> elp					
?					
Tag	Value	Time			
PISO-CAN400_0.CAN_1 In PISO-CAN400_0.CAN_1 Out PISO-CAN400_0.CAN_2 In PISO-CAN400_0.CAN_2 Out PISO-CAN400_0.CAN_3 Out PISO-CAN400_0.CAN_3 Out PISO-CAN400_0.CAN_4 In PISO-CAN400_0.CAN_4 Out	e1FFFFFF81122334455667788 f7FF81122334455667788 f7FF81122334455667788	01/01/00 00:08:36 01/01/00 00:09:07 01/01/00 00:09:07 01/01/00 00:07:46 01/01/00 00:07:46 01/01/00 00:07:47 01/01/00 00:07:48 01/01/00 00:07:48			
<		>			
Ready		1.			

### 3.2.2 InduSoft

Step 1: Before using the InduSoft OPC Client module, you need to install and configure the NAPOPC.CAN DA server in the machines you will run it.



Step 2: Run the InduSoft.



Step 4: In the Studio Workspace window, click the Comm tab, right-click the OPC folder, and click "Insert".



Step 6: Click on the Server Identifier: drop-down menu and select the

🔥 InduSoft Web Studio - [OPCCL001	.0PC]	
<u>File E</u> dit <u>V</u> iew Insert Project <u>I</u> ools	<u>Window</u> Help	×
🛍 🥔 日 🖉 🕹 🖻 🗙 🗠	2. 🚭 🔃 🎆 🗖 🏭 📟 🔯 100% 🛛 💘 🕴	
← → ⊗ 🖗 🚮	▼ 순 ! 므 피   티리 ㅠ 바   쉐 코   씨 보   뉴 ႞ 수   특별 특 트   털릴	
Workspace 🔺 🗙	OPE OPECLOOI.OPC	
🖻 🍓 Project: CANOPC_Demo.APP		< 18
	Description: Server Identifier: Disable:	+ 3
OFC 1:		• F
TCP/IP	Read Lindate Rate (ms): Percent Deadband: Status:	AC
DDE	50 OPC_Status	
	Remote Server Name:	
	Browse Vice data many V Accept Tag Name in the Item column	
		1 a
	Tag Name Item	2008 <b>1</b>
	1 Data_Str PISO-CAN200_0.CAN_1 In	
	2 Data_Str2 PISO-CAN200_0.CAN_2 In	inin ↔
		6 P
		me MT#
	x	In ce In ce
	x	
		JNET
🖬 Dat 📊 Gra 🔜 Tasks 🎒 C		

"NAPOPC.CAN", or key in "NAPOPC.CAN".

The configuration table for OPC has the following entries:

**Server Identifier:** this field should contain the name of the server you want to connect to. If the server is installed in the computer, its name can be selected through the list box.

**Disable:** this field should contain a tag or a constant. If its value is different from zero, the communication with the OPC server is disabled.

**Update Rate:** this field indicates how often the server will update this group in milliseconds. If it is zero, the server will use the fastest practical rate.

**Tag Name:** these fields should contain the tags linked to the server items.

Item: these fields should contain the name of the server's items

Step 7: In the first cell of the Tag Name column type the tag name created in database.

Step 8: Right-click the first cell of the item column and select "OPC Browser" in the pop-up menu to get the OPC browser window.

OPC	OPCCL001.OPC						
F F	lescription: lead Update Rate (ms): 50 lemote Server Name:	Server Identifier: NAPOPC.CAN Percent Deadband: Browse Read after writ Accept Tag N	Disable: Status: OPC_Statu ing ame in the It	us em column			
		Tag Name				ltem	
1	Data_Str			PISO-CAN200_0.CAN_1 In		OPC Prower	
2	Data_Str2			PISO-CAN200_0.CAN_2 In		OIC DIOWSE	
*						<u>С</u> ору	Ctrl+C
<u> </u>					&	Cut	Ctrl+X
<u> </u>						raste	Utri+V
L.						Insert Copied	Cells
Ŀ			_		- 11	Insert Line	
						D <u>e</u> lete Line	
<							>

Step 9: Double click the PISO-CAN200\_0 to appear the CAN Port(tag) in the tree-view.

OPE OPCCL001.OPC					
Description: Read Update Rate (ms): 50 Remote Serv OPC Brow	Server Identifier: NAPOPC.CAN	Disable: Status: OPC_Status	X		
Remote Serv         OPC Browser: "NAPOPC.CAN' [LOCA           OPC List of Items         □           □         □			OK         Cancel         Filter:         ● Bead         ● Write         ● Both         Refresh		
C					

Step 11: Select a tag in the tree-view, and click the "OK" button or double click the tag to add this one.

	OPC Browser: 'MAPOPC.CAN' [LOCAL]
	OF       List of Items       OK         PISD-CAN200_0       Cancel         CanO       CanO         CanO       CanO         CanO       CanO         CanO       CanO         CanO       CanO         O       CanO         D       Can
	PIS0-CAN200_0.CAN_1 In
PPC	OPCCL001.OPC
C F F	Vescription:     Server Identifier:     Disable:       INAPOPC.CAN     Image: Constraint of the server Name:       Iead Update Rate (ms):     Percent Deadband:     Status:       50     Image: Constraint of the server Name:     Image: Constraint of the server Name:       Itemate Server Name:     Image: Constraint of the server Name:       Itemate Server Name:     Image: Constraint of the server Name in the Item column
	Tag Name Item
1	Data_Str (PISO-CAN200_0.CAN_1 In)
*	Data_Sitz PISO-CAN20U_U.CAN_2 III
*	

Step 12: Repeat the step  $7 \sim 11$  to add more tags.

Step 13: Creating a Text String for the Input/Output Dynamic. Click the Text icon on the Object Editing toolbar. Position the crosshairs in the main.scr. Press the "#" to display "###" in the gray square..



Step 14: Double Click the "###" text, it will appear a menu of the Object Properties window. In the Tag/Expression field type the tag name you want to link.

<b>Object Properties</b>		×
- Replace	Hint: Text I/O	*
Tag/Expression:		
Minimum Value:	Input Enabled Fmt:	Decimal 😽
Maximum Value:		Security:
E-Sign VK:	<use default=""> 🗹 Disable:</use>	0
Object Finder		
Selection: Data_Str	[Index] .Member	
🖻 📳 Application 🔼	Name Description	Cancel
ے Boolean اور Boolean	CAN_ID	
<u>{</u> Av Real  T String ≡	"]Data_Str2	New
E Log Message		
Statistical     Cogarithmic		
String		
		>
	Hint: Text I/O	
Minimum Value:		Desired M
Maximum Value:		
E-Sign VK:	<use default=""> V Disable:</use>	Security:

Step 15: From the project select status, and then select the "OPC Client Runtime" in "Execution Tasks" tab. Click on the Startup button to setup the Startup as Automatic.

Task	Status	Startup	^	
📑 Background Task		Automatic		<u>S</u> tart
💽 Database Spy		Manual		
DDE Client Runtime		Manual		Stop
DDE Server		Manual		
👬 Driver Runtime		Manual		
📆 HDA OPC Server		Manual		Startup
🛃 Log Win		Manual		
💮 ODBC Runtime		Manual		
OPC Client Runtime		Automatic	$\supset$	
🐝 Studio Scada OPCServer		Manual	~	
2		>		

Step 16: Run the program InduSoft OPC Client, after running this program, a small icon will appear in your system tray, main screen will show as below.



PISO-CAN200\_0.CAN\_1 In

## e1FFFFFF81122334455667788

PISO-CAN200\_0.CAN\_1 In

## e1FFFFFF81122334455667788

## 4. Error Message

NAPOPC.CAN DA Server may show some error messages below.

It means there are some error status in the system.



Detailed error code is as follows.

Error Code	Description	Error Code	Description
1	CAN_DriverError	16	CAN_TransmitBufferLocked
2	CAN_ActiveBoardError	17	CAN_TransmitIncomplete
3	CAN_BoardNumberError	18	CAN_ReceiveBufferEmpty
4	CAN_PortNumberError	19	CAN_DataOverrun
5	CAN_ResetError	20	CAN_ReceiveError
6	CAN_SoftResetError	21	CAN_SoftBufferIsEmpty
7	CAN_InitError	22	CAN_SoftBufferIsFull
8	CAN_ConfigError	23	CAN_TimeOut
9	CAN_SetACRError	24	CAN_InstallIsrError
10	CAN_SetAMRError		
11	CAN_SetBaudRateError		
12	CAN_EnableRxIrqFailure		
13	CAN_DisableRxIrqFailure		
14	CAN_InstallIrqFailure		