การใช้งาน soft ware OLE PROCESS CONTROL

ปัจจุบันมีโปรแกรมที่ทำหน้าที่ติดต่อสื่อสารระหว่างชุดควบคุม กับ คอมพิวเตอร์ ซึ่งมีหน้าที่หลัก คือ สามารถเข้าถึงข้อมูลภายในของชุดควบคุม นั่นก็คือ สามารถทำการอ่านและเขียนข้อมูลกับชุดควบคุมได้ แต่ อย่างไรก็ตาม soft ware ตัวนี้ไม่สามารถที่จะแสดงผลค่าหรือปริมาณต่างในชุดควบคุมออกมาในรูปแบบที่เป็น กราฟฟิกได้

7.1 ลำดับขั้นตอนการใช้ SOFTWARE OLE PROCESS CONTROL (KEPWARE V4.0)

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Ready								[Clients: 0	Active tags	: 0 of 0 //.

รูป 7.1 แสดงหน้าตาของ kepware v4.0

File -> new

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2 C:\Program Files\\sam1.opf	User Name	Source	Event	<u> </u>
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Create a new project.			Clients: 0 Active tags: 0	of 0 //.

รูป 7.2 new file

KEPServ	verEx - [unti	tled.opf]					_ 🗆 ×
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รูป 7.3 แสดงจุดเริ่มต้นของ new file

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•																	Þ	Γ
Creat	e a ne	w comm	iunicatio	ins chan	hel.							Client	s: 0	Activ	e tags	: 0 of	0	11

รูป 7.4 สร้าง new channal

New Channel - Identification	on 🗙
	A channel name can be from 1 to 256 characters in length. It must begin with a letter but the remaining characters can be any combination of letters, numbers and the underscore character. Channel name:
	< Back Next > Cancel Help

รูป 7.5

New Channel - Device Dri	ver	×
	Select the device driver you want to assign to the channel. The drop-down list below contains the names of all the drivers that are installed on your system.	
	Device driver: Simulator Siemens S5 (3964R) Siemens S7 MPI Siemens S7-200 Siemens TCP/IP Ethernet Siemens TCP/IP Unsolicited Ether ▼	
	< <u>B</u> ack <u>N</u> ext > Cancel	Help

รูป 7.6

New Channel - Communic	cations	×
	1	
	ID: COM 1	
	<u>B</u> aud rate: 19200	
	Data bits: 8	
	Parity: Odd	
	Stop bits: 💿 <u>1</u> 🔿 <u>2</u>	
	Elow control: RTS Always	
	Use modem 🔽 Report comm. errors	
	Use <u>E</u> thernet encapsulation	
	Z Back Nevt > Cancel Holo	1
	K <u>D</u> ack <u>N</u> ext > Cancel Help	1

รูป7.7

New Channel - Write Optimizations	×
Image: Section of the server processes writes on the channel. Set the optimization method and write-to-read duty cycle below. Image: Section of the equivalent. Image: Section of t	
ฐป 7.8	

New Channel - Driver Setup		×
	Select the MPI bus address used by this driver on the network. Determine if this driver is the only master active on the MPI bus. Select the highest MPI bus address that the driver should take into account. Station Parameters Local Station Address: PC is the only master on the bus Network Parameters Highest Station Address:	
[< <u>B</u> ack <u>N</u> ext > Cancel Help	

รูป 7.9

New Channel - Summary		×
	If the following information is correct click 'Finish' to save the settings for the new channel.	
	< <u>B</u> ack Finish Cancel Help	

รูป 7.10

- New -> device

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1 2	<u>D</u> elete	Del	Default User	KEPServerEx	Uni-Telway device driver	loaded su		
02	Properties 8 1		Default User	KEPServerEx	User Configurable Driver	device driv		
 🛈 2	373705	13:38:27	Default User	KEPServerEx	Yaskawa Memobus Plus	device dri Ţ		
•								
Create	Create a new device on the selected channel.							

รูป 7.11

New Device - Name	X
	A device name can be from 1 to 256 characters in length. It must begin with a letter but the remaining characters can be any combination of letters, numbers and the underscore character. Device <u>n</u> ame: Device <u>n</u> ame:
	< <u>B</u> ack. <u>N</u> ext > Cancel Help
	รูป 7.12

New Device - ID	×
	The device you are defining may be multidropped as part of a network of devices. In order to communicate with the device, it must be assigned a unique ID. Your documentation for the device may refer to this as a "Network ID" or "Network Address." Device ID: Decimal
< <u>B</u>	ack <u>N</u> ext > Cancel Help

รูป 7.13

New Device - Communica	ations Parameters 🛛 🔀
	Enter the parameters you wish to use while communicating with the device. Connect timeout refers to the time to wait for a successful initial connection. Request timeout refers to the time to wait for a request to be serviced. Connect timeout: E a seconds Request timeout: 1000 m milliseconds Eail after 3 m successive timeouts
	< <u>B</u> ack <u>N</u> ext > Cancel Help

รูป 7.14



รูป 7.15

4 KEPServerE	x - [untitled.opf	*]			_	
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🗆 🕷 Channel1			Tag N	ame Address	Data Type	Scar
Devi	ce1		🔁 Click	k to add a static tag. Ta	gs are not required	, but a
L			•			Þ
Date	Time	User Name	Source	Event		-
1 29/3/05	13:38:26	Default User	KEPServerEx	TIWAY Host Adapter	device driver load	ed :
1 29/3/05	13:38:26	Default User	KEPServerEx	Uni-Telway device di	iver loaded succes	ssful
1 29/3/05	13:38:26	Default User	KEPServerEx	User Configurable Dr	iver device driver la	pade
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Ready				Clients: 0 A	ctive tags: 0 of 0	

รูป 7.16

- สร้าง New Tag

Jan K	EPServerEx - [u	untitled.opf *]		
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<u> </u>	<u>N</u> ew Channe	I		Tag Na	ame Address Data Type Scar
	New De <u>v</u> ice.			🔁 Click	k to add a static tag. Tags are not required, but a
	New Tag <u>G</u> ro	oup			
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0 2	<u>D</u> elete	Del	Default User	KEPServerEx	TIWAY Host Adapter device driver loaded :
0 2	Properties		Default User	KEPServerEx	Uni-Telway device driver loaded successful
1 0 2	973705 T	3:38:26	Default User	KEPServerEx	User Configurable Driver device driver load
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Creat	e a new tag.				Clients: 0 Active tags: 0 of 0 //

รูป 7.17

Tag Properties	×
General Scaling	
Identification	
Name:	
Addr <u>e</u> ss:	
Description:	
Data properties Data type: Default Client access: Read/Write Scan rate: 100 milliseconds	
OK Cancel App	y Help

รูป 7.18

Tag Properties	×
General Scaling	
Identification	
Name: tag1	
Addr <u>e</u> ss: M 0.0	
Description: internal memory on plc	
Data properties	
Data <u>t</u> ype: Boolean	
<u>C</u> lient access: Read/Write	
<u>S</u> can rate: 100 milliseconds	
Do not allow clients to <u>o</u> verride data type.	
OK Cancel <u>App</u>	ly Help

รูป 7.19

KEPServerEx	 [untitled.opf *]			_ 🗆 ×
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1 29/3/05	13:38:26	Default User	KEPServerEx	TIWAY Host Adap	ter device driver loaded :
1 29/3/05	13:38:26	Default User	KEPServerEx	Uni-Telway device	driver loaded successful
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Ready				Clients: 0	Active tags: 0 of 0 🦷 🍂

รูป 7.20

- KEPSer	verEx	- [C:\P	rogran	n Files\KEPS	erverEx\Pr	ojects\s	cada()0.op	of]		_ 🗆 ×
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			La	unch <u>D</u> COM Co	nfiguration						
			Lar	unch Data E <u>x</u> ch	hange Client						
			Cre	ate <u>S</u> tartup Sh	ortout						
			<u>0</u> p	tions							
							•				F
Date		Time		User Na	ame	Source	_		Event		
1 30/3/05		10:38:	:32	Default	User	KEPServ	erEx		User Configurable	e Driver device di	river loade
30/3/05		10:38:	32	Default	User	KEPServ	erEx		Yaskawa Memob	ous Plus device d	river load
0 30/3/05		10:39:	:02	Default	User	KEPServ	erEx		Starting Siemens	S7 MPI device d	river. 🚽
•											F
Launch the C	OPC Qu	iick Clier	nt.						Clients: 0	Active tags: 0	of 0 //.

- ทดสอบการติดต่อสื่อสาร โดยใช้ Quict Client

รูป 7.21 เรียกใช้ quick client

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<u>2</u> s2.otc		SystemDate	ime D
<u>3</u> s1.otc		SystemDate	
<u>4</u> C:\Program Files\.	\ex1.otc	System_FullPri	oje Si
E.A		System_Project	atN Si
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0 30/3/05	10:41:02	Connected to server	
0 30/3/05	10:41:02	Added group '_Syste	
0 30/3/05	10:41:02	Added 9 items to gro	
1 30/3/05	10:41:03	Added group 'Chann	
1 30/3/05	10:41:03	Added group 'Chann	
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Create a new document		Item C	ount: 31 🏼 🎢

รูป 7.21 new file

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		Item ID	Data Type
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1 30/3/05	10:42:25	Removed 10 items fr	
1 30/3/05	10:42:25	Removed group 'Ch	
1 30/3/05	10:42:25	Removed 11 items fr	
1 30/3/05	10:42:25	Removed group 'Ch	
1 30/3/05	10:42:25	Removed 9 items fro	
1 30/3/05	10:42:25	Removed group '_Sy	
1 30/3/05	10:42:25	Disconnected from s	
			*
Ready			Item Count: 0 🅢

รูป 7.22 new quick client

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New <u>G</u> roup			Item ID	Data Type
New Item				
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Сору		Ctrl+C		
Paste		Ctrl+V		
Delete		Del		F
Date Properties			Event	_
30/3/05	10:42:25		Removed 10 items fr	
0 30/3/05	10:42:25		Removed group 'Ch	
0 30/3/05	10:42:25		Removed 11 items fr	
0 30/3/05	10:42:25		Removed group 'Ch	
0 30/3/05	10:42:25		Removed 9 items fro	
0 30/3/05	10:42:25		Removed group '_Sy	
0 30/3/05	10:42:25		Disconnected from s	
L				•
Create a new server con	nection			Item Count: 0 🥢

รูป 7.23 new server connect

Server Properties	×
General Registered Servers: ☐ @ OPC Data Access ☐ @ OPC Data Access ☐ @ OPC Data Access ☐ @ OPC General	s Servers Version 1.0 s Servers Version 2.0 <mark>PServerEx.V4</mark>
<u>P</u> rog ID: Remote <u>M</u> achine Name:	KEPware.KEPServerEx.V4
	OK Cancel Help

รูป 7.24 ระบุ server ที่ ต้องการ ติดต่อ

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KEPware.Ki	EPServerEx.V4		Item ID	Data Type
Date	Time		Event	
1 30/3/05	10:42:25		Removed group 'Ch	
1 30/3/05	10:42:25		Removed 11 items fr	
1 30/3/05	10:42:25		Removed group 'Ch	
1 30/3/05	10:42:25		Removed 9 items fro	
1 30/3/05	10:42:25		Removed group '_Sy	
1 30/3/05	10:42:25		Disconnected from s	
1 30/3/05	10:46:29		Connected to server	
				-
Ready				Item Count: 0 //

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	New <u>G</u> roup				Item ID	 Data Tupe
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	<u>P</u> aste		Ctrl+V			
	<u>D</u> elete		Del		•	F
Date	Pr <u>o</u> perties			Event		<u> </u>
() 3	0/3/05	10:42:25		Remove	d group 'Ch	
() 3	0/3/05	10:42:25		Remove	d 11 items fr	
() 3	0/3/05	10:42:25		Remove	d group 'Ch	
() 3	0/3/05	10:42:25		Remove	d 9 items fro	
() 3	0/3/05	10:42:25		Remove	d group '_Sy	
() 3	0/3/05	10:42:25		Disconn	ected from s	
() 3	0/3/05	10:46:29		Connect	ed to server	
						×
Create	e a new group					Item Count: 0 //



Group Properties	X
General	
<u>N</u> ame:	grop1
Update <u>R</u> ate (ms.):	100
Time <u>B</u> ias (min.):	0
Percent <u>D</u> eadband:	0
Language ID:	1033
Update Notification:	OPC 2.0
	OK Cancel Help

รูป 7.27

🐍 OPC Quick Client - Untitled * 📃 🗔 🔀						
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grop1						
Date	Time	Event				
30/3/05	10:42:25	Removed 11 ite	ems fr			
0 30/3/05	10:42:25	Removed grou	p 'Ch			
30/3/05	10:42:25	- Removed 9 ite	ms fro			
1 30/3/05	10:42:25	Removed grou	p '_Sy			
1 30/3/05	10:42:25	Disconnected	from s			
1 30/3/05	10:46:29	Connected to s	erver			
1 30/3/05	10:49:57	Added group 'g	jrop1'	*		
Ready				Item Count: 0 //		
		รูป 7.28				

å e 0	PC Quick Clie	nt - Untitled	×		_ 🗆 ×
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	New <u>G</u> roup.			Item ID	Data Tuna
	New Item				Data Type
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Date	Properties			Event	×
() 3	0/3/05	10:42:25		Removed 11 items fr	
() 3	0/3/05	10:42:25		Removed group 'Ch	
(3	0/3/05	10:42:25		Removed 9 items fro	
03	0/3/05	10:42:25		Removed group '_Sy	
(3	0/3/05	10:42:25		Disconnected from s	
03	0/3/05	10:46:29		Connected to server	
() 3	0/3/05	10:49:57		Added group 'grop1'	
					_
Create	e a new item				Item Count: 0 🥢

รูป 7.29

Add Items	X
Item Properties	ок
Access Path:	Cancel
Item ID: Channel1.Device1.memory00	
Data <u>T</u> ype: Boolean	
Acti <u>v</u> e 🔽	
Browsing Branch Filter: Type: * Nativ E-C System 	A <u>o</u> cess: e Any
Browse flat address space on selected branch	Add Leaves
Validate item before adding it to the list	Item Count: 1

รูป 7.30

🐍 OPC Quick Client - Untitled * 📃 🗔 🔀							
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp							
🗅 🚅 🔛 📸 💣 😭 👗 🖻 💼 🗙							
Er 📹 KEPware.KEPSe	erverEx. Item ID	Data Type	Value				
grop1	Channel1.D	evice1 Boolean	0				
			<u> </u>				
Date	Time	Event	<u> </u>				
1 30/3/05	10:42:25	Disconnected from s					
1 30/3/05	10:46:29	Connected to server					
1 30/3/05	10:49:57	Added group 'grop1'					
8 30/3/05	10:53:30	Failed to add item 'C					
1 30/3/05	10:54:16	Synchronous write s					
1 30/3/05	10:54:33	Removed 1 items fro					
1 30/3/05	10:55:32	Added 1 items to gro					
			*				
Ready			Item Count: 1 //				

🐍 OPC Quick Cli	ent - Untitled *	_ 🗆 🗙					
<u>File Edit View Iools Help</u>							
🗅 🖙 🛃 📸 💣 💕 👗 🛍 🛍 🗙							
E :: KEPware.KE	PServerEx. Item ID	Data Type	Value				
grop1	Chann	el1.Device1 Boolean	New Item				
			Set <u>A</u> ctive Set <u>I</u> nactive				
Date	Time	Event	Synchronous Cache <u>R</u> ead Synchronous <u>D</u> evice Read				
0 30/3/05	10:42:25	Disconnected from s	Synchronous <u>W</u> rite				
 30/3/05 30/3/05 30/3/05 30/3/05 30/3/05 30/3/05 	10:46:29 10:49:57 10:53:30 10:54:16 10:54:33	Connected to server Added group 'grop1' Failed to add item 'C Synchronous write s Removed 1 items fro	Asynchronous 2.0 Read Asynchronous 2.0 Cache Rel Asynchronous 2.0 Device Re Asynchronous 2.0 Write	íresh Ifresh			
Perform a synchrono	10:55:32 us write on the selected	Added 1 items to gro	Cu <u>t</u> <u>Copy</u> Roda	Ctrl+X Ctrl+C			
m Files				Del			
s)w98	4		Properties				

รูป 7.32 เรียก pop up menu เพื่อเขียนข้อมูลลงในชุดควบคุม

จากรูปที่ 7.1 – 7.32 แสดงขั้นตอนการใช้ soft ware OLE PROCESS CONTROL (KEPWAREex V4.0)