

# **OPCTalk for Hitachi Ethernet**

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OPCTalk™ ( )

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<b>1</b>	.....	<b>1</b>
	.....	1
<b>2</b>	.....	<b>3</b>
	.....	3
	.....	3
	.....	3
	.....	4
	.....	4
	.....	4
	.....	4
	.....	5
	.....	5
	.....	5
	.....	6
	.....	7
	.....	8
<b>3</b>	.....	<b>9</b>
	.....	9
	.....	10
	.....	10
가	.....	10
	.....	11
	.....	12
	.....	12
	.....	12
	.....	13
	.....	14
	.....	18
	.....	18
<i>PLC</i>	.....	19
<i>Memory Block</i>	.....	20
	.....	23
<i>Timeout</i>	.....	25
<i>Lock Options</i> .....	.....	27
<i>Redundancy</i> .....	.....	28
	.....	31
<i>Online</i> .....	.....	32
<i>Offline</i> .....	.....	32
	.....	32
	.....	32
<i>Command</i> .....	.....	33
<i>Action</i> .....	.....	33
	.....	33
<i>Log</i> .....	.....	34

.....	34
<b>4 NAMING.....</b>	<b>35</b>
.....	35
.....	35
OFFSET .....	35
<i>Bit</i> .....	36
TYPE .....	36
.....	37
<b>5 CLIENT .....</b>	<b>39</b>
EXCEL .....	39
<i>OPC</i> .....	39
<i>DDE</i> .....	39
INTOUCH .....	40
<i>OPC</i> .....	40
<i>DDE</i> .....	40
FIX .....	41
<i>OPC</i> .....	41
<i>DDE</i> .....	43
RSVIEW32 .....	43
<i>OPC</i> .....	44
<i>DDE</i> .....	44
<b>6 NETWORK DATA .....</b>	<b>47</b>
OPC .....	47
<i>Server</i> .....	47
<i>Client</i> .....	51
NETDDE .....	52
<i>Server</i> .....	52
<i>Client</i> .....	54
<b>7 APPENDIX .....</b>	<b>55</b>
<i>V3.2.x</i> .....	55
<i>V3.1.x</i> .....	55
<i>V3.0.x</i> .....	56
<i>V2.5.x</i> .....	57
<i>V2.4.x</i> .....	57
<i>V2.3.x</i> .....	58
<i>V2.2.x</i> .....	58
<i>V2.1.x</i> .....	58
<i>V2.0.x</i> .....	61
<i>v1.9.x</i> .....	63
<i>v1.8.x</i> .....	64
<i>v1.7.x</i> .....	65
<i>v1.6.x</i> .....	65
<i>v1.5.x</i> .....	66





# 2

CD

OPCTalk for Hitachi Ethernet Server

OTHiEthSvr.exe



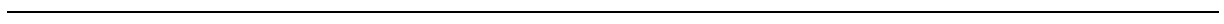


---

Windows

OTHiEth /regserver

OTHiEth /unregserver

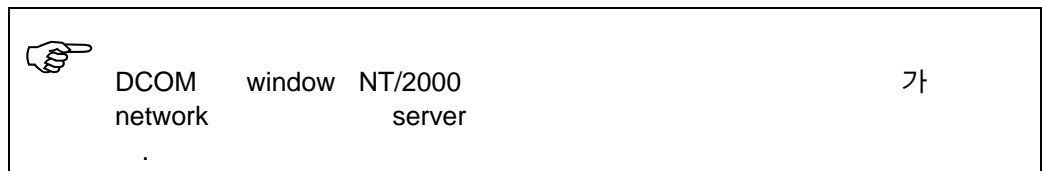


---

Win98/Me/NT/2000가

가 .

- 
- Windows2003/XP
  - Win2000/NT
  - WinMe/98
  - Microsoft DCOM 1.3



- Microsoft Winsock 2.0

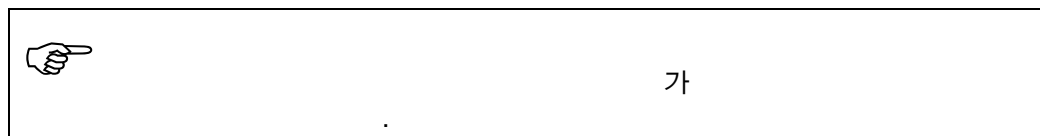


- 
- Ethernet card
-

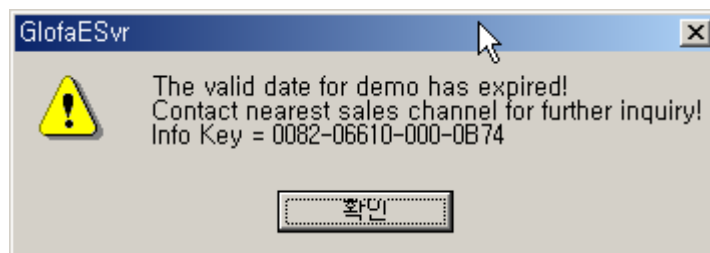
가  
Icon  
Program Bin -> OTHiEth.exe  
register CD

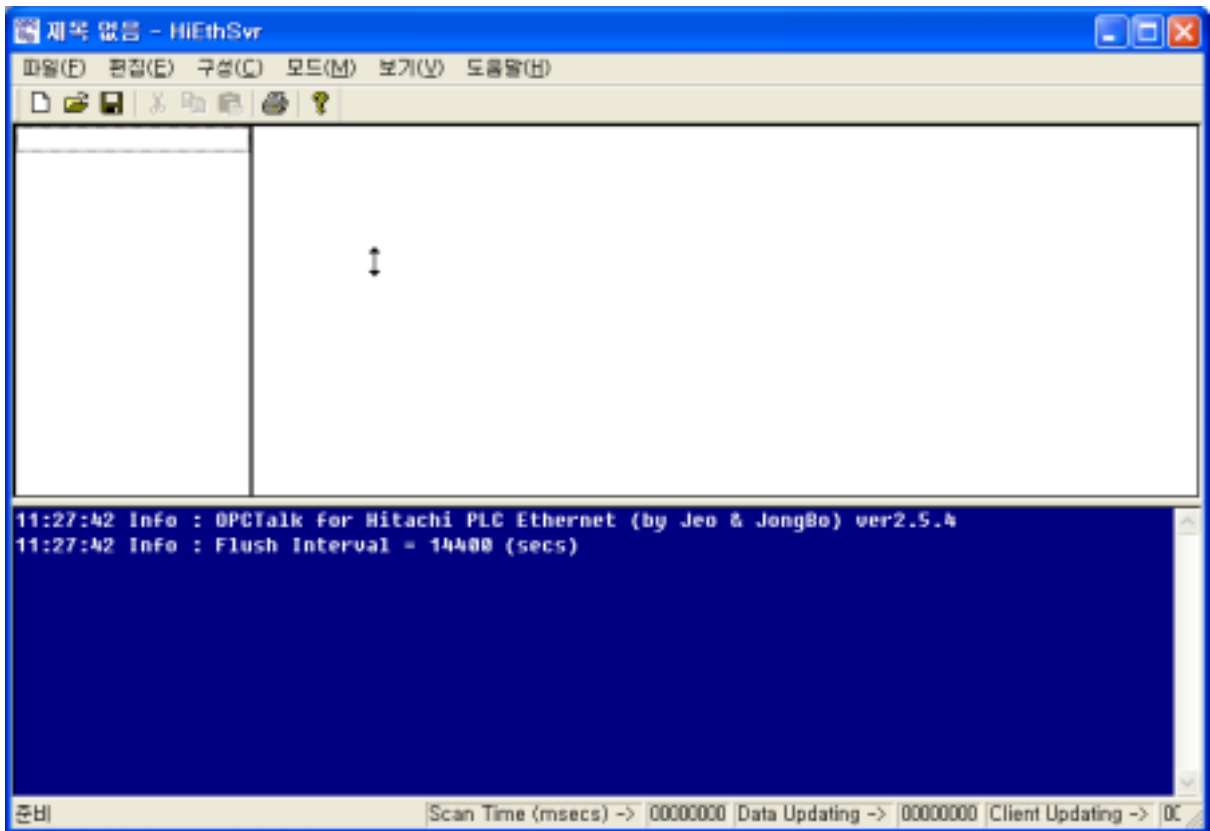


가 1 가 ,



Evaluation 1 가 ,





DataView

LogView

가

가

DataView

LogView

가

가

- Scan Time(msecs) = scan time msec
  - Data Updating =
  - Client Updating = HMI
- 

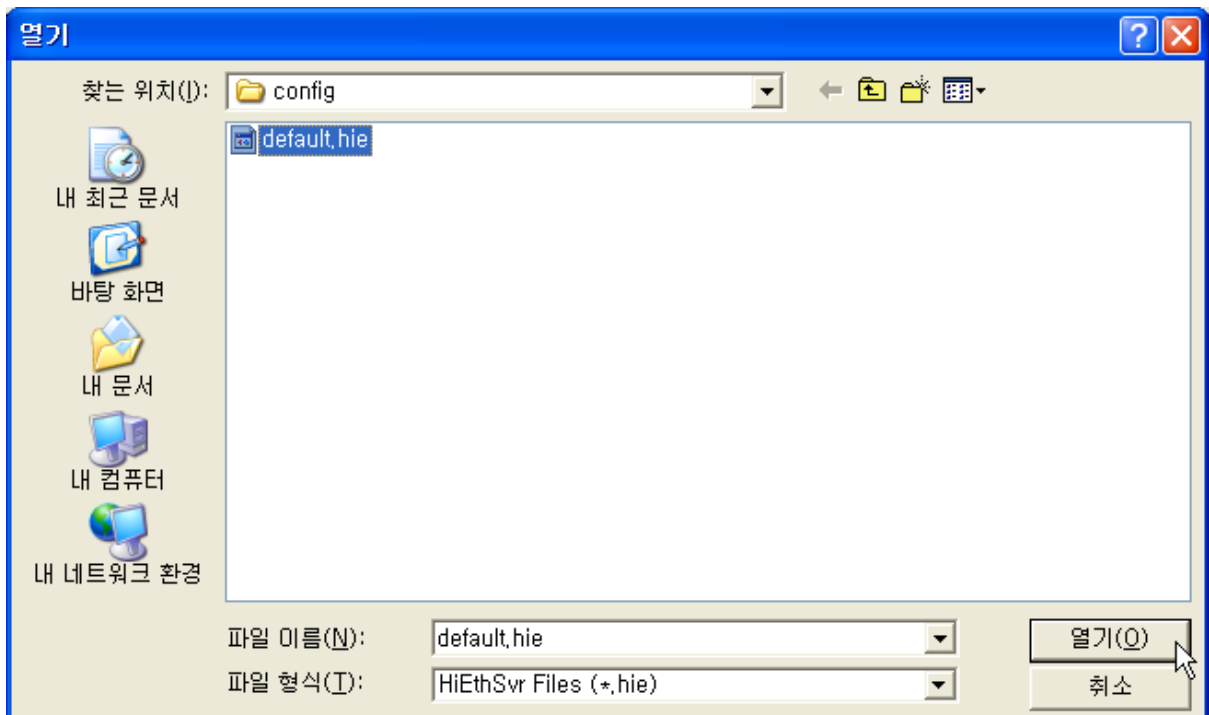
“ ”

## 3

## 가 Menu가

(F)			Ctrl+N
			Ctrl+O
			Ctrl+S
	가	가	
(E)			
(C)	Topic Item		
	Topic 가	가	
	Item 가	가	
	Topic Item		
(M)	Online Offline		
(V)			
	Event		
	Command	Client	
	Action		
		Online	

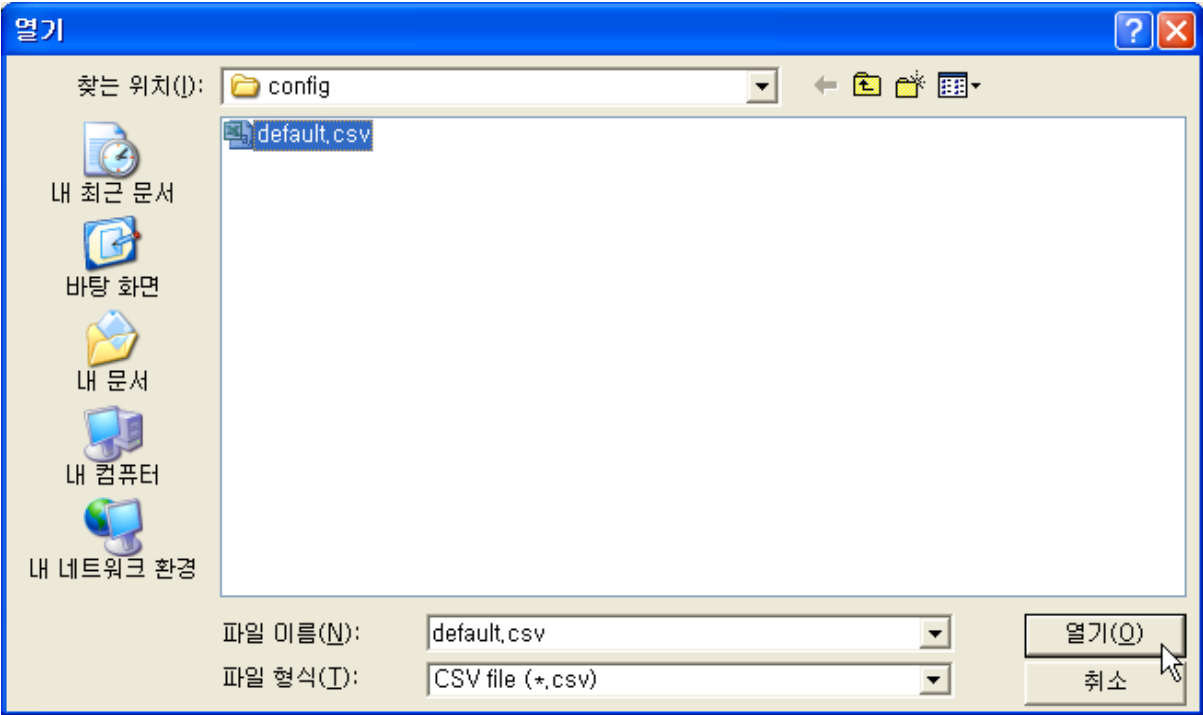
data file .



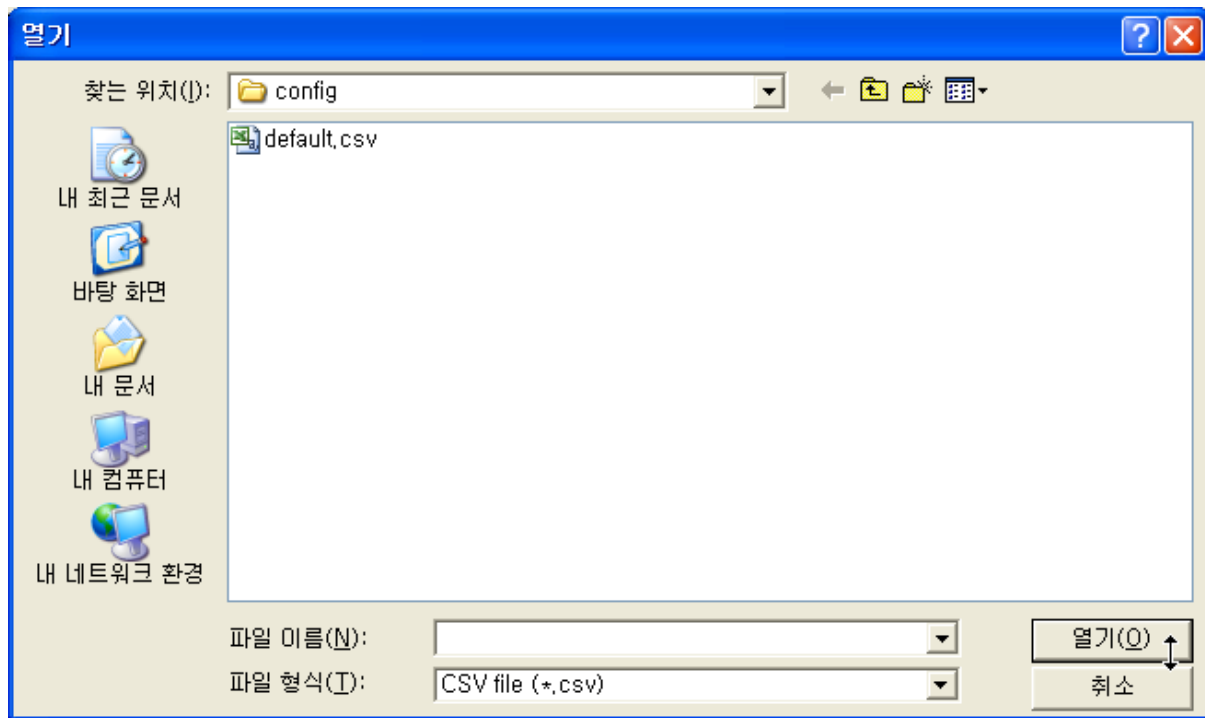
---

가

CSV                      CSV                      가                      .                      가



CSV 가



---

LogView Text , .

---

Text .

---

Text .

✖
Set Options

**갱신**

Background Thread

데이터 갱신 주기:  
 milliseconds

Client 갱신 주기:  
 milliseconds

Command Queue Size:  
 (0 = 무한대)

변하지 않은 값을 Client에 보내기

Dynamic Scan

수정된 Block 우선 읽기 처리하기

확인

취소

**Options**

시작 시 다음의 설정파일 사용하기  
 ...

시작 시 온라인 상태 복원하기

시작 시 최소화하기

종료 시 확인하기

Client 종료 시 자동 종료하기

**기록**

기록 폴더:  
 ...

자동 저장 주기:  
 milliseconds

# Update

## Background Thread

thread

= Yes

---

Frame sleep time ( msecs)

= 10 msecs

## Client

Client program refresh ( msecs)

= 250 msecs

## Command Queue Size

Client queue

= 0 ( )

---

## Client

Client

= No

## Dynamic Scan

Client item Block scan

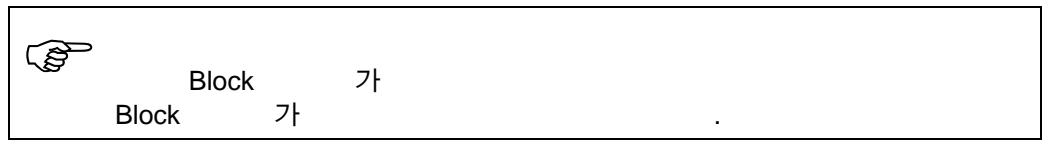
= Yes

---

## Block

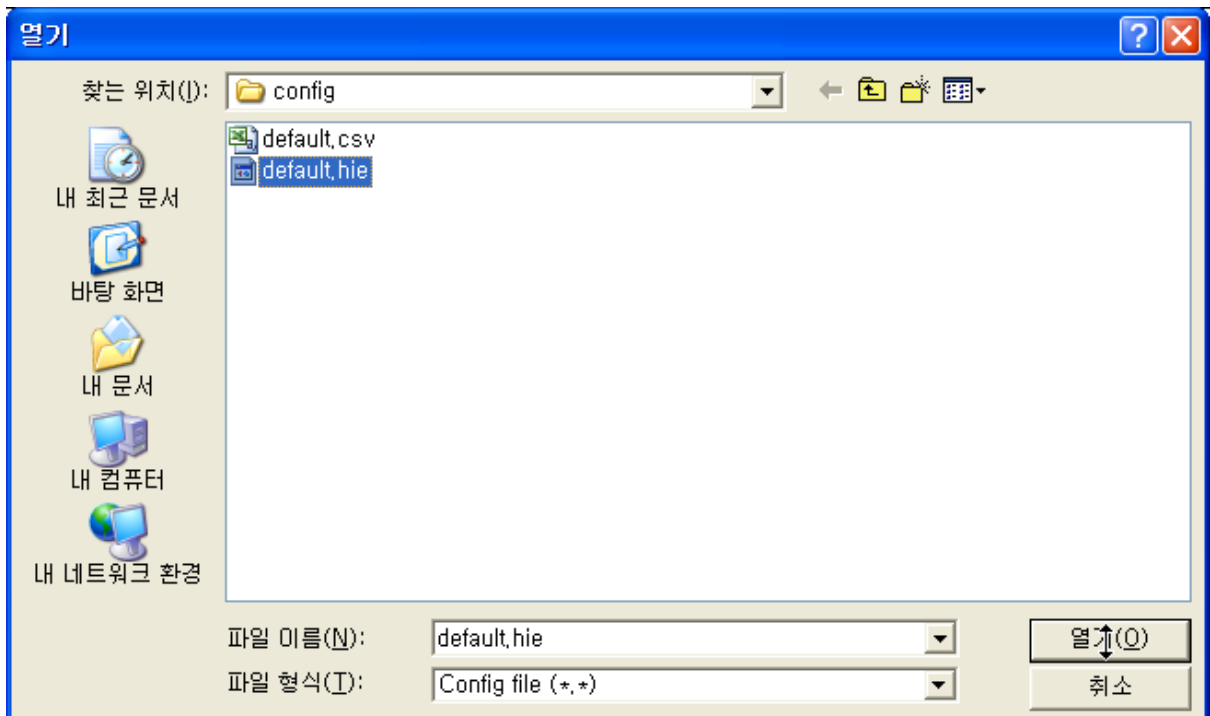
Client Block

= Yes



## Options

= No



online

= Yes

icon

= Yes

= Yes

**Client**

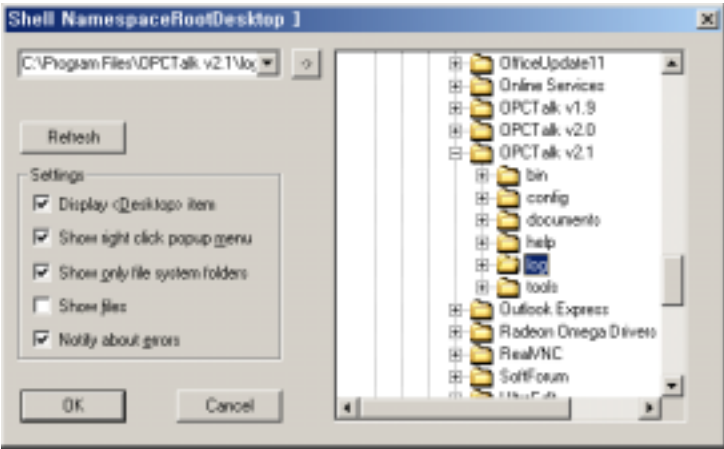
Client가

= Yes

**Log**

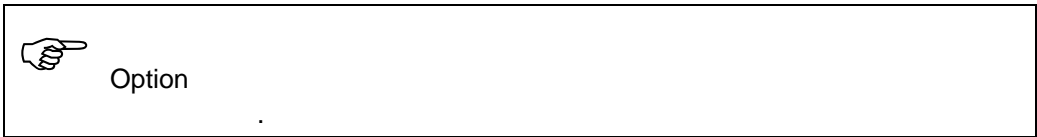
Log file

= log



Log file . (msecs)

= 60000 (msecs), 1







## Setting

Ethernet TCP/IP address .

## Options

가 ( .)

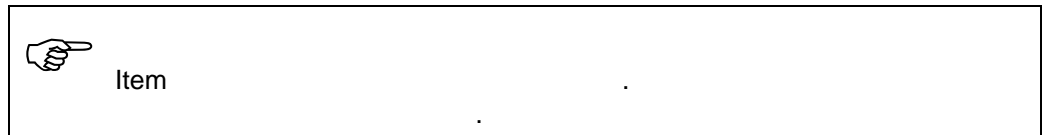
## Description

---

## Memory Block

### Block

Topic PLC .



### Name

Block .



### Data Type

가 data .  
가 address .

**Bool, Boolean**

, Bool  
X, Y, R, L, M

**Char, Int8**

Signed byte (-128 127)  
WX, WY, WR, WL, WM

**Byte, UInt8**

Unsigned byte (0 256)  
WX, WY, WR, WL, WM

**Short, Int16**

Integer (-32768 32767)  
WX, WY, WR, WL, WM

**Word, UInt16**

Unsigned Integer (0 65535)  
WX, WY, WR, WL, WM

**Long, Int32**

Long Integer (-2,147,483,648 2,147,483,647)  
WX, WY, WR, WL, WM

**DWord, UInt32**

Unsigned Long Integer (0 4,294,967,292)  
WX, WY, WR, WL, WM

**Int64**

64Bit Unsigned Integer double client .



**Float**

Float

**Address**

block address

**Length**

data block

block

data type



**Priority**

가

2 data 1 2

**ReadWrite**

rw

┌

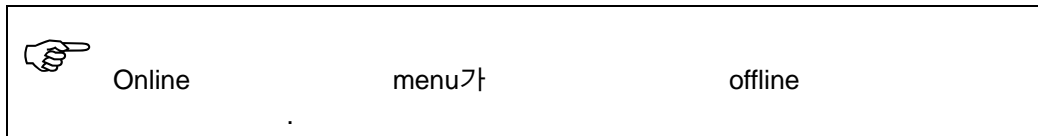
가

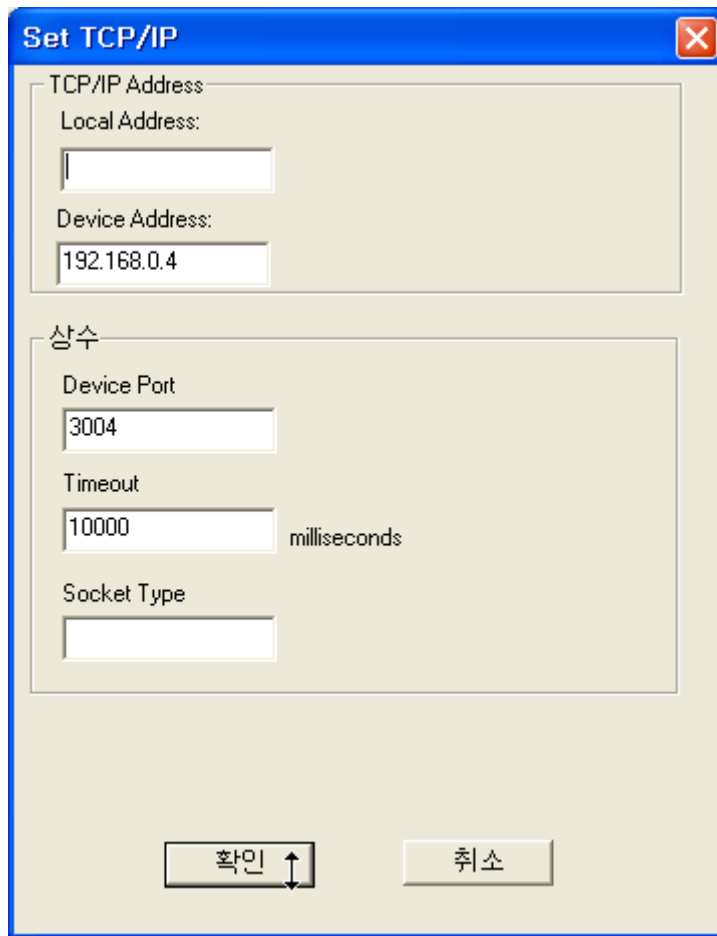
w

가

## ScanTime

msec





## TCP/IP Address

### Local Address

( . )

### Device Address

PLC

**Device Port**

PLC                    3004                    .

**Timeout**

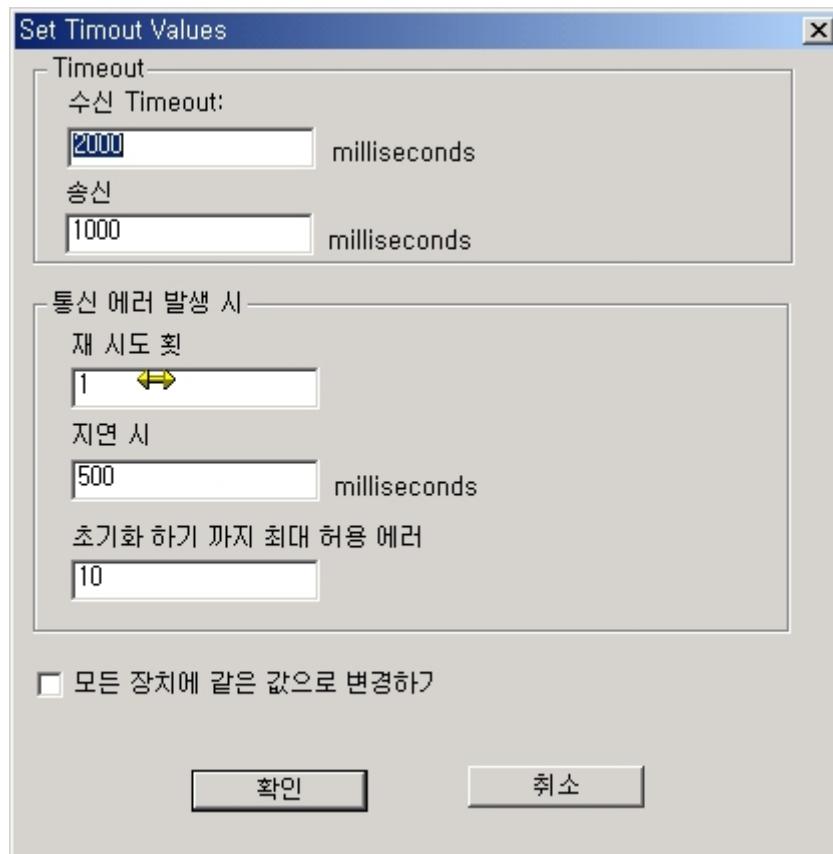
Timeout                    . (                    millisecs)

**Socket Type**

.

---

# Timeout



## Timeout

### Timeout

timeout ( msec)

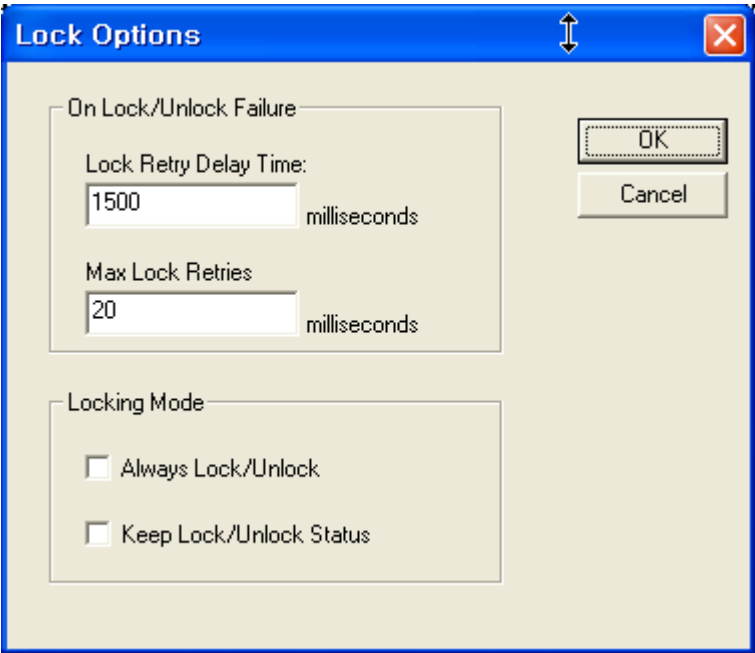
### Timeout

timeout ( msec)

(        msec)

device

# Lock Options



## On Lock/Unlock Failure

### Lock Retry Delay Time

It sets delay time for retrying Lock/Unlock again. (unit: msec)

**Max Lock Retries**

Number of max retries for Lock/Unlock.

## Lock/Unlock Mode

**Always Lock/Unlock**

Lock/Unlock



**Keep Lock/Unlock Status**

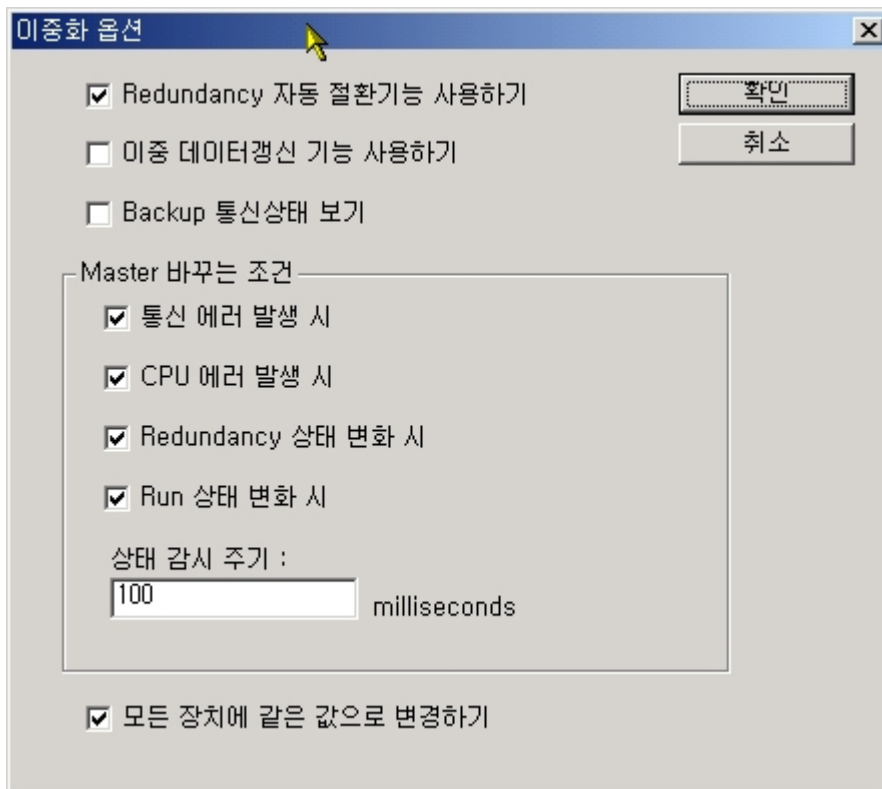
Lock/Unlock

---

## Redundancy

Device 2 IP





**Redundancy**

---

CPU

**Backup**

---

backup

**Master**

---

가

CPU

CPU 가

Redundancy

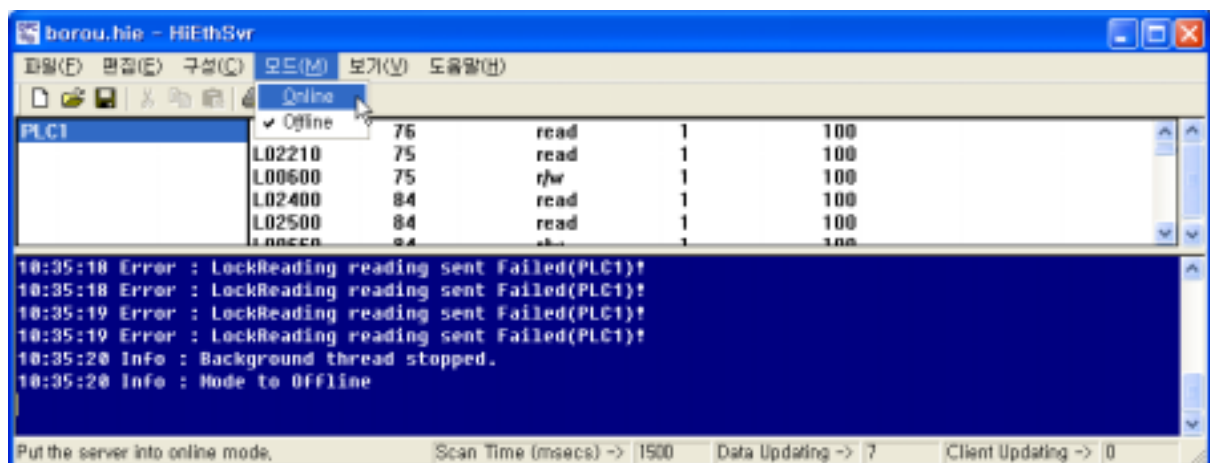
Master가 Backup

Run

CPU가

(msecs)

device



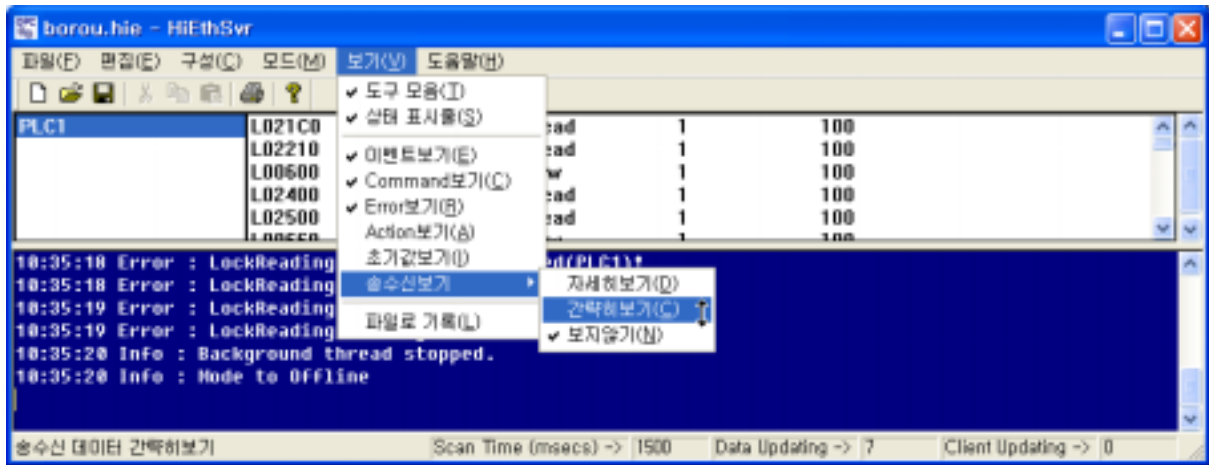
## Online

Polling

Item Update

## Offline

Polling



가

16:05:31 Event : New data [PLC1][L00000:0] <- On

16:05:32 Event : New data [PLC1][WL0002] <- 3279

---

# Command

16:19:46 Command : New command [PLC1][L00000:0] <- On

# Action

Action

, block update , priority



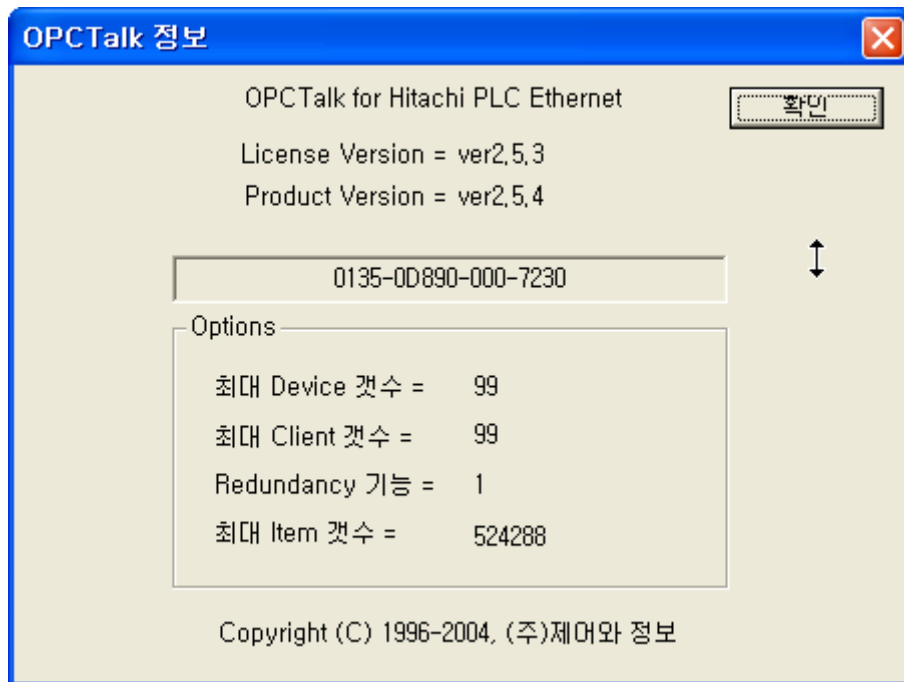
---

## Log

Log yy-mm-dd.log  
log

---

---



# 4 Naming

Client	Topic	Item	DDE/OPC Client	Data	Offset
Client		Item	.	.	
가			.		

- OTHiEth[Topic]![Item] [Type]

Offset

- OTHiEth|[Topic]![Item]:[Offset] [Type]

block	WL0000	16	가	.
WL0000	WL0001	WL0002	...	WL0015

## Offset

offset block block .



offset hexa 가 & , h .

block WL0000 16 offset 가

.

WL0000:0 (WL000 )

WL0000:1 (WL001 )

WL0000:2 (WL002 )

...

WL0000:15 (WL015 )

---

## Bit

Bit offset 가 .

- OTHiEth|[Topic ]!|[Item ]/[bit]  
Offset
- OTHiEth|[Topic ]!|[Item ]:[Offset]/[bit]

## Word

WL0100/0 (WL0100 )

WL0100/1 (WL0100 )

...

WL0100/15 (WL0100 16 )

WL0101/0 (WL0101 )

WL0101/1 (WL0101 )

...

WL0101/15 (WL0101 16 )

---

## Type

DataType 가 data .

가 .

**B**

, Bool

**I1**

Signed byte (-128 127)

**UI1**

Unsigned byte (0 256)

**I2 S**

Integer (-32768 32767)

**UI2 U**

Unsigned Integer (0 65535)

**I4 L**

Long Integer (-2,147,483,648 2,147,483,647)

**UI4**

Unsigned Long Integer (0 4,294,967,292)

**R4 F**

Float

**R8**

Double

**Mxx**

( xx .)

---

Device

Client

.

---

: \$ACTVLINE  
: Int16 (short)  
:  
-1 =  
0 = OffScan(      Offline)  
1 = Primary (      )  
2 = Secondary (      )

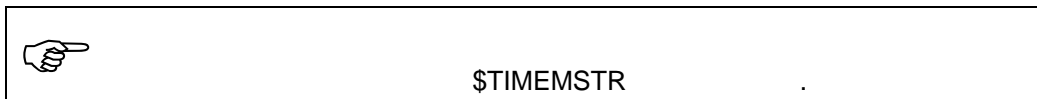
---

: \$MODEMSTR (Master Mode), \$MODEBKUP (Backup Mode)  
: Int16 (short)  
:  
-1 =  
0 = Ready(              )  
1 = Error(              )  
2 = Suspend(              )  
3 = Online(              )  
4 = Config (              )  
5 = Remote(              )



---

: \$TIMEMSTR (Master Time), \$TIMEBKUP (Backup Time)  
: Int32 (long)  
: 가



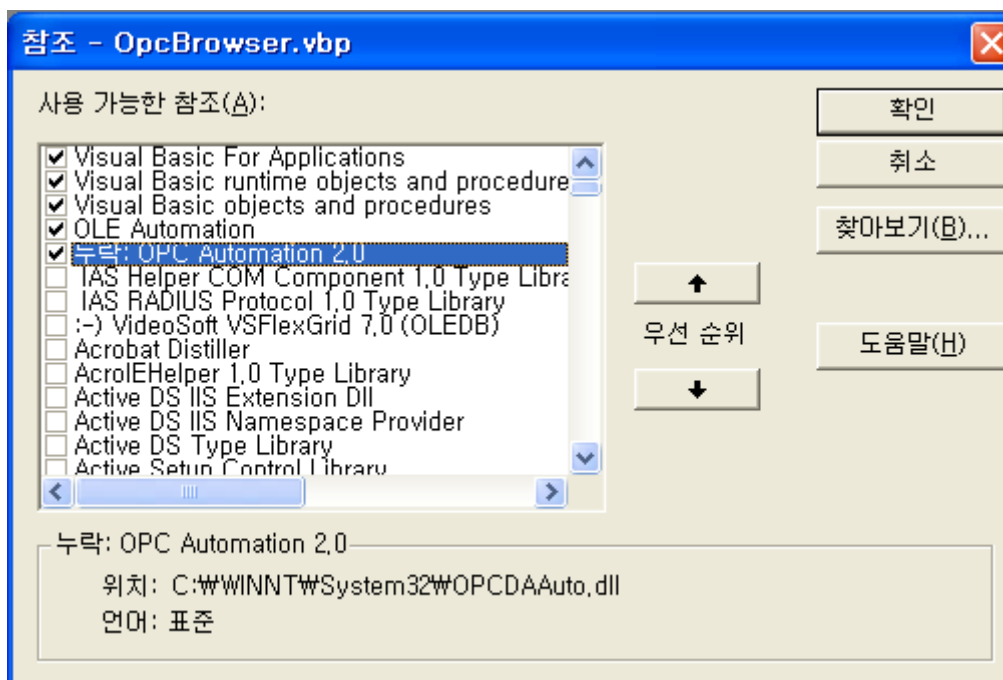
# 5 Client

## Excel

## OPC

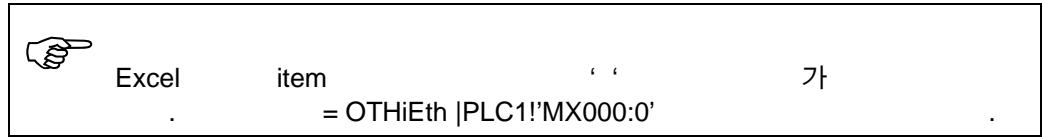
OPC      Excel      VB      OPCDAuto

가



## DDE

Cell      가 =OTHiEth|[Topic]      ]![Item]      ]:[Offset]



---

# InTouch

---

## OPC

---

## DDE

Application = OTHiEth

Topic = topic

ItemName = item

IODisc = bool

IOInt = word

IOReal = float

item .

sample database .

```

:mode=ask
:IOAccess Application Topic AdviseActiveDDEProtocol
plc1 OTHiEth topic1 Yes Yes
:IODisc Group Comment Logged EventLogge AccessNamItemName
AG-101_TR Alm_TRIP AG-101 AG No No plc1 %WM1:0
B_CP-103B_AIm_STATU CP-103B ALNo No plc1 %WM1:1
:IOInt Group Comment Logged EventLogge MaxEU LogDeadband
B_PH-101_MAlm_STATU 1 PNo No 14 0
B_PH-101_MAlm_STATU 1 PNo No 14 0
:IOReal Group Comment Logged EventLogge MaxEU LogDeadband
PH-101_MAAIm_STATU PH-1 No No 14 0
PH-101_MAAIm_STATU PH-1 No No 14 0

```

---

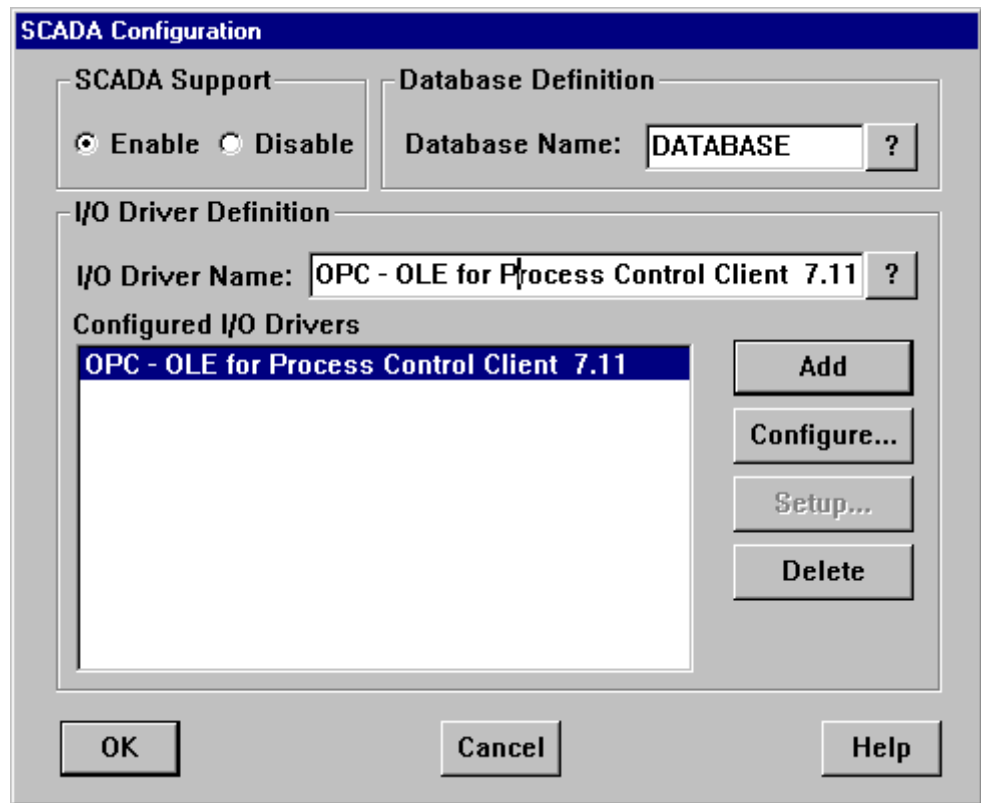
## FIX

---

## OPC

### I/O Driver

1. Fix Draw -> Apps -> System Configuration will start SCU(System Configuration Utility).
2. Select Configure -> Scada, and set below



Use Local Server = Yes

**Server**

3. I/O Driver Server -> Use Local Server -> Connect will start OPC Power Tool

ProgID = OPCTalk.HiEthSvr.1

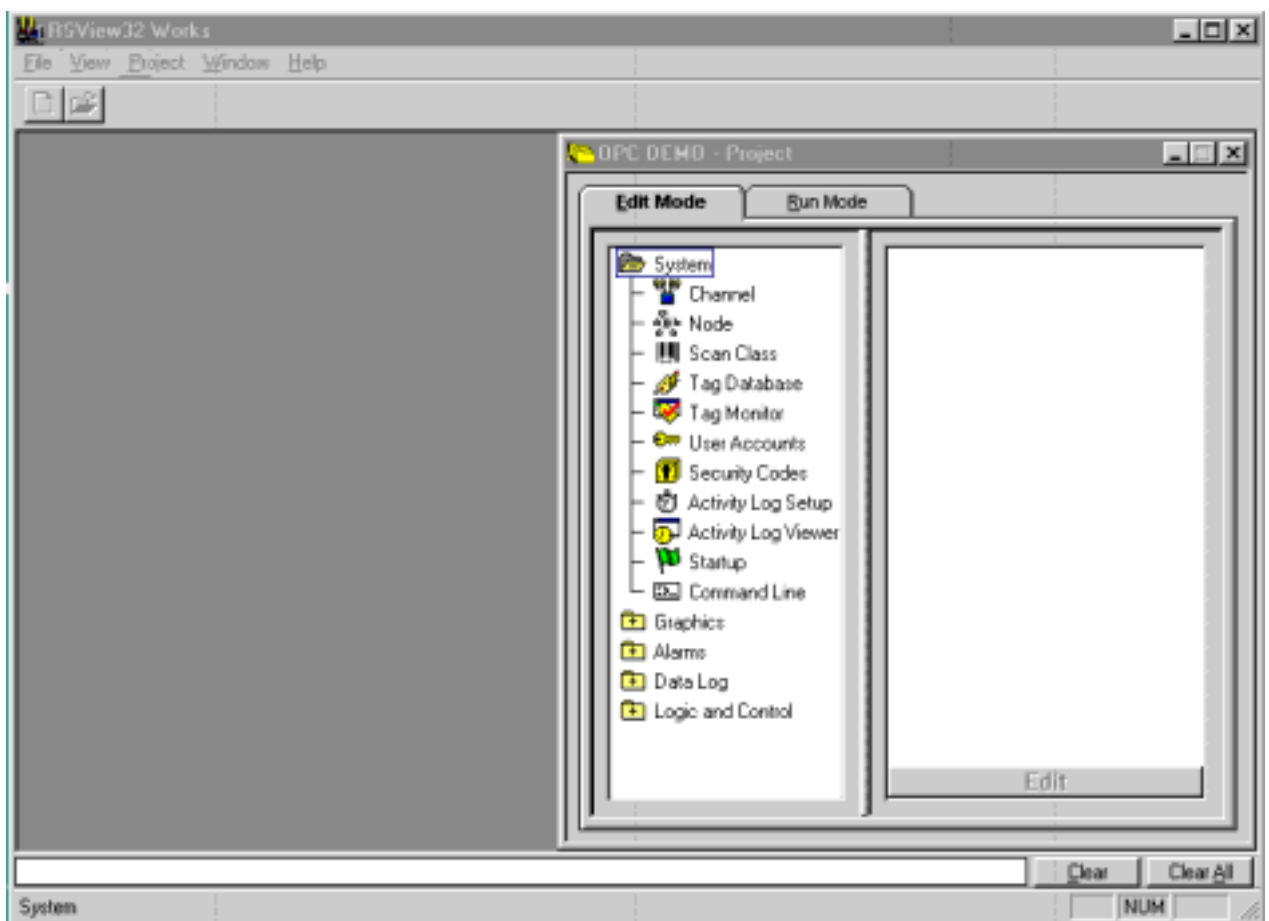
	ProgID	Drive
	.	

**Group**

I/O Type = Asynchronous  
 Data Source = Cache  
 Update Rate = 10  
 % Deadband = 0

**Item**

- ItemID = Item
- Access Path =

**DDE****RSView32**

# OPC

## Node

Data Source = OPC Server  
Name =  
Server Name = OPCTalk.HiEthSvr.1  
Server Type = Local  
Access Path =



## Tag Database

Data Source Type = Device  
Node Name =  
Address = [Topic]!Item



---

# DDE

## Node

Data Source = DDE Server  
Name =  
Server Name = OTHiEth

## Tag Database

Data Source Type = Device

Node Name =  
Address = [Topic]!Item



# 6 Network Data

---

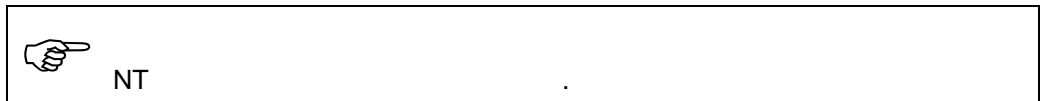
## OPC

---

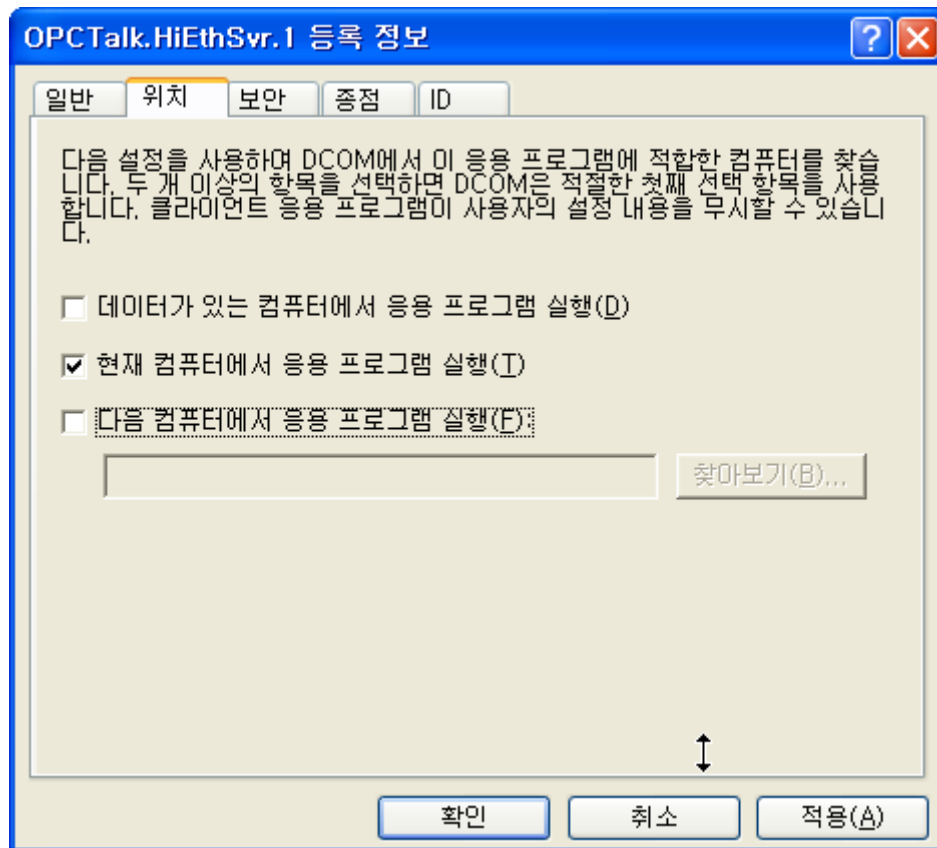
### Server

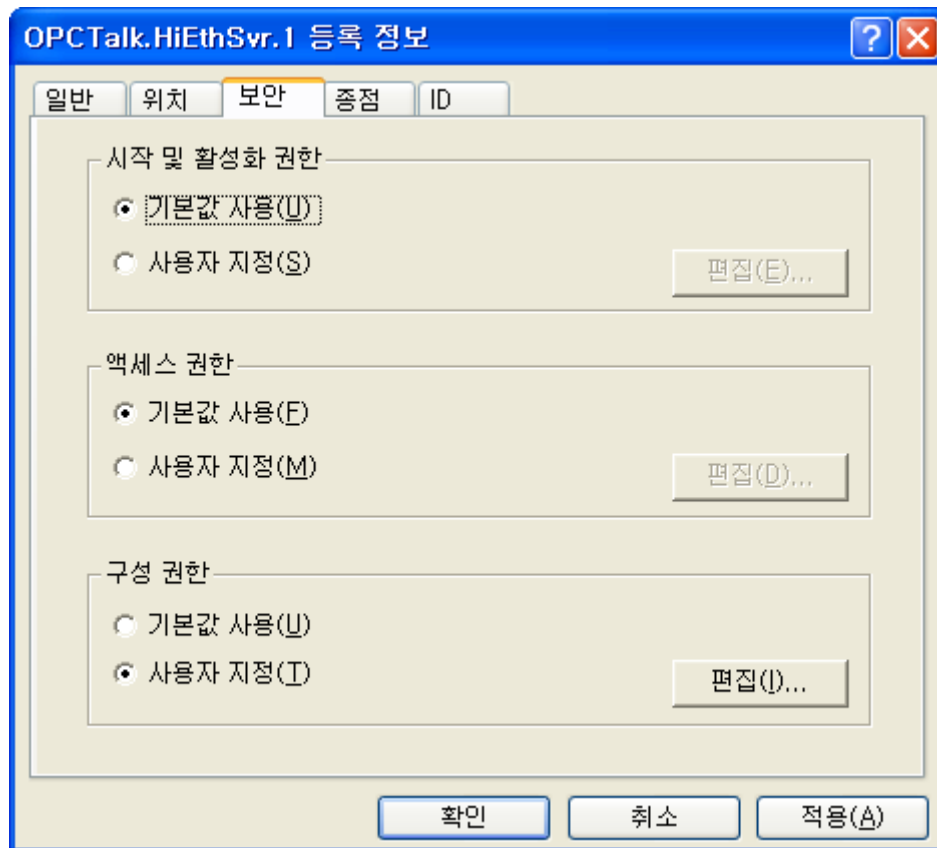
#### DCOM

dcomcnfg.exe .  
-> -> DCOM .



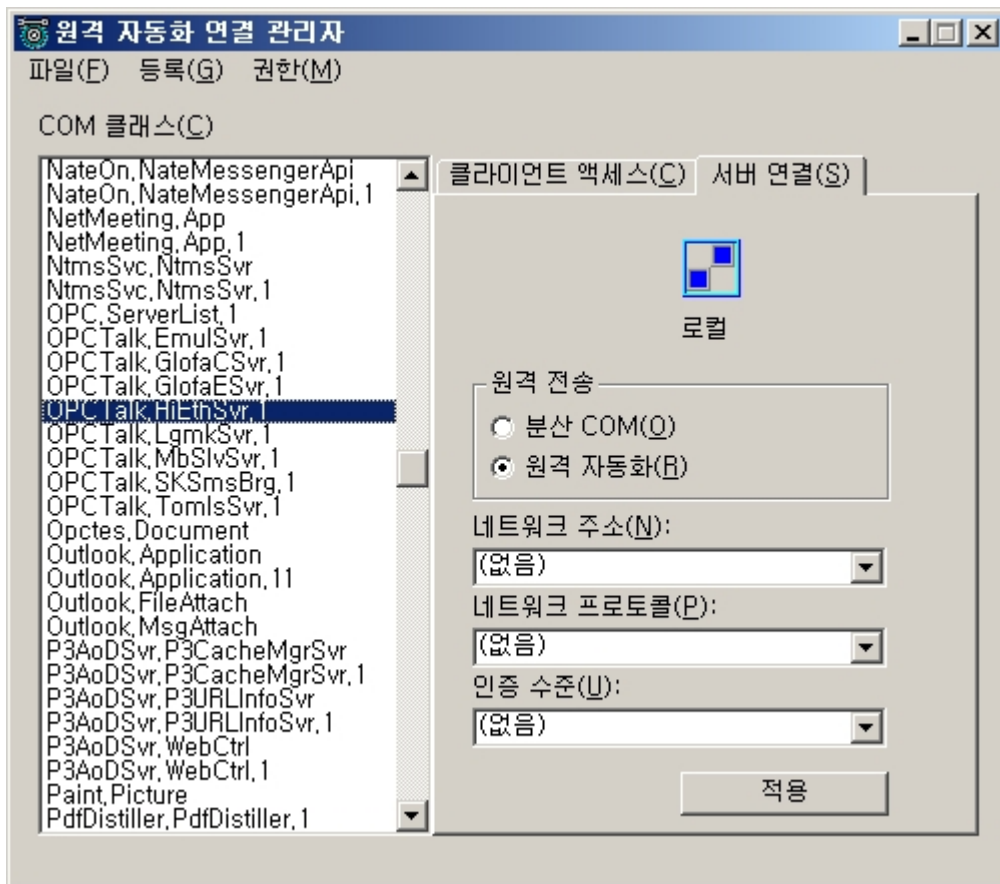
OPCTalk.HiEthSvr.1 .



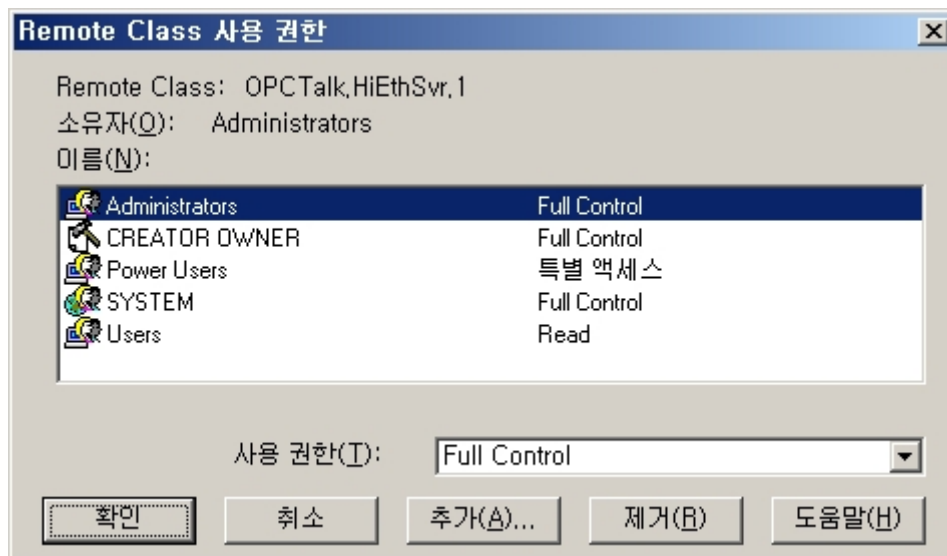


## Racmgr32

racmgr32.exe



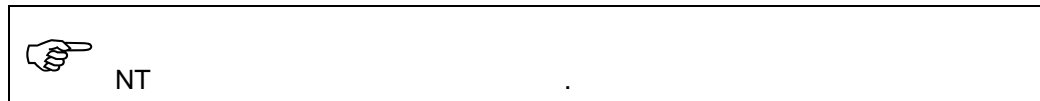
가



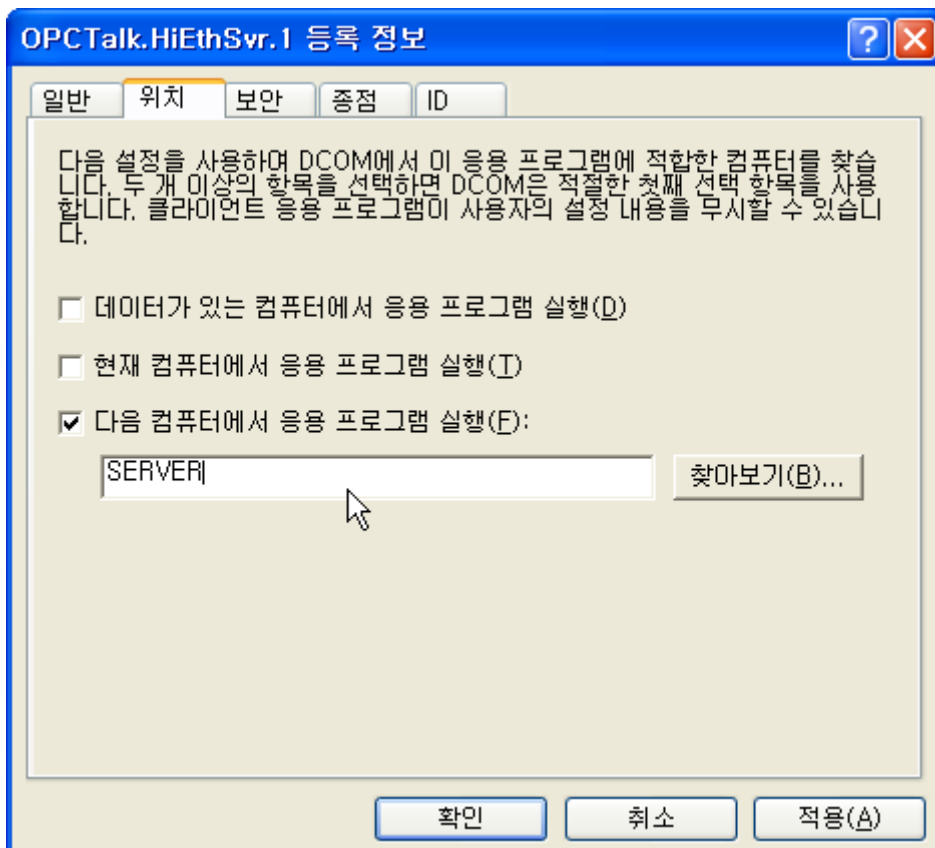
# Client

## DCOM

dcomcnfg.exe .  
-> -> DCOM .

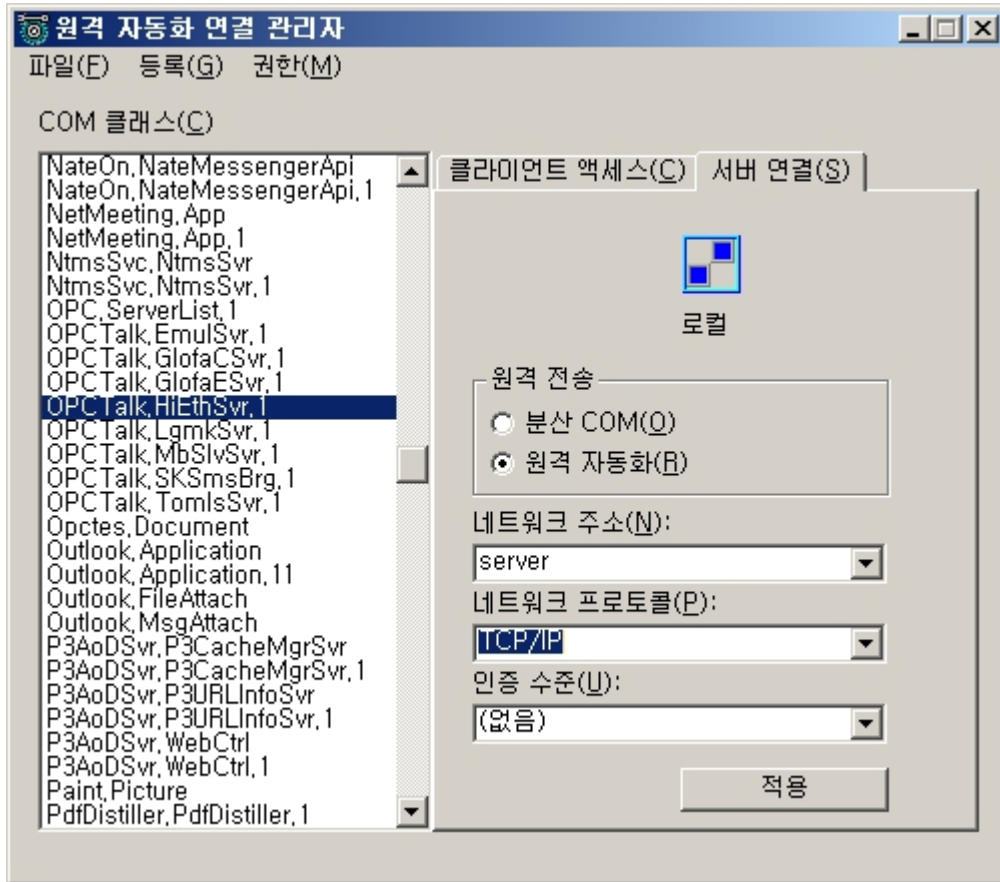


Server OPCTalk.HiEthSvr.1  
server



## Racmgr32

racmgr32.exe



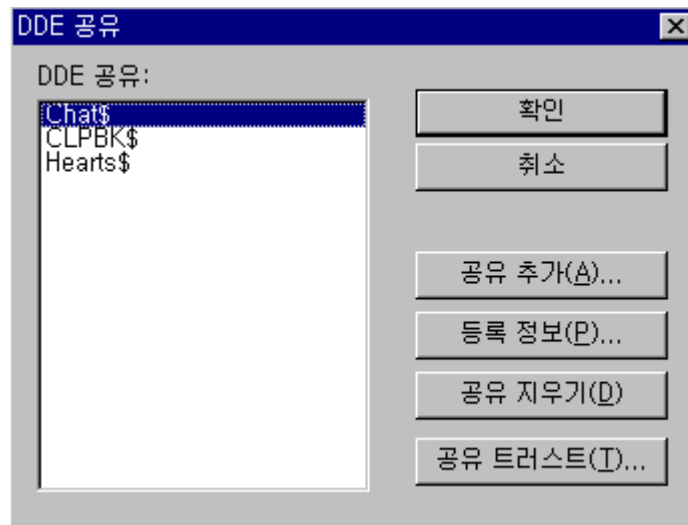
## NetDDE

### Server

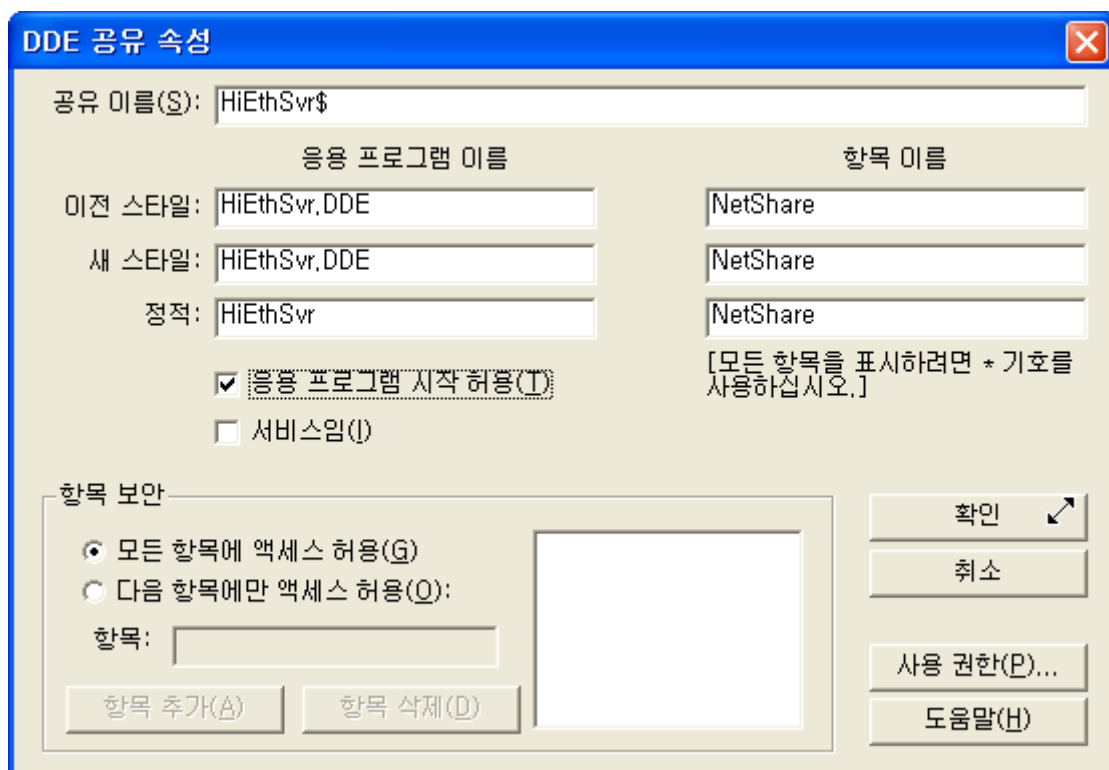
OPCTalk   NetDDE   LAN   가   가   .

Server

“DdeShare”



가



OTHitachiE

topic



---

# 7 Appendix

---

## V3.2.x

### V3.2.0

- 
- ✓ Block 가
  - ✓ OPC2 OPC1 Tag naming
  - ✓ OPC2 Tag Browsing Block 가

- 
- ✓ OPC2

---

## V3.1.x

### V3.1.0

- 
- ✓ S10v, S10mini
  - ✓ Timeout message가 1

- 
- ✓ String Tag memory leakage
  - ✓ 가

## V3.0.x

### V3.0.7

- 
- ✓ Float Event가

### V3.0.3

- 
- ✓ String Tag (null)
  - ✓ String Tag DDE
  - ✓ OPC2 Item

### V3.0.1

- 
- ✓ Item Property Browsing Interface 가
  - ✓ Type 가
  - ✓ IP address Setting 가

- 
- ✓ Export 가
  - ✓ Topic, Item 가

---

## V2.5.x

### V2.5.1

- 
- ✓ 가
  - ✓

### V2.5.0

- 
- ✓ (\$ModeMstr,\$ModeBkup)가 offline quality가 Bad가
  - ✓ Dynamic Tag가 Bit

---

## V2.4.x

### V2.4.3

- 
- ✓ Bit ‘/’ ‘.’ 가

### V2.4.2

- 
- ✓ Invalid Index

## V2.3.x

### V2.3.0

- 
- ✓ Dynamic Scan scan 가. (Client item Block )

## V2.2.x

### V2.2.0

- 
- ✓ Bit Item Read/Write Block Read Write
  - ✓ Blockground Thread

## V2.1.x

### V2.1.9

- 
- ✓ Client Tag Browsing Tree

## V2.1.8

---

✓ Redundancy 가

---

✓ System Tag가

## V2.1.7

---

✓ ScanTime 0 Update가

## V2.1.6

---

✓ System Tag 가  
\$DOONLINE = OnLine  
\$DORESET =  
\$DOEXIT =

✓ File Open csv file  
( .)

## V2.1.5

---

✓ Direct Addressing 가

✓	Direct Addressing	Address:Offset
	Offset Addressing	
	가 Addressing	
		Direct Addressing

## V2.1.4

- 
- ✓ OnLine/OffLine
  - ✓
  - ✓ \$ACTVLINE, \$MODEMSTR, \$MODEBKUP
  - ✓ Hitachi Enet : CPU , Run

- 
- ✓ , 가

## V2.1.2

- 
- ✓ Data Update Time System resource
  - ✓ Socket Error

## V2.1.1

- 
- ✓ OnLine/OffLine
  - ✓ 가

- 
- ✓ Hitachi ENet      MasterK PLC

---

## V2.0.x

### V2.0.6

- 
- ✓ \$TIMEBKUP      65535가

- 
- ✓ \$System 가
  - ✓ \$ACTVLINE 가

### V2.0.5

- 
- ✓ Bit
  - ✓ Win98      Import/Export가

### V2.0.4

- 
- ✓ TCP/IP Slave Mode(Listen Mode)
  - ✓      Byte

## V2.0.3

- 
- ✓ Byte가 New Data

## V2.0.2

- 
- ✓ TCP/IP Slave Mode(Listen Mode)

## V2.0.1

- 
- ✓

## V2.0.0

- 
- ✓ VisualStudio .NET VC++

- 
- ✓ Device 가 OffLine update
  - ✓ On/Off Line
  - ✓ Debug Message가 log
  - ✓ “Cannot Open Master Comm Port” 가
  - ✓ Device
    - SYSMODE\_READY

- SYSMODE\_SUSPEND
- SYSMODE\_ONLINE
- SYSMODE\_ERROR
- SYSMODE\_CONFIG
- SYSMODE\_Remote

---

## v1.9.x

### v1.9.8

\_\_\_\_\_

✓ (offset 가 가 )

\_\_\_\_\_

✓

### v1.9.6

\_\_\_\_\_

✓

### v1.9.2

\_\_\_\_\_

✓ Item Quality가

## v1.9.1

✓ Item Quality가 Update

## v1.9.0

✓ 가 Serial Number

---

## v1.8.x

### v1.8.0

✓ 64Bits Integer Integer Type

- Int8 – 8Bits Signed Integer
- Int16 – 16Bits Signed Integer
- Int32 – 32Bits Signed Integer
- Int64 – 64Bits Signed Integer
- Int8 – 8Bits Unsigned Integer
- Int16 – 16Bits Unsigned Integer
- Int32 – 32Bits Unsigned Integer
- Int64 – 64Bits Unsigned Integer

( 64Bits Integer Double Type Client )

## v1.7.x

### v1.7.0

- 
- ✓ Data Type Unsigned short Short Type
  - ✓ Config File int2, int4
  - ✓ Unsigned Long Event 가
  - ✓ Detail Event Log가
  - ✓ Dialog
  - ✓ 가 Tag About

---

## v1.6.x

### v1.6.1

- 
- ✓ AppID (dcomcnfg )
  - ✓ OPCList v2.0 List
  - ✓ OEM Tag ( 64Tag)

## v1.5.x

### v1.5.3

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✓ PLC 8 8

### v1.5.2

---

✓ Memory가 “Long” 가 65535 .

### v1.5.1

- 
- ✓ Device Has Option field
  - ✓ Memory Block has ScanTime field
  - ✓ Redundancy Supported