

# Koyo®

Value & Technology

HMI Parts • PLC Communication Driver

# Visual Scope

for Microsoft Windows95 / 98 / Me / NT 4.0 / 2000



Let you to transfer PLC data to PC very easily.

Visually operates and displays the status of plants and production line.

Enables you to collect valuable data from of production field.

How about using Visual Scope as a quality control instrument and boost for getting the ISO9000 certification.

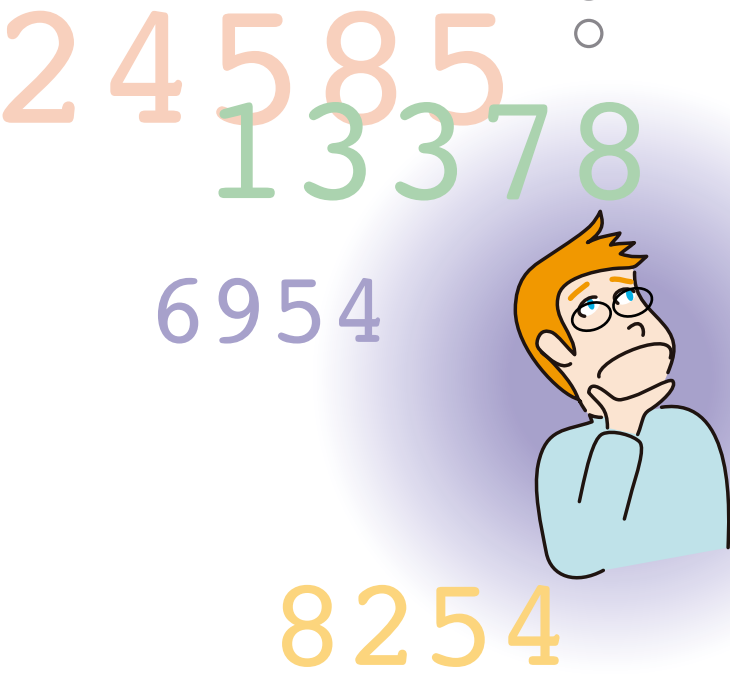
Allows you to analyze production information and PLC status with Microsoft Visual basic and Excel.

**Koyo®**  
光洋電子

# Visual Scope

## It solve your troubles such as...

Today, "quality improvement" and "cost down" are requested at a time.  
Quick and accurate data acquisition is indispensable element.  
Believing to help you to achieve these requirements, we, Koyo, are now offering this system.



I need to connect PLC with PC, but developing a communication-software is a tough work...

Can't I transfer PLC data to Excel automatically? I'm tired with the "manual" input.

I want to keep track of what's going on in the production line by using the web-browser.

I wish I could use Visual Scope as an indicator unit.

Isn't there any way to collect the data from PLC more easily?

# Excellent affinity with any development environment.

Allows you to develop under any kind of environment such as Visual Basic/Excel/Visual C++/Front Page 2000 is possible.

Solve by on-line control  
**Visual Scope  
PLC**  
+  
**ACX<sup>※</sup>**

Solve by easy connection  
**Visual Scope  
PLC**

※Second distribution is authorized for this product.  
(under the conditions of using Visual Basic)

Solve by instrumentation-parts set  
**Visual Scope  
PLC**  
+  
**OCX<sup>※</sup>**

Solve by program-less control  
**Visual Scope  
PLC**  
+  
**LOG**



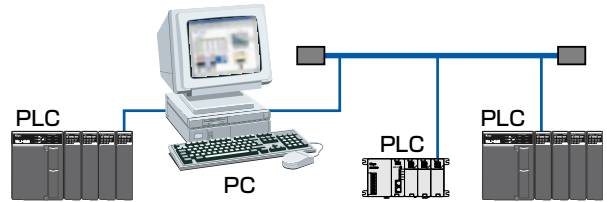


# Visual Scope

**Achieve communication between PLC and PC**

## PLC Communication Software Visual Scope PLC Driver

Visual Scope PLC Communication Software runs on Windows95 /98 /Me /NT /2000, and it brings simple communication between PC and PLC. By using this software, you are able to eliminate the complicated work for preparing communication software and cut the great amount of time for developing your application. And, as a standard option, the DLL function for communication is equipped, so you can apply under various development environments.



- Supporting PLC Model
- KOYO S/2D series
  - MITSUBISHI A/Q/FX series
  - OMRON C/IV/CS/CJ series
  - KEYENCE KZ-300/KZ-A500
  - YOKOGAWA FA-M3 series
  - Matsushita FP series
  - TOYODA PC2 series
  - SHARP JW series
  - TOSHIBA T series
  - YASUKAWA G/M/CP series
- Supporting Application
- VisualBasic
  - Excel
  - VisualC++
  - FrontPage
  - C++Builder
  - Delphi

### Simple Setup

After setting up for communication setting of PLC, adjust the "Properties" window (right) as the content set in PLC.

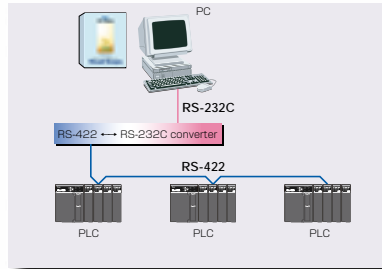


### Debug-mode is Available

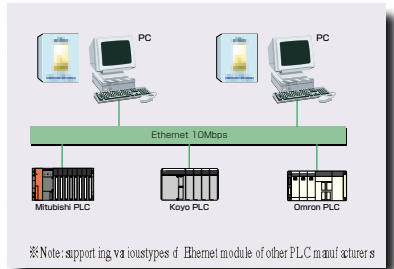
You are able to debug the program without actually connecting PLC to PC.

Variety of Connections is Possible.

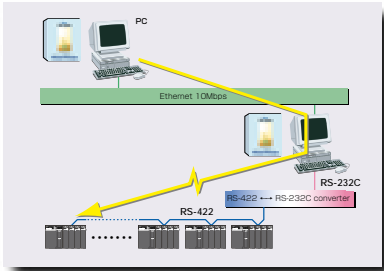
Connecting PC to PLCs by RS-422.



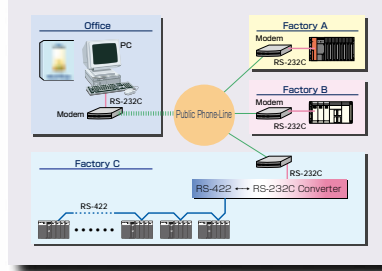
Connecting PCs to PLCs by Ethernet.



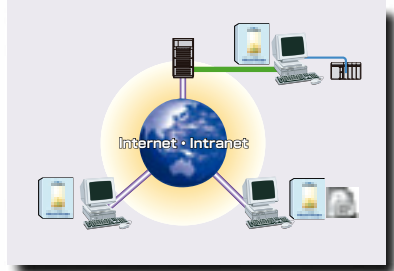
Accessing PLCs located at production field via factory LAN



Accessing remote PLCs by using Modem.



Monitoring PLC by Internet / Intranet.



※Communication driver for our products, "InfoJet" is also available.



Multi Information Terminal  
Windows® CE embedded

## InfoJet

This product features an easy-to-use display and function of PC, and a lot of computer network technologies.

# Expanding the Information from PLC by These 4 Packages



In order to meet the IT age...

## HMI Parts Set of Active X Visual Scope ACX

Visual Scope ACX is the parts set of ActiveX control. You can design operation/monitor screens by development applications support Active X control such as FrontPage, Visual Basic. By combination use with Visual Scope PLC, it enables remote monitoring via Microsoft Internet Explorer.

■ Second distribution free (under the conditions of using Visual Basic)



## Enable to design panels on off-the-shelf software HMI Parts Set of OCX Visual Scope OCX

Visual Scope OCX is the software parts set which runs on Visual Basic or Excel.

We have compactly included the major parts, which are used in production field. You can design high performance operation/monitor screens, by applying simple settings after choosing and attaching the parts you want to layout.

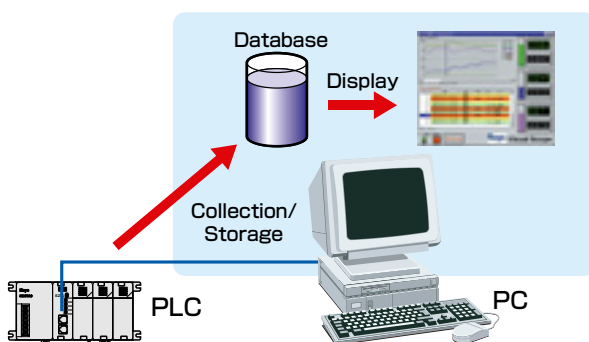
■ Supporting Visual Basic 4.0/5.0/6.0

■ Supporting Excel 97/2000

■ Second distribution free (under the conditions of using Visual Basic)

### Setup at "Property Page".

By combining Visual Scope PLC, you can directly display PLC data. Setup can be easily done on "Property Page".



### Just a setting on Property

By only setting up properties, the designated data area will be stored in the file you specify.

## Record PLC Data without Programming Data Logging · Display Parts Set Visual Scope LOG

Visual Scope LOG is the software parts set which enables to collect the data and display the collected data on Visual Basic or Excel. You can collect, store, and display the PLC data without a complicated programming work. The data will be stored in the Access 97 MDB format, so you can easily to search and process the collected data.

■ Supporting Visual Basic 4.0/5.0/6.0

■ Supporting Excel 97/2000

# Use Visual Scope

## Power Up these Well-known Softwares!!

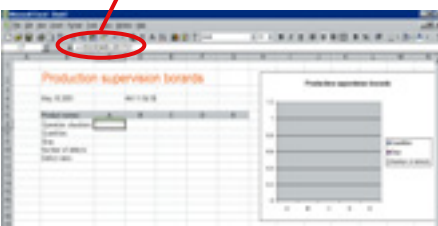


### Power Up Excel

Excel becomes no more than just a software for input and calculation.. It starts to collect data on its own.

Put your PLC's signal name in Excel's cell.  
 ※In the example below, the PLC's register "R2000" named "KOYO" has assigned in the cell "C8".

Write =VSDDE[KOYO!R2000] in cell C8

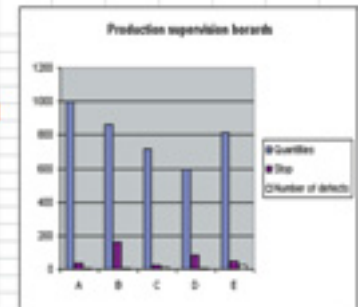


On the surface it looks just like as the sheet which has manually input, but it actually directly displaying the PLC's data on these cells.

Production supervision boards

May 18 2001 AM 11:54:36

Product names	A	B	C	D	E
Operation situations	In operation	In operation	Stop	In operation	Stop
Quantities	1000	863	716	507	813
Stop	35	164	25	86	40
Number of defects	4	7	15	6	24
Defect rates	0.40%	0.81%	2.09%	1.01%	2.95%



Excel is transforming into a new application which can collect online data

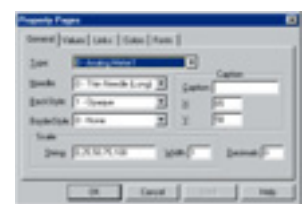
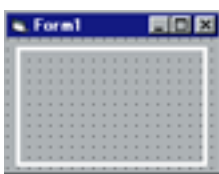
### Power Up Visual Basic

Design a Visual Screen, Even Though You Arn't a Software Exert!

① Add the OCX parts to Visual Basic.

② Select the part and attached it on "Form" at discretionary size.

③ Set up the "Property" of each part.



You have completed the operating and monitoring application!

Only by selecting the parts and applying easy setup, you can design high performance operation/monitor screens by yourself without basic code.












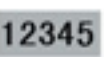





















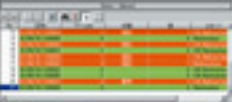

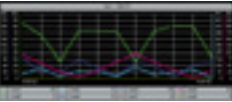


# A Variety of Parts

Abundant Variety of Nice Looking Parts Set Helps You to Design Efficiently.

## Parts List

Types of part (control) comes with Visual Scope OCX/ACX/LOG.

	Icon		Name		Function Description		Display Example	
	OCX	ACX	OCX	ACX	OCX	ACX	OCX	ACX
Visual Scope OCX/ACX			Box	Level	Indicating bar graph or scale. Type---A Bar Graph Progress Bar Indication attribute---Direction (bar)	Darkening inside the control inpercentage. Type---Rectangle, Circle, Triangle, Mask picture Indication attribute---Shape/Direction/ Error Mode		
			Button		In response to ON/OFF of button, turning the bit signal ON/OFF Type---Alternator/Momentary Indication attribute---Character, color, etc on the surface of button			
			Data		Displaying and changing the data. Data attribute---BIN (Binary), OCT (Octal), DEC (Decimal), HEX/BCD (Hexadecimal/Binary coded decimal) Indication attribute---Simple number, indication compiled by comma, 7 segments Communication attribute---Writable/Unwritable			
			Digital Switch		Displays and Change the data by digital switch. Data attribute--- DEC (Decimal), HEX(Hexadecimal) Indication attribute---Number of digit			
			Meter		Indicates the data in analog meter or circular meter. Indication attribute---Unit, Appearance (standard/wide angle), Range, Resolution rate			
			Picture		In accordance with the ON/OFF status of bit signal, displays the specified graphics respectively. Indication attribute---File name of indicated graphics Note: Visual Scope's standard accessory (more than 200 types) or BMP, WMF, ICO file Communication attribute--- Writable /Unwritable	In accordance to the obtained data, displays the specified graphics. Able to move or rotate the graphics. Indication attribute---File name of indicated graphics Note: Visual Scope's standard accessory (more than 200 types) or BMP, JPG file		
			Line	Pipe	Quadrangle box moves on the line in response to the data value. Indication attribute---Direction, Resolution rate, Corner processing			
			Trend Graph SP		Displays the data as a line graph as per time sequence. Indication attribute---Range, Number of pen Communication attribute---Sampling cycle			
			Slider		Not inputting the data by keyboard, but changes the value by sliding knob. Indication attribute---Direction, Resolution rate Communication attribute---Write, Drop/Keep			
Visual Scope LOG		Log Control		Collects the data. Data attribute---MDB format Storage attribute---Type (Data/Alarm summary) Cycle (Timer/Change of status/External Trigger)		Will not display		
		List View Control		Displays the collected data as a list. It is Able to set up two kinds of indication format. (Data display/Alarm summary) Indication attribute---Automatic update, Filter function				
		Trend Graph Control		Displays the data as a line graph as per time sequence. It is Able to set up two kinds of indication format. Lines up to 8 can be indicated. (Real time/Historical) Indication attribute---Automatic update, Filter function				

■Operational Environment (system requirement)

Software	Operating System	Microsoft Windows95 / 98 /Me or Microsoft Windows NT 4.0 / 2000
	Software	Microsoft Visual Basic 4.0 (32bit Version), Visual Basic 5.0 / 6.0, Excel95, Excel97 / 2000, FrontPage
Computer	CPU	PC with more than i486 / 66MHz (Recommend more than i486 / 100MHz)
	Memory	Windows95 / 98: more than 12MB (Recommend more than 16MB)
		Windows NT: more than 18MB (Recommend more than 22MB)
		WindowsMe / 2000: more than 32MB (Recommend more than 64MB)
	External memory units	Hard Disk with more than 20MB storage capacity CD-ROM Drive
External Interface	Communication Port (I/F connection with PLC such as RS-232C, RS-422, Ethernet, etc.) Printer port or USB port (for connection with license key)	

■Specifications

Name	Product No.	Specification
HMI Parts Visual Scope OCX	VS-OCX1	OCX for HMI (8 types) Support container: Visual Basic 4.0 (32bit), Visual Basic 5.0 /6.0, Excel97 /2000
Data Logging Package Visual Scope Log	VS-LOG1	OCX for Data Logging (3 types) Support container: Visual Basic 4.0 (32bit), Visual Basic 5.0 /6.0, Excel97 /2000
ActiveX support HMI Parts Visual Scope ACX	VS-ACX1	ActiveX for HMI (8 types) Support container: Visual Basic 5.0 /6.0, Excel97 /2000, FrontPage
PLC Communication Driver Visual Scope PLC Driver (Support RS-232C / RS-422 connection, Factory LAN, Modem)	VS-DDE1-KE1	DDE Server for Koyo PLC S/20series Support protocol: K sequence, CCM protocol, MODBUS
	VS-DDE1-ME1	DDE server for Mitsubishi Electric PLC A/Q/FX series Support protocol: Protocol format 1, format 4 only for calculator link unit
	VS-DDE1-ME3	CPU Module direct connection DDE server for Mitsubishi Electric PLC A/Q series Support protocol: EZ-Socket
	VS-DDE1-OM1	DDE server for Keyence PLC KZ-300 (KZ-A500 uses VS-DDE1-ME1) Support protocol: Link mode
	VS-DDE1-KY1	DDE server for Yokogawa Electric PLC FA-M3 series Support protocol: Yokogawa PC link
	VS-DDE1-YE1	DDE server for Matsushita Electric PLC FP series Support protocol: MEWTOCOL
	VS-DDE1-NA1	DDE server for Toyota PLC PC2 series Support protocol: Computer link
	VS-DDE1-TP1	DDE server for Sharp PLC New Satellite JW-20, JW-30, JW-50/70/100 series Support protocol: Computer link (command mode)
	VS-DDE1-SP1	DDE server for Toshiba PLC T series Support protocol: Computer link
	VS-DDE1-TS1	DDE server for Yasukawa Electric PLC GL/MP/CP series Support protocol: MEMOBUS (RTU)
PLC Communication Driver Visual Scope PLC Driver (Support Ethernet connection, Factory LAN)	VS-DDE1-KE2	DDE server for Mitsubishi Electric PLC A/Q series Support protocol: Ethernet Interface Unit E71
	VS-DDE1-ME2	DDE server for Omron PLC SYSMAC $\alpha$ , CS/CJ series Support protocol: FINS
	VS-DDE1-OM2	DDE server for Yokogawa Electric PLC FA-M3 series Support protocol: Yokogawa PC link
	VS-DDE1-YE2	DDE server for Matsushita Electric PLC FP series Support protocol: MEWTOCOL
	VS-DDE1-NA2	DDE server for Sharp PLC New Satellite JW-20, JW-30, JW-50/70/100 series Support protocol: Computer link (command mode)
	VS-DDE1-SP2	DDE server for Toshiba PLC T series Support protocol: Computer link
	VS-DDE1-TS2	DDE server for Yasukawa Electric PLC GL/MP/CP series Support protocol: MEMOBUS (RTU)
Package Printer Port Connection ※	VS-CDKIT-AT	License key only for USB port
Package USB Port Connection ※	VS-CDKIT-USB	1. Communication Server for all maker's PLC supporting PLC communication driver 2. ActiveX (8 types) for HMI
Windows CE version (for InfoJet)	VS-AX1	

※ Need to indicate package type when you order. Please have a choice on specific package.

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