KEYENCE

Data Collection/Transfer·Monitoring Software
KV COM+

For collecting/changing field data in real time

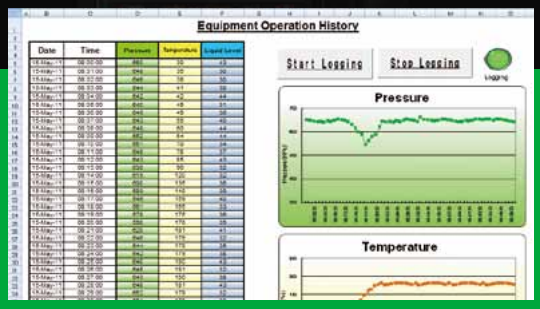
KV COM+

KV COM+

A single software enable 3 functions as follows:

- monitoring
- acquisition
- change

of field PLC data.



Data acquisition function embedded in Excel

Devices in PLC can be embedded and saved in Excel without the use of other programs.

3 basic functions in KV COM+

Common applications used for PC and PLC installed. They can be used as Excel Plugin, facilitating generation of diagrams.

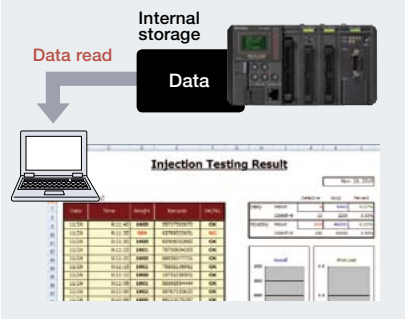
*Feature of KV COM+ for Excel

High Performance

Real-time acquisition and tracing

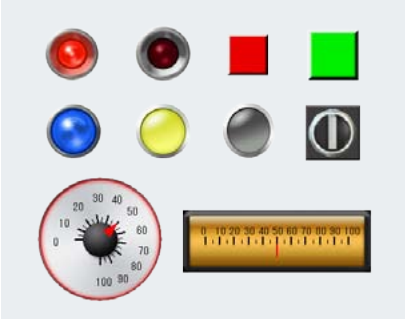
INDUSTRY FIRST

The new technology allows reading of data into the PC while buffering data in PLC, facilitating high-speed recording (10ms) and sampling within a scanning period when tracing.



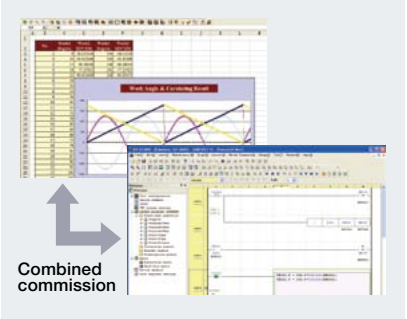
GUI tool as standard

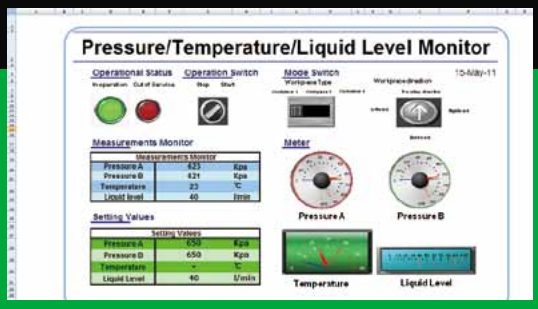
Standard components such as Switches, indicators and instruments are available in order to enhance the visibility and operability on PC, facilitationg shorter development period and higher visibility.



Easy commissioning

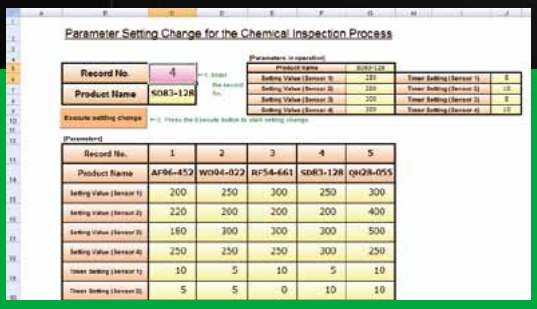
PC applications created with KV COM+ and simulator function of KV STUDIO are integrated and communication between them is possible, which allows commissioning without PLC.





PLC Monitor for monitoring from PC

Status of PLC devices sent from file to PC can be displayed in real time.



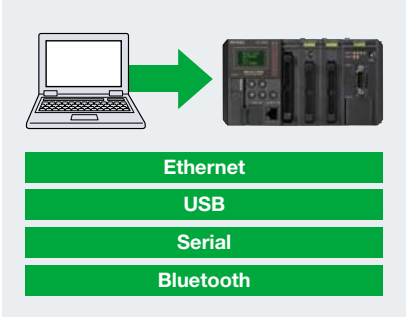
Batch replacement of Data Folder

With Excel lists, setpoint in PLC can be replaced in batch.

Free Connection

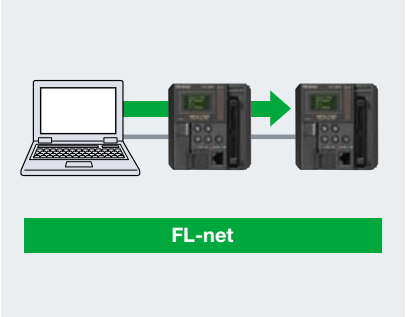
Various communication pathes

KV COM+ supports various communication pathes between the PC and PLC. Wireless connection is possible via Bluetooth and the optimal system compliant with customer's requirements and enviroment can be built.



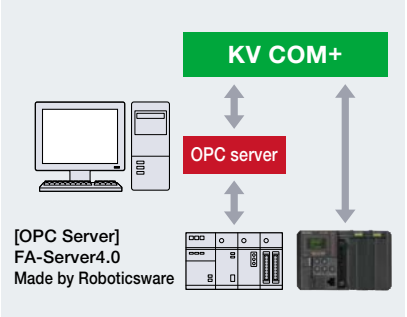
Various connection modes

Suppots and FL-net commnunication. In the case of several PLCs, access can be done via any PLC without re-cabling.



Communication with PLCs from other companies via OPC server

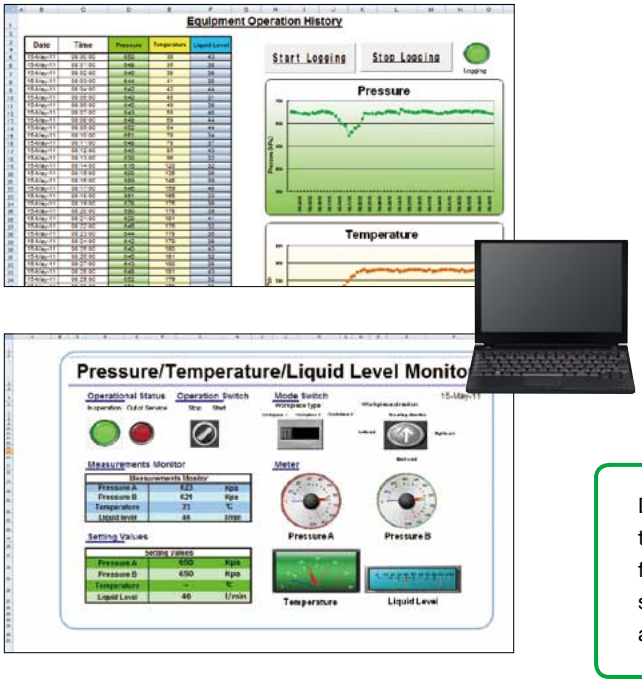
OPC server can be installed on the device to be connected. Even if PLCs form other companies exist in a system, system building can be done easily with KV COM+.



"Watch" and "Log" every data in the PLC

In order to ensure traceability, field production data should be collected from PLC, however, a special system is required.
But cost can be very high.
Is a data collection with high degree of freedom at reasonable price available...?

KV COM+ Can be solved!



KV-5000/3000

Data can be collected from KV-5000/3000 series installed on the equipment. Data acquisition/monitoring can be performed for CPU device, value of analog unit, measured value from serial communication. Formatting and trigger can be set arbitrarily, so it may also be used to generate daily reports.

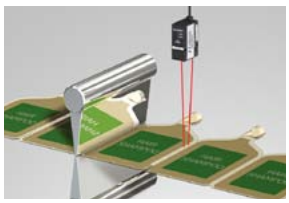
APPLICATIONS

Pressure management of hydraulic machine

Pressure

A/D conversion unit

Sealing temperature control



Temperature

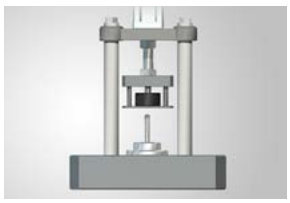
Temperature input unit

Acquire measured film width

Measured Value

Serial communication unit

Press-fit machine



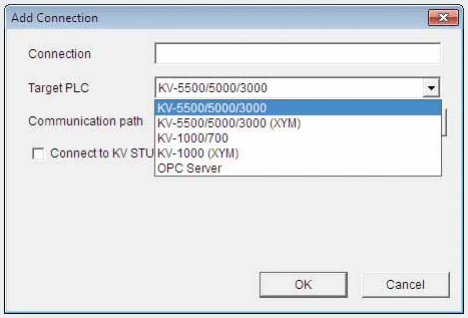
Current coordinate

Positioning unit

These data may also be collected and monitored by KV COM+!

The setting method is very easy !

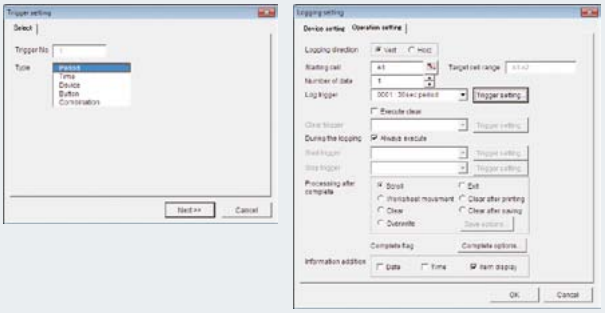
step 1



Firstly, select the PLC to be connected. Any of the following methods may be selected:

USB | Serial | Ethenet | Bluetooth

step 2

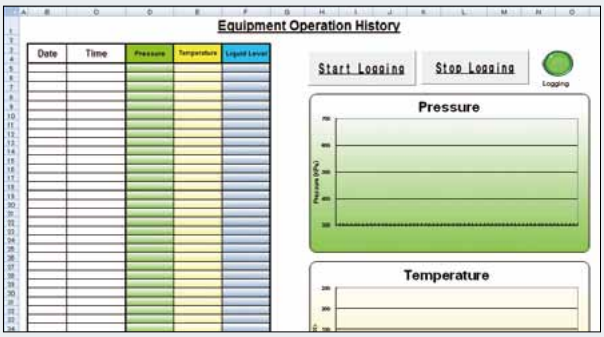


Then, set the trigger and device. Any of the following items may be selected for trigger:

Period | Time | Device | Button | Combination

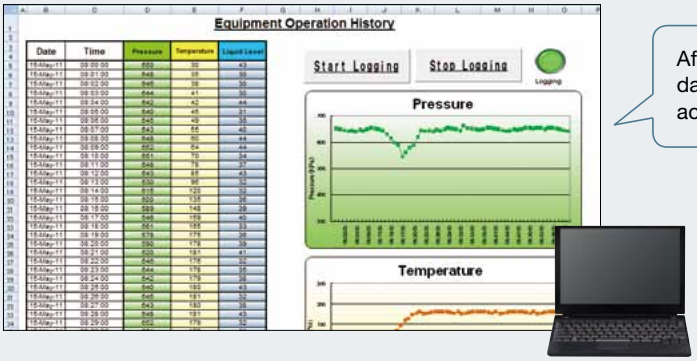
Record beginning, ending time point may be set arbitrarily.

step 3



Generate corresponding format on Excel. Or plot. Or generate in the company's format.

Setting is completed, and start communication!

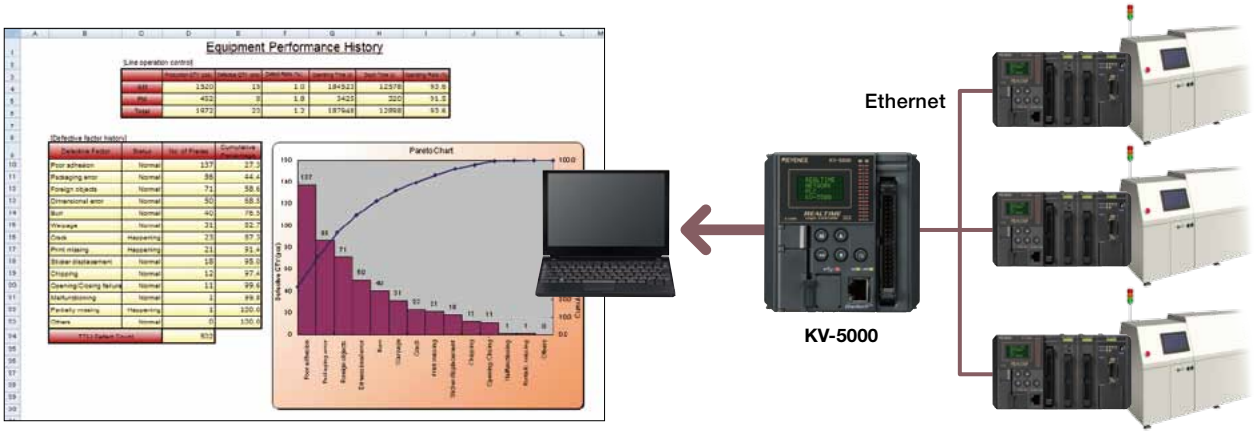


After communication starts, data is collected from PLC according to the set trigger.

Real-time monitoring of production line and equipment

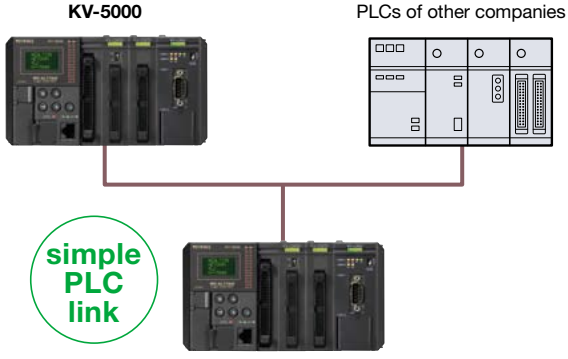
In traditional mode, alarm is filled manually on site,
so it is difficult to carry out statistics and management.
It will be more troublesome if it goes missing.
What's more, there are several equipments on site,
it will be much easier if all equipments may be monitored at one time...

KV COM+ Can be solved!



Equipment operating state may be monitored remotely from the office, for example, alarm conditions and occurrence times of each equipment. (Accumulated occurrence time, message may also be monitored, saved) History records may be monitored and saved, so data such as operating rate may be produced easily. It may also be shown as a Pareto diagram, so high frequency error of each equipment may be viewed. These data may be used as analytic data to increase equipment operating rate.

APPLICATIONS



DeviceNet
Ethernet
CC-Link

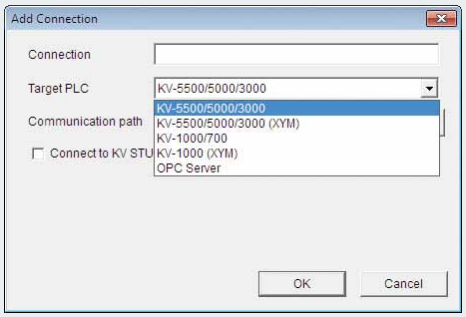
Batch monitoring may be performed after the PLCs on site are connected correctly. Select from the following connection methods:

- Simple PLC link function (via Ethenet)
- CC-Link
- DeviceNet™
- Ethernet

These data may also be collected and monitored by KV COM+!

Setting method is very simple! Alarm Setting Part

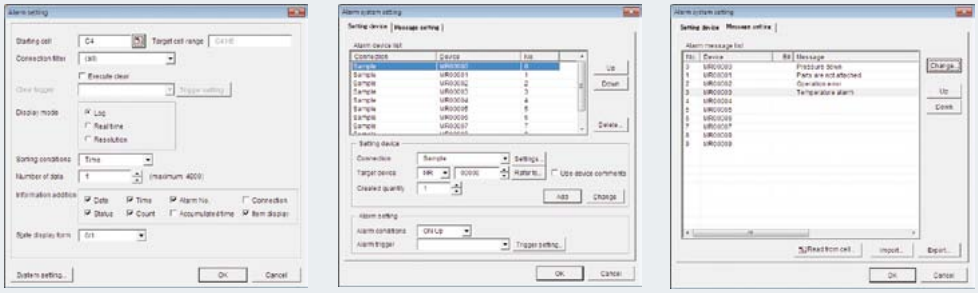
step 1



Firstly, select the PLC to be connected. Select any of the following methods:

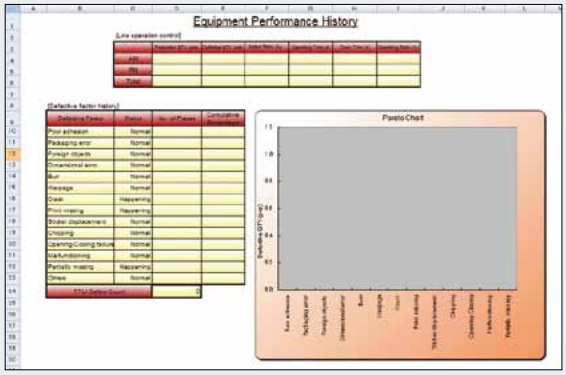
USB | Serial | Ethenet | Bluetooth

step 2



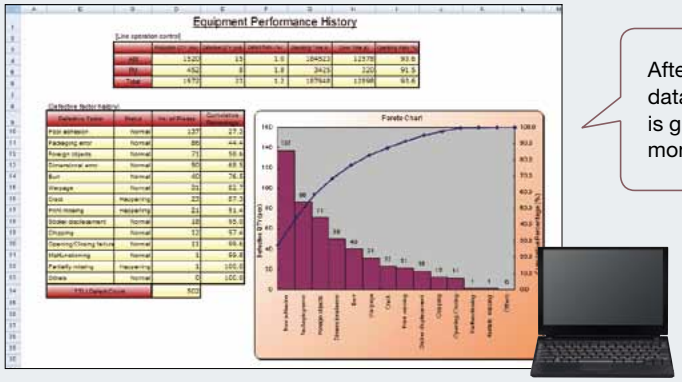
Set the device to aquire data, target alarm, alarm notes.
Notes in the ladder diagram may be imported as notes here.

step 3



Generate corresponding format on Excel Pareto diagram can be generated via wizard of Microsoft Excel function.

Setting is completed, and start communication!

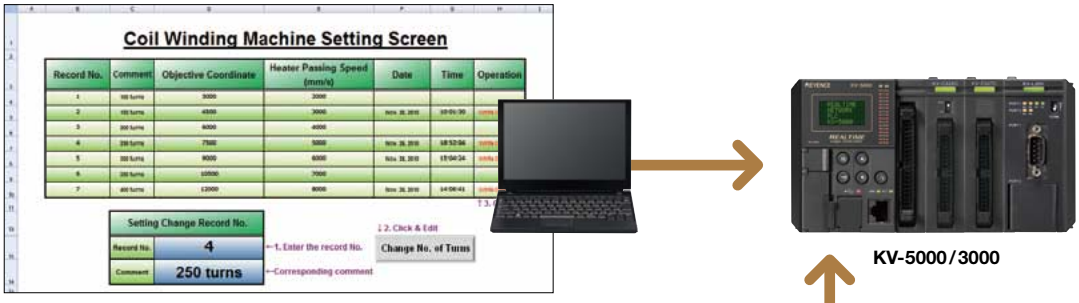


After communication starts, data are displayed when alarm is given. History record can be monitored and saved.

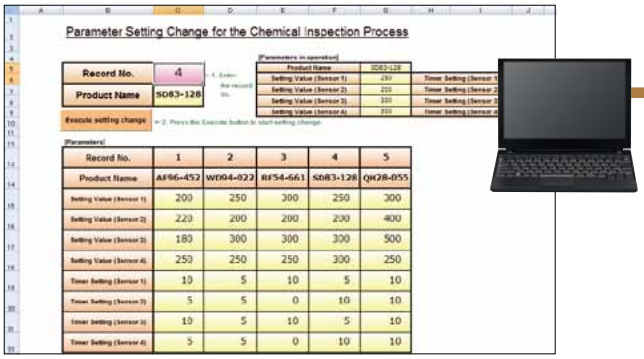
Batch write the parameters of the PLC to change the set-up

In traditional mode, setpoint has to be modified one by one for the change of each variety. Recently, setting of items has been increasing, it is very troublesome. In addition, varieties are always added, so, it will be much better if a tool for easy addition and deletion is available...

KV COM+ Can be solved!



KV-5000/3000

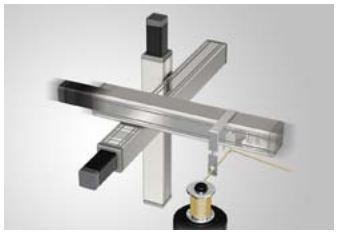


Setpoint and conditions of different varieties can be registered in advance. Writing in PLC in just one step enables to reduction of workload. After input auxiliary information acquisition function is used, parameter name can be input, device No. becomes irrelevant. Setting error can also be prevented.

APPLICATIONS

Set-up change of different products.

Modify target coordinate and moving speed etc of the location unit in batches.



Combination of KV series with KV COM+ allows the following functions:

Write DM value in batches

When the variety changes, complicated ladder diagram for changing can be cut down.

Current status can be monitored in real time

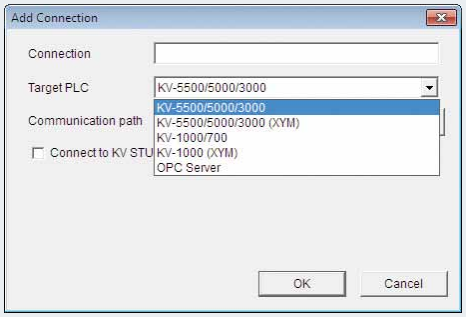
PLC conditions and operating data can be monitored, so action can be acknowledged easily at the time of startup.

Read / write buffer easily

Special instructions/statements allows to changing of settings, without creating program that is troublesome to read and write (KV MOTION series)

Setting method is very simple! Alarm Setup Part

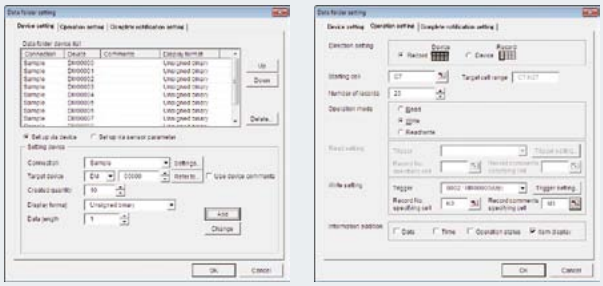
step 1



Firstly, select the PLC to be connected. Select any of the following methods:

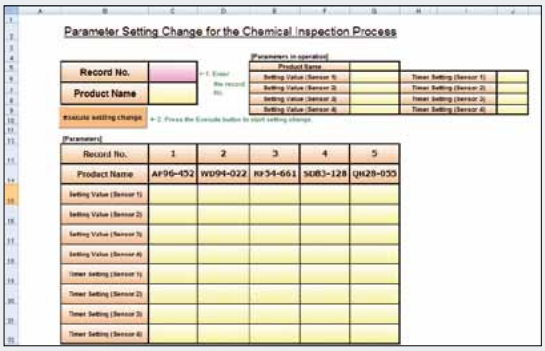
USB | Serial | Ethenet | Bluetooth

step 2



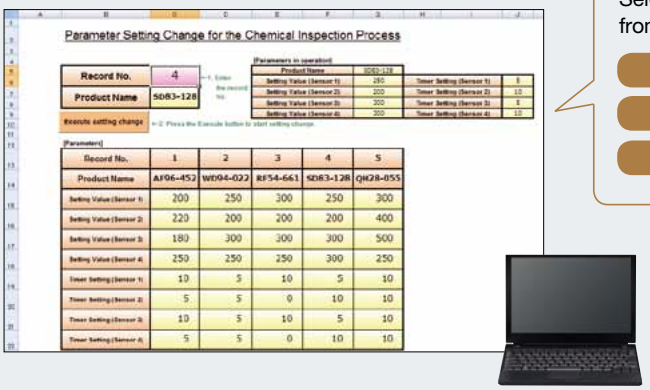
Then set the mode to write device No. and format. Number of arbitrary records (varieties) may also be set.

step 3



Generate corresponding format on Excel. After button part is used, write operation may be executed on Excel.

Setting is completed, and start communication!

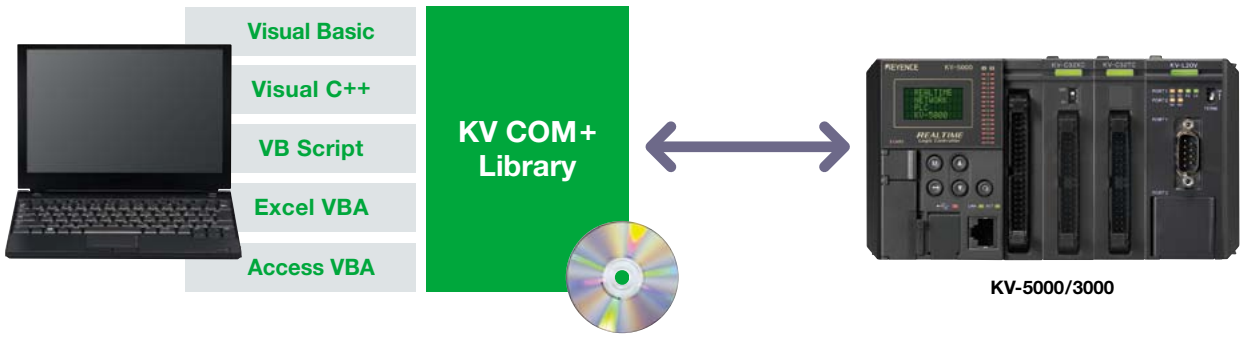


While changing the setting, data can be written in PLC. Selected write-in time point from the following items

Period | Time | Device | Button | Combination

Embedded in the company's existing applications

In traditional mode, the communication program is required to link PLC with the applications developed by the company.
However, "KV COM+ Library" can reduce development workload of communication program.



What is KV COM+ Library? ActiveX database for communication with KV series

In case of data exchange between PC and PLC, because KV COM+ Library can be embedded in VB, VC and other user-developed applications, program-free connection with PLC is possible. It is unnecessary to be concern about the Ethernet communication or serial communication and other complicated communication protocols.

Supported development language

- Visual Basic6.0/2010/2008/2005/.NET2003
- Visual C++6.0/2010/2008/2005/.NET2003
- Excel2010/2007/2003/2002/2000
- Access2010/2007/2003/2002/2000
- VB Script*

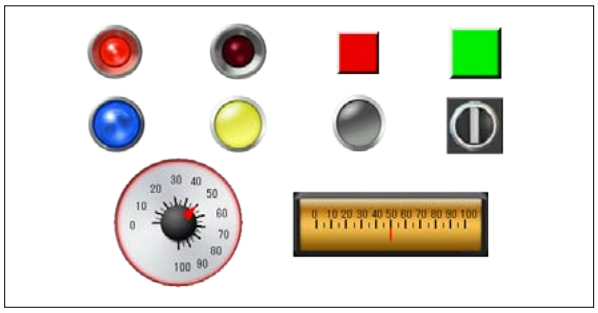
*Only support DBCommManager

Supported OS

- Windows 7
- Windows Vista (only limited to 32 bit version)
- Windows XP
- Windows 2000 (above SP3)

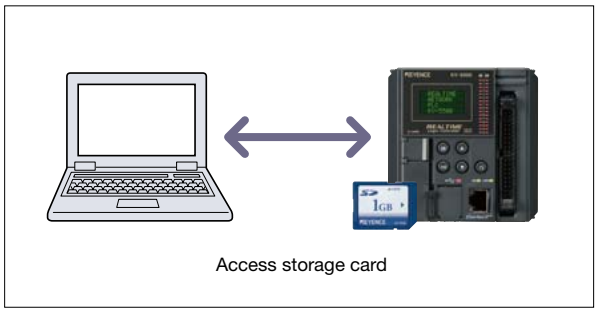
GUI components has enhances visibility

With GUI components used, the visibility and operability on PC can be enhanced greatly, and creation workload of switches and indicators etc can be avoided.



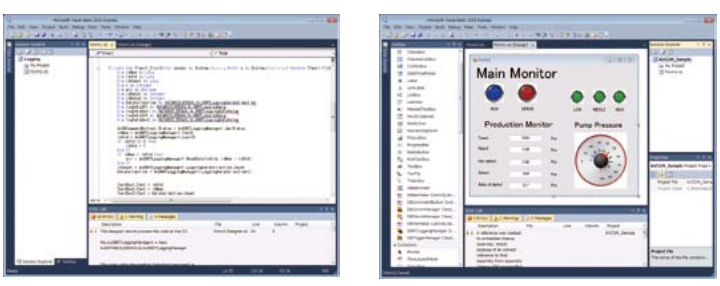
Read / write files with SD card

SD card for accessing PLC can read the recorded data files, or write the files from PC to SD card.



Program and Screen Example

Use Visual Basic for programming as usual, and use KV COM+ Library GUI components to create the screens with same high resolution as the customer's picture.

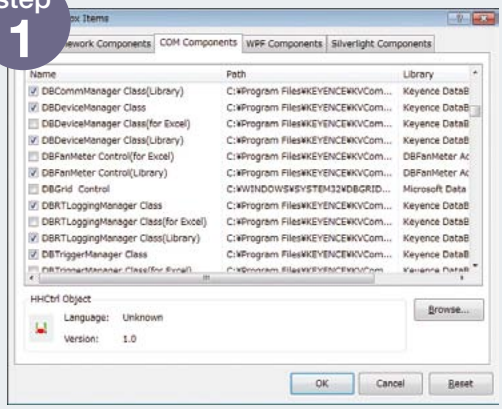


Just several steps for setup

Most attributes can be set via attribute screen easily, it is unnecessary to integrate complicated communication programs, thus reducing coding workload significantly.

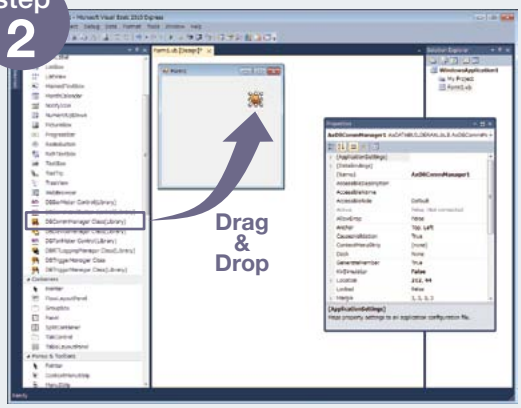
Program example of Visual Basic to read PLC device value

step 1



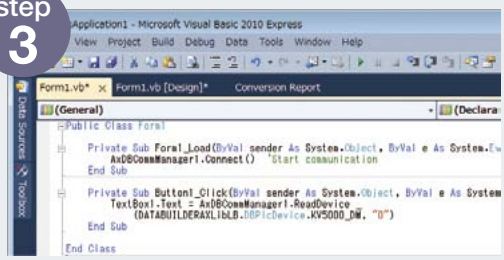
Components required to register from COM component tab.

step 2



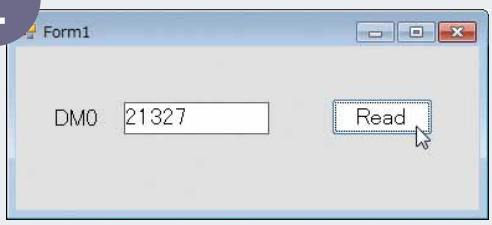
Paste Activex controls into form, perform communication setting via attribute.

step 3



Prepare the program to read device.

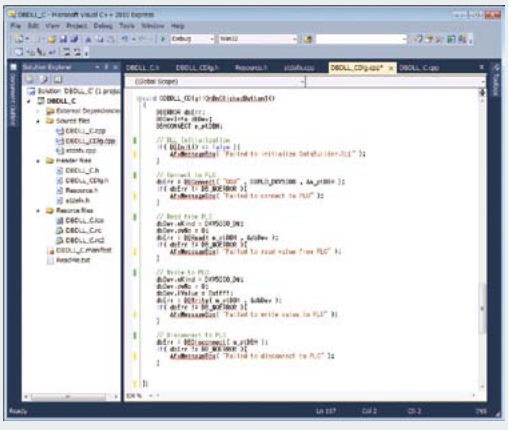
step 4



Only these settings are required for reading.

Visual C++ programming example

Not only Visual Basic, communication connection/ disconnection , device read/write etc may also be realized easily in Visual C++, irrelevant to communication protocol.



KV COM+ and Visual C++ functions

Classification	Operation	Detail
Communication	Connection	Connected with PLC.
	Disconnection	Disconnected from PLC.
Device	Binary read	Read device in binary (value).
	Text read	Read device in text (character string).
	Binary write	Write in the device in binary (value).
	Text write	Write in the device in text (character string).
	Acquire notes	Acquire device notes.
Operating state	Acquire status	Acquire PLC RUN/PROG status.
	Set state	Set PLC RUN/PROG status.
Alarm	Acquire current status	Acquire current PLC error.
	Acquire history record	Acquire error history record in PLC.
	Cancellation	Cancel current PLC error.
Memory card	Read file	Transfer files in the memory card to the PC.
	Write file	Transfer PC files to the memory card.
	Copy file	Copy files in the memory card.
	Acquire document status	Acquire time stamp etc states of files in the memory card.
	Delete file	Delete files in the memory card.
	Change file name	Change file name in the memory card.
	Acquire file quantity	Acquire file quantity of designated directory in the memory card.
	Acquire documents list	Acquire file name list of designated directory in the memory card.
	Create directory	Create new directory under the designated directory in the memory card.
	Delete directory	Delete existing directory under the designated directory in the memory card.
	Acquire remaining capacity	Acquire remaining capacity of the memory card.
Other	Set clock	Set PLC clock.
	Type query	Query PLC type.

License registration may be performed from a dedicated website!

step 1

Please access special address indicated on the purchased CD-ROM enclosure. Select a user language from Japanese, English, Chinese.

step 2

According to prompt on the interface, input license registration NO. bound with CD-ROM.

Thus, registration is completed!

Software List/Specification

•Software List

Name	Model	Comment
Data Collection / Transfer·Monitoring Software	**KV-DH1E**	KV COM+ for Excel
	KV-DH1E-5	KV COM+ for Excel (5 Licenses)
	KV-DH1LE	KV COM+ Library
	KV-DH1LE-5	KV COM+ Library (5 Licenses)

•Development environment

Name	Language	OS
KV COM+ for Excel	Excel 2010/2007/2003/2002/2000	Windows 7 / Vista (32-bit version only) / Windows XP / Windows 2000 (SP3 or later)
KV COM+ Library	Visual Basic 6.0/2010/2008/2005/.NET2003 Visual C++6.0/2010/2008/2005/.NET2003 Excel 2010/2007/2003/2002/2000 Access 2010/2007/2003/2002/2000 VB Script*	Windows 7 / Vista (32-bit version only) / Windows XP / Windows 2000 (SP3 or later)

* Only support DBCommManager

•Operating environment

Item	KV COM+	
OS	Windows 2000 (SP3 or later) / XP	Windows Vista (32-bit version only) / 7
CPU	Pentium 800 MHz or higher (1 GHz or more is recommended)	Processor recommended by Microsoft
Memory	256 MB or more	Memory recommended by Microsoft
CD-ROM drive	×2 or faster	
Hard drive space	200 MB or more	

*Microsoft Internet Explorer Ver 6.0 or later must be installed on your PC. Microsoft Office 2010, 2007, 2003, 2002 or 2000 needs to be installed.

KEYENCE

Please visit: www.keyence.com

SAFETY INFORMATION
Please read the instruction manual carefully in order to safely operate any KEYENCE product.

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