

MONITOUCH PLUS EXPRESS

Volumes 1-21

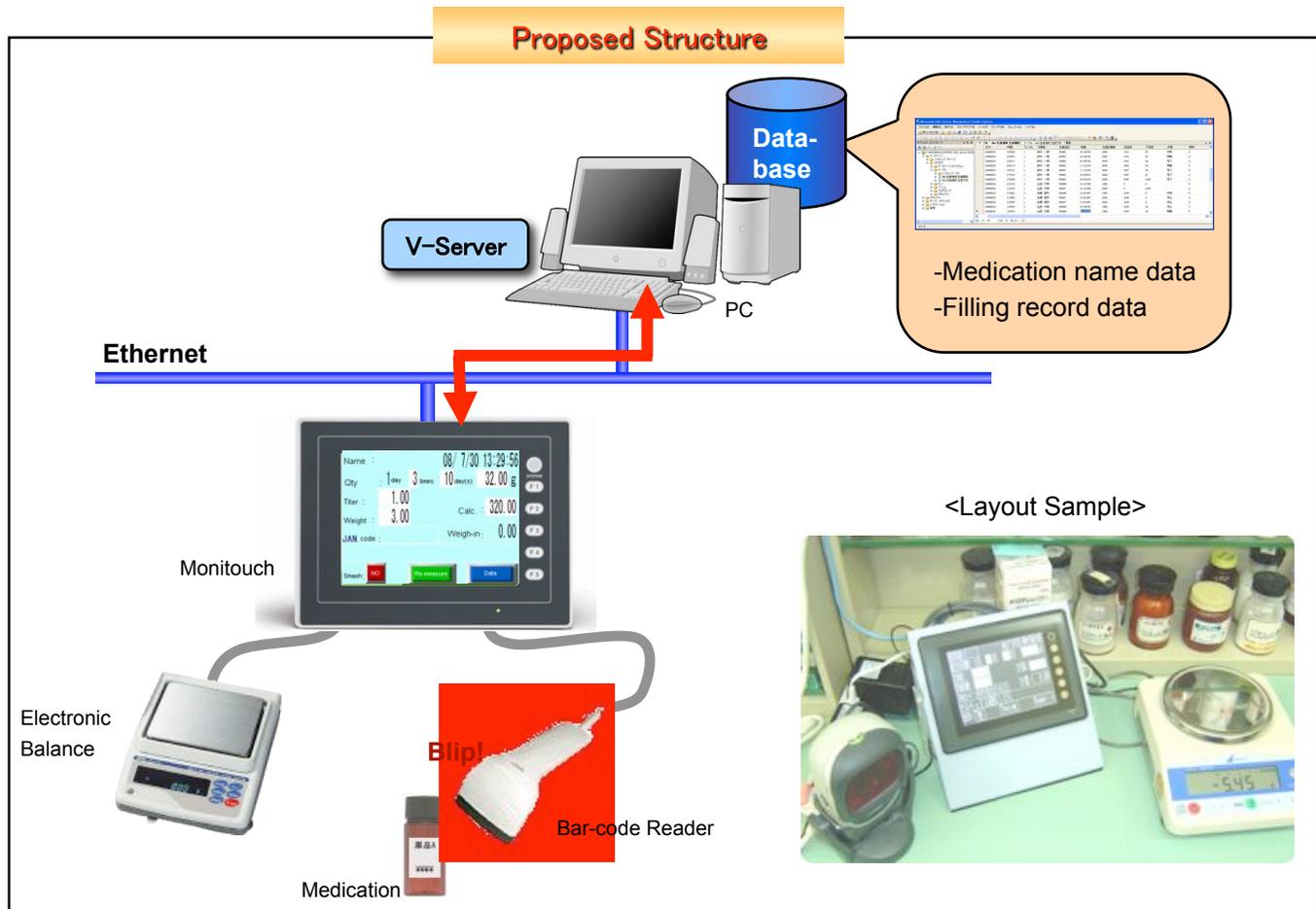
- Volume 1:** Traceability
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- Volume 3:** MES Interface
- Volume 4:** Network Camera
- Volume 5:** Monitouch lineup
- Volume 6:** MES Interface 2
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- Monitouch Express Drive Connection 2



Medicinal Powder Audit System (Traceability)**Background**

After the medicinal powders were filled, visual check and final mass verification of the medication were formerly performed by different person from the one who have actually handled filling.

This system was introduced to computerize the filling record and to simplify the operation.

**System Configuration**

- 1) Electronic balance for measuring and bar-code reader for reading the name of the medication are connected to Monitouch.
- 2) PC and Monitouch shall be connected via Ethernet.

Nuts and Bolts of Improvement**1) Traceability**

Measured data delivered to Monitouch will be saved in the database via Ethernet.

Relevant information will be printed on the receipt printer when filling has finished.

2) Confirming Work Automation

Automatic comparison and determination of the prescription data, measured value, and medication, previously managed in the database, are possible.

Automated confirming work helps the workers to perform the filling by themselves without anxiety.

Nuts and Bolts of System Realization

1) 8-Way Communication

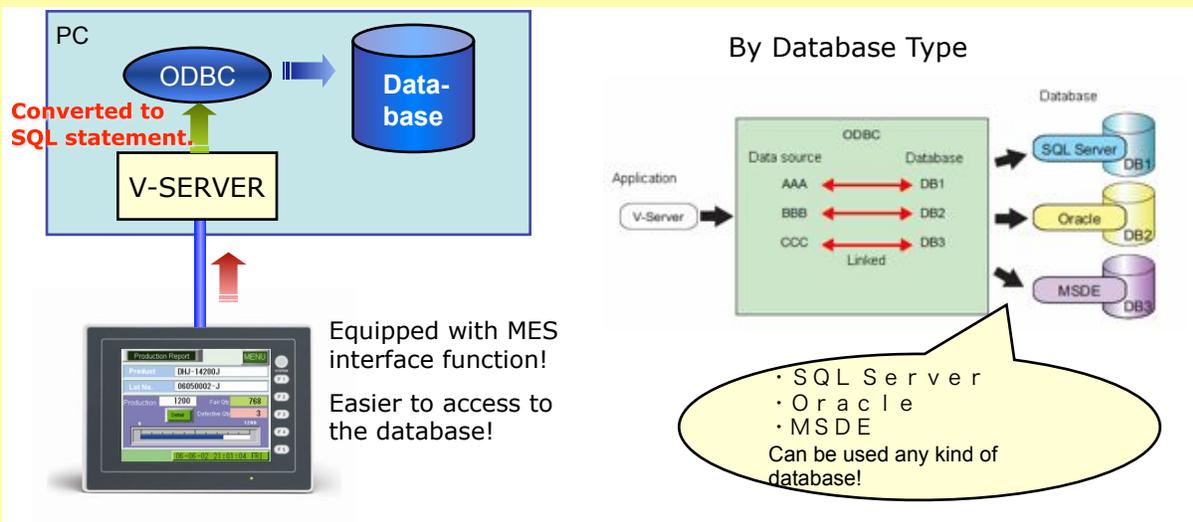
“8-way communication” is the function, which enables the connection among a V8 and up to eight kinds of devices consisting of PLCs and peripherals of different manufacturers with the combination of the Ethernet connection and the serial connection.

→ The bar-code reader and the electronic balance can be used at the same time.

2) MES^{*1} Interface Function^{*2}

Various kinds of information such as the data of production records, defect quantity, and error causes can be sent to the MES database server via V-Server in SQL statement. Communication with the database is possible without the gateway PC or complicated programming.

→ It is simply possible to read the data of the bar-code attached on the medication, to search/display the medication name in the database, and to record the result of filling in the database.



*[MES] Manufacturing Execution System

It refers to the “Manufacturing Execution System,” which is the management/production control system for optimizing product quality, product quantity, delivery date, cost, and etc. at production sites.

*2 Available from V-SFT-5 Ver.5.2.0.0 in V8.

Added the Form of License Authentication

In addition to the existing form of license by PCID, the license authentication by USB is now available.

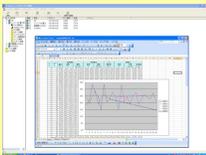
SOFT MONITOUCH

TELLUS and V-Server

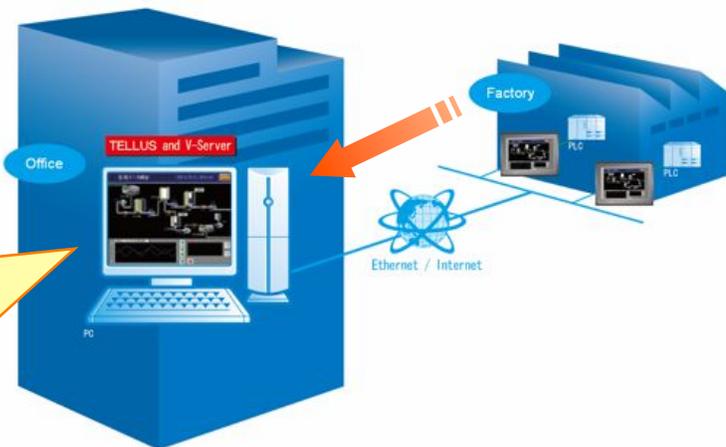
“TELLUS and V-Server” is capable to realize the remote maintenance by remotely connecting the office PC and the on-site Monitouch.



On-site Monitouch data can be monitored from the office.

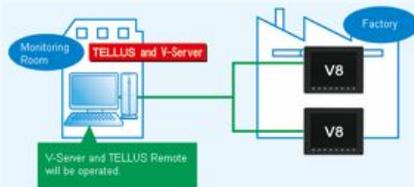


Real-time on-site data Collection and storage.

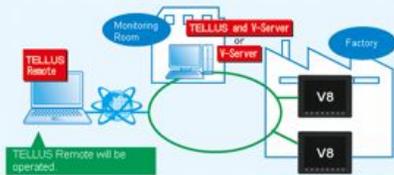


Remote monitoring is realized by easy structure!

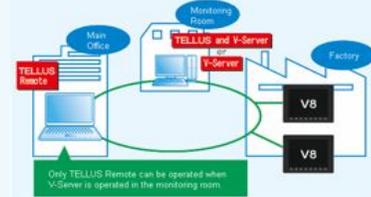
- LAN access



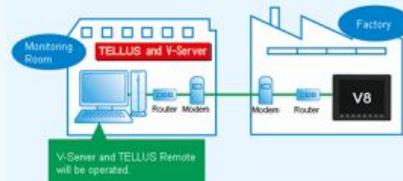
- Internet access



- WAN access



- Connection via phone line



More user-friendliness!

POINT
1

Usable right from the first day of your purchase.

By inserting the "USB License Key" in the USB port of your PC, it can be used as the qualified product as soon as you receive the product without any restrictions.

POINT
2

No need to worry about the unexpected failure of your PC.

It is directly usable with the alternative PC only by inserting the USB License Key in it, even when your PC has unexpectedly crashed.

Usage

- 1) Install TELLUS on your PC.
- 2) Insert the "USB License Key" in the USB port of your PC.
- 3) Start TELLUS or V-Server.



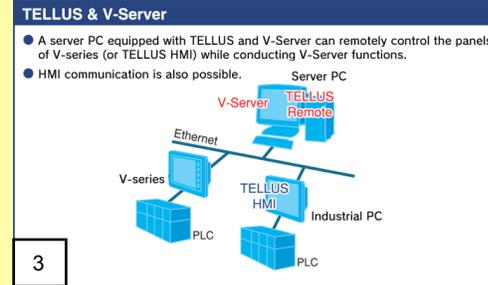
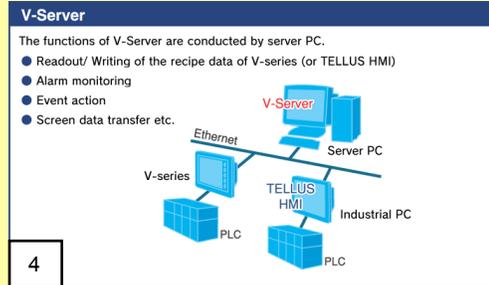
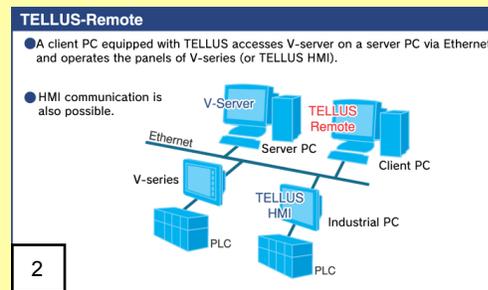
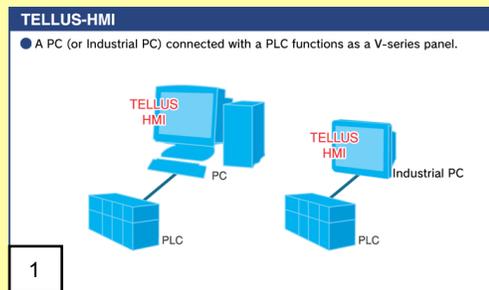
USB License Key

Type of License

The license authentication is required to use SOFT MONITOUCH TELLUS/V-Server. One license qualifies a license for one PC. The following licenses are available in response to the functions.

USB License Key	
TELLUS-HMI USB Key	1
TELLUS-Remote USB Key	3
TELLUS & V-Server USB Key	3

Password Authentication	
TELLUS-HMI	1
TELLUS-Remote	3
TELLUS & V-Server	3
V-Server	4



V-SFT Version Upgraded News

V-SFT-5 (5.3.0.0 or later)

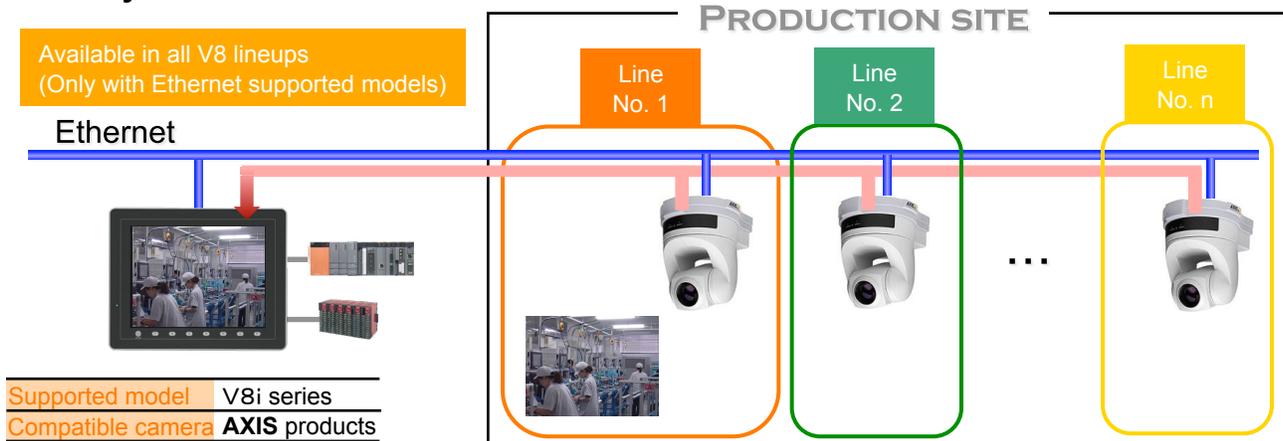
V8 series now carries more powerful functions!

More and more enhanced V-SFT Ver. 5 will strongly support your screen program configuration and updating of V8 series.



Web Camera (Available with V-SFT Ver. 5.3.0.0 or later)

Feature: It can display the images of the network camera connected on the Ethernet with V8. Monitoring of the remote location and entirely production lines can be effectively realized.



- Easy setting only by placing the display area with IP address and port No. of the network camera set.

- With the camera, which supports the motion and zoom functions, Monitouch can control these functions by sending commands.

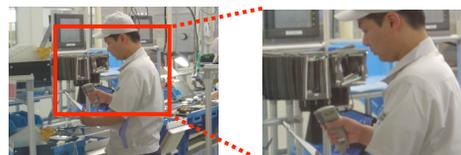
1) Motion (Available only with supported camera)

Easily control the network camera to turn around from the remote location.



2) Zoom (Available only with supported camera)

Utilize the zoom function easily from the remote location.



Additional Alarm Function (Available with V-SFT Ver. 5.3.0.0 or later)

It is possible to display the registered parameter with associated message at the alarm generation. For example, when the water temperature exceeding 40 deg C, not only the alarm of "Caution," but the variable thermal data such as "40 deg C! Caution!" can be displayed at the same moment. It made us easier to analyze the cause of the malfunction by receiving a more detailed information.

Setting Image

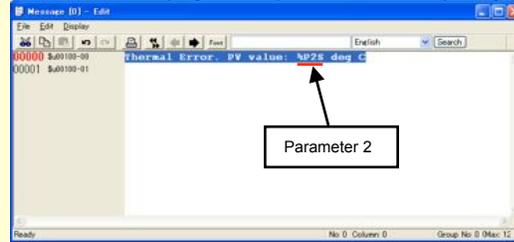
[Parameter Table]

Register the parameters (maximum 8 parameters) to be associated with each alarm.

No.	Memory	Type
0	D4	Message No.
1	M0	Bit
2	D5	Numeric value (1 word)
3	D6	Text (8-letter)
⋮	⋮	⋮
⋮	⋮	⋮

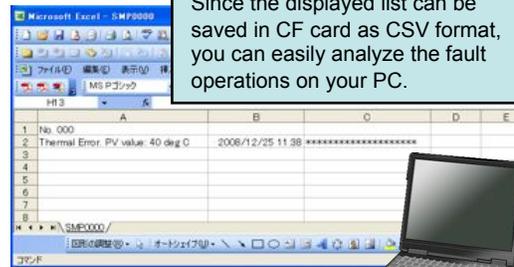
[Message Editing]

Define the registered parameter numbers while editing the message. When the message is displayed, the established memory is loaded, and the established display will be performed subsequently.



When alarm has generated, it will read the parameter and then display the message reflecting the registered content.

CSV file output



Since the displayed list can be saved in CF card as CSV format, you can easily analyze the fault operations on your PC.



Various other new functions such as USB/Ethernet ladder transfer, Selective transfer, and Multilink 2 Ethernet are also available.

INTRODUCING MONITOUCH NEW LINEUP

MONITOUCH V8 series

After the release of V8 series in November 2007, it's continuously increasing the lineup. Today we would like to introduce you our new models that are freshly added to the V8 series. By adding the 15-inch model which is the largest model in V8 series as well as the handheld type, it is now possible to pick a favorable unit from the expanded choices.

MONITOUCH The largest model with 15" in V8 series

Flagship model of V8 series

Realize the top-grade performance to innovate the FA site!

15-inch "V815iX" debuts!



15-inch

TFT XGA 64K color

<Main Feature>

- High-definition XGA (1024x768) with 65,536 colors
- 8-way communication
- Equipped with USB interface 2ch (Master/Slave)
- Equipped with Ethernet interface

MONITOUCH V8 series with handheld type

Portable V8 series in handheld type

7.5-inch "V808CH" debuts!



7.5-inch

TFT VGA 64K color

<Main Feature>

- Equipped with a deadman switch (3 positions are available as well as the output can be selected from the external 1 and 2 depending on the model.)
- Switch guard is available to prevent the unconsidered emergency stop activation (as an optional extra).
- Equipped with USB interface (Slave)
- Equipped with Ethernet interface (Available only with i type.)

Conformity with VESA standards

Complied with the VESA standard that is the standard of measure relating to the installment of the arm to be fixed with the display (Fixing bracket "V8H-WFV" is required.). The unit can be applied by installing to the VESA complied arm.



V8 series LINEUP Plentiful lineup that allows to make a choice depending on your intended use.

NEW

15-inch V815iX

Ethernet & Video/RGB



TFT
XGA
64K color

10.4-inch V810iS

Ethernet & Video/RGB



TFT
SVGA
64K color

8.4-inch V808iS

Ethernet & Video/RGB



TFT
SVGA
64K color

5.7-inch V806iT

Ethernet



TFT
QVGA
64K カラー

12.1-inch V812iS

Ethernet & Video/RGB



TFT
SVGA
64K color

10.4-inch V810S

Ethernet & Video/RGB



TFT
SVGA
64K color

8.4-inch V808S

Ethernet & Video/RGB



TFT
SVGA
64K color

5.7-inch V806T

Ethernet



TFT
QVGA
64K color

12.1-inch V812S

Ethernet & Video/RGB



TFT
SVGA
64K color

10.4-inch V810iT

Ethernet & Video/RGB



TFT
VGA
64K color

8.4-inch V808iC

Ethernet



TFT
VGA
64K color

5.7-inch V806iC

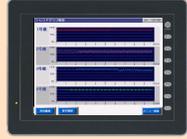
Ethernet



STN
QVGA
64K color

10.4-inch V810T

Ethernet & Video/RGB



TFT
VGA
64K color

8.4-inch V808C

Ethernet & Video/RGB



TFT
VGA
64K color

5.7-inch V806C

Ethernet



STN
QVGA
64K color

NEW

10.4-inch V810iC

Ethernet



TFT
VGA
64K color

7.5-inch V808iCH

Ethernet



TFT
VGA
64K color

5.7-inch V806iM

Ethernet



STN
QVGA
MONO

10.4-inch V810C

Ethernet & Video/RGB



TFT
VGA
64K color

7.5-inch V808CH

Ethernet & Video/RGB



TFT
VGA
64K color

5.7-inch V806M

Ethernet



STN
QVGA
MONO

V-POP (Point-of-Production –Lot trace –)

What's V-POP?

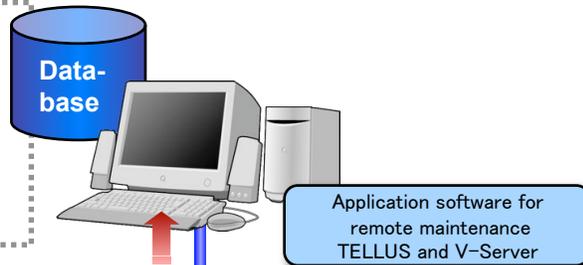
It enables flexible and scalable system configuration by enhancing the function to analyze the data from the coordination of the data entry by the operator at the field site and the upper database as well as the conveyance of information from the controller (control system) using V8 series of a wide range of display from 5.7" monochrome to 15" in the field site of FA.

Lot Trace

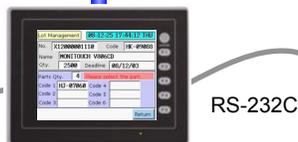
Feature

Recording the production information in database will allow you to instantly check the production lot no./part lot no. from its product serial no., and it helps you in shipping inspections and/or after-sales services.

- Date/Name of operator/Place/Machine no.
- Ref. no./Prod. item/Prod. lot no.
- Scheduled qty./Produced qty./Defective qty.
- Part #1(Mfr, part code, part lot)
- Part #2(Mfr, part code, part lot)
- Part #3(Mfr, part code, part lot), etc.



Data such as a 2D code can be read by connecting the barcode reader with V8.



After finishing the production, print the serial no. and place the label to the product.

1) Get the production instructions info. from the database based on the info. read from the 2D code printed in the instructions sheet.

3) Compare to verify if the assembly part number matches with the number directed in its instructions sheet.

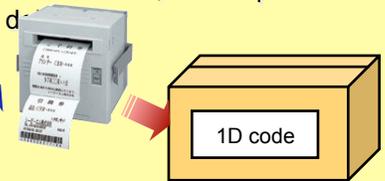
4) Print the lot no. for each product, place the barcode label to each, and ship/d



Data of instructions Data of assembly parts



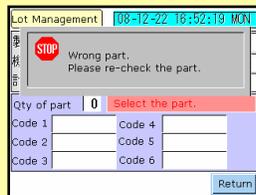
5) Send the every kind of production information to the database upon each production completion.



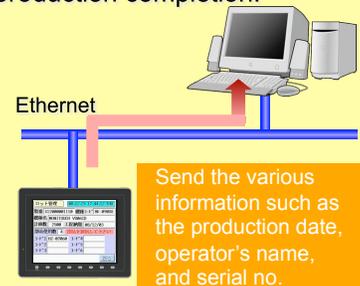
2) Get the part info. by reading its 2D code of the prepared assembly part.



Error window appears for warning if the verification results did not match.



Product assembly

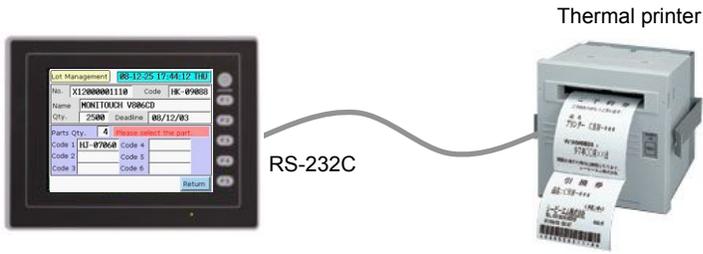


Send the various information such as the production date, operator's name, and serial no.

Nuts and bolts of system realization

1) Barcode label printer

Line thermal printer, produced by Japan CBM Corporation (CITIZEN), can be connected with the unit via serial connection.*

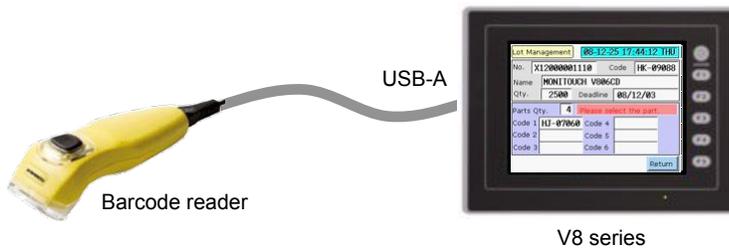


Actions such as the paper-feed and the automatic cutoff can be instructed the printer by using "OUT_PR" macro command.

* Hard copy is not available.

2) USB barcode reader connection

Easy connection with a barcode reader via the USB port equipped with V8 series.



If you use a barcode reader by USB connection, the serial port will be available for another intended purpose. It realizes the extended scalability.

In addition to the above, you will be able to utilize a USB mouse or a USB keyboard by connecting via the USB port.



– USB keyboard

You won't need to place a soft keyboard or a numeric keypad if you use a USB keyboard.



– USB mouse

As well as operating with a touch switch, it is possible to use a USB mouse to control the cursor at the same time. Your favorite mouse will make you easier to manipulate the PC screen displayed by the RGB input.

Note) The USB barcode reader and the USB keyboard cannot be connected at the same time.

V-SFT Update Information

V-SFT-5 (5.4.0.0 and later)

Remote Desktop (V-SFT ver 5.4.2.0)

Advantage:
Server PC screen can be displayed on V8 by connecting them via Ethernet. You can control PC screen even in the location where you are not able to bring in PC.

No optional unit required. Remote Desktop can be achieved easily by Ethernet communication at minimal cost.

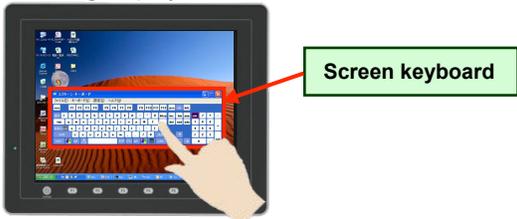


Compatible Models	V815iX, V812iS,
	V810iS, V810iT,
	V808iS, V810iC,
	V808iC, V808iCH,
	V806iT, V806iC

<How to operate PC screen on MONITOUCH>

1/ Control the mouse by directly touching V8 screen. Also it is possible to enter values/letters using software keyboard being displayed on the V8.

2/ Connect USB mouse or USB keyboard directly to V8 for direct control/value entry.



Screen keyboard is a utility to display virtual keyboard on the PC.

EASY

<Display PC applications on V8>



It is possible to display PC application such as PDF, WORD, EXCEL, etc. by controlling PC remotely.

NOTE) License (V-RemoteDT) is required to activate Remote Desktop function with V8.

<VNC Server Software>

To achieve Remote Desktop feature, VNC is preinstalled on V8 to control the PC connected via Ethernet. It is required to install a VNC server software which is available from market on the PC to be monitored from V8.

<Verified VNC Server Software>

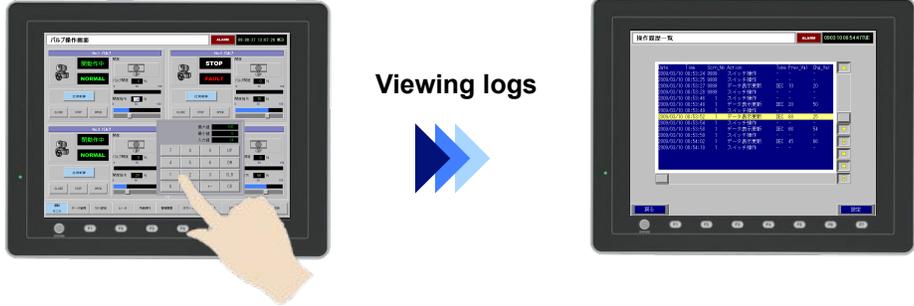
VNC server software: UltraVNC

URL : <http://www.uvnc.com/download/index.html>

* [VNC] Virtual Network Computing
Software for remote operation to operate a PC on a network.

Operation Log Viewer (V-SFT ver.5.4.0.0)

Advantage: By referring to the operation log, you can analyze the possible cause of the problem. Operations made through the panel such as pressing buttons, changing values, etc. are logged chronologically. By combing with password function, history of who/when/what/how operated can be monitored.



Viewing logs

Achieve viewer function by simply checking operation log viewer option on V-SFT-5.

1/ Operation log viewer can be registered by simply clicking the option.

2/ By placing the cursor on the log, log information window is prompted.

3/ You can customize the display items and number of the letters.



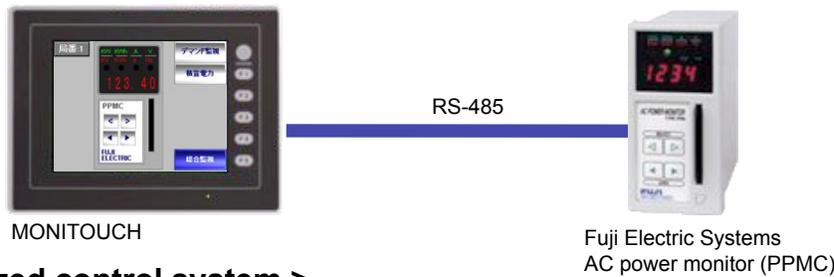
Also additional items which support scroll bar function, visibility control of the trend sampling, and more new feature is available.

Power Monitor System

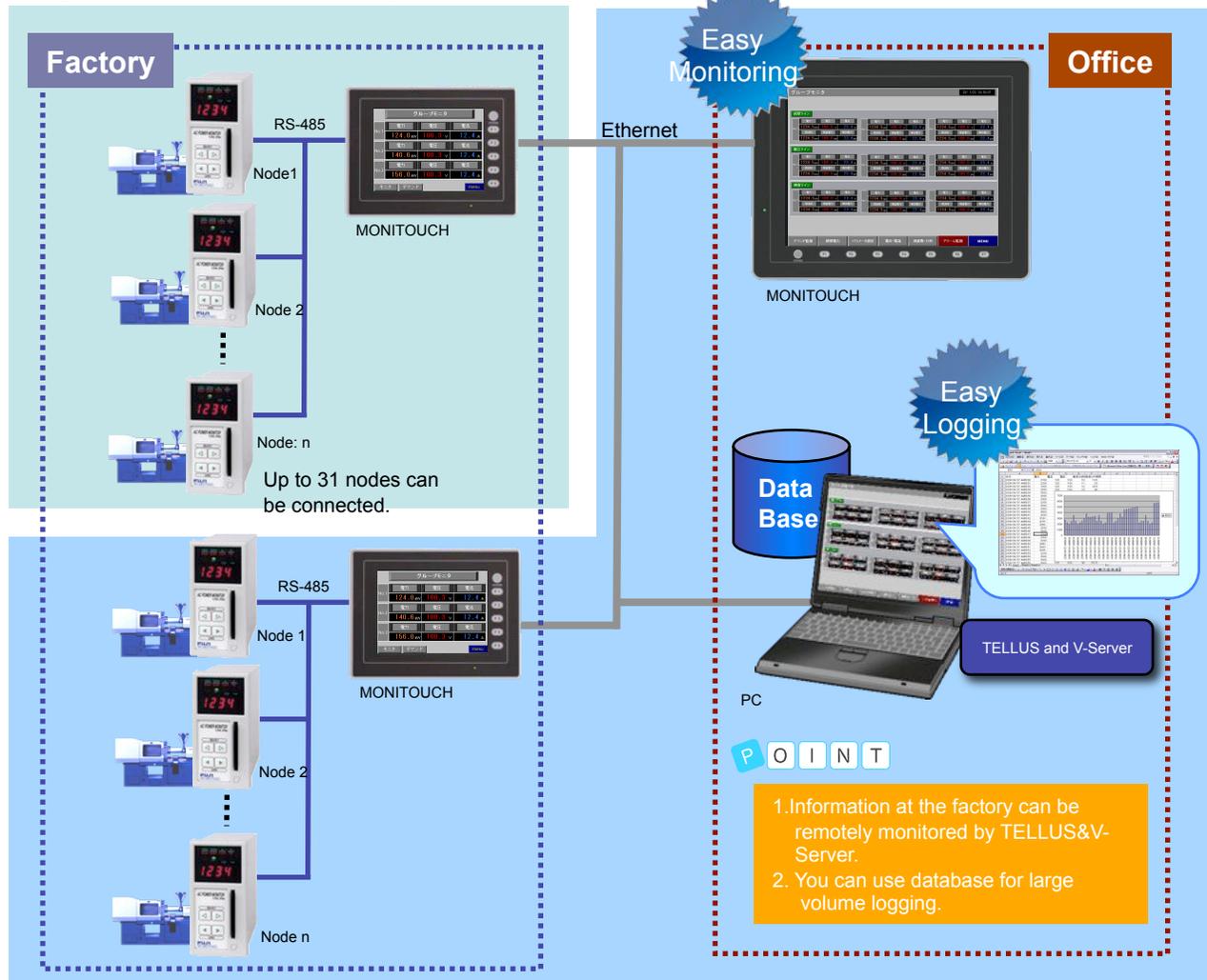
What are the advantages of using MONITOUCH + power monitor?

- It is possible to monitor the values (power, voltage, current, power factor, etc.)
- You can set various parameters in the AC power monitor.
- Values can be logged at your desired interval and save it in CSV format.

System Configuration



<E.g. Centralized control system >



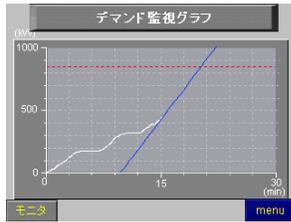
Initial stage: Introduce remote monitor system in small-sized line.

Introduce the remote monitor system in a whole company.

* Actual screen image may be different.

AC power monitor screen image

[Simplified power monitor graph]



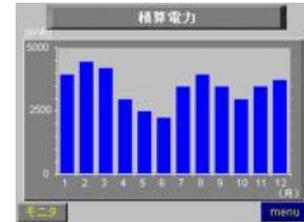
Simulated demand expectancy based on current power value is displayed as well as accumulated power value.

[Batch monitor]

	電力	電圧	電流
No.1	124.0 kW	100.3 V	12.4 A
No.2	140.6 kW	100.3 V	12.4 A
No.3	156.0 kW	100.3 V	12.4 A

Measured values from multiple power monitors can be monitored at a glance.

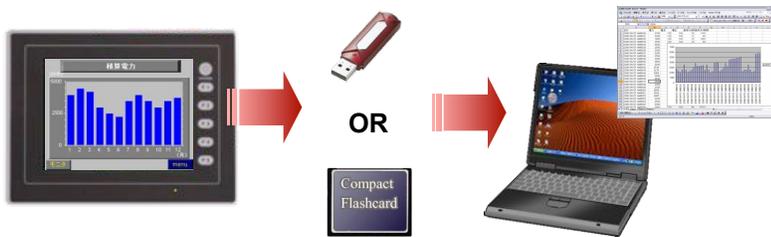
[Accumulated power monitor]



Accumulated power data of each month can be easily displayed as graph.

<Data logging in CSV>

- Save the measured data of power/voltage/current in CSV format.



* Actual screen image may be different.

POINT

CSV data can easily be moved to EXCEL on PC by saving it in a CF card or USB memory stick.

Good

To prepare for the future mid-long term plan, it is required to analyze the power consumption status. It is necessary to analyze when/where/in what kind of situation the power consumption increases.

Combination with our operation monitoring system (V-POP) helps you to achieve easier analysis to improve your machine or facility because you can look upon operation status as being related to power consumption status.

Free version upgrade of the configuration software V-SFT-5



The configuration software (updated version) can be downloaded from the following website.

Website:

<http://www.hakko-elec.co.jp/en/download/09vsft5/index.html#02>

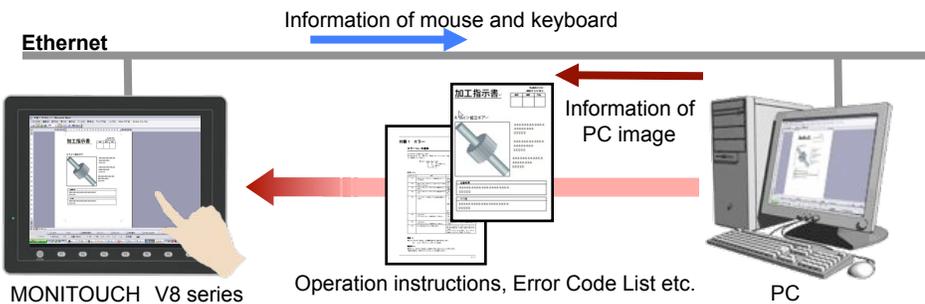
Application Example for Remote Desktop

Remote Desktop

The screen of the server PC can be displayed on V8 via Ethernet. In the production site where you are not allowed to bring PC, it enables you to use the function of PC.

Application 1. Referring to operation instructions and manuals

By controlling the PC connected on Ethernet from V8 series unit, you can refer to the operation instructions and the manuals stored in the PC.



Application 2. Ladder Monitoring / Editing

Activating the ladder software installed in PC that is connected on Ethernet, you can monitor or edit the ladder program of the connected PLC on V8 units with use of Ladder Transfer Function.

Assembly line 1 Ladder Monitoring / Editing

Assembly line 2

Appearance inspection

Delivery Inspection

[During operation]

Operation Information → **Server** (Data Base)

- Tractability
- Lot management
- Production data etc.

[During maintenance]

Transfer Ladder → **PC for maintenance**

- Through V8 series, possible to monitor or edit PLC ladder program

POINT

1. PLC Ladder Transfer Function
You can monitor/edit the ladder program of all connected devices on the Ethernet.

Supported PLC	MITSUBISHI ELECTRIC	QnH(Q) series CPU, Q00J/00/01 CPU, QnU series CPU, QnH(Q) series CPU(Multi CPU)
	Fuji Electric	MICREX-SX SPH/SPB CPU

2. USB keyboard is supported
Possible to edit the ladder program by input from keyboard.

You can change the ladder and edit the comments on V8 units easily.

Good Usability

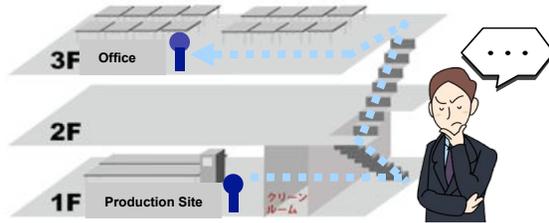
Remarks) For using Remote Desktop Function, the license (Model: V-RemoteDT) is needed.

Other Applications

1 Checking E-mail at the production site

• Before

It is troublesome to go back to the office from the production site to check E-mails.



• After

By Remote Desktop Function, accessing the PC that is in the office, you can check E-mails at the production site.



2 Hand-held model of V8 series also supports Remote Desktop Function

Hand-held model that is compatible with Ethernet is also supporting Remote Desktop Function. It is allowed that you connect V8 to the equipment when you want to monitor the ladder program or refer to manuals. With one common screen program, you can realize it by accessing the PC with the different information from each equipment.



■ VNC Server Software

Remote Desktop Function that remotely controls PC via Ethernet can be realized with Monitouch and VNC.

You need to install and activate a commercial configuration VNC Server Software in the PC that is remotely controlled.

◆ Recommended VNC Server Software

VNC Server Software : UltraVNC

URL for downloading : <http://www.uvnc.com/download/index.html>

Free version upgrade of the configuration software V-SFT-5



The configuration software (updated version) can be downloaded from the following website.

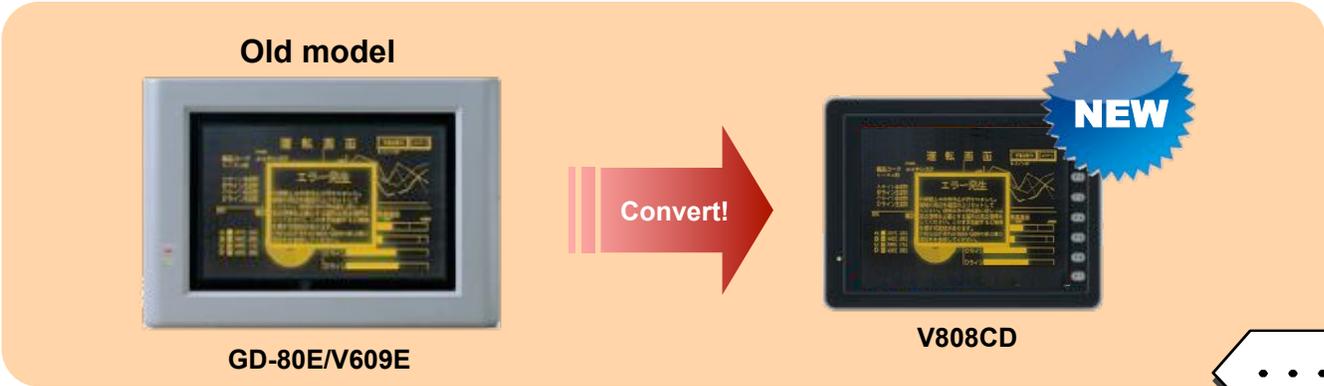
Website:

<http://www.hakko-elec.co.jp/en/download/09vsft5/index.html#02>

Suggestion for replacement

For V609E users

As you might be aware, the production of V609E will end July 20, 2009. We'd like to suggest you to consider to replace it to the new model in consideration of future maintenance support.



For users who have these worries....

- Which replacing model should I select?
- I don't have much time to convert the screen program.
- I don't want to change the existing screen design to avoid operators' confusion.

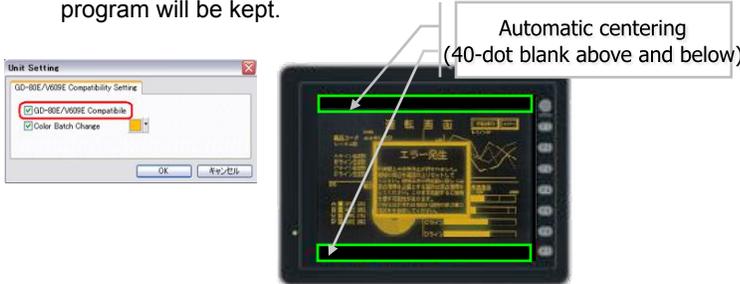


Use these functions to convert!

1 Screen size (resolution) without modification

[Screen Size Holding Function]

By ticking "GD-80E/V609E Compatible" in unit setting, centering will be activated automatically. Size of the screen program will be kept.



Note) Available only with V808C in 128-color

2 Screen image without modification

[Color Batch Change Function]

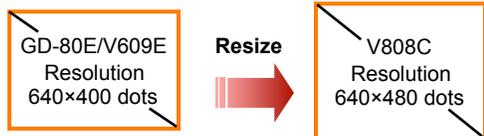
By ticking "Color Batch Change" in unit setting the color other than black can be changed to the specified color.



Note) Available only with V808C in 128-color

3 Automatic resize

In case you use the model which has different resolution, the screen can be automatically resized by opening the existing screen program and changing its editing model.



Note) Screen program of GD-80 can be also converted into V808C using these functions by firstly converting it into V609E.

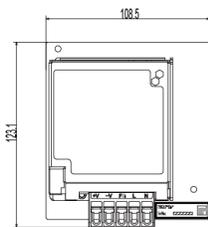
* The images may differ from the actual display.

Recommended model and accessories

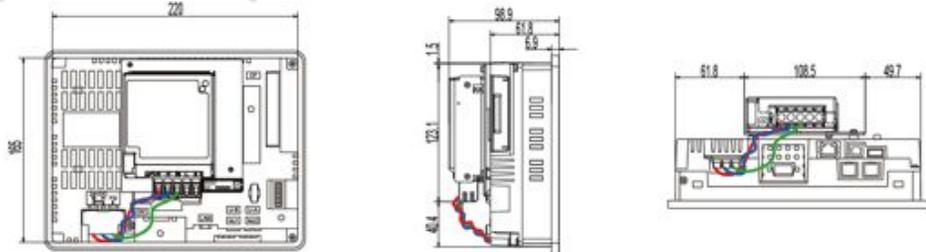
Old model	New model	Panel adapter	Others
V609E GD-80E	V808C	PAD-V608-01	<p>[Communication cable (Monitouch: CN1(D-Sub 25-pin))] V8's CN1 is D-Sub 9-pin. Please prepare dedicated communication cable for V8. Conversion cable "D9-D25" is available if you wish to use the existing cable.</p> <p>[RS-422 Terminal Converter] Please purchase our terminal converter "TC-D9."</p> <p>[Power supply] Only 24V DC specification is available in V808C. If 24V DC power supply is available: Maximum power consumption of V808C is 30W. Make sure the allowance. If 24V DC power supply is not available: Please purchase our optional product "V808C-PW" (DC-AC converter).</p>

V808C-PW

[V808C-PW External View]



[V808C + V808C-PW]

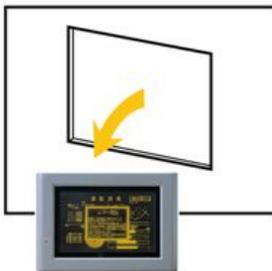


Connect the power supply cable to the power supply terminal of "V808C-PW."
The power will be supplied to V808C by connecting the provided power harnesses to the power terminal of V808C.

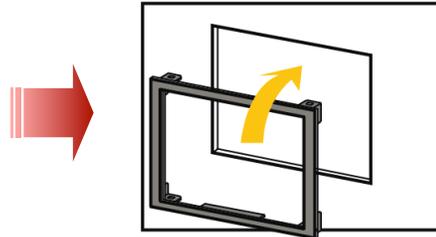
Panel adapter (PAD-V608-01)

Since the panel cutout size of V808C differs from GD-80E/V609E, use the panel adapter to adjust the panel cutout size before mounting V808C.

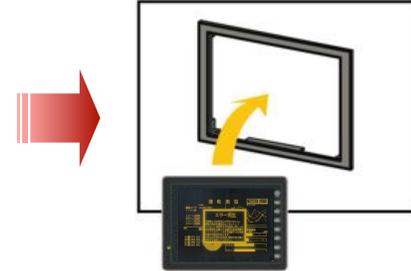
1) Dismount GD-80E/V609E.



2) Attach panel cut adapter "PAD-V608-1".



3) Mount V808.



Upgrading Maintenance Capacity and Configuration Function

The functions that support for your screen configuration improve your working efficiency, and the maintenance capability in a factory is enhanced by setting and registering various kinds of information in a user-friendly way.

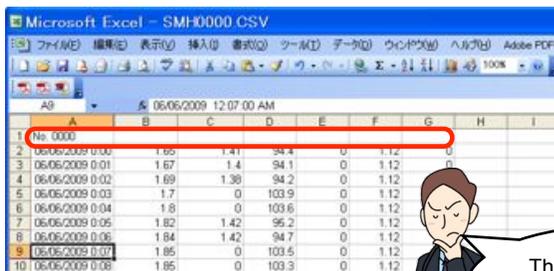
Adding Title-line to Sampling CSV File

Enhanced maintenance capability

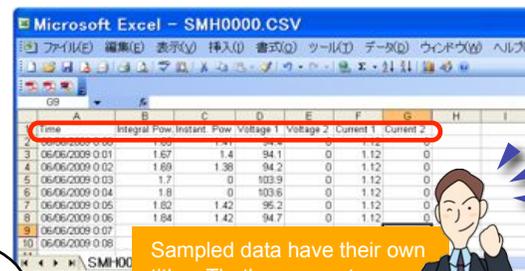
Storing CSV files for title in a CF card enables to add an arbitrary title as a header when saving sampling data as a CSV file.

Compatible Model **V8/V7**

【without header file】



【with header file】



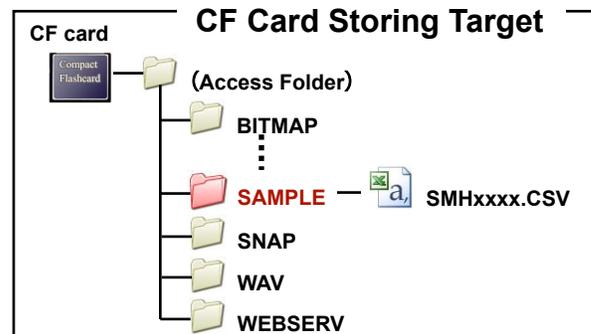
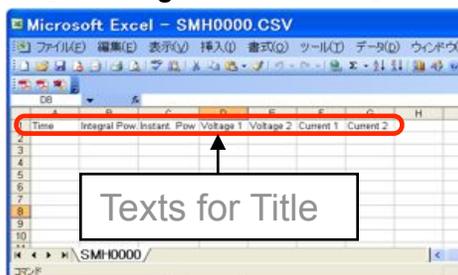
The data is saved, but it's still hard to understand.

Sampled data have their own titles. That's so easy to recognize them!

■ Setting Method

Create the following title file [SMHxxxx.CSV](xxxx=Buffer No.), and store it in a [SAMPLE] folder of a CF card.

【The Image of Header File】



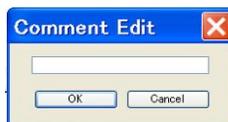
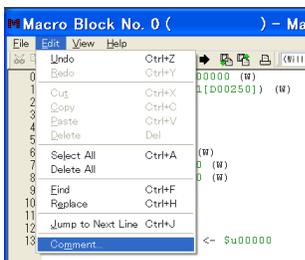
(Note) There is no limit on the number of lines and columns of CSV file [SMHxxxx.CSV] for title, however, the maximum size of the file is 239 Kbytes.

Adding Comment Setup in Macro Block

Enhanced configuration function

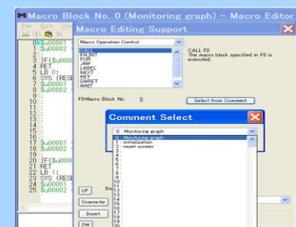
You can setup and register comments freely in macro block, which runs your own programs by using unique command of MONITOUCH.

Compatible Model **V-SFT-5**



You can register arbitrary comments up to 16 one-byte alphanumeric characters.

When calling up a macro block by using CALL command, you can select it from macro block comments.



Useful

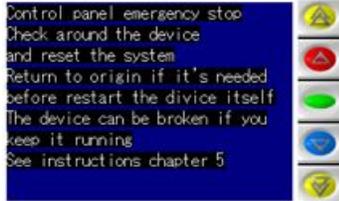
Page Block Batch Setting

Efficiency increased!

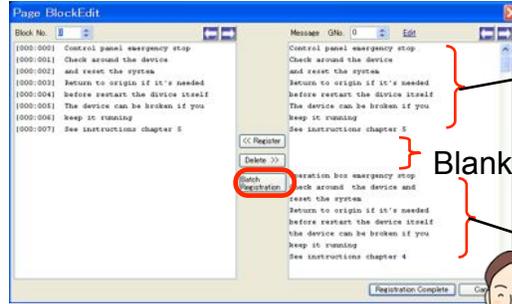
Enhanced configuration function

Batch registration function is added to Page Block registering work, which displays multiline messages, and that allows the auto-registration per unit of message lines and the auto-divisional-registration by detecting blank lines.

Compatible Model **V-SFT-5**



Page Block can be used as one of the ways to display the multiline messages.



Blank lines

Page Block0

Control panel emergency stop
Check around the device and reset the system
Return to origin if it's needed before restart the device itself
The device can be broken if you keep it running
See instructions chapter 5

Page Block1

Operation box emergency stop
Check around the device and reset the system
Return to origin if it's needed before restart the device itself
The device can be broken if you keep it running
See instructions chapter 5

It detects blank lines to divide and register multiple lines automatically. That increases your working efficiency.



Network Table Batch Setting

Efficiency increased!

Enhanced configuration function

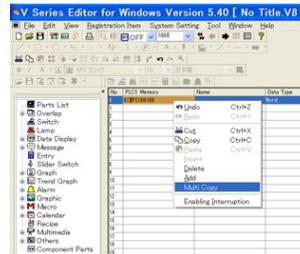
8-way communication enables connection among V8 and up to 8 different kinds of FA devices. It became much easier to register network table useful for exchanging data among connected devices.

Compatible Model **V-SFT-5**



Communicate between devices via V8

D100	20	W100	20
D101	80	W101	80
D102	45	W102	45
D103	60	W103	60
D104	18	W104	18
D105	35	W105	35



Multi copy function enables to batch setting to exchange consecutive data, and that enhances your working efficiency.



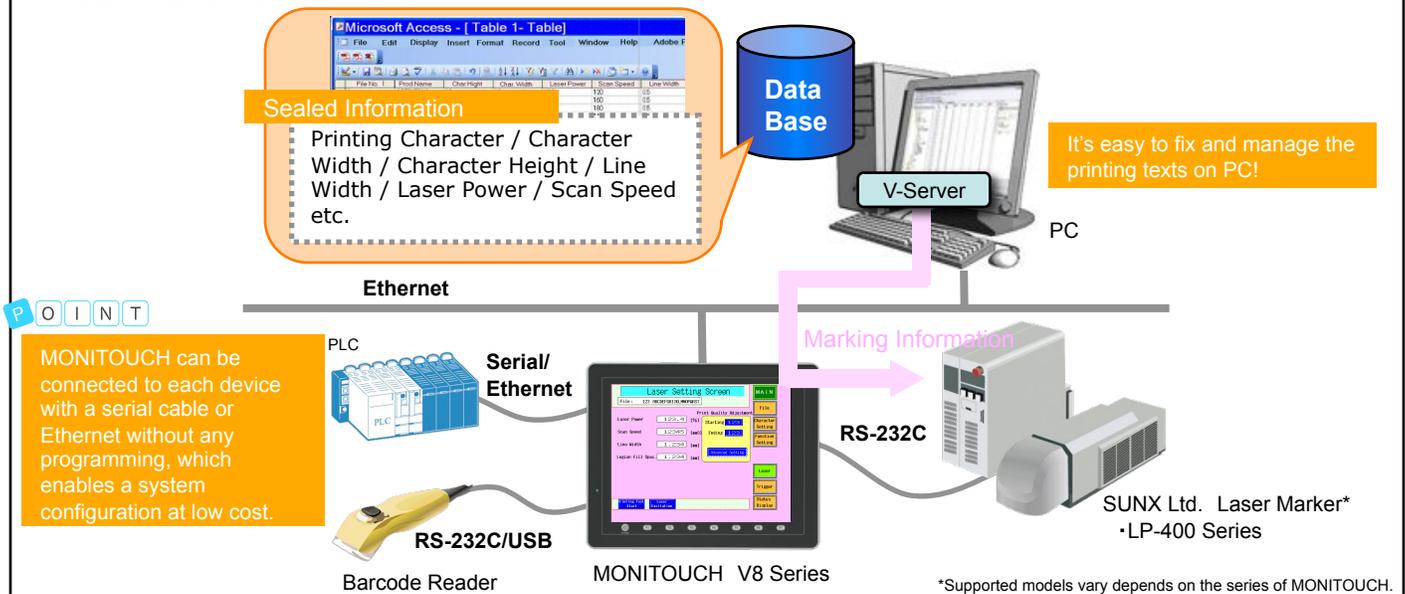
Application Examples for Laser Marker Connection

Advantages by Connecting Laser Marker to MONITOUCH

- No programming is required to connect MONITOUCH to a laser marker, and it's possible to configure and operate it as is.
- MES interface function allows you to read out the database, which enables to manage marking information in it.
- MES interface function enables to store marking information in the database, and that makes it much easier to manage Traceability Maintenance.
- You can also use MONITOUCH as a console of a laser marker.

Application 1. Printing Management System

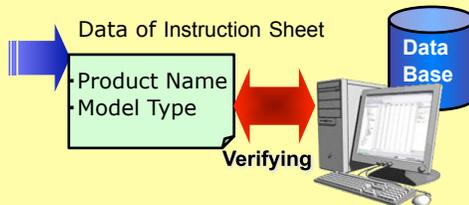
Get marking information from a database by reading 2D code printed on such as an instruction sheet, and set the texts of a laser marker.



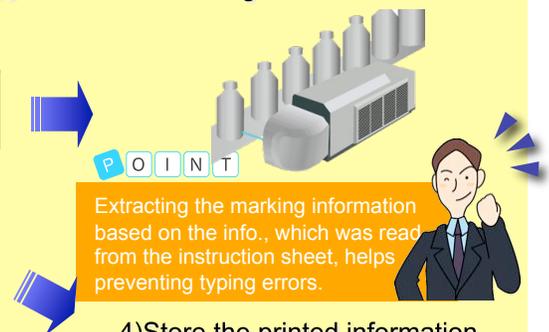
1) Read the 2D code printed on the instruction sheet.



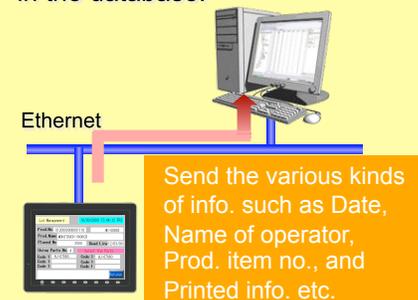
2) Get the marking information from the database based on the readings.



3) Print on products based on the marking information.



4) Store the printed information in the database.



[Advantages of using MONITOUCH as a console]

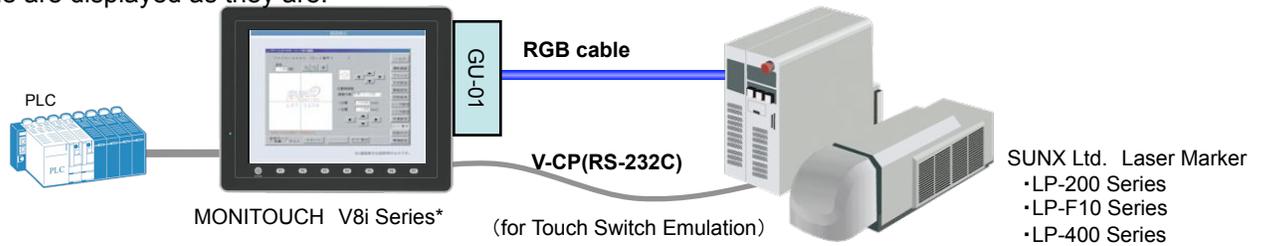
- Improve the visibility and the operability as a console by utilizing a large sized MONITOUCH.
- MONITOUCH's function, 8-way communication enables to send the printed information to PLC easily.



Note: Not all functions of the dedicated console for the laser marker is covered by this.

Application 2. RGB Input & Touch Switch Emulation Function

Setting RGB input enables to operate and configure a laser marker without being bothered to configure special screens for laser marker. Plus it's possible to use all functions of the setter, since the screens for console are displayed as they are.



* Option unit (RGB input unit) is available only with V815iX, V812iS, V810iS, V810iT, and V808iS.

Point of System Configuration

1)RGB Input Function

Use the option unit "GU-01/GU-10/GU-11" to get RGB signal of the console of a laser marker, and display it on MONITOUCH.



POINT

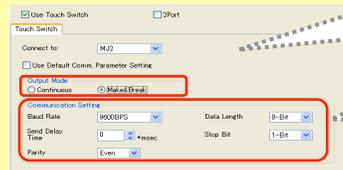
All functions of the dedicated console is usable, because screens for console are displayed as they are.



Attention!

2)Touch Switch Emulation Function

Touch switch emulation function allows touch controls on screens for console of laser marker, which is displayed on MONITOUCH.



Output Mode
【LP-200/LP-F10 Series】
 Select "Make&Break"
【LP-400 Series】
 Select "Continuous"

Communication Setting
 -Baud Rate: 9,600bps
 -Parity: Even
 -Data Length: 8bit
 -Stop Bit: 1bit

Application Examples for RFID Controller Connection

Advantages of Connecting MONITOUCH to RFID Controller

- Since MONITOUCH can be connected to RFID Controller directly, PLC link unit is no longer needed, and that is useful for cost reduction.
- Even from a data carrier recorded various kinds of information in, MONITOUCH processes only needed information and displays it on the screen.
- You can write operation information in a data carrier through V8, and that leads to much less trouble and mistake when recording.
- The operation information recorded in a data carrier can be stored in an upper PC directly by MES interface function, and that enables to reduce costs of traceability system configuration.

Improve manufacturing various kinds of products in small lots.
Suggestions to Reduce Picking Mistakes
Picking Instruction system reduces running cost and prevents picking mistakes.

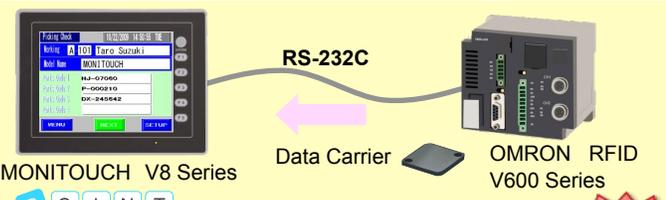
Problems



- Picking lists are not clear enough
- Easily pick up wrong parts

Display Picking Information on MONITOUCH

MONITOUCH reads out the picking parts information registered in a data carrier and displays only needed information for each process on the screen.



- POINT**
- 1)System configuration without PLC
 - 2)Paperless and cutting down costs
 - 3)Improving visibility by displaying on the panels
- Realized them at low cost!

Before

Print out part instruction sheets written about picking information of every single process.

1)The info. in a data carrier is read out through RFID connected to PC, and the part instruction sheets are printed out.

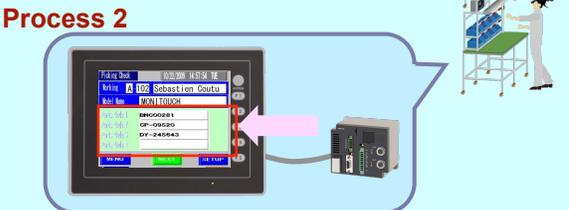
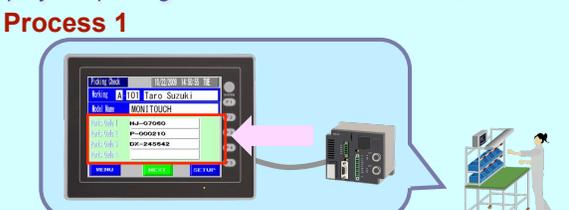


2)Based on the printed part instruction sheets, operators of each process pick parts and assemble them.



After

Install a RFID controller and a MONITOUCH at each process. Display the picking information on MONITOUCH.

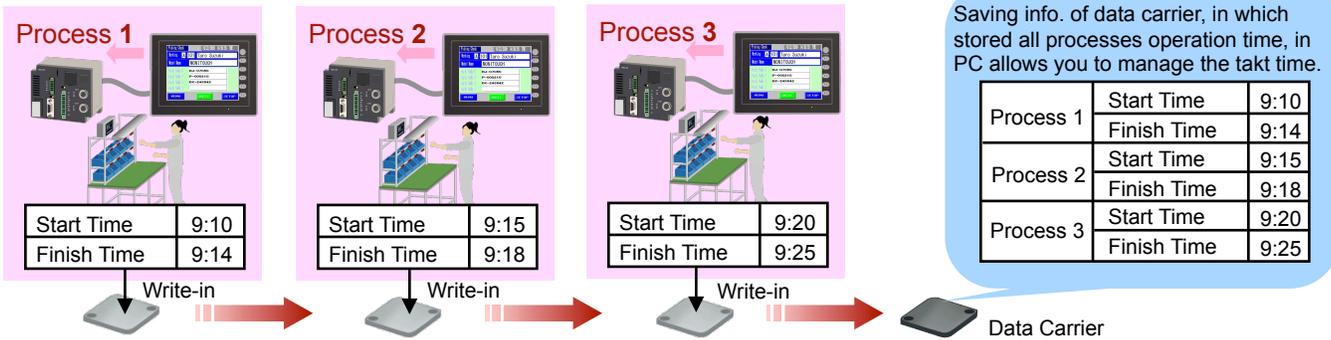


An error message pops up as a warning against wrong picking parts.

Improve manufacturing various kinds of products in small lots

Suggestions to Improve Production Lines

Operation start/finish time is written in a data carrier for each process. You can check the takt time by checking information of data carrier after finishing the final process, and that reduces troublesome works such as measuring task time by stopwatch, and automates it all.



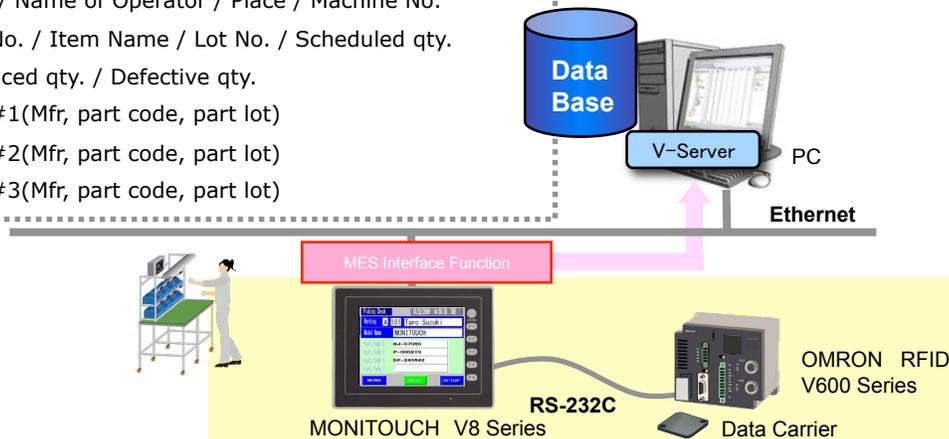
Improve manufacturing various kinds of products in small lots.

Suggestions for Production Control System

If you manage various kinds of production information in a database, which is recorded in a data carrier, you can store the information in a database of an upper PC directly from MONITOUCH located in a factory.

Production Operation Info.

- Date / Name of Operator / Place / Machine No.
- Ref. No. / Item Name / Lot No. / Scheduled qty.
- Produced qty. / Defective qty.
- Part #1(Mfr, part code, part lot)
- Part #2(Mfr, part code, part lot)
- Part #3(Mfr, part code, part lot)



V-SFT Version Upgraded News

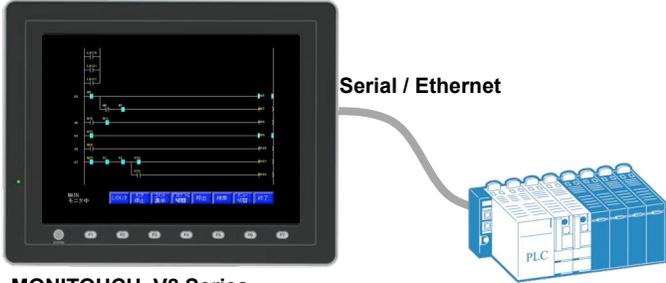
V-SFT-5 (5.4.8.0)

V8 has become much more powerful!
V-SFT Ver. 5 has been increasingly enhanced and firmly supports screen configurations & updates of V8 series .

Enhanced PLC Ladder Monitor Function
It facilitates analyzing causes of failure immediately when a problem comes up.



PLC ladder monitor (circuit monitor, I/O monitor) function of MITSUBISHI ELEC. PLC, which is useful for such as device maintenances, has been enhanced.



MONITOUCH V8 Series

PLC

- Supported PLC**
- QnH(Q) series CPU
 - QnH(Q) series link
 - QnH(Q) series (Ethernet)
 - QnH(Q) series link (multi CPU)
 - QnH(Q) series link (multi CPU) Ethernet
 - QnH(Q) series CPU (multi CPU)
 - QnU series CPU **NEW**

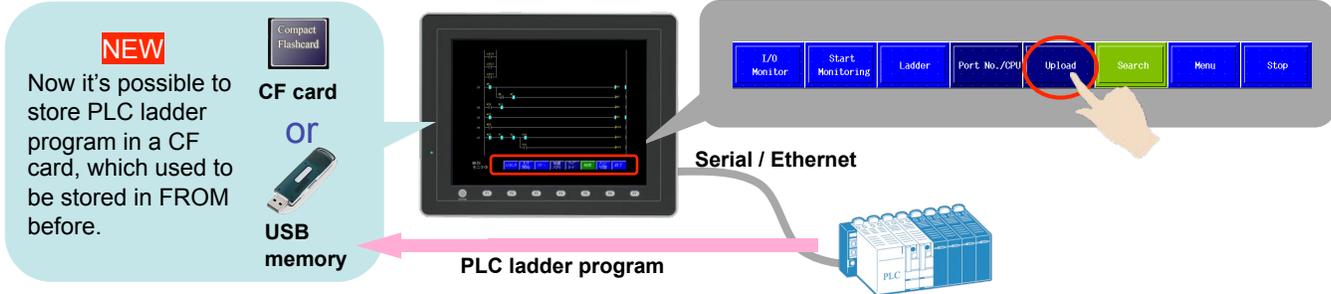


*As for the details of supported PLCs, please contact your local distributor.

Enhanced Feature 1 Storing & uploading PLC ladder program with CF card



PLC ladder program files stored in a connected PLC can be uploaded to CF card/USB memory via V8. It is possible to update a ladder program showing on the V8 screen to the latest one without additional work.



NEW
Now it's possible to store PLC ladder program in a CF card, which used to be stored in FROM before.

V-SFT-5 Setting Areas

【Device Connection Setting】

Device connected: PLC
Maker: MITSUBISHI ELECTRIC
Series: QnH(Q) series CPU
Connect to: CN1

Communication Setting | Detail | Target Settings | Ladder Monitor | Ladder Transfer Port

Use Ladder Monitor

Target Port No. Monitor: PROJECT

Screen 1022
Overlap Library 1016 - 1020

V-SFT Version 5.0

V7 compatible monitor function?
OK Cancel

Click "Cancel".

【CF Card Setting】

CF Card

CF Card Connection Target: (Built-in Socket) / USB Port

Access Folder Name: DATA00

Range of Patterns to be Saved to CF Card

Range of Messages to be Saved to CF Card

Show Manual Font Setting to CF Card

Show MWV File in CF Card

Show 3D Parts in CF Card

Show Machine Parts in CF Card

Format Buffering File Automatically

Use Password When Transferring Screen to CF Card from Display

OK Cancel

"Store the PLC ladder program into CF card" will be checked automatically.

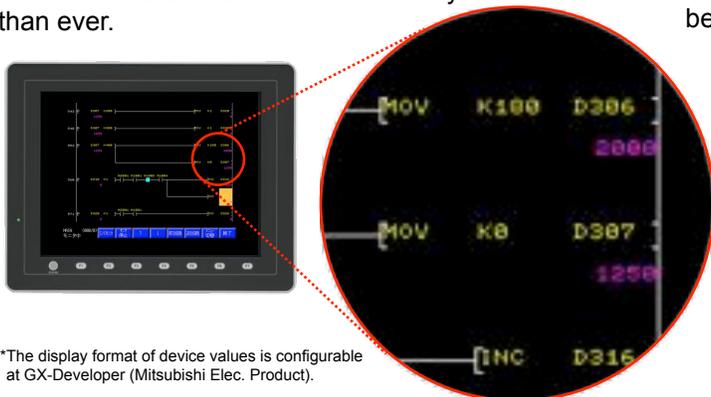
- POINT**
- 1) Simplify an updating task when changing PLC ladder program
 - 2) Saving FROM (screen memory)
-

*Ladder program will be stored into CF card automatically when a QnU series CPU was selected.



Enhanced Feature 2 Device value display

It became possible to display device values on the monitor. It will be easier to check the system status than ever.



*The display format of device values is configurable at GX-Developer (Mitsubishi Elec. Product).

Enhanced Feature 3 Device searching

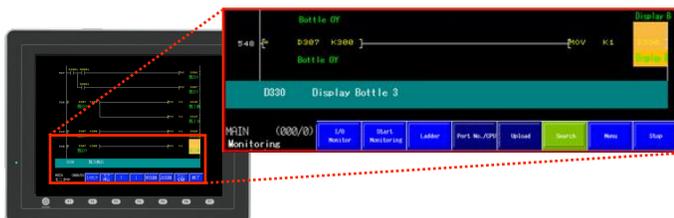
You can search devices by double-touching the screen. Intuitive operations made it much easier to use than before.



*The scope of the device search is limited to the same program.

Enhanced Feature 4 Whole comments display

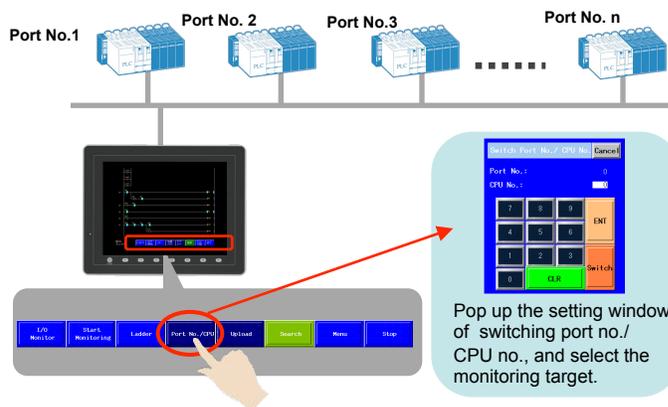
Now it's possible to display the whole comments of the selected device, and that helps you analyze the circuit monitor more easily.



The whole comments of the selected device will be displayed at the lowest line.

Enhanced Feature 5 1:n connection ladder monitor

You can monitor several programs of different PLC port numbers by specifying the port no. and the CPU no. Each ladder program of connected PLCs are monitorable.



*It is available only when the ladder program is configured to be stored into CF card.

Advantages by connecting MONITOUCH to a barcode printer

- As a barcode printer can be simply connected without dedicated programs, PC is no longer needed.
- Anyone can print out barcode labels easily by operating a touch screen.
- MONITOUCH enables you to build a system linked with various FA devices at a low cost.



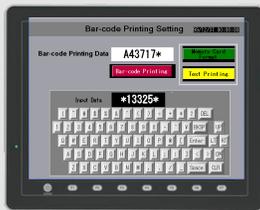
A Problem

Dusts and vibrations make it difficult to place PC.



Printing barcode labels using MONITOUCH

Barcode labels can be printed out as you like based on the format registered in MONITOUCH.



MONITOUCH V8 series

RS-232C



Barcode printer (SATO Corp.)

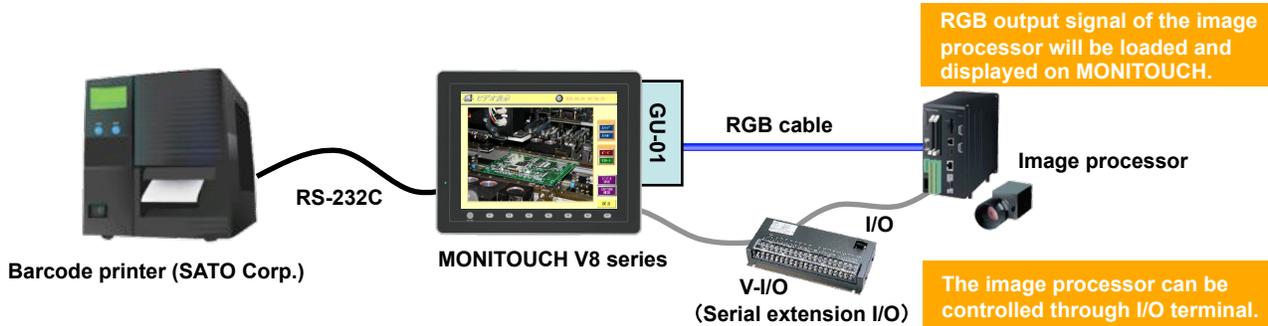
- MR400 -SR400 Series
- M-48Pro8 -SG400R Series
- MR610e



Unnecessary

Attaching Labels & Checking System

The picking instruction system realized the running costs reduction and the prevention of picking mistakes.



1) Specify the label printing info. when changing product settings.

2) Print lot number labels for each product, and attach them on the products.

3) Check the label colors and the attached places.



Start Printing!



Attach!



Check!

If the results are NG...

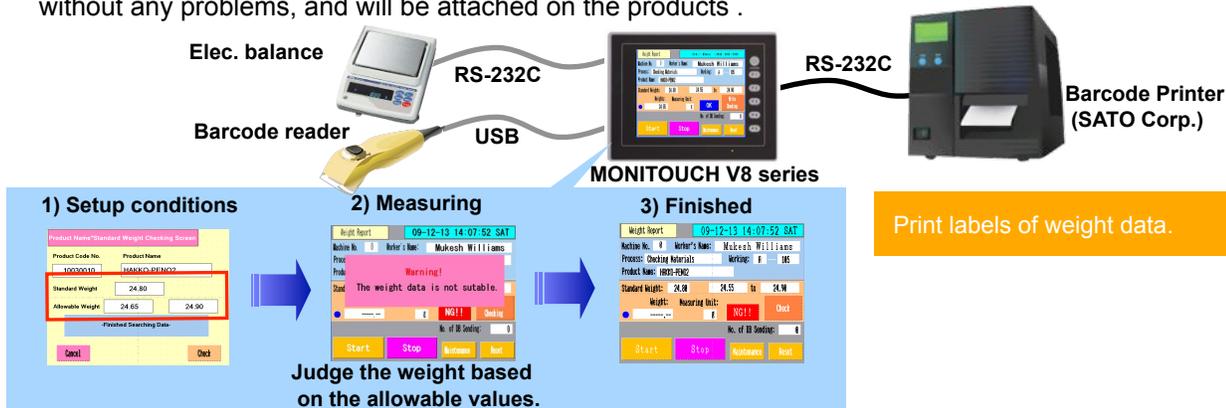
Connecting to the image processor terminals enables to load the results and display them on MONITOUCH.



It is also possible to save NG images on CF card.

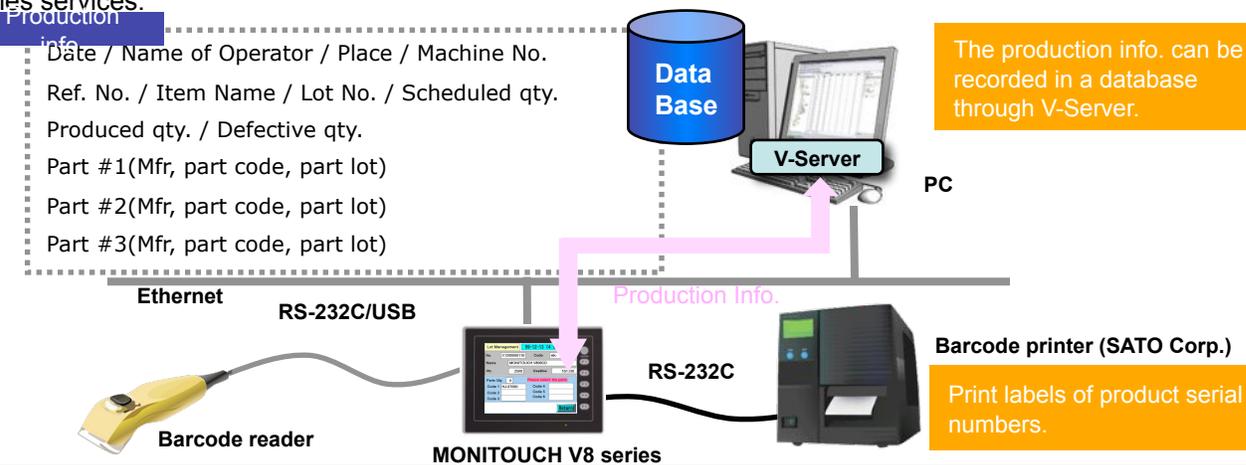
Checking Measured Weight Data System

The allowable weight values, which change depends on each product, are loaded into MONITOUCH, and the measurement results are judged based on them. Labels are printed out for the products measured without any problems, and will be attached on the products .



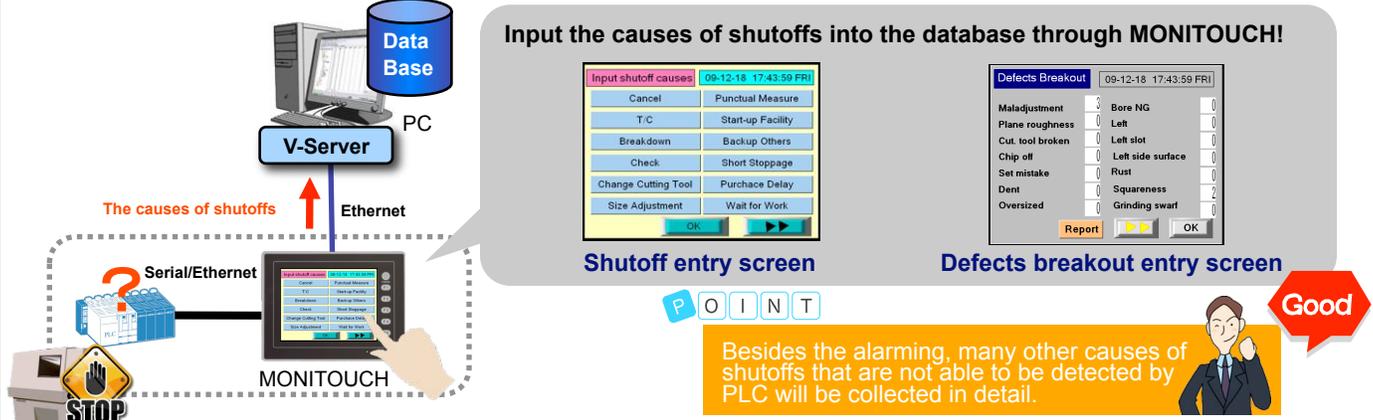
Lot Trace

Recording production information in a database allows you to instantly check the information such as production lot no./part lot no. from its product serial no., and that helps you in shipping inspections and after-sales services.



Point 1. Inputting the causes of shutoffs/defects (helpful for analyzing operating rates)

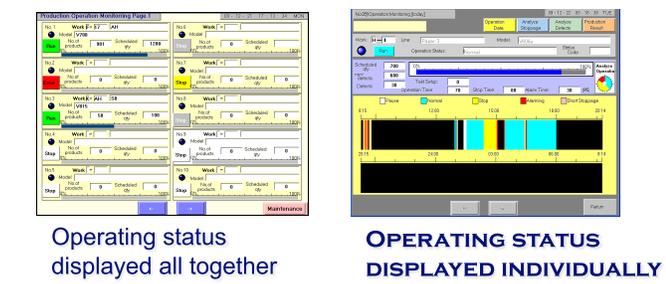
Using MONITOUCH allows you to get a clearer grasp of the operating rates and the takt time, which is one of the purposes of the operating management.



Point 2. Monitoring all at once with the consolidated information

(useful for grasping the operation status)

Production items, scheduled/produced quantities, details of the alarming of each process will be displayed on a list on the main monitor. It shows a whole line status at a glance.



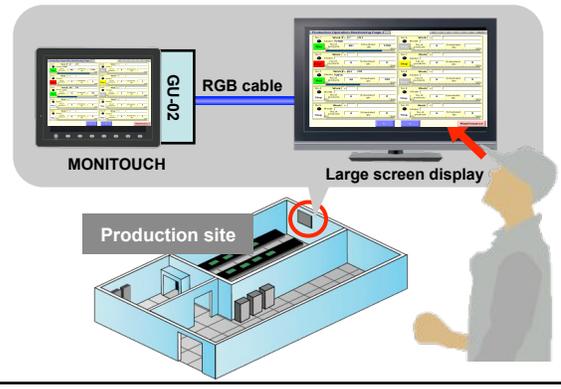
POINT

By grasping the production progress and the operating status, efficient production instructions will be given quickly.

Good

A large screen display

MONITOUCH screens can be seen on a larger screen display by installing an RGB output unit (GU-02).



Advantages of using data collection for fool proof system

- Using a touch screen provides an easily viewable display, and it's so simple that anyone can operate it without difficulty.
- Even enormous amounts of various kinds of data are manageable as products information is managed in a database.
- There is no need to worry about wrong operations since a warning window pops up on MONITOUCH screen.

Fool Proof System at Screw Tightening Process
This system helps not to forget to tighten screws at screw tightening process.

Problem

Operators sometimes forget to tighten screws at assembling process.



Monitoring the count by MONITOUCH

A count-up clock shows the number of tightened screws. The tightening operation of a set number of times is monitored by MONITOUCH.

Managing enormous amounts of data

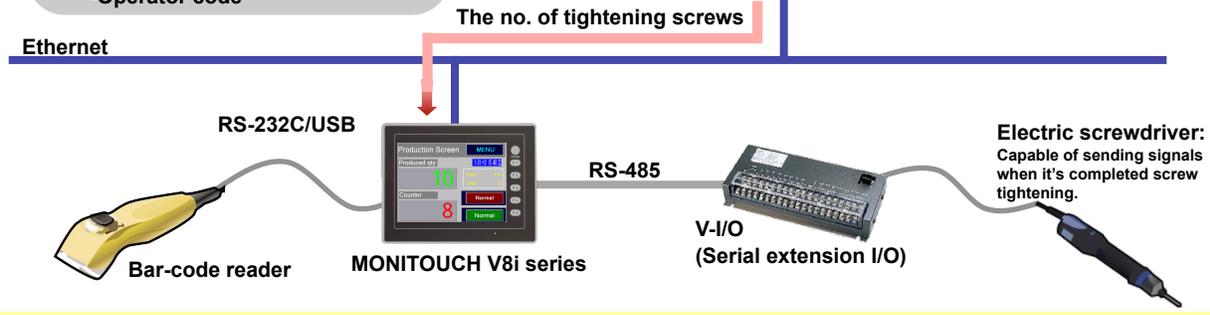


-The no. of tightening screws
-Lot no.
-Operator code

Data Base

V-Server

V-Server enables to collect real-time factory information, and it coordinates with database.

1. Read a bar-cord printed on a instruction sheet.

Instruction sheet

Blip!



2. Search for the product info. over database, and get the info. such as the no. of tightening screws .

Lot no.
Operator code
Product name

Searching!



3. Tighten product screws.




Every time finishing a screw tightening, operators can confirm the no. by a count-up clock.

Prevent a careless mistake!

Should you forget to tighten screws, a warning window pops up on MONITOUCH to prevent imperfect products from moving to a next process.

Warning!!




One more point!

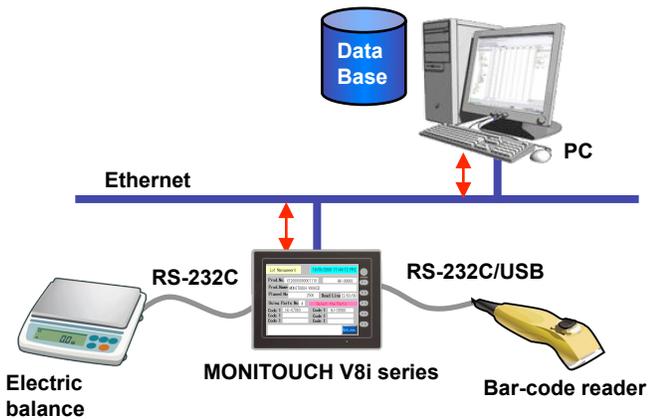
At screw tightening process, it's possible to display a product image on the screen so that operators can confirm on which place they should tighten a screw, and that enables a smooth working.

Good



Fool Proof System for Measuring Control

It is possible to prevent making mistakes in setting reference value or in measuring values by retrieving the reference/ acceptable weight values, which were recorded for each product, from database.



Blip!

From database, retrieve the average value of product weight that corresponds with the info. of instruction sheet.

Part No.	Date: 22/02/2009 10:10:21		
Plant No.			
Material	1200001112		
Code 1	200-0000	Code 2	30000000
Code 3	20000000	Code 4	00000000
Code 5		Code 6	
Code 7		Code 8	

A measured value is judged based on the average value.

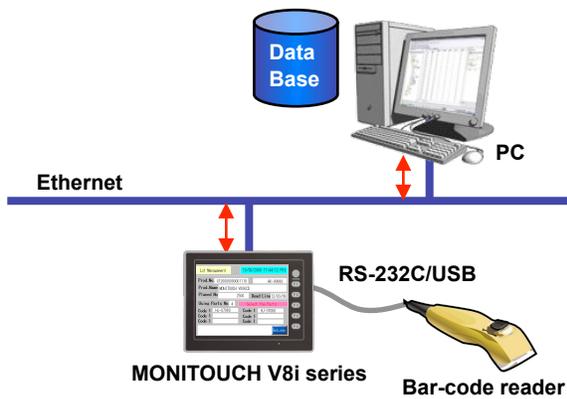
Measuring

No worry

If the measured value is out of the average...

Fool Proof System for Material Management

Coordinating with database which manages materials prevents an usage of outdated materials, and alerts you to the need for newly arranged materials.



Search for the info. corresponds with the retrieved name of material over database.

Blip!

A warning window pops up on MONITOUCH based on the validity date/ threshold which were registered in database.

Expired validity date

Cross- threshold validity date

No worry

Advantages of using Data Collection System for the operation management

- The operation management system can be introduced to your existing facilities easily. There's no need to modify the existing PLC program.
- It's so easy to introduce an additional MONITOUCH to the system that you can establish the system at a low cost by expanding it gradually.
- MONITOUCH sends data to the upper PC occasionally so that the real-time information is accessible.

Operation management system for press production line

Managing the mold shot count realized the mold trace.

Problem

The delay in mold storage maintenance causes products some weld flashes.



Managing molds of pressing machine by **MONITOUCH**

It enables to compile a database of the mold information and supports the mold maintenance management.

Never miss the maintenance timing again!

The information of mold shots will be automatically stored in the database.

Mold	Storage area	Current storage area	Due date	Total count	Last maintenance	Count after maintenance	Maintenance interval
A2333	Storage area		2009/1/10	20000	NULL	NULL	50000
A4332	No. 1 Press		2007/06/26	40000	NULL	NULL	50000
A3453	No. 2 Press		2006/07/28	62000	2007/12/20	NULL	50000
A4754	Storage area		2005/07/16	50000	2009/05/20	NULL	50000
A6438	Storage area		2006/09/30	40000	2009/12/12	NULL	50000
A3469	No. 4 Press		2003/04/08	30000	2009/12/10	NULL	50000
Encoder	NULL	Storage area	2004/09/13	34000	2007/04/14	NULL	NO
Production storage 100	NULL	NULL	NULL	NULL	NULL	NULL	NO

Storage area/ Total shot count/ Last maintenance date/ Shot count after maintenance/ Maintenance time interval



Office



V-Server

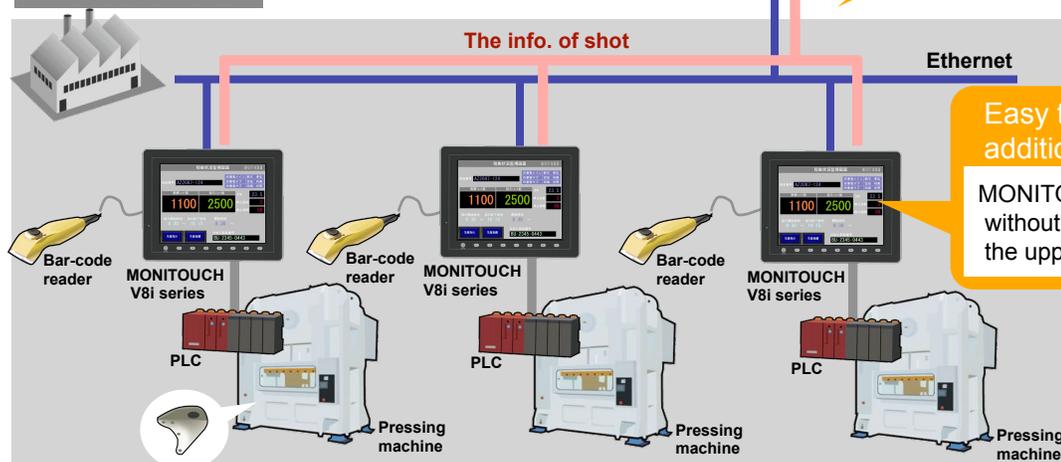
The shot information of pressing machine, which is sent from MONITOUCH, is directly stored into the database so that the database can be manageable without professional knowledge of database.

Feel safe to manage even multiple units!

Even if the number of V8 increases, the speed of responses remains the same. The shot info. is sent only when it has changes.



Production site



Easy to introduce an additional MONITOUCH!

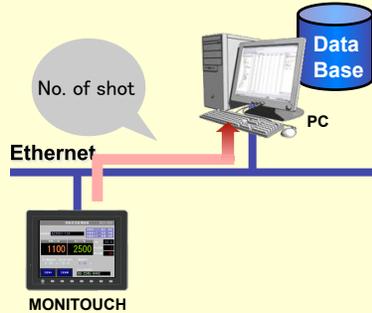
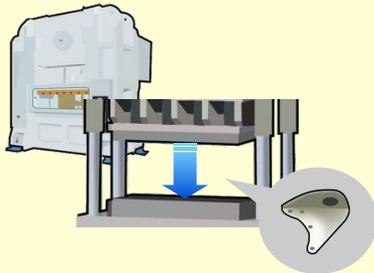
MONITOUCH can be added without changing the setting of the upper PC.

*Regarding the mechanical operating conditions of MONITOUCH (resistance to oscillation/ shock), please refer to the V8 series hardware specifications.

Effective Installation Examples

Example 1. Managing the shot count

- 1) Press products by the pressing machine.
- 2) Occasionally send the information of the shot count, and manage the total shot count of each mold.
- 3) It's easy to check the maintenance timing of each mold on the list in real time.



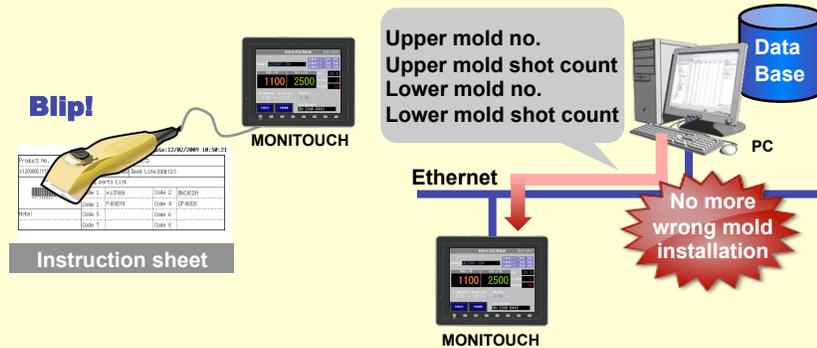
Mold No.	Storage area	Control storage area	Use date	Total count	Last maintenance	Count after maintenance	Temperature
AC201	Storage area	20090710	200907	1000	1000	1000	1000
AC202	No. Press	20090602	200906	500	500	500	500
AC203	No. Press	20090602	200906	500	500	500	500
AC204	Storage area	20090710	200907	1000	1000	1000	1000
AC205	Storage area	20090710	200907	1000	1000	1000	1000
AC206	No. Press	20090602	200906	500	500	500	500
AC207	No. Press	20090602	200906	500	500	500	500
AC208	No. Press	20090602	200906	500	500	500	500
AC209	No. Press	20090602	200906	500	500	500	500
AC210	No. Press	20090602	200906	500	500	500	500



Oh, it's about time for the maintenance now.

Example 2. Confirming the limit shot count

- 1) Read operation instruction sheets, and send the information to the database.
- 2) Obtain mold numbers and shot count information of each product.
- 3) A warning window pops up to prevent the molds, which require a periodic maintenance, from being used accidentally.



Blip!

Product No.	Serial No.	Time
12000001	1234567890	18:58:21

Instruction sheet



Upper mold no.
Upper mold shot count
Lower mold no.
Lower mold shot count



No more wrong mold installation



No worry

MONITOUCH is monitoring the shot count constantly so that you won't miss the maintenance timing.



Good

Power Monitoring System (V2)

There are various advantages by connecting MONITOUCH with AC Power Monitor.

- Measured values (power, voltage, current, and power factor, etc.) of multiple AC power monitors can be displayed all at once.
- Various set values of AC power monitor can be set/changed.
- Measured values of AC power monitor can be logged in a selected period. It is possible to save the collected data in CSV format.

We are measuring the electric power, but...

we are not able to see the improvement of the facility even though we can recognize the power consumption of each facility.

Lack of information



Monitor Power Consumption & Operation of the Facility with MONITOUCH

The power consumption and operating status are "visualized" at a time. Problems associated with the facility can become obvious.

Good

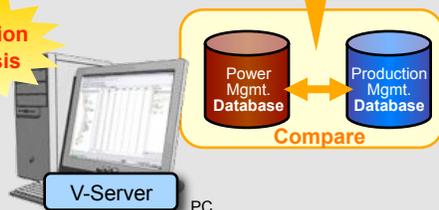


Easy to compare the data!

It is easy to compare the data as power monitoring and operation monitoring can be performed with only one MONITOUCH.

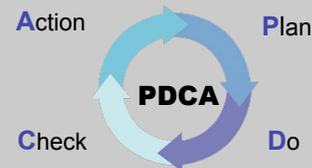
Good

Collection Analysis



Facilitate energy saving along with PDCA cycle!

Boost up by Visualization



Usage Status of Power

Ethernet

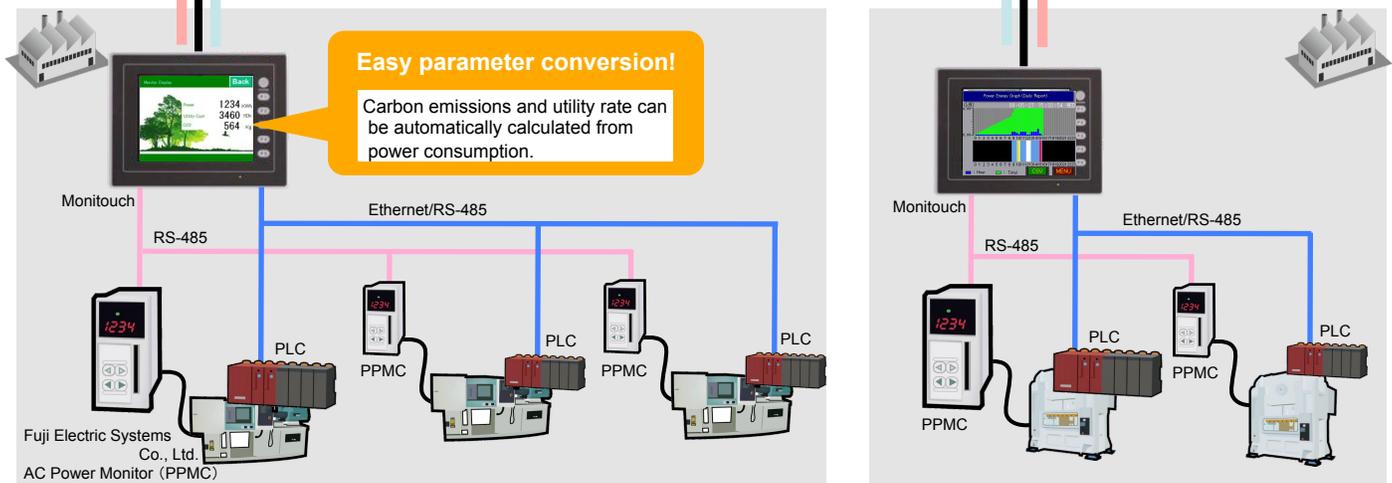
Operation Status of Plant

Plant A

Plant B

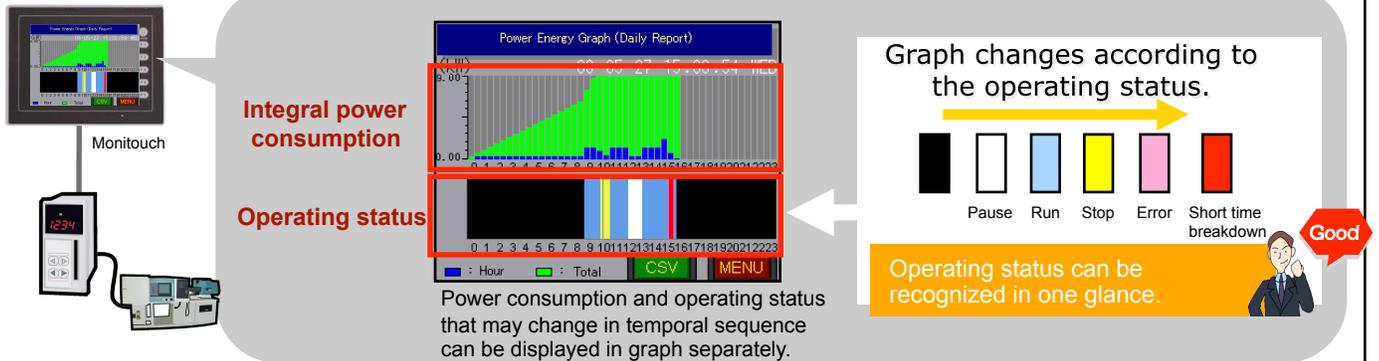
Easy parameter conversion!

Carbon emissions and utility rate can be automatically calculated from power consumption.



Power Consumption & Operating Status Monitoring Image

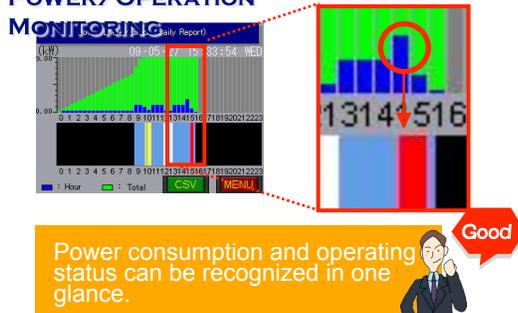
By linking the power consumption and operating status/alarm tracking collected from the power monitor, it will be possible to specify the improvements for energy saving.



For example...

- 1) Operating status of the hour which has the largest power consumption can be checked.
- 2) Details can be checked with alarm tracking when operating status is in error/stop condition.

POWER/OPERATION MONITORING



ALARM

Alarm No.	Alarm Name	Alarm Level	Alarm Status	Alarm Time	Alarm Location
1	STOP - PAUSE	100-000	151824	152003	03
2	ALARM - CONSTRUCTION PAUSE	100-101	152011	152014	03
3	ALARM - EQUIPMENT PAUSE	100-105	152021	152023	03
4	ALARM - EQUIPMENT PAUSE	100-108	152021	152023	03
5	STOP - STOP/PAUSE	100-005	152021	152043	03
6	STOP - HOLD/PAUSE	100-011	152041	152224	03
7	ALARM - CONSTRUCTION PAUSE	100-101	152221	152226	03
8	ALARM - EQUIPMENT PAUSE	100-105	152221	152248	03
9	STOP - CONSTRUCTION PAUSE	100-000	152248	152248	03
10					
11					
12					
13					
14					
15					

Details can be checked by seeing the alarm tracking.

ANALYSIS OF



*Actual screen image may be different.

Analysis of power usage is demanded for the future mid-and-long term plan.

It is needed to analyze the data of when, where, and in what situation the status of power usage is increasing.

By combining with Hakko's operational monitoring (data collection) system, it would be easy to make analysis for the improvements for equipments/facilities as it is possible to easily tie up the operational status of the facilities with the power usage.

Data Collection System - Andon System

Advantages of using data collection system

- Operating status of equipments can be displayed clearly according to the line configuration.
- Dedicated configuration software (V-SFT-5) provides a free screen configuration so that you can respond flexibly to the changes of line layout.
- Remote monitoring of Andon information (operating status) can be realized simply and at low cost.

Before

Detailed information such as an operating status of the equipments or the tact time are not known.

Lack of information



Controlling Andon Display with TELLUS

With various information displays and graphic displays, the operating status of the equipments can be recognized by anyone in one glance.

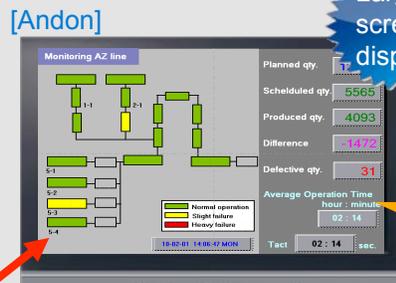
Production site



Before



It is difficult to grasp the detailed information such as an operating status of equipments.



Large screen display

Easy to learn the operating status at once!

Operating status can be shown with the line layout, so that anyone can grasp the operating status easily.

Good



Office



RGB cable

TELLUS-HMI and V-SFT

Andon display by production terminal!

MONITOUCH functions can be realized on an industrial PC simply by booting TELLUS program.

Respond flexibly to the changes of line layout!

Dedicated configuration software helps you to modify the contents of Andon display as you wish without any trouble.

Good



TELLUS and V-Server

Remote monitoring wherever you are!

Remote monitoring is available only by sharing screen data with Andon display terminal and by connecting to Ethernet, and that reduces the development man-hour.



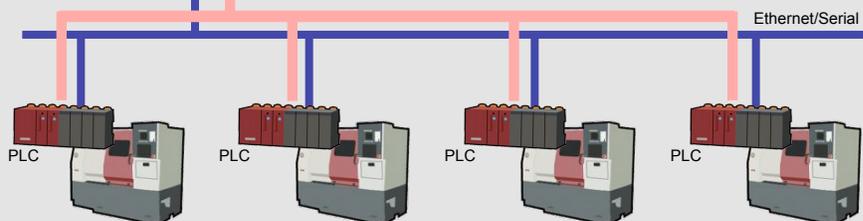
Remote monitoring soft

[Andon display terminal]

Industrial PC

Configuration software dedicated to MONITOUCH/TELLUS

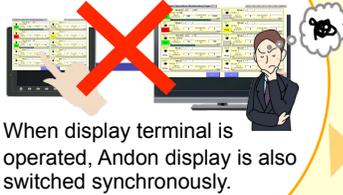
Ethernet/Serial



[with TELLUS program]

[Before]

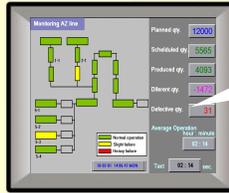
with RGB output...



When display terminal is operated, Andon display is also switched synchronously.

It is possible to use two different kinds of screens concurrently: one for an Andon display and the other for a display terminal.

Step1) Boot two TELLUS programs on an industrial PC.



Industrial PC

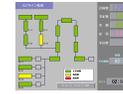
Boot two TELLUS programs: one for a main display and the other for an external display.



TELLUS

Screen for display terminal

+



TELLUS

Screen for Andon display

Step 2) Output screens on two displays separately by dual monitor function.

Display properties



Industrial PC

RGB cable



Display 1

[Andon display terminal]



TELLUS

Screen for display terminal

Display 2

[Andon]

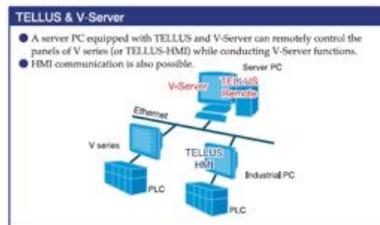
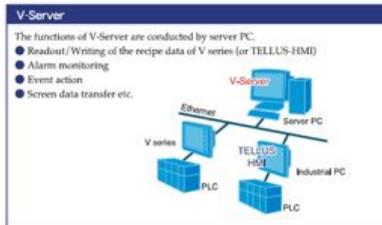
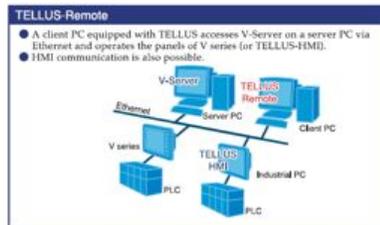
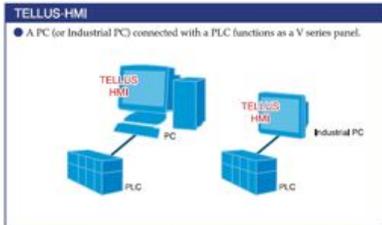


TELLUS

Screen for Andon display

[License form for TELLUS and V-Server]

License validation for TELLUS and V-Server is restricted to one license per computer. There are four types of license, one for each function.



System requirements

OS	Windows98/Me/NT Ver.4.0/XP/Vista 32bit edition
Memory	32Mbyte or more
Hard disk	TELLUS: 30Mbyte or more available space V-Server: 50Mbyte or more available space

Data Collection System - Inventory Control

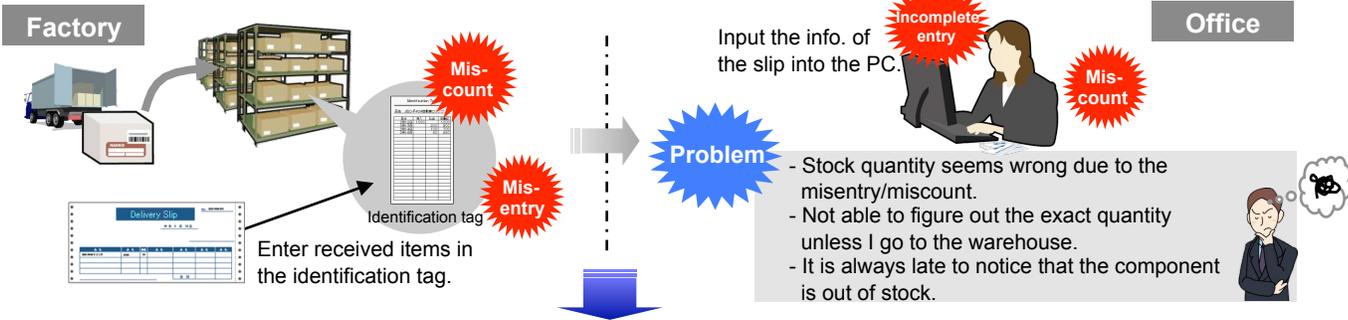
Advantages of Using Data Collection System

- Simple system configuration allows for compact installation without worrying about the space.
- Change in specifications requested from the user is easily supported by using the configuration software (V-SFT-5).
- Inventory control system can be built easily and at an affordable price.

Inventory Control System

Supporting system for inventory control and warehouse operation

[Traditional Operation] Managing by entering received item's info in the slip after receiving the component.

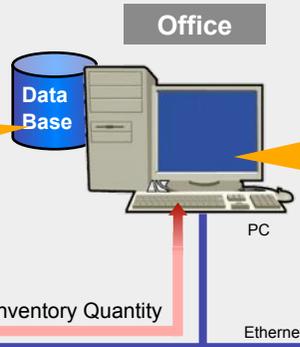


MONITOUCH + V-Server will support receiving/delivering operations.

System Configuration

Real-time inventory control is available!
Inventory status is written in the database while receiving/delivering operations.

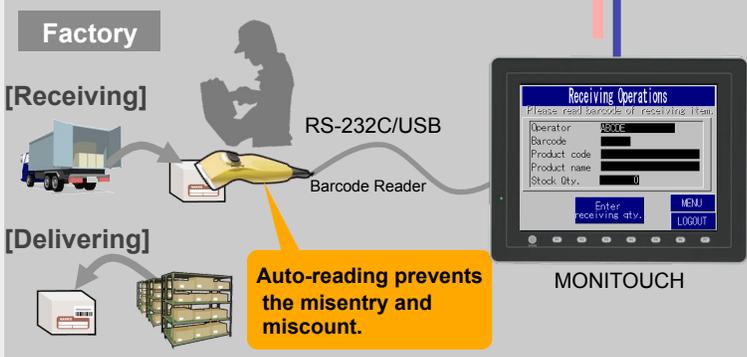
Good



V-Server
Any database can be used!

ODBC connection allows you to use any database with your desired format.

Software for Remote Control



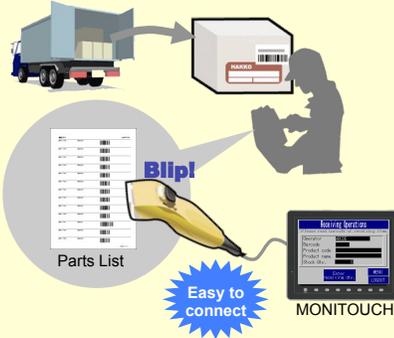
MONITOUCH
Easy to customize!
Modification in settings can be easily performed by using the configuration software (V-SFT-5).

Installation/Operation Image

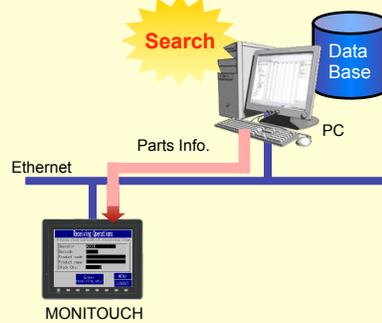
[Receiving Operations]

Register the data on inventory control system at the time of receiving operations.

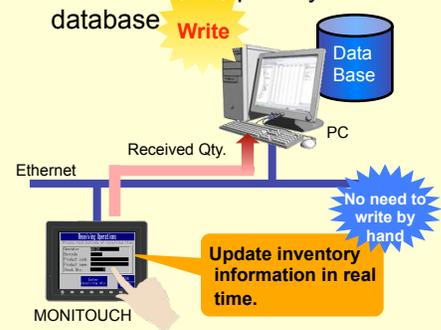
1) Read a barcode of the receiving parts.



2) Get the info. of the parts that corresponds with the barcode info. from database.



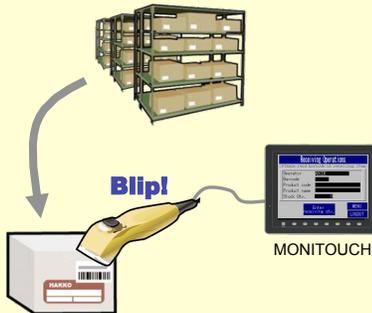
3) Enter the received quantity and write the stock quantity to the database.



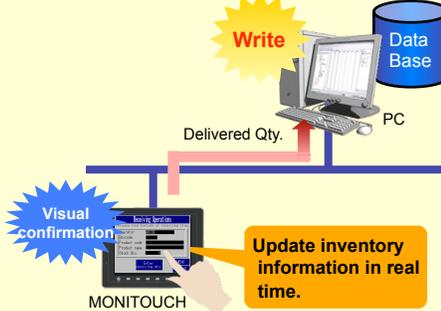
[Delivering Operations]

Confirm the time for ordering the parts at the time of delivering operations.

1) Read a barcode of the parts to deliver.



2) Get the info. of the parts that corresponds with the barcode info. from database and input delivering quantity in the database.



3) In case the stock quantity of the part becomes less than predetermined quantity, MONITOUCH can show the warning to urge you to place an order.



Inverter Connection - Application Example - Vol.1

Various advantages can be expected by connecting MONITOUCH with inverters.

- MONITOUCH can be connected with inverters directly without programming. Drastic cost reduction can be expected as PLC is not required in the system.
- By using three serial ports, high-speed communication with a number of inverters can be realized.
- By utilizing the available component parts for connecting with inverters, engineering man-hour for preparing the screen program can be significantly reduced.

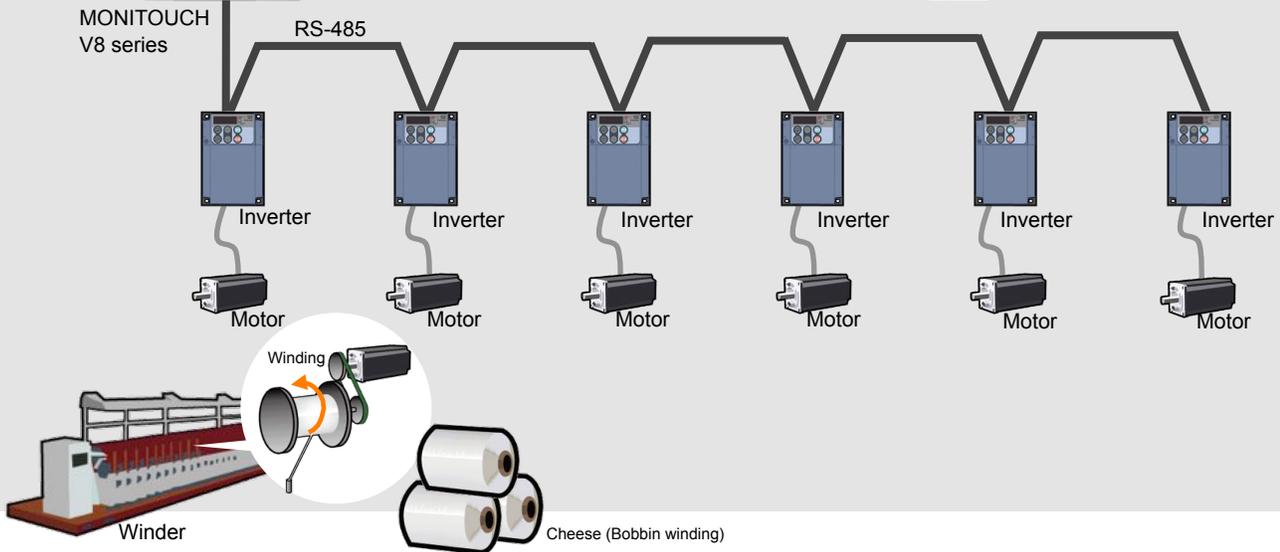
Inverter Control System for Winder

A winding system with multiple inverters

Significant cost reduction for the equipment can be expected!



- 1) PLC is not required as MONITOUCH can be directly connected with inverters.
- 2) Development man-hour can be reduced because it is connectable without programming.



Built-in three RS-485 ports can realize the great performance!

High-speed inverter control can be realized!

8-way communication feature

Even when you connect a few inverters, it is possible to read from/write to each inverter at high-speed by connecting the inverters with separate ports.



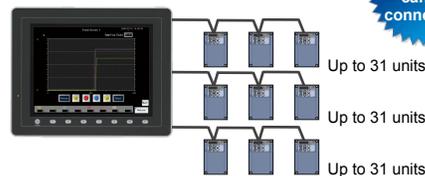
Three connection lines are available.

Faster communication can be realized by connecting the inverters to different port than making 1:n (multi-drop) connection.

More than 31 units of inverter can be connected!

8-way communication feature

Three RS-485 ports are built-in. Up to 31 units of inverter can be connected with each port.



Up to 93 units can be connected.

Backup tool is also available to reduce more man-hour!

With sample screen program...

- If it contains a number of screens, you need to copy every screens.
- It is required to change the destination screen number for switching screen if the number of the source screen and destination screen are different when you copied.
- It is also required to change the memory setting if the memory used in the sample program and memory used in the configuring screen are duplicated.



It's not that simple...

With "Component Parts," you just need to place it on the screen!

Component parts can be used without modification in setting wherever it is placed.
It can be placed simply and freely without worrying about the existing screen configuration.



Good

Engineering man-hour can be reduced to the utmost limit!

First in industry

Component Parts

In "Component Parts," various functions and macros have been already arranged according to purpose.
You can create a functional screen instantly by simply selecting a "Component Parts" from the parts list and placing it on the screen.



Just select a part and place it!



Download



Component parts for inverter connection



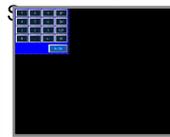
Parameter Setting Scrn.



Status



Data Setting



These screens are also included in the component parts. They can be used only by placing the component parts without any change.

Good



Inverter Connection - Application Example - Vol. 2

Various advantages can be expected by connecting MONITOUCH with inverters.

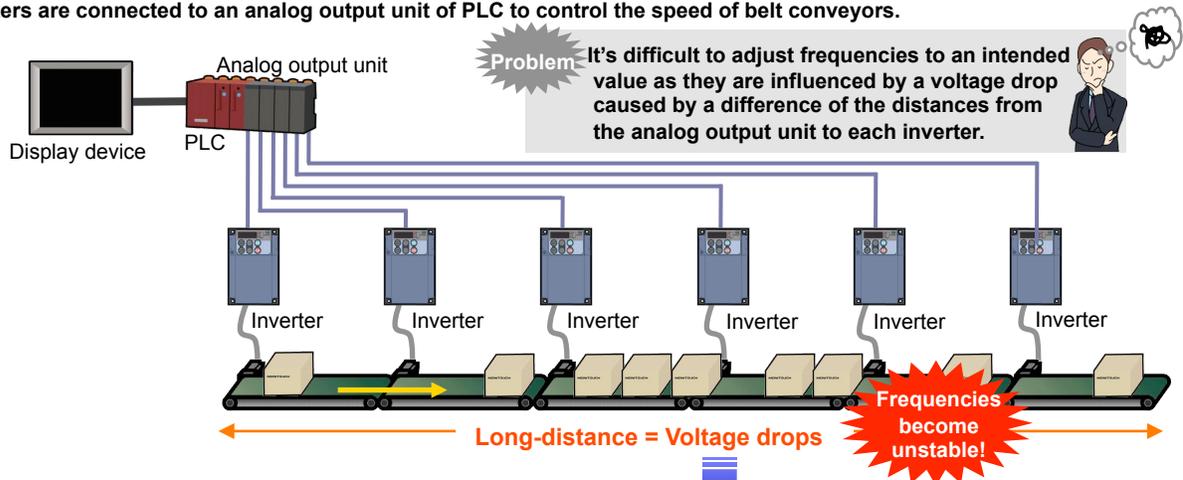
- MONITOUCH can be connected with inverters directly without dedicated program. Drastic cost reduction can be expected as PLC is not required in the system.
- Controlling frequency by communication allows inverters to operate as configured, and that improves the system quality.
- Since MONITOUCH supports various models and brands, it responds flexibly to the inverters changed according to purpose.

Inverter Control System for Conveyor Line

A speed control system for belt conveyors with multiple inverters

Previously...

Inverters are connected to an analog output unit of PLC to control the speed of belt conveyors.



Controlling conveyor speed by MONITOUCH

Drastic cost reduction for the system can be expected!



- 1) PLC is not required as MONITOUCH can be directly connected with inverters.
- 2) Development man-hour can be reduced because MONITOUCH is connectable without programming.

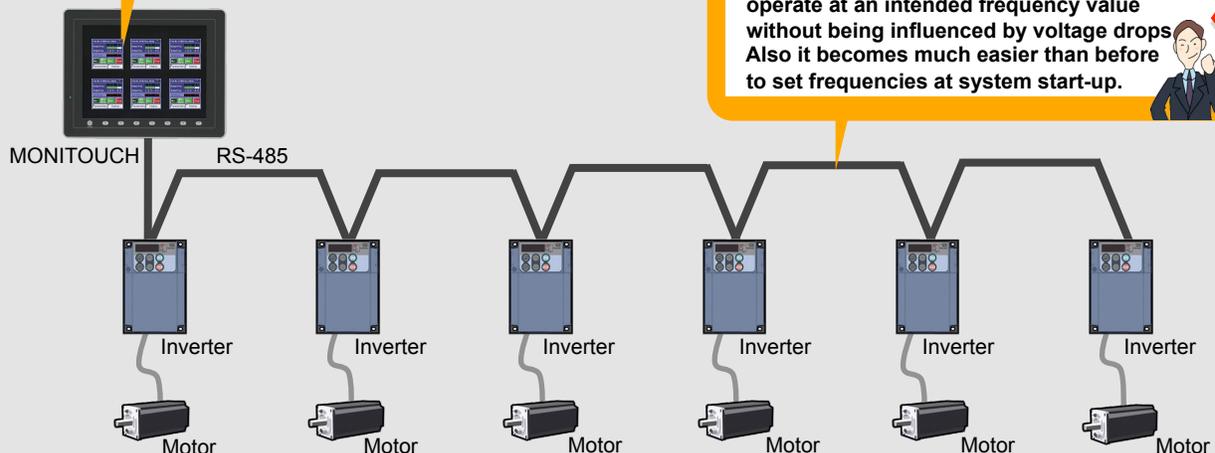
Good

Realized stable frequency setting!

Improved quality

Frequencies are configured by communication so that the inverters can operate at an intended frequency value without being influenced by voltage drops. Also it becomes much easier than before to set frequencies at system start-up.

Good



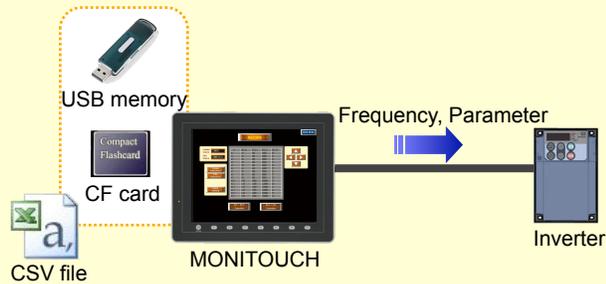
Conveyor line system can be backed up more strongly!

**Reduced development man-hours
for tooling change process**

Recipe function

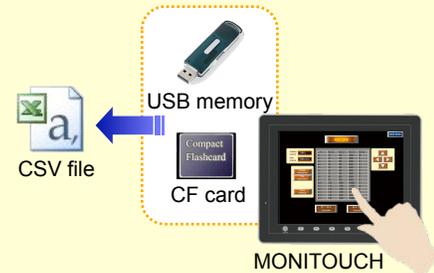
Allows to read/write data to CSV file

Speeds of belt conveyor (frequency) for each production item are stored in a CF card or USB memory in CSV format. It is possible to read data from CF card and write it in an inverter at a tool changing.



Enables CSV file editing

Data stored in CSV file can be directly configured through MONITOUCH without using PC. It is possible to save frequencies adjusted at system start-up in a file, and to use them, too.



Supports multiple communication drivers for various brand inverters!

supports
40 models
From
11 brands

40 models from 11 international inverter brands are connectable. (as of March, 2010)

Brand	Model	V8	V7
Fuji Electric	FVR-E11S		○
	FVR-E11S(MODBUS RTU)	○	○
	FVR-C11S		○
	FVR-C11S(MODBUS RTU)	○	○
	FRENIC5000G11S.P11S		○
	FRENIC5000G11S.P11S(MODBUS RTU)	○	○
	FRENIC5000VG7S		○
	FRENIC5000VG7S(MODBUS RTU)	○	○
	FRENIC-Mini(MODBUS RTU)	○	○
	FRENIC-Eco(MODBUS RTU)	○	○
	FRENIC-Multi(MODBUS RTU)	○	○
	FRENIC-MEGA(MODBUS RTU)	○	○
	HFR-C9K	○	○
	HFR-C11K	○	○
MITSUBISHI ELECTRIC	FR-V500	○	○
	FR-V500	○	○
	FR-V700(MODBUS RTU)		○
	FR-E700	○	

Brand	Model	V8	V7	
TOSHIBA	VF-S7	○	○	
	VF-S9	○	○	
	VF-S11	○	○	
	VF-A7	○	○	
	VF-AS1	○	○	
	VF-P7	○	○	
	VF-PS1	○	○	
	VF-FS1	○	○	
	VF-nc1	○	○	
	TOSHIBA MACHINE	VELCONIC Series	○	
	LS	IS5		○
IG5			○	
Hitachi Industrial Equipment Systems	SJ300 Series	○	○	
	SJ700 Series	○		
	L300P Series		○	
Yasukawa Electric	VS mini V7 Series		○	
	E-POSI Series		○	
SAMSUNG	MOSCON-E7		○	
Sanken Electric	SAMCO-e		○	
	SAMCO-vm05		○	
Siemens	MicroMaster 400		○	
Danfoss	VLT Series		○	