

AUTOBASE 10

HMI/SCADA Software

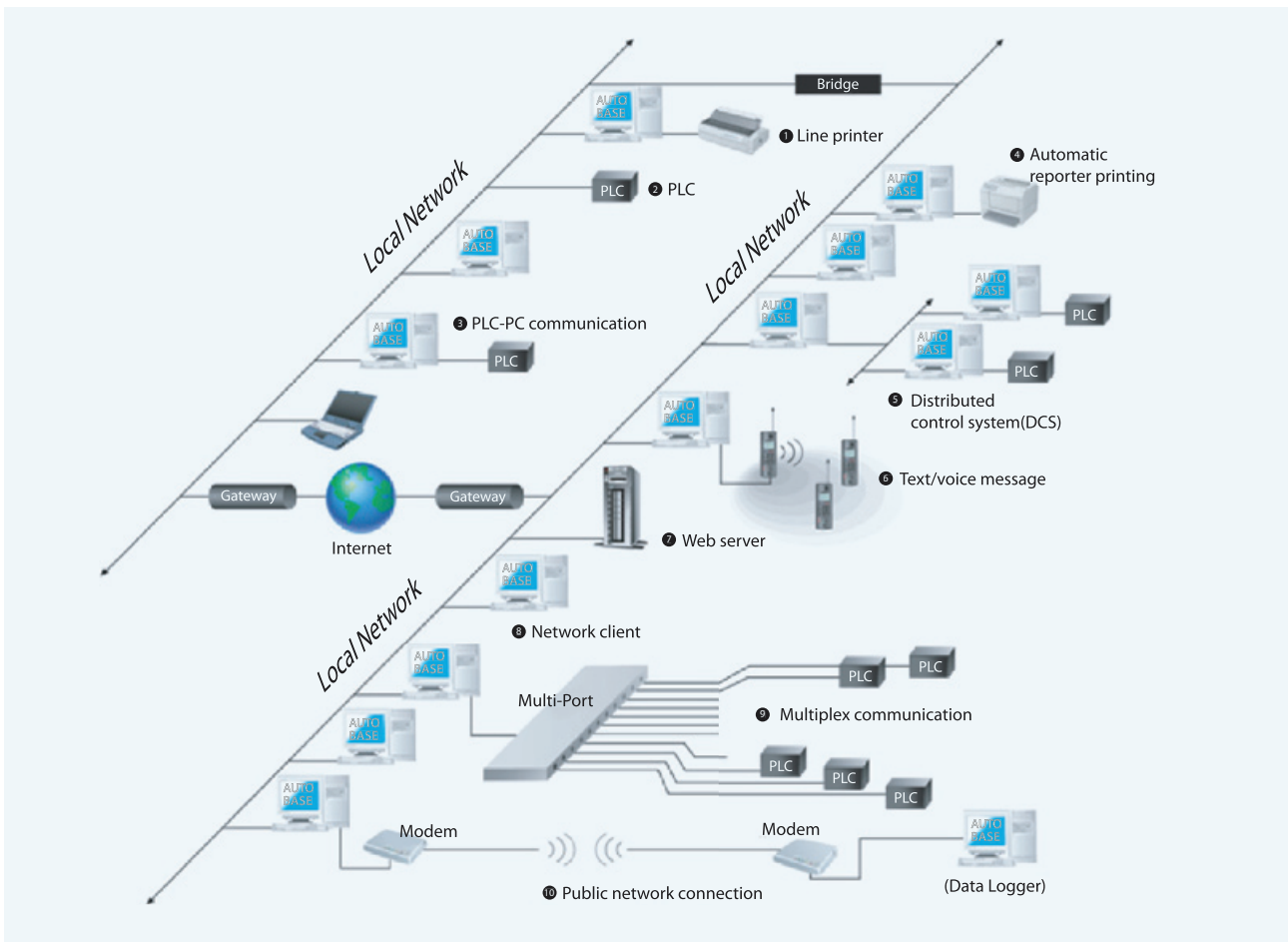


FEATURES

- Windows-based automation development tool capable of monitoring and manipulating the automated system
(Applicable OS: Microsoft Windows 7/Vista/XP/2008)
- Realistic system monitoring by the animated visual objects (animation libraries)
- One software package covers a PC connection with programmable logic controllers up to 256 units
- Reciprocal communication and data sharing among all AUTOBASE programs connected to the Internet
- Easy monitoring and control on the Internet using a Web server
- Various types of communication: RS-232, RS-422, RS-485, USB, TCP/IP, UDP/IP, DDE, OPC, ODBC and OLEDB
- Capable of building a Distributed Control System (DSC) with networking each computer
- Various development tools such as Report Editor, Tag Editor, Communication Editor and Picture Libraries
- Script languages in the format of C or C++
- Supports data sharing with an external database through ODBC or OLEDB

Field Applications

- Water purification
- Waste water disposal
- Electric power control
- Lighting control
- Process monitoring
- Building Automation
- Pollutant burning equipment
- SCADA
- Parking facilities
- Factory automation
- Distributed control system (DCS)
- Gas level monitoring
- Boiler equipment
- Greenhouse control
- Surveillance system
- Liquid level monitor
- Home automation
- Remote surveillance system
- Refrigeration and cold storage equipment
- Water quality measurement
- Automated logistic system
- Automated warehouse system
- Production control system
- HVAC system
- Power plant
- Chemical plant
- Steel plant
- Cement plant

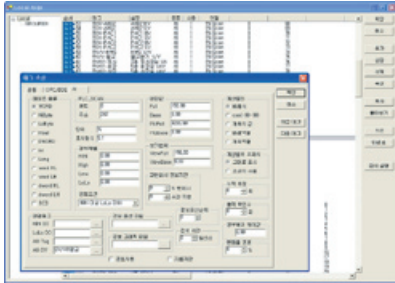


AUTOBASE Network Composition

- ① Line Printer: Prints the alert message detected and sent by the monitoring program. Capable of printing directly by accessing a printer port without the operation of Windows
- ② Programmable Logic Controller (PLC): Connects the PLC to all stations if the Communication Module supports a communication network
- ③ Communication Module for PC: RS-232, RS-422, RS-485, USB, TCP/IP, UDP/IP, DDE, DPC, OLEDB
- ④ Automatic print of reports: Can select printing frequently or at a designated time
- ⑤ Distributed Control System: Each local system monitors and controls a required section whereas the server system integrates the data which were monitored and controlled
- ⑥ Text-voice message : Transmission of a text or voice message at the alert outbreak
- ⑦ Web Server: Enables monitoring and control on the PC through the completed local tasks installed on the Web server
- ⑧ Network client: Supports connection to other AUTOBASE system without accessing to the PC
- ⑨ Multiple communication: Simultaneous connection up to 256 different types of PLC's and Communication Modules
- ⑩ Public network connection: Remote distance connection by using a telephone line

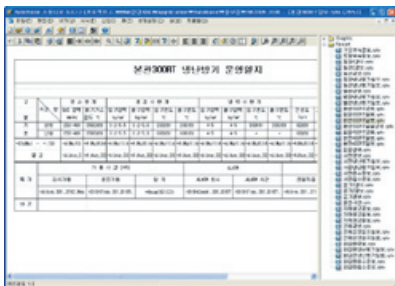
AUTOBASE 10

Program Composition: Editor Program



Tag Editor

- To change the configuration of a digital I/O tag
- To change the configuration of an analog I/O tag
- To change the configuration of a string tag
- To change the configuration of a group tag



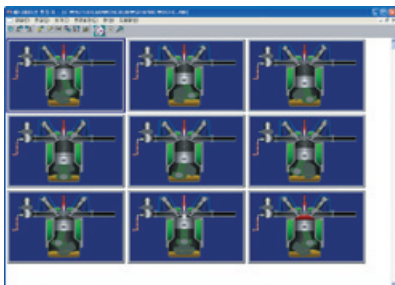
Reporter Editor

- Capable of editing any types of report format
- Instantaneous alert function
- Alarm function for a preset time



Bitmap Editor

- To edit all types of bitmap files
- Support all image files
- PCX, BMP, GIF, LBM, SPT, TGA, TIFF, MMP, JG and etc.
- Various types of drawing tool



Animation Editor

- Designed to create animation files
- Can change the speed of animation and the number of frames
- Use of created files as digital objects or analog objects



Module Editor

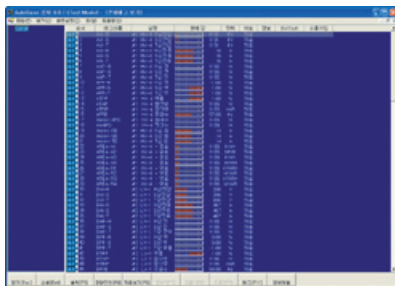
- Capable of editing monitoring screens
- Types of object: Text, line, graph, date, image, rectangle, circle, clock, animation, program button, module buttons and output buttons

Program Composition: Monitoring Program



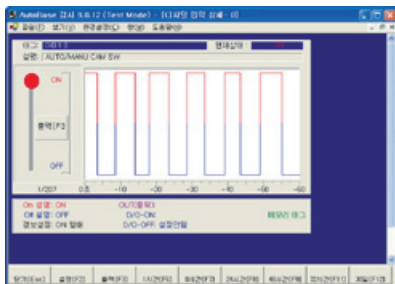
Graphic Monitoring

- Graphical expression of all tags for convenient monitoring
- Types of object: Text, line, polygon, curve, rectangle, circle, animation, window control and various buttons



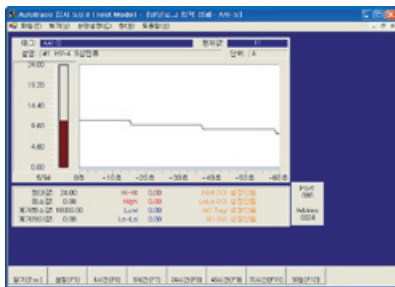
Tag Monitoring

- Entire monitoring of tags that are set in the PC
- Graphic and character expression
- Configuration of a total 120,000 tags (analog and digital)
- Comparison with various tag member values



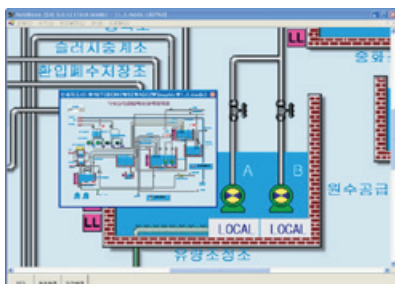
Detailed digital monitoring

- To monitor analog present values and instantaneous values
- Shows all present digital set values
- Can verify the digital output related to the input



Detailed analog monitoring

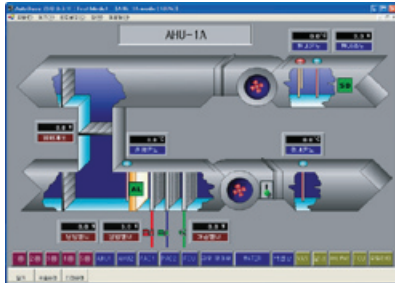
- To monitor analog present values and instantaneous values
- Various types of expression (real time expression, line graphs, bar graphs and numeric values)
- Shows all present analog set values
- Changes the values of HiHi, High, Low and LoLo



Navigation Map

- Allows the user to find a certain location very easily by displaying the large graphic monitoring screen in a small window

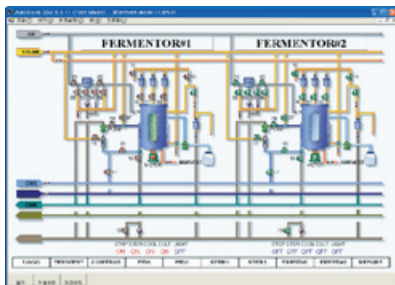
Examples of Field Applications



[HVAC Control]

The purpose of HVAC Control system is to manage temperature and humidity in the entire areas of a building. A programmable logic controller handles operation of each zone, and the PC sets the target temperature and humidity necessary for the operation, and integrates the command information from each zone and determines the status, and then resends instructions to relevant zones.

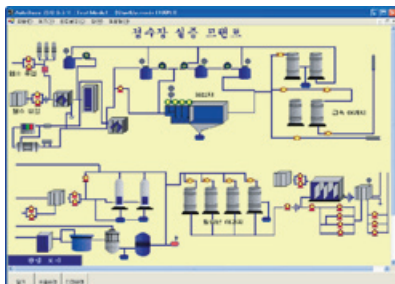
Daily reports are created automatically and printed out. The PLC communication speed was increased using TCP/IP, thereby facilitating a response time.



[Fermentation Control]

The fermentation control system runs repeatedly in a cycle of few hours or several days. Once a certain operation starts, the fermentation control system performs the process of mixture, fermentation, storage automatically in order to ripen raw materials.

The system is configured in a way that the parameters required for each step, are entered in the PC whereas it performs PID control in each fermentor. Multi-port was arranged to increase the communication speed. Generally, the communication speed of this configuration is faster than the configuration of which is connected to a single port with RS-485.



[Water Purification Process]

The water purification system automatically proceeds sedimentation, filtration, and chemical treatment and monitors each process. The unit control program is designated for each process, and data are automatically printed out hourly, daily or monthly.

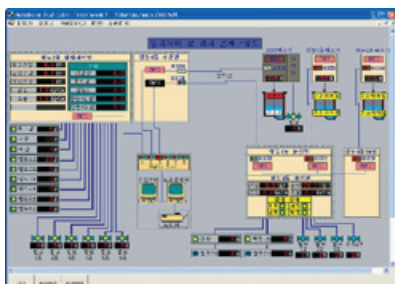
The water purification system performs monitoring on each area whereas the AUTOBASE server PC monitors the data via a communication network or exclusive communication line.



[Lighting Control]

The Lighting Control System is designed to perform lighting control and management of a whole building. The monitoring screen supervises the total of seven floors, and the operation of the lighting control is performed on each floor.

The user can perform integrated lighting control by grouping each office. The 'Reservation Schedule' function enables automatic ON/OFF lighting control according to a pre-selected reservation schedule.



[Remote Monitoring]

Unlike monitoring for a building, the remote monitoring system is designed to monitor and control the scene in a remote distance through the use of a telephone line or other network.

A general phone line can be used in case of an area that does not require a significant change in measured values.

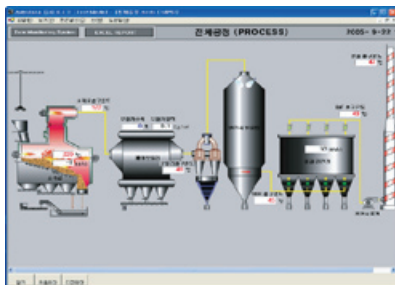
Examples of Field Applications



[Water purification]

The water purification system automatically performs a course of operation such as chemical injection, initial precipitation, aeration, final precipitation, sludge concentration, disinfection and discharge of water.

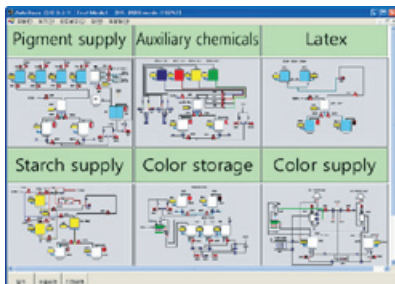
The PC on each section does monitor and control the required system, whereas the PC of the central monitoring section is designed to monitor necessary points through PLCSCAN, a computer program. It can monitor a specific section as well as the central monitoring section simultaneously.



[Waste disposal]

Waste disposal is a general area where HMI/MMI program is applied. The waste disposal facilities are designed to perform the insertion of wastes, incineration, compression and emission. It generates a report on the daily quantity of waste disposal and the amount of toxic gas.

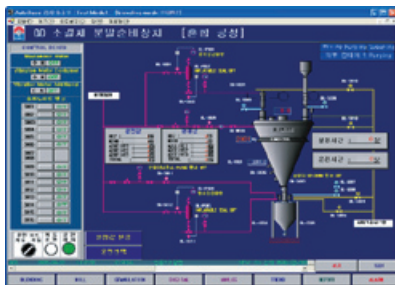
The waste disposal system was installed using an I/O board built in the PC and a programmable logic controller connected through RS-422.



[Paper mill process]

The paper mill process involves the insertion and mixture of pharmacy for surface processing. The PLC runs operation of each section, whereas the PC manipulates system configuration and operation.

It generates a report on the results and sends it to the administrator.



[Process monitoring]

The process monitoring system monitors and controls a production line. The process monitoring can be applied to various types of process system such as semiconductor, conveyor, paper mill, metal plating and fermentation.

By composing the applications suitable processes, it collects diverse data such as product quality judgment and total production volume, and sends them to the administrator.



[Electric power monitoring]

The electric power monitoring system is designed to obtain accurate data by measuring and controlling the load of electric power, and efficiently manage the energy through the cost analysis.

Through the operation of dual server system, continuous monitoring operation is enabled by a secondary server even if a primary server goes wrong.