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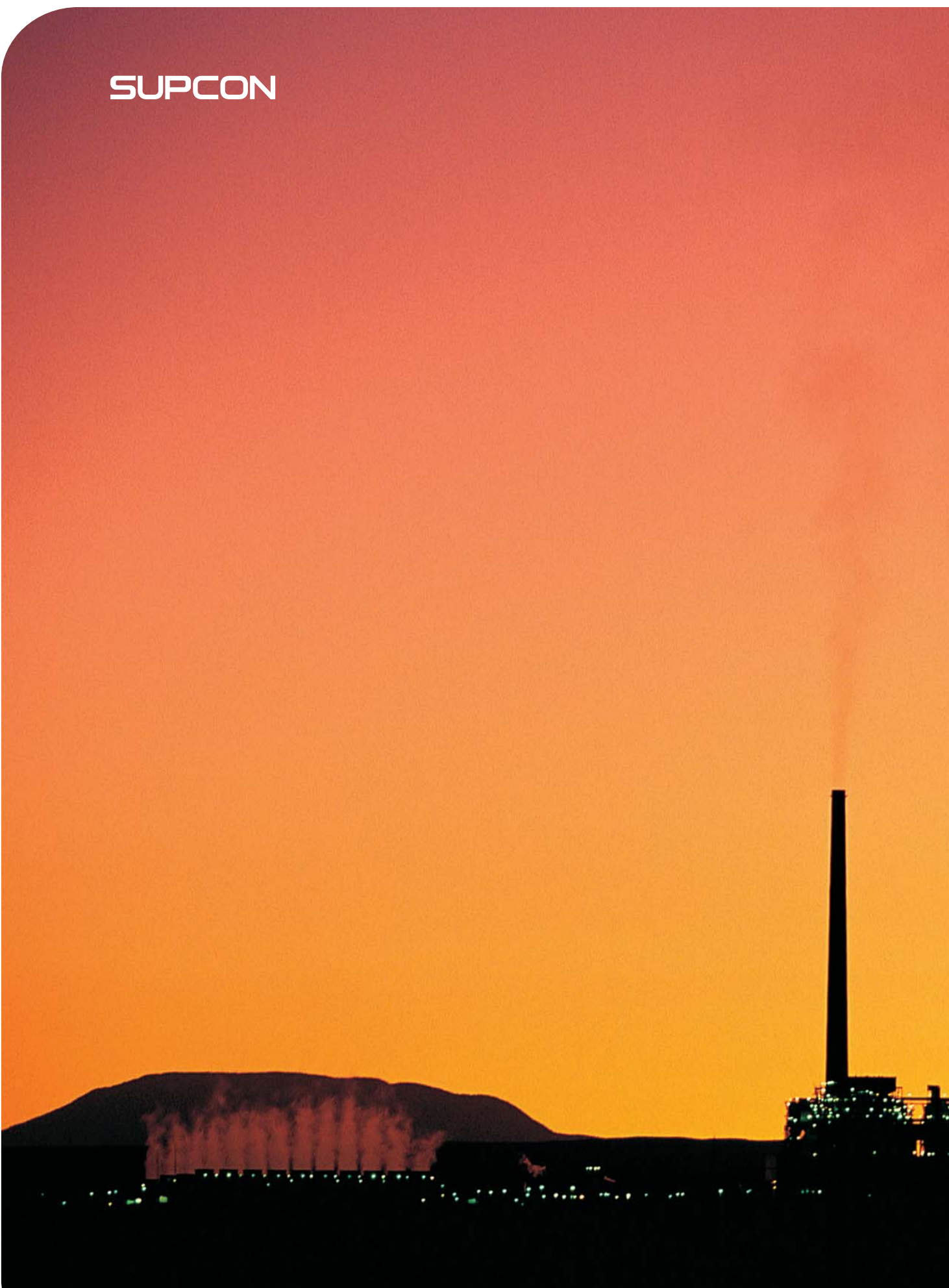
# WebField JX-300XP



## WebField JX-300XP Selection Manual

ZHEJIANG SUPCON TECHNOLOGY CO., LTD.

SUPCON



**WebField**



# JX-300XP



## About SUPCON

SUPCON Group Co., Ltd. (SUPCON for short) is one of the most famous Chinese suppliers on automation & information technology, products and solutions. SUPCON's business includes process automation, public works automation, equipment automation, etc.

As one of the largest suppliers of process automation in China, SUPCON's business has spread over China, Vietnam, Pakistan, Sudan, Myanmar, Thailand, India, Egypt, Kazakhstan, Indonesia, Canada, etc.

SUPCON's products include DCS systems, instruments, optimization and advanced control software, which have played an important role in various process industries such as Chemical, Fertilizer, Petrochemical, Power, Mining & Metallurgy, Building Material, Brewing, Pulp & Paper, Oil & Gas, Pharmaceutical, etc.

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## WebField™ JX-300XP System Overview

JX-300XP is a distributed control system with mature technology and stable performance, and has wide application in process industries such as chemical, petrochemical, metallurgical, building materials, etc. It is the most widely used control system in China.

With the characteristics of total integration and flexible configuration, JX-300XP absorbs updated achievements of network technology and micro-electronics technology, and adequately applies the latest signal processing technology, high speed network communication technology, reliable software platform and software design technology and fieldbus technology. High performance microprocessor and matured advanced control algorithms have been adopted to make a whole improvement of system performance. It can meet more extensive and more complicated application requirements.

As an open distributed control system with the characteristics of full digitalization, flexible structure, and perfect function, JX-300XP possesses excellent openness, and can easily realize the integration with many kinds of fieldbus equipments and isomeric systems.

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**WebField JX-300XP**

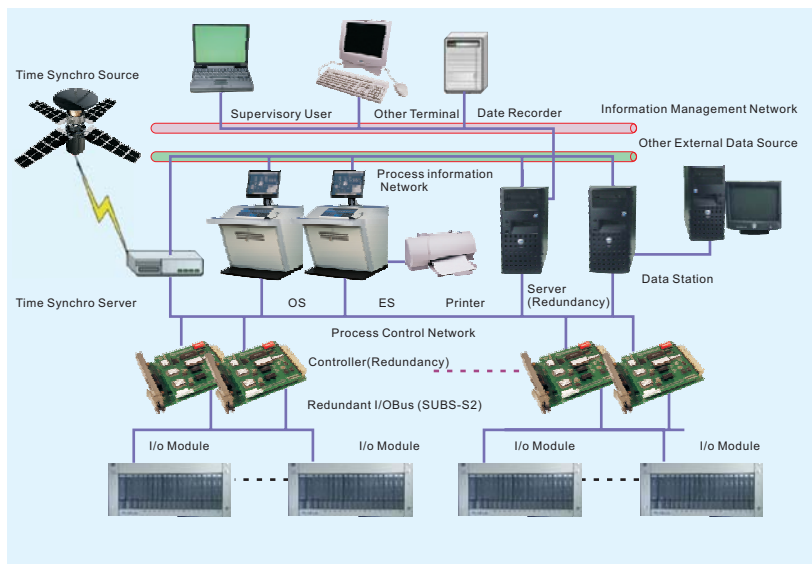
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## The Structure of JX-300XP System

### Overview

WebField JX-300XP system is consisted of engineer station, operator station, control station, process control network, etc.

- Engineer station is specially designed for professional engineering technicians, with corresponding configuration platform and system maintenance tools.
- Operator station is a human-machine system consisting of industrial PC, Color Display (CRT or LCD), keyboard, mouse, printer, etc, which is the environment for the operator to conduct process monitoring.
- Control station is the I/O processing unit that realizes acquisition and control of field data during whole industrial process.
- Process control network realizes the connection of engineering station, operator station and control station, and conducts the transmission of information, control command, etc. The double redundancy design makes information transmission safe and fast.



### Network Structure

The system network consists of three layers.

- The first layer is Ethernet viz. Information Management Network (Optional)  
Ethernet is adopted, and to transmit and manage plant-level information. It is the information channel for realizing the integrated management of the whole plant.
- The second layer is SCnetII viz. Process Control Network  
It directly connects with control station, operator station, engineering operation, communication interface unit, etc, and is the channel for transmitting process control real-time information.
- The third layer is SBUS viz. the Internal I/O Control Bus of Control Station  
It is the I/O control bus inside control station. The information among master controller module, data transmission module and I/O modules are exchanged through SBUS.

SBUS has 2 layers as Double Bus SUBS-S2 and SBUS-S1 Network. With them, the controller manages I/O module dispersing in each rack.



# Major Technical Data

## Working Environment

Working temperature: 0°C~50°C

Storage temperature: -40°C~70°C

Working humidity: 10%~90%, Non condensing

Storage humidity: 5%~95%, Non condensing

Altitude: 4000m

Vibration (Working): Vibration frequency range of (10~150) Hz,  
allowable displacement peak amplitude value  
Of 0.075mm. Acceleration is less than 9.8 m/s<sup>2</sup>.

## Requirement of Power Supply

Control station: Dual redundancy power supply, 220VAC $\pm$ 10%, 50Hz $\pm$ 5%,  
maximum 800W. Power Factor Correction (according to IEC61000-3-2 standard).

Operator station, engineering station and multi-function station: 220VAC $\pm$ 10%, 50Hz $\pm$ 5%,  
maximum 400W.

## Grounding Requirement

Equipotent grounding

For common situations, the grounding resistance is not more than 4  $\Omega$ .

For the transformer station, power plant and field with devices need large power. The  
grounding resistance is not more than 1  $\Omega$ .

Normal application: <4  $\Omega$

Large power supply application: <1  $\Omega$



## Major Technical Data

### ■ System Scale

The maximum system configuration includes 15 redundant control stations and 32 operator stations or engineer stations, with maximum system capability of 15,360 nodes.

### ■ Control Station Scale

Each control station of WebField JX-300XP system can be hitched 8 I/O racks at most, and each rack can be fixed with 16 I/O modules.

Maximum points of each signal

- AI (analog input) point  $\leq 384$  (including pulse input) per station
- AO (analog output) point  $\leq 128$  per station
- DI (digital input) point  $\leq 1024$  per station
- DO (digital output) point  $\leq 1024$  per station
- Control loop: 128 per station (The sum of BSC and CSC cannot exceed 64; The regular control loop cannot exceed 64)
- Program space: 4Mbit Flash RAM
- Data space: 4Mbit SRAM
- 1-byte variable (virtual digital)  $\leq 2048$  (internal digital contact point)
- 2-byte variable  $\leq 2048$  (int, sfloat)
- 4-byte variable  $\leq 512$  (long, float)
- 8-byte variable  $\leq 256$  (sum)
- 256 second timers and 256 minute timers

Slots of data transmission module can be configured with two mutual redundant data transmission modules. Data transmission module is necessary for every rack. If data transmission module is configured in a non-redundancy mode, it can be plugged into either of the two slots and the spare slot cannot be used as I/O slot.



# Mechanical Components

## Cabinet

The cabinet adopts 19-inch mechanical structure of international standard, and the components adopt standard assembled mode, satisfying variable application environment. The cabinet with reasonable and flexible installation inside, beautiful figuration, stronger capability of anti-disturbance at electromagnetism and environment accommodating, can conveniently extend other 19-inch standard equipment and other control equipment.



Model	Size	Remark
XP202	Cabinet 2100×800×600	Standard 19-inch vertical shaft, installed AC distribution box. Maximum installed one XP251 power supply rack, four XP211 racks, four XP251-1 power supply units
XP204	Cabinet 2100×800×600	Auxiliary cabinet
XP209	Cabinet (600×650×1200)	RemoteCabinet. Maximum installed one XP251 power supply rack, two XP211 racks
XP201S	Small Cabinet (715×425×1000)	Maximum installed one XP251 power supply rack, two XP211 racks



## Operation Desk

Operation desk is used to place host computer and display of operator station. Operator can conveniently conduct system via imbedded keyboard.

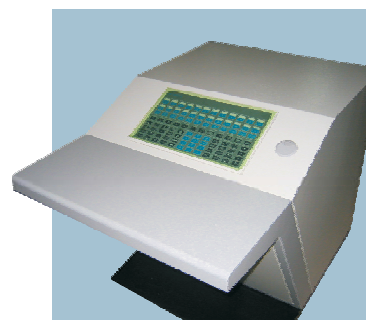
Component model

XP071-1: Vertical operation desk with keyboard hole

XP071-2: Vertical operation desk without keyboard hole

XP072-1: Plane operation desk with keyboard hole

XP072-2: Plane operation desk without keyboard hole



## Printer Desk (Optional)

Printer desk is used to place printer. User can customize printer desk for printing report or alarm menu, etc.

Component model

XP071D: Matched with vertical operation desk.

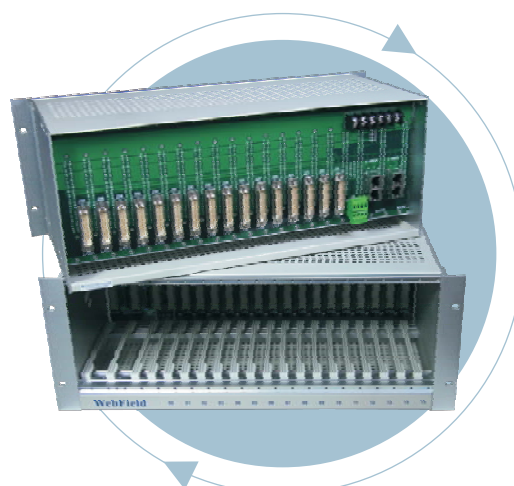
XP072D: Matched with plane operation desk.



## Control Station Components

### ■ Rack

The rack is the carrier of installing system modules and kinds of I/O modules. The mechanical structure in accord with hardware modular design meets the bus structure requirements, using plugging & pulling modules conveniently and easily expanded slide-guide rack structure. Every rack in same control station connects with each other through double serial communication bus viz. SBUS-S2. The I/O rack can be put in one cabinet with master control rack or placed in different cabinet, and I/O rack is allowed placing in production field far from control room. Component model: XP211



## Power Supply Module

The power supply module of JX-300XP system is double-output power supply module which can simultaneously output 5V and 24V voltage power. Power supply module for I/O modules requires redundant configuration. Under normal circumstances, the two redundant power supply modules can supply for two racks.

Single power supply output: 150W

Component model: XP251-1



## Power Supply Rack

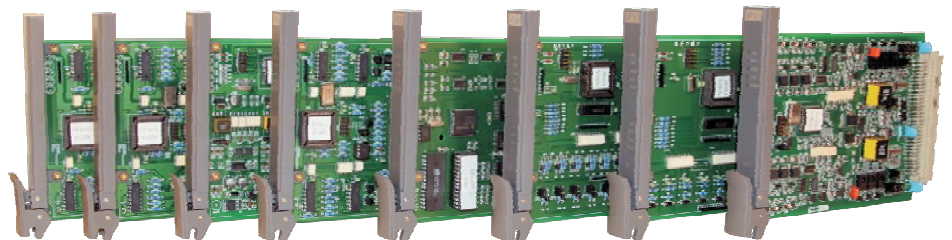
Power supply rack is used to install fixed power supply module, and one power supply rack can be placed four power supply modules.

Component model: XP251



## General View of I/O Modules

Model	Module name	Performances and input/output points
XP243	Controller (SCnet II)	Responsible for sampling, control and communication, 10Mbps
XP244	Communication interface module (SCnet II)	RS232/RS485/RS422 communication interface, and can communicate with PLC, intelligent modules, etc
XP233	Data transmission module	SBUS standard, used for extended I/O Unit
XP221	Power supply indication module	
XP313	Current input module	6-channel input
XP314	Voltage input module	6-channel input
XP316	RTD input module	4-channel input
XP335	Pulse input module	4-channel input
XP341	PAT module (Position adjustment type module)	2-channel output
XP322	Analog output module	4-channel output
XP361	Voltage-level digital input module	8-channel input
XP369	SOE signal module	8-channel input
XP363	Contact digital input module	8-channel input
XP362	Transistor output module	8-channel input
XP000 Empty module	Empty module (Protect board for I/O slot)	



## Controller

Controller is the core of control station, in charge of regulating all relations of hardware and software inside control station and all kinds of control tasks, such as I/O signal handling, calculation control, communication control and handling between upper and lower layers network, redundant diagnosis, etc.

Adopt double-CPU structure, which are main CPU (Master) and CPU (Slave).

Support redundancy and non-redundancy configuration and the mode of redundancy is 1:1 hot standby.

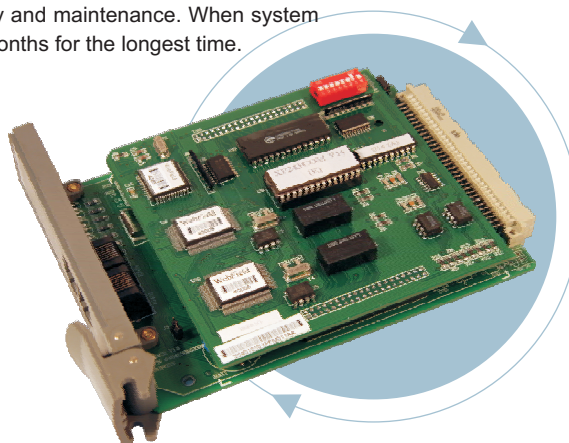
The number of control loops can be up to 128 (Sum of self-defined BSC and CSC can't exceed 64 at most, and sum of regular BSC and CSC can't exceed 64 at most.)

Support 128 I/O modules at most and realize local or remote I/O control function through SBUS.

Internal backup LI-battery, used to protect SRAM date (including system configuration, control parameter, running status, etc.) Inside controller after powered down, improving system's safety and maintenance. When system is power off, SRAM date can be kept up to 3 months for the longest time.

Necessary module for every control station

Component model: XP243



## Date Transmission Module

In charge of data exchange between master control module and I/O modules, it is the necessary module of each rack.

Function of WDT watchdog reset.

Support redundancy structure and non-redundancy working.

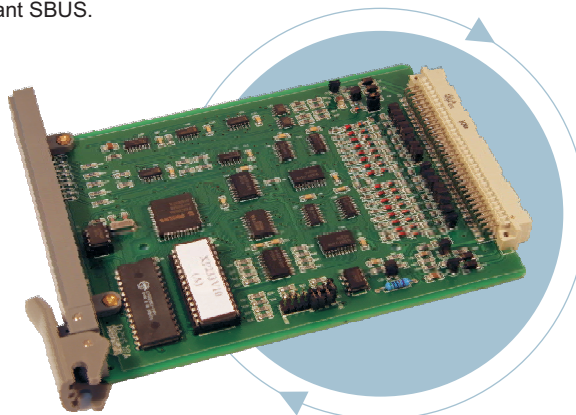
Conduct self-check to power supply status of the rack.

Acquire cold-side temperature and check environment temperature.

Realize remote connection of bus nodes through repeater.

Support communication of high speed redundant SBUS.

Component model: XP233



# I/O Modules of Control Station

## Analog Input Module

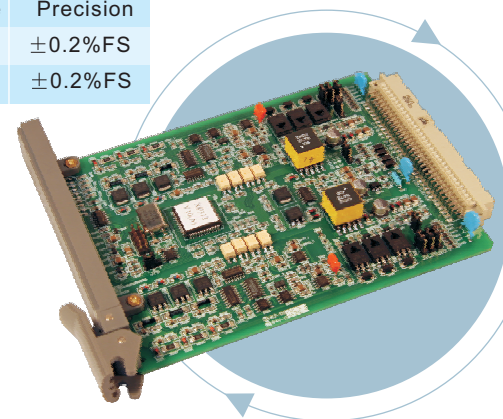
Analog input module can measure 6-channel signal (II type or III type), and offer +24V isolated power distribution for 6-channel transmitter. It is the intelligent module fixed with CPU that can condition and measure analog input signal, possessing the function of inspection and communication with master controller.

### Module Technical Data

Model	XP313
Power supply	
5V power supply	(5±0.3) VDC, I <sub>max</sub> <50mA
24V power supply	(24±0.5) VDC, I <sub>max</sub> <200mA
Input loop	
Channel	6-channel
Signal type	Current signal (type II or type III), configuration selected
Filter time	configuration selected
Resolution	15 bit, polarity
Input impedance	250 Ω
Isolation mode	Photoelectricity isolation, group isolation
Isolated voltage	500VAC one minute (field side and system side) 250VAC one minute (between groups)
Common-mode rejection ratio	≥100dB
Series-mode rejection ratio	>50dB
Loading capacity	1k Ω (20mA)
Short circuit protection	<30mA (single module, each channel)
Open circuits inspection	Type II signal with this function, type III signal without this function

### Measuring Range and Precision

Signal type	Measuring range	Precision
Standard current (type II)	(0~10) mA	±0.2%FS
Standard current (type III)	(4~20) mA	±0.2%FS





## Voltage Input Module

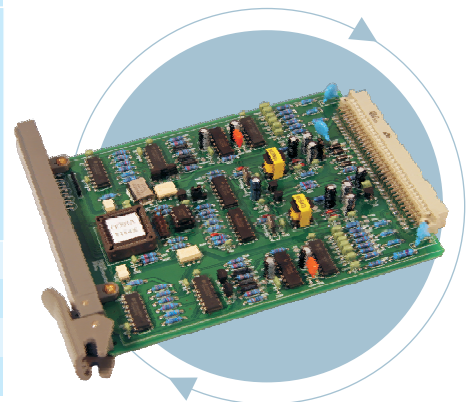
Voltage signal input module is the intelligent 6-channel analog signal acquisition one with analog conditioning function. Each channel can be configured independently and receive kinds of thermocouple and voltage signal, after conditioning they are transformed to digital signal and transmitted to controller by data transmission module.

### Module Technical Data

Model	XP314
Module power	
5V power supply	( $5 \pm 0.3$ ) VDC, $I_{max} < 30\text{mA}$
24V power supply	( $24 \pm 0.5$ ) VDC, $I_{max} < 30\text{mA}$
Input loop	
Channel	6-channel
Signal type	Voltage and thermocouple signal, configuration selected
Filter time	Configuration selected
Resolution	15 bit, polarity
Input impedance	1M $\Omega$
Isolation mode	Photoelectricity isolation, Group isolation
Isolated voltage	500VAC one minute (field side and system side) 250VAC one minute (between groups)
Common-mode rejection ratio	Large signal >100dB , small signal >130dB
Series-mode rejectionratio	Large signal >50dB , small signal >60dB
Open circuits inspection	Open circuits inspection fuction for thermocouple signal

### Measuring Range and Precision

Type of input signal	Measuring range	Precision	Other
B type thermocouple	(0~1800) °C	$\pm 0.2\%FS$	cold junction compensative error $\pm 1^\circ\text{C}$
E type thermocouple	(-200~900) °C	$\pm 0.2\%FS$	
J type thermocouple	(-40~750) °C	$\pm 0.2\%FS$	
K type thermocouple	(-200~1300) °C	$\pm 0.2\%FS$	
S type thermocouple	(200~1600) °C	$\pm 0.2\%FS$	
T type thermocouple	(-100~400) °C	$\pm 0.2\%FS$	
MV	(0~100) mV	$\pm 0.2\%FS$	
MV	(0~20) mV	$\pm 0.2\%FS$	
Standard voltage	(0~5) V	$\pm 0.2\%FS$	
Standard voltage	(1~5) V	$\pm 0.2\%FS$	



## Thermo Resistance(RTD) Signal Input Module

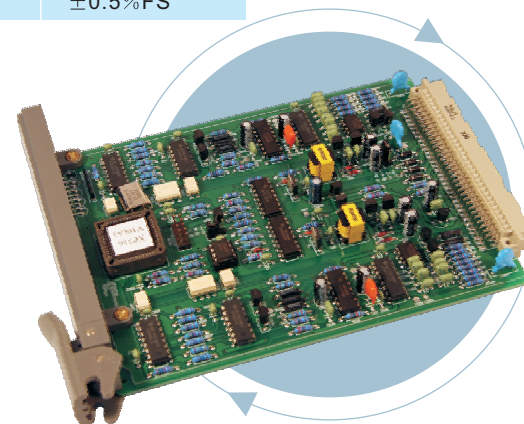
Thermo resistance signal input module is the intelligent redundant 4-channel A/D transforming one specialized in measuring RTD signal. Each channel can be independently configured and receive RTD signal of Pt100 or Cu50, after conditioning they are transformed to digital signal and transmitted to controller by data transmission module.

### Module Technical Data

Model	XP316
	Module power
5V power supply	( 5 ± 0.3 ) VDC, I <sub>max</sub> <35mA
24V power supply	( 24 ± 0.5 ) VDC, I <sub>max</sub> <30mA
	Input loop
Channel	4-channel
Signal type	Thermocouple signal, configuration selected
Filter time	Configuration selected
Resolution	15 bit, polarity
Input impedance	1MΩ
Isolation mode	Photoelectricity isolation, group isolation
Isolated voltage	500VAC one minute (field side and system side) 250VAC one minute (between groups)
Common- mode rejection ratio	≥110dB
Series-mode rejection ratio	>40dB
Open circuits inspection	It possesses open circuits inspection function.

### Measuring range and precision

Type of input signal	Measuring range	Precision
Pt100 RTD	(-148~850) °C	±0.2%FS
Cu50 RTD	(-50~150) °C	±0.5%FS

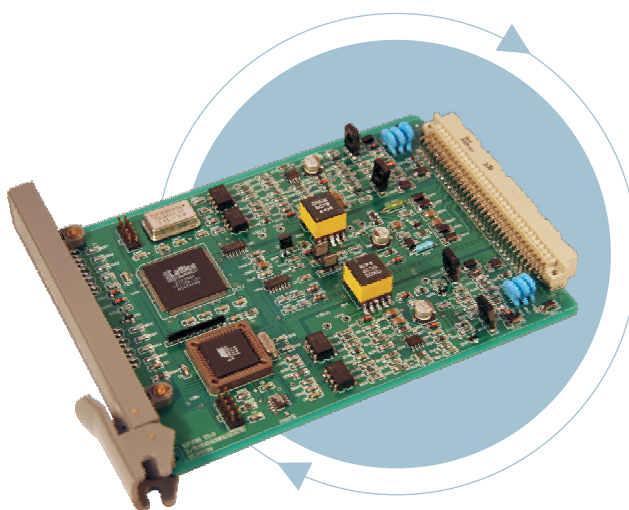


## Pulse Signal Input Module

Pulsed signal input module can satisfy the majority of applications of the patch of pulse measurement module. Every piece of module can measure 4-channel three-wire or two-wire of pulse signal from 1 Hz to 10K Hz, and divided into two groups, which is isolated by group. Low-level is from 0 to 2 V, and high lever is from 5 to 30 V.

### Module Technical Data

Model	XP335
	Module power
5V Power supply	( $5 \pm 0.3$ ) VDC, $I_{max} < 120\text{mA}$
24V Power supply	( $24 \pm 0.5$ ) VDC, $I_{max} < 200\text{mA}$
	Input loop
Channel	4-channel
Signal type	Waveform of signal types: square wave, sine wave High lever: (5 ~ 30) V Low-level: (0 ~ 2) V
Resolution	1Hz
Measuring range	1Hz~10kHz
Module power distribution	24V, $I_{max} = 45\text{mA}$
Isolation mode	Photoelectricity isolation, group isolation
Isolated voltage	500VAC one minute (field side and system side) 250VAC one minute (between groups)
Measuring mode	three-wire or two-wire
Conversion time	200ms
5Hz~10KHz	200ms~1s
1Hz~5Hz	



## PAT Module (Position Adjustment Type Module)

Position adjustment type module viz. PAT module is used mostly in control electromotion unit. Every channel is composed of 2-channel digital variable input, 2-channel digital variable output and one channel analog input .2-channel digital variable input that are used for alarm of limit of positive and negative, and one channel analog input is used to import position feedback; 2-channel digital variable output which are used to control motor positive rotation or motor negative rotation. There is concatenation protection between the positive and negative limit position alarm input and driven-output. When the valve reaches the limit position (Need to connect feedback signals of valve limit position into the corresponding DI input of PAT module), immediately cut off output control In order to protect motors. The modules are high control precision.

### Module Technical Data

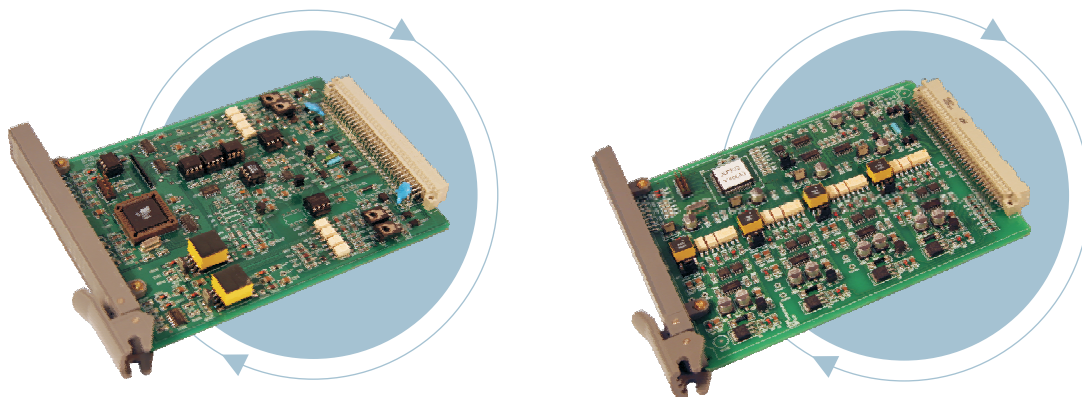
Model	XP341	
	Module power	
5V Power supply	(5±0.3) VDC, I <sub>max</sub> <100mA	
24V Power supply	(24±0.5) VDC, I <sub>max</sub> <120mA	
	Input loop	
Channel	2-channel	
Feedback signal type	Current/Input impedance	(4~20) mA/100 Ω
	Resistance	1kΩ Need customization
The precision of feedback signal	0.3%FS	
Digital variable output	<1kΩ : ONAlarm; >100kΩ : OFF	
Output	24V output(15mA source current)	
Control precision	Depending on the different valves (less than dead-zone)	
Isolation mode	Photoelectricity isolation, group isolation	
Isolated voltage	500VAC one minute (field side and system side)	
	250VAC one minute (between groups)	
Common- mode rejection ratio	>100dB	
Series-mode rejection ratio	>50dB	
Open circuits inspection	It possesses open circuits inspection function	

## Analog Signal Output Module

Analog signal output module is the 4-channel current output one isolated by point (type II or type III). As the intelligent module with high precision fixed with CPU, it possesses real-time output signal inspection function, and permit controller monitoring current output.

### Module Technical Data

Model		XP322
Module power		
5V Power	(5±0.3) VDC, I <sub>max</sub> <50mA	
24V Power	(24±0.7) VDC, I <sub>max</sub> <200mA	
Resolution	12 bits, non-polarity	
Precision	±0.2%FS	
Input loop		
Channel	4-channel	
Signal type	II type (0~10) mA) III type (4~20) mA)	
Output loading capacity	LOW	Type II signal (0~10mA) Type III signal (4~20mA) 750 Ω
	HIGH	Type II signal (0~10mA) 2K Ω Type III signal (4~20mA) 1K Ω

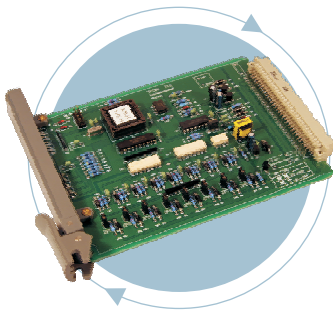


## Voltage Digital Input Module

Voltage-level digital input module is 8-channel digital signal input module, and can fast response to voltage-level digital input. It adopts photoelectric isolation to achieve the accurate digital signal acquisition. Module has self-diagnosis function (including inspection to working state of digital input channel). External voltage can choose 48VDC or 24 VDC.

### Module Technical Data

Model	XP361
Module power	
5V Power supply	( $5 \pm 0.3$ ) VDC, $I_{max} < 60\text{mA}$
24V Power supply	( $24 \pm 0.5$ ) VDC, $I_{max} < 15\text{mA}$
Input loop	
Channel	8-channel
Signal type	Signal Lever
Filter time	10ms
Logic "0" value of input valve	(0~5) V
Logic "1" value of input valve	(12~54) V
Isolation mode	Photoelectricity isolation, grouping isolation
Isolated voltage	500VAC one minute (field side and system side)

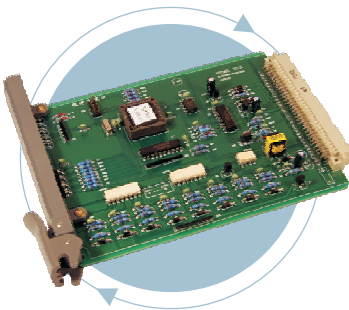


## Contact Digital Input Module

Contact digital input module is the 8-channel contact digital input intelligent module. It adopts photoelectric isolation, possesses function of output inspection to itself. It offers isolation of 24V/48V DC detecting voltage.

### Module Technical Data

Model	XP363
Module power	
5V Power supply	( $5 \pm 0.3$ ) VDC, $I_{max} < 60\text{mA}$
24V Power supply	( $24 \pm 0.5$ ) VDC, $I_{max} < 25\text{mA}$
Input loop	
Channel	8-channel
Signal type	Dry contact input (common grounding)
Filter time	10ms
Logic "ON" input	<1k $\Omega$
Logic "OFF" input	>100k $\Omega$
Detecting voltage	24V or 48V (optional)
Isolation mode	Photoelectricity isolation, module isolation
Isolated voltage	500VAC one minute (field side and system side)



## SOE Signal Input Module

SOE signal input module is 8-channel SOE signal input module isolated as a whole. SOE is short of Sequence of Event. SOE module is widely used in power plant. When occurred the accident trip, cause a series of switch moving ,and SOE module will record the sequence of event by the unit of relative time (the first occurred jump point).It is facilitate the analysis of incident. Resolution is less than 1ms.

### Module Technical Data

Model		XP369
Module power		
5V Power supply		( $5\pm 0.3$ ) VDC, $I_{max}<100mA$
24V Power supply		( $24\pm 0.5$ ) VDC, $I_{max}<50mA$
Input loop		
Channel		8-channel
Model of signal		Contact input or voltage-level input
Filter time		Setting by user
Contact type	Logic "ON"	$<1k\Omega$
	Logic "OFF"	$>100k\Omega$
Lever type	Logic "ON"	$>18V$
	Logic "OFF"	$<4V$
Detecting voltage		It can choice 24V or 48V
Isolation mode		Photoelectricity isolation, grouping isolation
Isolated voltage		500VAC one minute (field side and system side)

## Transistor Digital Output Module

Transistor digital output module is the intelligent 8-channel passive transistor digital contact output module. It can drive electromotion device by intermediate relay, and adopts photoelectric isolation. It doesn't offer working power for intermediate relay.

### Module Technical Data

Model		XP362
Module power		
5V Power supply		( $5\pm 0.3$ ) VDC, $I_{max}<60mA$
24V Power supply		( $24\pm 0.5$ ) VDC, $I_{max}<20mA$
Output loop		
Channel		8-channel
Signal type		(OC) Transistor digital contact
Logic "0" output valve value		Most leaking current is below 0.1mA
Logic "1" value of output valve		Output voltage of transistor is below 0.3V
Loading capacity		Each point is 50mA (24V, absorbing current), each module is 400mA
Power distribution mode		Module need to be configured without 24V power
Isolation mode		Photoelectricity isolation, module isolation
Isolated voltage		500VAC one minute (field side and system side)

## Terminal Components

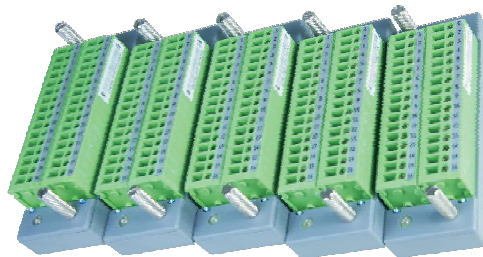
### ■ General View of Terminal Components

Model	Name of component	Unit	Remark
XP520	I/O Terminal board (non-redundant)	Piece	Universal I / O non-redundant terminal module, and place in the back of rack
XP520R	I/O Terminal board (redundant)	Piece	Universal I / O redundant terminal module, and place in the back of rack
XP521	DI/DO terminal board conversion module	Piece	DI/DO terminal board conversion module, and place in the back of rack
XP562-GPR	16-channel mechanical relay output terminal board	Piece	16-channel, two modules are corresponding to one terminal board
XP563-110V	16-channel 110V AC digital input terminal board	Piece	16-channel, two modules are corresponding to one terminal board
XP563-220V	16-channel 220V AC digital input terminal board	Piece	16-channel, two modules are corresponding to one terminal board
XP563-GPR	16-channel Universal relay isolated digital input terminal board	Piece	16-channel, two modules are corresponding to one terminal board

### ■ I/O Terminal Board (non-redundant)

Component model: XP520

Non-redundant terminal board supplies 32 wiring points, and supplies for adjacent two I/O modules.

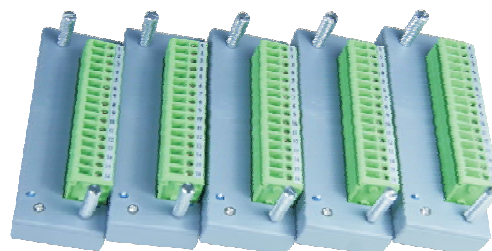


Two terminals of terminal board have no connection with each other on electrical, and each one is corresponding to two independent I / O Module.

### ■ Redundant Terminal Board

Component model: XP520R

Redundant terminal board supplies 16 wiring points, and supplies for adjacent two I/O modules.

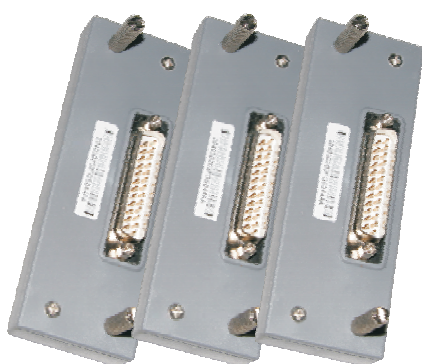




## DI/DO Terminal Board Conversion Module

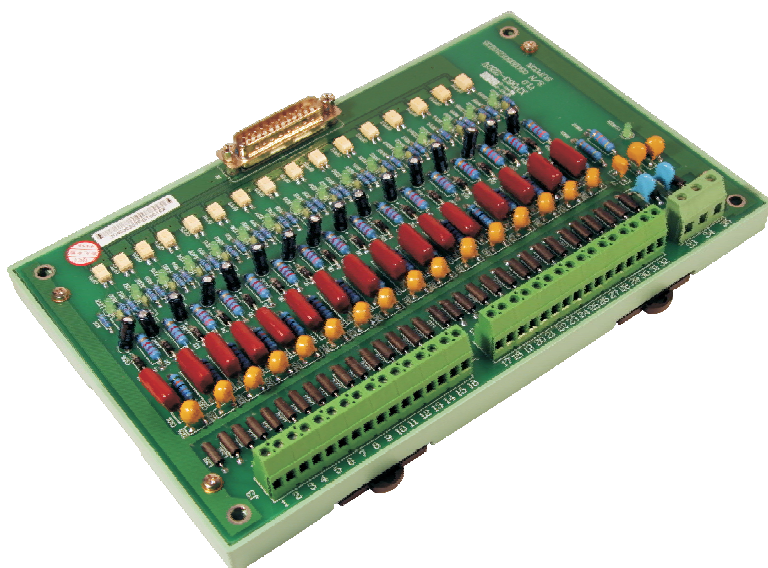
Component model: XP521

Terminal board conversion module is implementing the conversion of XP562, XP563 DI / DO signal through special signal connecting line.



## DI/DO Special Terminal Board

No special requirements for the DI / DO signal. Systems provide a special terminal board to implement the isolation and simple installation of beside site and system, including 16-channel 220V AC digital input terminal board XP563-110V, 16-channel 110V AC digital input terminal board XP563-GPR, 16-channel Universal relay isolated digital input terminal board and 16-channel mechanical relay output terminal board XP562-GPR.



## Hardware of Operation Station

### ■ Host Computer of Operation Station

Industry control computer with high capability is the core of the hardware of operation station. It has super-large internal and external memory. According to users' requirements, Users can choose LCD display according to the requirement. Operation station can realize connection to system process control network through collocating two redundant 10Mbps SCnetII network adaptors. Operation station may have multi CRTs in one computer, also may collocates operator keyboard, mouse, locus ball, and external devices. The suggestion of host computer: IPC brand or high-grade commercial computer.



### ■ Report Printer (Optional)

There are no special requirements for printer, all types of printers which support Windows 2000 is available for JX-300XP system. It's advised to use reliable EPSON wide-row stylus printer or HP wide-row laser /spray-ink printer.



## Network Components

### Communication Interface Module

Component model: XP244, XP239. Communication interface module is the core of communication interface unit, solving interlinkage of JX-300XP system with other manufactures' intelligent equipment. It is interlinkage users' intelligent system of data through the method of communication into the JX - 300XP systems, through SCnet II network data to implement JX - 300XP systems sharing.

The application of communication interface module solves some external equipment's communication with DCS system, and DCS system can facilitate communication with some manufactures' intelligent equipment. It has realized interlinkage of ModBus-RTU, HostLink-ASCII of communication protocol with some intelligent equipments of open communication protocol.

### Switch

Component model	Name	Unit	Remark
Sup-2118M	10M/100M switch	Piece	16 pieces of RJ45 interfaces
DES-1016R+		Piece	16 pieces of RJ45 interfaces
Sup-2118M F-02	10M/100M switch with fiber inter	Piece	16 pieces of RJ45 interfaces, with one piece of fiber module
DES-1016R+ DES-102F SC		Piece	16 pieces of RJ45 interfaces, with one piece of fiber module
DES-1016R+ DES-102F		Piece	16 pieces of RJ45 interfaces, with two pieces of fiber module

Switch is the communication equipment of SCnet II which is linking operating station computers with controller of control station. It is a unit network management. According to the network scale, users can choose the sharing HUB or exchange HUB.



## Electric Repeater

Component model: XP022

In the long-distance data transmission, signals would happen with attenuation and distortion. When remote communication interface device can not tell the attenuation of signal, communication will be un-normal or communications failure. The solution is adding a first-class repeater before the transmission limit distance. It will enlarge the attenuation signal through the repeater, and achieve the purpose of increasing the transmission distance.

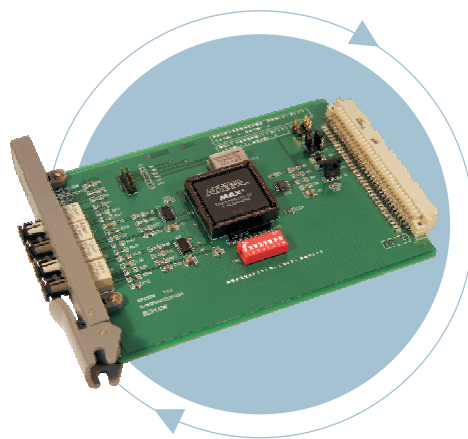
Electric Repeater can be used to process communications network SCnet II or internal communication bus (SBUS). It can implement the electric isolation and failure isolation with two ends of repeater, and improve the reliability of network.

## Fiber Repeater

Component model: XP433M (for SBUS network)

It needs add fiber transfer box.

Process communication network SCnet II with optical switch of fiber extension module can realize fiber repeaters .



# System Software

## ■ Operating System

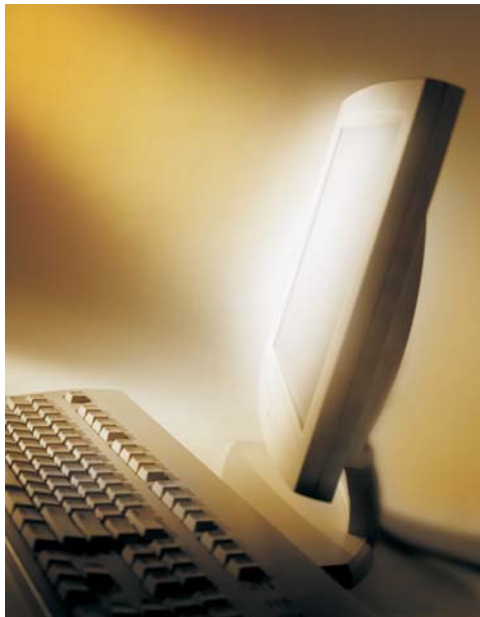
Windows 2000/XP + SP4

## ■ Application software package

The name of software package: AdvanTrol-Pro software package

## ■ Composition of software package

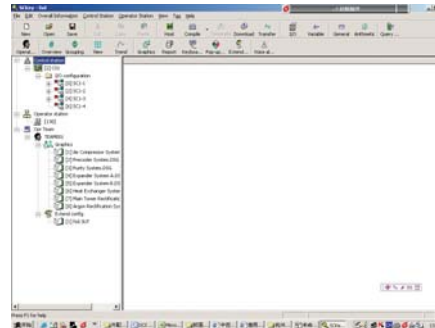
- AdvanTrol Real-time Monitor Software
- SCKey System Configuration Software
- SCLang C Language Configuration Software ( SCX for short )
- SCControl Graphic Control Language Software
- SCDraw Graphics Configuration Software
- SCForm Report Configuration Software
- SCSOE SOE Analysis Software (Optional)
- SCConnect OPC Server Software (Optional)
- SCViewer Offline Viewer Software (Optional)
- SCDiagnose Network Diagnose Software (Optional)
- SCSignal Signal Adjusting Software (Optional)



## Application Software

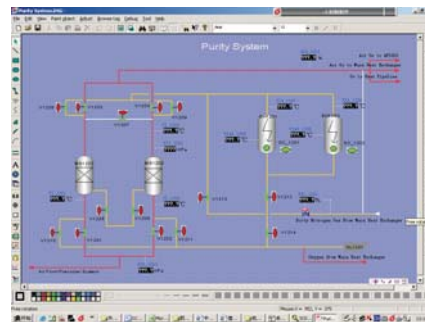
### ■ System Configuration Software

System Overall configuration, I/O points configuration, control solution configuration, operation configuration, etc.



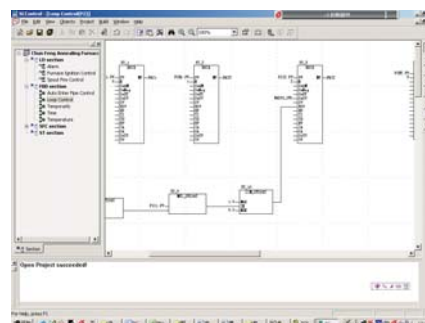
### ■ Graphics Configuration Software

The design of flow chart interface.



### ■ Graphic Control Language Software

Graphics, module programming tools, simple programming, and strong readability and portability.





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