



I/O Expansion & Data Logger Module

Features

- Built-in Web Server for IF-THEN-ELSE rule setting
- Built-in IF-THEN-ELSE rule engine for logic operation
- No more programming. Just click and get done!
- Support IO, Counter, Timer, Schedule, Email, Recipe operations
- Data logger and data files send back function supported
- Modbus TCP Protocol for SCADA Software Seamless Integration
- 10/100 Base-TX Ethernet
- Support XW-Board
- Support I-7000 Remote I/O Modules(Up to 16)
- SNTP Time Synchronization Supported



Introduction

WISE (Web Inside, Smart Engine) is a product series developed by ICP DAS that functions as control units for use in remote logic control and monitoring in various industrial applications. WISE offers a user-friendly and intuitive web site interface that allows users to implement IF-THEN-ELSE control logic on controllers just a few clicks away; no programming is required. With its powerful and easy-to-use features, it will minimize the learning curve, shorten time to market and dramatically reduce the effort and cost spent on system development.

WISE-5800 supports an I/O expansion bus to implement various I/O functions such as D/I, D/O, A/D and D/A according to the XW-Board. In addition, WISE-5800 also support ICP DAS I-7000 remote I/O modules. Based on the variety I/O module of I-7000, WISE-5800 can provide user more flexibility in application field.

WISE-5800 supports Modbus/TCP protocol to make seamless integration with SCADA software available. It include all advantages which WISE series controllers can provide. In addition, WISE-5800 provide data logger function with microSD card, it can record I/O channel value by event trigger or regular time period. The data files can be sent back by Email or FTP. All setting can be completed through browser.

Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote diagnosis and Testing Equipment, etc.

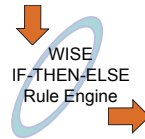
Specifications

Models	WISE-5800
CPU Module	
CPU	16-bit CPU
SRAM	768 KB
Flash	512 KB
EEPROM	16 KB
NVRAM	31 Bytes
microSD Expansion	Yes, can support 1 or 2 GB microSD
RTC (Real Time Clock)	RTC Provide seconds, minutes, hours, date of week/month; month and year
Watchdog Timers	Yes (0.8 second)
Communication Ports	
Ethernet	RJ-45 x 1, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
COM 1	RS-232 (Reserved, Unsupported by WISE firmware)
COM 2	RS-485 (D2+, D2-), self-tuner ASIC inside, non-isolated, Speed : 115200 bps max.
LED Indicator	
System LED	Yes (Red)
Ethernet Link LED	Yes (Green : Ethernet link detected, Flashing Green : Ethernet packet received)
LED Display	-
Hardware Expansion	
I/O Expansion Bus	Yes
Mechanical	
Dimensions (W x H x D)	91 mm x 123 mm x 52 mm
Installation	DIN-Rail
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +80 °C
Ambient Relative Humidity	5 ~ 90% RH (non-condensing)
Power	
Protection	Power reverse polarity protection
Frame Ground	Yes (for ESD Protection)
Input Range	+12 ~ +48 V _{DC}
Redundant Power Input	Yes
Power Consumption	2.0 W

Software Specifications

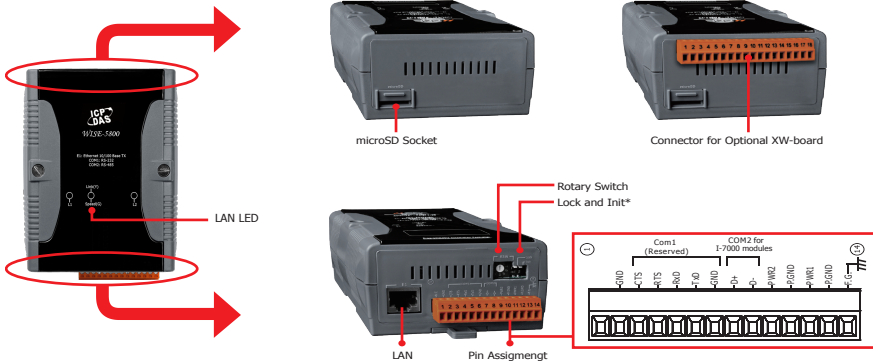
Functions	
Rule Configuration Website	Access Web server on WISE controllers to edit and upload logic rules through web browser.
36 IF-THEN-ELSE Logic Rules	3 IF conditions with AND or OR operators 3 THEN actions and 3 ELSE actions
48 Internal Registers	Hold temporary variables and read/write data via Modbus TCP address.
12 Timers	Delay / Timing functions.
12 Schedules	Setup prescheduled routine tasks.
12 Emails	Send Email messages to pre-set Email receivers.
12 CGI Commands	Send pre-set CGI commands.
12 Recipes	Set up THEN/ELSE action groups.
Data Logger	Set up the Data Logger configuration, include the data record format, and data file sending operation.
Modbus TCP Protocol	Real time control and monitoring I/O channels and system status of controllers via SCADA software.

IF Conditions	
DI Channel	ON - OFF - ON to OFF - OFF to ON - Change
AI Channel	= > < >= <= (value)
Internal Register	= > < >= <= (value) - Change
DI Counter	= > < >= <= (value) - Change
Timer	Timeout - Not Timeout
Schedule	In Range - Out of Range
Rule Status	Enable - Disable



THEN / ELSE Actions	
DO Channel	ON - OFF - Pulse Output (Just for XW-Board)
AO Channel	Change the value
Internal Register	Reset
DI Counter	Start - Reset
Timer	Enable - Disable
Schedule	Send
Email	Execute
CGI Commands	Start - Stop - One-Time Log
Recipe	Enable - Disable
Data Logger	
Rule Status	

Appearance



WISE-5800

Intelligent Data Logger PAC Controller

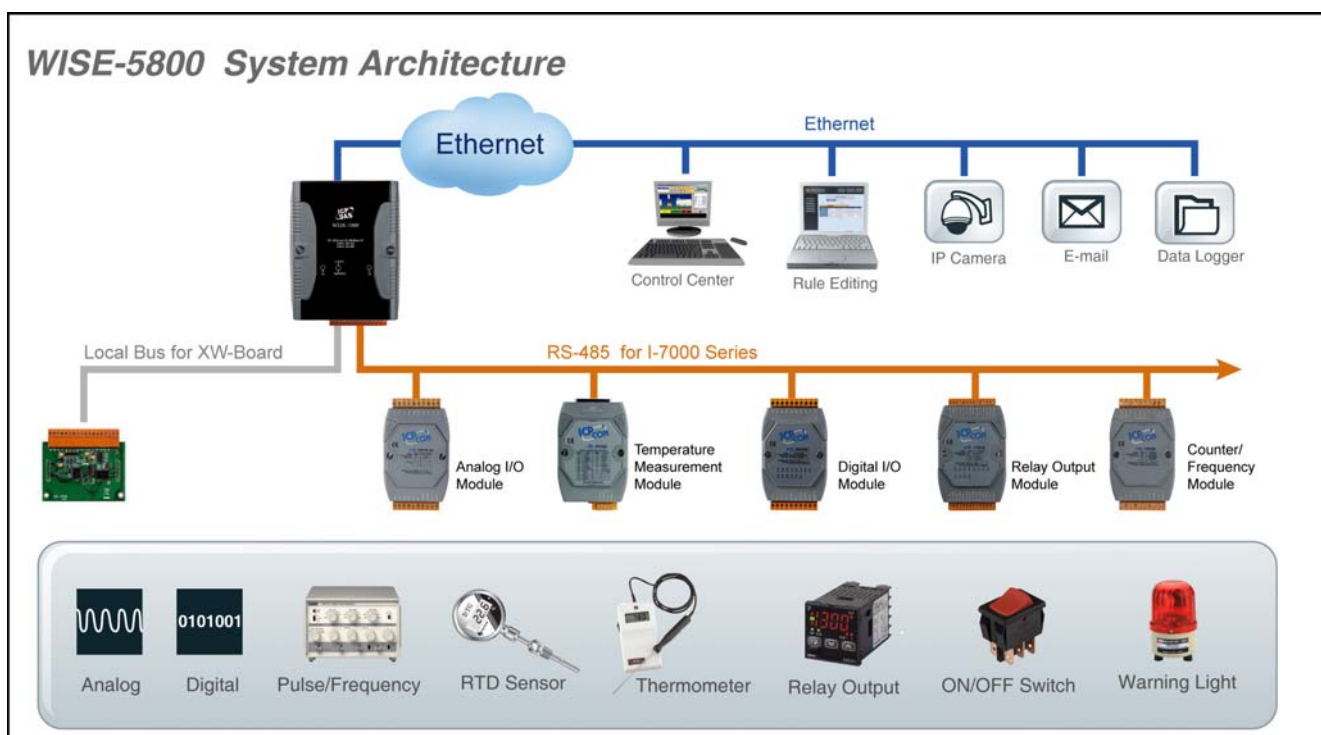


Product Features

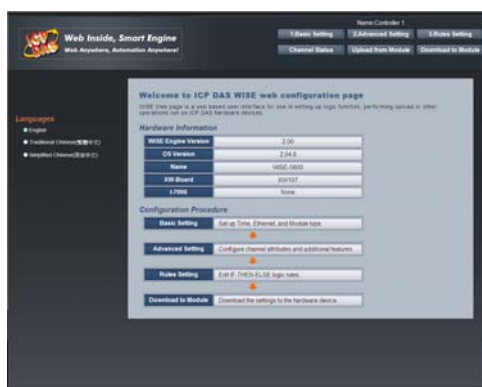
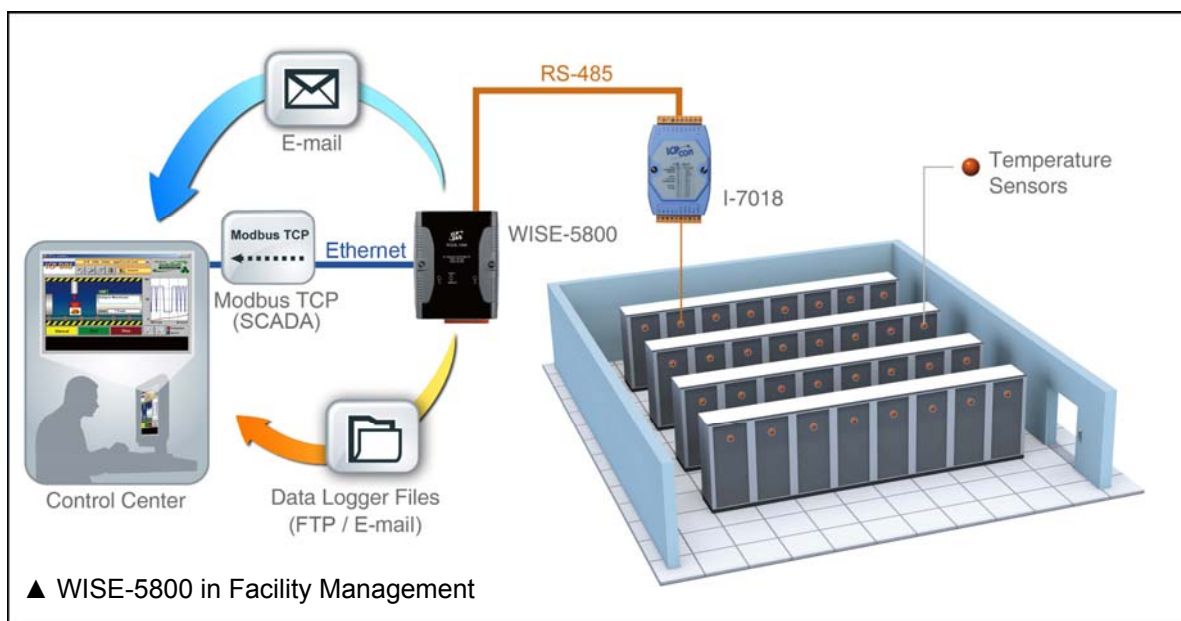
- IF-THEN-ELSE logic rules execution ability
- No programming is required, implement logic content on controllers via browser
- *Provide a wide range of XW-Board and I-7000 I/O module to select from*
- Provide Timer and Schedule operation
- Provide Email and CGI command sending functions
- *Provide Data Logger and File send back functions*
- *Support SNTP for Time Synchronization through network*
- Support Modbus TCP to make seamless integration with SCADA software

Introduction

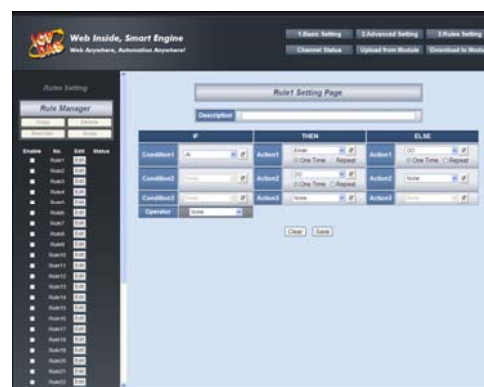
WISE-5800 is an Intelligent Data Logger PAC controller designed by ICP DAS that features automatic logic control and remote monitoring. It is a Web-based controller that allows users to implement various tasks on controllers such as: IF-THEN-ELSE control logic, I/O module control, Timer/Schedule functions, Email/CGI command sending and communication with SCADA system via Modbus TCP. No programming is required; it takes only a few clicks on web pages via browsers to complete all settings. In addition, WISE-5800 enables real-time recording I/O data and allows to send the data files by FTP or Email to the control center for further administration management or data analysis; the data can be sent at a scheduled time. With its powerful and easy-to-use features, WISE will minimize the learning curve, shorten time to market and dramatically reduce the labor and cost spent on system development.



Application



▲ WISE-5800 WEB Page



▲ IF-THEN-ELSE Rule Editing

Specification

Hardware

- 16-bit CPU
- 768KB/512KB for SRAM/Flash
- Equips microSD storage for Data Logger
- Offers a wide range of I/O modules
 - ✧ Connect to I-7000 modules via RS-485
 - ✧ Connect to XW-Board via Local Bus
- 10/100 Base-TX Ethernet
- Power Consumption : 2 W (Without XW-Board)
- Operating Temperature : -25 ~ +75 °C

Software

- 36 IF-THEN-ELSE Logic Rules Supported
- **I-7000 modules(Up to 16) & 1 XW-Board Supported**
- 12 Timers/12 Schedules Supported
- 12 Emails/12 CGI Commands Supported
- 48 Internal Registers Supported
- 12 Recipes Supported
- **Data Logger Function Supported**
- **Time Synchronization for SNTP**
- Modbus TCP Protocol Supported

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