

Energy &
Environment

Intelligent Water Management Solution

Cloud-Enabled Remote Equipment Management
for Water and Wastewater

Solution
Ready
Package

SRP-WMS400



- Professional remote management device provider
- Latest machine-to-intelligence technology and WISE-PaaS industrial IoT cloud platform
- Global presence, local service



ADVANTECH

Enabling an Intelligent Planet



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POWERED BY
ADVANTECH
WISE-PaaS

System Introduction

Advantech's intelligent water management solutions integrate machine-to-intelligence (M2I) technology, domain-specific knowledge on water equipment and processing technologies, and the WISE-PaaS industrial IoT cloud platform to provide four cloud-based remote equipment solution-ready packages covering water pumps, blowers, pump stations, and bio-tank applications.

WISE-PaaS/Dashboard

1 Water Treatment Station Operation

2 E&E/Water Central IW

3

IP Camera of Maojiabang

Dosing Schedule

Dosing Tank	Dosing	Schedule	Status
1# Coagulation Tank	PAC	2018/02/12	Pending
2# Coagulation Tank	PAM	2018/02/22	Progressing
1# Neutralization Tank	Sulfuric acid	2018/03/23	Pending
2# Neutralization Tank	Alkaline	2018/03/25	Done
3# Coagulation Tank	PAC	2018/04/01	Pending
2# Neutralization Tank	Alkaline	2018/03/25	Done
3# Coagulation Tank	PAC	2018/04/01	Pending

Device Maintenance Schedule

Device Maintenance	Item	Schedule	Status
1# Pump of Station 1	Quarterly	2018/02/12	Pending
1# VJA of Station 1	Motor	2018/02/22	Progressing
2# AR of Station 1	Motor	2018/03/23	Pending
2# SAR of Station 2	Motor	2018/03/25	Done
3# Pump of Station 4	Routine	2018/04/01	Pending
3# AR of Station 4	Chang Oil	2018/03/13	Progressing
2# VJA of Station 5	Quarterly	2018/03/23	Pending
1# VJA of Maojiabang	Quarterly	2018/03/25	Done
2# VJA of Maojiabang	Quarterly	2018/04/01	Pending
3# VJA of Maojiabang	Chang Oil	2018/03/13	Progressing

Overview
Station Monitor
Device Monitor
Data Analysis
Operation
Alarm Log
Report
Operation Manage
Setting

1# Pump of Maojiabang River Recovery System in Alarm

1 Overview of Critical Water Treatment Station Operations

- Real-time remote IP camera monitoring of the assets in the field
- Dosing schedule and progress status
- Key device management schedule and equipment status

Station Real-time Monitoring

Process Flow of Sewage Water Treatment

Pump Efficiency

Equipment Status

Discharge Water Quality Indicators

Time	Equipment	Event	Level	Status
2018/04/08 04:47	1#VJA of Station 1	Motor is abnormal	Major	Not Started
2018/04/03 17:15	2#Pump of Station 1	Motor is abnormal	Major	In Progress
2018/04/01 08:46	3#Pump of Station 4	Motor is abnormal	Normal	Not Started
2018/02/25 12:29	3#VJA of Station 4	Motor is abnormal	Major	Done

1# Pump of Maojiabang River Recovery System in Alarm

Real-Time Station Monitoring Station

- Sewage water treatment process flow
- Real-time alarm management
- Pump efficiency
- Equipment status
- Discharge water quality indicators

Device Real-time Monitoring

Running Parameters

Basic Information

Real-time Alarm

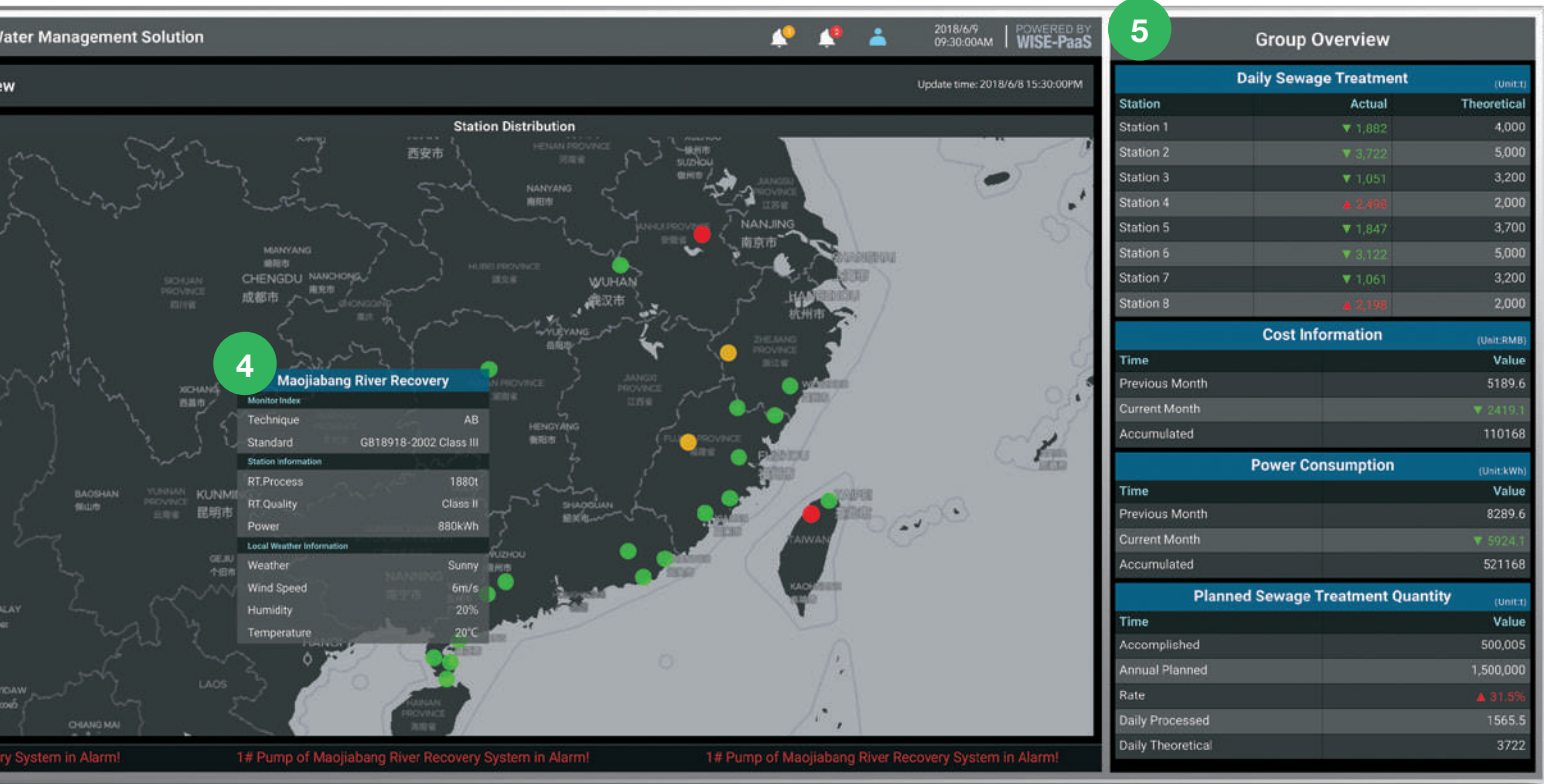
Voltage: 220V
Current: 67.6A
PC: 10.5kWh
Flow: 1.8 m³/min
Vib: 67.3Hz
Running: 400Hr
Downtime: 9
2.30 Tpa Pressure
Temp: 6.5°C

Time	Event	Level	Status
2018/04/08 04:47	Motor is abnormal	Major	Not Started
2018/04/03 17:15	Motor is abnormal	Major	In Progress
2018/04/01 08:46	Motor is abnormal	Normal	Not Started
2018/02/25 12:29	Motor is abnormal	Major	Done

1# Pump of Maojiabang River Recovery System in Alarm

Real-Time Equipment Monitoring

- Key running parameters
- Real-time alarm management
- Basic information
- Daily water processing capacity and efficiency



2 Central iWater Management Solution Home Page

- Main menu for quick access to key dashboard functions
- Quick view of alert notifications

3 Station Geographical Distribution Map and Operation Status by Color

4 Overview of the Current Status of Individual Station

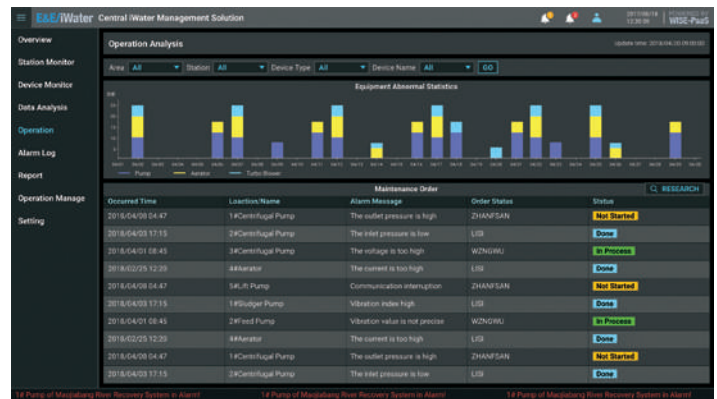
5 Group Overview with Key Performance Scorecard

- Actual and targeted daily sewage treatment performance
- Cost information and power consumption on key equipment
- Daily vs. annual sewage treatment quantity



Equipment Water-Processing Capacity and Power-Consumption Analysis

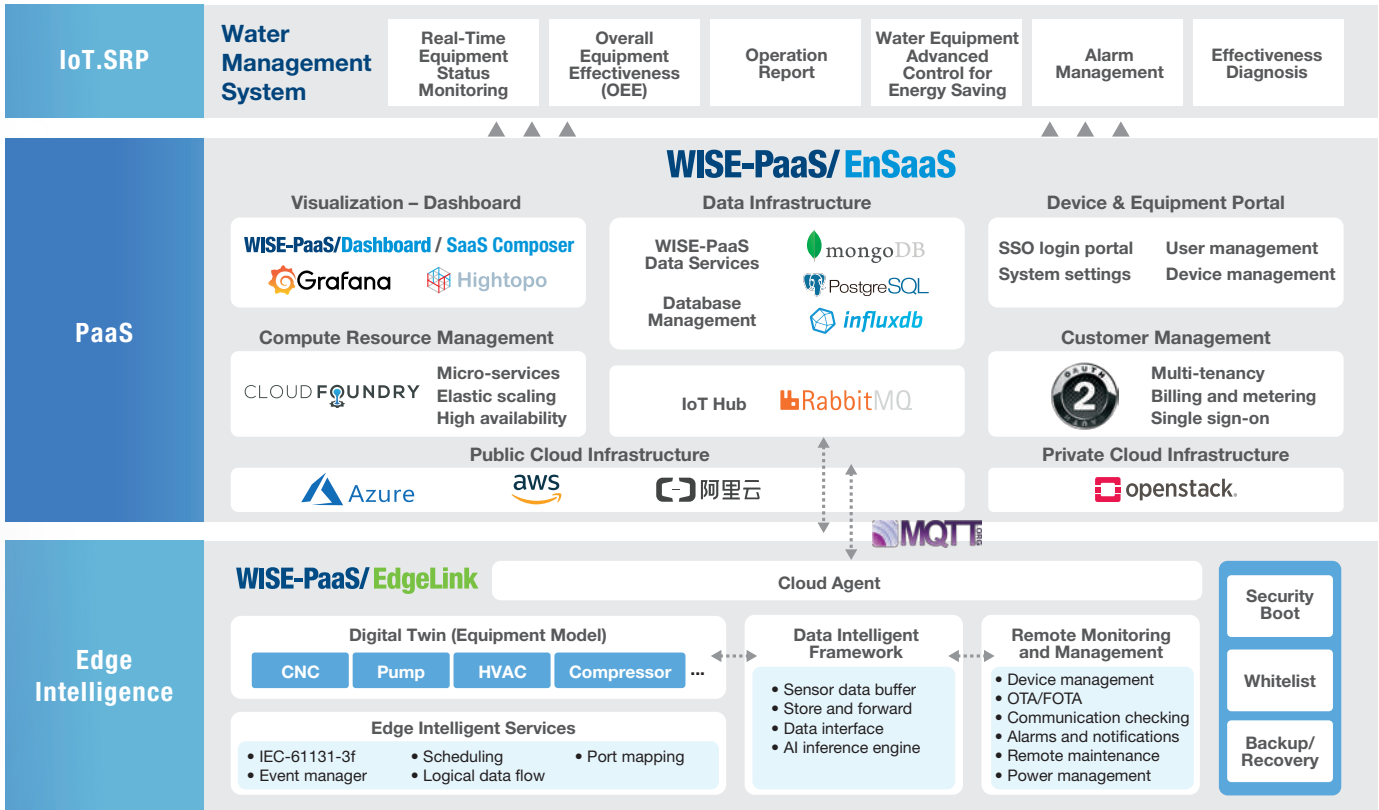
- Run chart within 30 days
- Daily report of operating pumps



Equipment Operation and Maintenance

- Statistics on equipment abnormalities
- Maintenance schedule and status report

Software Diagram



System Diagram

Water Treatment Plant Situation Room



Feature Highlights

Equipment Energy Saving

Low-power product features and support for industrial-grade specifications

Water Agent Saving

Fully control dosages with real-time monitoring

Increased Efficiency

Enhance project development efficiency and after-sales maintenance

Decreased Labor Costs

Efficient solution with stable operation

Application Stories

Intelligent Sewage Solution for Centralizing Water Treatment

- Visualization of cloud data for centralized management
- Analysis of sewage treatment data to expedite decision-making
- Reduced treatment costs, improved system stability, and enhanced functionality



River Treatment Monitoring Anytime, Anywhere

- Real-time treatment monitoring from remote locations
- Track the operational status of equipment
- Overview of river treatment processes and on-site contingency measures



Remote Monitoring of Rainwater and Domestic Wastewater Treatment

- Reliable raw data collection for ad hoc data analysis
- Real-time monitoring of critical water treatment parameters and equipment operational status
- Refined and expedited water treatment reduces energy usage requirements





Wastewater Treatment Plant Monitoring and Control

- Cost-effective integrated solution for seamless implementation
- Remote supervision of on-site data acquisition with zero data loss
- Automatic monitoring and control enhances project development and after-sales maintenance



Ordering Information

Solution Package		
WISE-PaaS Situation Room SRP-SR-100-BTO	LCD Wall: 1 x 86" + 2 x 55" Server and Display: 1 x DS-980 Control Panel: 1 x UTC-520 1 x WISE-PaaS/Signage CMS	
WISE-PaaS VIP Membership 98DPWAP2K	WISE Point: 2,000 points	

SRP-WMS012 Water Management System	HPC-7242 x 1 Windows Server 2016 R2 WebAccess/SCADA	
SRP-WMS420 Frequency Inverter System for Pump Energy Saving	UNO-2483G x 1 ADAM-3600 x1 Windows Server 2016 R2 WebAccess/SCADA	
SRP-WMS425 Integrated Pump Station Management System	ECU-1051 x1 WISE-PaaS/EdgeLink	 WISE-PaaS/EdgeLink
SRP-WMS426 Integrated Effluent Treatment Equipment Management System	ECU-1251 x1 WISE-PaaS/EdgeLink	 WISE-PaaS/EdgeLink

Optional Purchase		
IoT.SENSE Training	Basic training	2 days
	Advanced training	1 day
IoT.SENSE Consulting	IoT Solution and On-Site Technical Support	3 days

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