# Data acquisition and real time monitoring system (SCADA)

System introduction:

SCADA (supervisory control and data acquisition) system is data acquisition and monitoring control system. SCADA is a kind of powerful computer remote monitoring control and data acquisition system. It makes full use of computer technology, control technology, communication and network technology to complete the real-time data acquisition of various processes or equipment scattered in the measurement and control points, as well as the comprehensive real-time monitoring of the production process. It also provides necessary and effective information for safety production, scheduling, management, optimization and fault diagnosis Complete data and technical means.
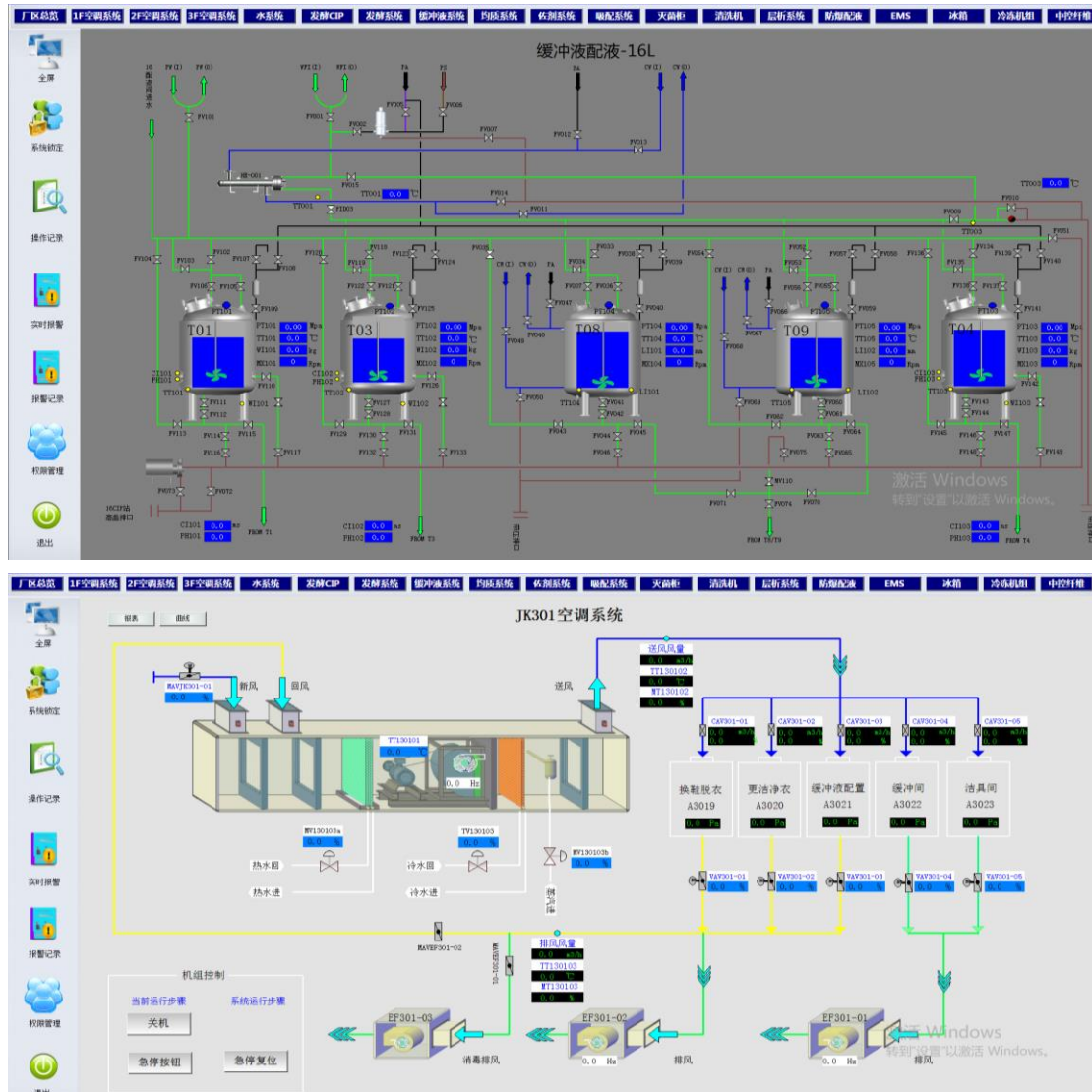
System architecture:

Functional features:
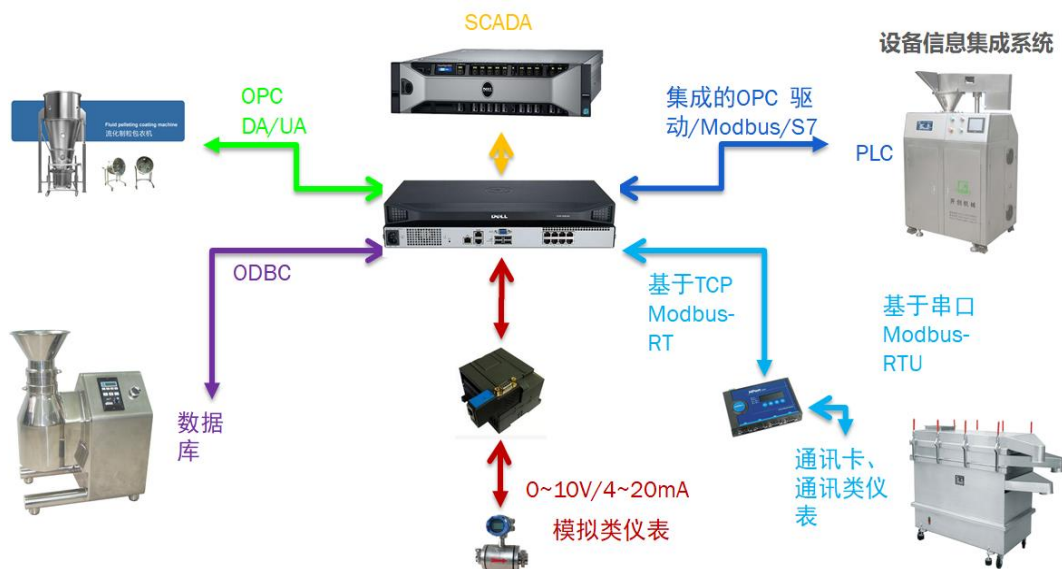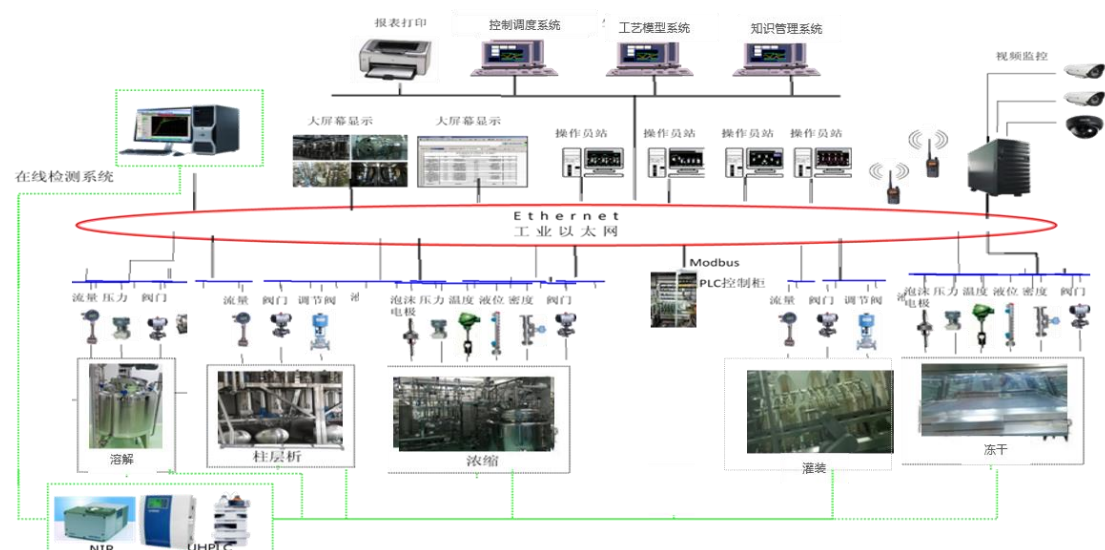
➢ Equipment data centralized collection, cleaning, centralized storage, open up the production process information island;

➢ The whole process of equipment operation is monitored, parameters are updated in real time, and alarms are pushed in real time;

➢ The equipment data is stored in a centralized backup according to the requirements of laws and regulations. The system defines reports and charts, and the historical data is queried and counted by one key according to the requirements;

➢ Using the historical data of equipment for big data analysis to achieve predictive maintenance of equipment, reduce equipment failure and improve utilization rate;

Acquisition range:

✓ Centralized data collection of production process equipment (fermentation, liquid preparation, chromatography, washing, drying and irrigation, freeze-drying, capping, post packaging, etc.)

✓ Utility system collection (purified water, injection water, pure steam system, air conditioning system, particle monitoring system, temperature and humidity monitoring, etc.)

✓ Energy management and other automation equipment (energy management, video monitoring, AGV car, automatic stereo warehouse, etc.)

Product advantages:

➢ **The equipment and automation system of the whole plant are highly integrated**

Production process: production process equipment monitoring

Environmental monitoring: including workshop temperature and humidity, pressure difference, dust particles, microbial monitoring

Utilities: water system, refrigeration system, air compressor system, boiler and steam system monitoring

Air conditioning system: air conditioning system monitoring

Energy management: energy consumption analysis and energy saving control

➢ With open and flexible data interface, the system is highly open and easy to integrate with various automation systems and equipment seamlessly.

➢ Integrated management and control, change the previous decentralized control mode, realize the centralized management and control of production process and public system, improve the operation and

management efficiency.

➢ Massive data archiving and analysis, massive data storage capacity, high-speed and stable data processing capacity. Complete data analysis ability