



Customer Success Story

Xi'an Xianyang International Airport Xianyang, Shaanxi, China



Inside the Xi'an Xianyang International Airport Terminal



Main page of Xi'an Xianyang Airport's Control Screen, Created with ICONICS GENESIS64™

About Xi'an Xianyang International Airport

Located in Xi'an, the geographic center of China, Xi'an Xianyang International Airport (XXIA) is not only the biggest transportation hub in Northwest China, but is also China's eighth largest airport. XXIA covers over five and half square kilometers of land.

The airport includes three terminals. The first terminal (T1) has a building area of 10,000 square meters. The second terminal (T2), has an area of 90,000 square meters, with 59 aircraft stands. Terminal 3 is spread out over 260,000 square meters. With a total area of 360,000 square meters, Xi'an Xianyang is able to handle over 30 million passengers per year.

ICONICS Software Deployed

Working directly with ICONICS China, Xi'an Xianyang International Airport selected: ICONICS GENESIS64™ HMI/SCADA suite (including the GraphWorX64™ rich HMI/SCADA data visualization tool and EarthWorX™ GEO SCADA); Hyper Historian™ high-speed, robust data historian; WebHMI™ Web-based, real-time automation software; and AnalytiX® suite of analytical tools (including the Facility AnalytiX predictive software for facilities management and the Energy AnalytiX advanced energy management software).

Project Summary

The growth of Xi'an Xianyang International Airport made it necessary to seek a monitoring and control solution that could handle communication with multiple different data sources as well as scale to the wide array of equipment that is continuously added. One primary concern was energy use and temperature control throughout the 360,000 square meters of indoor airport space. China Western Airport Group and the Xi'an Airport Construction Co., Ltd. created a dedicated energy center that could assist them in providing comfortable temperatures for millions of passengers as well as the great number of people who work within the airport facilities.

As the airport expands, so too does its energy use, as well as the complexity of its energy system. Airport officials required an HMI/SCADA system with a safe, reliable, cost-saving energy management component. After consulting with other region's airport management, it was

decided that ICONICS GENESIS64, along with other integrated software, would be the best choice.

Redundant servers in the Xi'an Xianyang monitoring center run GENESIS64, WebHMI and Hyper Historian (for data storage). Multiple users are provided with access authorization for remote access and monitoring. Airport management appreciates the ability to set different permissions so that certain users can only access specific content and execute operations with their associated permissions.

According to the executives at Xi'an Xianyang International Airport, "GraphWorX64 3D visualization and EarthWorX GEO SCADA make it easy to keep track of the distributed pipelines and complex equipment. GENESIS64 provides amazing monitoring of piping valves and pumping stations, as well as multiple system fault analysis, via AnalytiX, using a variety of charts. The benefits of deploying ICONICS software have improved the overall management of the energy center and greatly improved both the heat production management and operational efficiency in the airport."



Heat Station Control Using EarthWorX™ GEO SCADA



A 3D Overview of a Boiler in Xi'an Xianyang International Airport

Benefits of the System

Xi'an Xianyang was especially interested in ICONICS software's ability to handle data connections, 3D visualization, advanced HMI/SCADA graphical tools, system monitoring and data/alarm analysis. In addition, the airport sought to take advantage of the AnalytiX suite of facility and energy analysis tools. Facility AnalytiX now provides fault analysis for multiple airport systems, helping personnel to take preventative actions and reduce maintenance costs and time. Energy AnalytiX helps to collect, analyze, monitor and manage the airport's energy usage, from its energy center, in order to control its energy-related costs.

Conclusion

Xi'an Xianyang International Airport was initially drawn to ICONICS HMI/SCADA software due to its GIS (Geographic Information System) and 3D visualization capabilities. They were quickly just as impressed with the software's energy, facility and alarm analysis capabilities, as well as with its data connectivity and fast, robust historian. With such features at its disposal, the airport expects to reduce its energy use while its productivity soars.