



Case Study - Jail Management

Company

City of Saginaw, Texas

Industry

Building Automation

Location

USA

Website

<https://www.saginaw-mi.com/>

Challenge

Saginaw Jail was using software and hardware based on the Windows XP generation. Showing its age, speed was a significant obstacle that they needed to overcome.

Solution

FactoryStudio by Tatsoft was selected, as an opportunity to extend on existing investment, while ensuring adaptability in the future. Purpose built with modern core technologies, FactoryStudio was seen as a long-term product without disruptive upgrades.

Results

Completed in only six weeks, the project using FactoryStudio proved its return with lowered costs and more functionality in application than their old system.

Saginaw (frequently known as Eagle Mountain-Saginaw) is a small city in Tarrant County, Texas, United States, and an inner suburb of Fort Worth. Like in any other city, the security of its people is a major priority for the community, so it was of the utmost importance that their city jail had a secure and modern software and hardware solution that could control and monitor all jail operations, such as, access control for doors and parking lots, intercoms and cameras.

The previous system at the Saginaw Jail was based on Windows XP generation hardware and software, so, for better performance and reliability, it was time for an upgrade. Saginaw had decided to work with Wunderlich- Malec, a system integrator and one of Tatsoft's partners.

Wunderlich-Malec has been providing customers with complete engineering, system integration and fabrication solutions for more than 27 years, and recommended FactoryStudio because of its modern core technologies, and longevity.



The city took their suggestion, and FactoryStudio replaced an outdated version of Wonderware. The clients found Tatsoft to be more economical and more functional for the application than Wonderware, and also easier to implement.

The implementation itself was executed by a team of four: one primary HMI engineer, one security systems engineer and two installation technicians; and was executed in six weeks.

FactoryStudio is currently at work in the city jail, interfaced with a Gallagher Security Access Control software system, to allow alarms from their card reader access control system to be displayed on the HMI screens, and as the HMI for the jail site doors and gate access control systems. The jail's primary control system is a Modicon Quantum PLC, interfacing with the card access control system.

There are two nodes of FactoryStudio deployed, one in the Booking/Command Center the other in the Dispatch area. FactoryStudio interfaces with 30 cameras and intercoms at both the Police side and Public side of doors, and provides control of parking lot gates and jail cell doors.

Using FactoryStudio the Police are able to look at graphical images and control buttons to remotely control doors, open and close parking lot gates, control lighting in various jail areas, initiate and reply to intercom calls from those looking to enter protected areas.

Alarm messages are sent to the Command Center when anybody tries to enter through a door using unauthorized cards, forces a door open or leaves a door open too long. This notifies the Police so they can quickly take action accordingly.

Within the jail cells themselves, intercoms and cameras are present to provide methods of communication between the Command Center users and individual prisoners. Prisoners may press a button to use the intercom system to contact the Command Center.

To improve security, the system is provided with a primary control screen at the Jail Command Center. There is a remote control screen that duplicates the functionality from secondary location in emergency conditions. Once secondary control is initialized, the primary screen is locked out. Both locations are manned twenty-four hours a day and seven days per week.

In this project, FactoryStudio worked with a Modicon Quantum PLC, that controlled locking solenoids, push buttons, and door position sensors, and less than 1500 tags/communication points were used.

The city representatives agreed that Tatsoft managed to implement a system that not only meets their needs but also does it in a reliable and efficient matter, stating also that ***"The system responds faster than the old one, which was the goal"***.

