



CASE STUDY

Chilled Water Plant & High Performance HMI

The Approach

Due to the sheer volume of operating data, a High Performance SCADA design approach was taken. This also provided a modern Human-Machine Interface (HMI) to an end-user with a long history using commercial control systems. This decision was critical when unforeseen events called the new plant into service ahead of schedule.

The Design

To alleviate the initial hesitation by the end-user, G7 shared examples of previous project successes and hosted first-hand demonstrations for operators. Operators and plant managers were also involved in application development and factory testing.

The Test

In the spring of 2020, the new plant was called into service weeks before it was scheduled. To facilitate, G7 provided training to operators shift-by-shift while other chillers were still being commissioned.



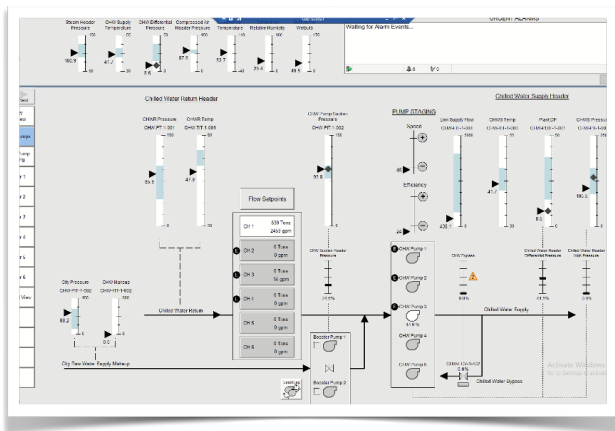
The Project

G7 Automation was the prime Controls Contractor for the construction of a new Central Utility plant designed to modernize and increase utility capacity.

- 11,000 ton plant designed for a campus-wide central utility system
- 6 chillers, 7 cooling towers, 300 HP variable primary CHW pumps
- Three 60,000 lb/hr boilers
- Three 1.5 MW emergency generators

The Results

Operators quickly grasped the system principals of operation, largely from the SCADA's graphical design. Cooling demands throughout the facility were also met, and operators are now requesting upgrades to the commercial BAS to look more like the chiller system.



The Conclusion

Properly developed, High Performance HMI provides an intuitive operator interface that can benefit system availability. Working with an integrator that is experienced in developing High Performance HMI, has extensive application knowledge, and focuses on the end-user experience will yield success. These traits are core characteristics of G7 Automation.

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