

Migrating from Single Monitor to Dual Monitor SCADA Workstations

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FORMAT

3 foot wide x 4 foot high large format poster

KEYWORDS

Dual Monitor, HMI Screen Setup, HMI Systems, HMI Display, User Interface, Operator Effectiveness, Lessons Learned

ABSTRACT

Multiple factors influence an operator's ability to work effectively in a SCADA control room. Some of these factors include Human Machine Interface (HMI) graphics standards, the use of an ergonomically designed control room console, the use of multiple workstations, and multi-level HMI views of plant areas, flows, specific equipment, and operational details.

Complementing the factors listed above, recent advances in display monitor technology permits multiple monitors per operator workstation. The use of multiple monitors provides a larger surface for viewing standard graphics, giving the operator access to more plant areas and operational data simultaneously. The ready access of information provides an opportunity for improved decision-making thus leading to higher operator efficiency. The most common implementation of multiple monitors today is the dual monitor system. However, many legacy SCADA control rooms do not utilize this technology despite its availability. One reason is that older systems were developed during the era of single monitors and the transition to dual monitors is sometimes not "plug and play". In an attempt to perform this migration, some legacy SCADA systems end up with partially implemented systems which are sometimes chaotic.

But there is hope! The migration from single to dual monitor systems is feasible without junking the entire software investment. This poster details the methods used to migrate from a single monitor SCADA workstation to a dual monitor SCADA workstation. The migration was accomplished on a live system with ongoing SCADA graphics development for multiple projects. This poster will also reveal the challenges encountered and lessons learned throughout the programming and field implementation phases.

ABOUT THE AUTHOR

Juliana O. Oyeniya, EIT is an Automation Specialist at CDM Smith (Dallas, Texas) with 8 years of experience in automation and a background in control systems integration and programming. She specializes in supervisory control and data acquisition (SCADA) systems which include programmable logic controllers (PLCs), human machine interfaces (HMI) and operator interface terminals (OIT) for water and wastewater

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