

## Computer Interfaces

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Today's control room activities include a certain amount of automated tasks. In automating a task it must be ensured that the controllers have the tools they need to promote good performance and avoid the potential for error. This is especially important in a situation where the controller is supervising more than one line with multiple delivery stations, multiple shippers and multiple valves. It goes without saying that the potential for error increases as the number of interacting variables increase. To counteract the possibility of human error, the tasks should be made as efficient and clear as possible and should be supported by capable, effective, and error tolerant computer-user interfaces.

Well-designed screens incorporate many different sources of information into one integrated design. The more screens that a controller is required to access the, heavier the workload, ultimately leading to more information that needs to be integrated. Additionally, user interfaces that rely on replication of original hard-wired systems do not take advantage of using mental models that promote faster integration of information. While replication of hard-wired systems might be useful for transitioning users in the short-term, in the long-term it does not utilize the best possible design and forces the use of many different displays. The advantage of integrating information is a more robust and usable display that does not require the controllers to move between screens, it means a reduction in the amount of monitors and the maintenance of many different types of computer-user interfaces. A more efficient and integrated computer-user interface will reduce the potential for controller error.

