



OmniSight

Distributed Display Management System

Monitor all of your diversified systems

OmniSight is a complete solution for presenting graphical information on high-resolution displays in control rooms of complex systems. By multi-windowing different applications on one display wall it enables the graphical view of the controlled system state, viewing and controlling applications on remote computers, monitoring various system variables, and displaying videos coming from local or remote sources. OmniSight features a very simple and intuitive user interface, so there is no need for special training of employees working on the system. The possibilities of combining graphical contents are practically unlimited, so the screen appearance is fully customizable to the actual system state or the operator's affinity. The operator can by just one mouse click activate one of the predefined graphical schemes, depending on the situation and the occasion. Moreover OmniSight is equipped with a local zoom to view an enlarged part of the active screen, so there is no need for approaching the display wall to read small details not visible from the work station.

Decrease operator's reaction time by the help of an open SCADA interface

OmniSight display management system features an open SCADA interface which enables a change of the graphical appearance following a change of state in the controlled system. For example, in case of a failure in some part of the controlled system, OmniSight can automatically activate a specific view that includes a detailed schematic of the damaged part, a detailed view of critical variables, a history of alarms and even a real-time video of the damaged part if there is a camera installed at that part of system. Such close details are hidden in normal working mode not to overload the operator. The incorporation of this function decreases the operator's reaction time on critical events and enables easier inspection of critical system parameters.

No constraints in spatial configuration

OmniSight's graphical server, a standard personal computer, prepares data and sends it to remote graphic units (RGUs) which process and display the data on local monitors. All system components are connected via standard Ethernet network, so there are no inherent constraints to spatial configuration of displays and screens. It's very simple to put a separate screen or monitor inside the same room, the next room, the meeting room, the other control center or in a location 200 kilometers away, without any restrictions.

Easy extension

It's always possible to add new displays just by connecting new RGU units to the existing network, without interrupting the system operation. The system will automatically recognize the new RGUs and enable displaying graphical contents on them. If there is a need to increase the processing power of the OmniSight server it's possible to add more servers, which will work together in a cluster.

High system reliability

High system reliability can be achieved by including a redundant OmniSight server able to take over the tasks of generating graphical data in case of the main server failure. The separability between control and graphics generating functions increases the system reliability because in the case of server or RGU break down the rest of the system will continue to work uninterruptedly.

OmniSight protects your investment

OmniSight offers optimum quality-to-cost ratio because it is based on standard personal computers and uses standard Ethernet infrastructure which are easy to replace or upgrade. Additionally, RGU units are user-friendly and inexpensive and enable further system expansion without any need for big expenditures.

OmniSight - System specifications

Display Management:

- Unlimited resolution of virtual desktop area
- No inherent restrictions in number of graphical sources
- Virtually unlimited number of display units
- Unrestricted arranging of graphical layout
- No limits in spatial configuration of displays and screens

Graphical sources:

- Applications on remote computers (VNC, RDP, X-Windows protocols)
- Video signals from OmniSight VDE units (composite, S-video)
- Video signals form IP cameras

Operator's Console:

- User-friendly interface
- Real-time view of displays' states
- Button for reconfiguring graphical sources
- Local zoom
- Possibility of creating and recalling graphical layouts

Open architecture:

- Interface to SCADA applications
- User application development (available API for control of the whole system)

Reliability:

- 24/7 availability
- Redundant OmniSight server
- Simple robust RGU units
- Support for scenarios in case of partial system failure

Efficiency:

- Reduced operator's workload
- Graphical layout changes depending of system state, part of day, etc
- User-defined graphical layouts

Extensibility:

- Easy installation of new RGU units
- Possibility to add new OmniSight servers to improve performance
- Operators can work on system concurrently

Simplicity:

- System components are connected by standard Ethernet network
- No need for expensive video cabling
- Standard PCs and communication equipment
- Low-cost RGUs

