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Mitsubishi Electric provides high quality and continuous video performance with its patented NPP LED screen while increasing efficiency and flexibility with S-SF software suite

Software and LED Screen Technologies Specific for Command and Control Rooms

Installing world's first videowall screen in 1980 and owning numerous patents and Guinness records in LED screen technology with its innovative technologies, Mitsubishi Electric gains attention with its S-SF software suite and NPP LED screen product with 1.25 mm to 1.5 mm pixel distance designed specifically for command and control centers. Making it possible to design more flexible decision-making environments for more efficient command and control room operations, Mitsubishi Electric S-SF software architecture, eliminates the need to install special videowall control devices for control rooms and videowalls. The new system makes it possible to control screens by installing it on numerous computers without single-point failure thanks to its distributed architecture. NPP LED screen provides impressive light output, 16.000:1 unmatched contrast value and viewing angle with its 90 mm thin chassis, providing the ideal solution for spaces with tight installation space and high ambient light. Providing LED light output and retaining color quality in the screen even after 100 thousand hours of continuous usage with its anti-burn feature, the NPP LED screen makes continuous viewing possible with its back-up signal inputs and redundant power supply.

The new S-SF software package designed for local network based command and control monitor architectures by Mitsubishi Electric, the brand that has been drawing attention with

its advanced technologies in the field of visual data systems, make it possible for videowall monitoring systems to work more efficiently and with bigger scalability. While versatility of natural IP command and control software suite make it possible for systems to easily adapt to future requirements, they also make it possible to maximize long-term cost saving advantages gained by long-lasting service lives of Mitsubishi Electric's DLP and LED screens. NPP LED screen designed specifically for command and control centers by Mitsubishi Electric, which installed world's first videowall screen in 1980 and owning numerous patents and Guinness records in LED screen technology with its 30 years of experience, gains attention with its thin chassis, high image quality and long lasting use life.

Safer and low-cost system



The new S-SF software package comprises of; five main applications, namely Display Agent, Multicast Converter, Application Server, S-SF Control and S-SF Master. A new IP-based system that is capable of handling data traffic from any networked source device, such as sensors, image processors, CCTV cameras or data stores, synchronizing and sharing content

instantly across any number of locations with minimal latency is being developed. S-SF software package makes it possible to design more efficient and more flexible decision-making environments for more efficient command and control room operations.

Thanks to S-SF architecture, control room videowalls no longer need a special videowall processor. Thanks to multiple redundancies incorporated in distributed network architecture without the need of an addition, fault tolerance is applied. In the case of a fault in a component, the role of that component will be assigned to another component immediately in order to find a reliable answer to the fault and to provide uninterrupted 7/24 service. S-SF system hardware is based on standard and universal network components. This way, the need for special hardware or operating system development and debugging is eliminated. At the same time, it can transmit not only the desktop image of source computer but also numerous applications running on the background at the same time with real-time resolution using application server component. As a result, more reliable and lower-cost system is made possible.

Multiple wall monitoring and advanced messaging

S-SF system can control multiple masters via a master PC from a single point. Additionally,

this system can synchronize positions and sizes of video windows among walls of different sizes and can place video windows among multiple walls without interruption. Content can be overlapped and easily shared while being placed on main panel. System makes messaging possible between logged-in users.

Each software can be installed on multiple computers

Thanks to Mitsubishi Electric's S-SF software, each software can be installed on multiple computers, however the softwares can be used simultaneously only within the number of licenses. S-SF master can be installed on multiple PCs to make redundancy S-SF system. With several software combinations that can be install on the same computer, system configurations reduce cost of PCs needed.

Stable color quality even after 100 thousand hours of continuous usage

Mitsubishi Electric's NPP LED screen with numerous patented features provide ideal viewing solution in interior spaces like control rooms where long life cycle and reliability is a critical requirement. NPP LED screen provides LED light output and retains color quality even after 100 thousand hours of continuous 7/24 usage with its patented anti-burn feature.

90 mm thin chassis and 1920*1090 pixel Full HD resolution



Compatible with schematic softwares like SCADA, NPP LED screen provides an impressive light output with its 90 mm thin chassis and 16.000:1 unmatched contrast rate and viewing angle, providing an advantage in spaces with tight installation space and high ambient light. Comprised of 480 mm x 540 mm LED units, NPP

LED provides unlimited resolution with its modular structure. This product which makes it possible to create a larger system quickly and practically by adding additional units, can be manipulated from front and rear sides for service access.

Long term operator comfort

Innovative NPP LED screen make imaging continuity possible even during an unlikely LED unit power trouble with its back-up signal inputs and redundant power supply. The product's dynamic power usage feature can measure necessary illumination value depending on power output, optimizing power usage. This way, "eye strain" which is an important factor in control rooms is reduced, providing long term operator comfort. NPP LED screen with Mitsubishi Electric's "Natural Color Mix" technology stands out with its two dimensional noise

reduction system developed specially to reduce visible noise in compressed content like MPEG videos.

About Mitsubishi Electric Corporation

With over 95 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded a revenue of 4,519.9 billion yen (US\$ 40.7 billion) in the fiscal year ended March 31, 2019. For more information visit: www.MitsubishiElectric.com*

**At an exchange rate of 111 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2019*

About Mitsubishi Electric's Activities in Turkey

Mitsubishi Electric's main fields of activity in Turkey are; air conditioning systems, industrial automation systems, advanced robot technologies, CNC mechatronics systems, elevator and escalator systems and visual data systems. Designating Turkey whose power and potential it believes in as a major production headquarter, Mitsubishi Electric produces energy efficient and environment-friendly air conditioners for Europe and Turkey in its digital factory in Manisa which is the brand's first room air conditioner factory in Europe. Working to integrate factories of Turkish industry into digital transformation period, Mitsubishi Electric also draws attention with its automation technologies in the world's deepest sunken tube tunnel, the Marmaray project. Operating in several fields in Turkey such as automotive components, semi-conductor devices, transportation and energy systems, Mitsubishi Electric applies its radar technology which is developed for airports to increase safety for airplanes and flights within its operations in public systems in Antalya Airport. One of the leading developers in space research and development systems, Mitsubishi Electric is also the manufacturer of Turksat 4A and 4B satellites which contributes to Turkey's and neighboring countries' communication and broadcasting infrastructure. For detailed information; tr.mitsubishielectric.com

About Mitsubishi Electric Visual Imaging Systems

Unveiling the world's first large-scale Diamond Vision LED videowall screen in 1980 at Los Angeles and qualifying for Guinness Records Book with the longest videowall screen in the world in 2010, Mitsubishi Electric provides a wide range of products capable of high brightness, vivid colours and extremely high resolution thanks to its innovative technologies. <http://tr.mitsubishielectric-displaysolutions.com>

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