

S-SF Software

IP-Based Visualization Management Systems For All Mission-Critical Applications

Main Control Room

Backup Center



NETWORK-BASED ARCHITECTURE

The S-SF software is designed to generate an IP-based system capable of handling mission-critical data such as computer images, CCTV cameras, and numerous command and control applications connected through an IP network. This content can be accessed and shared between remote sites where the S-SF system is installed, creating a more efficient and quicker decision-making environment for smoother operations.

REDUNDANCY-ENABLED FULLY DISTRIBUTED SYSTEM

The S-SF distributed architecture makes it easy to design a “fail-safe system” which is ideal for 24/7 mission critical applications. Unlike centralized processing solutions, failure of a single component does not bring down the entire video wall. The S-SF Master software can be loaded to multiple PC’s insuring the system remains fully operational in case of a failure. Multiple Display Agent PC’s also insure that the entire video wall does not go down due to a single point of failure. All components in the S-SF system use high-end, off the shelf components that can be easily replaced or upgraded in the future thus insuring the system will not become obsolete (no proprietary hardware or operating system).”

FEATURE LIST

Display Wall Configuration

- Multiple wall control via independent tab within control software for each defined canvas
- Supports setup of multiple canvasses with different resolution displays
- S-SF sources can be shared to any canvass within the S-SF network
- S-SF sources can be shared between sites (requires proper network configuration)

Manage Window Sources Via Control Software

- Drag and drop of sources to any location on any S-SF video wall within the system
- Create, move, resize, remove window sources
- Fit to single screen
- Title and frame setting (Color, width, visible/invisible)
- Snap to grid
- Thumbnail view of content being displayed on the video wall at control PC
- Caption for each window
- Crop function
- Create, save and recall multiple layouts
- Default layout can be defined to be recalled at the time of system start up
- Display any S-SF source as window on the control PC
- Transfer complete layout images between video walls with S-SF system

Supported Image Sources

- IP camera, IP encoder (ONVIF and RTSP URL designation)
- Remote application sources from Application server PC
- Ticker (Supports multiple ticker)
- IP Stream H.264 (IP Camera, IP Encoder)
- IP stream of H.265 (IP camera, IP encoder)

Application Sharing

- Access to the remote application from a client PC (Remote Control feature)
- Sharing of applications larger than a desktop (up to 8k x 8k logically)
- Loss less--GPU Processing (CUDA)
- Loss less--GPU Processing (OpenCL)
- Loss less--CPU Processing
- Encoding by H.264
- Encoding by H.265

Schedule

- Open layouts
- Brightness setting of supported Mitsubishi displays
- Power ON/OFF supported Mitsubishi displays
- Daily schedule supported

Display Control

- Supported Mitsubishi displays (78 series, 120 series, 12 series, LM series)
- Status Monitoring (Fans/Temperature/Communication/Etc.)
- Power ON/OFF
- Operating mode settings--Bright/Normal/ECO/ADV ECO (Depending on model of display)

Monitoring/Control of Display Agent PC's

- Status of Display Agent PC (Active/Failed)
- Power ON/OFF Display Agent PC's from Control Software

Remote Software Update

- Software for Display Agent PC's can be updated remotely (Not applicable for other software)

Security

- Password encryption
- Operation Log

User Authentication and Management

- User Add/Edit/Deletion
- Pre-defined user groups selectable
- Custom group creation and definition
- Login of authentication success or failures
- Authentication against Microsoft Active Directory Users and Groups

PC redundancy

- Automatic switch to back up PC if Master PC fails

Email Notification

- Notification can be sent to defined email address in case trouble detected with system

Communication

- The communication between operators (chat utility)
- Allows sharing of source images via chat utility
- Notification at the time of the message reception
- Collaboration of sources between multiple S-SF sites

SDK

- API library for client software development available

S-SF SOFTWARE SUITE	Display Agent
	Receiver/decoder software
Master	Application Server
Integrated management software	Application capturing/transmitting software
Control	Multicast Converter
GUI application for operators	Signal-converting software for multi-cast transmission

SYSTEM REQUIREMENTS

MASTER	
CPU	Intel® Core™ i5 or higher
Memory	4 GB or more
Hard disk	50 GB or more of free space (when the number of Display Agent PCs is 300 or less and that of Application Server PCs is 100 or less)
LAN	1000BASE-T x1 or more
USB	x 1 (for connection of the license management protection key)
OS	Microsoft® Windows® 7 Professional Service Pack1 (32-bit/64-bit) Microsoft® Windows® 8.1 Pro (64-bit) Microsoft® Windows® 10 Pro (64-bit)
Microsoft®.NET Framework	Microsoft® .NET Framework 4.5
Other	Keyboard, mouse Removable media drive (DVD-ROM drive, USB flash drive, etc.) (for software installation) Wake-on-LAN supported

CONTROL	
CPU	Intel® Core™ i5 or higher [For displaying H.264 video on the Control PC] The 4th or later generation is recommended. [For displaying H.265 video on the Control PC] The 6th or later generation is essential.
Memory	4 GB or more
Hard disk	5 GB or more of free space
LAN	1000BASE-T x1 or more
OS	Microsoft® Windows® 7 Professional Service Pack1 (32-bit/64-bit) Microsoft® Windows® 8.1 Pro (64-bit) Microsoft® Windows® 10 Pro (64-bit)
Microsoft®.NET Framework	Microsoft® .NET Framework 4.5
Graphics	DirectX® 11.0 or higher [For displaying H.264 video on the Control PC] To use the acceleration function of Intel®, all the following conditions should be satisfied. The PC should have a 4th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers. [For displaying H.265 video on the Control PC] To display H.265 video, all the following conditions should be satisfied. The PC should have a 6th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers.
Other	Keyboard, mouse Removable media drive (DVD-ROM drive, USB flash drive, etc.) (for software installation)

DISPLAY AGENT	
CPU	Intel® Core™ i5 or higher [For displaying H.264 video on the Control PC] The 4th or later generation is recommended. [For displaying H.265 video on the Control PC] The 6th or later generation is essential.
Memory	4 GB or more
Hard disk	2 GB or more of free space
LAN	1000BASE-T x1 or more
OS	Microsoft® Windows® 7 Professional Service Pack1 (32-bit/64-bit) Microsoft® Windows® 8.1 Pro (64-bit) Microsoft® Windows® 10 Pro (64-bit)
Microsoft®.NET Framework	Microsoft® .NET Framework 4.5
Graphics	DirectX® 11.0 or higher [For displaying H.264 video] To use the acceleration function of Intel®, all the following conditions should be satisfied. The PC should have a 4th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers. [For displaying H.265 video on the] To display H.265 video, all the following conditions should be satisfied. The PC should have a 6th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers.
Other	Keyboard, mouse Removable media drive (DVD-ROM drive, USB flash drive, etc.) (for software installation) Wake-on-LAN supported Install this application on a PC that does not collaborate with Directory Service

SERVER APPLICATION	
CPU	Intel® Core™ i5 or higher [For displaying H.264 video on the Control PC] The 4th or later generation is recommended. [For displaying H.265 video on the Control PC] The 6th or later generation is essential.
Memory	4 GB or more
Hard disk	2 GB or more of free space
LAN	1000BASE-T x1 or more
OS	Microsoft® Windows® 7 Professional Service Pack1 (32-bit/64-bit) Microsoft® Windows® 8.1 Pro (64-bit) Microsoft® Windows® 10 Pro (64-bit) Microsoft® Windows Server® 2012 R2 Standard (64-bit)
Microsoft®.NET Framework	Microsoft® .NET Framework 4.5
Graphics	DirectX® 11.0 or higher 2 GB or more memory (Required only when NVIDIA® graphics board is mounted) [For displaying H.264 video] To use the acceleration function of Intel®, all the following conditions should be satisfied. The PC should have a 4th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers. [For displaying H.265 video on the] To display H.265 video, all the following conditions should be satisfied. The PC should have a 6th or later generation Intel® Core™ i-series processor that supports Intel® Quick Sync Video. The PC should use only an integrated graphics on CPU of Intel® alone and should not use any GPU of other manufacturers. [For encoding to the ZRLE format] To use the acceleration function of CUDA™, all the following conditions should be satisfied. (*1) A graphic board that supports NVIDIA® CUDA™ with compute compatibility 3.0 but does not support NVIDIA® Optimus™ should be mounted. The PC should use only a GPU of NVIDIA® and should not use any CPU-integrated graphics or any other GPU. (*2) *1 Even when Intel® Quick Sync Video or CUDA™ is not supported, video of the application can be distributed. In this case, however, CPU load may increase to an extremely high level. *2 You cannot use the acceleration function of Intel® (including the encoder to the H.265 format) and that of CUDA™ together on one PC. For other detailed operation conditions, see "2.15 Notes on hardware acceleration."
Other	Keyboard, mouse Removable media drive (DVD-ROM drive, USB flash drive, etc.) (for software installation)

MULTICAST CONVERTER	
CPU	Intel® Core™ i5 or higher
Memory	4 GB or more
Hard disk	35 GB or more of free space (when the number of IP encoders is 300 or less)
LAN	1000BASE-T x1 or more
USB	x 1 (for connection of the license management protection key)
OS	Microsoft® Windows® 7 Professional Service Pack1 (32-bit/64-bit) Microsoft® Windows® 8.1 Pro (64-bit) Microsoft® Windows® 10 Pro (64-bit)
Microsoft®.NET Framework	Microsoft® .NET Framework 4.5
Other	Keyboard, mouse Removable media drive (DVD-ROM drive, USB flash drive, etc.) (for software installation) Wake-on-LAN supported

Specifications and images are subject to change without notice.
For detailed information about installation, please contact the nearest Mitsubishi Electric representative.



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



MITSUBISHI ELECTRIC EUROPE B.V.

Nijverheidsweg 23A, 3641RP Mijdrecht - The Netherlands

Email: info@nl.mee.com | Web: www.mitsubishielectric-displaysolutions.com

UK + 44 1707 278 684
Middle East + 971 4 372 4720
Turkey +90 216 969 25 00

Germany + 49 2102 486 9250
Spain & Italy + 34 935 653 118
France + 33 1 5568 5553

Italy + 39 335 7187 149
Benelux, Eastern Europe & Scandinavia + 31 297 282 461
Russia & CIS + 7 495 721 1043