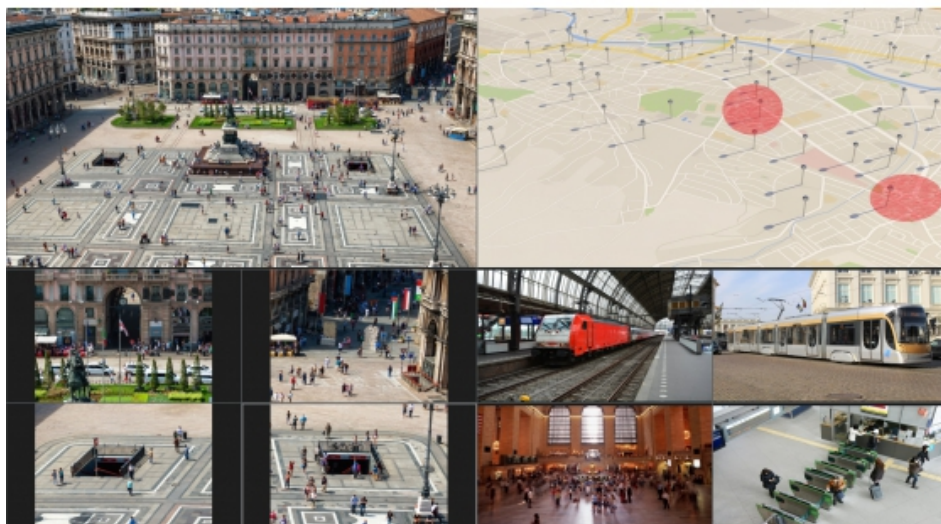


SOW-S Series

Network Video Management Software – Standard Edition



Overview

Simple, easy-to-use, network video management software for monitoring systems with up to 288 cameras

This simple, easy-to-use video management software supports monitoring systems with up to 288 cameras, which is ideal for common applications such as retail and banks.

The SOW-S Series is the first 4K-ready VMS application from Sony with 4K recording and playback capability. It's ideal for use with Sony 4K cameras, supporting unique image output functions like Intelligent Cropping. Recording 4K image data with four times the resolution of Full HD, the SOW-S Series supports more effective, efficient video monitoring by providing excellent situational awareness plus the ability to recognise fine details in a scene and quick, accurate searches.

Multiple users can simultaneously and securely access live or recorded video via their smartphone or tablet from any location. In addition remote PC clients can securely access system functions via a web browser, with no need to install application software.

Multi-vendor support allows easy expansion through the addition of a growing choice of third party cameras and other devices to create a powerful, versatile monitoring system. Regular software updates give monitoring professionals the reassurance of top-flight performance and the addition of new features to expand system capabilities even further.

Monitoring workflow is enhanced with support for a wide range of smart analytical and automation functions. This software-based solution gives system designers and integrators the freedom to select server hardware from the marketplace with CPU and operational specifications to meet their customers' precise needs.

Note

The SOW-S and SOW-E Series network video management software and HAW-S and HAW-E Series network video recorders are not compatible with each other and cannot be used in the same system.

Features

- **Compatible with Sony 4K cameras**

Sony 4K cameras provide powerful new ways to get the whole picture, allowing detailed analysis of specific areas in a scene, together with a wide-area situational overview. They offer a range of video output functions, including Intelligent Cropping and Multi Tracking, plus Evidence Shot, high resolution still image capture that's ideal for evidence. The SOW-S Series supports the video output functions unique to Sony 4K cameras, including a single real-time 4K/30 fps video stream and Intelligent Cropping that provides a Full HD overview video plus up to four VGA close-up video streams at the same time.

- **Multi-client access via smartphone or PC**

Multiple users can simultaneously and securely access live or recorded video via their smartphone or tablet from any location. In addition remote PC clients can securely access system functions via a web browser*, with no need to install application software. Live images captured with a smartphone or tablet by on-site staff can be transferred to the system, shared among users in the operations room and recorded to the central server. This supports timely monitoring of events, even in extreme environments where installing cameras is difficult.

* Web browser supports limited functions, while client application software installed on a PC supports full system functions.

- **See the complete picture**

Multiple monitors can be easily controlled by a single operator. The monitors are allocated to different tasks - such as viewing cameras images, a site map or alarm list - giving a single operator a complete overview and status of the entire system.

- **All-round awareness**

Interactive, multi-layered maps offer a situational overview plus control of cameras and other integrated systems. Icons are displayed in a map image showing the location of each camera: operators can instantly view live video by clicking on an icon. When an alarm event occurs, the associated camera icon is displayed prominently, helping the operator understand the situation and take appropriate action.

Technical Specifications

System components (software modules)	
● Recording Server	Yes
● Number of connected cameras per system	288
● Maximum number of cameras per recording server	32
● Recording Server manager	Yes
● Management Application (local management)	Yes
● Event Server (for handling of events and alarms)	Yes
● NVMS Mobile Client	Yes
● Network Video Management System Smart Client	Yes
● Network Video Management System Web Client	Yes
● Network Video Management System Smart Client - Player (local playback/export)	Yes

Device support	
● Support for ONVIF™ compliant devices	Yes
● Generic device support via universal driver	Yes
● Number of IP device brands supported via dedicated device integration	149
● Number of supported IP camera models	4738
● Number of supported video encoder models	319
● Number of dedicated IP input/output models	14
● Number of supported DVRs	74
● Number of supported IP audio devices	8
● Number of supported perimeter detectors	18
● Secure HTTPS camera connectivity (on supported devices)	Yes

Video processing	
● MJPEG, MPEG-4, MPEG-4 ASP and MxPEG support	Yes
● H.264 support	Yes
● Dual stream (live and recording) per camera	Yes
● Client video stream down sampling (resolution and FPS) option	Yes
● Send camera pre-alarm images (pre-recording buffer) to recording server	Yes
● Video recording speed up on motion, event or time schedule	Yes
● Built-in Video Motion Detection (VMD)	Yes
● Auto adjustable VMD sensitivity	Yes
● Motion metadata generated during VMD analysis	Yes

● VMD exclusion zones	Yes
● Video motion detections per server	All connected cameras

Audio	
● One-way audio support	Yes
● Two-way audio support	Yes
● One-way audio recording	Yes
● Maximum number of supported audio channels	32

Pan-tilt-zoom (PTZ)	
● Preset positions per camera	25
● Go-to preset on event	Yes
● Preset patrolling	Yes
● Combine patrolling and go-to preset on event	Yes
● Number of PTZ priority levels for prioritized PTZ control	1

I/O and events	
● Hardware configurable events (such as I/O input, motion, tampering, temperature, communication failure)	Yes
● Motion detection events (VMD in Recording Server)	Yes
● System error events (for example disk full)	Yes
● Manual / User defined events	Yes
● Event-based notification	Yes
● Event-based output control	Yes
● Event-based device start/stop	Yes

Alarm Manager	
● View triggered alarms	Yes
● Number of alarm priority levels	32000
● Customizable alarm priority levels	Yes
● Customizable alarm categories	Yes
● Alarm handling reporting	Yes
● Alarm logging	Yes
● Redundancy option for high availability	Yes

Storage and archiving	
● Video retention time	Unlimited
● Recording capacity per device/day	>1 TB
● Archiving of recordings	Yes

● Archiving to network drives	Yes
● Dynamic archiving (disk spanning)	Yes
● Online access to archives	Yes
● Archiving schedules	Hourly
● Automatic storage distribution	Yes
● Storage definition and retention time per device	Yes
● Storage overview (used vs. available space) of available storage drives	Yes

Support for Add-on products

● Supports Screen Recorder	Yes
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Management

● Automatic initial configuration wizard	Yes
● Configuration wizards for aided system setup	Yes
● Automatic camera discovery	Yes
● Device scanning with device model detection	Yes
● On-the-fly configuration changes	Yes
● Run servers as Windows Services	Yes
● Scheduled start/stop of devices	Yes
● System configuration restore points	Yes
● Export and import of configuration data	Yes
● Offline license activation	Yes

Viewing clients

● Maximum number of clients	20
● Customizable access port with NAT support	Yes
● Basic User (Network Video Management System application accounts)	Yes
● Windows User (local Windows accounts)	Yes
● Single step installer (installs Smart Client together with server)	Yes

System alarms and notification

● Email notification	Yes
● SMS notification	Yes

Logging

● System logging	Yes
● Event logging	Yes
● Audit logging	Yes

Languages (Management Interface)	
● English	Yes
● French	Yes
● German	Yes
● Japanese	Yes
● Spanish	Yes

General view handling (Client)	
● Number of view layouts	2 (Mobile/Web Client), 41 (Smart Client)
● Maximum view Items per view	100 (Smart/Web/Mobile Client)
● Optimized view layouts for 4:3 and 16:9 display ratios	Yes (Smart Client)
● Corridor optimized view layouts	Yes (Smart Client)
● Optimized view layouts for landscape and portrait displays	Yes (Smart/Mobile Client)
● Cameras from multiple servers	Yes (Smart/Web/Mobile Client)
● Support for Shared Views and Private Views	Yes (Smart/Web/Mobile Client)
● Images in views	Yes (Smart Client)
● Active HTML pages in views	Yes (Smart Client)
● Hotspot in views	Yes (Smart Client)
● Carousel in views (controllable)	Yes (Smart Client)
● Full screen mode	Yes (Smart/Web/Mobile Client)
● Display views as floating window	Yes (Smart Client)
● Display views on multiple monitors	Yes (Smart Client)
● Advanced multi window support with synchronized or independent operation	Yes (Smart Client)
● Switch to view by number	Yes (Smart Client)
● Initial default view	Yes (Smart/Web/Mobile Client)
● Camera search	Yes (Smart/Web/Mobile Client)
● Automatic restore views and windows at login	Yes (Smart/Web/Mobile Client)

Live view (Client)	
● Update on motion only	Yes (Smart Client)
● One-way audio support	Yes (Smart Client)
● Two-way audio support	Yes (Smart Client)
● Start recording in view	Yes (Smart Client)
● Independent playback in live mode	Yes (Smart Client)
● Replace cameras in view without changing view setup	Yes (Smart Client)
● Share video image	Yes (Smart/Mobile Client)

● Switch to camera by number	Yes (Smart Client)
PTZ support (Client)	
● Define presets in the client application	Yes (Smart Client)
● View who have PTZ control and time to automatic release	Yes (Smart/Web/Mobile Client)
● Go to preset position	Yes (Smart/Web/Mobile Client)
● Pause patrolling at manual operation	Yes (Smart/Web/Mobile Client)
● Grandeye 360° Quad View	Yes (Smart Client)
● Immervision Enables® panomorph lens support	Yes (Smart Client)
● Joystick support	Yes (Smart Client)
● Assign commands to keyboard shortcuts and joystick buttons	Yes (Smart Client)
● Auxiliary commands (wash and wipe)	Yes (Smart Client)
I/O and events control (Client)	
● Camera overlay buttons	Yes (Smart Client)
● Manually activate events and trigger outputs	Yes (Smart/Web/Mobile Client)
Playback (Client)	
● Maximum view items per view	1 (Mobile/Web Client), 100 (Smart Client)
● Playback mode	Multi Camera(Smart/Web Client), Single Camera(Mobile Client)
● Recording search	Yes (Smart/Web/Mobile Client)
● Recent history of recording sequences per camera	Yes (Mobile Client)
● Time/date search	Yes (Smart/Web/Mobile Client)
● Independent playback in playback mode	Yes (Smart Client)
● Event/alert list in recording	Yes (Smart Client)
● Graphical timeline	Yes (Smart Client)
● Adjust playback speed	Yes (Smart/Web/Mobile Client)
● Single frame step (forward/backward)	Yes (Smart/Web/Mobile Client)
● One-way audio support	Yes (Smart Client)
● Digital zoom	Yes (Smart/Web/Mobile Client)
● Share video image	Yes (Smart/Web/Mobile Client)
● Print report with comments	Yes (Smart Client)
● Privacy masking	Yes (Smart/Web/Mobile Client)
Smart Search (Client)	
● Smart Search based on VMD analysis	Yes (Smart Client)
Sequence Explorer (Client)	

● Listing of sequences	Yes (Smart Client)
● Listing of time intervals	Yes (Smart Client)
● Dedicated Sequence Explorer tab that can be displayed as floating window	Yes (Smart Client)

Alarm Manager (Client)	
● Alarm list and alarm preview view items in normal camera views	Yes (Smart Client)
● Sort and filtering functions	Yes (Smart Client)
● Instant preview of primary and related cameras	Yes (Smart Client)

Map function (Client)	
● Standard graphical file formats supported for maps	Yes (Smart Client)
● Number of linked map layers supported	64 (Smart Client)
● Video preview	Yes (Smart Client)
● Integrated control of speakers, microphones and I/O devices	Yes (Smart Client)
● Drag-and-drop and point-and-click definition of map elements	Yes (Smart Client)
● Integrated PTZ control	Yes (Smart Client)
● Real-time system integrity overview and system performance	Yes (Smart Client)

Export (Client)	
● Export in still image format (JPEG)	Yes (Smart/Web/Mobile Client)
● Export in media player format (AVI)	Yes (Smart/Web/Mobile Client)
● Export with audio in media player format (AVI)	Yes (Smart Client)
● Export with audio in media player format (MKV)	Yes (Smart Client)
● Export in Network Video Management System format	Yes (Smart Client)
● Server side export	Yes (Smart/Web Client)
● Encrypted export with password	Yes (Smart Client)
● Digital signing of exported video	Yes (Smart Client)
● Re-export prevention	Yes (Smart Client)
● Auto-export of Smart Client – Player	Yes (Smart Client)
● Preserve system defined privacy masks	Yes (Smart/Web/Mobile Client)
● Additional export specific privacy masks	Yes (Smart Client)
● Direct export to optical media	Yes (Smart Client)
● Flexible camera selection for export	Yes (Smart Client)
● Bulk export to multiple media formats	Yes (Smart Client)
● General and camera specific export comments	Yes (Smart Client)
● Pre/post comment slides (media player format only)	Yes (Smart Client)

<ul style="list-style-type: none"> Verification of digital video signatures in Smart Client – Player 	Yes (Smart Client)
Video Push (Client)	
<ul style="list-style-type: none"> Video Push 	Yes (Mobile Client)
Installation (Client)	
<ul style="list-style-type: none"> Run without installation 	Yes (Web Client)
<ul style="list-style-type: none"> Optional browser plug-ins for enhance viewing performance 	Yes (Web Client)
<ul style="list-style-type: none"> Single step installer (installs client together with server) 	Yes (Smart Client)
<ul style="list-style-type: none"> Initial and update installations from Management Server 	Yes (Smart Client)
System access (Client)	
<ul style="list-style-type: none"> Auto-login 	Yes (Smart/Mobile Client)
<ul style="list-style-type: none"> Secure (HTTPS) client-server connection 	Yes (Mobile/Web Client)
<ul style="list-style-type: none"> Dynamic bandwidth adaptation 	Yes (Mobile/Web Client)
<ul style="list-style-type: none"> Bandwidth threshold 	Yes (Mobile/Web Client)
Authorization (Client)	
<ul style="list-style-type: none"> Restrict user access by devices (cameras, microphones, I/O devices, etc.) 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> Restrict access to live view 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> Restrict access to PTZ 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> Restrict access to playback 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> Restrict access to export 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> Restrict access to setup 	Yes (Smart Client)
Personalization (Client)	
<ul style="list-style-type: none"> Application options 	Yes (Smart/Mobile Client)
<ul style="list-style-type: none"> Centralized management of application options 	Yes (Smart/Web Client)
<ul style="list-style-type: none"> Application theme support 	Yes (Smart Client)
<ul style="list-style-type: none"> Task oriented tabs 	Yes (Smart Client)
<ul style="list-style-type: none"> Toggle between Advanced mode and Simplified mode. Default mode: A – Advanced, S - Simplified 	Yes (Smart Client)
System (Client)	
<ul style="list-style-type: none"> Hardware accelerated video decoding (Intel Quick Sync video) 	Yes (Smart Client)
Languages (Installation, UI and help function) (Client)	
<ul style="list-style-type: none"> Arabic 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> English 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> French 	Yes (Smart/Web/Mobile Client)
<ul style="list-style-type: none"> German 	Yes (Smart/Web/Mobile Client)

● Japanese	Yes (Smart/Web/Mobile Client)
● Spanish	Yes (Smart/Web/Mobile Client)
● Turkish	Yes (Smart/Web/Mobile Client)

Computer running Standard Edition Products (System Requirements)	
● CPU	Intel® Pentium® 4, 2.4 GHz
● RAM	Minimum 4 GB
● Network	Ethernet 100 Mbit
● Graphics adapter	AGP or PCI-Express, minimum 1024 x 768, 16-bit colors
● Hard disk space	Minimum 10 GB free hard disk space available, excluding space needed for recordings
● Operating system	Microsoft® Windows® 10 Pro (64 bit)* Microsoft Windows 10 Enterprise (64 bit)* Microsoft Windows 8.1 Pro (64-bit) Microsoft Windows 8 Enterprise (64-bit) Microsoft Windows 8 Pro (64-bit) Microsoft Windows 7 Ultimate (64-bit) Microsoft Windows 7 Enterprise (64-bit) Microsoft Windows 7 Professional (64-bit) Microsoft Windows Server 2012 (64-bit): Standard and Datacenter Microsoft Windows Server 2012 R2 (64 bit): Standard and Datacenter Microsoft Windows 2008 R2 (64-bit): Standard, Web, High Performance Computing (HPC), Enterprise and Datacenter
● Software	Microsoft .NET 4.5.1 Framework DirectX 9.0 or newer Windows Installer 4.5

Computer running Mobile Server (System Requirements)	
● CPU	Intel® Pentium® 4, 2.4 GHz
● RAM	Minimum 4 GB
● Network	Ethernet 100 Mbit
● Graphics Adapter	Onboard GFX, AGP, or PCI-Express, minimum 1024 x 768, 16-bit color
● Hard Disk Space	Minimum 10 GB free hard disk space available (When using server-side export additional storage space is needed)
● Operating system	Microsoft® Windows® 10 Pro (64 bit)* Microsoft Windows 10 Enterprise (64 bit)* Microsoft Windows 8 Pro (64 bit) Microsoft Windows 8.1 Enterprise (64 bit) Microsoft Windows 8.1 Pro (64 bit) Microsoft Windows 7 Ultimate (64 bit) Microsoft Windows 7 Enterprise (64 bit) Microsoft Windows 7 Professional (64 bit) Microsoft Windows Server 2012 (64 bit): Standard and Datacenter Microsoft Windows Server 2012 R2 (64 bit): Standard and Datacenter Microsoft Windows Server 2008 R2 (64 bit): Standard, Web, High Performance Computing (HPC), Enterprise, and Datacenter
● Software	Microsoft® .NET 4.5.1 Framework

Computer running Smart Client, Smart Client - Player and Smart Wall - Using Software Decoding (System Requirements)	
● CPU	Intel® Core™2 Duo
● RAM	Minimum 1 GB
● Network	Ethernet 100 Mbit
● Graphics Adapter	Onboard GFX, AGP or PCI-Express, minimum 1280 x 1024, 16-bit colors, DirectX 9.0 or newer
● Hard Disk Space	1 GB free
	Microsoft® Windows® 7 Professional SP1 (32-bit or 64-bit) *

● Operating system	Microsoft® Windows® 7 Enterprise SP1 (32-bit or 64-bit) * Microsoft® Windows® 7 Ultimate SP1 (32-bit or 64-bit) * Microsoft® Windows® 8 Pro (32-bit or 64-bit) Microsoft® Windows® 8 Enterprise (32-bit or 64-bit) Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) Microsoft® Windows® 8.1 Enterprise (32-bit or 64-bit) Microsoft® Windows® 10 Pro (32-bit or 64-bit) Microsoft® Windows® 10 Enterprise (32-bit or 64-bit)
● Operating system (contd)	Microsoft® Windows® Server 2008 R2 (32-bit or 64-bit): Standard, Web, High Performance Computing (HPC), Enterprise, and Datacenter Microsoft® Windows® Server 2012 (32-bit or 64-bit): Standard and Datacenter Microsoft® Windows® Server 2012 R2 (32-bit or 64-bit): Standard and Datacenter Microsoft® Windows® 7 and Server 2008 R2 are only supported on physical PC's not on virtual machines
● Software	Microsoft® .Net 4.5.1 Framework Requires Operating System and Graphic Adaptor support for DirectX 9.0 or newer

Computer running Smart Client, Smart Client - Player and Smart Wall - Using Hardware (System Requirements)	
● CPU	Intel CPU supporting Intel QuickSync, Intel GPU enabled in BIOS
● RAM	Minimum 1 GB
● Network	Ethernet 100 Mbit
● Graphics Adapter	AGP or PCI-Express, minimum 1280 x 1024, 32-bit colors, DirectX 11.0 or newer
● Hard Disk Space	1 GB free
● Operating system	Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) Microsoft® Windows® 8.1 Enterprise (32-bit or 64-bit) Microsoft® Windows® 10 Pro (32-bit or 64-bit) Microsoft® Windows® 10 Enterprise (32-bit or 64-bit) Microsoft® Windows® Server 2012 (32-bit or 64-bit): Standard and Datacenter Microsoft® Windows® Server 2012 R2 (32-bit or 64-bit): Standard and Datacenter
● Software	Microsoft® .Net 4.5.1 Framework Requires Operating System and Graphic Adaptor support for DirectX 11.0 or newer

Computer running Web Client (System Requirements)	
● CPU	Intel Core2 Duo, 2.0 GHz Intel Core i3-5010U 2.1 Ghz*
● RAM	1 GB 4 GB*
● Network	Ethernet 100Mbit / WiFi 2Mbit
● Graphics Adapter	AGP or PCI-Express, minimum 1280 x 1024, 16 bit colors
● Hard Disk Space	500 MB free
● Operating System	Any capable of running the below browsers
● Browser	Microsoft Internet Explorer® 9 or later** Safari® 5 or later** Google Chrome™ 16 or later Google Chrome™ 48 or later (recommended)* Mozilla® Firefox® 11 or later Mozilla® Firefox® 43 or later (recommended)*

Device running Mobile Client (System Requirements)	
● RAM	2GB*
● Operating System	Android 4.0 or higher iOS 9.2 or higher
● Network	2G/3G (4G or WiFi)*

Notes	
● *	Required for using Direct Streaming
● **	Not supported when using Direct Streaming