

Smart-Video Management Software

TENTRONIX's Smart-Video Management Software "S-VMS" stands for Smart video management system. But before discussing what makes a video management system "Smart" let's review what a video management system (VMS) actually is.

Video Management System (VMS) is management software that's part of a closed-circuit network camera system. Simply taken VMS allows its users to view, record and interact with video footage from connected network cameras. You can manage camera and recording settings, view multiple video streams at once, detect events and generate alerts. With VMS, you can also analyze input video streams to detect and investigate incidents, improve safety, and increase efficiency. A VMS is obviously more powerful and flexible than software that comes pre-loaded digital video recorders (DVR) and network video recorders (NVR).

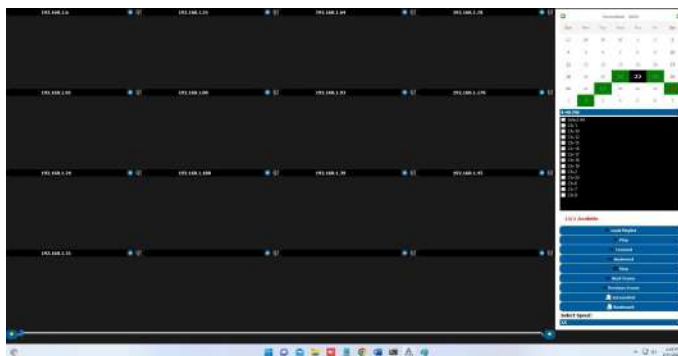
Here's The Difference With our Smart video management system (S-VMS), you get basic features of a VMS plus our smart technology. Our S-VMS includes features powered by inbuilt artificial intelligence (AI) and smart search tools. In traditional surveillance systems, user needs to search through hours of footage to find what he is looking for. But with our smart search, user can easily search camera streams by date, time, events detected, and many more.

Our S-VMS Controls multiple sources of videos to collect, manage and present videos in a clear and concise manner. S-VMS smartly determines the capabilities of each subsystem across various sites, allowing video management of all present video devices through a unified configuration and viewer. The Subsystems can be IP cameras, matrix switches or digital/network video recorders allowing both analog or digital input to be viewed on S-VMS clients.'

Recording: -Video management software typically provides a range of recording options, such as continuous recording, motion-detection recording, and scheduled recording, to meet the specific needs of different users. The recorded video can be stored in a variety of formats, such as digital video files, and can be viewed, played back, and analyzed on the software platform or exported for further use.

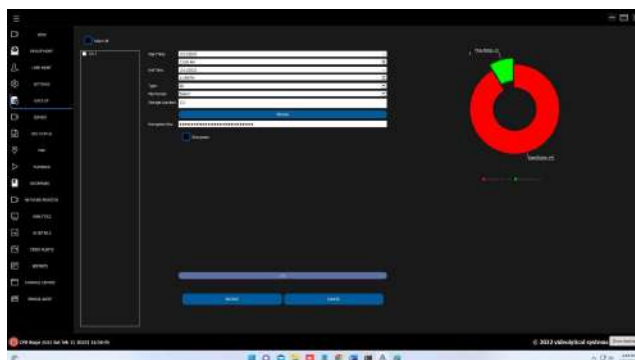
In addition to recording and storing video data, video management software often provides a range of advanced features, such as video analytics, video search, and video management, to help users effectively manage and utilize their recorded video data.

Playback: - Playback in video management software refers to the feature that allows users to view recorded video content at a later time. The software typically has a user-friendly interface that allows users to easily search for, retrieve, and play back recorded video footage. The playback feature is usually used for a variety of purposes, such as reviewing security footage, monitoring performance of employees, or conducting investigations. Some video management software also provides advanced playback features, such as fast-forward, rewind, slow-motion, and the ability to set bookmarks, which can make the review process more efficient and effective. Additionally, some software may provide tools for analyzing the footage, such as video analytics that can detect motion or track specific objects in the video.



Backup: - Backup in video management software refers to the process of creating a copy of the data or information stored in the system, as a measure of protection against data loss due to hardware failures, software errors, or other unexpected events.

In the context of video management software, backup typically includes copies of video footage, metadata, configurations, and other important data related to the operation of the system. This information is usually stored in a separate location, such as an external hard drive, cloud storage, or another networked server, and can be used to restore the system to a previous state in the event of a failure or data loss.



Live Streaming: - Live streaming is a feature that allows you to broadcast real-time video content to your audience over the internet. In video management software, live streaming usually involves capturing video from a camera or other source, encoding the video into a format suitable for internet transmission, and sending it to a streaming server, which then distributes the video to viewers through the internet. There are different ways that video management software can support live streaming, such as integrated live streaming capabilities, compatibility with third-party live streaming platforms, or the ability to send video to a custom streaming server



Key Highlights

User-friendly interface: Tentronix provides an intuitive, responsive, adaptive and friendly user interface. The interface supports user-specific camera layouts, and hierarchical camera groups to enable the user to multitask and improve operational efficiency. It also provides mobile apps for both iOS and Android platforms.

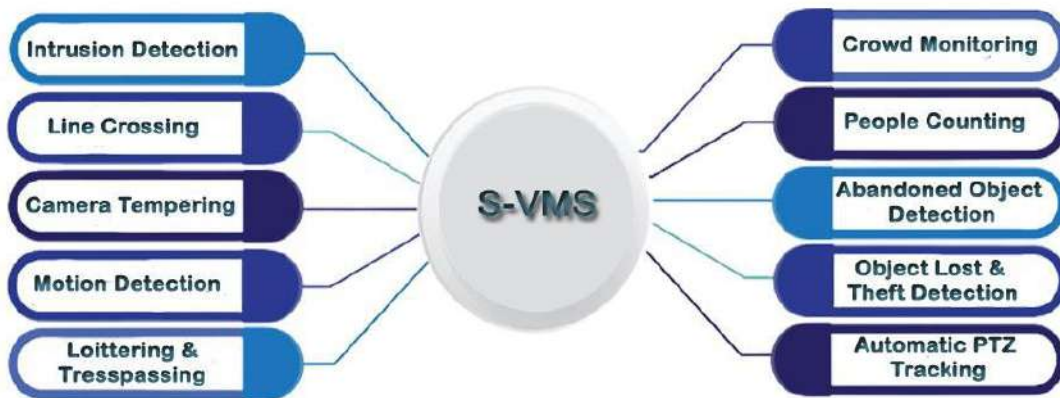
Smart navigation: Users enjoy a smart video viewing experience, both live and archived. Multiple view panels can be correlated with the help of features such as Sync Replay, Google Map View, GIS Maps, Open Street Map, Camera Tracks and Surrounding Views. Simultaneous viewing of live and recorded video on the same screen helps user quickly investigate events in the past, without losing sight of the current events. The software provides the Video Cart to select multiple video clips together and download them at one go, along with an Excel report with links to the video clips for easy sharing.

Integration of multiple on-premises Video Management Systems: Tentronix can integrate and aggregate various autonomous systems like sensors, radars, Lidars, thermal cameras etc. for unified central monitoring.

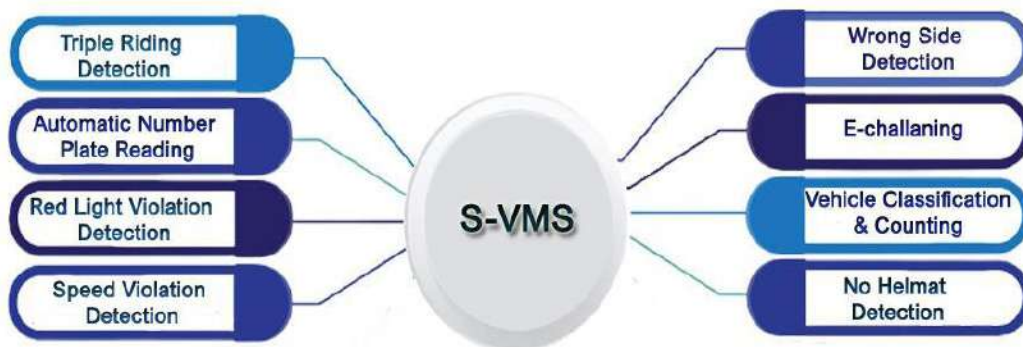
✓ Video Analytics

Video Analytics software enables a more efficient surveillance system, reduces the chances of missing an event with smart alert management system, increases efficiency of security staff.

Our S-VMS can also review and analyze the live or recorded video, digging out important information. These video analytics can range from retail stores to critical areas like army cantonments, airports, nuclear & gas plants, country borders stores to motion detection searches for suspicious people who came on to your property. Some of video analysis we offer are as follows



Intelligent Traffic Monitoring System (ITMS):



Integration: A Video Management System is all about strategies which can make the Surveillance & Security of a site more effective and easier to maintain. The unmatched flexibility and scalability provided by software as compared to the hardware is an added advantage. Thus, Integration of other hardware security products such as Fire Alarm, Access Control, different type of sensors, Radars or Lidar's is of utmost importance in any organization. So, the Video Management System is a fully distributed

solution, designed for limitless multi-site and multiple client server installations with expectation of 24x7 surveillance and support for all required devices. Our Smart Video Management System offers complete centralized management of all devices, servers and users and empower a flexible rule-based system driven by schedules and events.

User Defined Roles and Rights: Video Surveillance for Small, Medium & Large Enterprises, cities or highly secured areas like Army cantonments, Para military force's locations, airports, borders etc. is usually spread over large areas as their critical locations are often situated far apart. This generates the need of giving all users pre-defined roles and rights to each location, to maintain high data security. Our S-VMS supports all three levels of Roles and Rights, namely, Administrator, Operator and Viewer. As the names suggest, an administrator has the maximum rights and viewer has the least. Our S-VMS supports installation and is able to run on virtualized servers. Our S-VMS supports scalable video quality recording to record high-quality video to edge storage, while a low-quality reference video stream can be recorded centrally in the recording servers.

Camera-wise Recording Retention: Storage cost being the one of the major criteria while selecting surveillance solution plays an important role in deciding the cost of a surveillance project. A lot of space is required to store the streams from various cameras. This requirement increases if the application is big and a lot of cameras have been installed. However, if observed carefully, not all cameras hold the same priority. And hence, not all recordings need to be saved for same duration Our S-VMS offers and intelligent to allow user to choose the number of recording retention days for a particular camera.

E-Maps: Built-in E-map function in the client viewer provides an intuitive overview of the system and gives integrated access to all system components. This feature provides a window to centralized monitoring of all cameras and devices irrespective of the area that surveillance system has covered. Map function is able to use standard graphical file formats including: jpg, gif, png, tiff, etc. It is possible to use any number of layered maps, and it is possible to easily drag-and-drop and point-and-click definition of cameras, servers, microphones, speakers, I/O devices, hot-zones, and PTZ camera presets. All devices and Security Cameras can be positioned on a JPEG map of the location, from this map you can simply click on the camera you want to monitor. Upon clicking, a live streaming window of the respective camera will open. Our S-VMS is feature packed that ensure that user can stop worrying & start focusing on his core areas of operation. User can select from any of the below broad-based classification that suits his needs. We use custom Machine Learning Algorithms to Provide a state of the art yet customizable security system.



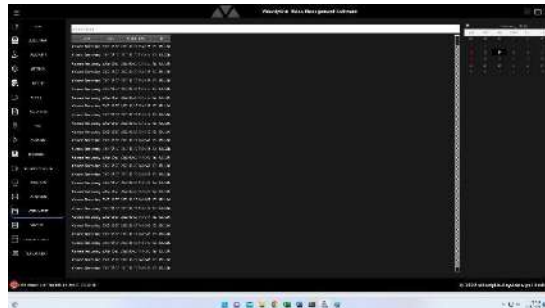
✓ Facial Recognition

Not just detecting faces, we provide you information like demographics & even match faces with the one saved in a database like staff, whitelisted or blacklisted people so that you can track who is in front of the camera right now. Moreover, you can practice an access control as well based on our facial recognition.



✓ Smart Search

To Save time while reviewing videos & searching for a specific Incident, Smart Search feature in us S-VMS allows you to set up Specific search parameters so that you can quickly preview the most relevant clips.



✓ Crowd Monitoring

People Counting, Loitering, Suspicious behavior, People movements alerts can be created for all kinds of crowd behavior. This lets you ensure that a collection of people is always monitored closely & is carefully analyzed



✓ Vehicle Monitoring

ANPR, Parking Duration, Vehicle Direction, UVCC are the features that we offer and they let you manage vehicles in and around the area of interest.



✓ Abandoned/Left Object Detection

Detection of any object left behind in the monitored zone by a moving agent such as the owner of the object or baggage



✓ Fire Arms and Ammunitions Detection

Detects and alerts if anybody enters with fire arm or knife in camera frame



Features:

- Virtual Computing Platforms in Windows and Linux environments
- Single site and federated deployment architectures
- Unlimited cameras for recording and monitoring
- Dynamic Load balancing of cameras
- Apps for Android and iOS platforms
- Enable and disable cameras from the user interface
- Video wall support
- Multi-monitor support
- Integration with multi-layer sitemaps
- Time Synchronization with NTP
- Failover, Failsafe and HA features
- Camera tree to view a list of available cameras, with specific cameras icons
- PTZ controller and PTZ tracking
- Access hierarchy based PTZ control
- Integrated archive player within the client
- Video cart to download multiple archive video clips
- Report on the download video
- Color and activity search in archive video
- Camera setting using the pencil tool for easy navigation and settings
- Supports multiple streams from a single IP camera or encoder, for both live and recorded video
- Bookmark favorite layout, with operators' personal space
- Timeline to indicate the availability of recording, motion or event
- Critical video bookmarking and retention
- Actionable dashboard to view a list of recorded videos, and to view a video by clicking on the record
- Export recording details in a spreadsheet, with details of each of the video segments
- Video enhancement for live and recorded view
- Operator screen recording

- Area of interest selection with intelligent grid for searching smart motion search by time, sensitivity and interval
- Camera shake cancellation – object detection even when the camera is swaying
- Designed based on a novel video DC-DR architecture principle
- Manage recording schedules on an hourly basis
- Select single camera or a group of cameras for edge recording
- Supports Automatic Network Replenishment (ANR) with controlled recording on an hourly basis
- Motion-based recording
- High resolution snap embedded in video recording
- Storage fail-safe feature
- All video resolution, frame rate, and bitrate available in the camera
- Alert when storage space reaches a predefined threshold
- Wizard-driven installation and configuration
- Two-way audio integration
- Notification through sound alert, in case of system malfunction
- Multi-factor authentication
- Send live, or archive video streams, through RTSP protocol
- Open to any IP camera, analog camera and encoder integration
- Strict licensing policy to prevent misuse of the platform