

**COM
SUR**™
the missing piece of CCTV

THE FOOTAGE WHISPERER

"SEE WHAT THE CAMERA SAW"



UTILITY VALUE OF
COM-SUR™ FOR
CONSTRUCTION SITES

WELCOME



AUDIT HOURS OF FOOTAGE IN MINUTES
FIND OUT HOW COM-SUR WILL HELP

CCTV and other forms of video surveillance are common at construction sites world over, but footage is often only reviewed reactively. Our company realized this problem early-on and has developed the world's only CCTV video footage auditing software that encourages daily auditing (hours in minutes) of CCTV footage, filling the gap for a complete "workflow". The software works with existing cameras and VMS, regardless of type/brand, and provides a standardized approach for intelligent incident reporting. Our software also offers exceptional investigative capabilities.

'COM-SUR' – THE WORLD'S ONLY CCTV/
SURVEILLANCE VIDEO FOOTAGE AUDITING,
SMART BACKUP, AND STANDARDIZED
INTELLIGENT INCIDENT REPORTING SOFTWARE
– THE MISSING PIECE OF CCTV/SURVEILLANCE
VIDEO

COM-SUR is the world's only CCTV/surveillance video footage auditing, smart backup, and standardized intelligent incident reporting software that serves as a complete workflow and force multiplier. It helps audit 24 hours of footage in minutes, reduces data size, creates standardized intelligent reports, and delivers business intelligence. COM-SUR helps unlock hidden information in CCTV/surveillance video footage and enables people to gain actionable intelligence, improve homeland security, prevent crime and losses, identify and mitigate threats and hazards, and improve operational efficiency. It empowers people to gain new jobs as CCTV/surveillance video footage auditors and start new businesses of auditing video footage. Like MS Office, COM-SUR is an enabler that makes it easy to work with CCTV and other surveillance cameras in a standardized way, leading to better decision-making. It also offers exceptional investigative capabilities.

HOW COM-SUR SMARTLY REDUCES 'VIDEO' STORAGE SIZE

COM-SUR employs an innovative approach to smartly reduce the amount of video to be audited and consequently the storage size of videos. Regardless of the video's frame rate, COM-SUR captures a single screenshot of the consolidated 'moment' of 'that' one second, when the I, P, and B frames come together. This method significantly reduces data size without sacrificing vital information. It goes without saying that when multiple cameras are displayed in a grid view, say 4x4, the storage size is further reduced since all the cameras are captured as a single image. Since no suggestion is being made to replace the actual video with screenshots, COM-SUR acts as a wonderful supportive technology both to audit (review) just 86400 frames representing 24 hours and reducing the data size at the same time.

CHALLENGES AT CONSTRUCTION SITES

1. Theft and vandalism:

Construction sites often have expensive equipment, tools, and materials that can be attractive targets for thieves and vandals.

2. Unauthorized access:

Construction sites can be dangerous places, and unauthorized individuals who enter the site can put themselves and others at risk.

3. Worker safety:

Construction sites have many hazards, such as heavy equipment, elevated work areas, and hazardous materials.

4. Fire issue:

Construction sites can be at high risk of fires

due to the presence of flammable materials and welding activities.

5. Compliance issues:

Construction sites must comply with various regulations and safety standards, such as those set by the Occupational Safety and Health Administration (OSHA).

6. Insider threats:

Construction sites have to deal with insider threats from disgruntled employees or even unwitting staff who fail to follow proper security and safety measures.

7. Humongous growth of surveillance video:

The exponential growth of surveillance cameras has resulted in an unprecedented surge in surveillance video. Effectively managing this data has become a daunting challenge due to the massive storage capacity required, especially considering the prolonged retention periods necessary for security, incident investigation, or legal purposes. Furthermore, the prevalence of high-resolution video with increasing megapixels compounds the storage demands, making efficient data management an urgent priority for organizations grappling with the immense volume of surveillance footage.

COVID-19 PANDEMIC

The pandemic severely impacted construction activities worldwide. Owing to restrictions/lockdowns, several construction businesses experienced disruptions to their workforce, leading to delays of some projects and cancellations in some cases, thereby causing huge losses. Guidelines were issued to prevent the spread of COVID-19, but outbreaks

still occurred.

USE OF VIDEO SURVEILLANCE AT CONSTRUCTION SITES

Most construction sites have video surveillance covering the following areas:

- Entrances and exits (gates)
- Fences and perimeters
- Storage areas for equipment and materials
- Loading and unloading areas
- Crane and lift platforms
- Staging and assembly areas

Also, drones are used at construction sites to carry out aerial surveys as well as inspections of areas such as rooftops, tall structures, areas with limited access.

Further, the concerned stakeholders at construction sites generally need to review and analyse recorded CCTV video footage from time to time for investigating incidents and/or accidents, and other issues in order to corroborate evidence as well as assist police/law enforcement agencies.

TIMELAPSE CAMERAS

Timelapse cameras are commonly used at construction sites to capture high-quality images or videos of the entire construction process over an extended period of time. Here are some ways timelapse cameras are used:

1. Progress monitoring:

Timelapse cameras capture images or videos of the construction site at regular intervals, such as daily or weekly, to track progress over time. This information can be used to create a visual record of the project and help identify any delays or issues that need to be addressed.

2. Marketing and promotion:

Timelapse footage are used to create marketing and promotional materials for the construction project, such as time-lapse videos or photo montages, for investors, stakeholders, or the general public.

3. Quality control:

Timelapse cameras are used to monitor the quality of work performed at a construction site by capturing detailed images or videos of the construction process, in order to identify any issues or defects that need to be addressed and ensure that work is being carried out to a high standard.

4. Safety monitoring:

Timelapse cameras are used to monitor worker safety at a construction site by capturing footage of workers carrying out tasks and identifying any potential safety hazards.

LIVE MONITORING – CHALLENGES

Some larger construction sites have a dedicated control room with operators, set up for live monitoring of CCTV and other cameras such as drones. However, live monitoring comes with its

own set of challenges of video blindness, poor attention span, boredom, operator bias, false alerts, and so on.

Moreover, these cameras continuously capture and record humungous amounts of video data. It therefore becomes a daunting task for the operators to review and analyse this data whenever the need arises. Thus, it may be noted that benefits from video surveillance systems can accrue only when they are used optimally, suggestions for which are enumerated further on, in this document.

COMPLIANCE - GENERAL

Conformity or compliance in any organization means adherence to laws and/or rules and regulations, various standards, as well as data storage and security requirements as laid down by government bodies, governing bodies of the respective industry, or the management of the organization. When an organization complies with the requirements mandated by government and/or governing bodies, then it is termed as 'regulatory compliance' which enables the organization to run in a legal and safe manner.

COMPLIANCE - AUDITS

Several organizations carry out compliance audits on a regular basis to avoid the potential consequences of non-compliance. A compliance audit examines how well an organization adheres to compliance requirements. Some organizations use video surveillance to monitor compliance issues and audit recorded video footage from time to time for investigating and preventing compliance issues. Auditing video provides actionable

insights on the level of compliance within the organization.

AUTOMATED SOFTWARE – WHY THEY WILL NOT WORK IN ISOLATION

In the wake of the Christchurch shooting incident, several high-profile places of worship considered deploying gun detection technology. However, there are concerns about its efficacy, since it may not be able to detect all types of weapons, or the perpetrator could still create damage before being detected. Similarly, automated systems like video analytics, AI/ML can only detect what they have been programmed for. What about the rest? Again, these technologies are prone to triggering huge amounts of false alarms. Also, since the permutation combinations of exceptions can be vast and varied, it becomes almost impossible to automate every kind of exception. Facial recognition technology also raises ethical and privacy concerns, and has been found to produce inaccurate results, especially for certain ethnic groups. Therefore, experts suggest that while automated technologies will continue to grow, human intervention and intelligence will still be necessary to verify alerts and ensure their efficacy.

“CCTV AND OTHER FORMS OF VIDEO SURVEILLANCE ARE NOT ENOUGH – WE MAKE IT WORK FOR YOU”

While it is not being suggested that optimal usage of video surveillance can cure all issues, several issues of the following kind can be addressed by doing just a little 'more' with respect to making the optimal use of video surveillance systems:

- Accidents/Causes of potential accidents
- Potential causes of fires
- Compliance issues
- Health and safety issues
- Operational issues
- Loss/fraud/theft
- Recces/suspicious movements/activities
- Insider job/security lapses
- Violence/disputes
- Unauthorized/unlawful activities/visitors
- Intrusions, especially by animals
- Unruly workers/security guards
- Inattentive staff (e.g. guard sleeping)
- Unclaimed/unattended objects
- Issues with female workers
- Cameras/recorder malfunctions

So, what is the 'more' that needs to be done?

1) AUDIT CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of CCTV and other surveillance footage should be done daily (continuous

investigation) to identify potential issues and threats. Auditing is a dedicated and systematic process that helps address challenges related to live monitoring and alert-based systems. Auditing helps in evaluating analyzing incidents to improve existing policies, procedures, and processes. Concerned personnel should be trained to become video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of CCTV and other surveillance video footage can also help in adhering to the principles of Kaizen and TQM for business improvement.

2) DOCUMENT AUDIT FINDINGS/INCIDENTS

Audit findings/incidents should be documented in a standardized template to find the root cause to prevent future recurrences. Historical data of such findings/incidents can reveal patterns that can help take better informed corrective and preventive action. If the entire industry reports incidents in a standardized template, relevant authorities can derive business intelligence from the data and take action for the collective benefit of all construction businesses.

3) ENSURE DISASTER RECOVERY OF CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE – LIKE A 'BLACKBOX'.

CCTV and other surveillance video footage must be stored at multiple locations in order to ensure that even if the recorder/storage device is stolen, destroyed or tampered with the data is never lost. Further, any backed-up data must easily be searchable and retrievable; else, it is going to be a nightmare finding the relevant video.

4) DISPLAY DYNAMIC INFORMATION AT RELEVANT PLACES

Document and display details of information that is dynamic in nature in relevant areas.
For example:

1. List of authorised daily workers.
2. List of authorized security personnel deployed at the construction site.
3. List of habitual offenders/suspects likely to visit the construction site (a 'Watch out' list).

5) USE A POWERFUL NEW SIGNAGE

"WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY".

One size, one color, one powerful message.
Across the nation.

DE-CENTRALIZED SURVEILLANCE + CENTRALIZED SURVEILLANCE = OPTIMAL RESULTS

Organizations with multiple locations struggle with centralized video surveillance due to infrastructure cost, internet bandwidth, and operator limitations. De-centralized surveillance offers higher accountability at each location and better situational awareness, leading to more chances of discovering exceptions.

CONCLUSION

"You see, but you do not observe" is a quote by Sherlock Holmes in A Scandal in Bohemia (1891, written by Sir Arthur Conan Doyle).
COM-SUR makes 'observation' far effortless and effectual leading to superior results.

"Cameras don't lie" - but how will you know unless you 'see' what the cameras 'saw'?
Audit CCTV - why suffer!

Get award-winning COM-SUR now. Don't wait for things to go wrong!