



# THE FOOTAGE WHISPERER

"SEE WHAT THE  
CAMERA SAW"

100+ TOPICS - AIRPORTS TO ZOOS



UTILITY VALUE OF  
COM-SUR™ FOR  
SCRAP METAL AND  
RECYCLING FACILITIES

WELCOME



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

CCTV surveillance is common in scrap metal and recycling facilities 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 VIDEO  
FOOTAGE AUDITING, SMART BACKUP, AND  
STANDARDIZED INTELLIGENT INCIDENT  
REPORTING SOFTWARE – THE MISSING PIECE  
OF CCTV

COM-SUR is the world's only CCTV 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 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 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 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 FACED BY SCRAP METAL AND RECYCLING FACILITIES

#### 1. Theft and vandalism:

Scrap metal and recycling facilities are vulnerable to theft and vandalism due to the valuable nature of scrap metal and recyclable materials.

#### 2. Unauthorized access:

Trespassing and unauthorized access pose a risk to scrap metal and recycling facilities. Intruders may enter the premises with the intention of stealing or damaging materials, potentially leading to financial losses and safety concerns.

#### 3. Worker and visitor safety:

Scrap metal and recycling facilities use heavy

machinery and equipment, which can pose safety risks for workers and visitors. Accidents or injuries can occur during the handling and processing of scrap metal and recyclable materials, requiring proper safety protocols and training.

#### 4. Environmental concerns:

Recycling facilities must adhere to environmental regulations and guidelines to mitigate the risk of pollution and contamination. Improper handling or storage of hazardous materials can result in environmental harm and potential legal consequences.

#### 5. Fire hazards:

Scrap metal and recycling facilities are at risk of fire hazards due to the presence of flammable materials and the potential for sparks during processing.

#### 6. Compliance issues:

Compliance with local, regional, and national regulations is a significant challenge for scrap metal and recycling facilities. These regulations encompass various aspects, including environmental compliance, waste management, worker safety, and proper handling of materials.

#### 7. Operational efficiency:

Efficient sorting, processing, and management of scrap metal and recyclable materials can be a challenge.

#### 8. Insider threats:

Scrap metal and recycling facilities have to deal with insider threats from disgruntled

employees or even unwitting staff who fail to follow proper security and safety measures.

#### 9. 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 had a significant impact on scrap metal and recycling facilities worldwide. These facilities faced disruptions in their global supply chains leading to fluctuations in the availability of scrap metal and recyclable materials, as well as workforce challenges. Economic slowdowns and changes in consumer behavior influenced the demand for recycled materials. Industries such as automotive and construction, which are significant consumers of scrap metal and recycled products, experienced disruptions, leading to shifts in demand patterns. Guidelines were issued to prevent the spread of COVID-19, but outbreaks still occurred.

#### USE OF VIDEO SURVEILLANCE AT SCRAP METAL AND RECYCLING FACILITIES

Most scrap metal and recycling facilities have

video surveillance covering the following areas:

- Entry and exit points
- Sorting and processing facilities
- Storage and inventory areas
- Parking and other outdoor areas

Further, the concerned stakeholders at scrap metal and recycling facilities 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/other Law Enforcement Agencies.

#### USE OF THERMAL CAMERAS

Thermal cameras detect and capture infrared radiation emitted by objects and individuals based on their heat signatures. They are used in scrap metal and recycling facilities for the following purposes:

##### 1. Fire detection:

Thermal cameras can detect heat anomalies and identify potential fire hazards in real-time. By continuously monitoring areas prone to fire, such as storage yards or equipment, thermal cameras can trigger alarms and alert facility personnel to take immediate action to prevent or mitigate fire incidents.

##### 2. Equipment monitoring:

Thermal cameras are useful for monitoring the temperature of machinery and equipment.



They can identify equipment that is overheating or experiencing abnormal temperature changes, allowing operators to promptly address maintenance issues or prevent breakdowns that may disrupt operations or compromise worker safety.

### 3. Energy efficiency:

Thermal cameras help identify areas of energy loss, such as leaks in insulation or inefficient heating and cooling systems. By conducting thermal energy audits, facilities can optimize energy usage, reduce costs, and improve overall sustainability.

### 4. Security and intrusion detection:

Thermal cameras can assist in perimeter monitoring and detecting unauthorized access or intrusions into the facility. By detecting differences in heat signatures, thermal cameras can identify individuals or objects moving through restricted areas, enhancing overall security measures.

### 5. Environmental compliance:

Thermal cameras can aid in environmental compliance by detecting fugitive emissions or leaks from equipment or storage containers. This helps identify potential environmental hazards and supports prompt corrective actions to maintain compliance with regulatory standards.

## LIVE MONITORING – CHALLENGES

Several scrap metal and recycling facilities have a dedicated control room with operators, set up for live monitoring of CCTV cameras.

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 CCTV video footage from time to time for investigating and preventing compliance issues. Auditing CCTV 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 IS 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:

- Operational issues
- Potential hazards
- Health and safety issues
- Compliance issues
- Accidents/Causes of potential accidents
- Potential causes of fires
- Recces/suspicious movements/activities
- Insider job/security lapses
- Inadequate personal protective equipment (PPE)
- Designated staff not present/shortage of staff/unskilled staff
- Improper handling and management of material
- Equipment malfunction/other technical issues
- Violence and vandalism
- Staff negligence
- Inadequate/defective illumination/lighting and ventilation conditions
- Unauthorized/unlawful activities/visitors
- Fraud/loss/corruption/theft
- Intrusions, especially by animals
- Inattentive staff (e.g. guard sleeping)

- Unruly staff/security guards
- Unclaimed/unattended objects
- Issues with female staff
- Cameras/recorder malfunctions

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

### 1) AUDIT CCTV VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of CCTV 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 CCTV video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of CCTV 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 concerned stakeholders at scrap metal and recycling facilities report incidents in a standardized template, relevant authorities can derive business intelligence from the data and

take action for the collective benefit of all scrap metal and recycling facilities.

### 3) ENSURE DISASTER RECOVERY OF CCTV VIDEO FOOTAGE – LIKE A 'BLACKBOX'

CCTV video footage must be stored at multiple locations in order to ensure that even if the recorder 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 authorized staff.
2. List of authorized security personnel deployed at the scrap metal and recycling facility.
3. List of potential suspects/miscreants likely to visit the premises of the scrap metal and recycling facility (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!