

Remote workplaces finally under supervision.

The unique modular C H System cells use Axis audio and video elements to supervise remote workplaces.



Organization:

Spro Stavební

Location:

Lutin, Czech Republic

Industry segment:

Industrial

Application:

Operational management,
remote monitoring

Axis partner:

C H Complex System s.r.o.

Mission

How can you check the situation at remote outdoor workplaces? This question is often discussed in many companies. Especially when remote sites are, in many cases, a blind spot on the map. Construction companies find themselves in a complicated situation from the perspectives of work planning, site surveillance, and supervision of workers. Added to this, theft is a common crime at construction sites, making these locations an overall weak spot for work efficiency and property protection.

Solution

C H Complex System invented a method to eliminate the risks associated with remote workplaces. The Company created the Adam assistance software and modular cells, which can be installed anywhere. The cells, which include intermediate storage with authorized access, can perform several functions thanks to the Adam system: the cells check the authorization of access to the workplace, perform breath analysis for alcohol and OHS training, manage the authorization of vehicle access, register toll locations, and generate a work log.

The cells also survey the work area, assess defined events, and guard the site. This role in the system is fulfilled by AXIS P1435 Network Cameras and AXIS C3003-E IP Horn Speakers.

Result

With the Adam system, the site supervisor or another authorised person can have an immediate overview of the site from anywhere. The supervisor knows who is present at the site, which tools the person is using, as well as whether a person untrained in OHS is present. Weather monitoring provides info on the actual conditions on the site and allows better work planning, while the camera system is used for remote surveillance of activities on the site and protects the property and safety of the site when no work is being performed.

“The Axis cameras, in conjunction with AXIS Loitering Guard and AXIS License Plate Verifier applications, have proved to be an indispensable part of our system. The key to the project’s success is the smart integration into the overall Adam system, which makes lots of information immediately available in one place.”

Bc. Antonín Světnický, Adam Assistant Project Manager, C H Complex System s.r.o.

Remote sites attract thieves

Police statistics and companies' experiences are clear: On construction sites, low efficiency, delays in work planning, and when no work is under way, loss of property are commonplace occurrences. The solution is the Adam system from C H Complex System. “This is a set of solutions integrated into one clear application, available over the internet from a computer, tablet, or smart phone. It provides you with the information you need to remotely solve many situations that would otherwise require the presence of a supervisor or the site manager,” explains Antonín Světnický, the project manager, of the principle underlying the system.

“The site manager can easily, for example, find out that the site will be under freezing conditions for several days and so no workers are required. They can also immediately find out how many employees are present on the site. And thanks to the alcohol test that is required before access to the site is granted, they know each worker is fit for work. Site managers can also remotely control the lights, barriers, and so on at the site. Quite often a manager is responsible for several sites that are quite far away from each other. Information from each workplaces is clearly shown in one application,” says Světnický, listing the advantages of the Adam system and the modular cell, which, thanks to solar panels, integrated batteries, and a power generator, can function independently of a power supply. Other functions include OHS training, optional tool registration, remote control of doors and locks, and fuel resupply on the site.

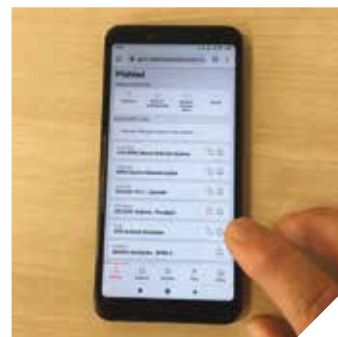
Application-integrated camera recognizes suspicious behavior

Site security and perimeter protection is provided by AXIS P1435 Network Cameras. AXIS Loitering Guard is installed on the cameras, guarding the site from intruders. The technology detects unauthorized persons in the guarded area, and if they are present for an extended period of time or repeatedly, the application sends an alarm.

Construction sites, thanks to their semi-public character, are ideal for implementation of this technology. With intelligent filtering and optional perspective configuration, false alarms generated by plastic sheets flapping in the wind, for example, are eliminated as much as possible. When the Adam system detects an incident, it works with the camera to send an alarm to a server, starts an audio loop recording to repel the intruder, and can even send a text message to a responsible person. “AXIS License Plate Verifier runs on cameras guarding the entrance to the compound, verifying the number plates of vehicles coming onto the site. The Adam system documents the vehicles and their loads using its cameras, as well as other tasks,” adds Světnický.

The future is voice control

The system provides a wide range of functions, which C H Complex System plans to expand in the future. Currently the company offers sales and leases of the equipment. “At present we have 11 mobile stations and several other remote solutions that can be easily loaded in a car and moved wherever they are needed. We can install the Adam system on almost any site,” says Světnický, adding: “The Axis cameras, in conjunction with AXIS Loitering Guard and AXIS Motion Guard, have proved to be an indispensable part of our system. The key to the project’s success is the smart integration into the overall Adam system, which makes lots of information immediately available in one place.” The C H Complex System team plans to maximize the independence and autonomy of the Adam software which can already automatically send messages and other notifications. In the near future, it will respond to voice commands and be able to communicate with operator – for example, reporting that a power generator is running out of fuel. “We are also working on reducing the system’s power consumption. We follow the latest technology trends, which stress economy. We don’t want to limit the utilization of this system solely to construction sites. The system can also assist in forestry or anywhere where workplaces are remote, move from place to place, or require short-term monitoring,” concludes Světnický.



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