

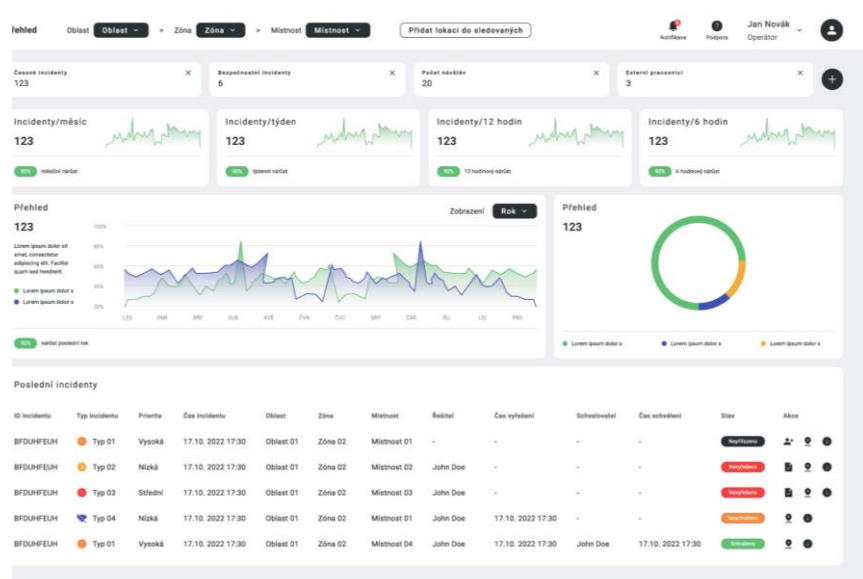
# SECURITY INCIDENT AND THREAT TRACKING SYSTEM

The system focuses on the detection and evaluation of any event that may be undesirable, hazardous or potentially hazardous in relation to potential damage to property or health of personnel or civilians within the perimeter of the event.

The system is not primarily designed to monitor persons, but to evaluate the severity of the interaction of the work environment with persons, whether authorized to be present in the area or not.

By event is meant here:

- (a) deliberate sabotage of equipment or critical elements of internal infrastructure
- (b) unintentional damage to equipment as a result of unprofessional handling or interaction with surrounding equipment and damage to property or damage to the health of employees - breach of OHS principles



The system automatically monitors, based on the peripheral device carried by the person (there are different types), possible types of interactions of the person with infrastructure elements such as:

- (a) main control of the production or any other process
- (b) control of the flow, temperature, pressure of industrial gases and other media
- (c) gas, water, heat, power distribution systems
- (d) active elements
- (e) routers
- (f) data and other ICT infrastructure
- (g) TELCO infrastructure, etc.

The system monitors various locations and zones in relation to the relevant personnel, whether external or internal, and assesses the level of risk when a given personnel approaches or enters the perimeter of the zone.

The system monitors whether there are workers who:

- (a) Are about to be on shift
- (b) Are not on holiday or business travel or otherwise prevented from working



## The system allows:

(a) Evaluate potential negative or hazardous events in real time with a high elimination of false alarms or notifications and alerts safety management personnel to incidents and their level of danger

(b) Forensic analysis of so-called big data in time periods up to 1 year back - data analysis of incidents and their recurrence, frequency or their coincidence with other non-standard situations according to:

- Occurrence of certain persons
- Locations
- Location of types of major or critical elements of internal infrastructure

The system evaluates past events, looking for routine and non-routine links and correlations.

The system is NOT designed to track people in real time for 2 reasons:

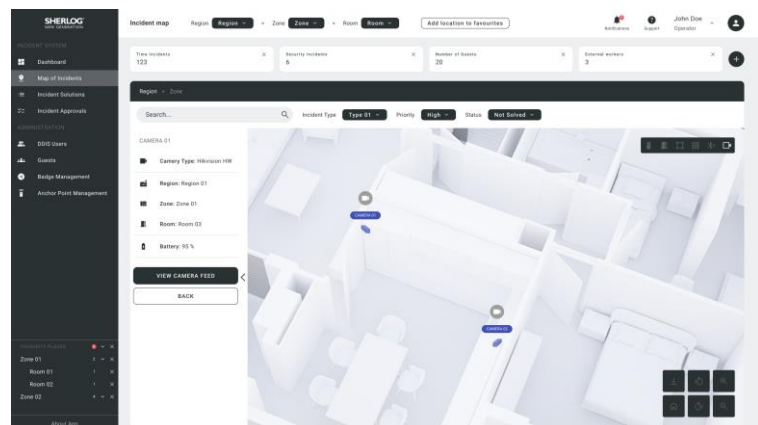
- (a) Privacy and GDPR violations.
- (b) Technical problem with high demands on battery resources (power management).

The system ONLY records unwanted interactions and coincidences that may lead to undesirable situations and conditions and are triggered by human factors.

The system records the subject person or persons in the analysis only in the form of numbers e.g. ID03258 with a division into:

- (a) male/female
- (b) internal/external employee

All other detailed personal information is held by the security or HR department.



## Event Taxonomy:

Monitored events - out of the theoretically infinite number of phenomena that occur in an industrial operation, a limited set of phenomena (events) are monitored. The economic parameters of production, material and energy consumption, thermophysical parameters of the production process, accidents, breakdowns, repairs, etc. are monitored.

Adverse events - those events which have adverse consequences for the industrial operation and its surroundings.

Other monitored events - other operational situations, i.e. the remainder of the set of monitored events after excluding adverse events.

Hazardous adverse events - a subset of adverse events that includes those events that result in a threat to human health and life. It also includes events with environmental consequences (ecological damage) if they can be shown to be linked to a threat to human health and life.

Safe adverse events - the remainder of the set of adverse events after exclusion of dangerous adverse events. Events that cause only material (financial) loss.

An industrial operation is not isolated from its environment, but influences and is in turn influenced by its environment through a series of existing links. Therefore, when analysing adverse events and their consequences, the causes of adverse events are divided into:

- adverse events from internal causes of industrial operation
- adverse events from external causes



## Adverse events from internal causes

The cause of these events is contained in the industrial operation.

Examples of such causes are:

- failure of process equipment
- failure of control equipment
- failure of the electrical subsystems of the industrial plant
- human error
- a transport accident on the premises of an industrial plant, etc.

## Adverse events from external causes

An adverse event occurs in an industrial plant due to causes that are caused by the environment.

Examples include:

- natural event (earthquake, wind, flood, lightning, ...)
- falling of a flying object into the premises of an industrial plant
- loss of power from the public grid
- explosion of a product pipeline located near the industrial plant
- extremist act, etc.

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