AN-321 Understanding The Coverage Report

The Intention

An improved reporting method showing the effectiveness of attending a location that hilights increased risk at that location arising from lack of attendance.

The word “coverage” is intended to mean how well a company is covered with respect to its contractual or legal obligations. If it is covered “100%” then it is totally compliant. If it is covered only “75%” then for 25% of the time the company is not adhering to its requirements.

Note. This report is the subject of a patent application and may not be copied or used without permission of the patent owners, Elite-ID Electronic Systems.

Background

In many cases, staff are required to attend locations within certain time frames called "return times" or “loop times” or “cycle times” or similar. This is the time between successive attendances at a location.

If staff fail to attend regularly enough this may expose members of the public to increased risk and the company to risk of contract termination, litigation and financial loss.

Historically, calculating the return time is done by counting attendances within a time frame and producing an average over time. Elite-ID use improved techniques that help improve the accuracy of this calculation.

For example, 8 attendances in 8 hours is a return time average of 1 hour (60 minutes between attendances on average).

The problem with this approach is that the return time is susceptible to "*swamping*" by excessive attendances in part of a day hiding poor attendances in another part of the day because of the averaging process.

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In the above, if the 8 attendances happen in the morning and nothing in the afternoon then the average remains the same yet the risk in the afternoon is very high indeed.

This results in the average looking good, but there are parts of the day when the attendances are non-conforming and hence have a higher risk.

If we look at attendances on a time line we consider that when attendances are within the required return time then "all is well". If there is an accident within the return time, then the company is covered because staff are regularly patrolling and the contract is being adhered to.

However, attendances farther apart than the required return time mean that staff did not attend as required. If the accident happens after the return time then the company is exposed to higher risk (it is harder to defend against negligence claims because staff did not keep the area attended).

From this it is obvious that we need to focus on this increased risk time.

Coverage Percentage

“Coverage Percentage” is the new performance indicator that Elite-ID have created and applied for a patent for the calculation thereof.

The value is a single number in the range 0% to 100%. It is not possible to have values outside this range.

For 100% coverage the attendances must not have left any gaps greater than the demanded return time. In other words, staff attendances have “100%” covered their contractual requirement.

Lower values indicate that a percentage of the day was not covered by attendances. For example 75% coverage means that the remaining 25% of a day (eg 2 hours in an 8 hour day) that attendances were not done and the requirement for return time was not met.

The coverage percent focuses on gaps of non-attendance greater than the required return time and is very unforgiving. Missed attendances in the day causing a gap cannot be “made up” or hidden by excess attendances in another part of the day.

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<u>In this way, the coverage percent is a very good indicator of risk.</u>

The Method Of Calculation

We define and enter into the program the start and finish times and the required return time. These times can be called “opening times” or “monitoring times” or “risk times”.

Next, the program analyses the data. It finds all the segments of time when attendances do not meet the required return time.

The program calculates and adds together all amounts of time <u>greater</u> than the required return time for all attendances in the day.

For example, if a 15 minute return time is demanded and attendances happen every 20 minutes then there is an “over-gap” time of 5 minutes. This 5 minute over-gap time is outside the contractual requirement and is when risk to the public and risk to the contractor is increased.

The program adds all these “gap” times together into a total and expresses it as a percentage against the total time that monitoring is done for.

Conclusion

We have found from calculation and testing that the coverage percentage is a very good indicator of performance. It really does hilight any problems.

It is not susceptible to swamping from many attendances in one part of the day causing the result to be incorrectly tilted to hide a problem (as has been a problem with other simple calculation methods).

However, the issue becomes that in the real world it is difficult to achieve a ”100%” result. Just one small time where attendances do not meet requirements results in a reduction in the coverage. This is a true and correct result – but it can also be considered “harsh” and unforgiving.