

Warehouse monitoring using IP Video technology obtains **a 4 month ROI**

Ernitec Sales Director, Morten Frederiksen, relates the company's experience in implementing a state-of-the-art IP video system for monitoring stock movements in EET Europarts' 12,000+ m² warehousing facilities in Denmark.



There are many ways that IP Video technology can be applied to everyday business processes and the fact that this flexible technology can be so easily re-orientated to projects quite different from the traditional CCTV applications that we are all accustomed to supply and install, is a very attractive proposition to any CCTV company looking to augment sales revenues, customer base and profitability.

The Pan-European Equipment distributor, EET Europarts, has successfully implemented a warehouse control system, based on IP video systems, which has enabled them to make huge savings within their logistics operations. The system has not only increased reliability of both internal and external logistics services but has also had a direct impact on the customer – briefly this translates into less delivery problems, less time wasting, more accurate delivery estimates and a generally improved customer experience.

Before we venture into the workings of the system let me put some figures and information about EET Europarts on the table:

- The warehouse facilities make over 750,000 shipments per year
- Over 50,000 deliveries are received per year
- € 300 million in merchandise comes and goes per year
- More than 29,000 different stock lines are stocked at any time
- 99 % of orders in stock placed before 16:00 are shipped same day
- They do Standard, Special and Next day deliveries

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John Thomas, CEO, EET Group

To get a handle on the magnitude of these numbers EET Europarts ship almost 3000 deliveries per day, receive over 190 incoming deliveries daily and pick an average of 15,000 items from the warehouse shelves.

As one can imagine this is quite a lot of movement of both staff and merchandise on the warehouse floor and even minor errors can lead to lost time and, potentially, expensive errors.

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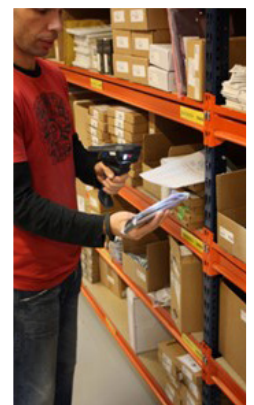
So, prior to installing the Video control system, EET analyzed the logistics situation and discovered that logistical problems (on both received and dispatched goods) accounted for almost 5.4% of delivery failures – either lost or missing shipments, or mistakes made during picking and packing.



Of course with such a high volume of stock movements on the warehouse floor it was almost impossible to discover the root cause of the failures – something had to be done, millions of Euros in both time and merchandise were being written off.

The search for a viable solution started and soon it was discovered that the answer could very well be lying on the very shelves of the same warehouse – IP video camera technology! The search for a solution was soon directed to key Danish surveillance enterprises: Ernitec, Safevision and Milestone.

Tom Kjærulf, EET’s Logistics Director says *“We were looking for a solution to help minimize our losses due to the diverse errors which we were seeing on an almost daily basis, so I thought it would be simple enough to use networked cameras and record the comings and goings within the warehouse”*. Tom’s idea was certainly good, but how could a warehouse with over 12,000m² and almost 15km of shelving be monitored on video? This was not going to be easy.



Once the scope of the project was on the table and the various suppliers had been consulted Tom realized that it was not going to be completely feasible or cost-effective to monitor the whole installation so it was scaled down to just over 100 cameras for monitoring the goods in, goods out, stock transition and packing stations.

“This made life more simple,” says Tom, *“my idea was to be able to see if any delivered goods were damaged or missing during unpacking and thereby streamline the insurance claims procedures with both manufacturers and transport companies”*.

The same was envisaged for the outgoing goods. There, the actual number and type of product being introduced into each box could be clearly seen on the high resolution, Full-HD, IP video recordings. This, together with the added ability to ensure that the packing was also correctly done was a real breakthrough in the warehouse efficiency.



Ernitec's cost effective Full-HD technology were used in the goods in, goods out and packing areas respectfully – with Milestone's award winning open platform VMS system, XProtect, being implemented in the back office.

"Once installed we could see the status of everything coming in and going out of the warehouse, we could visualize quantities,

damage (to both boxes and goods), the quality of packaging, we could even see how the transport companies loaded and unloaded their vehicles!"

The most astounding reaction came from both customers and suppliers. Thanks to Milestone's XProtect video management system every single warehouse transaction is recorded and stored on EET's internal servers, customer and purchase order numbers are embedded into the video meta-data to make the video clips even easier to locate and these clips, or still images, are sent out to manufacturers and logistics companies to backup insurance claims and missing goods: *"Once our suppliers and service providers could see what was going on they could pinpoint the problems and quickly resolve all our claims"* says Tom, *"what is most amazing is that our internal IP video system seems to have had some considerable impact on their internal procedures as both the number and the extent of damaged and missing goods has reduced by up to 86 %."*

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John Thomas, CEO, EET Group

"Of course we are all very impressed with the system!" explains John Thomas, *"Overall we have reduced our losses due to damaged and lost goods down to just 0.74% which in real terms, and given the scale of our operation, is a saving calculated to be several million Euros"*, John is also very enthusiastic with the ROI of the project: *"We have also seen a very rapid return on investment from the implementation, after just a little over four months the system had been amortized."*

Spin-off effects from the system include staff training sessions, using video examples of best practices on the packing stations, and an overall feeling of accomplishment by the warehouse staff. There is also a positive impact on the health and safety of the employees.

As Tom Kjærulf explains, *"Initially our staff were a little cautious but we made it clear from day one that this was not a system designed to spy on anybody."*

By being completely open regarding the use of the system, the staff at all of EET Europarts' European warehouses now see it as a Big Benefit and not a Big Brother. Warehouse staff were actively involved in the implementation process: *"We use the Video IP system to identify mistakes so that we can improve our staff's efficiency, this together with our bonus incentive scheme has helped the majority of them see extra earnings at the end of each month, so they are happy and management is happy – it's a win-win situation,"* Tom Kjærulf says with a smile.

Since the initial roll out of the system it has been very quickly implemented in EET Europarts' other warehouses in Oslo and Madrid.

"We had very high expectations for the new Video IP system and I certainly wasn't disappointed!" says Miguel Cervera, Managing Director of EET's Iberian offices. *"The overall effect of the system has saved us both time and money. We are more efficient than ever and this has allowed us to grow without the increase in sales having any negative impact on deliveries due to shortcomings in the warehouse."*



After seeing such positive overall results from the implementation of an IP CCTV process monitoring system EET's Logistics Director Tom Kjærulf is determined to keep improving all of EET Europarts' logistics processes, he has clear expectations for future enhancements:

"Now that we have the infrastructure in place we can implement several new technologies to further improve how we are working, after all success doesn't just happen, we need to make it happen."

Possible improvements being considered include facial recognition to ensure that warehouse access control is enhanced and two way audio to increase staff security. *"With Milestone's open system the sky really is the limit regarding the implementation of future technology"* EET Spain's CCTV Sales Engineer Nestor Santana explains, *"the scope for adding new video intelligence plug-in's as and when they become available is almost limitless."*

Overall the implementation of IP video processing systems in a warehouse environment have an overwhelmingly positive effect on the operational procedures which can easily be translated into improved functionality, reduced costs, a better customer experience and even improved employee relations.

Morten Frederiksen
Sales Director, Ernitec

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