

Case Study

noax mobiles computer at a Sausage and meat product manufacturer



Industrial PCs

at Meister feines Fleisch - feine Wurst GmbH
Completely enclosed – IP65 (NEMA 4)
For extreme environments
Simple touch screen operation

noax[®]
Technologies

Nationwide manufacturer of sausage and meat products uses noax industrial PCs to control picking and warehouse management.

Against all odds – this is the motto observed by Meister feines Fleisch – feine Wurst GmbH. The company from the Swabian town of Gäufelden-Nebringen is one of the big players in the industry, supplying 750 sales outlets throughout Germany. Nevertheless, the company is committed to artisan production techniques. Thus,

it smokes its sausages in the traditional way in the smokehouse, using beech shavings rather than liquid smoke, the common practice in large companies. This gives the products a unique taste, which is, ultimately, a selling point with the customers.

Meister feines Fleisch – feine Wurst GmbH is a 100 percent subsidiary of the Metro trade group. Yet, it is not the only supplier for the associ-

able. The sales outlet must also receive exactly the goods they ordered and nothing else, as an incorrect order record would cause expenses, resulting in a competitive disadvantage. Meister uses industrial PCs from noax, thereby excluding errors almost completely.

The goods issue bottleneck

In warehouse logistics, control is everything. Again and again, the employees in the warehouse must check whether the goods on the pallets are the ones ordered by the customer. Previously, this was generally done at the goods issue point. Here, the paper list on which the order picker had ticked off all items with a pen would once more be compared with the order. The truck could not pull out before it was clear that everything had been put together correctly. This process used to involve an enormous amount of time. The next step towards automated loading consisted in introducing a scanner. In this way, the goods could be registered automatically. However, that also took too long; and moreover, not every pallet could be scanned fully.

Uwe Müller, Head of IT at Meister, found a solution to this problem: the employees should be able to scan in the goods as early as during picking, which would make the goods visible in the company IT. But where should the scanner and computer be located? The IT specialist found the solution to the problem at the logistics trade fair LogiMAT: mobile terminals that could be mounted on electric lift-trucks. The order pickers use these lift-trucks to drive

Overview

Customer:

Meister feines Fleisch – feine Wurst GmbH; www.meister-wurst.de
Sausage and meat product manufacturer for the Metro Group

Requirements:

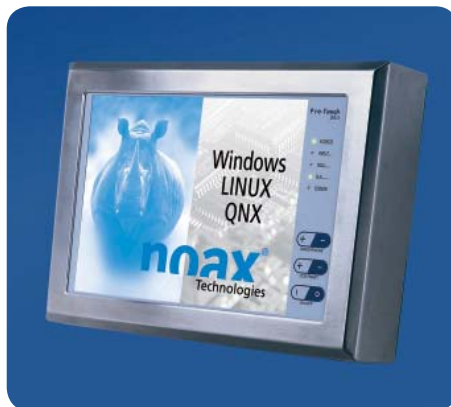
- Mobile IPC use on electric lift-trucks
- Easy to operate by touch
- Fully enclosed construction IP65 (NEMA 4)
- Small construction depth
- Protection from shock and vibrations
- Interfaces for various peripheral devices, such as barcode scanners and printers
- Compatible with Windows 2000/XP operating systems
- Bright, clearly legible display
- Repair-friendly
- Professional support and service
- Long lifetime
- Maximum operating reliability

Products used: IPC C8, S12

- Intel Celeron – 400 MHz (C8)
- Intel Pentium III – 700 MHz (S12)
- 8.4" TFT display (800 x 600) (C8)
- 12" TFT display (800 x 600) (S12)
- Protection class IP65 (NEMA 4)
- Resistive touch panel
- Fully sealed housing

Product benefits:

- Automatic order processing for picking and shipping
- Process optimisation
- Automatic data entry in the warehouse
- Real-time mapping of processing status
- Integration of mobile IPCs into the company network via WLAN



noax industrial PC of the type Steel S12.

ated retailers, such as Schaper, Real or Extra. Meister needs to compete with other suppliers. And, as only the best wins the competition, the meat processor considers it especially important to be in the lead. This not only applies to the quality of the company's products, which have already won several prizes of honour in federal competitions, but also to its logistics. After all, the perishable goods need to get to the meat counter quickly and, above all, reliably. Warehousing and transport costs need to be predict-



In the machine referred to as the cutter, the meat is seasoned and prepared as sausages meat.

along the aisles in the cold warehouse, loading the goods to be shipped onto pallets. At this point, the order pickers could already scan the individual items and make them available to the company network via wireless LAN.

Conspicuously professional

Uwe Müller and his team looked closely at several manufacturers' solutions and opted for the noax Steel S12 industrial PC. The Head of IT's only comment was: "We had computers from various companies here on site. We opened them and took a look inside. Most looked like an electronic construction kit from a science competition for teenagers. A tangle of cables and circuit boards. The noax computers had a professional look. All the connections were neat, nothing was just plugged in or loose. Everything was solidly crafted – a sophisticated complete industrial PC system. That is why we chose noax."

In November 2004, the first lift-truck was equipped with a noax IPC and a scanner. The software had been developed in-house by Müller and his team. As operating systems, the IT specialist decided to use Windows XP on the mobile computers and Windows 2000 on the servers.

A few problems had to be overcome during the test phase at the start, but since April 2005, the system has been fault-free and there have been no failures. By the middle of 2006, Meister had extended its pool to seven S12 Steel IPCs and one type C8 device. The models of the Steel series are mounted on electric lift-trucks, while the Compact IPC, which boasts an 8-inch screen

diagonal, is installed on a forklift. All computers are connected to the company network by means of WLAN (g standard), with four access points and two switches. One of the main reasons why the responsible managers at Meister settled on the Steel series was the fact that these computers are fully enclosed, made of V2A stainless steel and, therefore, very easy to clean, which is especially important since hygiene requirements are particularly high in food-processing companies.

Tracing every step

At first, Meister still used keyboards and laser scanners as peripheral equipment, but soon narrowed this down to just scanners. These reading devices are easy to operate, and the error rate during data transfer equals zero.

More than anything else, this system gives the meat-processing company reliability. Because everything is continuously documented in the company IT, product mix-ups are as good as excluded – starting from the order placed by the outlet and ending with the delivery of the goods. Moreover, everything the order pickers load onto their pallets is entered into the company's data base. In this way, they can track with 100 percent certainty which delivery was shipped to which outlet and what it contained. For Uwe Müller and his team, this is the primary benefit of using noax IPCs.

The traceability of the product chain from the outlet all the way back to the farmer – a very important aspect in the food-processing industry – is ensured by software from CSB, a company



The smokehouse. Meister keeps the tradition of smoking with beech savings.

that supplies abattoirs, butcheries and meat-processing companies with standard solutions. So, in that respect as well, the customers of the Metro retailers are on the safe side.

High demands

The order pickers in the distribution warehouse expect their equipment to bear up against the working conditions there. When there is a hurry – and there almost always is – the employees cannot be cautious of sensitive hardware components. Again and again, they have to drive the lift-truck to the pallet location, take up the pallet and drive to the goods issue point quickly. For the lift-trucks and the noax industrial computers mounted on them, this means that the device is exposed to impact and vibrations all day. In addition to that, there are numerous irregularities in the floor of the cold warehouse. When the lifting truck drives across them, this causes additional vibrations.

Under such conditions, normal office computers would soon give out. Even industrialised computers quickly reach their limit under such working conditions. Such computers may have a reinforced housing, but inside, there are just the usual standard components – nothing fit for use under extreme conditions.

In contrast, noax uses only components designed for industrial use. These include noax-designed all-in-one motherboards and housings suited to them in such a way as to achieve optimal reliability. All parts are firmly attached and will withstand even the strongest vibrations. Moreover, noax dispenses with cables attached by sensitive plug connections, which can come off even at the smallest vibration, thereby shutting down the whole computer. Having realised this, the experienced IT manager settled for industrial PCs from noax. The quality of the connections was the decisive factor for him.



An order picker retrieves data using the noax IPC. She is wearing a scanner on her right wrist.



Ready for the refrigerator shelf: sausage from the foil sealing machine.

Sturdy and reliable

But the solidly constructed interior was not the only reason why Müller and his team opted for noax industrial computers. Their clear design and, above all, the touchscreen makes these computers very easy to operate. The warehouse employee needs only to click the appropriate areas of the screen and the required information appears. This makes it easy to introduce the computers in the company, as employees would oppose complex operating procedures and cumbersome handling. They only accept innovation if the new system offers them a clear benefit. The advantages of the mobile computers come to the fore in situations when time is scarce, especially given that, for Meister, fresh and top-quality products are of the highest importance. The company's 182 employees process approximately 900 tons of food per month and ship them to all parts of Germany. This includes 720 tons of pre-cooked, cooked and raw sausage. 150 tons, i.e. about a sixth of the production quantity, is made up of cured products. In addition to that – and very much in keeping with the company's Swabian origin – Meister's range also includes a local specialty, "Maultaschen".

The price counts

Meister's management rely on noax industrial computers. There may be cheaper computers, but they do not live up to the quality standards for hardware set by Müller and his team. And if there's one thing the IT specialist knows, it's this: A system failure would cost many times the amount Meister pays for the industrial computers. Therefore, it is worth investing in noax computers. Since April 2005, i.e. since the system is fully in operation, there have been no failures. The computers and the connected peripheral devices have run without a problem. Also since that time, the company has not had to enter any maintenance costs in its books. In addition to that, a ten percent rise in productivity has visibly improved the company's figures.

All in all, the company spent EUR 100,000 on the electric lift-trucks with IT equipment. Around

EUR 50,000 were spent on the vehicles. The EUR 30,000 spent on the industrial computers made up a comparatively small part of the total. Approximately EUR 20,000 were spent on the scanners and on integrating the scanners into the system; this was performed by Identisys, a scanner specialist.

Of course, EUR 100,000 is a tidy sum. Nevertheless, Meister invested that amount. This is another "against all odds" typical of Meister. But if you see all the factors together, especially process traceability, reliable picking, the rise in productivity and so much more, this sum quickly proves to have been worth it. Uwe Müller and his team know that, too.

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noax IPCs provide code numbers and measurement readings of continuous operations to the operators.

Headquarters Europe
noax Technologies AG
Am Forst 6
85560 Ebersberg (Germany)
Phone +49 8092 8536 -0
Fax +49 8092 8536 -55

www.noax.com

Headquarters North America
noax Technologies Corp.
10115 Kinsey Avenue, Suite 142
Huntersville, NC 28078 (USA)
Phone +1 704 992 -1606
Fax +1 704 992 -1712