

Case Report

Industrial PCs

at Lutz Fleischwaren AG



Fully-enclosed – IP65/NEMA4
For highest hygiene standards
Simple touch operation

A large, faint, grayscale image of a rhinoceros's head and horn, facing forward, serves as a background for the bottom right portion of the page.

noax[®]
Technologies

Watertight industrial PCs from noax control the whole process chain

Lutz Fleischwaren AG is introducing noax IPCs from the Steel series into production at its plant in Landsberg am Lech.

In the event that industrial PCs are to be used in food-stuffs production, the demands on the computer are particularly high. Due to strict hygiene requirements, cleanliness must be paid attention to in minute detail. Also, production conditions are generally very damp.

Overview of Facts

Customer:

Lutz Fleischwaren AG – Landsberg am Lech plant. Traditional company in the field of meat processing with six modern production sites in south and east Germany. Lutz AG is counted among the five leading companies of the sector in Germany.

Requirements:

- Robust and reliable industrial PC
- V2A stainless steel enclosure
- Fully-sealed design
- Absolutely smooth surfaces
- Easy accessibility of connector area
- Watertight – IP65/NEMA4
- Simple operability
- Varied provision of interfaces
- Compatibility with various weighing machines

Product Used: S15

- noax N6C motherboard
- Intel Pentium III – 700 MHz
- 15-inch TFT display (1024x768)
- IP65 – resistant touch panel

Product Benefits:

- Seamless traceability
- Quality assurance
- Recording and marking of raw materials
- Commissioning in the merchandise management system
- Recording and marking of finished products for delivery



noax-Steel-IPC S15

The machines are sprayed with cleaning foam several times a day and pressure cleaned. As a consequence, a basic requirement for IPC use is tolerance to foodstuffs, unlimited resistance to water spray according to protection class IP65/NEMA4 and an absolutely smooth surface without hidden ridges. noax Steel series IPCs fulfill these requirements absolutely; an important criteria for the decision to purchase in favor of noax by the traditional company Lutz Fleischwaren AG.

Lutz Fleischwaren AG Bringing together the traditional and the modern

Lutz Fleischwaren AG can look back on a 100 year tradition. It was founded in 1891 in the

Swabian town of Guenzburg on the Donau as a butc products factory with a global reputation has developed, which once supplied among others the "Graf Zeppelin" airship.

In 1965 this traditional company was bought by Südfleisch GmbH in Munich and incorporated into the Südvieh-Südfleisch-Group. Today, Lutz Fleischwaren AG produces numerous sausage and ham products including many regional specialties and lifestyle and convenience products at a total of six locations.

Growth and modernization are of great significance to Lutz Fleischwaren AG, so as a result much effort is constantly put into permanent modernization. In this regard, the production sites were oriented towards the technical and hygienic requirements of the European Community regulations many years ago although these strict regulations had not yet been implemented into national obligations.

Quality assurance that is understood in this way requires high dynamicism and permanent initiative, especially with regard to the EU regulation on traceability.



Goods delivery to Lutz Fleischwaren AG – leg of pork for premium pork specialties

The challenge of transparency

As part of this continual modernization process, three noax S15 IPCs were brought into production at the Landsberg am Lech plant in March 2003. The objective was maximum transparency in production including receipt of raw materials and the individual production stages such as cutting, batching, blending, curing, molding, removing from the mold, preparation of the finished goods and labeling in goods dispatch.

Due to the EU regulation, it is necessary to design the whole production process with due regard for consumer protection. In the event that a recall is necessary, possible sources of error can be easily localized in any production process. In this way, quality assurance will in future range from the cool cabinet in the supermarket to individual stages of processing to the living cow of the farmer.

However, it is not only the consumer who profits in the form of product quality and security, for the foodstuffs producers themselves also reap a benefit in the form of an increase in efficiency and quality assurance within the company. Also, possible sources of error can be recognized at an early stage and remedied. Personnel intensive tasks are automated by computer and intelligent software and instead of blindly ordering back an entire day's worth of production in the event of a recall, it is possible to recall single slices and individually packed units

Traceability with industrial PCs

These modern production processes entail among others the use of industrial PCs at the individual production stages. All production data is backed-up, logged and maintained in the merchandise management system through the interaction of calibrated weighing machines, scanners, printers and appropriate software. In addition, the individual products are marked with information necessary for traceability (for example through barcodes) at the respective control point.

Decision in favor of noax S15 IPC

In deciding on a system, the robust and reliable noax S15 IPC convinced the decision-makers from Lutz Fleischwaren AG due to its favorable price/performance ratio, for in contrast to standard PCs that are mostly used in air-conditioned



Daily high-pressure cleaning of the production machines

office buildings, IPCs for foodstuffs production are subjected to extreme demands. Resistance to foodstuffs, permanent damp and daily cleaning sometimes at high pressure create difficult operating conditions for the machines.

In order to function here without problems, the noax S15 offers a range of features: a robust, absolutely smooth V2A stainless steel enclosure with protection class IP65/NEMA4 and special IP connector protectors to protect the inside of the industrial PC from dampness.

The connections are situated on the underside of the enclosure and are especially easy to reach.

Its bright 15-inch TFT display with 1024x768 resolution provides excellent readability, even in the worst environmental conditions and its resistant touch panel enables secure and simple operability. A distinguishing feature is the food-safe rubber seal between the enclosure and the touch panel. There are no hidden ridges on the S15 so there is no chance of the feared buildup of germs.

In addition to these outer advantages, the S15 also offers finest inner technology, for despite the fully-enclosed design, the noax IPC offers high performance, compatibility and extensibility. Depending on usage requirements, the computer can be equipped with three different noax all-in-one motherboards.

All noax industrial PCs are fitted with Intel Pentium III processors with up to 700 MHz, comprehensive fitting of on-board interfaces and Ethernet card and also many possibilities for extension as diverse peripheral devices can be connected, for example, via PCI and ISA. In addition, all noax IPCs have a microcontroller as standard. This automatically undertakes numerous monitoring and control tasks such as voltage and temperature monitoring or control of backlighting.



IPC in interaction with Windows-based DV90 QA-software and peripheral devices



QA at goods outlet: noax S15 IPC in interaction with weighing machine and DV90 QA-software

The first step

Good receipt / goods outlet control

Previous methods of manual recording and marking of products in the production process can on the one hand complicate identification due to inaccuracy. On the other hand, the lack of transparency of production flow, production stock and state hinders integration of processes. Traceability according to the EU regulation is practically impossible. The first stage of production automation at Lutz Fleischwaren AG therefore targeted control of the entire process of goods receipt and goods outlet, whereby noax S15 industrial PCs undertook some important tasks. Goods receipts were individually logged, weighed, commissioned and marked in an interaction with calibrated Bizerba weighing machines (model MCI), an opto-coupler and Intermec EasyCoder F4 printers, connected to the industrial PC via the serial ports COM1, COM2 (RS232) and USB. In addition, the data was integrated into the merchandise management system via the existing network, using Windows-based DV90 as software, which was developed by the parent company Südfleisch. For each receipt of raw goods, whether pork leg or seasoning, a comprehensive quality log is created in this way. The same applied to the goods outlet, where all finished

example, premium Lech valley salami leave the factory commissioned and marked. Strict control of the start and end processes is thereby a prerequisite for transparent production. In a second step, within the year all individual production steps are to be equipped with IPC-based QA-stations. In this way, the quality from receipt of stock through the respective production stages to goods issue.



modern sausage production at Lutz Fleischwaren AG

The system thereby enables information to be provided to the respective authorities at any time and product stocks and individual production status can also be internally traced at any time.

Fit for the future

With noax industrial PCs

With the help of noax Steel S15 IPCs, Lutz Fleischwaren AG is extremely well prepared for the challenges of the future, and remains true to its company principle:

"Quality is more than a good product"

noax industrial PCs have now been in use at Lutz Fleischwaren AG for a year. The computers run 24 hours a day, 7 days a week and 365 days a year. There were no outages. Here's to further great cooperation!

Further information on Lutz Fleischwaren AG and its products can be found on the Internet under www.lutz-fleischwaren.de

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