*Inotec creates a futuristic solution for foodstuffs processing*

# Multi-Touch with zenon – simple, ergonomic, safe

Inotec has exploited the potential that the HMI/SCADA solution zenon offers and implemented a well-thought-out, ergonomic and graphics-orientated Multi-Touch solution. Industrial companies in foodstuffs processing benefit from this innovative solution which increases efficiency and productivity in machine operation and control, as well as maximizing safety.

Inotec is a specialist in the automated production of foodstuffs, in particular meat and sausage goods. The company was founded in 1988. Nowadays, its product range includes fine grinders, mixers, sausage-cutting machines, unclippers, binding machines and complete production lines. Inotec's customers around the world include notable companies from the meat processing industry as well as manufacturers of cheese, baby food and hospital food, soups and ready meals, fruit and vegetable processing, confectionary and pet food. The company, with around 250 employees, sells between 250 and 300 machines per year, of which 80% are exported. It has a market presence in 46 countries.


*Thanks to the integrated Multi-Touch technology, Inotec's customers can operate their machines in the same way as smartphones or tablet PCs.*

## ZENON IMPRESSES WITH OPENNESS AND MULTI-TOUCH

Like many companies, Inotec also saw itself confronted with evolved structures and not all of these have been ideally aligned. The different machine generations were equipped with different panels and also different visualization systems. "We were no longer satisfied with this situation. Our objective was to harmonize the control panels and create a standardized and modern user interface for all machines," explains Andreas Hittinger, Regional Sales Manager and person in charge of the project at Inotec GmbH. Inotec evaluated numerous solutions in order to find a new HMI/SCADA software. Ultimately, several factors were decisive in the decision to use the zenon Product Family from COPA-DATA: "We were most of all convinced by the flexibility of the solution. zenon is designed as very open and makes it possible to include external .exe files, additional functions, WPF elements and much more, simply and easily, into the HMI/SCADA solution," explains Andreas Hittinger from Inotec. Other important requirements that zenon could meet were the diversity of drivers, and thus the possibility of direct connection with different PLCs, and the Multi-Touch functionality. "A Multi-Touch solution increases not just the productivity of the employees; two-handed operation on a Multi-Touch screen also ensures operating safety," continues Andreas Hittinger.

## ERGONOMIC OPERATION CONCEPT WITH ELEMENTS FROM THE CONSUMER WORLD

It was most important that the structure of the user interface and the visualization could be set up on all machines, with a uniform operating philosophy. A significant part of Inotec's innovative concept is the use of technologies and controls with which the user is familiar and that have already become established in the consumer world (the consumerization of IT). Because the employees in large foodstuffs processing companies often do not have knowledge of the respective national language and cannot always be given a comprehensive initiation, Inotec does away with text almost completely in this new operating concept. It is nearly all created with graphics: All important functions and selection options are shown in the form of pictures and symbols. If an operator does not recognize the screen or symbol, they can call up the online help for advice. The Multi-Touch technology is also integrated into the online help: It can be used by clicking on the monitor and zooming in and out. Andreas Hittinger: "Text can be misunderstood; terms are not the same throughout the world. This is why we do without it almost completely. Our basic thinking was to work with controls that everybody is familiar with and everybody uses. For us, it is important that machine operation is designed


*The recipes can be selected using pictures (top left) or a barcode scan.*

to be as simple as possible and incorrect operation is virtually precluded. This is why we now use Multi-Touch. We use speedometer elements for entering and amending parameters, the carousel to rotate or move objects, and have traffic light colors for the classification of machine states."

## INTUITIVE USER INTERFACE

The user interface is equipped with a menu bar at the top and bottom. Here, you can find the selection options – buttons designed with simple symbols – for switching to the main view, the parameter overview and selection, recipe handling, the service videos and the camera function. In the main working area, there is an overview screen of the machine, in which the different machine components are emphasized with color. The user can get an overview of the machine here. With a two-finger zoom, it is possible to enlarge individual areas of the machine in the view. The machine can also be rotated so that the user can zoom into machine areas that are not visible in the original view. If the user selects a machine component, they are shown the screen for the parameter settings, in which the individual values are designed as speedometer elements. In general, all machine parameters can be viewed, amended and saved separately. If a user has to monitor several parameters, they can also zoom into the individual parameters in the parameter overview and change the value there. With the new operating interface, the employees of the foodstuffs companies can also find numerous service videos. These videos show which working steps the operator or the maintenance personnel should carry out. These videos are also designed simply and clearly and work without any linguistic explanation. In addition, the cleaning screen can be activated in the menu bars. This cleaning screen allows the touch-sensitive screen to be deactivated for a defined time period and wiped.

## MAXIMUM SECURITY, MINIMUM LIKELIHOOD OF ERRORS

Security is the highest priority for Inotec. The integrated security functions prevent access to the machines and equipment by unauthorized persons, guarantee secure operation and ultimately also ensure the product quality. In the integrated user administration, the operator clicks on their photo and enters their password. Without logging on, it is not possible to trigger an action or to access the functions of the machine. For each operator, the duration of time for which they are logged onto the system is recorded, as are all inputs or actions that are triggered on the machine. Anyone operating the machines has precisely the range of functions unlocked that they need to carry out their tasks – be it technical support, maintenance or operation. In order to guarantee security in foodstuffs, Inotec has also installed webcams with the machine displays. Production jobs are given barcodes which production employees can hold up to the webcam. The user data and recipe data is scanned automatically and the machine receives all necessary information for the pending production order. In addition, it is also possible to select a recipe using a photo of the product.

*With our new ergonomic user interface, we can increase security in foodstuffs processing as well as productivity of the operators considerably. In addition, we are offering our customers the opportunity to log and evaluate all process steps.*

**ANDREAS HITTINGER, REGIONAL SALES MANAGER AND PERSON IN CHARGE OF THE PROJECT AT INOTEC GMBH**

## OPTIMUM CONTROL

Inotec has also designed the alarm management simply and intuitively: If there is a fault or an error, the corresponding components or machine areas are shown as graphics, in order to locate the problem more quickly and keep downtime to a minimum. If the operator has a high authorization status, for example a department manager or production manager, they receive additional text information. Inotec also has integrated video surveillance into the new human-machine interface, in order to continue to increase the security and efficiency. This video surveillance makes it possible to look into a machine without having to stop it or open it. In addition, Inotec also offers, as an option, the possibility to monitor the machines and equipment by means of a touch screen in the office rooms. Here too, the employees can zoom from the view of the equipment into the individual machines and their components and have all parameters displayed. In addition, it is possible to look at the faults or error messages. Changes to values and the triggering of actions, such as starting a machine, are not possible here for safety reasons.

## LOGGING ENSURES PRODUCT QUALITY

Inotec's new solution makes it possible, on the basis of the Chronological Event List (CEL) in zenon, to record and evaluate all user inputs and important information that occur in the process of foodstuffs processing. This includes, for example, temperature monitoring and recording, the vacuum level, the quantities, data such as date and time (for traceability and liability) as well as the operating hours of the machines (for condition monitoring).

## HIGHLY PRAISED MULTI-TOUCH AND DOCUMENTATION

Companies in the foodstuffs processing industry react extremely positively to the innovative solution for machine operation and control. "The feedback from our customers is excellent. They value firstly the simple handling of the machines, plus the numerous precautions for access security, process security, occupational safety and comprehensive logging of the process steps. Now our customers are free to choose the range of functions they desire. Our solution is unique in foodstuffs processing. Here, it is a novelty to monitor all process steps in this manner and to document them in detail," comments Andreas Hittinger from Inotec.

## AWARDED FOR UNIQUE OPERATING TECHNOLOGY

The two specialist magazines "Fleischerei Technik" (Meat Market Technology) and "Fleischerei Handwerk" (Meat Market Craft) have given Inotec an award for "excellent innovation in the equipment and supplier industry". Awards are given to companies that have achieved a sustainable advantage in the production processes used by meat processing and sausage producing companies with developments and that make a valuable contribution to improving quality, reducing costs, improving sustainability and effective process design. Inotec was given an award in the field of control technology.