



Case Study

MEKAPHARM SAS

How Mekapharm achieved 50% higher throughput rates in the Alpha Sorter for pharmacy automation.

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Mekapharm SAS provides automation solutions for the storage and preparation of orders—including pharmacy automation. The company selected the Viziotix barcode scanner SDK for their Alpha Sorter system to identify pharmaceutical items. The Alpha Sorter uses cameras to identify and sort items for automated storage and delivery in pharmacies.

The Alpha Sorter's processing speed was significantly boosted by using the Viziotix barcode scanning software. Pack throughput rates rose from 170 to 250 items per hour. This significantly increases pharmacy productivity and boosts the value of the solution.

“Viziotix faster scanning speed allowed us to increase our system throughput by 10X leading to lower costs and better customer service from our Alpha Sorter pharmacy automation system”

Emmanuel Poux, CEO, Mekapharm

The key results of this integration are:



Speed

Ten times faster barcode scanning.



Performance

Pack throughput rate increased from 170 to 250 per hour.



Productivity

50% improvement in pharmacy productivity.

The Problem

The Alpha Sorter pharmacy system incorporates barcode scanning to identify packaged pharmaceutical items fed into the input hopper. These are then sorted for automated storage and delivery. Each pack is marked with a GS1 Data Matrix code to ensure the correct item identification. These codes can be printed on any face of the items, so each face must be scanned.

The first generation of the Alpha Sorter used dedicated, autofocus barcode scanners to scan the packs at various points. These scanners captured the Data Matrix codes to ensure that the items were correctly sorted. The scanning speed limited the system's performance to 170 packs per hour. Further, the scanner success rate was low and some packs could not be scanned due to low contrast, blurry or other image issues. In some cases, the scanners simply failed to find the barcode in the images. Barcodes at the farthest edges of the images were often not found. Barcode scanning was a bottleneck to the optimum system throughput.



Figure 1 Pharma pack processing in the Alpha Sorter

The Solution

Mekapharm replaced the autofocus barcode scanners with standard fixed-focus cameras and the Viziotix barcode scanner SDK. Viziotix's barcode software library is now running on single-board Linux computers (SBCs) attached to the cameras.

The Viziotix barcode scanning SDK uses advanced, high-speed algorithms to locate and decode barcodes.

The Smart-Findr algorithm finds all the barcodes in images even with movement blur, low contrast, and all the common barcode scanning image issues. Smart-Findr is particularly efficient at finding codes at the extreme edges of images.

The Viziotix barcode scanner SDK decodes the very high-resolution images in a few milliseconds. The total time to scan and decode is therefore very short compared to other solutions.

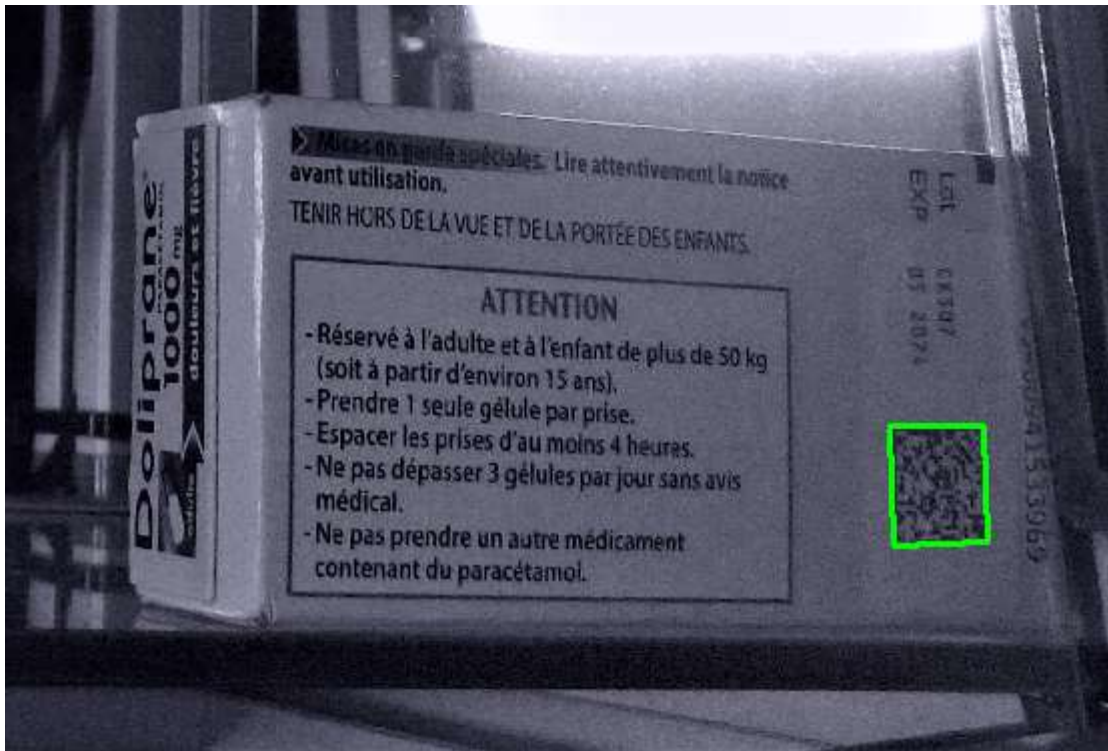


Figure 2 Scanning a Data Matrix code with Viziotix

The Results

With the new cameras, SBCs, and Viziotix barcode scanner SDK fully integrated into the Alpha Sorter, Mekapharm increased the speed at which the sorter scans codes by 10 times and runs at a system speed of 250 packs per hour. This maximizes the productivity per square meter of pharmacy space and provides the required medicines at a higher rate to pharmacy associates. The key results are:

- 10X faster barcode scanning;
- Pack thruput rate increased from 170 to 250 per hour;
- 50% improvement in pharmacy productivity.

For more information, please contact:

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