

Package identification at goods receipt

Combined barcode and OCR reading on the front of packages

The task

In the goods receipt department of a mail-order company, packages from suppliers coming from all over the world are recorded automatically. Usually a barcode contains all of the relevant information. If the barcode is missing, the information has to be read directly. Vitronic's VIPAC system recognizes the specific package data such as quantity, order number and supplier number on the front of the package. It also records the weight and the volume. The information is then transmitted to a material flow computer, which processes the data, warehouses the packages in a high-rise warehouse and maintains a report on stock levels.

Benefit

By means of automating the goods-in process, which was previously handled manually or by pure video coding, the mail-order company has multiplied its goods-receipt capacity several times. Each line can handle up to 900 packages per line and hour. The system works completely automated.

Implementation

VIPAC reads the quantity, order number, supplier number and size from the label on the front of the package, which are in the form of a barcode or characters, achieving read rates of > 99% for barcodes and > 75% for optical character recognition (OCR). The identification process is supported by video-coding stations, thereby achieving a 100% automation level. At the same time, Vitronic's Volumec 3D sensor measures the packages in 3 dimensions for bulk with an accuracy of +/- 10%.



Technical Data

Cameras:	High-resolution line camera Volumec 3D system for volume measurement per line
Illumination:	Sodium vapor lamp (date 2003) since 2005 maintenance free LED-illumination
Speed / Throughput:	0.7 m/s, corresponding to 900 packages per hour and per line
Hardware / Interfaces:	Ethernet-LAN to material flow computer Light switch trigger via I/O interface RS232 serial interface to scales

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