



prime**vision**

WORLD LEADING IT SYSTEMS INTEGRATOR

Postal, Logistics & Airports

OUR MMS PLATFORM: PREDICTING THE FUTURE

Sorting just became much smarter

Prime Vision's next-generation postal automation platform, MMS, has been developed to provide today's postal automation and sorting platforms a higher level of flexibility and intelligence, with maximum configurability and processes that adapt to the live situation rather than their fixed programming – in fact, we believe automation platforms need to predict the future!

The capabilities to predict the future (predictive sorting decision-making) are realized based on incorporation of technologies from industry megatrends such as big data analytics and the Internet of Things (IoT). These are primarily providing data sources that reach out across operations to gauge the live situation and predict the trend and outcomes. While much can be automated, Prime Vision saw an opportunity to deliver a much higher level of manual customization of the sorting and processes at both a local and national level.

The potential for implementing MMS is substantial and can have an enormous impact on operations and services development. The system allows events in transports and infrastructure, such as reduced weather conditions, traffic delays or possible issues with a particular facility to be mitigated dynamically. Finally, postal operators can offer the increasingly smarter services that customers demand.

CORE TECHNOLOGY: VISION TECHNOLOGY

Our Optical Character Recognition (OCR) Engine is a comprehensive solution; complete with recognition process chain. It incorporates region-of-interest finding capabilities as well as the ability to interpret images and addresses.

The Recognition Engine is designed based upon Prime Vision's core technology in the field of character recognition and machine-vision. As part of an ongoing research program, we invest heavily in the continuous development of Vision Technology, ensuring that we maintain our position as a leading global recognition developer.

By aiming to be at the forefront of recognition technology, this translates to higher performance for our clients and the capability to deliver increasingly tailored solutions.

INDICIA RECOGNITION

99% Read Rate is the new Standard



A proven solution Prime Visions Indicia Recognition systems read not only the address labels but can also decipher stamps, meter marks, logos and other images printed onto letters and parcels.

Over the last decade, we have developed and refined recognition techniques to allow our customers to increase their read rates significantly. The automatic recognition of printed items on envelopes is now faster and more accurate than ever. The read rate measured on a collection of Dutch stamps exceeded 99%, while the error rate has been reduced to close to nil.

The object recognition solution is designed to compare the descriptions of image patches (around detected interest points on the image) with descriptions pre-stored in a database.

The application of innovative search techniques developed by our research team has gained significantly swifter and higher read-rates, setting new industry benchmarks in recognition solutions.

As a result of the faster processing, a far higher number of target objects can be stored in the database (with equally more image descriptors). The result increases both applicability and the detection rate, while at the same time further reducing the error probability.

A configuration tool allows customers to manage their image database, allowing new objects to be uploaded at short notice.

As well as increasing performance, Prime Visions object recognition system offers postal organisations the potential for considerable cost savings.

The system also the capability to enable revenue protection to be carried out automatically. As part of the process, under-paid mail can be detected, and customers charged for the difference in price. Crucially, as with all Prime Vision developments, this innovation is modular and able to be integrated into existing systems.

ENHANCED BARCODE READER

98,5% Read-Rate

Prime Vision has continued the impressive run of recent innovations with the launch of the new Barcode Reader solution. This solution is developed to help parcel operators optimise their barcode reading performance by minimising the number of barcode rejects. Characterised by barcodes that are difficult to read from any number of potential reasons including blurring, incompleteness or running ink.

Current reject streams have a significant effect on large parcel volumes, process speed and ultimately profitability. Our new solution has exceeded all industry expectations, reading an impressive 70% of the previously failed reads. Taking the successful read-rate from 95% to 98.5% reads.



BAGGAGE IDENTIFICATION

The most significant innovation in Baggage Identification in a decade

Prime Vision Baggage Identification solution improves the recognition of the IATA labels from 94% to 99%. It enables the highest reading performance even when barcodes are damaged and dirty. The system achieves this by integrating a 360-degree tag identification system, allowing images to be used for OCR and remote Video Coding. By integrating our technology into the existing baggage handling system, bags are identified while they are on the baggage handling sorter. The need for further manual handling is all but eliminated, resulting in both saved time and saved costs. The baggage flow is uninterrupted and costly human resources freed up from fixed manual encoding stations.



PRIME VISION INNOVATIONS

HANDLING PROJECTOR

Sorting Centre Innovation of the Year 2017

In partnership with the tech start-up Genuin, Prime Vision is proud to share the Postal Technology International Award for Sorting Centre Innovation of the year.

The Handling Projector reads the barcodes and addresses of multiple packages as they either fall down the chute at the end of the sortation process; or as the parcels are processed for manual sortation

on a moving conveyor belt. Then by projecting a destination number directly on the package, the Handling Projector conducts the operator to quickly place it in the corresponding roll cage, sorting container or delivery van. The easily-adaptable and scalability of the projection sorting system can be employed in any number of different scenarios and deployed in almost any configuration.

AUTONOMOUS PARCEL SORTING

Game Changing Technology

Over the last year, Prime Vision has been developing its Autonomous Sorting concept: The sortation of items into correct delivery destinations with a fleet of autonomous robots that offer a flexible and scalable solution based on short assembly time scales. Throughput capacity can be quickly and easily increased or reduced due to the modular design of the solution.

Our aim is to now further develop the concept into a robust, operations-ready industrial solution, which we will be piloting with customers before the end of the year.



ASSET TRACKING

A network of passive assets transformed into a connected network

For one of our customers, we transformed a network of passive assets into a connected network able to relay intelligent up-to-the-second data enabling the customers to make informed, real-time decisions.

Equipped with Bluetooth trackers, 150.000 roll cages were transported to multiple locations throughout the country. iBeacons installed in a central sorting centre. All the resulting tracking information is uploaded to Prime Vision's next-generation IoT platform, a cloud-based solution that seamlessly integrates with the posts enterprise solutions.

The IoT platform enables asset managers to accurately track assets with a web-based graphical user interface. The collected data allows optimisation algorithms to be applied ensuring roll cages in the right locations, vehicles loaded to capacity and relevant information is available to increase route scheduling efficiency.

AREAS OF EXPERTISE

Prime Vision specialises in Automation, Processing and Recognition solutions for the international Postal, Logistics, and Airport industries. *We spend much valuable time and resources in R&D to prepare our industry for tomorrow; It is our innovations are your fuel for the future!*

Areas of expertise

Image Recognition

Production IT Platform (MMS)

IoT platforms for first and last mile solutions

IoT ident and tracking technologies

Cloud services, data analytics and visualisation

Smart devices, and access management

Assisted and autonomous sorting

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