

# Prime time

WHAT'S NEW IN THE WORLD OF OCR AND SPEECH RECOGNITION? **ANDREW PICKERING** TALKS WITH PRIME VISION'S MICHEL DE RIJCKE AND HANS KAMPERMAN TO FIND OUT

**OCR specialist** Prime Vision is a company that is deeply rooted in technology. Its origins can be traced back to 1956 when the Netherlands National Postal and Telecommunications Corporation (PTT) set up a research department to develop ways to automatically read handwritten money transaction forms. In 1997 PTT split into two independent companies – telecom operator KPN and the TNT Post Group – with the former PTT research department becoming part of KPN Research.

A change in strategy came in 2000 when KPN Research appointed Eddy Thans to form the pattern recognition department into an independent commercial company, Prime Vision, which he would head as CEO. Today the company has two shareholders, PostNL and TNO (Netherlands Organisation for Applied Scientific Research), and is free to market its unique recognition software throughout the world.

Prime Vision's base is maintained in part through its strong links with Delft University of Technology (TU Delft) as well as other academic institutions, as Michiel de Rijcke, the company's deputy director and head of R&D, explains. "As we did in the early days, we still act as our own laboratory and develop everything in house. In order to do so we need close links to academics in order to know what's happening, what technologies are being investigated and what is promising. One of the ways we do that is by hiring students to do their masters' theses here, so we have people



from academic groups working here for a couple of years, bringing fresh blood into the company and helping us keep up with developments. And we use that knowledge in our own programmes in order to improve what we have. These recruits mainly come from TU Delft but some also come from TNO, which acts as a bridge between industry and academia.”

Since early in life as a commercial entity, Prime Vision has been a vigorous proponent of open systems, believing that the deployment of non-proprietary software brings great benefit to its customers.

“The main advantage for the customer is that they are in control,” says de Rijcke. “The customer determines what the system should do and if they have new business ideas or want to improve a process they can decide what should be changed. So they might do it themselves by changing the main functionality of the system, or they could ask a third-party supplier to connect a new technology to their open platform, or they could go to the market and for extra functionality without the need to change the system they bought initially from a certain company. That would be impossible with a proprietary system because then they always have to go back to the original supplier, who might not want to cooperate or give them a fair price for a small change.”

**Speech recognition** A new development at Prime Vision, which has been promoted through shareholder TNO, is speech recognition. Hans Kamperman, head of speech technology and operations manager, explains: “We have always been largely focused on OCR in the postal market but we are always looking for additional technologies for our portfolio and to expand this and other markets with new and better solutions. Speech recognition is an ideal technology for us as it shares many similarities with OCR. The applications we are looking at right now involve searching through audio materials such as phone calls and other recordings to look for certain key words.

“Speech recognition is used successfully in the warehousing industry and we want to extend our portfolio by making it available to assist sorting in the postal industry. An example of its use would be where there is mail that can’t be handled by machine. The worker can read out the postal code or destination on the mail item, the speech recognition system will recognise that and signal that the item should be put in certain



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stacker or inform the sorting system that it should go into a certain chute or whatever.”

**Prime Competence** As an addition to its software development, this year Prime Vision will be developing its offer with consultancy expertise, under the name Prime Competence. De Rijcke gives more details about this initiative: “We have been active in the postal industry for quite some time and have been involved with customers and many processes in a lot of sorting centres all over the world. We have now arrived in the position where we can help customers with advice on how to optimise their business, which systems they could use to support their processes. And as we deal with many suppliers in the postal industry we are genuinely able to give an independent advice that is not dependent on a certain machine or a certain solution.

“We have noticed that for many postal companies it is very difficult to get the expertise and information they require from the market to acquire machine and technology that will serve them for the coming decades. For example they might want to know whether they should buy a particular sorter, and what performance and automation rate to expect. Because mail volumes are dropping it is imperative for our industry to reduce costs and be more efficient, and in order to be able to do that they have to be more effective in processes such as the sorting of mail. It really requires an in-depth technical knowledge of OCR and sorting as it is quite sophisticated and really only specialists can deliver this knowledge. We regularly offer such consultancy to PostNL, so it was only natural that we should start to offer it as a broader commercial service.”

**Developments** De Rijcke believes that recognition systems for address reading will evolve so that decoding becomes more standardised and that customers will have a need for more advanced recognition systems. “They want to know more about the mail they’re processing,” he says, “to find certain types of mail, determine what postage is being paid – to aid in revenue protection, trace mail items during the whole of the sorting process in order to supply customers with information on how their mail items are handled. I expect to see more of this kind of development, where recognition systems can deliver highly detailed and specific information.” ■