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Prime Vision



## The Segmentation Paradox!

Enhancements for handwriting word recognition

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Prime Vision, a leading supplier of mail and parcel automation solutions, is pleased to announce significant developments in the field of word recognition for handwriting.

Prime Vision has developed a novel approach to speed up hand written recognition considerably at the loss of nearly no read performance.

The automatic recognition of hand written words is one of the biggest challenges in the area of automatic reading. Its difficulty is due to three reasons; hand written characters appear at a huge variety, hand written words (or parts of them) are often written very inconsistently and because of the so-called *segmentation paradox*.

This paradox lies in the fact that for the automatic reading a hand written word for a correct segmentation characters is needed, but that this segmentation can be done most precisely knowing the content of the word. Because of this chicken and egg scenario, effective hand written word recognition is done using limited lexicons of words (to narrow down the possible segmentation paths). However the bigger the lexicon, the less effective and the more time consuming word recognition is.

The novel approach Prime Vision recently developed speeds up hand written recognition without impacting read-rate performance. In case of very large lexicons (such as 50000 or more words) processing time is reduced with a factor 100, from 2 seconds to about 20 ms on an industrial standard pc. These developments open the doors to even more applications for Prime Vision's technology.



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