► Manto

powered by

COMMON VISION
BLOX

**Software tool
for pattern recognition**

STEMMER®
I M A G I N G
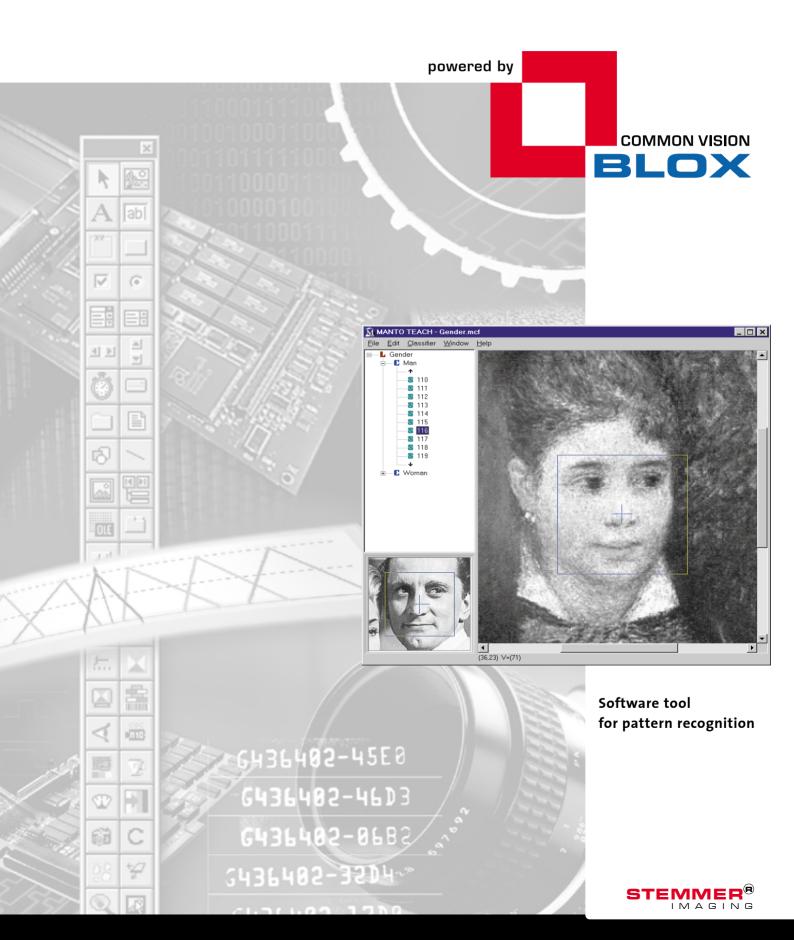
▶ Manto

Named after the seeress of ancient Greek legend, MANTO paves the way for digital image processing into a world which is made up not only of objects which are industrially manufactured, standardized and illuminated with a stable light source, but is also populated by organic forms and textures with a high degree of deformation and poor reproducibility in an ever changing environment.

▶ Functional principles

Working with MANTO is basically very simple: Using examples, MANTO learns the characteristics necessary for reliable recognition. The knowledge gained in this way is stored and applied to subsequent images and scenes using a library function. The underlying algorithm, on the other hand, is extremely complex and implements key research findings in the field of artificial intelligence, particularly the statistical theory of learning. A critical component is a new type of multiscale preprocessing filter which allows the software to be automatically adapted to a wide range of different tasks, such as texture recognition, OCR or handwriting recognition. The users' job is then simply a matter of providing a sufficient training sample, a job in which they are supported by a special teaching program.

▶ Features

- Wide range of applications
- Good generalization of the training samples
- Robust
- Simple operation
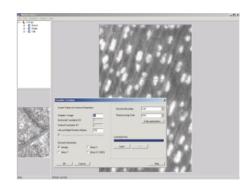- High processing speed

▶ Fields of application

MANTO has been tested in the following fields with consistently good results
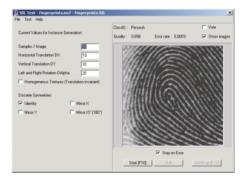(for more detailed information, refer to the documentation):
- Reading of handwritten numbers and letters
  (MNIST benchmarking)
- Recognition of surface textures
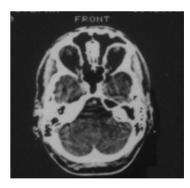- Realtime detection of human faces
- Detection of surface faults

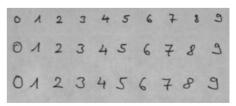Possible applications for MANTO:
- Content-driven access to image and video databases and archives
- Sorting and quality inspection of fruit and vegetables
- Medicine: Analysis and preliminary classification of X-ray and MRI images
- Mimic control of machine functions, e.g. for people with disabilities

To exploit the full potential of MANTO, you are recommended to use at least a Pentium II computer with 256 MB RAM.