

Copenhagen, Feb 13, 2009

Dear Colleagues

This is the freely available Matlab code that implements the Minimum Description Length (MDL) shape analysis methods described in the two papers:

- H. H. Thodberg, "Minimum Description Length shape and appearance models," *Proceedings of Information Processing in Medical Imaging*, vol. 18, pp. 51-62, 2003.
http://www2.imm.dtu.dk/pubdb/views/edoc_download.php/2109/pdf/imm2109.pdf
- H. H. Thodberg and H. Olafsdottir, "Adding curvature to minimum description length shape models," *Proceedings of British Machine Vision Conference*, vol. 2, pp. 251-260, 2003.
<http://www.bmva.ac.uk/bmvc/2003/papers/148/paper148.pdf>

Anders Ericsson has made some very clever work on shape analysis over the last many years, and in this paper <http://www.bmva.ac.uk/bmvc/2006/papers/285.pdf>, he benchmarked our method against other state-of-art methods on several types of shapes, and "in the median" our method seemed to perform best.

The manual is in the file **MDLsource.pdf**.

This version of the code is called version 3.1, to distinguish it from version 3, which I distributed in 2003-2008. The changes in version 3.1 are really very minor:

- The function range was replaced by myrange (since range is only in the Statistics Toolbox)
- The function call of PCAshapes was renamed PCAShapes, to avoid a warning
- The modules js_subplot.m and ShowExtremes.m are now placed together with all the other modules

I have checked that the code works in Matlab 7.5.0 (R2007b)

If you publish papers using this software, please include a reference to one of the two papers above. And if you find errors in the code, please drop me a note.

Best regards,

Hans Henrik

PS: I no longer work at the Technical University of Denmark, so my old dtu email and website have vanished. My new email is thodberg@get2net.dk.

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