
Review of the contour analysis basic methods to distinguish moving object contours

© I.O. Sakovich, Yu.S. Belov

Kaluga Branch of Bauman Moscow State Technical University, Kaluga, 248000, Russia

The article touches upon the issue of images analysis to extract the contours of moving objects. We analyzed characteristic features of contour analysis methods. The article describes the main advantages and disadvantages of contour analysis.

Keywords: image analysis, contours of moving objects, contour analysis, the method of active contours, the Canny edge detector.

REFERENCES

- [1] Sirota A.A., Solomatin A.I. *Vestnik VGU. Seriy Sistemnyi analiz I informatsionnye tekhnologii — Bulletin of VSU. Series System Analysis and IT*, 2008, no. 1, pp. 58–64.
- [2] Heikkila M., Pietikainen M. A texture-based method for modeling the background and detecting moving objects. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2006, vol. 28, no. 4, pp. 657–662. doi: 10.1109/TPAMI.2006.68.
- [3] Vershinina V.V., Palamar' I.N. Organizatsiya bazy znaniy semanticheskoi seti na osnove XML-formata [Knowledge base organization of semantic web based on XML format]. *Tezisy dokladov IV VNTK «Informatsionnye tekhnologii v nauke, proektirovani i proizvodstve»* [Theses of reports at the IV VNTK "Information technology in science, engineering and manufacturing"]. In 3 parts. Part 2. N. Novgorod, MVVO ATS RF, 2002, p. 23.
- [4] Chudovskaya A.K. Vozmozhnosti rasparallelivaniya algoritmov vydeleniya kontura po tekhnologii CUDA [Possibilities of algorithms parallelization of edge detection by CUDA technology]. *Sbornik dokladov IV mezhdunarodnoi nauchno-prakticheskoi konferentsii "Sovremennaya informatsionnaya Ukraina: informatika, ekonomika, filozofiya"* [Collected reports at the IV Int. sci.-practical conf. "Modern informational Ukraine: informatics, economy, philosophy"]. Donetsk, 2010, pp. 67–70.
- [5] Canny J.F. *Finding edges and lines in images. Master's thesis*. MIT, Cambridge, USA, 1983, pp. 50–67.
- [6] Green B. *Canny Edge Detection Tutorial*. URL: http://dasl.mem.drexel.edu/alumni/bGreen/www.pages.drexel.edu/_weg22/can_tut.html (accessed 29.05.2014).

Sakovich I.O. (b. 1992) is a student of the Department of Computer Software, Information Technologies, Applied Mathematics at Kaluga branch of Bauman Moscow State Technical University. Research interests include information technologies, image recognition, intellectual data analysis, multimedia systems. e-mail: Ilona.sakovich@rambler.ru

Belov Yu.S. (b. 1982) graduated from Kaluga branch of Bauman Moscow State Technical University in 2006. Ph.D., Assoc. Professor of the Department of Computer Software, Information Technologies, Applied Mathematics at Kaluga branch of Bauman Moscow State Technical University. Research interests include information technologies, computer simulation, intellectual data analysis. e-mail: ybs82@mail.ru
