Geophysical Research Abstracts
Vol. 12, EGU2010-4998, 2010
EGU General Assembly 2010

Research on accuracy of spatial object models obtained in laser scanning measurement

Marek Wozniak, Artur Adamek, and Sławomir Jastrzebski
Institute of Applied Geodesy, Warsaw University of Technology, Warsaw, Poland (M.Wozniak@gik.pw.edu.pl)

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@END_TITLE@

@START_AUTHORS@
M. Woźniak, A. Adamek, S. Jastrzębski,
@END_AUTHORS@

@START_AFFILIATIONS@
Faculty of Geodesy and Cartography, Warsaw University of Technology, Poland, (m.wozniak@gik.pw.edu.pl / Fax: +4822-6251527 / Phone: +4822-6607299)
@END_AFFILIATIONS@

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The paper presents the results of performed accuracy analysis for the spatial models obtained during the laser scanning process. The scans of the different elements beginning from the regular geometric surfaces to built up architectonical forms made at The Main Building of the Warsaw University of Technology were the object of conducting analysis. The most technologically advanced and accrued geodetic instruments like: terrestrial laser scanner Z+F Imager 5006, total station Leica TCRP 1201+ and RMS (Remote Measuring System) set on the base of theodolite Wild T2002 were used to realize the project. The real precision of the new survey technique could rise doubts and need to be check during the specialized researches. Improvement of measurement technique and data post processing also should be carried out. In spite of a large point number acquire from scanning and additionally intensity value of that points recorded we can observe some problems with edges identification of surveyed objects. The model handling is supported by specialized system software tools.
Performed analysis deliver data which suggest that technique which were used is suitability for precise determination of engineering objects geometry and for deformation determination. The technology accuracy were estimated for the particular case tasks.
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