A Step Toward Accuracy – Based Vector-Data Prioritizing

Arie CROITORU and Prof. Yerach DOYTSHER, Israel

Key words: random process, geostatistics, spectral analysis, least-squares collocation.

ABSTRACT

The large variety of available spatial data sets poses new challenges and potential pitfalls for end-users as well as for data providers. End-users must now prioritize data sets according to their needs and resources. One such prioritizing scheme is based on assessing the uncertainty in a desired end product caused by the usage of a given data set, and comparing it to a predefined uncertainty (risk) threshold. Such a prioritizing scheme requires detailed knowledge of errors in the input spatial data, as well as errors introduced by the analysis process. Unfortunately, in many cases such information regarding the input spatial data is either missing or ambiguous. Consequently, end-users must verify and estimate the applicability of the data. This contribution describes various aspects of such estimation techniques, and examines their applicability for spatial data.

CONTACT

Mr. Arie Croitoru Technion – Israel institute of technology Faculty of Civil Engineering, Division of Geodetic Engineering Technion City, Haifa 32000 ISRAEL Tel. + 972 4 829 2663 Fax + 972 4 823 4757 E-mail: ariec@tx.technion.ac.il Web site: www.technion.ac.il/~ariec

Prof. Yerach Doytsher Technion – Israel institute of technology Faculty of Civil Engineering, Division of Geodetic Engineering Technion City, Haifa 32000 ISRAEL Tel. + 972 4 829 3183 Fax + 972 4 823 4757 E-mail: doytsher@geodesy.technion.ac.il

TS3.7 Spatial Information Management –Technical Developments Arie Croitoru and Yerach Doytsher A Step Toward Accuracy-Based Vector-Data Prioritizing