P.F. Fisher Developments in Spatial Data Handling

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11th International Symposium on Spatial Data Handling

with 267 Figures and 37 Tables



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Library of Congress Control Number: 2004111521

ISBN 3-540-22610-9 Springer Berlin Heidelberg New York

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Printed in Germany

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Cover design: E. Kirchner, Heidelberg Production: Almas Schimmel Typesetting: camera-ready by the authors Printing: Mercedes-Druck, Berlin Binding: Stein + Lehmann, Berlin

Printed on acid-free paper 30/3141/as 5 4 3 2 1 0

Foreword

The International Symposium on Spatial Data Handling (SDH) commenced in 1984, in Zurich, Switzerland, organized by the International Geographical Union Commission on Geographical Data Sensing and Processing which was later succeed by the Commission on Geographic Information Systems, Study Group on Geographical Information Science and then the Commission on Geographical Information Science (http://www.hku.hk/cupem/igugisc/). Previous symposia have been held at the following locations:

 1st - Zurich, 1984
 6th - Edinburgh, 1994

 2nd - Seattle, 1986
 7th - Delft, 1996

 3rd - Sydney, 1988
 8th - Vancouver, 1998

 4th - Zurich, 1990
 9th - Beijing, 2000

 5th - Charleston, 1992
 10th - Ottawa, 2002

This book is the proceedings of the 11^{th} International Symposium on Spatial Data Handling. The conference was held in Leicester, United Kingdom, on August 23^{rd} to 25^{th} 2004, as a satellite meeting to the Congress of the International Geographical Union in Glasgow.

The International Symposium on Spatial Data Handling is a refereed conference. All the papers in this book were submitted as full papers and reviewed by at least two members of the Programme Committee. 83 papers in all were submitted and among the 50 included here, all are considered above average by the reviewers.

The papers cover the span of Geographical Information Science topics, which have always been the concern of the conference. Topics from uncertainty (error, vagueness, and ontology and semantics) to web issues, digital elevation models and urban infrastructure. I would venture to suggest that in the proceedings there is something for everyone who is doing research in the science of geographical information.

The Edinburgh and Delft proceedings had been published as post-conference publications by Taylor and Francis in the *Advances in GIS* series which appeared as two volumes edited by Tom Waugh and Richard Healey and then by Martien Molennar and Menno-Jan Kraak, and the Ottawa conference has been published by Springer-Verlag as *Advances in Spatial Data Handling*, edited by Dianne Richardson and Peter van Oosterom. Many important seminal papers and novel ideas have been originated from this conference series. This Publication is the second in the

Springer-Verlag series which members of the Commission hope will continue.

Acknowledgement

Any conference takes considerable organization, and this one especially. As the time came for submission of initial papers for review, I was confined to a hospital bed after emergency surgery and the conference only happened because Jill, my wife and helper, and Beth, my daughter, kept my email free of submissions. I want to thank them and Kate and Ian too from the bottom of my heart, for being there, the conference and this proceedings are dedicated to them.

I should also thank those at the University of Leicester who were involved in putting on the conference. Kate Moore who worked on the web site, Dave Orme and Liz Cox who organized the finances and accommodation. Nick Tate, Claire Jarvis and Andy Millington all helped with a variety of tasks. I should also thank the programme committee who promptly completed the review process. The support and the questioning of Anthony Yeh are particularly appreciated.

Finally I would like to thank the originators of the SDH symposium series, especially Kurt Brassel who organized the first and Duane Marble who edited it for their vision in setting up the series which has maintained a consistent level of excellence in the reporting of the best scientific results in what we now know as Geographical Information Science.

Peter Fisher 2 June 2004

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