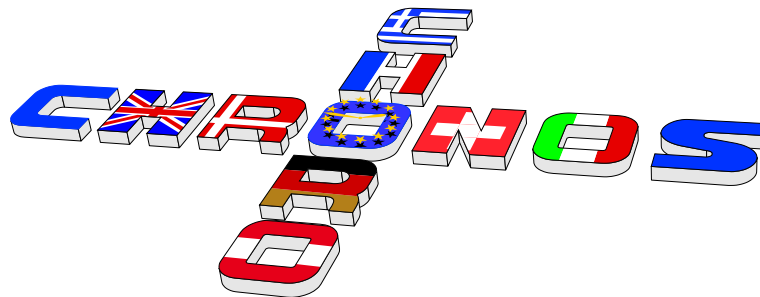


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*Spatio-Temporal Databases:  
The CHOROCHRONOS Approach*

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## Preface

This book is an introduction and source book for practitioners, graduate students, and researchers interested in the state of the art and practice in spatiotemporal databases. It collects the most important and representative research carried out in the project CHOROCHRONOS and presents it in a unified fashion. CHOROCHRONOS was a Training and Mobility Research Network funded by the European Commission with the objective to study the design, implementation, and application of spatiotemporal database management systems.

This book would never have been possible if it was not for the devoted work of many people. First and foremost, we would like to thank the authors of the nine chapters of this book for their hard work. We would also like to acknowledge the help of Christiane Bernard, our officer from the European Commission, who saw the project to its conclusion working as hard as we did to make it a thorough success. The constructive comments and feedback of our reviewer Colette Roland (University of Paris-1) are also very much appreciated. Last but not least, we would like to thank all the students and postdoctoral fellows that were trained in CHOROCHRONOS. We hope the time they spent at CHOROCHRONOS node institutions has been rewarding and lots of fun!

March 2003

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Spatio-temporal databases - The CHOROCHRONOS approach. January 2003. Lecture Notes in Computer Science 2520:1-8. Specifically, this new approach first separates symbols and data, then puts events between them to make a distinct connection. In addition, this approach provides spatio-temporal-semantic relations networks to map high-level semantic user queries into low-level queries that a machine can compute. The innovative user interfaces are designed for ease of use and are interactive to allow organization of information and a search capability for information retrieval. The results reported as a part of this paper show that we can achieve effective chronicling and high-quality user experiences by coupling together multimedia analysis, tagging and querying.

Spatiotemporal databases are an extension of spatial databases and temporal databases. A spatiotemporal database embodies spatial, temporal, and spatiotemporal database concepts, and captures spatial and temporal aspects of data and deals with: geometry changing over time and/or. location of objects moving over invariant geometry (known variously as moving objects databases[1] or real-time locating systems). Unlike in the pure spatial domain, there are however no official or de facto standards for spatio-temporal data models and their querying. In general, the theory of this area is also less well-developed.[2] Another approach is the constraint database system such as MLPQ (Management of Linear Programming Queries).[3][4].

Spatio-Temporal Databases The CHOROCHRONOS Approach. 13. Series Editors Gerhard Goos, Karlsruhe University, Germany Juris Hartmanis, Cornell University, NY, USA Jan van Leeuwen, Utrecht University, The Netherlands Volume Editors Manolis Koubarakis Timos Sellis et al. see page V. It collects the most important and representative research carried out in the project CHOROCHRONOS and presents it in a unified fashion.

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