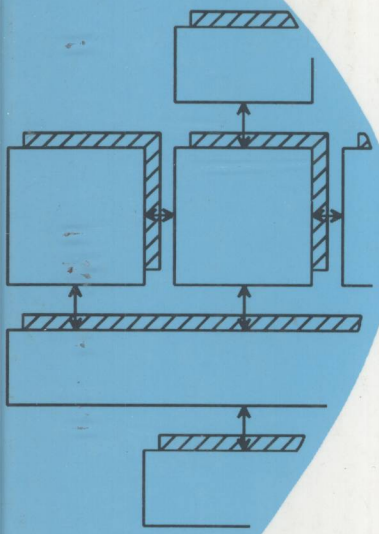
DATABASE SUPPORT FOR WORKFLOW MANAGEMENT

The WIDE Project



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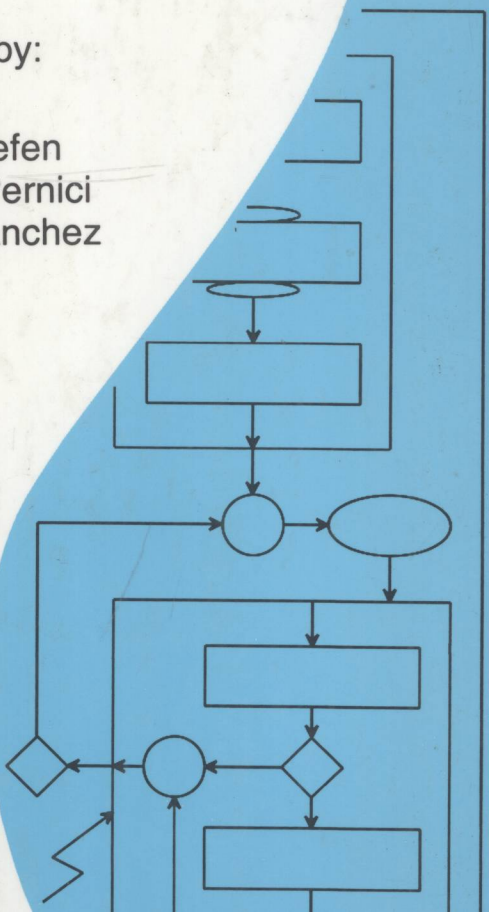

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PREFACE

In November 1995, the WIDE ESPRIT project started with a kick-off workshop at the beautiful city of Toledo in Spain. Now, almost three years later, we can look back at a successful project. The project has been a period of intensive research and development with tight cooperation between five organizations with very different goals and backgrounds. Although a complex project like WIDE by nature requires balancing the different points of view of partners, the cooperation has in general been of a very pleasant and productive nature. Consequently, the project has resulted in an advanced integrated workflow management system supplemented with a rich conceptual workflow model and application design methodology. The system and model stand out in the current state of the art by providing concepts and technology in the field of transaction and exception management not yet found in other workflow management systems.

This book presents the results of the WIDE project. We have tried to compose a book that pays adequate attention to all major aspects of the project: development of workflow modeling concepts and methodology, development of extended database technology, integration of this technology with a commercial workflow management platform, and deployment of this platform in user application environments. As the area of the project is in a rapidly evolving field of research and development, we have started this book with a short description of the context of the project, both from a research and a product point of view.

We hope that this book will be appealing to a large audience, both in the academic and industrial communities. We feel that this book presents knowledge and experience relevant to researchers in the fields of workflow and database management, advanced students in these fields, as well as developers and advanced users of workflow management systems. May reading about WIDE be as interesting to you as working in WIDE was to us.

Paul Grefen, Barbara Pernici, Gabriel Sánchez,
Enschede, Milano, Madrid, October 1998

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INTRODUCTION TO THE WIDE PROJECT

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Paul Grefen
Peter Apers

1.1 Introduction

These days, organizations rely on information as a valuable asset. Modern economists consider information as the fourth production factor next to materials, money, and personnel. Information technology has accordingly become more important in dealing with ever growing quantities of information. Traditionally, developments in information technology have focused on support for storage and basic manipulation of data. Consequently, database systems have become the cornerstone for information processing in most modern organizations. Database systems allow well-structured data management, guaranteeing availability and quality of data. More recently, it has become clear that data processing in complex organizations does not only require attention to data management, but also attention to the business processes that create and modify the data. Well-structured process management has become an ingredient to modern information management as essential as data management. Consequently, workflow management systems have entered the arena of business computing as the cornerstone for business process or workflow management. To enable integrated data and process management, the challenge is to integrate database and workflow management technology so that workflow management systems can easily access business data on the one hand and data management functionality can be used as the basis for workflow management on the other hand.

Database management systems have reached the state of well-proven technology. Having replaced most hierarchical and network database systems, relational