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*To my father, who supported me all his life,
to my mother, brothers, and sister for their concern, and
to my family for their patience.*

Preface

There are many very interesting information systems development methodologies, including the Object Modeling Technique (Rambough et al.), Object-Oriented Software Engineering (Jacobson et al.), Object-Oriented Analysis and Design (Booch), Object-Oriented Analysis and Design (Martin and Odell), Unified Modeling Language (Booch, Jacobson and Rambough) and other well-known methodologies.

Each of these methodologies is an excellent tool capable of enabling the analyst to develop a well-designed and successfully implemented information system. The only condition for achieving such success is that the analyst has to be adequately familiar with the methodology used.

The purpose of this book is to introduce a new object-oriented methodology called Tabular Application Development (TAD). The reason for developing a new methodology is that TAD represents a new idea, which is simple and very different from the ideas used in the above-listed and other methodologies.

TAD is designed to approach the subjects of Business Process Reengineering and Information Systems Development from a new perspective, which is unique to this methodology.

This book is intended for academic purposes and for researchers and practitioners in the fields of Information Systems Development Methodologies and Business Process Reengineering.

The real world of any organization, for which we intend to develop an information system, is a complex system consisting of many business processes, work processes, activities and tasks. This fact requires that the analyst invest a lot of time, work and knowledge in order to understand the organization's functioning and to keep the whole process of information systems development completely visible to him or her. This is the only way to enable the analyst to create a linkage between different levels of the enterprise and also among the organization's different parts.

Different methodologies use different ways and approaches to transform the real world into information systems models. How to transform reality into such models is essential not only for developing a successful

information system but also for helping users to optimize their work and to make their organization more efficient and successful.

TAD methodology tries to understand the real world using several tables. For this reason it is called Tabular Application Development. The reasons for using tables to model the real world are as follows:

- tables are very useful for representing events and occurrences in real life;
- tables can be easily surveyed, corrected and extended;
- tables are very visible and easily understandable.

Therefore, the analyst can find any information about business processes, work processes, activities, tasks or any event almost at once. This fact gives the analyst the good feeling that everything is proceeding without any misunderstanding or confusion and also that any mistake or problem can be searched, found and corrected quickly.

In addition, tables are easily understandable by the users. Many times we find ourselves in situations where users start to understand the tables and help us develop them without any previous explanation. This is an interesting case, which proves the simplicity of using tables to discover, represent and understand the real world.

The concept of the methodology discussed is broken down as follows:

- first, collect information about the behavior of the real world into different tables;
- second, identify and implement changes by analyzing the contents of the tables; and
- third, use the information gathered in the changed tables to develop the information system of the organization.

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