

Foreword

The quality of the services any organization provides largely depend on the quality of their processes. Companies are increasingly grasping this concept and moving towards process-oriented enterprises. As this happens, the central problem (and opportunity) for any organization becomes the identification, measurement, analysis, and improvement of its processes. Without this, it is very difficult -if not impossible- to be competitive.

This book provides researchers and practitioners with invaluable knowledge in the area of process management in general and process analysis in particular. The book starts from an introduction on process modeling and process paradigms, which is very easy to understand for novices but that also includes interesting bits of information for people who are experts in the area. From there, it proceeds to teaching how you can query and analyze process models, and moves on to the analysis of process execution data. In this way, you get a very complete picture of what you need to do to identify, understand, and improve business processes.

The book is very well written and a pleasure to read. It presents concepts which are normally not easy to grasp in a manner that is simple and intuitive, also a way to classify and structure topics that makes it easy to make sense out of a rather large set of concepts, paradigms and techniques. All authors have many years of experience in BPM and, thanks to this and to a combined academia-industry background, they have been clearly able to identify which are the key, hard analytics problems in BPM that are relevant in practice and they guide the readers to show them how these problems can be solved concretely.

What I particularly enjoyed about reading this book, and I am sure you'll enjoy as well, is that it deals with very realistic environments, where analysis is complex: in any company you have very different systems and very different data, all related to the same processes. Indeed, most organizations have accumulated systems that support different sub-processes over the years. This means that if you really want to understand what's going on in your business and how to make it better, you need to get to the individual data sources, correlate the data, follow the breadcrumbs, and then work up to discover the process model, and its key performance indicators. Performing all of this, potentially in an explorative manner, needs process data querying, data correlation, data analysis as well as process model-level analysis and matching techniques described in this book. Through such a journey, you will have a clearer picture of how much each process takes in terms of time, resources, and cost, where are the "bottlenecks" in efficiency and effectiveness, and will therefore be facilitated in understanding where and how to improve. This is an aspect that

many authors forget or neglect, but with this book you will learn relatively simple but effective ways for how to approach such scenarios.

I hope you like the book as much as I did. Enjoy your reading!

Trento, 2015

Fabio Casati

Process Analytics

Concepts and Techniques for Querying and Analyzing
Process Data

Beheshti, S.-M.-R.; Benatallah, B.; Sakr, S.; Grigori, D.;
Motahari-Nezhad, H.R.; Barukh, M.C.; Gater, A.; Ryu, S.H.
2016, XVI, 178 p. 30 illus., 6 illus. in color., Hardcover
ISBN: 978-3-319-25036-6