Bpmn Method And Style 2nd Edition

Intelligent business process management is the next generation of enterprise BPM, leveraging recent technological advances to attain a degree of operational responsiveness not possible with yesterday's business process platform. Today, companies of all types want faster and better insight into their operations. This growing demand for operational intelligence has given rise to a new, "smarter" variety of business process management suites (BPMSs). An intelligent BPM suite provides the functionality needed to support more intelligent business operations, including real-time analytics, extensive complex event processing (CEP) and business activity monitoring (BAM) technologies and enhanced mobile, social and collaborative capabilities. Dubbed 'iBPMS" by Gartner Group, who describes the intelligent BPM Suite as having 10 core components: A process orchestration engineA model-driven composition environmentContent interaction managementHuman interaction managementConnectivityActive analytics (sometimes called continuous intelligence)On-demand analyticsBusiness rules management (BRM)Management and administration for the suite's technical aspectsA process component

registry/repository An intelligent BPM suite provides the functionality needed to support more intelligent business operations, including real-time analytics, extensive complex event processing (CEP) and business activity monitoring (BAM) technologies and enhanced mobile, social and collaborative capabilities. The co-authors of this important book describe various aspects and approaches with regard to impact and opportunity.

Natural language is one of the most important means of human communication. It enables us to express our will, to exchange thoughts and to document our knowledge in written sources. Owing to its substantial role in many facets of human life, technology for automatically analyzing and processing natural language has recently become increasingly important. In fact, natural language processing tools have paved the way for entirely new business opportunities. The goal of this book is to facilitate the automatic analysis of natural language in process models and to employ this analysis for assisting process model stakeholders. Therefore, a technique is defined that automatically recognizes and annotates process model element labels. In addition, this technique is leveraged to support organizations in effectively utilizing their process models in various ways. The book is organized into seven chapters. It starts with an overview of business process management and linguistics and

continues with conceptual contributions on parsing and annotating process model elements, with the detection and correction of process model guideline violations, with the generation of natural language from process models and finally ends with the derivation of service candidates from process models.

Business-oriented guide to the new Decision Model and Notation standard, completely revised and updated to DMN 1.2. Many practical examples, 171 tables and diagrams.

This book constitutes the refereed proceedings of the 20th International Conference on Business Information Systems, BIS 2017, held in Pozna?, Poland, in June 2017. Big Data Analytics helps to understand and enhance enterprises by linking many fields of information technology and business. This year's conference theme was: Big Data Analytics for Business and Public Administration. The 24 full papers presented in this volume were carefully reviewed and selected from 72 submissions. They were organized in topical sections named: big and smart data; business and enterprise modeling; ICT project management; process management; smart infrastructure; and applications.

In 2013, the International Conference on Advance Information Systems Engineering (CAiSE) turns 25. Initially launched in 1989, for all these years the conference has provided a broad forum for

researchers working in the area of Information Systems Engineering. To reflect on the work done so far and to examine prospects for future work, the CAiSE Steering Committee decided to present a selection of seminal papers published for the conference during these years and to ask their authors, all prominent researchers in the field, to comment on their work and how it has developed over the years. The scope of the papers selected covers a broad range of topics related to modeling and designing information systems, collecting and managing requirements, and with special attention to how information systems are engineered towards their final development and deployment as software components. With this approach, the book provides not only a historical analysis on how information systems engineering evolved over the years, but also a fascinating social network analysis of the research community. Additionally, many inspiring ideas for future research and new perspectives in this area are sparked by the intriguing comments of the renowned authors.

This book constitutes the refereed proceedings of the XVIIth International Conference of the Italian Association for Artificial Intelligence, AI*IA 2018, held in Trento, Italy, in November 2018. The 41 full papers were carefully reviewed and selected from 67 submissions. The papers have been organized in the following topical sections: Agents and Multi-Agent

Systems; Applications of AI; Knowledge Engineering, Ontologies and the Semantic Web; Knowledge Representation and Reasoning; Machine Learning; Natural Language Processing; Planning and Scheduling; and Recommendation Systems and Decision Making.

Guide to the new decision modeling standard DMN. Aimed at technically oriented modelers, over 50 recipes (179 figures) solve common problems using DMN FEEL and boxed expressions: manipulate strings, numbers, dates, and lists. Deploy and orchestrate decision services. All examples downloadable for editing and execution in Trisotech and Drools.

This book constitutes a collection of selected contributions from the 12th International Conference on Perspectives in Business Informatics Research, BIR 2013, held in Warsaw, Poland, in September 2013. Overall, 54 submissions were rigorously reviewed by 41 members of the Program Committee representing 21 countries. As a result, 19 full and 5 short papers from 12 countries have been selected for publication in this volume. This book also includes the two keynotes by Witold Abramowicz and Bernhard Thalheim. The papers cover many aspects of business information research and have been organized in topical sections on: business process management; enterprise and knowledge architectures; organizations and information systems

development; information systems and services; and applications.

Examines what's new and updated in BPMN 2.0 and look at interchange, best practice, analytics, conformance, optimization, choreography from a technical perspective. Also addresses the business imperative for widespred adoption of the standard by examining best practice guidelines, BPMN busines strategy and the human interface including real-life case studies. Other chapters tackle the practical aspects of making BPMN model executable and the basic time-line analysis of a BPMN model.

"This book offers information on the latest advancements and research for Enterprise Interoperability knowledge as well as core concepts, theories, and future directions"--

Business process management is usually treated from two different perspectives: business administration and computer science. While business administration professionals tend to consider information technology as a subordinate aspect in business process management for experts to handle, by contrast computer science professionals often consider business goals and organizational regulations as terms that do not deserve much thought but require the appropriate level of abstraction. Matthias Weske argues that all communities involved need to have a common understanding of the different aspects of business

process management. To this end, he details the complete business process lifecycle from the modeling phase to process enactment and improvement, taking into account all different stakeholders involved. After starting with a presentation of general foundations and abstraction models, he explains concepts like process orchestrations and choreographies, as well as process properties and data dependencies. Finally, he presents both traditional and advanced business process management architectures, covering, for example, workflow management systems, service-oriented architectures, and data-driven approaches. In addition, he shows how standards like WfMC, SOAP, WSDL, and BPEL fit into the picture. This textbook is ideally suited for classes on business process management, information systems architecture, and workflow management. This 2nd edition contains major updates on BPMN Version 2 process orchestration and process choreographies, and the chapter on BPM methodologies has been completely rewritten. The accompanying website www.bpm-book.com contains further information and additional teaching material.

This book constitutes the refereed proceedings of 12 international workshops held in Tallinn, Estonia, in conjunction with the 10th International Conference on Business Process Management, BPM 2012, in September 2012. The 12 workshops comprised

Adaptive Case Management and Other Non-Workflow Approaches to BPM (ACM 2012), Business Process Design (BPD 2012), Business Process Intelligence (BPI 2012), Business Process Management and Social Software (BPMS2 2012), Data- and Artifact-Centric BPM (DAB 2012), Event-Driven Business Process Management (edBPM 2012), Empirical Research in Business Process Management (ER-BPM 2012), Process Model Collections (PMC 2012), Process-Aware Logistics Systems (PALS 2012), Reuse in Business Process Management (rBPM 2012), Security in Business Processes (SBP 2012), and Theory and Applications of Process Visualization (TAProViz 2012). The 56 revised full papers presented were carefully reviewed and selected from 141 submissions. This book constitutes the refereed proceedings of the 11th International Workshop on Enterprise and Organizational Modeling and Simulation, EOMAS 2015, held at CAiSE 2015, in June 2015 in Stockholm, Sweden. EOMAS was founded with the purpose to become a forum among researchers and practitioners to share their research and practical findings by encouraging the dissemination of research results under a more generic umbrella called enterprise engineering, which encompasses internal factors ranging from organizational complexity to intricacy of business processes and sophistication in workflows as well as external

factors and uncertainties such as competition, politics, or the emergence of innovative technologies. The 15 papers presented in this volume were carefully reviewed and selected from 28 submissions. They were organized in topical sections named: enterprise conceptual modeling and simulation; enterprise modeling formal foundation; and enterprise optimization.

How can we optimize differentiating business processes and exploit their full potential? Here Volker Stiehl provides answers, utilizing the various options that the BPMN (Business Process Model and Notation) standard offers for planning, implementing and monitoring processes. The book presents an approach for implementing an architecture for applications that strives to find a balance between development and maintenance costs, sustainability, scalability and fault tolerance; that meets flexibility requirements without becoming inordinately complex itself; and that keeps the end application as abstract as possible from the system landscape in which it operates. Based on the semantic enhancements found in version 2.0 of the BPMN standard, which have made it possible to execute process models, his approach exploits BPMN to create and run complete application architectures. In this context, BPMN is not just used to model the business processes of the application, as the "B" in BPMN might suggest; but also to

model and execute the integration processes between the systems. Throughout the book, the software package SAP Process Orchestration is used to illustrate the implementation of the proposed architecture, yet all recommendations are intentionally kept generic so that they can be implemented on any other comparable platform as well. Software architects, IT managers, software developers and project managers, as well as students of information and business technology will find the book a valuable resource. The proposed application architecture offers them a detailed blueprint, the principles of which they can use to plan and implement process-driven distributed applications.

This book covers the whole spectrum of modeling goals to achieve optimal quality in the process model developed. It focuses on how to balance quality considerations across all semiotic levels when models are used for different purposes, and is based on SEQUAL, a framework for understanding the quality of models and modeling languages, which can take into account all main aspects relating to the quality of models. Chapter 1 focuses on the theoretical foundations, introducing readers to the topics of business processes and business process modeling, as well as the most important concept underlying the modeling of business processes. In turn, Chapter 2 addresses the quality of models in

general and business process models in particular. Chapter 3 contains a specialization of SEQUAL for quality of business process models. In Chapter 4, examples of the practical uses of business process models are provided, together with the results of detailed case studies on how to achieve and maintain quality in business process models. Chapter 5 presents a process modeling value framework that demonstrates how to achieve more long-term and higher return on investment with regard to (business) process and enterprise models. Lastly, Chapter 6 reviews the main points of the book and discusses the potential for business process modeling in the future through its combination with other types of modeling. The book has two intended audiences. It is primarily intended for computer science, software engineering and information system students at the postgraduate level who want to know more about business process modeling and the quality of models in preparation for professional practice. The second audience consists of professionals with extensive experience in and responsibilities related to the development and evolution of process-oriented information systems and information systems methodologies in general, who need to formalize and structure their practical experience or update their knowledge as a way to improve their professional activity. The book also includes a number of real-

world case studies that make it easier to grasp the main theoretical concepts, helping readers apply the approaches described.

Nicola Guarino is widely recognized as one of the founders of applied ontology. His deep interest in the subtlest details of theoretical analysis and his vision of ontology as the Rosetta Stone for semantic interoperability guided the development and understanding of this domain. His motivations in research stem from the conviction that all science must be for the benefit of society at large, and his motto has always been that ontologies are not just for making information systems interoperable, but – more importantly – for ensuring that systems' users understand each other. He was among the first to recognize that applied ontology must be an interdisciplinary enterprise if it is to capture the intended meaning of the terms used by an information system. This book is a collection of essays written in homage to Nicola Guarino; a tribute to his many scientific contributions to the discipline of applied ontology. The papers presented here reflect the wide variety of research topics that marked Nicola's impact on the applied ontology community. They are grouped according to the five general areas addressed by Nicola in his career: what is an ontology; knowledge engineering; ontologies and language; ontological categories and relationships; and ontologies and applications. Nicola Guarino's

work and dedication will undoubtedly continue to influence the applied ontology community, and this book will be of interest to the many researchers aiming to establish ontologically sound bases for their research areas.

Buku teks ini mencakup seluruh siklus hidup implementasi Business Process Management (BPM) mulai dari identifikasi, pemodelan, analisis, rancang ulang, otomasi sampai dengan pemantauan proses bisnis. Berbagai konsep, metode dan alat dari manajemen bisnis, ilmu komputer dan teknik industri digabungkan menjadi sebuah pendekatan yang komprehensif dan lintas disiplin. Seluruh ilustrasi ditampilkan dengan standar industri BPMN yang ditetapkan oleh Object Management Group dan banyak didukung oleh praktisi dan pengembang teknologi di seluruh dunia. Selain menjelaskan latar belakang konseptual yang relevan, buku ini memberikan puluhan contoh, lebih dari 230 latihan soal banyak dengan solusinya - dan berbagai saran untuk bacaan lebih lanjut. Edisi kedua dari buku ini meliputi bab-bab dengan pembahasan yang lebih mendalam tentang identifikasi proses, penemuan proses, analisis proses secara kualitatif, redesain proses, otomasi proses, dan pemantauan proses. Sebuah bab baru terkait dengan BPM sebagai kapabilitas enterprise juga ditambahkan, yang memperluas cakupan buku untuk meliputi topik seperti penyelarasan strategis dan tata kelola dari

inisiatif BPM. Buku teks ini adalah hasil dari pengalaman mengajar selama bertahun-tahun dari pengarangnya, baik di tingkat sarjana maupun pasca sarjana, sekaligus dalam konteks pelatihan profesional. Mahasiswa dan profesional dari manajemenbisnis maupun ilmu komputer dapat memperoleh manfaat dari gaya tahap demi tahap buku ini dan fokusnya pada konsep fundamental dan metode yang telah terbukti. Para pengajar akan dimudahkan dari format yang sudah disesuaikan dengan pembelajaran dan material tambahan yang tersedia pada situs web pendamping dari buku ini. Dengan edisi terjemahan bahasa Indonesia ini kami berharap buku ini dapat menjangkau lebih banyak lagi para pengajar seluruh Indonesia yang ingin mendalami BPM.

Business Process Management (BPM) has become one of the most widely used approaches for the design of modern organizational and information systems. The conscious treatment of business processes as significant corporate assets has facilitated substantial improvements in organizational performance but is also used to ensure the conformance of corporate activities. This Handbook presents in two volumes the contemporary body of knowledge as articulated by the world' s leading BPM thought leaders. This first volume focuses on arriving at a sound definition of BPM approaches and examines BPM methods and process-aware

information systems. As such, it provides guidance for the integration of BPM into corporate methodologies and information systems. Each chapter has been contributed by leading international experts. Selected case studies complement their views and lead to a summary of BPM expertise that is unique in its coverage of the most critical success factors of BPM. The second edition of this handbook has been significantly revised and extended. Each chapter has been updated to reflect the most current developments. This includes in particular new technologies such as in-memory data and process management, social media and networks. A further focus of this revised and extended edition is on the actual deployment of the proposed theoretical concepts. This volume includes a number of entire new chapters from some of the world's leading experts in the domain of BPM. This collection of research papers, presented at meetings organised by the Wessex Institute of Technology (WIT), concerns a variety of issues relating to the area of sustainable development. WIT has a long and very successful record of organising conferences on the topic of sustainability, which requires an interdisciplinary approach. Any sustainable solutions that are derived solely from the perspective of a single discipline may have unintended damaging consequences that create new problems. Thus effective sustainable solutions

require the collaboration of scientists and engineers from various disciplines, as well as planners, architects, environmentalists, policy makers, social scientists, and economists. The contents of this book reflect that interdisciplinary approach, and include topics under the main areas of: Sustainable development and planning; Disaster management; Air pollution; Urban transport; Ecosystems and Water resources management.

BPMN Method and StyleWith BPMN Implementer's Guide

In 2007 INTEROP-VLab defined Enterprise Interoperability as "the ability of an enterprise system or application to interact with others at a low cost with a flexible approach". Enterprise Interoperability VI brings together a peer reviewed selection of over 40 papers, ranging from academic research through case studies to industrial and administrative experience of interoperability. It shows how, in a scenario of globalised markets, the capacity to cooperate with other firms efficiently becomes essential in order to remain in the market in an economically, socially and environmentally cost-effective manner, and that the most innovative enterprises are beginning to redesign their business model to become interoperable. This goal of interoperability is vital, not only from the perspective of the individual enterprise but also in the new business structures that are now emerging, such as

supply chains, virtual enterprises, interconnected organisations or extended enterprises, as well as in mergers and acquisitions. Establishing efficient and relevant collaborative situations requires managing interoperability from a dynamic perspective: a relevant and efficient collaboration of organizations might require adaptation to remain in line with potentially changing objectives, evolving resources, and unexpected events, for example. Many of the papers contained in this, the seventh volume of Proceedings of the I-ESA Conferences have examples and illustrations calculated to deepen understanding and generate new ideas. The I-ESA'14 Conference is jointly organised by Ecole des Mines Albi-Carmaux, on behalf of PGSO, and the European Virtual Laboratory for Enterprise Interoperability (INTEROP-VLab) and supported by the International Federation for Information Processing (IFIP). A concise reference to the state of the art in systems interoperability, Enterprise Interoperability VI will be of great value to engineers and computer scientists working in manufacturing and other process industries and to software engineers and electronic and manufacturing engineers working in the academic environment. The increasing penetration of IT in organizations calls for an integrative perspective on enterprises and their supporting information systems. MERODE offers an intuitive and practical approach to

enterprise modelling and using these models as core for building enterprise information systems. From a business analyst perspective, benefits of the approach are its simplicity and the possibility to evaluate the consequences of modeling choices through fast prototyping, without requiring any technical experience. The focus on domain modelling ensures the development of a common language for talking about essential business concepts and of a shared understanding of business rules. On the construction side, experienced benefits of the approach are a clear separation between specification and implementation, more generic and future-proof systems, and an improved insight in the cost of changes. A first distinguishing feature is the method's grounding in process algebra provides clear criteria and practical support for model quality. Second, the use of the concept of business events provides a deep integration between structural and behavioral aspects. The clear and intuitive semantics easily extend to application integration (COTS software and Web Services). Students and practitioners are the book's main target audience, as both groups will benefit from its practical advice on how to create complete models which combine structural and behavioral views of a system-to-be and which can readily be transformed into code, and on how to evaluate the quality of those models. In addition, researchers in the area of conceptual or

enterprise modelling will find a concise overview of the main findings related to the MERODE project. The work is complemented by a wealth of extra material on the author's web page at KU Leuven, including a free CASE tool with code generator, a collection of cases with solutions, and a set of domain modelling patterns that have been developed on the basis of the method's use in industry and government.

This book contains an interesting and state-of the art collection of papers on the recent progress in Human-Computer System Interaction (H-CSI). It contributes the profound description of the actual status of the H-CSI field and also provides a solid base for further development and research in the discussed area. The contents of the book are divided into the following parts: I. General human-system interaction problems; II. Health monitoring and disabled people helping systems and III. Various information processing systems. This book is intended for a wide audience of readers who are not necessarily experts in computer science, machine learning or knowledge engineering, but are interested in Human-Computer Systems Interaction. The level of particular papers and specific spreading-out into particular parts is a reason why this volume makes fascinating reading. This gives the reader a much deeper insight than he/she might glean from research papers or talks at conferences. It touches on all deep issues that

currently preoccupy the entire field of H-CSI.
This book constitutes the proceedings of the 10th
Enterprise Engineering Working Conference, EEWC
2020, which was planned to take place in Bozen-
Bolzano, Italy, and had to change to an online event
due to the COVID 19 pandemic. The online event
took place on September 28, 2020, October 19,
2020, and November 9–10, 2020. EEWC aims at
addressing the challenges that modern and complex
enterprises are facing in a rapidly changing world.
The participants of the working conference share a
belief that dealing with these challenges requires
rigorous and scientific solutions, focusing on the
design and engineering of enterprises. The goal of
EEWC is to stimulate interaction between the
different stakeholders, scientists as well as
practitioners, interested in making Enterprise
Engineering a reality. The 8 full papers and 2 short
papers presented in this volume were carefully
reviewed and selected from 23 submissions. The
volume also contains 3 keynote papers in full paper
length. The papers were organized in topical
sections as follows: formal approaches and
modeling; the DEMO modeling language; and
enterprise engineering practice.
This Festschrift has been put together on the occasion of
Franz Baader's 60th birthday to celebrate his fundamental
and highly influential scientific contributions. The 30 papers in
this volume cover several scientific areas that Franz Baader

has been working on during the last three decades, including description logics, term rewriting, and the combination of decision procedures. We hope that readers will enjoy the articles gathered in Franz's honour and appreciate the breadth and depth of his favourite areas of computer science. BPMN 2.0 is the industry standard diagramming language for business process models. The meaning of the business process diagram is the same, regardless of the tool used to create it. But creating models that are correct, complete, and clear demands more than a dictionary of BPMN shapes and symbols. It also requires a methodology for translating process logic consistently into the diagram. And it requires a measure of modeling style as well, conventions that ensure that the process logic is unambiguous from the diagram by itself. In short, "good BPMN" requires a disciplined approach called "method and style." In this book, Bruce Silver explains which BPMN elements process modelers need to understand, in two levels, including exactly where and how to use each element. Level 1 (the Descriptive modeling subclass of BPMN 2.0) is a palette of shapes and symbols largely carried over from traditional flowcharting. Level 2 (the Analytic subclass) expands the palette to be able to describe event-triggered behavior, critical to modeling exception handling. The book explains the real meaning of BPMN's most basic concepts - like activity, process, and end state - essential to using the language correctly, and provides a step-by-step methodology for going from a blank page to a complete end-to-end BPMN model, developed from the top down in a hierarchical structure. From the top-level diagram you can see on a single page exactly how the process starts, its possible end states, what the instance represents, and communications with the Customer, service providers, and other processes. From there you can drill down to see the details of any part of the process.

This book proposes a consistent methodology for building intelligent systems. It puts forward several formal models for designing and implementing rules-based systems, and presents illustrative case studies of their applications. These include software engineering, business process systems, Semantic Web, and context-aware systems on mobile devices. Rules offer an intuitive yet powerful method for representing human knowledge, and intelligent systems based on rules have many important applications. However, their practical development requires proper techniques and models - a gap that this book effectively addresses.

The 8th Multidisciplinary Academic Conference in Prague 2016

This book constitutes the thoroughly refereed proceedings of the Second International Symposium on Data-Driven Process Discovery and Analysis held in Campione d'Italia, Italy, in June 2012. The six revised full papers were carefully selected from 17 submissions. To improve the quality of the contributions the symposium fostered the discussion during the presentation, giving authors the opportunity to improve their work extending the presented results. The selected papers cover topics spanning from theoretical issues related to process representation, discovery and analysis to practical and operational experiences in process discovery and analysis.

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This book collects essential research on the practical application of executable business process modeling in real-world projects, i.e., model-driven solutions for the support and automation of digital business processes that are created using languages such as BPEL or BPMN. It mainly focuses on empirical research, but also includes an up-to-date cross-section of case studies in order to assess examples of

BPM's practical impact in the industry. On the one hand, executable models are formally and precisely defined so that computers can interpret and execute them; on the other, they are visualized so that humans can describe, document and optimize business processes at a higher level of abstraction than with traditional textual programming languages. While these important research areas have long been separated from one another, this book is an attempt at cross-fertilization, driven by the insight that business processes are the software behind today's digital organizations, and that achieving a precise representation of such processes is key to their reliable execution. Consequently, the book presents various case studies and experiments that investigate questions of interest to both academia (e.g., identifying challenges for which no solution exists; sharing new insights into how existing approaches are actually used) and industry (e.g., guidelines on using certain technologies and on modeling comprehensible and executable processes). Both researchers and practitioners will benefit from the presentation of how concepts are transformed into working solutions. The studies are presented in a structured manner and with sufficient rigor to be considered empirical research, further enhancing the book's value for the research community, while practitioners will find concrete guidance on making the right decisions for their projects.

To large organizations, business intelligence (BI) promises the capability of collecting and analyzing internal and external data to generate knowledge and value, thus providing decision support at the strategic, tactical, and operational levels. BI is now impacted by the "Big Data" phenomena and the evolution of society and users. In particular, BI applications must cope with additional heterogeneous (often Web-based) sources, e.g., from social networks, blogs, competitors', suppliers', or distributors' data, governmental

or NGO-based analysis and papers, or from research publications. In addition, they must be able to provide their results also on mobile devices, taking into account location-based or time-based environmental data. The lectures held at the Third European Business Intelligence Summer School (eBISS), which are presented here in an extended and refined format, cover not only established BI and BPM technologies, but extend into innovative aspects that are important in this new environment and for novel applications, e.g., pattern and process mining, business semantics, Linked Open Data, and large-scale data management and analysis. Combining papers by leading researchers in the field, this volume equips the reader with the state-of-the-art background necessary for creating the future of BI. It also provides the reader with an excellent basis and many pointers for further research in this growing field.

Business Process Management (BPM) has been evolving for over 25 years in information systems research, management science, and organizational practice (Vom Brocke & Mendling, 2018). The earliest characteristics of BPM concentrated around process analysis, improvement and control, in a less strict manner that required reengineering (Elzinga, Horak, Lee, & Bruner, 1995). More mature approaches, observed since the year 2000, have been promoting the so-called process thinking, i.e. managing an organization from a process-based point of view. These approaches emphasize that process and team work oriented organizational structures should be aligned with other management systems. Process management should be holistic by

its nature so as to cover an entire organization. Although BPM researchers stressed the need for system thinking at that time, published literature distinguished two perspectives of looking at BPM: the organizational perspective and the technological perspective of BPM. From the organizational perspective, authors focused on a number of key factors, i.e., process governance, a process-based organizational structure concept, customer orientation of internal and external processes, managing an organization based on process outputs, building process relations, and improving process maturity throughout the customer value chain, as well as through strategically aligning process initiatives to organizational objectives. From the technological perspective, the key factors of interest to authors, referred to as BPMS (Business Process Management System), include IT methods, techniques and tools that support the designing, implementation, modeling and simulation of business processes and are considered to be an extension of classical workflow systems or an environment for designing management support IT systems, e.g. ERP class systems. An integrated and interdisciplinary approach was proposed in the framework of six core BPM elements required for the holistic and sustainable use of process management (Rosemann & Vom Brocke, 2010). These include strategic alignment, governance, methods,

information technology, people and culture. In this sense, technology is only one of six closely interrelated elements. Currently, there are two distinct directions in the evolution of BPM: traditional BPM and digital BPM. The former encompasses methods, techniques and systems that traditionally lead to increased organizational efficiency and to improved process effectiveness and flexibility. Although studies on BPM have been continuously evolving, some research gaps still remain open. The traditional understanding of process management seems particularly vital to organizations in developing economies, which sometimes follow practices and models that were designed and tested in highly developed countries, but should also be committed to drawing on their own experience and understanding of their local business environment (Gabryelczyk & Roztocki, 2018). Research on BPM in this traditional focus is still needed to better document, implement and improve idiosyncratic business processes in the context of an organization, environment, culture, and country. This is also confirmed by research conducted under the JEMI Special Issue on Business Process Management. Besides the traditionally shaped approach to BPM, organizations increasingly treat BPM as a driver of organizational innovation and as an essential part of the digital transformation (Vom Brocke & Schmiedel, 2015). New digital technologies

such as social media, digital platforms, big data and advanced data analytics, blockchains, robotics, etc., enable development and growth in a constantly changing environment. To take advantage of these opportunities in the digital world, organizations require new BPM competences and capabilities. However, digital disruption creates quite a challenge for the BPM research community. How can BPM capabilities be developed in order to achieve adaptability, growth, flexibility, and agility? How can BPM foster innovations within and throughout organizations? These are just some of the issues for future BPM-related research. Threads associated with employing BPM for digital transformation have been included in a proposed Special Issue on BPM. This Special Issue on BPM consists of six articles including contributions from invited authors from three transition economies: Croatia, Slovakia, and Poland. All of the papers focus on applications of the process approach to management or directly to the adoption of Business Process Management. The majority of articles relate to the traditional BPM thread, although the indicated BPM alliances with other concepts such as Knowledge Management, Change Management, and Project Management are worthy of note. Only one article addresses the topic of BPM in the context of digital transformation. The nature and structure of these articles may be indicative of the current motivational factors and

process maturity levels of organizations adopting ordinary and/or advanced BPM practices. When analyzing the content of individual articles, we pay attention to the factors underlying BPM adoption. We understand the primary motivation to be the expected benefits from BPM. Therefore, we can assume this Special Issue to be a contribution to BPM development in the form of the indicating motivation and triggers for BPM adoption. The first paper, by Jerzy Auksztol and Magdalena Chomuszko, proposes a process-based approach to construct a Data Control Framework for Standard Audit File for Tax (SAF-T). The process approach is used to redesign the internal financial control processes and procedures of an organization to meet the new requirements of a fiscal audit. The process approach, combined with risk management and quality management, is, therefore, a tool supporting entrepreneurs adapting to new regulations imposed on them by their external environment, particularly those of tax authorities. Therefore, in this case, the main motivation for adopting elements of BPM was the impact of external environment factors. The paper by Ana-Marija Stjepi?, Lucija Ivan?i?, and Dalia Suša Vugec focuses on the link between Business Process Management and digital transformation. The authors have developed a theoretical framework for the emerging role of BPM in digitalization and as a guide

for researchers and practitioners conducting digital transformation initiatives in organizations. The results obtained in the article prove that the set goals and expected benefits of digital transformation can be achieved by a rethink and improvement of the processes, with a particular focus on end-to-end customer processes through supply chain management. Based on this article, we can conclude that one of the main motivational factors for BPM adoption is a desire to obtain the benefits of digital transformation. The article written by Miroslava Nyulásziová and Dana Pa?ová takes up the issues of using and linking the process approach and BPM lifecycle with the designing of decision support systems. The authors of this paper have developed an innovative system for decision support by implementing modeling, analysis, and improvement methods to the transportation process in the studied organization. The forwarding company's case study presented in the paper also shows how BPM adoption began with a single main process that has been streamlined and automated. Therefore, the motivations for BPM adoption were not only operational, relating to the optimization of the cost of the process, but also managerial, oriented on improving the decision-making process. The use of information technology allowed the full exploitation of the potential for process improvements. The next paper by Olga Sobolewska is about incorporating the

issues of BPM into the contemporary challenges of network organizations. The author claims that the organization's orientation towards both business processes and knowledge management is a strong success factor for network cooperation. The author argues that modern organizations should focus on managing knowledge-oriented processes to become attractive to cooperation partners for network organizations. In this article, BPM adoption is of a strategic nature for the purposes of undertaking new forms of cooperation. The paper by Hubert Bogumi? has an interdisciplinary character and, in a unique way, shows the connections between the concepts of process management, organizational change management, and IT project management. The author undertook the challenge of examining how problems for organizations managing IT projects facilitate in different ways the use of distinctive approaches to improve business processes. The author emphasizes that the main difficulty is the fact that modern organizations most often use a hybrid approach, with elements of both traditional project management and agile. The need to create a work environment that takes into account the risk of unexpected system and business regression, as well as a diagnosis of the causes and methods of its mitigation, is the initial research result in this paper. This article contributes to the development of BPM governance and integration of IT governance. The

motivational factors for BPM are multi-faceted, as is the scope of the article. However, their managerial and cultural character (related to methods of communication and rules of cooperation in teams) should be emphasized. The article by Agnieszka Bitkowska concerns the integration of the concept of Knowledge Management and BPM. The author restates in her article that the identification, acquisition, presentation and documentation of knowledge are not independent tasks, but are implemented within business processes. In this paper, the correlations between BPM and Knowledge Management have been examined and the benefits and practical implications resulting from the integrated implementation of both concepts are emphasized. In the case of this article, BPM adoption can be a success factor for the implementation of Knowledge Management and the achievement of associated benefits. Studying Business Process Management from the different angles presented in this Special Issue should enrich our understanding of current BPM practices and better realize future challenges, especially those related to BPM development in the context of digital transformation and the integration of BPM with other management-related concepts. In addition, the contribution made by the authors of this Special Issue allowed us to see various motivations and triggers for BPM adoption, from operational, to

managerial, strategic, cultural and technological ones, and those driven by the external environment. We would like to thank the authors for their contribution to this Special Issue. We would also like to thank all the reviewers for their valuable comments, which helped the authors improve their articles significantly. We are firmly convinced that the BPM research results presented in this Special Issue will help strengthen the existing body of BPM knowledge. We recommend reading the related issue of the JEMI journal to the wider community of BPM researchers, practitioners, and enthusiasts. Guest Editors Renata Gabryelczyk , Tomislav Hernaus Acknowledgments The editorial work on this Special Issue was supported by the Polish National Science Centre, Poland, Grant No. 2017/27/B/HS4/01734. References Elzinga, D. J., Horak, T., Lee, C.-Y., & Bruner, C. (1995). Business process management: Survey and methodology. IEEE Transactions on Engineering Management, 42(2), 119-128. http://dx.doi.org/10.1109/17.387274 Gabryelczyk, R., & Roztocki, N. (2018). Business process management success framework for transition economies. Information Systems Management, 35(3), 234-253. http://dx.doi.org/10.10 80/10580530.2018.1477299http://dx.doi.org/10.1080 /10580530.2018.1477299 Rosemann, M., & Vom Brocke, J. (2010). The six core elements of business process management. In Handbook on Business

Process Management 1. Cham: Springer. Vom Brocke, J., & Mendling, J. (Eds.). (2018). Business Process Management Cases. Digital Innovation and Business Transformation in Practice. Berlin: Springer. Vom Brocke, J., & Schmiedel, T. (Eds.). (2015). BPM-Driving Innovation in a Digital World. Cham: Springer.

BPMN (Business Process Model and Notation) is the established standard for business process modeling. Only a few years after its first publication, it has gained widespread adoption in practice. All important modeling tools support BPMN diagramming. It is possible to create business-oriented diagrams, but also technical models for process execution in business process management systems (BPMS). This book provides a stepwise introduction to BPMN, using many examples close to practice. Starting with the basic elements for modeling sequence flow, all BPMN 2.0 diagrams are presented and discussed in detail. You will gain a profound understanding of the complete notation, and you will be able to make correct use of the different language elements. In the second edition, a collection of useful modeling patterns has been added. These patterns provide best-practice solutions for typical problems arising in the practice of process modeling.

These volumes constitute the Proceedings of the 6th International Workshop on Soft Computing Applications, or SOFA 2014, held on 24-26 July

2014 in Timisoara, Romania. This edition was organized by the University of Belgrade, Serbia in conjunction with Romanian Society of Control Engineering and Technical Informatics (SRAIT) - Arad Section, The General Association of Engineers in Romania - Arad Section, Institute of Computer Science, Iasi Branch of the Romanian Academy and IEEE Romanian Section. The Soft Computing concept was introduced by Lotfi Zadeh in 1991 and serves to highlight the emergence of computing methodologies in which the accent is on exploiting the tolerance for imprecision and uncertainty to achieve tractability, robustness and low solution cost. Soft computing facilitates the use of fuzzy logic, neurocomputing, evolutionary computing and probabilistic computing in combination, leading to the concept of hybrid intelligent systems. The combination of such intelligent systems tools and a large number of applications introduce a need for a synergy of scientific and technological disciplines in order to show the great potential of Soft Computing in all domains. The conference papers included in these proceedings, published post conference, were grouped into the following area of research: · Image, Text and Signal Processing Intelligent Transportation Modeling and Applications Biomedical Applications Neural Network and Applications Knowledge-Based Technologies for Web Applications, Cloud Computing, Security, Algorithms and Computer

Networks Knowledge-Based Technologies Soft Computing Techniques for Time Series Analysis Soft Computing and Fuzzy Logic in Biometrics Fuzzy Applications Theory and Fuzzy Control Business Process Management Methods and Applications in Electrical Engineering The volumes provide useful information to professors, researchers and graduated students in area of soft computing techniques and applications, as they report new research work on challenging issues.

In 2007 the IS wo- shop (Information Security) was added to try covering also the speci?c issues of security in complex Internet-based information systems.

The Concurrent Engineering (CE) approach was developed in the 1980s, based on the concept that different phases of a product life cycle should be conducted concurrently and initiated as early as possible within the Product Creation Process (PCP). CE concepts have matured and become the foundation of many new ideas, methodologies, initiatives, approaches and tools. This book contains the proceedings from the 23rd ISPE Inc. International Conference on Transdisciplinary (formerly: Concurrent) Engineering, held in Curitiba, Parana, Brazil, in October 2016. The conference, entitled 'Transdisciplinary Engineering: Crossing Boundaries', provides an important forum for international scientific exchange on Concurrent

Engineering and collaborative enterprises, and attracts the participation of researchers, industry experts and students, as well as government representatives. The 108 peer reviewed papers and keynote speech included here, range from theoretical and conceptual to strongly pragmatic works, which are organized into 17 sections including: Concurrent Engineering and knowledge exchange; engineering for sustainability; multidisciplinary project management; collaborative design and engineering; optimization of engineering operations and data analytics; and multidisciplinary design optimization, among others. The book gives an overview of the latest research, advancements and applications in the field and will be of interest to researchers, design practitioners and educators. This textbook covers the entire Business Process Management (BPM) lifecycle, from process identification to process monitoring, covering along the way process modelling, analysis, redesign and automation. Concepts, methods and tools from business management, computer science and industrial engineering are blended into one comprehensive and inter-disciplinary approach. The presentation is illustrated using the BPMN industry standard defined by the Object Management Group and widely endorsed by practitioners and vendors worldwide. In addition to explaining the relevant conceptual background, the book provides dozens of

examples, more than 230 exercises – many with solutions – and numerous suggestions for further reading. This second edition includes extended and completely revised chapters on process identification, process discovery, qualitative process analysis, process redesign, process automation and process monitoring. A new chapter on BPM as an enterprise capability has been added, which expands the scope of the book to encompass topics such as the strategic alignment and governance of BPM initiatives. The textbook is the result of many years of combined teaching experience of the authors, both at the undergraduate and graduate levels as well as in the context of professional training. Students and professionals from both business management and computer science will benefit from the step-by-step style of the textbook and its focus on fundamental concepts and proven methods. Lecturers will appreciate the class-tested format and the additional teaching material available on the accompanying website.

This book constitutes the thoroughly refereed proceedings of the industrial track of the 4th International Conference on Subject-Oriented Business Process Management, S-BPM ONE 2012, held in Vienna, Austria, in April 2012. S-BPM as a discipline is characterized by a seamless approach toward the analysis, modeling, implementation, execution, and maintenance of business processes,

with an explicit stakeholder focus. The 19 papers included were selected from the practically oriented submissions, and they have gone through the same rigorous peer-review process as their scientific counterparts.

This book constitutes the proceedings of two events held in conjunction with the CAiSE conferences and related to the areas of enterprise, business-process and information systems modeling: the 18th International Conference on Business Process Modeling, Development and Support, BPMDS 2017, and the 22nd International Conference on Evaluation and Modeling Methods for Systems Analysis and Development, EMMSAD, 2017. They took place in Essen, Germany, in June 2017. The focus theme for BPMDS 2017 papers was "Enabling Business Transformation by Business Process Modeling, Development and Support". From 24 submitted papers, 11 were finally accepted and organized by: Non-functional considerations in business processes; new challenges in business process modeling and support; testing business processes; business process model comprehension; an experience report on teaching business process modeling. The EMMSAD conference focuses on evaluating, exploring and enhancing modeling methods and techniques for the development of information and software systems, enterprises, and business processes. It received 25 submissions,

from which 9 full and 2 short papers were selected and organized: evaluation and comparison of modeling languages and methods; modeling approaches to support decision making; behavioral specification and business process modeling; and modeling languages and methods in evolving context.

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