Contents

| 1 | Introduction | | | |
|---|--|---|-----|--|
| | 1.1 | Relevance of Business Process Technology | 2 | |
| | 1.2 | Need for Flexible Business Process Technology | | |
| | 1.3 | Outline of the Book | | |
| 2 | Business Process Excellence | | | |
| | 2.1 | Business Process Reengineering | 12 | |
| | 2.2 | Business Process Optimization | | |
| | 2.3 | Business Process Benchmarking | | |
| | 2.4 | Business Process Management | 26 | |
| | 2.5 | Business Continuity Management | 30 | |
| | 2.6 | Information Technology as Mission-Critical Asset | 34 | |
| | 2.7 | Quality Management Systems | 42 | |
| 3 | Research Opportunities in Business Process Technology 45 | | | |
| | 3.1 | Business Process Platforms | 46 | |
| | 3.2 | Executable Specification of Business Processes | 48 | |
| | 3.3 | Component-Based Development | | |
| | 3.4 | Exploiting Emerging Tools for BCM | | |
| | 3.5 | Integration of Business and Production Processes | 57 | |
| | 3.6 | Integration of Business Processes and Business Intelligence | 66 | |
| 4 | Semantics of Business Process Models | | | |
| | 4.1 | Global and Local Views on Business Processes | 77 | |
| | 4.2 | Transformation of Goods and Information | 90 | |
| | 4.3 | Exploiting a Business Process Definition | 98 | |
| | 4.4 | Events in Business Process Modeling | | |
| | 4.5 | Semantics of Events | | |
| | 16 | Synchronization in Rusiness Process Models | 119 | |



| Dec | omposing Business Processes119 | | | |
|---|---|--|--|--|
| 5.1 | Motivation for Decomposing System Descriptions | | | |
| 5.2 | Unique versus Multiple Entry and Exit Points | | | |
| 5.3 | Parallel Abstraction of Activities and Transferred Data147 | | | |
| 5.4 | Towards Parallel Abstraction of Activities and Constraints 152 | | | |
| 5.5 | Seamless Business Process and Enterprise Application Modeling154 | | | |
| 5.6 | Modeling Variants | | | |
| Structured Business Process Specification161 | | | | |
| 6.1 | Basic Definitions | | | |
| 6.2 | The Pragmatics of Structuring Business Processes 167 | | | |
| 6.3 | Structured Programming | | | |
| 6.4 | Frontiers of Structured Business Process Modeling 191 | | | |
| Workflow Technology and Human-Computer Interaction195 | | | | |
| 7.1 | Two HCI Styles of Workflow Systems | | | |
| 7.2 | Actor Assignment in Workflow Automation | | | |
| 7.3 | Form-Oriented Analysis | | | |
| Service-Oriented Architecture | | | | |
| 8.1 | The Evolution of Service-Oriented Architecture | | | |
| 8.2 | Three-Tier Service-Oriented Architecture | | | |
| 8.3 | Characteristics of Service-Oriented Architectures | | | |
| 8.4 | Web Services based Service-Oriented Architecture | | | |
| 8.5 | Service-Orientation as Development Paradigm234 | | | |
| Conclusion | | | | |
| 9.1 | Business Processes and Workflows | | | |
| 9.2 | Integrating Workflow Definition and Dialogue Programming 248 | | | |
| 9.3 | Towards Integrating Human Activity and Workflow Definition 267 | | | |
| 9.4 | On Closing the Gaps in Business Process Technology271 | | | |
| feren | ces | | | |
| Index | | | | |
| | 5.1 5.2 5.3 5.4 5.5 5.6 Struck 6.1 6.2 6.3 6.4 Work 7.1 7.2 7.3 Serva 8.1 8.2 8.3 8.4 8.5 Correspondence of the serva 9.1 9.2 9.3 9.4 Serva 9.4 | | | |