
TABLE OF CONTENTS

Preface to the Second Edition	v
CHANGES SINCE THE FIRST EDITION	v
STRUCTURE OF THE BOOK.....	viii
BPMN TRAINING	x
BPMN TOOLS	x
ACKNOWLEDGMENTS	xii
Part I: What is BPMN?	1
1. BAD BPMN, GOOD BPMN	3
THE PARADOX OF BPMN.....	3
METHOD AND STYLE	4
THE LONG ROAD TO BPMN 2.0	5
BUSINESS PROCESS MODELING IS MORE THAN BPMN!	7
2. HOW DOES A MODEL MEAN?	9
BPMN'S HIDDEN CONCEPTUAL FRAMEWORK.....	10
PROCESS LOGIC	12
ORCHESTRATION	13
BPMN LEVELS AND PROCESS MODELING CONFORMANCE SUBCLASSES	15
Part II: Method and Style – Level 1.....	17
3. BPMN BY EXAMPLE.....	19
A SIMPLE ORDER PROCESS	19
EXCEPTIONS AND END STATES	19
SWIMLANES AND ACTIVITY TYPES.....	20
SUBPROCESSES.....	21
PROCESS LEVELS AND THE HIERARCHICAL STYLE	22
PARALLEL SPLIT AND JOIN.....	25

COLLABORATION AND BLACK-BOX POOLS.....	25
START EVENTS AND THE PROCESS INSTANCE.....	28
THE TOP-LEVEL DIAGRAM	30
4. THE LEVEL 1 PALETTE	33
ACTIVITY	33
TASK	34
SUBPROCESS.....	35
CALL ACTIVITY.....	38
GATEWAY	39
START EVENT	42
END EVENT.....	44
SEQUENCE FLOW	45
MESSAGE FLOW	46
POOL	46
LANE	48
DATA OBJECT AND DATA STORE	49
DOCUMENTATION, TEXT ANNOTATION, AND GROUP.....	50
5. THE METHOD.....	53
GOALS OF THE METHOD.....	53
HIERARCHICAL TOP-DOWN MODELING.....	54
END STATE	55
STEP 1. DETERMINE PROCESS SCOPE.....	56
STEP 2: THE HIGH-LEVEL MAP	59
STEP 3: TOP-LEVEL PROCESS DIAGRAM.....	60
STEP 4: CHILD-LEVEL EXPANSION	62
STEP 5: ADD MESSAGE FLOWS.....	63
METHOD RECAP	67
6. BPMN STYLE	69
THE BASIC PRINCIPLE OF BPMN STYLE	69
STYLE RULES	71
OFFICIAL BPMN 2.0 RULES	82
Part III: Method and Style – Level 2.....	85
7. EVENTS	87
EVENT-TRIGGERED BEHAVIOR	89
TIMER EVENT.....	91
MESSAGE EVENT	95
ERROR EVENT	104
OTHER LEVEL 2 EVENTS	107
EVENT SUBPROCESS	111
8. ITERATION AND INSTANCE ALIGNMENT.....	113
LOOP ACTIVITY	113
MULTI-INSTANCE ACTIVITY.....	114
USING REPEATING ACTIVITIES	115
USING MULTIPLE POOLS	117

BATCH PROCESSES	119
INSTANCE ALIGNMENT	120
9. PROCESS SPLITTING AND MERGING	123
CONDITIONALLY PARALLEL FLOW	123
MERGING SEQUENCE FLOWS	125
10. TRANSACTIONS.....	129
ACID TRANSACTIONS	129
BUSINESS TRANSACTIONS	130
COMPENSATION THROW-CATCH	132
11. THE RULES OF BPMN.....	135
SOURCES OF BPMN TRUTH.....	135
BPMN RULES FOR LEVEL 2 PROCESS MODELING.....	136
STYLE RULES FOR LEVEL 2 PROCESS MODELING	139
MODEL VALIDATION.....	140
Part IV: BPMN Implementer's Guide – Non-Executable BPMN.....	143
12. BPMN 2.0 METAMODEL AND SCHEMA.....	145
XSD BASICS.....	147
BPMN SCHEMA FUNDAMENTALS.....	149
13. PROCESS MODELING CONFORMANCE SUBCLASSES.....	153
DESCRIPTIVE SUBCLASS	154
ANALYTIC SUBCLASS	155
COMMON EXECUTABLE SUBCLASS.....	156
14. BPMN SERIALIZATION BASICS	157
DEFINITIONS.....	157
DOCUMENTATION AND EXTENSIONELEMENTS	160
COLLABORATION	160
PROCESS	162
EXAMPLE: SIMPLE PROCESS MODEL	162
EXAMPLE: SIMPLE COLLABORATION MODEL	164
EXAMPLE: SIMPLE IMPORT AND CALL ACTIVITY.....	165
15. SERIALIZING PROCESS ELEMENTS.....	167
FLOWELEMENT AND FLOWNODE.....	167
ACTIVITY.....	167
SUBPROCESS	170
GATEWAY	172
EVENT.....	173
SEQUENCEFLOW	176
LANESET AND LANE	178
ARTIFACTS.....	178
16. SERIALIZING DATA FLOW	181
NON-EXECUTABLE DATA FLOW	181
EXAMPLE: NON-EXECUTABLE DATA FLOW.....	183
MORE ON DATA INPUTS AND DATA OUTPUTS	185

17. THE BPMNDI GRAPHICAL MODEL.....	187
BPMNDI BASICS	188
PROCESS LEVELS AND PAGES	188
BPMNDI DIAGRAM.....	189
BPMN PLANE	190
BPMN SHAPE	190
BPMN EDGE	191
BPMNDI EXAMPLES.....	191
18. BPMN-I.....	199
BPMN-I PROFILE SERIALIZATION RULES	201
Part V: BPMN Implementer's Guide – Executable BPMN	213
19. WHAT IS EXECUTABLE BPMN?	215
COMMON EXECUTABLE SUBCLASS.....	216
20. VARIABLES AND DATA MAPPING	219
ITEM DEFINITION	220
MESSAGE.....	220
IMPORTING STRUCTURE DEFINITIONS	221
EXAMPLE: DATA FLOW WITH IMPORTED ITEM DEFINITIONS	221
PROPERTIES AND INSTANCE ATTRIBUTES.....	223
DATA MAPPING	223
21. SERVICES, MESSAGES, AND EVENTS	229
SERVICES.....	229
MESSAGES	229
AUTOMATED TASKS	230
EVENTS.....	232
22. HUMAN TASKS.....	235
USER TASK	235
PERFORMER ASSIGNMENT	235
23. EXECUTABLE BPMN IN PRACTICE	239
HANDLING JAVA DATA.....	240
SERVICES AND SERVICE ADAPTERS.....	244
EXAMPLE: BONITA OPEN SOLUTION	244
24. ALIGNING EXECUTABLE DESIGN WITH BPMN METHOD AND STYLE	259
END STATE VARIABLES	259
GATEWAY CONDITIONS.....	260
MESSAGES	260
ERRORS	261
Index	263
About the Author	269