TABLE OF CONTENTS

		Page
Acknowledgments		viii
Preface		ix
PART I	**THE PROBLEM**	
1	Familiar Passages	3
	The Industrial Viewpoint	4
	The Practitioner Viewpoint	6
	The Example	7
2	Recognizing The Problem	9
	The Example (*Continued*)	9
	Territories, Maps, and Bridges	11
PART II	**THE APPROACH**	
3	Just-In-Time Philosophy and Strategy	15
	Plan, Plan, Then Re-Plan	16
	Identify Risks Early	18
	Develop In Parallel	19
4	More on Software Risk Management and Just-In-Time	21
	Risk Management Perspectives	21
	Strategic Risk Management	21
	Operational Risk Management	25
5	Elements of Software Risk	29
	Technical Risk	30
	Cost Risk	31
	Schedule Risk	32
	Risk Management Activities	33
	Risk Identification	33
	Risk Strategy and Planning	35

	Risk Assessment	36
	Risk Mitigation/Avoidance	37
	Risk Reporting	39
	Risk Prediction	40
6	Software Risk Factors	43
	Organization	44
	Estimation	46
	Monitoring	46
	Development Methodology	47
	Tools	47
	Risk Culture	48
	Usability	48
	Correctness	48
	Reliability	49
	Personnel	49
7	Software Risk Metrics	51
	Organization	52
	Estimation	54
	Monitoring	56
	Development Methodology	59
	Tools	60
	Risk Culture	63
	Usability	66
	Correctness	68
	Reliability	70
	Personnel	73
8	Just-In-Time Method by Development Phase	77
	Pre-Requirements and QFD	78
	Requirements: Written and Executable	84
	Design: Wide Then Deep	92
	Code: Start Early!	97
	Test: Accepting In Steps	103
	Delivery and Maintenance: Old Code Never Dies	109

PART III THE APPLICATION

9 Applying Just-In-Time 121
Making Choices 121
The Model's Design 122
The Model's Equations 125
A SERIM Example 128
Interpreting SERIM's Results 128
Using SERIM for Predicting Risks 130
JIT Software: The Whole Picture 131

10 Just-In-Time Examples 133
PC Software Project 133
Embedded Software Application Project 134
QFD Application 134
PERT Application 138
SERIM Application 141
Interpreting the Results: PC Project 141
Interpreting the Results: Embedded Project 144
Interpreting the Results: Both Projects 145
SERIM Predictive Capabilities for the Projects 146
Executable Requirements 147
Design Strategies 148
Coding 151
Testing and Delivery 153
Dreaming About Maintenance 158
Closing Thoughts 161

Glossary 163

References 165

Index 169

About the Author 171