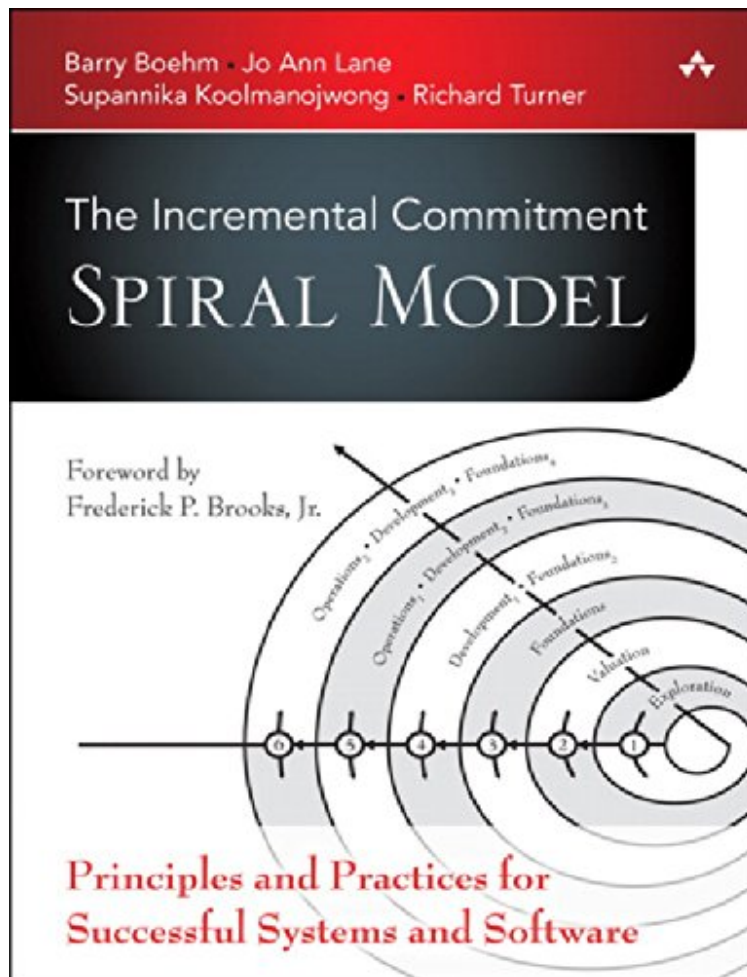


(Download free ebook) The Incremental Commitment Spiral Model: Principles and Practices for Successful Systems and Software

The Incremental Commitment Spiral Model: Principles and Practices for Successful Systems and Software

Von Barry Boehm, Jo Ann Lane, Supannika Koolmanojwong, Richard Turner
ePub | *DOC | audiobook | ebooks | Download PDF



Produktinformation -Verkaufsrank: #827069 in eBooksVerffentlicht am: 2014-05-29Erscheinungsdatum:
2014-05-29File Name: B00KMWVP14 | File size: 77.Mb

Von Barry Boehm, Jo Ann Lane, Supannika Koolmanojwong, Richard Turner : The Incremental Commitment Spiral Model: Principles and Practices for Successful Systems and Software before purchasing it in order to gage whether or not it would be worth my time, and all praised The Incremental Commitment Spiral Model: Principles and Practices for Successful Systems and Software:

KundenrezensionenHilfreichste Kundenrezensionen0 von 0 Kunden fanden die folgende Rezension hilfreich. Great model, great book! Experienced project managers will find themselves at home!Von AuroraA lot to think about and to

share with colleagues. Based on decades of practice but with a strong theoretical foundation.

KurzbeschreibungThe title makes a huge promise: a way to divide commitment into increments that are both meetable (good news for developers) and meaningful (good news for managers and stakeholders). And the book makes good on that promise. Tom DeMarco, Principal, The Atlantic Systems Guild, author of *Peopleware*, *Deadline*, and *Slack* I am seriously impressed with this ICSM book. Besides being conceptually sound, I was amazed by the sheer number of clear and concise characterizations of issues, relationships, and solutions. I wanted to take a yellow highlighter to it until I realized I'd be highlighting most of the book. Curt Hibbs, Chief Agile Evangelist, Boeing Use the ICSM to Generate and Evolve Your Life-Cycle Process Assets to Best Fit Your Organizations Diverse and Changing Needs Many systems development practitioners find traditional one-size-fits-all processes inadequate for the growing complexity, diversity, dynamism, and assurance needs of their products and services. The Incremental Commitment Spiral Model (ICSM) responds with a principle- and risk-based framework for defining and evolving your project and corporate process assets, avoiding pitfalls and disruption, and leveraging opportunities to increase value. This book explains ICSM's framework of decision criteria and principles, and shows how to apply them through relevant examples. It demonstrates ICSM's potential for reducing rework and technical debt, improving maintainability, handling emergent requirements, and raising assurance levels. Its coverage includes What makes a system development successful ICSM's goals, principles, and usage as a process-generation framework Creating and evolving processes to match your risks and opportunities Integrating your current practices and adopting ICSM concepts incrementally, focusing on your greatest needs and opportunities About the Website: Download the evolving ICSM guidelines, subprocesses, templates, tools, white papers, and academic support resources at csse.usc.edu/ICSM.
Pressestimmen""The Incremental Commitment Spiral Model" is an extraordinary work. Boehm and his colleagues have succeeded in creating a readable, practical, and eminently usable resource for the practicing systems engineer. . . . ICSM embodies systems thinking and engineering principles and best practices using real-life examples from many different application domains. This is exactly the kind of treatment that an engineer needs to translate the book's considerable wisdom into practical on-the-job solutions." -George Rebovich, Jr., Director, Systems Engineering Practice Office, The MITRE Corporation "One might think of this new book as an update of the old (1988) Spiral Model, but it is actually much more than that. It is a ground-breaking treatment that expertly blends together four specific and key principles, risk--opportunity management, the use of existing assets and processes, and lessons learned from both success and failure examples and case studies. This extraordinary treatise will very likely lead to improvements in many of the current software development approaches and achieve the authors' intent 'to better integrate the hardware, software, and human factors aspects of such systems, to provide value to the users as quickly as possible, and to handle the increasingly rapid pace of change.' If one is looking for specific ways to move ahead, use this book and its well-articulated advancements in the state-of-the-art."-Dr. Howard Eisner, Professor Emeritus and Distinguished Research Professor, George Washington University "Dr. Boehm and his coauthors have integrated a wealth of field experience in many domains and created a new kind of life cycle, one that you have to construct based on the constraints and objectives of the project. It is based on actively trading off risks and demonstrating progress by showing actual products, not paper substitutes. And the model applies to everything we build, not just software and conceptual systems, but also to hardware, buildings, and garden plots. We have long needed this experience-based critical thinking, this summative and original work, that will help us avoid chronic systems development problems (late, over-budget, doesn't work) and instead build new life cycles matched to the circumstances of the real world."-Stan Rifkin, Principal, Master Systems "Barry Boehm and his colleagues have created a practical methodology built upon the one fundamental truth that runs through all competitive strategies: The organization with the clearest view of cold, brutal reality wins. Uniquely, their methodology at every stage incorporates the coldest reality of them all-the customer's willingness to continue paying, given where the project is today and where it is likely ever to be."-Chet Richards, author of "Certain to Win: The Strategy of John Boyd Applied to Business" "I really like the concept of the ICSM and have been using some of the principles in my work over the past few years. This book has the potential to be a winner!"-Hillary Sillito, INCOSE Fellow, Visiting Professor University of Bristol, formerly Thales UK Director of Systems Engineering ""The Incremental Commitment Spiral Model" deftly combines aspects of the formerly isolated major systems approaches of systems engineering, lean, and agile. It also addresses perhaps the widest span of system sizes and time scales yet. Two kinds of systems enterprises especially need this capability: those at the 'heavy' end where lean and agile have had little impact to date, and those that deal with a wide span of system scales. Both will find in the ICSM's combination of systems approaches a productive and quality advantage that using any one approach in isolation cannot touch."-James Maxwell Sutton, President, Lean Systems Society and Shingo Prize winner "The potential impact of this book cannot be overstressed. Software-intensive systems that are not adequately engineered and managed do not adequately evolve over the systems life cycle. The beauty of this book is that it describes an incremental capability decision path for being successful in developing and acquiring complex systems

that are effective, resilient, and affordable with respect to meeting stakeholders' needs. I highly recommend this book as a 'must read' for people directly involved in the development, acquisition, and management of software-intensive systems."-Dr. Kenneth E. Nidiffer, Director of Strategic Plans for Government Programs, Software Engineering Institute, Carnegie Mellon University "This text provides a significant advance in the continuing work of the authors to evolve the spiral model by integrating it with the incremental definition and the incremental development and evolution life-cycle stages. Case studies illustrate how application of the four principles and the Fundamental Systems Success Theorem provides a framework that advances previous work. Emphasis is placed throughout on risk-based analysis and decision making. The text concludes with guidance for applying ICSM in your organization plus some helpful appendices. We concur with the authors' statement: 'we are confident that this incarnation of the spiral model will be useful for a long time to come.'"-Dick Fairley, PhD, Software and Systems Engineering Associates (S2EA) "This book nicely integrates the different refinements of the spiral model and the various additions made over the years. . . . the book contains great material for classes on software engineering in general and software processes in particular. I have been teaching the spiral model and its invariants for more than 10 years now, and I will use material from this book in the years to come."-Paul Grunbacher, Associate Professor, Johannes Kepler University Linz, Head of the Christian Doppler Lab for Monitoring and Evolution of Very-Large-Scale Software Systems "What I found most useful in "The Incremental Commitment Spiral Model" were the stories of where we have gone wrong in the past, and how using the four key ICSM principles articulated by Barry and his co-authors could have helped these failed efforts maintain a course to success. ICSM is not a new method. It does not ask you to discard what has proved useful in the past and start over. Rather, it provides a set of guideposts that can help any organization facing increasingly challenging endeavors make more timely evidence-based decisions. We have been hearing about the 'what' for many years, this book gives you the needed 'how' and, more importantly, the needed 'how much' guidance that has been sorely missing."-Paul E. McMahon, author of "Integrating CMMI and Agile Development" "The authors are uniquely qualified to bring together a historical context and a modern problem: successful development of engineered systems with ever greater complexity and richer than ever functionality, enabled by software. They do not disappoint!"-Dinesh Verma, PhD, Professor and Dean, School of Systems and Enterprises, Stevens Institute of Technology "The Incremental Commitment Spiral Model" is an extraordinary work. Boehm and his colleagues have succeeded in creating a readable, practical, and eminently usable resource for the practicing systems engineer. . . . ICSM embodies systems thinking and engineering principles and best practices using real-life examples from many different application domains. This is exactly the kind of treatment that an engineer needs to translate the book's considerable wisdom into practical on-the-job solutions. George Rebovich, Jr., Director, Systems Engineering Practice Office, The MITRE Corporation One might think of this new book as an update of the old (1988) Spiral Model, but it is actually much more than that. It is a ground-breaking treatment that expertly blends together four specific and key principles, risk opportunity management, the use of existing assets and processes, and lessons learned from both success and failure examples and case studies. This extraordinary treatise will very likely lead to improvements in many of the current software development approaches and achieve the authors' intent to better integrate the hardware, software, and human factors aspects of such systems, to provide value to the users as quickly as possible, and to handle the increasingly rapid pace of change. If one is looking for specific ways to move ahead, use this book and its well-articulated advancements in the state-of-the-art. Dr. Howard Eisner, Professor Emeritus and Distinguished Research Professor, George Washington University Dr. Boehm and his coauthors have integrated a wealth of field experience in many domains and created a new kind of life cycle, one that you have to construct based on the constraints and objectives of the project. It is based on actively trading off risks and demonstrating progress by showing actual products, not paper substitutes. And the model applies to everything we build, not just software and conceptual systems, but also to hardware, buildings, and garden plots. We have long needed this experience-based critical thinking, this summative and original work, that will help us avoid chronic systems development problems (late, over-budget, doesn't work) and instead build new life cycles matched to the circumstances of the real world. Stan Rifkin, Principal, Master Systems Barry Boehm and his colleagues have created a practical methodology built upon the one fundamental truth that runs through all competitive strategies: The organization with the clearest view of cold, brutal reality wins. Uniquely, their methodology at every stage incorporates the coldest reality of them all: the customer's willingness to continue paying, given where the project is today and where it is likely ever to be. Chet Richards, author of "Certain to Win: The Strategy of John Boyd Applied to Business" I really like the concept of the ICSM and have been using some of the principles in my work over the past few years. This book has the potential to be a winner! Hillary Sillito, INCOSE Fellow, Visiting Professor University of Bristol, formerly Thales UK Director of Systems Engineering "The Incremental Commitment Spiral Model" deftly combines aspects of the formerly isolated major systems approaches of systems engineering, lean, and agile. It also addresses perhaps the widest span of system sizes and time scales yet. Two kinds of systems enterprises especially need this capability: those at the heavy end where lean and agile have had little impact to date, and those that deal with a wide span of system scales. Both will find in the ICSM's combination of systems approaches a productive and quality advantage that using any one approach in isolation cannot touch. James Maxwell Sutton, President, Lean Systems Society and Shingo Prize winner The potential

impact of this book cannot be overstressed. Software-intensive systems that are not adequately engineered and managed do not adequately evolve over the systems life cycle. The beauty of this book is that it describes an incremental capability decision path for being successful in developing and acquiring complex systems that are effective, resilient, and affordable with respect to meeting stakeholders needs. I highly recommend this book as a must read for people directly involved in the development, acquisition, and management of software-intensive systems. Dr. Kenneth E. Nidiffer, Director of Strategic Plans for Government Programs, Software Engineering Institute, Carnegie Mellon University This text provides a significant advance in the continuing work of the authors to evolve the spiral model by integrating it with the incremental definition and the incremental development and evolution life-cycle stages. Case studies illustrate how application of the four principles and the Fundamental Systems Success Theorem provides a framework that advances previous work. Emphasis is placed throughout on risk-based analysis and decision making. The text concludes with guidance for applying ICSM in your organization plus some helpful appendices. We concur with the authors statement: we are confident that this incarnation of the spiral model will be useful for a long time to come. Dick Fairley, PhD, Software and Systems Engineering Associates (S2EA) This book nicely integrates the different refinements of the spiral model and the various additions made over the years. . . . the book contains great material for classes on software engineering in general and software processes in particular. I have been teaching the spiral model and its invariants for more than 10 years now, and I will use material from this book in the years to come. Paul Grubacher, Associate Professor, Johannes Kepler University Linz, Head of the Christian Doppler Lab for Monitoring and Evolution of Very-Large-Scale Software Systems What I found most useful in "The Incremental Commitment Spiral Model" were the stories of where we have gone wrong in the past, and how using the four key ICSM principles articulated by Barry and his co-authors could have helped these failed efforts maintain a course to success. ICSM is not a new method. It does not ask you to discard what has proved useful in the past and start over. Rather, it provides a set of guideposts that can help any organization facing increasingly challenging endeavors make more timely evidence-based decisions. We have been hearing about the what for many years, this book gives you the needed how and, more importantly, the needed how much guidance that has been sorely missing. Paul E. McMahon, author of "Integrating CMMI and Agile Development" The authors are uniquely qualified to bring together a historical context and a modern problem: successful development of engineered systems with ever greater complexity and richer than ever functionality, enabled by software. They do not disappoint! Dinesh Verma, PhD, Professor and Dean, School of Systems and Enterprises, Stevens Institute of Technology "Kurzbeschreibung The title makes a huge promise: a way to divide commitment into increments that are both meetable (good news for developers) and meaningful (good news for managers and stakeholders). And the book makes good on that promise. Tom DeMarco, Principal, The Atlantic Systems Guild, author of Peopleware, Deadline, and Slack I am seriously impressed with this ICSM book. Besides being conceptually sound, I was amazed by the sheer number of clear and concise characterizations of issues, relationships, and solutions. I wanted to take a yellow highlighter to it until I realized I'd be highlighting most of the book. Curt Hibbs, Chief Agile Evangelist, Boeing Use the ICSM to Generate and Evolve Your Life-Cycle Process Assets to Best Fit Your Organizations Diverse and Changing Needs Many systems development practitioners find traditional one-size-fits-all processes inadequate for the growing complexity, diversity, dynamism, and assurance needs of their products and services. The Incremental Commitment Spiral Model (ICSM) responds with a principle- and risk-based framework for defining and evolving your project and corporate process assets, avoiding pitfalls and disruption, and leveraging opportunities to increase value. This book explains ICSM's framework of decision criteria and principles, and shows how to apply them through relevant examples. It demonstrates ICSM's potential for reducing rework and technical debt, improving maintainability, handling emergent requirements, and raising assurance levels. Its coverage includes What makes a system development successful ICSM's goals, principles, and usage as a process-generation framework Creating and evolving processes to match your risks and opportunities Integrating your current practices and adopting ICSM concepts incrementally, focusing on your greatest needs and opportunities About the Website: Download the evolving ICSM guidelines, subprocesses, templates, tools, white papers, and academic support resources at csse.usc.edu/ICSM.