

IRMPRESS 701 E. Chocolate Avenue, Suite 200, Hershey PA 17033-1240, USA Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.irm-press.com

This chapter appears in the book, Business Processes: Operational Solutions for SAP Implementation by Victor Portougal © 2006, Idea Group Inc.

Chapter IV

Enterprise Systems Implementation Issues

Many software development life cycles have been proposed in the past. Boehm's Waterfall Model (Figure 4.1), incorporates, project definition, analysis, design, coding, testing, implementation, and maintaining, with feedback at every stage to the previous stage.

The prototyping model (Figure 4.2) involves listening to the customer, building a prototype that reflects the customer's requirements, followed by testing of the prototype by the customer, and then listening to the customer again regarding the prototype, and then revising and rebuilding prototype. Then we again get the customer to test drive the prototype, and this goes on in benign cycles where the customer requirements are honed in as time progresses.

One of the most popular approaches for major software development projects nowadays is the rational unified process (RUP), with its iterative approach involving four major phases: inception, elaboration, construction, and transition (Figure 4.3). Each of the phases involve major workflows such as business

Copyright © 2006, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.



Figure 4.1. The Waterfall Model of software development (Boehm, 1981, p.36)

modelling, requirements, analysis and design, implementation, testing, and deployment, as well as supporting workflows such as project management, configuration, and change management. As we go through the rational unified process, we do multiple iterations of business modelling, requirements, analysis and design, implementation, testing, and deployment. But the effort that we spend on business modelling peters out as time progresses, whereas, there is more testing and deployment as we come towards the end of the phases. That is, in the earlier phases such as inception and elaboration, we do more of business modelling requirements, analysis, and design. And then during the construction phase, obviously, we do a lot more of design, implementation, and testing, and in the transition phase, we do a lot more of testing and deployment. And throughout all these phases, we have configuration and change management and project management to support each and every one of those phases. The spiral model of systems development is similar to the prototyping approach in terms of cycling/iterations, but closer to the waterfall method in terms of phases. Essentially, the spiral model has four major steps: analysis, design,

Copyright © 2006, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/enterprisesystems-implementation-issues/6090

Related Content

Applying Appreciative Inquiry, Performance Improvement, and Positive Psychology: Assessment of Non-Profit Sustainability

Nancy Crain Burns (2020). *Cases on Performance Improvement Innovation (pp. 294-314).* www.irma-international.org/chapter/applying-appreciative-inquiry-performance-improvement-and-positivepsychology/255976

Promoting Onshore Planners' Ability to Address Offshore Safety Hazards

Ann Britt Skjerve, Grete Rindahl, Sizarta Sarsharand Alf Ove Braseth (2013). *Integrated Operations in the Oil and Gas Industry: Sustainability and Capability Development (pp. 191-211).*

www.irma-international.org/chapter/promoting-onshore-planners-ability-address/68717

Dell's Just-in-Time Model in West Africa

(2018). Lean Six Sigma for Optimal System Performance in Manufacturing and Service Organizations: Emerging Research and Opportunities (pp. 142-158). www.irma-international.org/chapter/dells-just-in-time-model-in-west-africa/197538

Opportunities and Challenges for Sustainable Business Strategic Planning in Small and Medium Enterprises (SMEs)

Mauricio Quintero-Angel, Claudia C. Peña-Montoya, Carlos Hernán Fajardo-Toroand Andres Aguilera-Castillo (2018). *Green Production Strategies for Sustainability (pp. 153-167).* www.irma-international.org/chapter/opportunities-and-challenges-for-sustainable-business-strategic-planningin-small-and-medium-enterprises-smes/192834

Influence of Business Competitiveness on SMEs Performance

Neeta Baporikar (2019). International Journal of Productivity Management and Assessment Technologies (pp. 1-25).

www.irma-international.org/article/influence-of-business-competitiveness-on-smes-performance/230349