

In-the-SPIN

Newsletter of the **BostonSPIN**
Software Process Improvement Network

Issue 42 November 2001

Editors: Judi Brodman
Sheila Lynch

Editorial

As I am assembling the articles for this issue of *In-the-SPIN*, it occurs to me that this is Ed Yourdon month at Boston SPIN. You will find his August 2000 column from Computerworld, “**Success in E-Projects**” (reprinted with the permission of Computerworld) below. Ed is our guest speaker for the November meeting, presenting his view of **Extreme Project Management**. And our book club is discussing his book, “**Death March: The Complete Software Developer's Guide to Surviving 'Mission Impossible' Projects**” during the Round Tables prior to the meeting. He has also energized our ‘SPIN Doctor’ to research ‘agile methodologies’ in this month’s column.

Certainly Ed Yourdon has been a prolific contributor to the software world thus far in his illustrious career. I had the pleasure of meeting Ed last year when he came to MITRE to lead a two-day requirements engineering workshop. I was a bit in awe prior to meeting him, as I have been a disciple of his since he pioneered ‘modern structured analysis’ in the 70’s. What I found was a delightful, energetic software ‘geek’ who still embraces engineering as a lifetime of discovery and fun. Perhaps the thing that struck me the most was that Ed came to us wanting to learn! Even though he was the expert, he was asking the questions, excited to hear about our successes and failures. Prior to conducting the workshop, he met with our practitioners to hear of their problems, solutions (or lack of solutions) and concerns. Ed later returned to conduct the workshop with introspect, humor and insight. And he had learned. And we learned. And we all had fun.

So that is our message this month. Take a lesson from Ed Yourdon. Get into the trenches and find out where the problems are. Listen and learn from the bottom up in your organizations. Use your peers as resources. But at the same time, take advantage of those with experience and knowledge. Their wisdom has allowed them to achieve prominence in the software field. Come to SPIN meetings, network with your peers and learn from the experts. And find the fun and excitement in your work again!

Sheila Lynch, Co-editor, *In-the-SPIN*, email comments to salynch@mitre.org

Letter from the Chair

Welcome to the 2001-2002 Season of SPIN

Welcome to the November edition of In the SPIN. Ed Yourdon is speaking this month on **Extreme Project Management** and it should be eXtremely interesting. Hope to see you there.

Volunteers are needed! We continue to expand the membership of SPIN and thus the level of service expands and once again I'm asking you to think about your commitments and see if there is an hour or two a month that you can volunteer to SPIN. It can be anything from spending a few minutes greeting people at the door of the meeting to committing to heading a committee. There are all types of activities whether you're a techie who wants to do behind the scenes kind of work or you're a people person and want to mingle.

One added bonus about volunteering - it usually gets you to attend the meeting. If you have some time and would like to volunteer, contact me at 978-635-9281 or lindamcinnis@yahoo.com.

Regards on a great month.
Linda McInnis
Chairman, Boston SPIN



BostonSPIN Established January 1993
Software Process Improvement Network

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SPIN Feature Article

This issue's Feature Article is reprinted with the permission of Computerworld Magazine. It originally appeared in the August 2000 issue of Computerworld.

Success in E-Projects By Ed Yourdon

A colleague teaches an excellent short course entitled "Managing IT Development Projects." It was languishing in interest lately, so he renamed it "Managing e-Business Projects." Voila! The course is now over-subscribed. Another colleague had the same experience when he changed the name of his short course from "Requirements Management" to "Requirements Management in Internet Time."

What's going on here? Are e-business/Internet projects really that different?

E-business projects face the same demands, pressures and risks as any other kind of IT development project, but to a greater degree. When client-server technology was introduced in the early 1990s, we embraced RAD (rapid application development) to cut the project schedule from years down to months. Today, project managers have embraced FAD (frantic application development) in an attempt to cut project schedules from months down to weeks.

When RAD was first introduced, developers sometimes used it as an excuse to abandon all discipline, and resort to extemporaneous hacking. Obviously, the temptation is even greater in an e-business FAD environment. Similarly, RAD was a response to the increased volatility in the business environment during the 1990s; and FAD is the e-business response to an almost chaotic environment in today's Internet era. These two factors alone are enough to make life difficult for a project manager; it's a difficult struggle to maintain some form of "light" methodology that will impose discipline upon the most critical project activities, without wasting any precious time on bureaucratic processes associated with old mainframe-era projects. And it's difficult to negotiate the trade-offs between schedule, functionality, resources, and quality when all of these project parameters are extremely aggressive.

But perhaps the greatest difference between e-business projects and the more traditional IT development projects is that an e-business system has the potential to cause a fundamental change in the organization's business strategy, which almost always requires a concomitant change in the organization's business processes. One could argue that the same thing occurred a decade ago when client-server was introduced, and two decades ago when PCs first appeared. But the e-business phenomenon seems much more fundamental, because it creates a much more immediate

and intimate connection with customers, vendors and suppliers. It has also allowed us to separate a physical product (like a CD) from the information associated with that product (such as the music recorded on that CD), and distribute them separately. That, in a nutshell, is what the Napster controversy is all about.

What does this have to do with project management? Everything! It's very difficult to develop an appropriate e-business computer system if senior management has not formulated a new e-business strategy, or if it has been articulated in such fuzzy terms that no one understands it. And it's very difficult to deliver a successful e-business computer system if the associated business processes have not been re-engineered. IT managers typically don't have the charter, or political clout, to make dramatic changes in the business processes of an end-user department. We learned that much when IT managers embarked upon business process reengineering projects during the client-server era.

So what should e-business project managers be learning on the job and in short courses such as those my colleagues are presenting? They need to learn about effective "light" methodologies that strike a balance between rigor and speed (there are several such methodologies available today). They also need to learn about triage, so that resources are focused on the e-business systems most critical functionality and features, while the "bells and whistles" are de-emphasized or ignored. And they need to learn how to negotiate under pressure with customers and end-users to achieve a realistic balance of schedule and functionality. Negotiation skills are in short supply among IT project managers; but successful negotiations, followed by successful delivery, will help IT managers achieve the political clout they so desperately need.

But most of all, e-business project managers need to get their senior executives involved in their projects, for without a clearly articulated e-business strategy, and an enthusiastically supported reengineering of business processes, the e-business computer project has little chance of success.

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Send questions, comments, rumors, gossip, jokes, and serious thoughts to Ed Yourdon at ed@yourdon.com.



November SPIN Meeting

November 20, 2001 Roundtable Program 6:30 - 7:00 PM, before the SPIN Meeting

Roundtables are focused group or "birds-of-a-feather" discussions, with a facilitator to stimulate and moderate discussion. Please join us for a lively series of discussions during the networking portion of the SPIN meeting, before the speaker. Select the topic of your choice, but come early. The facilitators will determine the number of participants, and "first come, first served."

The November Roundtable Program has been designed to provide discussion topics aligned with our speaker's topic. Ed Yourdon's presentation is on "Extreme Project Management." Come share your experience and concerns with other software professionals from New England. We look forward to your participation.

Roundtable # 1. "Xtreme Programming (XP) Experiences"

Facilitator: Nancy Van Schooenderwoert

This roundtable will focus on real world experience with the eXtreme Programming methodology. eXtreme Programming is one of the "lite" or "agile" methodologies that had been getting quite a bit of attention lately, and popularized in books by Beck and Fowler.

The Facilitator has been using a number of eXtreme Programming practices to support embedded system development for over a year now. She will share an overview of how/why the organization tried XP, what worked, and what didn't. The remainder of the time will focus on answering questions and comparing experiences with participants. We hope that others who have experience or interest in eXtreme programming will come and share their experiences, knowledge, and questions.

For those researching XP before the Roundtable, an informative website is

http://www.xprogramming.com/what_is_xp.htm. There will be a Roundtable handout, including a 1-page summary of a software group's XP practices.

Roundtable # 2. "If eXtreme Programming is the Answer, What is the Question?"

Facilitator: Mitchell Model

Extreme programmers rave about their freedom, responsibility, and power. Customers love their increased involvement in the development process and getting software appropriate to their needs. Managers appreciate the predictability and self-sufficiency of the development process. Everyone enjoys being liberated from high-overhead, brittle, ritualistic processes. But why should YOU adopt XP (or some other "agile" development process)?

Questions for Discussion

- What frustrations are you, the people you work with, and the people you should be working with experiencing in developing software?
- Is the direction in which your organization is heading making it easier or harder to develop high-quality software?
- In what ways have the demands of time-scale, magnitude, complexity, flexibility, or quality of your software projects changed significantly in recent years?
- If your group wanted to use a new development approach such as XP on your next project, what in your organization would get in your way?

Roundtable # 3. "Establishing the Boston SPIN Special Interest Group (SIG) for Software Test"

Facilitator: Pete Malpass

The discussion will establish a recurrent roundtable with optional additional meetings, training, and/or tool demos to learn about software test, especially test automation. There are three objectives to the kickoff meeting: to establish the SIG charter, entry criteria and exit criteria. We will address the following items:

SIG Objectives: Share experiences; identify good tools; training; reference works, resource websites, chat rooms, etc.; possibly get tool demos and group rate for training on methods or tools. These will be brainstormed and point voted.

Locations: Monthly @ SPIN, optional @ participants' locations.

Quorum: 5 +/- 2 participants.

Decorum: Agenda, leader, facilitator (Pete Malpass).

Commitment: Leader & facilitator high; others, as they derive value.

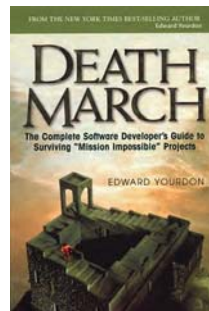
Deliverables: "Value" paper by leader, facilitator using data from participants.

Reports: Monthly SPIN and "summer, as if" written report of activities, metrics.

MOS/MOE: Participant value ratings.

Exit criteria: Conditions and method for disbanding the SIG.

Boston SPIN Book Discussion - November 20 Selection



Death March: The Complete Software Developer's Guide to Surviving 'Mission Impossible' Projects

By Edward Yourdon

Editorial Review: Amazon.com

Death march projects are becoming increasingly common in the software industry. The symptoms are obvious:

The project schedule, budget, and staff are about half of what is necessary for completion. The planned feature set is unrealistic. People are working 14 hours a day, six or seven days a week, and stress is taking its toll. The project has a high risk of failure, yet management is either blind to the situation or has no alternative. Why do these irrational projects happen, and what, other than pure idiocy, leads

people to get involved in them? Edward Yourdon has produced a wise and highly readable book on the entire death march phenomenon and the best way to steer through one. He takes a close look at the types of projects that often become death marches and the corporate politics and culture that typically produce them; Yourdon helps you examine your own motivations and those of corporate managers who enable death marches to take shape.

Much of Death March is about the human element of highly stressful projects. The author's plain-spoken observations on the dysfunctional organization—the Machiavellian politics, naive optimism, lust for power, fear, and sheer managerial stupidity that guide so many death marches—make for a refreshing change from other project management books. You'll also find much practical advice to help you survive, everything from negotiating with upper management to breathing life into faltering projects. He'll even help you determine if you should look for another job.

If you've ever worked in a death march situation or been a client of a company addicted to death march management, this book will help you understand what happened. More importantly, it will help you prepare for future encounters with death marches. Death March is highly recommended for anyone involved in software development.

Come join us on November 20 for a lively discussion of this book.

November 20, 2001 Main Meeting
Extreme Project Management
Speaker: Ed Yourdon

Historically, all software projects have involved a certain degree of risk and pressure -- but many of the projects in today's chaotic business environment involve such intense pressure that they require non-standard, extreme management techniques. Ed Yourdon's presentation will provide guidance and insights for managers and project team members who are about to embark upon an "extreme" project -- i.e., a project whose schedule is so compressed, and/or whose budget, or team size is so constrained, that the only "obvious" way to succeed is to work 16 hours a day, 7 days a week, with no vacations until the project is finished. Such projects may also be using some of the concepts of the popular "extreme programming" (XP) approach; this presentation is designed to be compatible with current views on XP, but it focuses entirely on the management issues, rather than the technical activities of design (e.g., refactoring), coding, and testing. Extreme project management involves five key issues: politics, people, process, project-control, and tools.

We are honored to present Ed Yourdon as our guest speaker this month and hope you will be able to join us.

Dear SPIN Doctor



'Agile' Methodologies – What are they and where did they come from?

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Brodman**

This month's SPIN presentation by Ed Yourdon, 'Managing eXtreme Projects', propelled me to research the so-called 'light' or 'agile' project management methodologies - Crystal methods, Lean Development, Scrum, Adaptive Software Development (ASD), and eXtreme Programming (XP), the most popular.

These methodologies are touted by Jim Highsmith of the Cutter Consortium as solving 'today's turbulent business and technology environment'. He suggests that these 'agile' methods directly address the problem of responding to rapid change. The strategy is to reduce the cost of change throughout the project's lifecycle as opposed to the more traditional process management approaches that Highsmith feels attempt to eliminate change early in the lifecycle. The new strategy is not to eliminate rework but to reduce its cost.

The basic principles of 'agile' methods are to produce working code quickly and often, and to use people effectively as a team – "working together with goodwill". The supporters of agile methods (the Agile Alliance) state "We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- *Individuals and interactions* over processes and tools,
- *Working software* over comprehensive documentation,
- *Customer collaboration* over contract negotiation,
- *Responding to change* over following a plan."

These ideas are documented in what is called the *Manifesto for Agile Software Development*, which was developed by 17 self-professed 'anarchists' who met in February 2001 at the LODGE at Snowbird, a ski resort nestled in the Wasatch Mountains in Utah. The *Manifesto* goes on to say – "We follow the following principles:

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers work together daily throughout the project.

Oct. Meeting Summary

The following synopsis of the Oct. 16th meeting is provided by Pete Malpass, Tellabs' Media Processing Technologies Group and Sheila Lynch, The MITRE Corp., both in Bedford, MA.

In Person-to-Person Communications, Quality Really Pays Off Speaker: Rick Brenner

Boston SPIN's own Rick Brenner led an interactive discussion on the complex, multi-dimensional behaviors we exhibit in our daily communications. His core message was that prevention is better than damage control with regards to communications. Rick provided a description of eight common communications defects, and gave some guidelines on how to avoid these behaviors.

Rick discussed the following communications defects:

Living the full catastrophe - interpret what was said in worst possible way. To detect, keep a log of your reactions to things people say and how they react to what you say.

Implied accusation - Example: "I'll invite you to the meeting if you promise to be polite and not interrupt."

Tweaking 'CC': - send a message with possibly embarrassing information and copy the recipient's chain of command (example: "Where's your status report?" and CC: boss)

Commitment by implication - "If you don't respond by (soon), I'll assume you agree." One needs to understand: "There is no commitment without freedom."

Mind reading - "I know what you mean." That is, I don't know what others know and, often, don't know. Example: Stock analysts saying, "The market fell from worries about anthrax." How many investors did they ask? None!

Culture and Gender differences - She: "Would you like to take the garbage out now?" He: "No." Result: Total confusion!

Hat hanging - attributing to a person the capabilities or intentions of someone whom you know that looks like him/her. We often hang our father's "hat" on older, male managers.

Mistakes - under stress these can cause instant damage - 'as if intended'. "Beware of your thoughts. They can become words at any moment."

Once we recognize these common communications defects, Rick advised us to work through our reactions to these situations. He presented the following interactive communication model, using volunteers from the audience:

We interpret these defects through our senses, providing a personal meaning to or interpretation of the defects. This stimulates our feelings or emotions. Our feelings then stimulate deeper 'feelings about the feeling.' Our feelings thus give rise to our personal defenses. We should embody a set of rules for appropriate responses.

The key in this situation is to realize that you are in a stressful situation and to know your reaction to stress. Then, you can attempt to break the pattern.

- Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and the users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity – the art of maximizing the amount of work not done – is essential.
- The best architectures, requirements and design emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly."

This document is signed by Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, James Grenning, Jim Highsmith, Andrew Hunt, Ron Jefferies, Jon Kern, Brian Marick, Tobert C. Martin, Steve Mellor, Ken Schwaber, Jeff Sutherland and Dave Thomas – the Agile Alliance.

After reading over the principles stated above, most of us would conclude that the principles are not new and are based on common sense. I plan on discussing the underlying concepts behind these principles, as well as comments made by some of the 17 'anarchists' about these principles, in future 'SPIN Doctor' columns.



Those of you who have or are currently using one of the 'agile' methodologies, please write and help us start a discussion about these methodologies. Are they worthwhile and, if so, when and for what type of software development effort? If you use an agile methodology, does it mean that you

don't need 'process'? How has agile made a difference – is your customer happier, are your products of higher quality than they were with your previous methodology, etc.?

This column is for you; let's make a difference! Send your comments and questions to "Dear SPIN Doctor" at broadman@LOGOS-Intl.com. Sign them or use a "pen-name" – I respect your confidentiality.

"The SPIN Doctor"

Oct. Roundtable Summary



This following synopsis is contributed by Dolores McCarthy, Boston SPIN Secretary, Quality Manager at Computer Sciences Corporation.

Topic: Disaster Recovery Planning **Facilitator, Dolores McCarthy**

Certainly, after the events of September 11, there is more awareness of the need for businesses to perform disaster recovery planning (DRP). The focus of this Roundtable was on concerns of the participants in case of a disruption to Information Technology (IT) in their own companies, and resources for finding answers to those concerns.

Most participants did not know of any plans their own companies might have in the event of a disaster. Some knew of governmental requirements such as the Computer Security Act of 1987 and the President's Commission on Critical Infrastructure Protection (PCCIP) that obliges federal government organizations to protect their systems from unwarranted and possibly damaging penetration. This is especially important to agencies such as the FAA and its National Airspace System (NAS).

Major concerns at the roundtable for their own companies were the impacts of a disaster on telecommuting, communications in general, data the company depends on, and IT equipment. Some felt the cost of DRP could be prohibitive to their company. There were handouts related to DRP at the table to supplement the conversation. Issues discussed were:

- A need for top-level commitment by senior management and a champion for the DRP effort
- Performing a risk assessment of the company's vulnerabilities in case of a disaster affecting IT systems, the range of possible disasters, and the likely consequences, such as loss of business and revenue, lawsuits, inability to deliver critical services to customers
- Deciding if there is a return on investment in having a DRP and enough of a budget to implement it
- What kind of recovery would be sufficient for the IT function for the company:
 - Remote hot site with hardware, software, and data ready to take over the IT function immediately
 - Mobile hot site that arrives at the door with all the necessary equipment
 - Warm site that is partially equipped
 - Backup or cold site where critical equipment and resources can be installed
 - Off-site, secure storage of data

A brief outline for a DRP (from DRI International, listed in the web references below):

1. Project Initiation Phase (Objectives and Assumptions)
2. Functional Requirements Phase (Fact Gathering, Alternatives, and Decisions by Management)
3. Design and Development Phase (Designing the Plan)
4. Implementation Phase (Creating the Plan)
5. Testing and Exercising Phase (Post Implementation Plan Review)
6. Maintenance and Updating Phase (Updating the Plan)
7. Execution Phase (If Disaster Occurs)

It's interesting how much this resembles software development planning.

There was much more that could have been discussed. Participants received a list of references (below) for further exploration.

Disaster Recovery Planning Web Site Addresses

<http://www.fema.gov/library/bizindex.htm>

FEMA: Emergency Management Guide for Business and Industry

<http://www.drj.com/glossary/glossary.htm>

Disaster Recovery Journal Glossary

<http://www.drj.com/freelinks/links.html>

DRJ's Free For All Links Page

<http://www.utoronto.ca/security/drp.htm>

CNS Computing and Network Services, Disaster Recovery Planning Project Plan Outline

<http://www.rothstein.com/data/index.htm>

Rothstein Catalog on Disaster Recovery

<http://www.lifelinecenters.com/draproach.asp>

Lifeline's Approach to Disaster Recovery

<http://www.drii.org/model.htm>

DRI International, Business Continuity Planning Model (Have education courses)

<http://www.gsa-gsa.com/>

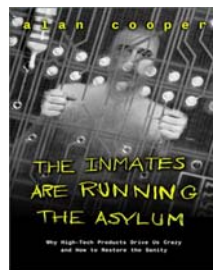
GSA Disaster and Business Recovery

<http://www.gedisasterrecovery.com>

GE Capital Information Technology Solutions

October Book Club Discussion

Facilitator, Barbara Purchia



The Inmates Are Running the Asylum: Why High Tech Products Drive Us Crazy and How to Restore the Sanity
By Alan Cooper.

About 10 people participated in discussing this book.

Most people agreed that products and features should be designed for customers and not because they are programmatically possible. Users are confounded by products so encrusted with a bewildering array of features, few of which are used effectively or at all. The industry press calls this "bloatware" and many of us in the discussion have a lot of experience with this.

Cooper believes that interaction design is key to making a usable, customer friendly product. Too often a product

becomes too complex for the user. For example, how many people can program their VCR to record one program? Do we really care if we can program a week's worth of shows at once?

Cooper uses personas, named hypothetical archetypes of actual users, goals and scenarios to define users and their tasks and needs. These differ from use cases in that the product design is centered around designing for these individuals.

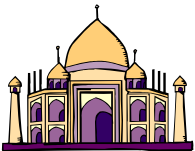
The participants agreed with the book's premise and several people had used personas effectively.

SPIN Book Clubs are fun and educational (even if you haven't read the book, the whole book, or parts of the book)!! Come join us for our next SPIN Book Club. November's selection is **Death March: The Complete Software Developer's Guide to Surviving 'Mission Impossible' Projects** by Edward Yourdon.

Upcoming Meetings

11/20/01 **Ed Yourdon** "Extreme Project Management"
12/18/01 **Watts Humphrey**
1/15/02 **James Bach**

New Meeting Location



Boston SPIN meetings for the 2001-02 year will be held at The MITRE Corporation in Bedford. We are delighted with this new meeting facility which features a large auditorium with state-of-the-art audio-visual equipment, a meeting room and a large entrance foyer where we can network with our colleagues. The 300-seat auditorium is a major asset in attracting the caliber of speakers we have on this year's program schedule. Our deepest appreciation to MITRE's Deputy CIO for Information Systems, Bob Boonstra, for hosting our meetings.

Please be aware that MITRE has advised us that, due to increased security concerns, you will need a Picture ID for admission to the SPIN meetings. We encourage you to leave all carrying bags, backpacks, and briefcases behind (i.e., in your car). Otherwise, you should be prepared to have these opened and inspected upon arrival.

MITRE's campus is located at 202 Burlington Road (Route 62), Bedford. SPIN meetings are held in the 'S' building. Directions can be found on our Web site:
<http://www.bostonspin.org>

Announcements

Boston SPIN is pleased to announce that Barry Mirrer has volunteered to assume the responsibilities of the Program Chair.

We welcome your suggestions for future Boston SPIN programs. Our website, www.bostonspin.org contains a program suggestion form.

We are always looking for interesting speakers. If you'd like to speak at Boston SPIN, please review the criteria specified on the Boston SPIN web site before sending an abstract to Linda McInnis, Boston_SPIN@yahoo.com.

BostonSPIN Established January 1993
Software Process Improvement Network

Sponsors:

The MITRE corporation
Raytheon company
Edelman & Associates
Quality Search
UMASS – Lowell (provides support)

The Boston SPIN is a forum for the free and open exchange of software process improvement experiences and ideas. Meetings are usually held on third Tuesdays, September - June. Boston SPIN welcomes volunteers and sponsors. There is no charge to attend the meetings. For more information about our programs and events contact:

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