



Project Management Innovations

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New Product Development Specific Interest Group

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NPD Project Innovation '03 and Beyond!

by Curt Raschke, NPD Project Innovation Conference Chair

In October, the NPD SIG combined forces with The Management Roundtable to host the first professional development conference designed specifically for NPD SIG members, *NPD Project Innovation '03*. The speakers, roundtable discussions, breakout sessions and workshops were specifically selected to cover topics that the NPD SIG membership told us they wanted to learn more about. In an attempt to share some of the excitement generated at the conference, the next few issues of the newsletter will contain articles about the conference written by some of the NPD SIG attendees and excerpts of the eight case study presentations given by SIG members.

To kick off the knowledge sharing, this newsletter features reports by three SIG members on the three conference Keynote speakers, each of whom was chosen because of their expertise in topics of interest to the SIG membership. Through the NPD SIG discussion group and e-mail surveys, the SIG members indicated they wanted to learn more about Lean/Agile Project Management techniques, how to apply Six Sigma methodology to New Product Development, and how to sort through all the various "new" techniques that they were hearing about. Inside this newsletter you will find a report by Tom Sheives on the keynote *Agile Project Management: Innovation in Action* by Jim Highsmith. Michael O'Grady summarizes *Separating the Signal from the Noise in Product Development Projects* by Kent Harmon and Kevin Dabb gives his thoughts on *Bringing it All Together: Using Agility, Lean, and Six Sigma to Spark Innovation and Growth* by Rusty Patterson. If you read something that you would like to comment on or ask a question about, please fire off an e-mail to the NPD SIG discussion group and see if you can't get a "virtual" discussion going.

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Couldn't attend the conference?

Read the Keynote speaker summaries on pages 3-5.



October 20-22, 2003 / Ft. Worth, Texas

The NPD SIG is Moving Forward

by Alex Walton, PMP, NPD SIG Chair

My question in the last newsletter was "What do you want?" Like most people who are asked this question - the response was non-existent by email. However, at the PMI Global Congress I had the great pleasure of a good dialog with participants attending the annual meeting - Rick Sievert, Phil Schmitt, Randy Bennett, Steven Ricks, Fred Abrams and Lowell Dye.

In addition to identifying and addressing current issues the following goals for next year were identified and agreed to:

- A low cost, well timed Conference - possibly a two-day session around a PMI Global Congress.
- Participation by 10% of membership (110 out of 1100) in active conversations this year and 20-30% in "mild" conversations. A "metric!"
- Chapter and product area alignment; along with more industry-focused discussions.

- Webinars and/or conference calls (six topic specific and six open forums) next year.
- Rewrite and approve our new by-laws and charter on time (February 1, 2004) with income tax return.

These are in addition to my favorite collaborative projects to improve our dialog:

NPD living glossary NPD process guide

I also want to give a thank you for a great effort to Curt Raschke for the *NPD Innovations '03 Conference* which is summarized in this newsletter along with some great articles that flowed from the conference. Next year, we hope to expand the attendees with your help and desires.

Ciao,

Alex



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AGILE PROJECT MANAGEMENT:

Innovation in Action

Jim Highsmith, Director Agile Project Management Practice, and Fellow Business Technology Council at Cutter Consortium

Jim Highsmith is Director, Agile Project Management Practice, and Fellow Business Technology Council at Cutter Consortium. Jim is a recognized leader in the agile project management and software development movement. He was a co-author of The Agile Manifesto and is a founder and board member of the Agile Alliance. His newest book, *Agile Project Management: Creating Innovative Products* (Addison Wesley, 2004), focuses on managing new product development projects.

Summary by Dr. Tom Sheives, Manager Process, Texas Instruments, tsheives@ti.com

“Good project management is not just buying pizza and stepping out of the way!” This quote was stated early in the interesting and thought provoking keynote address by Jim Highsmith. As a PMP, I found myself being continually challenged during the talk to think outside my own paradigm.

Jim started by giving an overview of what the “agile movement” is all about by outlining key tenets such as ensuring vision, being customer value driven, starting quickly and feature-based delivery. Rather than the big bang (or thud) at the end of the project, the feature-based delivery approach uses small prioritized features that are most important to the customer, and that are developed and delivered iteratively. Hence, instead of the big thud at the end, you get smaller increments of key functionality that are delivered and tested along the way.

Another key aspect of the agile approach is intense collaboration, not just communication. Jim emphasized that communication was the exchange of information, where collaboration was working together **intensely**.

One of the agile methods that Jim highlighted was Low Cost Exploration and Product Development. He emphasized the importance of quick feedback, multiple prototypes, and even parallel prototypes, rather than a long, sequential development approach. Some terrific examples were presented by Highsmith showing real value in improving performance at BMW by using multiple, low cost iterations (simulations) in car design.

Jim went on to describe some of the Agile Values and Principles using excerpts from the Agile Manifesto document written and signed by a group of more than 1,000 system and software developers. The document cites the importance of “individuals” over processes, customer collaboration over contract negotiation and sign-off, and responding to change over following a plan. Jim quoted Jim Collins’ book *Good to Great* citing the importance of having the right individuals on the bus and the wrong individuals off the bus.

With regard to responding to change, it was noted that good project managers should be enablers of change, rather than being supportive of the “Change Resistance Board.” Making the project and product flexible enough to allow change is a fundamental principle that Jim emphasized more than once.

The last point I would like to emphasize from this excellent and engaging talk was that “Agility” does not imply lack of discipline. Agile Project Management actually requires more self-discipline focus than traditional project management approaches.

This was a great talk given by an outstanding leader in this area. Many of the concepts that he mentioned we are currently using ourselves at Texas Instruments in our Educational and Productivity Solutions group. The concepts are causing my own paradigm to shift, and it is not towards “pizza” either.



Let the celebration begin!

As the close of 2003 approaches, PMI is in the final planning stages for the kick off of PMI's 35th Anniversary Celebration, beginning in January 2004. In preparation for the anniversary, PMI gathered together the individuals that founded what is today a global organization, providing programs, products and services to tens of thousands of members worldwide. The PMI Founders—J. Gordon Davis, PhD, PMI Fellow; Edward A. "Ned" Engman; Susan C. Gallagher; Eric Jenett, PMI Fellow, PMP; and James R. Snyder, PMI Fellow—gathered in Houston, Texas USA, during the weekend of 7-9 November 2003, to share their individual and collective thoughts on the history of PMI and the future of the organization. The reunion not only brought together five old friends, it also provided a forum for them to share unique nuances and insights regarding not only the birth of a successful organization, but also the continued success and advocacy of the project management profession. Look for more exciting news from PMI as we soon begin our celebration of 35 years.

SEPARATING THE SIGNAL FROM THE NOISE IN PRODUCT DEVELOPMENT PROJECTS

Kent Harmon is the former Director of Product Development for Bullard Company, a world leader in personal safety equipment. Prior to joining Bullard, Kent was the Director of R&D effectiveness for three different divisions of Texas Instruments semiconductor group. He has managed the development of high tech products in both small and large companies and in custom, semi-custom, and mass markets.

J. Kent Harmon, Former Director of Product Development, Bullard Company

*Summary by Michael O'Grady MGTS, PMP,
Texas Instruments*

How does a team separate the noise swirling around a project from the signal defining success of the project? It is up to the Project Manager to wade through all the Noise and optimize the Signal of the project. Remember when we used to turn a dial to tune in a radio frequency. When you are far from the station you are looking for, all you get is noise out of the speakers. As you get closer to the radio station, you start to hear the station, but with a lot of extra noise. Then you find it. The radio station is crystal clear. The noise disappears and the signal is optimized. You get what you wanted: the radio station.

This is true in product development also. In a given project there is a lot of noise. Product development is becoming increasingly challenging with tough economic conditions that limit resources, increase cost and managerial scrutiny. We also know that lack of direction in some markets results in frequent scope and priority changes. Distractions grow with increasing demands of organizational, team and personal priorities.

How do we want to optimize the signal of the project. This can be done by setting Goals that clearly describe the project purpose. Then we need to set a scope that defines how we are going to achieve our Goal. Stakeholders, including the project manager, need to lead effectively through building consensus and communicating the goals and objectives of the project. Minimize the noise around the project, and keep the team focused on the end goal.

What is the primary Signal? The goal of product development is to generate future revenue. To achieve this goal, a team has four fundamental tradeoffs:

1. Time to Market
2. Product Requirements
3. Development Cost
4. Product Cost

Work together as a team to set the priority on these four tradeoffs, thereby setting the scope of your project. Lack of strong, early consensus on the relative importance of each of the tradeoffs can lead to large disagreements and delays later in the project. Build consensus from your project team for the analysis and estimates needed to develop your project. The numbers and assumptions you make must be defensible and you must get buy-in from project sponsors and functional managers. You, as the project manager, need to become a guiding signal for focusing the team efforts. Keep the team focused on the signal in: planning, risk management, resource assignments, and evaluating changes to the plan.

One key tool Kent proposed using is a Critical Elements List. This four column table defines what is critical to the project. The columns are defined as:

1. Requirements including schedule, product requirements, development cost, and product cost
2. Figure of Merit or Unit of Measure such as days, kilograms, dollars
3. Target Value for the Requirement
4. Allowable Variance from the Target Value

Notice that projects are allowed a variance. Often we spend too much time on minor changes to project plans that have little consequence. The boundary or variance agreement sets the point at which the team and stakeholders must get back together to hash out what constitutes success of the project. The allowable variance should agree with the trade-off analysis done earlier by the team.

When used properly the critical elements list can serve as a base project contract between the team and sponsors. This contract then empowers the project team to take responsibility for the outcome of the project. This is a two-way contract. If the project starts moving outside the boundary, this can trigger management before the project is hopelessly off course. Both the team and stakeholders work together for success with clearly defined criteria.

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BRINGING IT ALL TOGETHER:

Using Agility, Lean, and Six Sigma to Spark Innovation and Growth

Rusty Patterson, Vice President Customer & Supply Chain Institute, Raytheon

Robert “Rusty” Patterson is the Vice President of the Customer & Supply Chain Institute for Raytheon and is responsible for taking the improvement concepts embodied in Raytheon Six Sigma outside the company, as well as ensuring that Raytheon has the right people equipped with the right tools and processes to be an effective industry leader. He has had over 30 years experience in defense electronics in a wide variety of positions in engineering and manufacturing.

Summary by Kevin Dabb, Director, Engineering Services Iomega Corporation

Life used to be so simple. Factories were separated by warehouses, processes were insulated by inventory, processes were managed independently, and products were separated by independent processes. We live in a new environment today where factories depend on other factories, processes must be integrated, success is often measured in inventory turns, and we must have the ability to respond extremely quickly to changing conditions.

We have evolved from the Self Contained Factory to the Extended Enterprise where outsourcing, subcontracting, modular factories, rapid prototyping, collaboration, and virtual enterprises have become common, and sometimes over used, terminology in today's business environment. Where there used to be sovereign units competing against one another, there are now tightly integrated partnerships with previous competitors being partners in an effort to share knowledge, leverage expertise, share resources, and collaborate to create a product or service.

Today's extended enterprises are aligning their Vision, Strategy, and Core Competencies around the key process areas of portfolio management, rapid product realization, strategic outsourcing, supply chain networks, and intellectual property management by using agile product teams that are more customer needs focused with an ever increasing need to learn from the past and present to optimize the future. There are many tools to help teams achieve these goals to optimize the future. The magic that companies have to do today is to develop a methodology

and toolkit that works for “them,” not necessarily an off the shelf set of methodologies or tools that someone else used and had success with. Companies need to utilize what they “need” to solve their unique problems and not use every tool for every problem. Often companies will come up with a solution to a problem, continue to improve the solution, implement the solution, and never look back to see if they solved the original problem!

Raytheon has institutionalized a new look at Six Sigma as a tool to achieve their specific needs. They call it “Raytheon Six Sigma.” Their Six Sigma definition has evolved over the years and today is defined as “A knowledge-based process we will use to transform our culture in order to maximize customer value and to grow our business” so that:

1. We validate actions with quantifiable bottom line results
2. We prioritize and link improvement activities at all levels to the Strategic Plan/Annual Operating Plan with emphasis on One Raytheon
3. We truly become a lean extended enterprise
4. Knowledge sharing is a core competency

To institutionalize this newly defined Raytheon Six Sigma charter they had to eliminate the old culture, and all the unique cultures brought to Raytheon from legacy cultures. Strategic alignment of Raytheon Six Sigma evolved in a three-step evolution:

- | | |
|------------------------|--|
| 1. Ad Hoc (FIX) | Take any project |
| 2. Fix/Perform (SHAPE) | Align projects with strategic planning process |
| 3. Shape (GROW) | Use Raytheon Six Sigma to grow the business |

Raytheon now has improvement activities that align their resources and processes with their supplier's capabilities to meet their customer's needs and their Shareholders objectives. They now have a knowledge sharing goal to collect learning from Six Sigma projects, save that knowledge in a centralized knowledge database, and disseminate and share that knowledge to solve their problems, and reuse proven solutions.

In summary, Raytheon uses Six Sigma to drive the corporation toward the goal of a lean extended enterprise while continuing to validate performance with quantifiable bottom line results and allow rapid response to an ever changing marketplace.

NPD PROJECT INNOVATION '03 CONTINUED

Based on the positive initial evaluations from the attendees, we have already started thinking about the next joint NPD SIG/Management Roundtable conference. In addition to feedback from the recent conference attendees, we would also like to solicit input from the members who could not attend. Specifically, we would like to know what topics you would like to see covered. We would be interested in knowing if you prefer conferences on a general topic like the last one on Project Innovation, or if you would like a more specialized conference on a focused topic (e.g. Knowledge Management in NPD or Agile/Lean PM techniques). It has been suggested that June in Boston would be a good time for the next one, but if you have any preferences for time or place, we would like to hear about that as well. Inputs of any kind would be welcomed. You can make them through the NPD SIG discussion group, or e-mail me directly at c-raschke@ti.com. This is your opportunity to influence the direction of the SIG professional development activities and I encourage you to take advantage of it.

SEPARATING THE SIGNAL CONTINUED

Now that our project is kicked off, we need to keep it on Signal. This is done by focusing on what is important. Keep status updates to one page with the following information: basic project information, critical tasks completed in the last two weeks, critical tasks to complete in next two weeks, major risks, key project milestones, and a project gas gauge of your critical elements. Communication is key to keeping your project on track. This method is beneficial because it focuses the team on critical tasks and helps the team understand the big picture in a short period of time.

In summary, Noise is always present; avoid being measured on the noise. Work with the team and stakeholders to measure the items critical to the project. Managing new product development projects is extremely challenging. It is easy to lose sight of the primary objectives in all the detail. By establishing consensus on vital signals early, re-affirming them often, and keeping the team focused, you will stay on Signal. Your project will be a success and win revenue for your business.

PMI Global Congress 2003-North America Proceedings Now Available

Proceedings of 72 project management practitioner/research presentations from the recent PMI Global Congress 2003-North America, held in Baltimore, Maryland, USA, may now be ordered through the PMI® James R. Snyder Center for Project Management Knowledge & Wisdom. The presentations include Areas of Focus on Enterprise Project Management; Project Management in the 21st Century; Project Management Culture / People Side of Project Management; Project Management Skills Implementation / Application; Project Management Essentials; Globalization of Project Management; Project Management in Government; and Best Practices for Tools and Metrics. Cost for PMI members is \$120.00 (US) for the CD; \$50.00 (US) for an Area of Focus (8-12 presentations); \$10.00 (US) for a single presentation. You may also order PMI periodical articles and proceedings from former PMI Seminars & Symposia as well as from PMI Global Congress 2003-Europe through the Knowledge & Wisdom Center.

PMI Staff Participate in Valuable Intercultural Workshops

On 13 and 14 November 2003, all PMI Headquarters staff attended one of two full-day intercultural workshops focused on effectively conducting business and engaging with customers in the Asia/Pacific region. Using China, Japan, India, Korea and Australia as areas of focus, the workshop explored some of the cultural commonalities as well as diverse practices in the four countries to help staff gain a broader understanding of how to build relationships and overcome challenges in conducting business. The workshop continues PMI's commitment to building cultural competency within the organization. This latest workshop follows a similar workshop in January 2003 that focused on Europe, and the inaugural PMI Board Immersion Workshop in July 2003, which explored Latin America. (stephen.townsend@pmi.org)



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The Exposure Draft of the PMBOK® Guide - Third Edition was posted online November 8, 2003 for a review and comment period. Feedback received during the exposure draft stage will help to shape the direction of the next edition of PMI's de facto standard for project management. Interested individuals should visit Breaking News on the PMI home page to link to the exposure draft and the online comment form. The exposure period will close at 5 p.m. (U.S. Eastern Time, GMT -5) on January 9, 2004. Do not miss this unique opportunity to make an impact on the future of the profession!

PMI has implemented a new login process for Internet PDU resources. These resources include the online PDU transcript and online PDU reporting form. Aside from formatting improvements, the new pages have three significant changes that will affect PMI-certified Project Management Professionals (PMP®):

1. The login process now requires the following information:
PMI Identification Number, PMP Certification Number and the first four characters of the PMP's last name/surname.
2. PMPs can now access the online PDU reporting form or their online PDU transcript from this single login page;
3. Once a PMP has logged into either service (transcript or reporting form) they may switch between the two resources without repeating the login process. A link to the non-selected resource is located on the left-hand side of the Web page in bold text. Please direct any questions to adam.potts@pmi.org.

New ethics case procedures and forms are going into effect. PMI's Board of Directors adopted new Member Case Procedures for the PMI Member Ethics Review Process, to be effective January 1, 2004. There are several significant changes in these procedures with which you should become familiar, including the use of new complaint and response forms. The use of these forms becomes mandatory January 1, 2004, in alignment with the new procedures. The new Member Case Procedures and the Complaint and Response templates are available online now for your review.

NPD SIG 2003 Board of Directors

Here are your NPD SIG officers for 2003 and their email addresses. As your representatives, they need and welcome your insight. They are a great way to start networking in the NPD SIG.

Chair:

Alex Walton, PMP
pmguru@yahoo.com

Vice-Chair Technical:

Dennis Chang
dennis.chang@gluonnetworks.com

Vice-Chair Finance & Admin:

Bijoy Chatt
bjoychatt@aol.com

Vice-Chair Communications:

Jan Wells, PMP
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Vice-Chair Membership:

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Web Master

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olaf@cds.co.nz

Appointed Director:

Greg Githens, PMP
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Appointed Director:

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NPD SIG Administrator:

Paula Anderson
paulaanderson@worldnet.att.net

How are We Doing?

Send a note to the Vice-Chair Communications. Does *Project Management Innovations* provide value to you? What do you like or dislike? How can we better serve your needs? Send email to jwells@gmpcompanies.com.

Advertising Space Available

We plan to offer advertising in the next year to help cover the growing expenses of publishing *Project Management Innovations*, and to serve membership by letting them know of products and services available. If you are interested, please contact the Vice-Chair Communications.

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Quarter Page: \$85

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Full Page \$340



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New Product Development Specific Interest Group

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New Product Development
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