Managing Testing Resources:
Five Suggestions for the Project Manager

By: Cem Kaner and Johanna Rothman

Many project managers don't know what to expect from a testing organization. They don't know what the group does, how the product is going to be tested, when things will be done, what deliverables to expect, or how to find this information out. Complicating matters, some test managers want to keep things this way.

We've been successful at managing both development projects and testing groups, mainly for companies that develop and publish packaged software. We see the testing effort as an integral part of the overall process of developing an appropriate quality product on time and within budget. To succeed at this, though, the project manager must be able to see schedules, to receive meaningful deliverables, and to

recognize genuine problems, which test groups—like all other software groups—have in plenty.

This article is written for project managers, with suggestions on how to work with a test group and hold them accountable for their work on your project. In particular, we recommend that you:

(1) assess the risks for your project as a whole;
(2) assess the risks associated with the testing sub-project;
(3) lay out criteria for important milestones, and stick to them;
(4) develop a project plan for the testing sub-project; and
(5) track testing progress against the plan.

We are NOT suggesting that you manage the test group. We are not suggesting that you eliminate the intellectual independence of the test group. And we are definitely not suggesting that you should develop these assessments and project plans yourself. What we're saying is that the test group provides services to your project, just like the programming groups do (you track their progress, don't you?), just like the documentation group does, just like the other groups that make pieces of the product that you have to release. You have a responsibility, as the manager of the overall project, to ensure that the services provided to you are effective and timely. To do that, you need to understand what will be done, when it will be done, what can derail it, and how those inevitable problems are to be managed.

Assessing the risks for your project as a whole

More and more project leaders are thinking about risk, how to assess risk and plan for it. We can't address that general problem here, but if you could use some starting references to the literature, we suggest that you look at the Software Program Manager's Network, http://ww.spmn.com; the Software Engineering Institute, Risk FAQ, http://www.sei.cmu.edu/organization/programs/sepm/risk/risk.faq.html; and the Project Management Institute's Project Management Body of Knowledge, http://www.pmi.org.

All that we'll say here is that you have a challenge when building a product, because you have to trade off four factors:

■ time to market
■ cost to market
■ reliability of delivered product
■ feature set.

Contents

You can't optimize your project against all of these. The product will probably be late or over budget or unreliable or lacking in features. If you manage well, you get to pick which of these dimensions suffers most, and which is held closely to your initial plan. The risk assessment question is, "What could happen on your project that would increase your time, raise your costs, keep your reliability low, or force you to cut features?" Listing the risks (the "what could happens") is the first step in managing them.

Assessing the risks associated with the testing sub-project

The testing part of your project plan has serious risks. Some of our favorite risk questions are:

(1)   How non-negotiable is the ship date?

(2)   Are there fixed dates that must be met for milestones or components of the product?

(3)   How likely is it that the test group will get the software on schedule? What are their contingency plans if they get incomplete software, less stable than promised, late? For example, can they add staff (competent staff) late in the project?

(4)   What technical areas of the product do the current members of the test group not understand? Can they achieve a sufficient understanding of them in the time available? If not, what is your plan to ensure that those areas will be effectively tested?

(5)   Which areas of the program *must* be well tested? Where can you not afford to cut corners, and why?

(6)   Are there regulatory or legal requirements that the product must meet?

(7)   Is the project design rooted in customer research? Is there room for legitimate argument about the goodness of design of individual features? If so, how will you and the test group manage the inevitable wave of design suggestions that come from testers who are often more attuned to customer requirements than many software developers?

(8)   Some features are so important that shipment will stop if they are not working well. When will the test group do its most powerful pass with these features? Are they planning an intense enough effort? Do they have time to conduct it?

(9)   Is your test group focused on improving the quality of the product or on proving that you're stupid?

(10) How attentive to detail and design are your programmers? Can they accept criticism and use it effectively? What has to be done to make them more productive in their dealing with testers? (We measure productivity in terms of the speed with which you get the right product out for the right customer, at the right quality level.)

Discovering and facing issues like these is just one step in running a successful project. You aren't going to solve them just by listing them. And you won't solve them all at the start of the project. (Or, for some of them, ever.) Having them clear, though, will help you understand where to focus your managerial attention, money, and time. If you want to ship the right quality product within budget and on time, then you have to protect your project from the defects, delays and overruns posed by these risks.

You have to work closely with the test manager in assessing these risks. Otherwise, you are thinking in a vacuum. Even if you have years of project management and testing experience, you are working in a vacuum if you aren't working with the people who will have to face the risks that you are trying to manage. You and the test manager may not agree on these risks, on how important they are, or on who should do what to manage them. However, it is very valuable for you to understand each other's assessment and management approach.

Lay out criteria for important milestones, and stick to them

An important tool for managing the project, and your relationship with the test group, is a milestone criteria chart. This lays out criteria for moving the project through different development milestones. How complete is the project supposed to be at a certain point? How should we measure that completeness? These are project-wide issues, and though a good test manager or test lead will gladly help you develop them, these are ultimately your issues to clarify.

Brian Lawrence and Bob Johnson present an excellent set of milestone definitions and checklists at their website,

http://www.coyotevalley.com. We don't agree with all of their definitions, but that's not the point of their lists. The lists are intended as a starting point and a model. You can customize them for your project. For an alternative set of milestone-specific ideas, see Chapter 12 in Kaner, Falk & Nguyen's *Testing Computer Software.* You can probably find additional milestone lists and definitions—none will be perfect for your project, but the mix might help you settle on a specific set of criteria that work for you.

One of us (Johanna) helped a client develop a set of project criteria and is in a position to publish some of the details. We can't reveal the true name of the company or the product. Here, we call it the "Messenger" product. Johanna was retained mid-project to manage Messenger and get it released. Johanna wrote in more detail about "Messenger" in "Achieving Repeatable Processes" in the June 1998 Software Development.

Messenger had been in the market already. This upgrade was of particular interest to specific, important customers. We had negotiated specific, firm delivery dates for interim versions of the product. The product had to go beta in April and it had to ship in July. These customers' acceptance of the final version of the new product would depend on our meeting of these dates with the agreed features at the agreed level of reliability.

As part of our planning, we developed the criteria listed in Table 1. (Note: these are fairly generic criteria. There were some very specific other ones, too, but we're not in a legal position that lets us tell you about those. In your project, you will include items that are more specific than these.)

Note that the testing group is vitally interested in these criteria, but the ultimate decision-maker for them was me (Johanna) because I was the project manager. The testing group helped me understand whether the project was meeting the criteria, they helped me understand how to word the criteria and what else should be included. They played an important role. But the list was mine.

Looking at Messenger's product release criteria, we see a focus on getting to the ship date with a certain set of features, but not a particularly low defect rate. More precisely, several classes of defects didn't matter (as far as the executives and the market researchers were concerned). The overall project reliability had to be understood and reasonable. Specific aspects of the product had to be immaculate. Errors in those areas became high priority quickly. Additionally, anything that genuinely interfered with early use of the product became high priority. Getting ourselves clear on these expectations was essential for successful testing. How could a test group provide support for these very specific objectives if they didn't understand them?

Table 1: Messenger's milestone criteria		
System Test Entry Criteria	Beta Criteria	Release Criteria
· All code must compile and build for all platforms. · All developer tests must pass. · The code is frozen. · All features except tokens are complete.	· All features complete in code, with developer tests. · All code must compile and build for all platforms. · All developer tests must pass. · All available tests for beta customer must run and pass. · All current bugs are entered into the bug-tracking system. · First draft documentation is available and shippable to customers. · The code is frozen. · Technical support training plan is in place, and the people are in place. · There are less than 36 open high priority bugs. · Ship Beta before April 30.	· All code must compile and build for all platforms. · Zero high priority bugs. · Document workarounds for all open bugs in release notes. · All planned SQA tests run, > 90 percent pass. · Number of open bugs decreasing for last three weeks. · All Beta site reports obtained and evaluation documented. · Reliability criterion: Simulate one week of usage … · Final documentation ready to print. · A working demo runs on previous release. · (Performance criterion) · At least two Beta site references. · Ship release before July 15.

Messenger's system test entry criteria were chosen as the minimum set that would allow system test to start, even if not all the features were complete. Allowing testers to start early meant that they could find problems early. Every study that we (Johanna and Cem) have seen says that the sooner that you find and fix bugs, the cheaper. We wanted every opportunity to make our dates, and that meant getting good information as soon as possible.

The project was a success. We released the beta version two weeks late. We might have released an earlier version, that had been a beta candidate, but it didn't meet our beta criteria. However, we were able to explain our criteria to our customers who had insisted on beta copies, and to explain our status against those criteria pretty precisely. This level of control made them comfortable and they accepted the late release without protest. We also had disputes with the testing group, who wanted to continue testing in areas that we had made clear were not relevant to the customers' acceptance criteria. The clarity of the written, approved beta and release criteria went a long way toward keeping those difficult discussions focused and within sensible time bounds. We shipped the product on time and the key customers were extremely happy with it.

Developing a project plan for the testing sub-project

To determine whether the project has met the criteria (which is Johanna's view of the testing task) or to prove that the product has not met the criteria (Cem's view of the task), the test group has a lot of work to do, probably involving more than one person, over a period of weeks or months (or years). Somehow, they have to be able to tell what is supposed to be done, what they've actually gotten done so far, what's left to do, and when they have achieved a goal or met a milestone.

Different test managers handle the planning problem differently. Forget about the incompetents and the turf-hoarders and the blame-it-all-on-you experts. Competent, cooperative test managers differ significantly in how they schedule and in how they communicate their schedule to the rest of the company. We've had success with variants of a method written up by Kaner and we recommend it to testing groups ("Negotiating Testing Resources: A Collaborative Approach." *Proceedings of the International Quality Week Conference,* San Francisco, 1996. Available at http://www.kaner.com.). However, you can't *impose* a method on a good test manager (you can try, but the next test manager might reject your method too, after the first one quits.) You *can* ask for clear communication.

> **Different test managers handle the planning problem differently. Competent, cooperative test managers differ significantly in how they schedule and in how they communicate their schedule to the rest of the company.**

What should be in the plan

Here are some of the things that we think it is fair to request (and expect) in the testing project plan:

■ First, a clear statement about the *minimum* level of testing that will be done for every area of the product (program plus documentation plus marketing materials plus associated hardware). Some areas will get more than this, but none will get less. What is that minimum? Do you think it is enough? Too much?

■ Second, a description of different levels of depth of testing that will be used in different areas of the program. For example, we often think in terms of four categories:

■ *Mainstream* or *Normal Use* testing works the product gently. The tester tries out the various options but is not intentionally using extreme values to break the product. In mass market software, this level includes a complete verification of the program against the user manual. (For a discussion of the need for documentation testing in mass-market products, see Kaner, "Liability for Defective Documentation", *Software QA Quarterly*, volume 2, #3, p. 8., 1995. Available at www.badsoftware.com/baddocs.htm; Kaner & Pels, "User Documentation Testing: Ignore At Your Own Risk", *Customer Care*, volume 7, #4, p. 7-8, 1996).

■ *Guerilla* testing involves ad hoc testing done by someone who is skilled at finding errors on the fly. It is one person's best shot at finding bugs. This approach is typically time-limited. For example, to say that an area will be guerilla-level tested, you might mean that this area of the program will receive a total of two days of ad hoc testing, spread across the project. Normally, guerilla testing is done after (not instead of) mainstream testing.

■ *Formally planned* testing involves carefully thought through test cases that are intended to thoroughly test that area. Depending on your company's philosophy of testing, this might mean a set of test cases that collectively trace back to (check) every item in a list of specifications. Or it might mean a set of test cases that cover all of the extreme values and difficult options and uses of the program (or other product component) in this area. Or something else. It is harsh testing, intended to expose those problems that a customer would find if the area were not tested and fixed.

■ *Planned regression* testing involves carefully thought through test cases that are run frequently, perhaps every build or every few builds. They are designed to recheck an area of the product that was well tested, to determine whether it is still as stable as it was previously. Developing this test suite takes much longer than the development of the first good plan for testing an area. Here you are selecting fewer tests

(or automating many of them), searching hard for efficiencies and for test cases that would be particularly revealing of side effect problems.

- Your test manager might use different names and different descriptions. There's nothing magic about ours. You just need some descriptions that are clear, clearly different, and that cover the options that the test group will actually use.

- Third, a list of the areas of the product. The test group will define the "areas" in its own way. You might help them with this or not. They have to be free to organize their work in a way that works for them, which might be different from how you would do it. However, you should be able to get from them a list of areas that together include all of the things that the testers will test.

- Fourth, for each area of the product, a list of sub-areas or sub-tasks. This list should be detailed. It should include anything that takes a day (or even half a day) of work. Having things broken down this finely makes it possible to accurately estimate the size of the task and to accurately track how much work is remaining to be done. You might not be able to get this list—some people refuse to estimate tasks this finely, dividing the project into two week phases instead. We would want more than that, but you might not be able to force it.

- Fifth, for every sub-area of the product, the list should specify how much time it will take to test that sub-area at the level of depth that it will be tested.

- Sixth, a total across sub-areas. For every major area of the product, how much time will be spent testing, and, overall, what is the level of testing of this area?

- This list of areas and sub-areas gives you something to review, to negotiate, and to track progress against. If the test group wants to spend too much time on one area, you can ask why they intend to test this area's sub-areas at the levels they have chosen. What tradeoffs are they making? As you come to understand the test group's tradeoffs, you might decide that they really do need more time and money. Or you might persuade them to test some areas less intensely (with your support). Or you might come away with a well-understood disagreement. In any case, the level of detail of the list is what makes possible the calm, task-oriented (rather than pointy-haired-manager-wants-to-save-money) discussion that safeguards the quality of the product by focusing the most resources on the most important tasks.

Don't make these scheduling mistakes

Project managers sometimes react with shock when they see an honest estimate of the time needed to do some testing tasks. If the number is too big, you have to manage it. But don't make these common mistakes, which will bite you in the tush later.

- Don't pressure people to promise more testing in less time. They can't. Instead, cut time by cutting tasks or by helping people become more efficient.

- Don't build expectations of (unpaid) overtime into your scheduling. Testers work overtime voluntarily, to make up for lost time or add creativity or depth to their work in order to meet their own professional standards. This is important flexibility, for them and for the project. Don't make them give it up or people will burn out and/or quit.

- Don't forget to allow time for vacations, sickness, and holidays.

- Don't underestimate time spent on administration, staff development, and other non-testing tasks. Assume that people attend meetings, spend time on reviews, help people on other projects, write testing project plans (this isn't free, you know) and so on. Stick with realistic estimates of this overhead.

- Don't expect the testing task list to be complete, even if it is detailed. There will always be late surprises and unexpected complications. Allow a fudge factor in your overhead estimate for this.

- Don't bet that this is the last version of the schedule. Plan when to iterate the test schedule.

Track testing progress

If the test team has a detailed list of tasks and an estimate of how long each one should take, then every week, they can report progress against this. For each area of testing, how much time was spent and how close is it to completion? Are they spending more time per task than they expected? Because the areas are broken down into specific tasks that don't take many days each, everyone can tell when specific things are getting finished. You are less likely to see wild overestimates of progress, followed by long unexpected schedule slips.

It takes time to create this list and it takes time to track progress against it. The testing budget must allow time for this task or it won't be done.

Not only should the test team review their progress every week, the project team can review the relevant milestone criteria every week at the project team meeting. Before system test, review the system test entry criteria, to see if the project is ready for system test. Before Beta, review the progress made against the Beta criteria, and then review the project status against the ship criteria.

Conclusion

As a project manager, you don't have to know how to test and you probably don't have the right (or reason) to micromanage the testing group. But this group does owe you services that are essential for the success of your project. You can and should hold the group accountable for those services (their quality and schedule) without interfering with the group's work.

Note: You can contact the authors at jr@jrothman.com.

Managing eBusiness Projects: Projects on Internet Time Part 3

By: Danek Bienkowski

This is the final of three articles discussing the management of eBusiness programs (ePrograms). The first two dealt with how ePrograms are structured, how best to manage resources, and how management processes and technology should be applied to achieve success. The third and final article postulates a management system that most effectively supports the management of ePrograms. Note: Past issues of the ISSIGreview are available on the web at www.pmi-issig.org <http://www.pmi-issig.org>. We will also add a link to a file with all three parts of this article.
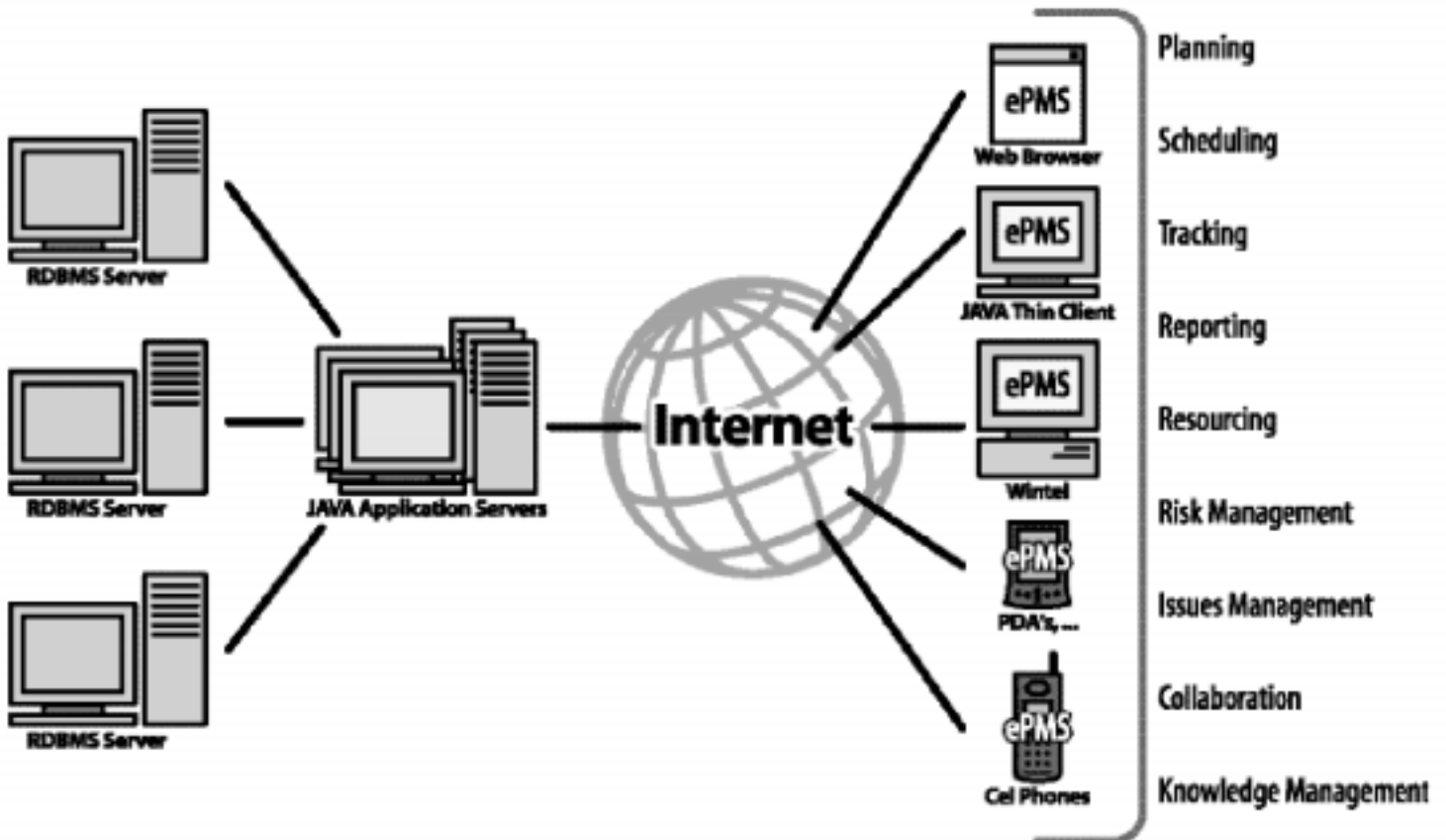
eBusiness Program Management System

Managing an eBusiness program at Internet speed requires a powerful, zero-drag technology platform that does the following:

- Allows greatly simplified yet comprehensive **planning and control**
- Encourages continuous, ongoing stakeholder **communication**
- Enables effective **collaboration** across all project stakeholders-core team members as well as external participants
- Provides frictionless **knowledge management** that promotes effective reuse of knowledge capital
- Leverages the standards of **Internet technology**

Let's call this technology platform the eBusiness Program Management System, or ePMS for short (see Figure 2 - eBusiness Program Management System). The reader should

Figure 2 - eBusiness Program Management System

note that ePMS is a *generic description of a support system for managing eBusiness programs and projects, rather than a description of an actual system in the marketplace.*

ePMS, our next generation solution for eBusiness Program Management, delivers on these requirements, as described below. This discussion addresses the entire scope of EPMS capabilities, some of which will not be available during 2000.

Planning and Control

ePrograms demand a flexible level of detail and rigor in planning, assigning resources, tracking progress, and integrating various elements of the program. EPMS demonstrates this flexibility via:

- **Plan structures**-plan by tasks, milestones, deliverables or any combination thereof;
- **Resource assignments**-allocate resources as individuals or skills at any level in the plan structure; define work effort (or not) at any level in the plan structure;
- **Tracking**-baseline some, but not all, of the plan; track by date, percentage complete, or capture detailed time-sheet data at any level in the plan structure;
- **Integration**-roll-up plans (or portions of plans) to the overall program (or multiple programs), even if the plans have different owners working for different organizations, or the plans reside on different software platforms, or have different plan structures.

> **ePrograms demand a flexible level of detail and rigor in planning, assigning resources, tracking progress, and integrating various elements of the program.**

Communication

ePMS addresses the communications needs of both core team participants and external stakeholders. In particular, it supports the need to strike a balance between providing sufficient communication versus overloading or distracting the recipients. EPMS supports core team members with:

- **Project work-space mechanisms**- such as centralized issues management, dynamic polling, and discussion groups-for real-time multi-point information exchange, as opposed to less effective point-to-point e-mail;
- **Intelligent anti-spam measures**, which automatically generate and push out alerts if specified thresholds (such as schedule, cost, quality, and so on) are exceeded, reducing or removing the need to bombard the entire team with messages relevant only to a few.

External stakeholders are generally interested in simplified real-time access to summary program-level, project-level, or portfolio-level data, with the ability to drill down for more detail on an exception basis. EPMS addresses these needs via:

A **portfolio management capability** that automatically consolidates project data-for example, risk and status-as well as providing the consolidated resource summaries necessary for strategic capacity planning and decision making;

Alerts calibrated to the needs of stakeholders if specified thresholds are exceeded, including intra- or inter-organizational notifications. An example: when resource shortfalls occur, automatic postings/notifications are sent to resource suppliers.

Dynamic data analysis to further support real-time decision making. For example, an external milestone slip in one project automatically triggers notification of the downstream ripple effect to all impacted projects, with an analysis of the resource, cost, and schedule impact on these other projects.

Collaboration

EPMS provides a collaborative project work space to accommodate the fastPM style of work by facilitating both work flow and deliverable life-cycle management for the entire program. EPMS does this via:

- Shared lists of common information, such as key milestones, project tasks, and issues;
- Best-practices templates that provide structure and leverage existing knowledge;
- Real-time polling that frames questions and issues and records participant responses;
- Ongoing management and status-reporting of deliverables over the entire life cycle;
- Maintenance of a document's control-revision history (an audit trail) which, supplemented by a discussion database, can provide insight into the decision-making process that resulted in changes.
- Formalized work flow, sharing rules that navigate a deliverable across an organization or multiple organizations, including defined collaboration points, as well periods of exclusive ownership. This formalization allows the following benefits:
  - Read-only access to current versions of program and project plans at other sites or in other work spaces.
  - Access to master program schedules at any time for up-to-date information;

- Access to internal experts (scattered geographically) or experts from the outside to supplement the skills and knowledge of core team members

Knowledge Management

To move at the speed of eBusiness, the eTeam requires a just-in-time knowledge management infrastructure that both promotes reuse of knowledge capital and facilitates rapid navigation. Hard-copy documentation is kept to a minimum, with the "official" versions of program documents (for example, plans, specifications, issues logs, and so on) maintained electronically.

EPMS facilitates reuse with a library of best-practices templates, and a library of pre-configured alerts. In addition, via the project collaboration work space, EPMS allows links to subject matter experts and relevant newsgroups. It also provides the ability to link to relevant intranet and Internet sites, such as PM2GO, allowing content links to sources of useful information, whether within the enterprise, across a supplier network, or from external sources. Examples of useful information:

- Just-in-time distance learning;
- Just-in-time updates from the author of a best-practices template.

EPMS has a unified interface and simplified function-oriented design, providing an integrated tool that promotes a consistent approach and facilitates rapid access to relevant information while avoiding overload.

Internet Technology

EPMS is built upon and leverages the same Internet standards as the ePrograms it is designed to support. It sits atop an XML-enabled repository, for example, which facilitates information sharing with external systems. EPMS is a thin-client solution with a clean ergonomic design that follows the best Web-design principal. It features an intuitive navigation and layout that doesn't require drilling down though complex menu hierarchies-and requires zero training time to begin to use.

Instead of resource-consumptive applets that are slow to download and require client-side resources to operate, EPMS uses HyperText Markup Language (HTML) for all essential functionality. Of course, for data intensive 'what if' applications where response time is highly prized, powerful, optional applets are available. Customizable for the organization and personalizable for the individual, EPMS is intended to provide a seamless user experience. Finally, it is necessarily industrial strength so that it can handle even the largest ePrograms.

EPMS is also host-able, offering eTeams the option either to install and run it on their intranet or extranet, or access it across the Internet, while leaving the implementation and ongoing maintenance/support in the hands of an external service provider, such as an ASP.

> **EPMS has a unified interface and simplified function-oriented design, providing an integrated tool that promotes a consistent approach and facilitates rapid access to relevant information while avoiding overload.**

References

1. Beyond 2000," *The Industry Standard,* Nov. 8, 1999, pg 142, Hulme, George, V..

2. "Why the Productivity Revolution will Spread," *Business Week,* Feb. 14, 2000 pg 112, by Jennifer Reingold, Maria Stepanek, Diane Bundy..

3. Work Breakdown Structure (WBS): A deliverable-oriented grouping of project elements that organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of the project components (both products and services).

4. Software Morphs into a Service," *Information Week Online,* Nov. 11, 1999, Whiting, Rick..

5. "Why the Productivity Revolution will Spread," *Business Week,* Feb. 14, 2000 pg 112, by Jennifer Reingold, Maria Stepanek, Diane Bundy.

6. Booch, Grady. *Object Solutions: Managing the Object-Oriented Project,* Reading, MA: Addison Wesley, 1996.

7. NASA Software Engineering Laboratory, Greenbelt, MD, 1990. *Manager's Handbook for Software Development, Revision 1* (doc# SEL-84-101).

8. O'Connell, Fergus. *How to Run Successful Projects II: The Silver Bullet*, London: Prentice-Hall, 1996.

9. Yourdon, Edward, *Death March,* Upper Saddle River: Prentice-Hall PTR, 1997.

ISSIG Communications Update

By: Tresia Schumacher, PMP

The recent PMI Leadership Conference and Seminar Symposium[1] was a very exciting time for me. It was the first convention I attended as a PMI member, PMP, and ISSIG Board member. Your ISSIG Board was well represented, and we had the great opportunity to visit with many of you, our members. During those visits, we inquired as to how well we were meeting our membership's needs and how we might improve.

As the Director of Communications for the IGGIG Board, my charge is to lead all projects relating to the ISSIG website, www.pmi-issig.org <http://www.pmi-issig.org>, and our newsletter, the *ISSIGreview*. Kathy Schwalbe is my Associate Director and Editor for the *ISSIGreview*. I enjoy this role immensely and am always in search of great ideas to make our services better. Below are some ideas that came from my interactions with ISSIG members at the recent conference:

> As the ISSIG, we are expected to set the pace for the rest of the SIGs and PMI in the technology we use to deliver services to our membership.

1. **We want to have more contact with you.** To respond to this request, we will be emailing you once a month with the "hottest" ISSIG news. The only exception to the monthly email will be emails about important surveys the Board has voted to support. For instance, we do sponsor some Ph.D. candidates, and in return for them being able to survey you, we receive great presentations at our conferences on the results of their research. The only other exception to the monthly email will be about our annual membership survey. This survey gives you the chance to tell us where you want your dues spent in the coming years and helps the Board set the ISSIG's priorities. Our newsletter will still come to you once a quarter in paper form, but it will always be posted to our website first--snail-mail just takes longer. If you are not receiving your quarterly newsletter or would like to unsubscribe from our email distribution list, please contact me at webmaster@pmi-issig.org <mailto:webmaster@pmi-issig.org>.

2. **We want to be more membership focused.** To assist in meeting this request, you will continue to see improvements to the ISSIG website and newsletter to focus on the needs of our membership. You have indicated to us via various means that we need to give you more applicable information, and that's what we plan to do. We are adding a "Membership Only" page[2] to our website that will allow you to post discussion questions, find a mentor, look at job listings, read back issues of the newsletter, volunteer for various projects ongoing within the ISSIG, earn PDUs, and various other exciting features. We will be also be adding a column to the ISSIGreview that is a sort of "Dear Project Manager Guru" column to answer commonly asked questions in the online discussions or via email sent to the info@pmi-issig.org <mailto:info@pmi-issig.org> address.

3. **We want to be on the leading edge of technology.** As the ISSIG, we are expected to set the pace for the rest of the SIGs and PMI in the technology we use to deliver services to our membership. We plan to do that by carefully managing outsourcing efforts and finding the best in the industry to advise us on what technology to use to service our membership. Our website has recently undergone a facelift and it will undergo many more in the next year. Since we have to offer value to a large membership, over 14,000 now, we can try new technology and offer advice to the smaller SIGs and Chapters on how to better meet the needs of their memberships.

Can you tell I'm excited about PMI and the ISSIG? I hope you are, too, and I hope that you are recommending this SIG to your colleagues and peers in the industry. If you don't feel you are getting your "dues worth" from us as your Board, you have a responsibility to let us know. We're a great team of people who are all volunteering our time because we believe in this profession. Thanks for your continued support and especially to those of you who continue to make great suggestions on how we can better meet your needs.

Note 1: All conference participants received a CD/ROM with papers. You can buy a Connections 2000 CD-ROM for $79.95 through PMI's online bookstore at: http://pmibookstore.org or by calling the PMI Publications Fulfillment Center at 412-741-6206 or by e-mailing: pmiorders@abdintl.com.

Note 2: To access the "Members Only" section of the pmi-issig.org website, enter *pmiissig* as the username and *welcome* as the password. Members will be notified by the newsletter or by an email of changes to this login procedure

Member Benefit: Great Conferences and Conference Information

By: Kathy Schwalbe, with inputs from Kent Hamblin

One of the main benefits of a professional organization is networking with other people to share problems, suggestions, and interesting life experiences. Attending professional conferences such as PMI's annual conference (usually in the fall of each year) or the PMI-ISSIG's annual conference (usually in the spring of each year) are great experiences. If you cannot physically attend conferences, you can often purchase written conference proceedings, audiotapes, or just talk to a colleague who attended the conference to key in on what you really missed and find out how to get selected information.

New technologies are making it even easier (and cheaper) to access conference information without physically attending. For example, PMI started using several live web broadcasts this year for special presentations. To avoid the need to still be somewhere at a certain time, you can also access archived presentations via the web. We needed a bit of extra text for this ISSIGreview, so I decided to check out some of PMI's conference information. A colleague shared some audiotapes with me that he purchased at Connections '2000. I listened to the tapes while driving to work (after figuring out how to use my car's cassette player, which we had never used since it has a CD player), and I really enjoyed several of the tapes. You can order audiotapes for $8 per tape/speaker from PMI or from www.soundontape.com <http://www.soundontape.com>. One tape had very pertinent information that I used in a class discussion of critical chain. I also bought the conference proceedings ($99 from www.pmibookstore.org) from PMI's first research conference held in Paris in June 2000 and discovered lots of great information. The free web broadcast on PMI's web site was another pleasant surprise.

PMI's web site has Bill Taylor's keynote presentation available for anyone to view and hear, and it ran great on my three-year old laptop via a 56KB modem. I didn't even have to download any extra software to get it to run. (You need Windows Media Player to view/hear the presentation). I could even get back into my e-mail and word processing software to do some work while I just listened or watched the presentation in a separate window on my computer screen. My seven-year-old was home sick the day I decided to check out the

> **PDS is structured so the Project Management Professionals (PMPs) attending PDS can earn twenty Professional Development Units (PDUs).**

webcast, and he showed me how to fast forward past the introductions! I encourage all of you to check out this broadcast from www.pmi.org <http://www.pmi.org> by clicking on the link entitled "Monday Morning General Session from PMI Connections '2000 now available for viewing." I also suggest you look into buying conference proceedings or audiotapes to access information relevant to your jobs or interests.

And now the plug for PMI-ISSIG's next conference, PDS '01. Mark your calendars for May 20-23, 2001. PDS '01 will be held again at the Coronado Springs Disney Resort at Lake Buena Vista, Florida. I attended the PDS conference for the first time in May 2000 as an invited speaker, and it really was a great conference if you're involved in information technology project management. Last year's conference was the fourth annual Professional Development Seminar (PDS) sponsored by the PMI-ISSIG, and 250 people attended. There were 32 speakers in six tracks over the three and one-half day conference. The conference was very well organized, and I met lots of great people and learned a lot.

Kent Hamblin, the project managers for PDS2000, said that the ISSIG vision for PDS is to "provide a quality, cost effective professional development opportunity in project management to benefit professionals in the field of information technology." Survey results indicate that conference participants agreed that the PDS2000 team had delivered on meeting this vision. PDS is structured so the Project Management Professionals (PMPs) attending PDS can earn twenty Professional Development Units (PDUs). So if you attend PDS every year, you can earn all the PDUs you need to maintain your PMP certification. The eighty-seven PMP's who attended PDS2000 affirmed that earning PDUs was one of their primary reasons for attending. Other reasons for attending the conference included cost, location, and the quality of the material presented.

The theme for PDS '01 is "Great Explorations in IS Project Management." This theme captures the spirit of the early Spanish explorers that visited the Florida shores. Be sure to register early to take advantage of Disney's Special ISSIG room rate and discounted conference registration fee. PDS is a three and a half day event. Sunday is the ISSIG Golf Scramble and on-site registration. Monday and Tuesday are the morning keynote presentations followed by track presentations. Kent Hamblin says the big event is Monday evening with "a reception with fun and frivolity for all as only Disney can do it and an opportunity to network with attendees and sponsors." Wednesday includes three half-day workshops to wrap up the final day of the conference.

Kent also says that the location and the accommodations at Disney's Coronado Springs Resort are very nice and rea-

sonably priced. The atmosphere at Disney's Coronado Springs Resort is that of a South American Open Air Market Place-- very colorful and festive! The food is also superb. As Kent stressed, "**There are no box lunches at PDS!**"

If you were unable to attend PDS'99 or PDS'2000, check out the ISSIG web site for the presentations. For additional information on ISSIG and PDS'01 visit the PMI-ISSIG web site at www.pmi-issig.org.

Certification News

By: Kathy Schwalbe, Ph.D., PMP

As members of PMI, you are all familiar with the popularity of the Project Management Professional (PMP) certification program. The July 2000 PMI Today noted a 71% increase in PMPS from April 1999 to April 2000. As of April 2000, there were 20,791 certified PMPs. Many people in the field of information technology, however, are interested in further certifications more specifically geared toward managing projects in their field.

PMI is working on developing a Information Technology Certificate of Added Qualification (IT CAQ). Paul Grace, PMI's Certification Program Manager, has led a few meetings on this subject, and several members of the ISSIG board (Danek Bienkowski, Dick Walz, and Austen Meyer) are on the steering committee for the IT CAQ. Many of you may also be familiar with a few other certification programs related to project management and information systems. The intent of this article is to let you know about recent developments in information technology project management certification programs and to solicit member feedback on these and other programs.

In 1998 the Singapore Computer Society collaborated with the Infocomm Development Authority of Singapore to establish an Information Technology Project Management Certification Program. Details are available on the web at <http://www.scs.org.sg/certification>. By the fall of 2000, about 400 participants have joined the program, with 248 professionals currently having the title of Certified IT Project Manager (CITPM). PMI recently signed a Memorandum of Understanding with the Singapore Computer Society to support and advance the global credentialing of project management and information technology expertise.

The Gartner Institute recently developed several courses and certification exams related to various aspects of information technology project management. Wave Technology and Prometric, members of the Thomson Learning family of companies, now administer the Gartner Institute certification programs. Further information is available on the web at <http://mktdev.wavetech.com/gartner>. (Note: I have been unable to find out more details on how many people have earned

various certifications from the Gartner Institute, so I welcome any information.)

The Chauncey Group has also launched a new series of certification exams. To achieve the Associate Technology Specialist (ATS) Certification, candidates must complete the Core Skills examination and two examinations from one of eight career clusters. The three major functions covered in the Core Skills exam include project management, task management, and problem solving. More details are available on the web at <http://www.e-assessment.com/>.

As new developments occur, we'll keep you posted. Feel free to send your comments on this topic or other articles in the ISSIGreview to me at schwalbe@augsburg.edu.

Call for Papers

PMI Europe 2001 Conference: The PMI UK Chapter is hosting the Fourth European Project Management Conference (PMI Europe 2001) in London from 6-7 June 2001. More details are available on the PMI UK Chapter website at www.pmi.org/chap/uk <http://www.pmi.org/chap/uk>. Paper submissions are due by 10 November 2000.

PMI 2001 Seminars & Symposium: PMI's 2001 Symposium will be held 4-7 November 2001 in Nashville, Tennessee. The deadline for submitting abstracts is 8 December 2000. For further information, please visit *http://www.pmi.org/symposium2001*.

Updates on Connections 2000, Elections, Administration and the Website

By: Danek Bienkowski & Dick Walz, PMP

This quarter we will discuss four topics that we hope are as important to you as we see them.

Connections 2000:

The annual PMI® Seminar/Symposium held in Houston, Texas, was a huge success for PMI® and the project management profession. PMI® announced a total membership of over 60,000. The PMI-ISSIG has a membership just under 15,000 (that's about a quarter of the whole). There were over 2,500 in attendance in Houston with over 400 from the PMI-ISSIG (that's about an eighth of the whole). Our membership was not proportionately represented at the conference and yet we had a disproportional high attendance at the session track presentations. Our opening keynote speaker, *Ms. Lois Zells*, attracted over three hundred while seventeen competing presentations shared the other twenty-two hundred in attendance. Most of the PMI-ISSIG presentations drew attendance like the first. In addition to presentations by industry leaders and PMI members, the offered seminars and training sessions were very popular.

Our heart felt thanks go out to *Janet Mentzer*, PMP (Senior ISSIG Track Chair) and her team. They were the behind (and in front of) the screens volunteers that made the ISSIG portion of this Symposium a success for both PMI® and PMI-ISSIG. THANKS!

Just a side note: The ISSIG managed PDS2000 didn't and PDS'01 won't have the box lunches and finger foods provided in Houston. We don't charge as much and also won't try to make money the way PMI® does. There is a difference in philosophy here and you are the winners.

Elections:

Monday evening during the Symposium produced the PMI-ISSIG annual meeting and election of Directors for next year. We would like to introduce next years PMI-ISSIG directors to you with just one of their objectives for next year:

Co-Chair: **Derek Belyea** - "I believe that we need to build a greater sense of community on the web and find ways to make distance education a reality for ISSIG members."

Director of Professional Development: **Kent Hamblen**, PMP - "…. my desire is to continue to enhance and advance the ISSIG Professional Development Program. To take PDS to the West Coast and beyond."

Director of Projects: **Wendy Lam** - "I would like to develop a process for how ISSIGs can be formed based on the experience of existing ISSIGs."

Director of Marketing: **Bill Stewart**, PMP - "…. wishes to focus on helping ISSIG be recognized as the premier source for Information Systems Project Management expertise and support."

Director of Membership: **Arie Avraham** - "Respond to member queries in timely and efficient fashion or refer them to the appropriate source of information."

Director of Administration: **John Bernard**, PMP - "I look forward to continuing the solidification of processes required to efficiently run this "new" corporation"

Congratulations to all. Their biographical information and complete listing of objectives can be accessed on the main pmi-issig.org page.

> The growth we have experienced over the five years we have been officially in existence has been staggering. We became an independent, not-for-profit, Corporation in the state of Pennsylvania in August with 14,911 members as of the first of September.

The new Board takes over on January 1, 2001.

In addition to the election of officers, the PMI-ISSIG Board of Directors presented a "State of the Organization" that will be posted on the web site in the "Members Only" section. Find out what your elected officers have done and are planning to do for you. Go and look! For those in attendance we drew for door prizes (too many to list individually) including a Handspring PDA.

Administration:

The growth we have experienced over the five years we have been officially in existence has been staggering. We became an independent, not-for-profit, Corporation in the state of Pennsylvania in August with 14,911 members as of the first of September. That size has made underachievers of your Board of Directors.

Recognizing that the needs of our members need to be a primary focus and beyond the realm of volunteers, we

initiated a search for full time, professional staff to handle the administrative duties. Association Management Services (AMS) and two other groups have responded to our request for bids and we are closing in on a contract with them that will assure timely, consistent and live contact capability with you, our membership.

The criteria we placed on the potential contractors went well beyond what we thought we could possibly achieve and you should see improvements before year-end. This is a reality because of the team that pursued it to fruition. *John Bernard*, PMP, *Wendy Lam*, *Derek Belyea*, *Danek Bienkowski*, *Kathy Schwalbe* and the others who have developed criteria, evaluated responses, negotiated differences and generally pressed to completion are to be congratulated on a job well done. We are in final negotiations with AMS and plan to have a signed contract very soon.

Web Site:

A new look web site was rolled out in early September and the new "Members Only" page was activated at the beginning of October. The simple look is evident but efficiency and fluidity are two new strong points for our web site. Take a look and let *Tresia Schumaker* (at schumys@swbell.net <mailto:schumys@swbell.net>) know what you think. Additional features are being activated, with a threaded discussion group feature about to be launched. New links are being added. We are looking very closely at some type of mentoring capability. The list goes on and on. Let us know what you think - we are listening.

We are not the only ones who are improving web sites. PMI® had this: "*PMI® Headquarters is pleased to announce that PMI members may now edit their demographic information* online by accessing the PMI Web page at <www.pmi.org/members>. All current PMI members will be receiving notification via postal mail of this new feature. That notice should arrive before you get this ISSIGreview." This announcement is a critical one as we are initiating regular E-mail and early results show a lot of undeliverable E-mail. Please go to that web site and check/update your information.

Danek Bienkowski, Co-Chair
Dick Walz, PMP, Co-Chair

PDS'01

The next annual PMI ISSIG conference, PDS'01,

will be held from May 20 - 23, 2001 at the

Coronado Springs Disney Resort at Lake Buena

Vista, FL. The theme is "Great Explorations in

IS Project Management." For sponsor informa-

tion, please contact Austen Meyer at:

austenm@msn.com.

Watch the ISSIG web site for future updates.

Anyone interested in presenting at PDS'01 or

conducting a workshop can

contact Libby Williams via email at:

libby.williams@bellsouth.com.

PMI-ISSIG 2000 Board of Directors

Executive Advisory Chair
Phil Simpson, PMP
☎ 410/531-5398   ✉ simpsonp@bellatlantic.net

Co-Chairs
Danek Bienkowski
☎ 212/219-8945   ✉ dbienkowski@niku.com

Dick Walz, PMP
☎ 972/713-7690   ✉ dickitm@aol.com

Director of Membership
Arie Avraham
☎ 416/777-8902   ✉ aavraham@kpmg.ca

Director of Communications
Tresia Schumacher
☎ 817/417-5215   ✉ schumys@swbell.net

Associate Director of Communications
Kathy Schwalbe
☎ (612)330-1766   ✉ schwalbe@augsburg.edu

Director of Marketing
William Stewart, PMP
☎ 770/887-1935   ✉ billstew@pmlg.com

Director of Finance
Robert Lindemann, PPM
☎ 210/456-2162   ✉ robert.lindemann@usaa.com

Associate Director of Finance
Derek Belyea
☎ 604/736-1194   ✉ dbelyea@gnaconsult.com

Director of Administration
John Bernard
☎ 404/773-9265   ✉ john.bernard@delta-air.com

Associate Director of Administration
Wendy Lam
☎ (416)7778188   ✉ wslam@kpmg.ca

PDS 2000 Project Manager
Kent Hamblen
☎ 205/403-1890
✉ kent.hamblen@bridge.bellsouth.com

Director of Projects
vacant

Director of Professional Development
Austen Meyer, PMP
☎ 210/456-2651   ✉ austenm@msn.com

Chapter/SIG Liaison
vacant

GPMBOK IS Extension PM
Pamela Hollington
☎ 604/988-4102   ✉ phollin@imb.net

Senior Track Chair
Janet Mentzer
☎ 310/540-1521   ✉ jmentzer@usa.net

Junior Track Chair
Vicki Wong
☎ 310/771-5070   ✉ vicki_wong@nissan-usa.com

**Membership Dues,
Change of Address**

**Brantlee Jacobs, SIG Coordinator
PMI Executive Office
Four Campus Boulevard,
Newton Square, Pennsylvania   USA   19073-3299
☎ 610.356.4600 ext. 1024   📖 610.356.4647**

Information Systems SIG
Project Management Institute
Four Campus Boulevard
Newton Square, Pennsylvania USA 19073-3299

ADDRESS CORRECTIONS REQUESTED

DATED MATERIAL

Editor's Corner

By: Kathy Schwalbe, Ph.D., PMP

I hope you enjoyed reading the last part of Danek Bienkowski's article on Managing eBusiness Projects. I'd also like to thank Johanna Rothman for submitting the excellent article on Managing Testing Resources. Keep those article submissions coming to me at schwalbe@augsburg.edu. Also consider submitting a paper or presentation to a project management conference.

Look for new features in the next *ISSIGreview* and on our web site in 2001. As Tresia Schumacher stated in her article, we want to be more member focused and provide high quality information and services. As a PMI-ISSIG member, you should have received an email containing login instructions for the new Members Only section of the pmi-issig.org web site. I will put the latest login information in the Editor's Corner. Following is the login information as of October 1, 2000. **username:** pmiissig **password:** welcome

We will change login information periodically, so watch for updates in the monthly ISSIG emails and in the *ISSIGreviews*. Please do not e-mail me for password info - check the web site for login instructions. If you know someone who is not receiving either of these forms of communication, please have them go to the pmi.org website and verify that their SIG membership is current and that pmi has their correct address information.