



**March 2004
 Vol 4 Issue 1**

In this Issue:

A Note To Chapter Members..... 1
 How Long Will It Take?.....1
 Adaptive Project Framework.....3
 Meet the Board5
 News fromPMI 5
 Jobs@PMICMass.....5
 Member at Large 5
 Kudos & Congratulations 7
 Author! Author!7
 Testing Humor..... 8
 PMP® Makes the Top Ten!10

Next Chapter Meeting

Join us Tuesday, Apr. 13, 2004, at Holiday Inn, Route 495 and 20, Marlboro

Time: 5:30-8:30PM

Presentation: Estimating, Scheduling, and Control of High Risk, Highly Critical Projects

Presenter: Michael Mah, Managing Partner, QSM Associates, Inc.



<http://www.acteva.com/go/centralmass>

Cost: \$25.00 for early registration and pre-payment, \$30.00 at the door

If you prefer not to use our online sign up service, please make your check out to:

Central Mass Chapter of PMI and mail to:

Central Mass Chapter of PMI
 c/o Gene Valois
 4 Mount View Ave.
 Auburn, MA 01501

A Note To Chapter Members

By Jim Walsh, PMP - President

Having expended most of our energy last year on developing basic operating structures, there is a feeling of excitement about entering the next stage of development for our chapter. During the first week of 2004, your Central Mass leaders convened a special meeting to look toward the future and where we would like our organization to be in three to five years. Strategic initiatives were established that focus on enhancing the value of your membership through things like producing special events, and exploring partnerships with other organizations to expand opportunities for professional development and networking. Look for more information and opportunities to help in future newsletters and at our chapter meetings as we roll out projects to realize our goals. Expect new services and events to enhance the return on your investment in the Central Mass Chapter.

While we are energized about the continued development and growth of our chapter, I think it's important to take time to recognize the effort of those who worked hard to get us to this point.

A number of chapter leaders completed terms as 2003 concluded. Jim Baldinger stepped up to fill the vacated chapter President position and enthusiastically supported a restarting of our organization. Jim McGill assumed the Director of

Continued on page 4

**How Long Will It Take?
 Time Estimating Part I**

By Thomas C. Belanger

Poor time estimates are a leading cause of schedule delays and late projects. There are many reasons why it is so challenging to get estimates right. The uniqueness of the project, inexperienced estimators, and lack of historical records are the usual suspects.

Many trends of the last ten years are addressing poor estimates. These include the increased use of project management software, the increased prevalence of methodologies that include incremental life cycles, and the Project Management Office. Those in software development or information technology may use project lifecycles such as spiral, or evolutionary, rapid application development (RAD) or newer approaches such as Agile Project Management and the Rational Unified Process (RUP) approaches. All of these methods rely on accurate estimates.

If you do not work in an industry in which tasks have been observed repeatedly, such as in construction, you must record your own observations. This means that, over time, you must record actual effort and duration for your people working on your projects. As your database expands, your accuracy in time estimating will improve.

Clarify What Needs to Be Done

Clarity is the rule. Before you can estimate how long something will take, you have to define precisely the task to

Continued on page 2



Building professionalism in project management. TM

Project Management Institute
Central Mass Chapter

NEWSLETTER

0 to PMP Exam in 5 Days!

Learn FAST. Compete Smart. WIN BIG

With the Cheetah Accelerator Course™ for the PMP, you'll get your PMP FAST. The PMP is your ticket to success as a project manager. This is the fastest way to get your PMP and quickly improve your career options! We use proven accelerated learning techniques to condense 180 hours of exam prep time into a five day program that really moves. You earn your PMP the same week—course participants take the actual PMP exam on the fifth day as part of the course.* *To take the exam on the 5th day, you must have your eligibility letter from PMI. Our free toolkit details PMI's eligibility requirements and the process to apply to PMI for eligibility. With our program, if you don't pass the exam within a month of taking the course, we pay for you to take the exam two more times, and you can retake the course at no cost. See our website or the PMP Toolkit for more information on our customer satisfaction policy.

Free PMP Exam Prep Toolkit!

You can instantly receive your Cheetah Accelerator Toolkit™ for the PMP by downloading it from our website—www.cheetahexamprep.com. The toolkit is loaded with valuable insights and tips that will guide you through the certification process from start to finish. Best of all, it's FREE. Download it today and find out why 120,000 project managers have reviewed this in the last year.

Courses held in:

Hartford: Feb 23-27; Mar 8-12; Mar 29-Apr 2; Apr 19-23;
May 10-14; June 7-11; June 28-July 2

Burlington-Billerica: April 26-30

Register TODAY at...
www.cheetahexamprep.com or 888-659-2019

CHEETAH Exam Prep
Knowledge Confidence Reliability

How Long Will It Take? Time Estimating Part I

Continued from page 1

be accomplished. This may be the most important step in estimating effort. Too often people whose intentions are good are too eager to get started on the task without thinking it through. Ready, fire, aim. You know what happens next. They get it wrong and have to start over or do rework. Answer these questions to think through, and clarify, the work:

- What are the inputs?
- What are the steps needed to accomplish the task?
- What is the completion criteria?
- What are the outputs?

What are the inputs for each task? Is a drawing or flowchart needed to begin? Write it down. Inputs usually equal predecessors to the task.

What are the steps necessary to accomplish the work? If you have not done anything like it before, check with others who have. Find a few people who have worked on a similar task.

Continued on page 4

Meeting Schedule

The Central Mass PMI Chapter meets the second Tuesday of each month at the Holiday Inn in Marlboro at the intersection of Routes 495 and 20 at 5:30pm. You may register and/or pay for these meetings at www.acteva.com/go/centralmass or via the link available with the 'Acteva, Register now' button.



Chapter meetings are currently scheduled for

- April 13, 2004
- May 11, 2004
- June 8, 2004
- July 13, 2004
- August 10, 2004
- September 14, 2004

Board meetings are currently scheduled for

- April 27, 2004
- May 25, 2004
- June 22, 2004
- July 27, 2004
- August 24, 2004
- September 28, 2004

Please visit the Central Mass PMI Chapter Web site at www.pmicmass.com for more information on these and other events.

Adaptive Project Framework:

A Common Sense Approach to Managing Complex Projects

By Robert K. Wysocki, Ph.D.
Enterprise Information Insights, Inc.
rkw@eiicorp.com

A Simple View of the Project Management Landscape

When I think of the project management landscape, I think of it as a two-dimensional grid like the one shown in Figure 1. The first dimension relates to the goal of the project. The goal is either clearly specified (and therefore known) or it is not clearly specified (and therefore not known). The second dimension relates to the solution or how you expect to reach the goal. That also has two categories. The solution is either clearly known or it is not clearly specified (and therefore not known). If we intersect these two dimensions as shown in the figure, then we have defined a four-category classification of projects. This classification is simple but inclusive of every project. That is, every project must fall into one and only one of these four categories.

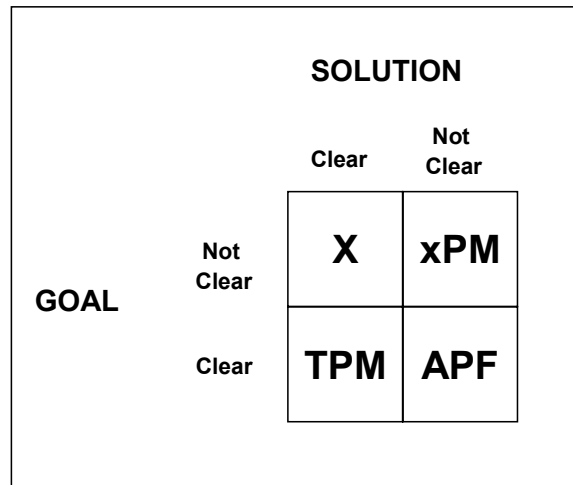


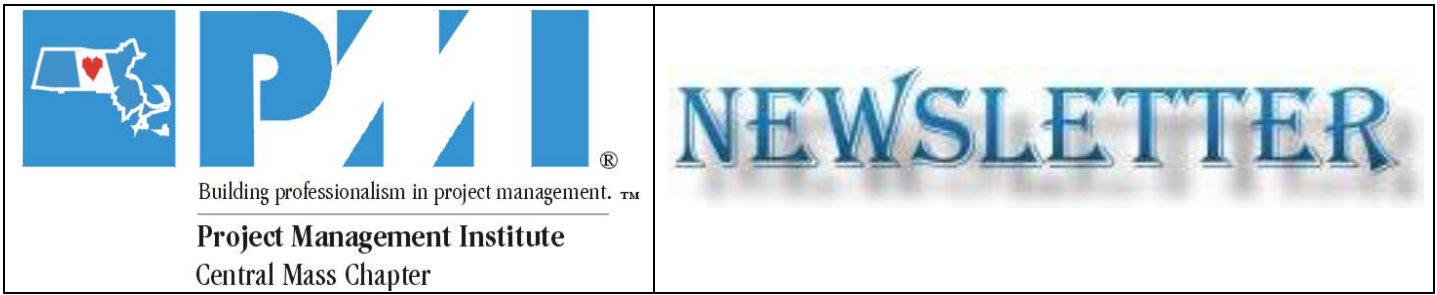
Figure 1: The Project Management Landscape

As you can see from the figure, each project classification is associated with the single approach to project management that is most recommended for that type of project. Traditional Project Management (TPM) works best when both the goal and the solution are clearly defined. Having that allows sound project planning, the creation of a complete WBS, the assignment of resources, and the scheduling of project tasks. Everyone is happy and the project can proceed with full confidence that it can be successfully completed. Extreme Project Management (xPM), on the other hand, is used when neither the goal nor a solution are clearly specified.

Continued on page 6

“During my eighty-seven years I have witnessed a whole succession of technological revolutions. But none of them has done away with the need for character in the individual or the ability to think.”

-- Bernard Baruch



How Long Will It Take? Time Estimating Part I

Continued from page 1

Ask for ideas about how to go about accomplishing the task. What are the necessary steps?

Determine how you will know when a task or activity is complete. Describe each task in such a way that results are tangible and verifiable. Passing an inspection is an example.

What are the outputs for the task? Are you producing a Market Analysis? An object? This is usually what the folks working on successor tasks are waiting for.

Estimate Effort

Once you are clear about the work to be done, estimate effort. Effort is: "The number of labor units required to complete an activity or other project element" (PMBOK2000®). This includes the total number of hours worked by all team members, on an activity or task. If it were possible to sit at your desk or workstation and work on a task without ever stopping, how long would it take? In trucker terms, this is "pedal to the metal" time, or time spent actually driving. **Be sure to consider skill level.** An experienced donut maker will take less time than a new recruit.

In most cases when the task is new, this effort estimate will be a range. For example, you expect a task to consume between 10 and 16 hours. If you are early in the process of building your effort database, or if there is little or no experience in your group with this type of work, the range will tend to be wider.

With extensive experience, and many observations of similar tasks, you will be able to narrow the range. Software projects and research projects tend to have a higher proportion of novel work, and therefore more than half of the project may be entirely new territory.

In some cases, very little effort is required for a task that has a lengthy duration. For example, once concrete is poured, there is little effort required while the cement "cures", then forms are removed. If you are conducting a survey of users, there is a waiting period before the surveys are returned.

Why Estimate Hours?

There are three key reasons why it is important to identify the number of hours of effort that are necessary to perform a task. The first is to develop a schedule. To calculate the schedule for the project, you will need the effort required, and the duration for all of the work included in the project.

Continued on page 6

A Note To Chapter Members

Continued from page 1

Meeting and Events role, worked very successfully with our vendors and provided a broad range of operations support including creating an online information repository.

Gene Valois, serving as Treasurer, performed admirably, minimizing outstanding payments and developing financial reporting that enables sound fiscal management. Their effort along with the hard work of Barbara Karten, Director of Communications, Tom Belanger, Director of Training and Sponsorship, Catherine Walters, Newsletter Editor, and Margaret Donoghue-Eddy, chair of the '03 Election Committee, was instrumental in establishing a solid operating foundation for our chapter.

And finally it was our good fortune to have Ray Leung generously volunteer his services as Director of Meetings and Events as Jim McGill moved into the Vice President role.

A hearty 'thank you' to each of our chapter leaders. As a member, I feel fortunate to have this bright and energetic group working for us.

Best regards,
Jim Walsh
Chapter President

"It is tough to make predictions, especially about the future."

- Yogi Berra



News from PMI

Among the hallmarks of any professional association are advancing a body of knowledge and supporting the growth and use of new knowledge. *Project Management Journal*, PMI's academic and research quarterly, has supported those ends as the profession has grown. To enhance the *Journal's* academic impact and to provide members with more timely access to its learning, PMI is emphasizing electronic distribution as the *Journal's* primary delivery method.

In April 2004, PMI will post a printable version of the *Journal* on the Member's Area of the Web site, concurrent with its limited print distribution. At that time, PMI will discontinue automatically mailing printed versions of the *Journal* to members who do not request a printed copy.

Although the emphasis will be on timely Web access, PMI members can request to continue receiving a printed copy, while still having access to both current and archival issues online. Those members who notify PMI of their preference for this option will continue to receive the *Journal* in print, along with their regularly mailed copies of *PM Network*® magazine and *PMI Today*™. *PM Network* magazine and *PMI Today* will continue to be mailed each month to all members.

To continue receiving the *Journal* in print, e-mail pmjinprint@pmi.org with your name, member identification number and mailing address. (To ensure optimum service, please use this e-mail address to notify PMI of your preference.)

Meet The Board

President: *Jim Walsh, PMP*
 Vice President: *Jim McGill, PMP*
 Treasurer: *Gene Valois*
 Recording Secretary: *Rebecca Hagopian*
 Director of Meetings and Events: *Ray Leung, PMP*
 Director of Sponsorship: *Thomas Belanger, Acting*
 Director of Education: *Thomas Belanger*
 Director Of Communications: *Barbara Karten, PMP*

Jobs@PMICMass

One of the free services our chapter provides to its members and the Central Mass business community is the **jobs@PMICMass** distribution list, which allows employers to gain access to our membership of skilled project management professionals.

If you have a project management opening, email position information to jobs@pmicmass.com, and it will be forwarded promptly to the chapter job information distribution list.

If you are a member interested in new opportunities, email jobs@pmicmass.com and ask to be added to our job information distribution list.

Member at Large: Ray Leung, PMP

PMI Highlights

- PMI Member since: 2000
- PMI CMASS Member since: 2002
- PMI CMASS Director of Meetings and Events (Current)

Career Highlights

- Over 10 years in various project management, technical, and management positions at New England Telephone (now Verizon)
- Program Manager EMC Corporation for their Enterprise Customer Relations Management system Clarify, concentrating mostly on software development, systems, and infrastructure; developing, learning, and practicing "world class" program management
- Enterprise Project Manager at American Tower Corporation, responsible for the project management, telecom, and licensing/contracts departments; honed his project management office (PMO) skills.
- Currently Program Manager of the Program Management Office at Perot Systems in Providence, RI.

Education Highlights

- Bachelor of Science, Boston College (Math and Sociology)
- MBA, Boston College

Interests

- Waterskiing
- Family time

How Long Will It Take? Time Estimating Part I

Continued from page 4

The second is to estimate and track cost.

The third reason is that the Financial Accounting Standards Board (FASB) requires that a distinction be made between the hours of effort spent by workers that should be expensed, and the number of hours that should be capitalized.

Examples of a cost that can be capitalized are the installation of a new operating system, or the purchase and installation of a piece of manufacturing equipment that will be used for several years. The values of both assets are depreciated over a period of time.

An example of an expense is the total dollars spent on software development that is intended for sale. Those that develop software for sale can charge their labor and related costs as an expense until it has proved that it is a viable product.

Common Effort Estimating Techniques

Several techniques for estimating effort are discussed below. The best estimates are likely to come from those with the most experience with similar tasks. As a rule, those with more experience with a given task type are more efficient, and will consume less effort. Also, consider the human interaction factor.

When estimating the amount of effort necessary to complete a task, consider the number of people who need to interact to accomplish the task. Many have learned the hard way that throwing more people at a task may increase, and not decrease the effort and duration.

Continued on page 8

Adaptive Project Framework

Continued from page 3

Planning is done just in time and the project proceeds through a number of iterations until an acceptable goal is reached or until the sponsor decides that the project is not converging to an acceptable goal. Adaptive Project Framework (APF) is used when the goal is clearly defined but how to reach that goal - the solution – is not. I contend that this is a class of projects that is continuously growing. More and more projects fall into this classification and we are trying to use inappropriate approaches to manage them. The fourth category represents projects whose goal is not known but whose solution is. This is an impossible situation. It would be equivalent to solutions out looking for problems. Nevertheless, we are all acquainted with consulting practices that advocate such approaches.

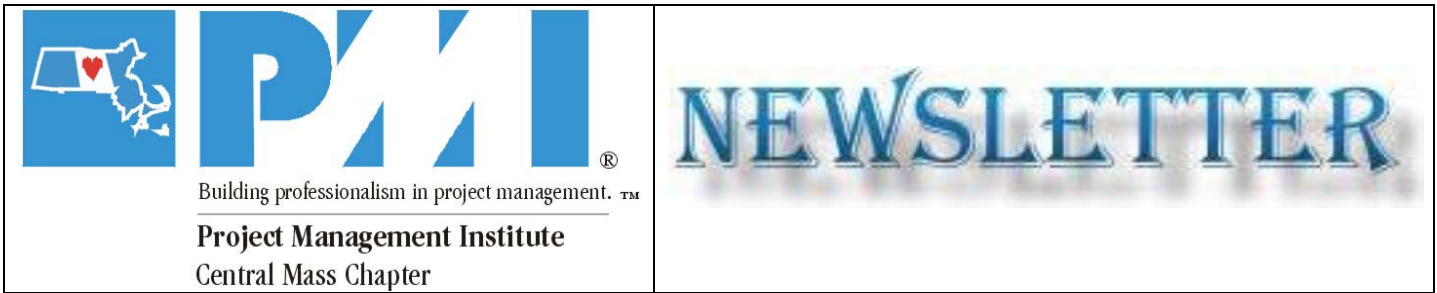
What is Adaptive Project Framework?

APF is best described as a hybrid of TPM and xPM. It is an iterative approach (an xPM characteristic) and, within each iteration, it will use many of the templates and processes common to effective TPM best practices.

APF represents a shift in thinking about projects and how they should be managed. For one thing it meaningfully involves the client throughout the entire life cycle of the project. There are many other things you will come to realize that sets APF apart from other approaches. Here are a few:

- APF requires a new mindset – one that thrives on change.
- APF is not a “one size fits all” approach - it continuously adapts to change.
- APF utilizes a just-in-time planning approach.
- APF adapts tools and processes from TPM and xPM.
- APF is based on the principle that you learn by discovery.
- APF guarantees “if you build it they will come.”
- APF seeks to get it right every time.
- APF is client-focused and client-driven.
- APF is grounded in a set of six immutable core values.
- APF delivers maximum business value.
- APF eliminates all non-value added work.
- APF is less costly and requires less time to execute than TPM.
- APF meaningfully and fully engages the client as primary decision maker.
- APF is based on a shared partnership between client and team.
- APF works – 100% of the time! No exceptions!

Do I have your attention? Contact me at rkw@eicorp.com for more details on how you can benefit from APF.



Kudos and Congratulations

Congratulations to Ray Leung, PMP, who has accepted the position of Program Manager, PMO Healthcare at Perot Systems in Providence, RI.

Kudos to Chapter Past President Jim Baldinger, who is now a Career Advisor for Bernard Haldane Associates.

Congratulations to Jean Aucoin, who is a new PMP, having recently attained his professional designation.

Congratulations also to Mark Muir, who recently attained his PMP designation.

Please send your successes to Newsletter Editor Catherine Walters (walters_catherine@pmicmass.com) for inclusion in this column in the next newsletter.

PMI Membership Renewal

PMI Members with a current or lapsed membership can renew their membership online in the PMI Members Area https://secure.pmi.org/memberapp/code/member_welcome.asp beginning 90 days prior to the membership expiration date.

Or

Please complete and return the renewal notice that was sent to you via postal mail or contact PMI Customer Service at +610-356-4600, option 8.

Author! Author!

By Catherine Walters, PMP

Did you know that as a PMP, you can receive Professional Development Units (PDUs) by writing an article for the PMI Central Mass Chapter Newsletter?

Professional Development Units (PDUs) may be claimed for submissions, covering a project management topic, based on the educational experience gained through research. PMPs may claim a maximum of 15 PDU's per certification cycle (CCR) for a published newsletter submission as a Self-directed Learning PDU activity.

To do so, PMPs should identify the time spent in review of the educational resources used to prepare the submission. After publication in the newsletter, they may submit a PDU Activity Reporting Form and claim one PDU for each hour spent conducting this research. More information on Self-directed Learning PDUs can be found in the Continuing Certification Requirements (CCR) Handbook. The handbook can be downloaded from www.pmi.org.

Chapter members are invited to submit newsletter articles using the following guidelines: Any article submitted for PDUs must cover at least one of the PMBOK® areas or must be related to at least one PMBOK® area. For example, an article titled "Resolving Team Conflicts" would be relevant to the Communications section of the PMBOK®.

- Any article written for PDUs should be of reasonable length (750 - 1200 words).
- Have at least one outside source: a book, magazine article, or quotes from a subject matter expert.
- Write for our audience – project managers.

Members are also welcome to contribute:

- Book / Article Reviews
- PM Tips & Tricks - hints on software programs like MS Project or Excel, or techniques for eliciting better requirements, etc.
- Humor - we can always use tasteful jokes, anecdotes, and cartoons (if original).

Send your submissions to Newsletter Editor Catherine Walters, (walters_catherine@pmicmass.com). We reserve the right to edit for space and style.

Testing Humor

Aggression Testing: Punching all developers with an open bug.

Confession Testing: All developers must admit what they either cannot do or have blown off.

Digression Testing: Developers and analysts must change the subject and ramble when the topic of bugs comes up.

Repression Testing: All developers must tell everyone who they secretly want to kill.

Oppression Testing: All developers will be required to work 24 hours a day until all bugs are fixed.

Depression Testing: All developers must explain which bugs make them sad, and why.

Succession Testing: Developers must be able to name the chain of command in the event that a PM dies.

Machiavelli's Caution for Project Managers

"And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new."

Nicolo Machiavelli c. 1505 (trans. W. K. Marriott)

How Long Will It Take? Time Estimating Part I

Continued from page 6

To illustrate that fewer is often better, examine the formula below which shows the numbers of people who must interact to accomplish a task.

$$\frac{n^2 - n}{2} \text{ number of interactions}$$

$n = 5$ (five people working on a task)

$$\frac{5^2 - 5}{2} = \frac{20}{2} = 10 \text{ interfaces}$$

With ten people:

$$\frac{10^2 - 10}{2} = 90 = 45 \text{ interfaces!}$$

If the task requires much interaction between those doing the work, such as is necessary in software development, limit the number of people and interfaces.

You may use a combination of several techniques listed below to estimate effort. For example, in a software development project, you are likely to use the historical approach together with source lines of code (SLOC), objects, use cases, or function points. Here are several techniques that can help you estimate effort:

- Historical Approach
- Catalog of time standards
- Process Mapping Data
- Task Analysis
- Work Sampling
- Lines of Code
- Parametric Models
- Function Points
- Monte Carlo Simulation
- PERT Formula
- Delphi Approach

Each is described below.

Continued on page 9

How Long Will It Take? Time Estimating Part I

Continued from page 6

The Historical Approach

To use the historical approach, review previous project plans. Examine the actual effort and duration required on similar tasks. Be sure to consider the skill level of those who will do the work in the current project as they compare to those who did the work previously.

Catalog of Time Standards

Industrial Engineering departments often maintain catalogs of a variety of standards, including the amount of time it takes to perform common tasks. The R.S. Means Cost Data book contains a wealth of data for any type of construction tasks, including an average number hours of effort to build a 2000 square foot deck, and the cost.

Process Mapping Data

Activities and Tasks from process maps contain time estimates. Some of these estimates may provide clues about effort and duration for related project tasks.

Task Analysis

A Task Analysis is a systematic way to identify the process employed by a user to perform a specific function. For example, a user needs to enter customer information to fill an on-line order. Once the Analyst knows the functionality desired, in the form of detailed steps, she can begin to estimate the time needed to create code for each use case, function, or GUI screen, based on the number of

fields, queries, etceteras.

Work Sampling¹

A method used in construction projects to improve time estimating is work sampling. Using this method, managers observe work practices, with the goal of removing barriers to effectiveness. Data gathering is based upon field observation. To do this, supervisors or others categorize the type of activity engaged in by each crew member at a timed interval. A complete observation session directed at a single crew lasts approximately thirty minutes.

All work must be classified as one of the following:

- Primary Time—work directly adding value to the final product, for example, welding pipe, bolting steel, or aligning a motor or pipe.
- Secondary Time—work in support of primary activity, for example, handling material, getting tools, scaffold building, or receiving instructions.
- Recoverable Lost Time—observed activity that appears to have no direct benefit, for example, waiting for permits, instructions, or materials, or attending to personal needs.

After observing work, an attempt is made to eliminate or minimize recoverable lost time. Opportunities are often found in changing the circumstances of the work, by management action to improve the situation, than in worker correction.

Source Lines of Code (SLOC)

The most commonly used estimating method used in software development projects is lines of code. It is a simple measure that works well for estimating in small projects. However, when comparing different environments, lines of code can be vastly different

Function Points

A function point is one end-user business function. Function points can also be used for project sizing. For example, an application that contains one hundred twenty function points, provides one hundred twenty functions to the user. An example of a function is displaying a policyholder record in response to an inquiry. Central to Function Point Analysis is the premise that the size of an application is related to its function point count. Because they use design parameters to estimate program size, function point models are a type of parametric model.

To use function points in estimating effort for a software development project, consider inputs, interfaces used, transaction rates, inquiries, files referenced, and other data. Function points normally provide a more accurate measure of program size. The number of function points in a program is based on the number and complexity of each of the following.²

¹ Improving Construction Effectiveness Through Work Sampling, Homer, J.L., and Stegenga, M. W., PMI Proceedings, 1996, The Project Management Institute, 1996.

² Rapid Development, McConnell, Steve, Chapter 8, Microsoft Press, 1996.

How Long Will It Take? Time Estimating Part I

Continued from page 9

- Inputs
- Outputs
- Inquiries
- Logical internal files
- External interface files

Monte Carlo Simulation

Monte Carlo simulations allow the user to enter a variety of variables such as inputs, outputs, inquiries, logical files. You can enter several possible scenarios and obtain a variety of potential outcomes. Several software tools are available that use Monte Carlo simulation.

The PERT Formula

The Formula:

a = optimistic time estimate (highly skilled worker, familiar task)

b = pessimistic time estimate (new task or worker, or not enough people)

m = most likely time estimate (much experience, higher degree of certainty)

T_e = Time Estimate

$$T_e = \frac{a + 4m + b}{6}$$

To Wallpaper a kitchen:

a = 5 hours; b = 16 hours; m = 8 hours

$$T_e = \frac{5 + 4(8) + 16}{6}$$

$$T_e = \frac{53}{6} \qquad T_e = 8 \frac{5}{6} \text{ hours}$$

Delphi Method

The delphi method is a group consensus technique which invokes the judgement of experienced practitioners. It is used for project sizing as well as time estimating. Use this when little or no information is available from past projects, and when engineers, marketeers, or other experts with appropriate experience are available. Follow these steps to apply the delphi method:

1. Define any standard unit of measure, such as lines of code, or market size.
2. Identify those people with appropriate experience.
3. Provide the appropriate requirement and specification, and necessary worksheets.
4. Working independently, each estimator anonymously prepares a size estimate and rationale and sends to the PM.
5. The Project Manager summarizes and distributes the results obtained.
6. The estimators meet to discuss the results.
7. The Project Manager distributes a second set of worksheets, asking for input.
8. The estimators independently make any desired revisions and return them to the Project Manager.

I hope that these techniques have given you new ideas, and have refreshed you on others. In our next newsletter, I will talk about the efficiency factor, and estimating duration. Stay tuned.

PMP® Certification Makes the Top Ten!

The PMP® credential was recently named one of CertCities.com's "10 Hottest Certifications for 2004", placing it among the fastest-growing certifications in the Information Technology industry.

CertCities.com's annual reader survey asked a diverse group of IT professionals which of some 70 certifications they plan to achieve within the next 12 months. The results are compiled into a "reader interest score" for each title.

A "buzz score" from contributing editors and industry experts is then added based on the credential's reputation. The winners were announced Thursday, December 18, 2003, on CertCities.com.

According to the article, "It's not an IT-specific credential -- project professionals from all industries pursue the PMP. And it's exactly this distinction that seems to make it so appealing for 2004. . . . Employers are demanding more than just tech skills, causing IT professionals to seek ways to document their business savvy. PMP appears to be an excellent choice to meet that need, offering proof of a truly useful 'soft skill'."