IF YOU DON'T HAVE PERFORMANCE MEASURES, YOUR PROJECT SCHEDULE WON'T HELP **By Peter Baxter, Distributive Management, LLC**

Introduction

Five years (or so) ago, I read a story about a new executive at EMC Corporation who passed out airsickness bags at his first manager's meeting. He told all his managers that their schedules' made him sick. It was a cute story (if a story that includes a reference to air sickness bags can be called "cute"), but also highlights the challenges associated with managing software and technology projects.

He went on to say that a schedule without quality was of no use to him and resulted in a product with no value for their customers. His point was that unless you also measure the vital aspects of the product you are developing, the schedule has no practical purpose. What does it mean when a project is ahead of schedule but the product lacks the features to compete in the marketplace or to satisfy the needs of the consumer? If the product isn't usable, then it could be done now, or take another year- it really doesn't matter.

Putting the Schedule into Perspective

First, let me reaffirm the use of the project schedule: you need one for every project and you should keep it up to date. The schedule should identify projects tasks, the time required to complete tasks and significant milestones or critical dates. I am not suggesting that there is a magic bullet that you should implement in place of a schedule. What I am proposing is that you treat schedule as just one part of the management landscape.

I'm sure most project managers have heard the statement "Good, fast, cheap: pick any two". It captures one of the common relationships between cost, schedule and quality. Namely, if you shorten the schedule, you need to spend more money (i.e. less "cheap") or give up quality (i.e. less "good"). This relationship has recently been expanded to include the notion of product scope. Scope, cost, time and quality is shown in Figure 1 below

(from "Your Mission, Should You Choose to Accept It: Project Management Excellence" by David L. Hamil (PMP) of MESA Solutions, Inc.)

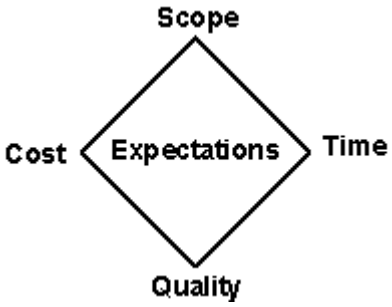

Figure 1. Relationship of Project Dimensions

Whether you choose a three factor relationship or a four factor relationship, it should be clear that there is a relationship between the contents of the project schedule and other aspects of the project. These other aspects are no less or more important than delivering on time. The measurement of cost, scope, quality, testing, and many other aspects of project development (including even the schedule!) is called performance measurement.

Project Status Using Performance Measurement

Performance measurement is the technique that provides a consolidated view of the various dimensions of your project. A performance measurement system provides as complete a picture as is practical for a manager to use in assessing status, monitoring progress and making corrections. I say "as is practical", because you don't measure everything, only the most critical work products, resources, and processes/tasks. Avoid the tendency to measure what you can. Instead, measure what you need. For a more complete discussion of what to measure, the Distributive Management web site provides two helpful white papers: 1) " ; 2) "Putting MANAGEMENT into Requirements Management" describes how to measure requirements activities.

Managers need accurate and timely progress measures for whatever software or system they are building. Indirect measures, like a schedule are useful, but only when combined with real, "down in the dirt" measures of the product being developed/enhanced and the

processes being used. For example, a manager should measure system and software requirements, and construct a plan for how many will be completed each month or week. As the project proceeds, the manager then checks actual progress against the planned progress and adjusts as needed. A manager would take the same approach for design, coding, testing and quality, identifying how many "items" are expected, measuring progress and taking action when needed.

Many organizations mistakenly believe that by augmenting the schedule tool or scheduling system, they can control the other aspects of their project. If you add resource loading or personnel costs to your schedule, then voilà, you have a complete project management picture. Wrong! Measuring resources is useful, though in many commercial organizations, the dollars and people are not as important as the hours and allocation of effort. But, the principle issue with measuring schedule and resources cost is that it does not provide the manager with any indicators or measure of the product being built. These provide no measure of requirements, design, usability, testing or quality. It is the same situation that led to the airsickness bag mentioned earlier.

One of the interesting and time-saving uses of performance measurement is to measure the schedule itself. A manager might want to see the percent of tasks started on time as well as those completed on time. There are other non-technical areas on which a performance measurement system can focus: risk management, cost, turnover, and staffing. By combining schedule measures with technical and other non-technical measures, a manager is better able to spot problems and take action during the fact.

Summary

The time, money and sanity savings associated with being able to see and address problems as soon as they appear on the horizon, and no matter which direction they come from, are astronomical. Successful projects leverage key performance measures to head off serious trouble, bringing product development projects in for a safe landing and avoiding the need for airsickness bags.

Peter Baxter is the founder and President of Distributive Management, where he directs the design and delivery of performance management and measurement related products and services. He is a frequent author, trainer and presenter on the subject of measurement and metrics, and has had the privilege of working with some of the most quantitative and mature software and systems organizations in the world.

For more information on **what to look for in a performance measurement solution** and **selecting measures for the entire software lifecycle**, visit Distributive Management's web site resources: http://www.distributive.com/resources_articles.html or call us at 800.779.6306.

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