SELECTING A PROJECT CONTROL SYSTEM IS ONE THING, IMPLEMENTING IT IS QUITE ANOTHER!

By: Pradip Mehta

Abstract

Management science has advanced considerably in the last 50 years. In fact, many sophisticated tools and processes employed by the Project Management community are products of the last decade, and their development continues today at a pace brisker than ever.

For Project Control Professionals this development has been exciting and challenging. The migration of network-based scheduling programs from home office to job-site PC's has created abundant opportunities for Project Control Engineers to support the Project Management team. With the power of these systems right outside the Project Manager's door, the job's success should be guaranteed - but, is it?

Obviously, there is no magic in the concept of Project Management and control. By itself, the system cannot guarantee the successful completion of a Project. In final analyses, it is the people and the interaction of these people, who, with the aid of a Project Control System, get the job done on schedule and within budget.

This paper will examine some of the elements which contribute to the success or the failure of a Project Control System. The emphasis in this discussion is on the human element involved in implementing a Project Control System rather than on the system itself.

1.0 Introduction

The most important aspect, which is often lost in the enthusiasm of selecting and/or developing a Project Control System, is the feasibility and effectiveness of implementing it within the framework of the projects' needs and requirements.

The expense of establishing a Project Control System can only be justified by the value of information it provides. If the data produced is not used or if the information is not supplied in both a usable format and effective time frame, the cost and scheduling system provides no real value to the project.

Too often, the management reporting system ends up as a history book of past records. This record keeping, accurate and useful as it may be for future projects, is not the total objective. The prime function of the system is to help get the job done on schedule and within budget. Unless this prime function is performed to an acceptable and measurable degree of satisfaction, true implementation of the system has not taken place.

2.0 Elements of Implementation

What then is required to be done so that we do not get hopelessly lost in the details of the system? Some of the elements which can and do make a difference in the success or failure of a Project Management System are as follows:

- Involvement and support of higher management
- The human element and interaction
- Overall implementation strategy and approach
- The effectiveness of the Project Control Engineer

2.1 Support of Higher Management

It is important for higher management to be directly involved in implementing a control system so that all individuals realize that the system is a management requirement. Another advantage of management's direct involvement is that if several systems within the company are attempting to exercise control on a project, management will have a direct feedback and take steps necessary for consolidating the duplicate efforts.

Management has a serious obligation to its clients to guard against cost overruns and schedule delays. The success of individual projects eventually adds up to the overall growth of the company. Management, therefore, should intimately be involved in all phases of the project.

If wholehearted support of management is not available, any Project Control System, if attempted, is headed for a natural death. The prime reason for this failure will be lack of confidence filtering down to the working level, resulting in a mass of meaningless data given to the cost and scheduling engineers.

Meaningless input, when coupled with the lack of schedule and cost commitment, in turn, results in an overall project plan too optimistic and theoretical to keep pace with. Consequently, the Project Control then remains a perfect record keeping system for the past failures instead of guidance for accomplishing future goals.

2.2 The Human Element

What we attempt to do in any Project Control Environment basically is contrary to the very essence of human nature. Human beings, having an instinctive sense of freedom, really do not wish to be monitored or controlled, whereas, the entire concept of Project Control is to do just that. This natural human instinct for freedom then resists any effort directed toward the evaluation and measurement of their performance.

When we proceed to implement a Project Control System, in essence, we attempt to superimpose a mechanical control structure on a group of people who are complex, independent and mistrusting of what we are trying to impose upon them. Before we can truly hope to succeed, the individuals need to understand what we are doing, why we are doing it and what benefits they can derive from it.

The Project Control System will have to demonstrate that the system really works for them, that it is not designed to "catch" them and record their bad performance, but assist them to achieve good performance.

2.3 Overall Implementation Strategy and Approach

Given huge technological advancements in development of the Enterprise-Wide web based Project Control Systems in recent years, many organizations have undertaken new initiatives to upgrade their existing systems or migrate to new ones. Having been involved in a successful implementation of an Enterprise-Wide Project Control System for almost five years with a former employer, my experience suggests that successful adoption requires a certain forcefulness or passion in the organization because change is difficult. It also requires a carefully thought out implementation strategy as outlined below to overcome many organizational barriers and to manage transition more effectively.

2.3.1 Explore with Probes and Pilots

In the early stages of the implementation, it is very important to test the new system with the use of pilot projects to validate the system benefits and gain acceptance from the stakeholders. These initial efforts will capture lessons learned about process redesign and technical challenges you will need to address.

2.3.2 Use 20 - 60 - 20 Rule in Selecting a Pilot Site

In a given organization, 20 percent of the people are optimistic about accepting change, 60 percent are skeptical but open-minded, and 20 percent are pessimists. Given this distribution, it would be a waste of time and energy to convince the pessimists. The idea, therefore, is to implement change organically by targeting the 20 percent optimists as early adopters, and once early adopters have had a positive experience with the new system, they will then appeal to the middle 60 percent skeptical but open-minded stakeholders.

2.3.3 Do Not Underestimate Power of WOM! (Word of Mouth)

A Project Manager or a user of the new Project Control System, who is working in the "trenches," is more inclined to listen and trust his or her colleague's feedback on the new Project Control System regardless of the number of bulletins your department may put out on usage of the new system. Hence the market value of enlisting help of the early adopters in spreading the good word on benefits of the new system cannot be underestimated.

2.3.4 Don't Train Every User on All Aspects of the New System

Depending on the different roles stakeholders play in a project, it is very important to train the project team participants and other interested parties in the organization in accessing only those pieces of information relevant to them in performing their job duties.

2.3.5 Think Creatively About the Process Redesign

Rather than redesign the processes completely prior to implementing a pilot, you need to think through and make an intelligent assessment on degrees to which you are going to solve your business processes related problems. Sometimes an urgent deadline will enable you to do "good enough" process redesign before the new system is implemented. Or sometimes the experience of working with the new system in a pilot location will highlight problems related to a business process that you can use as leverage to convince your management to make a change. Quite a few organizations have fallen into the trap of re-engineering all of their business processes before implementing a new system, and the net result is that after almost five years, their initiative is still on drawing boards filled with process and work flow charts and their software licenses are collecting dust!!

2.3.6 Do Not Expect the Project Control System to 'Wash Your Car' and 'Walk Your Dog'

There is no system that can deliver all your needs. You need to always be prepared to do some "off line" analysis by downloading the system data into a spreadsheet and by fine tuning it to meet your client's unique needs.

2.4 Effectiveness of Project Control Engineer

Once the system is rolled out, the role of the Project Control Engineer (who acts as a custodian of the system), takes a paramount importance in ensuring that system is properly maintained and effectively implemented on a day to day level.

Effectiveness suffers when Project Control Engineers lose sight of why the data they process is important. It is easy for Project Control Professionals to lose their focus on the real needs of the project for timely reliable data, or to confuse the needs of the project with the needs of their particular computer programs or systems.

Our ability to generate data far exceeds our capacity to assimilate it. Project Management software enables the technically competent professionals to literally bury the project in the system output. Complex models of the project plans are constructed, electronically tested, and refined. The interlinking of multiple databases has created a myriad of opportunities to whet the analytical appetite. However, unless they are careful, Project Controllers can, and frequently do, become

enraptured with the model and its ability to supply this data. A form of tunnel vision develops which impairs the program user's ability to focus on anything but monitoring. Maintenance of the model becomes a solitary purpose, a cause...a project within the project.

One clue to the cause of this fixation lies in the evolution of sophisticated cost/scheduling language. The technical demands of the tools they use have forced most Project Control Engineers to learn and speak machine language. They may reach a point where they work on "their" project for days - with absolutely no contact with people. Once isolated in this way, discrepancies between the real project and their computerized model begin to crop up. Such discrepancies diminish both the value of the model and the Project Control Engineer's effectiveness in impacting project decisions. The following are some of the suggestions which Project Control Engineers should consider to maximize their effectiveness.

2.4.1 Seven Ways to Maximize Effectiveness as a Project Control Engineer

1. Walk the Job Daily. Take notes on what you see occurring. Later, compare your notes with the schedule of events for the week. What differences are there? Do not wait for formal input from your project team members and to the extent possible, develop a "Peak-a-Boo" style of interaction. In other words, open a daily dialogue with the Project Manager and Task Managers, and discuss your concerns with them. Offer to assist in resolving issues even if it is outside your job responsibilities.

2. Ask Yourself Regularly, "What are my Client's Most Urgent Needs Right Now?" Am I fulfilling these needs? Do they agree that I am fulfilling them?

3. Act as a Facilitator. Don't complain about lack of input from Task Managers. Ask "How can I help you get that information?" Become a willing servant of the management staff rather than a system expert. Staff members will elevate you to an expert when they begin to recognize your effectiveness.

4. Speak the Client's Language. Use terms the people you are talking to understand. Put yourself "in their shoes" when communicating with them.

5. Report and Discuss Budget/Schedule Variance with Task Managers First. You must resist the temptation to report to management without a full understanding of the situation. You may convince yourself that you know the root causes of the most recent variance; however, unless you discuss the variance with parties involved prior to reporting it to management, conflict is sure to follow.

6. If Necessary, Enroll in New Technological Training. Your project may involve a new technology that you may not have any exposure to. Don't be afraid to approach your management in order to seek training in emerging technologies. This will undoubtedly increase your understanding of the project.

7. Summarize and Simplify all Reports and Schedule Displays. Don't ask clients to wade through reams of detail in order to construct their own "big picture."

3.0 Conclusion

The value of today's sophisticated planning, scheduling and cost management tools cannot be overstated. They provide a solid platform from which Firms in our industry compete for slim margins in a tight market. However, Project Control Professionals must keep that value in perspective with the human tools they also use in their work.

Handling and managing a complicated system is so involved that the system tends to become a goal rather than a means. No matter how good a system is, it will fail, unless effectively implemented.

References:

- Moore, John M., 1990, "Effective Use of Management Control Systems", AACE Transactions.
- Transportation Research Board, Report 84: The successful adoption of web - based collaborative software, August, 2005

This presentation is a culmination of literature based on the author's presentations at various conferences including:

- PMI - College of Scheduling, Second Annual Conference, Scottsdale Arizona, April 2005 - Project Control Best Practices in an Enterprise Wide Implementation
- PMI - NJ Annual Symposium, Edison NJ, May 2005 - Implementation of Enterprise - Wide Integrated Project Control System
- AACE - NJ Chapter, Edison NJ, September 1998 - Project Controls for Success
- IT Corp - Technical Symposium, Phoenix, AZ, June 1993 - Selecting a Project Control System is one thing, implementing it is quit another!
- AACE - NY Chapter, Manhattan, NY, November 1990 - Implementing Project Controls on Fresh Kills Landfill Leachate Mitigation Project.