

The Project Administrator - The Glue Holding it Together

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There is reason to believe that in coming years the Project Administrator (PA) will be an increasingly central figure in the project management process. This paper describes why this trend is in place and what the PA does to earn that recognition.

Background

Engineering and construction companies, defense contractors, general contractors, architectural firms; all do projects for clients outside of their own company. We will call these companies "Outside Project Companies" or OPC's. Companies that provide products (i.e. consumer or industrial goods, natural resources) or services (i.e. financial institutions, transportation, distribution, communications, food) do projects for themselves. Their clients are inside the company and their projects are performed to enhance their profitability or reduce costs (i.e. product development, re-engineering, consolidation). We will call them "Inside Project Companies" or IPC's.

The cost of an IPC project appears as an expense on the company's bottom line. If their projects overrun their budgets or schedules or fail to deliver what was promised but do not significantly impact company profits it is not a major concern. If OPC projects repeatedly overrun their budgets or schedules or fail to deliver what was promised profits go negative. OPC's must do project management effectively to survive.

Globalization and Competition

Companies used to compete with each other within a few hundred mile radius. In the last 10 to 15 years the increasing Globalization of business has expanded their radius of competition to the entire world. The resulting increase in competition has forced prices and profit margins lower and increased the need to perform projects to enhance profitability and reduce costs. This increase in the number and size of projects has resulted in an increase in effect of project expenses on the bottom line. Thus management has become increasingly concerned with the efficiency of their projects and is looking for ways to improve project efficiency

An industry professional organization is always viewed as a resource for advancing the state of the art, which can help cut costs. One indicator of the rate of increase in concern with project costs is the

rate of increase in membership of the Project Management Institute (PMI). As shown in the graph in Exhibit 1 (5/4/98 PMI, Upper Darby, PA) PMI

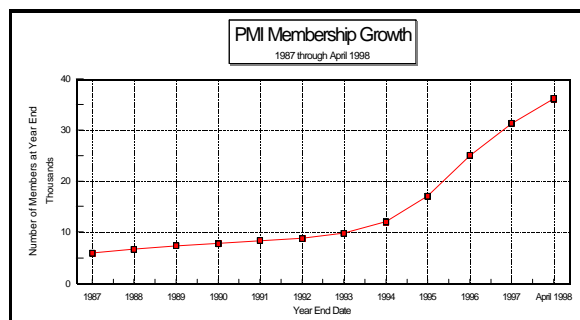


Exhibit 1

membership has grown over six fold over the last 11 years (5882 YE '87), more than doubling between year end 1995 (17,058) and the end of April, 1998 (36,223) as this paper is being written.

Analysis of PMI membership by industry reveals that most of this growth is fueled by IPC's. As of the end of March of '98 Exhibit 2 (5/1/98 PMI, Upper Darby, PA) shows that over 3/4 of PMI's members are from IPC industries.

| PROJECT MANAGEMENT INSTITUTE MEMBERSHIP BY INDUSTRY as of 3/31/98 | | |
|---|-----------|---------|
| | Responses | Percent |
| Total responses | 24220 | 100% |
| Outside Project Companies (OPC's) | 5220 | 22% |
| Inside Project Companies (IPC's) | 19000 | 78% |

Exhibit 2.

What IPC's Can Learn From OPC's

Since OPC's appear to be more comfortable with the way they practice project management lets look at the differences in the way they practice project management and what IPC's can adopt from OPC practices. Exhibit 3 represents the results of informal observations made over this author's 20+ years in project management highlighting 10 of the most significant differences. The reader is invited to compare these observations with their own.

OPC project practices are clearly driven by the market place while the IPC project environment until now has been relatively shielded from market forces and more heavily influenced by internal politics. To improve project performance IPC's will

need to become more market/profit oriented and begin to employ OPC project techniques. IPC's that can implement these changes quickly will have an advantage over their competitors.

teams can help the IPC project environment operate more like the OPC project environment.

1. Accountability of Executives

Executive accountability ensures that everyone involved is focused and taking the project seriously. But its not practical to hold IPC PE's as accountable as OPC PE's when they do not have the same career long project management experience. One could provide project management training for IPC PE's but time and experience are still needed. One could bring in an OPC PE but it would take time for the new executive to learn the new business environment.

The PA provides the PE with information required to understand and control the project. For example, if the team is unable to build a comprehensive detailed plan the PA will let the executive know and recommend actions to be taken. During implementation the PA provides the PE with comprehensive status information so the he/she understands what is happening and what actions are required by whom.

| Practice | OPC's | IPC's |
|--|--|---|
| 1 Accountability of Executive Responsible for Failure. | Loss of the case, job level, or job. | Usually no penalty. Given another assignment at the same level or promoted. |
| 2 Contract with Client. | Always formal, in red S, often with penalties for missed targets. | Forget it. Internal Document of Understanding (U.U.) from another department. Foundation was internal accounting S. Penalties rare. |
| 3 Project Team Motivation. | Recognition, remuneration, and employment tied to project success. | Half of meeting, team meetings, consensus team or individual events. |
| 4 Estimating and Project Uniqueness. | More accurate than average. Use experienced professional estimator. | More average than average. Use less experienced people or computer based estimating tools. |
| 5 Project Manager (PM) and Team Selection. | Use people with proven track record. | PM's with proven track record are not available, must be trained for the job. |
| 6 Project Management Process. | PM's have flexibility to adapt whatever process requirements demand. Too expensive to have staff defining process, no perceived benefit. | Project Management. Process usually defined by staff organization. PM's have less flexibility. |
| 7 Project Management Education. | Apprenticeship. Little used for formal education or certificate. Too expensive. | Education and the use of consultants for mentoring and training is common. |
| 8 Project Office Role. | Specialists provide support services for project teams. | Describe processes, standards, tools, advice, and education rather than support services. |
| 9 Planning. | A client without sign a contract without a detailed project plan. | Whether client or Project themselves (PM) requires a detailed project plan. The expert is construction of detailed plans. |
| 10 Tracking and Reporting. | Cost and schedule are closely monitored and controlled. Regular status meetings are held with the client to review and adjust. No expense. | Lack of detailed plans results in poor cost and schedule control. Status meetings discuss the probability of missing data. No hard data, no detail. |

Exhibit 3. Comparison of OPC and IPC Project Management Practices

The Independent Project Administrator

Many of the changes required will affect the culture and infrastructure of the organization and could take years to bring about, but there is one change that can make a significant difference rather quickly, the implementation of the independent PA either as staff to the PE or as part of the project office that reports to the PE. This person must be an experienced project professional who knows how to build plans and implement tracking and reporting. The PA represents the interests of the PE while supporting the planning, tracking, and reporting needs of the project teams. He/she operates the project management tool helping the project teams build their detailed project plans and ensures plan integrity, provides mentoring to the project teams during the planning process, provides the tracking system with which project participants report their progress, collects weekly progress information, and provides status reports to both the project teams and the project executive that enable them to understand where their projects are and what remedial actions must be taken.

IPC Implementation of OPC Practices

Lets review the 10 project management practices in Exhibit 3 and see how the presence of an independent PA serving both the PE and the project

2. The Contract

The contract establishes a financial scorecard with which to assess project efficiency both during implementation and at completion. To achieve the effect of the OPC arms length contract with the client IPC's have two options: a) Establish a project organization as separate financial entity whose profitability is a function of project success, or b) Establish a project budget and reward or penalize the PE and project team based on their performance against the budget.

For a project to negotiate a contract that it can profit from it must be able to predict its costs and schedule with a high degree of accuracy. Unfortunately IPC's have been notoriously weak in detailed project planning. With the help of the PA however, it is possible for the project team to build detailed plans immediately that will provide week by week headcount and cost projections for the life of the project. The PA's tracking and reporting will show current and projected deviation from plan and it will be possible to implement either option "a" or "b" above similar to the OPC's contract conditions with their clients.

3. Project Team Motivation

It is possible today for the IPC to tie remuneration or future employment of participants to project performance the as is done in OPC's. However this

is not a very sensitive motivating mechanism because it is not practical to change a project participant's pay or award bonuses in response to weekly performance for a long running project.

With detailed plans and weekly status reports provided by the PA another form of motivation becomes practical. The PA can report plan deviation each week by individual, the PM the individual reports to, the manager the PM reports to, and every level of the organization hierarchy above them up to the PE so that each level owns the lateness of those under them. When sorted in descending lateness sequence the report the PE can see the participants and organization heads with the greatest lateness and ask the appropriate questions. No one wants to be at the top of this report and thus are motivated to stay on schedule.

4. Estimating and Project Uniqueness

Estimating is more difficult for IPC's because they perform a much higher percentage of unique projects such as process re engineering or product development. Unique project estimates are much higher risk because there is no database of historical experience from which to estimate work effort and cost.

In contrast non-unique or recurring projects by definition have been done before and there are tables in every discipline from which to calculate work efforts and costs for tasks based upon parameter variations. They are physical constructs rather than intellectual constructs and therefore they obey the laws of physics. Constructing a building, for example, requires the same tasks whether its 20 stories or 40 stories. Just look up the time and materials per story and extrapolate.

Unique projects are either intellectual constructs which are not constrained by the laws of physics and therefore cannot be extrapolated from prior experience (re engineering projects are mostly systems design and computer programming), or they are physical constructs which have never been done before (i.e. product development and redesign).

When OPC's encounter a unique project they find the most experienced people in the business to help them estimate. You don't ask a two year associate programmer how long it will take to write an I/O interface program when you have 20 year veterans in the company who have done it before. IPC's must learn to identify and draw on their experienced resources more effectively, or look to the outside for estimating expertise.

As the PA assists the project team with plan construction he/she can ensure that qualified people are involved in the estimating of task work effort, duration and sequencing, and let the PM and/or the PE know if additional help is required.

5. Project Manager and Team Selection

OPC PM's and their teams have most likely spent a significant part of their career on projects. IPC's need to establish project management as a career option with advancement and income potential equivalent to other management career paths. IPC's should build a staff of experienced PM's by hiring experienced consultants or PM's from OPC's and have their less experienced people apprentice. Until project management experience level is adequate IPC's can use their PA to ensure that the PM's and their teams understand the work to be done and are capable of meeting their commitments.

6. Project Management Process

OPC's put very little effort into staff defined processes and tools and rely on the judgment of their experienced PM's to choose what works best for the individual situation. However IPC's compensate for the inexperience of their PM's and project teams by providing them with a "best of breed" project management process they can follow and tools to assist. Unfortunately the staff defining the process and tools is often not much more experienced than the project teams. Also it is impossible to anticipate every project situation, and the PM is often forced to override the process and apply their own judgment.

The experienced PA helps the IPC project team define its processes and tools during the planning process and make adjustments as required during tracking and reporting similar to the guidance provided by the OPC PM.

7. Project Management Education

OPC's rarely use formal education. Their PM's learn through apprenticeship under experienced PM's. IPC's use formal project management education as a means of improving the capability of their PM's. Unfortunately education is no substitute for experience. IPC's should build a staff of experienced PM's by hiring experienced consultants or PM's from OPC's and have their less experienced people apprentice. Until project management experience level is adequate IPC's can use their PA to ensure that the PM's and their teams understand the work to be done and are capable of meeting their commitments.

8. Project Office Role

OPC's maintain departments of specialists to perform many of the functions common to all projects. These include legal and financial support, estimating, and planning, tracking, and reporting services.

Many IPC's now recognize the value of a cross project support organization and have established the project office (PO) with some of the same support services such as legal and financial. However PM's wish to control their own estimating, planning, tracking, and reporting project information and not have it provided to the PE by the PA. The PE who is not experienced in this environment is reluctant to oppose their PM's wishes and supports this structure. This produces several unfortunate results:

- a) IPC project teams must do their own planning, tracking, and reporting using their very limited and less experienced resources and the result is not comparable to the quality provided by the independent PA.
- b) PE's are at the mercy of their PM's for information:
 - If the project team is unable to build an adequate plan the PE will not be told.
 - If the PE commits dates to the client or upper management before the detail project plan is built and then the plan built by the project team shows the dates cannot be achieved, to avoid being the bearer of "bad news" the PM may abandon the plan and use a plan with less detail to make it look like the schedule is possible. The PE will see dates slip as the project executes and not realize that this was predictable and avoidable.
 - PM's want management to believe they have their project under control and may hide a potential target slip, hoping they can recover on their own, until it is beyond his/her control and possibly too late for the PE to help.
- c) IPC PO's must provide their project teams with processes, standards, and project management tool education so they can do their own planning, tracking, and reporting.

The independent PA is able to immediately provide planning, tracking, and reporting services to project teams on behalf of the PO eliminating the need for the PO to provide processes, standards, and project management tool education, keeping their PE informed, ensuring the construction of proper plans and the availability of impartial status information.

9. Planning

A project plan with integrity is the centerpiece of an effective project management system.¹ An OPC client w/ill not sign a contract without one that shows the work to be done, dates of completion, and payment schedule. The OPC maintains a staff of independent professional PA's to help their project teams build their plans, track progress, and provide status reports. OPC clients and PE's expect a detailed project plan and know how to read it.

The less experienced IPC client is not likely to require a detailed project plan as a condition of doing business with an internal project organization, and most IPC PE's trust their project teams to build an adequate plan but have no way of assessing whether it is sufficient. As a result PM's who are not well trained in construction of detailed plans or proficient in the use of computer based project management tools may build plans that contain only promised delivery dates and minimal supporting detail. Project costs, resource requirements, and schedules that derive from such a plan is highly unreliable.

The independent IPC PA will provide planning assistance to project teams using the project management tool and ensure that the plan contains the necessary detail and is doable, and that everyone including the PE understands the plan.

10. Tracking, and Reporting

An OPC client insists on periodic status reports and understands them. The less experienced IPC client is not likely to require a detailed project status report and both the client, the PE, and upper management are usually relieved not to have to understand such a report. As a result they receive reports that the project team determines are politically appropriate. A typical management status report will list the future major milestones and label them Green, Amber, or Red to indicate the confidence of meeting the planned dates. The underlying data is provided in the form of verbal discussion.

When the PE uses the independent PA he/she receives status information with the underlying detail available showing the projected number of days of slippage of each milestone and the slippage of each task leading to the milestone so everyone can see what must be done to fix the problems. The PA can provide state of the art reports like the Earned Value report in Exhibit 4 which help the PE assess how much work should have completed by report time that did not complete, how much actual work it has taken to perform the work accomplished against the original budget, and how much the project will cost at completion based upon efficiency of work completed to date. In a multi-plan environment a tabular version of this information can show variances by task, by plan, and by project enabling the PE and the project teams to quickly identify where to focus attention.

Summary of the Benefits of an Independent Project Administrator

1. Project managers and team members are freed from the need to become project management tool experts and can concentrate full time on planning and controlling their projects.
2. The PA is more expert with the project management tool because he/she is using it full time.
3. Planning is done more quickly because an experienced PA can start immediately, whereas a project manager or team member may need to be trained in the use of the tool and take 3 to 6 months to become proficient.
4. An experienced PA will mentor the inexperienced project team in the construction of proper project plans and ensure plan integrity.
5. A single PA can handle multiple plans or projects.
6. In multi-plan and multi-project environments a PA ensures that planning and reporting are consistent in format and terminology making it much easier to implement organization standards.
7. The PA provides a single a focal point for everyone to access project information.
8. Information is less likely to be filtered by politics.
9. Fewer tool licenses and less tool training is required when a PA supports multiple project teams.

The Project Administrator is the Glue

The PA is the hub of the project environment "gluing" all concerned parties and their information together. The PA assists project teams in the construction of their plans, which the PE and the client then use to understand what will happen, when, and how much it will cost. The PA collects progress information from the project teams and uses it to update the project plans which then show the PM, the PE, and the client where the project is, what

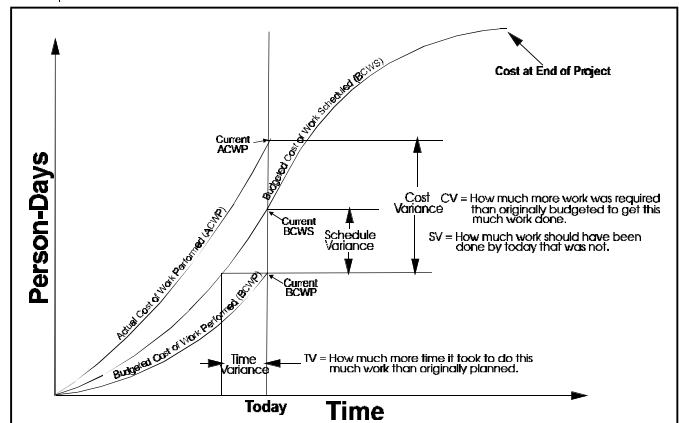


Exhibit 4. Earned Value Trends

is behind, when things will be delivered, what must be done to stay on schedule, how much has been spent to date, how much will be spent at completion, and how efficiently the participants are working.

The PA ensures the integrity of the project, first by ensuring proper plan construction by qualified participants. During implementation the PA ensures that progress information is captured and entered into the project management tool, and that reports are generated and made available to all on time. As the representative of the PE the PA is above political pressures that might distort information.

As an experienced project professional the PA is qualified to advise the PE and mentor the project teams on project management issues ensuring that all parties have the information and the personnel they need to function in the best interest of the project.

The tide is changing for IPC's. Those who adopt the OPC's independent PA will see their project costs shrink and gain a competitive edge over those who continue to embrace the practices of the IPC outlined in Exhibit 3. The independent PA is essential to the future viability of the IPC.

Glossary of Abbreviations

| | |
|------|---------------------------------|
| ACWP | Actual Cost of Work Performed |
| BCWP | Budgeted Cost of Work Performed |
| BCWS | Budgeted Cost of Work Scheduled |
| DOU | Document of Understanding |
| IPC | Inside Project Companies |
| OPC | Outside Project Companies |
| PA | Project Administrator |
| PE | Project Executive |
| PM | Project Manager |
| PO | Project Office |

References

- ¹ Mahler, Edward P. 1998 *Planning and Reporting Integrity - Key to an Effective Management System*, Proceedings of the Project Management Institute Symposium, Long Beach, CA