White Paper

Program Management as a Competitive Advantage

Peter Hellermann, Dynamic Energy Systems Inc.

August 2012

Introduction: Benefits of a strong Program Management function

Program management is almost always a key requirement in technical systems and construction contracts, design/development contracts and product purchases with long and complex production cycles. But some companies don't fully embrace it or understand the value it generates. It's sometimes treated as a cost center and given minimal support. This is truly a lost opportunity for the company and more important, its customers.

Winning companies recognize that strong program management is a competitive advantage. It provides superior customer service and confidence, making it easier for customers to do business with them.

Program Management provides hard and soft benefits. We all agree that it improves the likelihood of projects being completed per plan: on budget and schedule, for all contract deliverables. And when the inevitable problems surface, a well disciplined team will report, address and promptly remedy them with root cause analysis and corrective action plans. As a soft benefit, this instills confidence in the customer and keeps you "off the radar" for customer oversight, scrutiny or worse yet, audit. You also develop a favorable reputation within your customer that can become a positive award decision influence when bidding new jobs. It can lower the perceived risk of doing business with you so you score higher in the competitive bid evaluations. You could even win business at a premium price.

Strong Program Management (PM) can provide numerous hard benefits such as risk reduction, early delivery bonuses, and increased revenue from additional and out of scope work. Disciplined PMs will reduce technical and schedule risk and the potential for liquidated damages or delayed billing and revenue recognition. Rather than just focusing on meeting milestones, they can actively manage programs to exceed milestones and win accelerated performance bonuses. If a contract doesn't include such bonuses, they can be negotiated as the contract work is executed, assuming that the customer values early performance. Finally, experienced PMs will manage customer expectations and contract understanding up front so that there are no disputes or delays in identifying, implementing and getting compensated for out of scope or additional work.

The bottom line is that you need every advantage possible to win business, keep cash flow positive, and stay profitable once the work starts. Consider a strong and well supported Program Management function as a key competitive tool to accomplish all of these objectives. Basic program management concepts, tools and procedures can also be applied to better manage many

internal company activities also, such as writing proposals, bringing new equipment or processes on stream, opening or relocating to a new facility, etc. The only difference is that the customer is internal rather than external. All else remains essentially the same.

The Universal dilemma: conflicting demands on matrixed program team members:

Almost all companies employ matrix management to run their programs. This just means that program team members work their program assignments part time, in addition to their main responsibilities and supervisor reporting. In companies that operate primarily in Program Management mode running many concurrent programs, the functional departments tend to operate as a service resource to the programs.

Problems occur when a team member's main responsibility and supervisor take precedence over their program tasks to the point that it impacts their ability to meet their program requirements. After all, it's their main supervisor who does their review, not the Program Manager they report to in a matrixed, part time arrangement. Luckily, the more an organization's culture supports the PM function, the quicker and more effectively these conflicts are resolved. This problem can be mitigated if an employee's program management activities are made part of his annual MBOs (Management By Objective) and review criteria.

No Surprises: The sign of a disciplined and effective Program Manager

So how do you know if you're running a crack Program Management operation? When a PM proactively manages a team to anticipate problems and delays before they occur, and heads them off or works around them without schedule impact, then you've arrived! This doesn't mean that designs, prototypes or production equipment wont blow up and derail your baseline. It means that in your program team meetings you're constantly keeping the pulse of the team's progress by communicating dependencies and deadlines, asking the right questions, and knowing your team members as well as their supervisors. The bottom line: no surprises from activities and assignments within the team's control.

The following sections outline some useful ways to mitigate the common difficulties of matrix management, competing resources, and avoiding "surprises" in Program Management. These suggestions are based on working with companies that embrace and excel at Program Management, as well as those that struggle with it or relegate it to a necessary cost to be minimized.

1 Program Management must be department level function reporting the GM

Assuming that a company runs multiple programs, Program Management should be a separate department level function with a manager reporting the General Manager or COO. This does three very important things:

- It establishes and validates the importance of the function in the company culture and daily activity.

- As an independent department, it avoids getting sidetracked by the higher priorities or interests of an existing department head it was given to, but who doesn't value, understand or want it.
- It puts Program Management on equal footing with other departments at the executive level to resolve conflicts in access to shared company resources.

A soft benefit of representing PM at the executive/departmental level is that it demonstrates to customers that you treat their programs seriously.

But suppose there's not enough programs or activity to justify a new Department Director? In this case, the Program Manager himself should report either to the GM or COO. Alternatively, the PM can report to the Director of QC, assuming it's an independent department as it should be. In any case, the PM or the Director of QC must represent Program Management at executive staff meetings where major "resource competition" issues among the departments would be mediated.

2. PMs should not have technical, design or manufacturing tasks!

The PM's role is to manage the program, not to execute program tasks. Taking on actual program tasks is fraught with potential pitfalls and should be strenuously avoided. It could invalidate natural checks and balances. Consider a PM who finds himself behind schedule on his tasks. He could fudge program reporting, schedules or shift the burden of recovery to other team members. He could also be biased in his approach to solving problems instead of playing the role of neutral team mediator. But most important, the PM can't allow himself to get bogged down in program tasks when his primary responsibility is managing and coordinating the overall program team to an on-time, on budget completion.

There are however, two exceptions. There are brilliant, visionary engineers and problem solvers who either can't write well, or who just don't have the time. It's in the best interest for all communications to be clear and concise; it is professional and leaves a good impression. For that reason, it would be wise for PMs to take the time to refine and re-write technical explanations, reports and even statements of work. The side benefit is that it will help the PM understand the topic or issue.

The other exception is for administrative submissions such as periodic routine progress reporting, compliance matrices, certifications and similar. These fall under the PMs responsibility to source or collect the data, write and issue the submissions.

3. The PM needn't be an engineer, but…

It is not always essential that the PM be an engineer, even in manufacturing and high technology fields. In fact, there's a risk that an engineer may naturally gravitate to and become too involved in project tasks or technical solutions at the expense of managing project. However, to be effective a non-engineer PM must be experienced, comfortable and competent working in a technical environment.

The PM must know or be able to quickly grasp and understand the technical fundamentals in the relevant product/project area. This is necessary to effectively manage technical challenges, help drive the team to solutions, and understand key work or process interdependencies. At some point, the PM will have to referee differences of opinions among the team's technical/engineer members. The PM may not have the specific knowledge or expertise to solve the issue, but knowing how to ask the right questions, collect data points, synthesize information and arrive at logical solution options in an unbiased way is essential.

Equally important, the PM must have superior interpersonal, communication and diplomacy skills to motivate and manage team members, and provide clear, concise reports and customer communications. They must also have a tolerance for a wide range of administrative tasks including project gant charting, budget tracking, payment authorizations, internal and external reporting, contract management, managing subcontractors, adhering to standards/specifications, issuing customer submittals, etc.

4. **Weekly project meetings and reporting:**

If not a stated program requirement, it is essential that PMs hold project team "management" meetings on a periodic routine (weekly is typical) with a brief report to the customer. The customer report should state progress against the baseline schedule, report any exceptions to the plan, and identify any significant issues. When significant issues or problems are identified, it could be relegated to a side bar meeting or end of meeting discussion with only those directly involved, as a courtesy to the remaining uninvolved team members.

There should be a similarly brief internal reports, and meeting of PMs and Director. This report should be more of a template so it can be used to compare across programs for milestone dates, trends, common problems and solutions, and resource requirements. This internal meeting serves to share valuable experiences and lessons among the PMs. In addition, it is here where the PMs identify and resolve resource conflicts and constraints such as manufacturing capacity, material useage, lab time and engineering/support personnel. Those conflicts that can't be resolved among the PMs and Director must be taken to the next level by the Director for resolution with the departments themselves or by executive management.

A key result of the internal Program Manager reporting and meetings is an improvement in PM quality and uniformity across the programs as the PMs share their experiences and learn best practices from one another.

5. **Too many meetings to get job done:**

The more projects a company runs concurrently, the more painful it becomes as everyone begins complaining of spending too much time in meetings to get their work done.

It is likely that many project team members are from the "service" departments (manufacturing, quality, engineering, etc.). It is also likely that these personnel may be on multiple program teams. So the solution is somewhat universal. Rather than have multiple program team meetings with a lot of the same people spread out over the week, it is most

efficient to schedule all program meetings in a tight, continuous block the same time each week. Although this doesn't reduce the number of meetings, it can significantly reduce the time spent in them. It is also the least intrusive method of routinely assembling all the project personnel and helps the entire company plan for and work with the programs. It also helps get attention to program issues since they are all addressed more effectively together instead of randomly scheduled through the week.

6. **PM to attend weekly/monthly production planning meetings:**

   Assuming you have periodic production planning or similar meetings, the individual PMs, or the Director of Program Management must attend them to insure manufacturing and related departments are in synch with and able to meet the program requirements. Although each program should have a production representative on the team, it is in these meetings where production equipment, material, personnel and schedule conflicts among the competing programs first surface and attempt to get resolved.

7. **PM must manage program financials and ETCs (Estimate to Completion):**

   Most programs require internal cost tracking so you can bill for and "recognize" revenue as billable milestones are completed. In addition, many companies maintain and periodically update an "Estimate to Completion" (ETC). The ETC estimates the remaining project recurring costs (material, labor) and non recurring costs (engineering) to help track cash flow position and general profitability.

   The ETC reports and estimates must be generated or at least driven by the PM, not by manufacturing or other operating departments. This avoids the case where manufacturing is incented to achieve its own unique goals, and may try to skew program progress or performance status to it's goals. Such program reporting should originate from PM, with input and perhaps reasonable reconciliation with the other departments.

8. **Provide administrative support resource:**

   Program Management adds value to a company by achieving billable milestones and reducing project risk. You want them to spend all their time at these tasks, and it behooves a company to provide them the data they need to do so (engineering and labor hours, material costs, etc). Therefore, adequate lower cost administrative support is essential for this role. This frees the PMs to expend their time on highest value-add activities, and maximize company efficiency and cost effectiveness.

   Administrative support staff should provide the same periodic data and reporting to all PMs at the same time, providing uniformity and further enhancing overall efficiency.

9. **Insure Management communicates all key contract terms:**

   Each contract has its own set of unique terms and conditions (T&Cs), operating requirements and special rules which are typically debated and negotiated during bid award. However they

are often not communicated broadly to all key departments, and then they are immediately forgotten by all, except the PM.

My advice is to generate and maintain a summary T&C/Op Requirements sheet that can be quickly circulated to clarify and remind all of what they signed up to, as the program progresses. This is an essential responsibility of PM. It eliminates time wasted debating the issues internally, helps you manage customer expectations, and makes it easy to determine when customer requests constitute out of scope or additional work with the right to be compensated. And by the way, always put key billable milestone dates and liquidated damage clauses (if any) at the top of the page to focus all on the "big picture".

10. Insure PM is active contributor on all Proposal Teams:

All too often a PM is assigned a program that upon review, realizes it's impossible to deliver or comply. To avoid this, it's essential that the PM who is expected to run the program if won, be part of the proposal writing and ultimately, negotiating team. As a proposal team member, the PM provides advice and guidance when the customer conditions and demands may not be realistic or easily achievable. Assuming these demands are accepted, workarounds or risk mitigation plans must be identified and included in the program plan or gant chart.

11. De-rate schedules:

There are few PMs or technical personnel that work only an eight hour day these days. But even so, it's not realistic to expect anyone to consistently put in eight hours per day on a program as a gant chart typically shows. Everyone needs to tend to other daily "things", to the level of approximately 20% of their time. If you don't de-rate everyone's task duration estimates for this, one of two things will happen: Either you will not track your baseline schedule and the program will be late, or you'll become a very unpopular PM for pressuring team members to work late every evening to meet the schedule.

Also, anticipate the unexpected and don't plan for 100% performance on every activity or all equipment and processes. Some things to consider include:

- component fallout
- equipment/systems downtime, calibration
- personnel training
- workmanship errors (rework)
- preparation for reports, customer meetings and visits, presentations

Hopefully you have some history to use to identify the highest probability risk areas and build in some contingency for this (just don't call it slack, which is a dirty word in the world of Program Management!)

12. Communicate to labor/production staff: *Make labor an advocate, not an adversary!*

It's extremely helpful to educate production staff periodically on the program. First, if line operators understand the "big picture" they tend to better comply with the sometimes

incredibly detailed customer requirements. With some space grade program requirements being particularly onerous, it deflects labor griping away from the company, and increases cooperation and harmony. Second, most people take genuine pride in what they do. If you communicate the use and importance of what they're working on, they tend to be very appreciative and grateful. Finally, a better understanding of program requirements can help encourage self-reporting of operator mistakes and errors. It makes everyone look good when operators find issues before it gets to the quality inspectors.

13. Project Problem Reporting

Program equipment, technology and administrative problems are inevitable. Both you and your customer expect them to happen. What makes them tolerable is how they are handled and resolved. Many contracts have problem resolution procedures that may include reporting requirements, root cause analysis, failure reiview boards, corrective action plans, etc. Despite explicit reporting requirements, there is often a reluctance to promptly report problems. However, the longer you delay reporting a real problem, the more difficult the reporting process becomes and more alarmed/suspicious the customer gets. So it is always the best policy to report real problems promptly. But you need to temper this with thought and reasonableness. Specifically, it should be a team consensus that a real problem exists and should be reported. If in doubt, let the team experts spend a day confirming the problem to make sure it isn't an artifact or false alarm.

Also, you need to come to agreement that the problem is something significant and the customer would want to know about it, as opposed to typical inconsequential program hiccup type of issues. Use common sense and if in doubt ask the team the questions below. If any yes arise, it's probably a reportable issue:

- With any milestone be delayed or otherwise affected by this?
- Will it cause a change in the weekly program gant chart? (in MS Project, or other program tracking tool)
- Will it impact any program deliverable features, functions, quality or form/fit factors?
- Would the customer really care about this detail, or is it just isolated background noise?

Conclusion: Strong Program Management provides many hard and soft benefits, and can provide a significant competitive advantage. In addition to customer projects, it can and should be applied to key internal activities where it provides many of the same benefits. Although PM can be difficult to initially implement and can cause stress within an organization, it becomes a natural function and improves overall company performance when the elements described above are implemented.

Peter Hellermann is an experienced Program and Product Manager for technical systems in Aerospace, industrial automation, bus and rail transit and toll road systems, and bar code/RFID scanners. He trained in Program Management at SUNY Stony Brook, and is a PMI candidate.