

The Execution-Centric Method: A New Methodology for Project Management and Execution

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This paper introduces a new project management and execution methodology. This methodology is developed to handle a specific type of project that we call the execution centered project. We will introduce the methodology, explain why it is both needed and practical with today's technology, and discuss its implementation.

INTRODUCTION

Project management is an established area of management. Focused on the critical path method developed in the 1950's, its tools and methodologies are well known (Kerzner, 2006; Meredith, 2006). With the publication of the PMBOK (PMI, 2004) in the 1990's, a complete management methodology is in place. The PMBOK is now the accepted approach to managing projects. But the approach described in the PMBOK focuses mostly on planning with very little specifics on how to manage project execution. It also focuses more toward projects that lead to a specific deliverable.

While most projects fall into this PMBOK type of category, we would like to focus on a special type of project in this paper. In this type of project, the planning is easier, but the execution is repetitive but extremely large. There are lots of small tasks to manage simultaneously, presenting impossible time constraints on the project manager if the usual approach is followed. These time constraints lead to errors, omissions, delays, and cost overruns in projects that seem to be well planned according to the PMBOK. In these projects, the WBS tends to be only a few layers deep, but very wide.

We call these projects "execution centered" projects. For these projects, a different approach is required. In this paper, a new approach, developed specifically for this type of project, is described.

WHY A NEW METHODOLOGY

The current technological landscape and the complexity of large projects, or multi-project company-wide initiatives, require a fresh look at how projects are managed. While our methodology will be aimed at a specific type of project, these two factors will eventually lead the management of almost all projects in this same direction. A new methodology is needed to enhance execution and increase the probability that the initiatives will be completed on time and, most importantly, successfully. The business problem must be solved; the crisis controlled; and/or the product launched – on time and within budget.

The Technology

Today's Internet technology makes it possible to address the additional complexity of many projects, programs or initiatives. Specifically, the ubiquitous connectivity of the Internet, as well as the standardized user-interface facilitated by the various Internet browsers enables a centralized solution, thus eliminating the client/server problems of just 5-10 years ago.

Software as a Service (SaaS) and Computing (or Software) on Demand approaches make obsolete the historically difficult roll-out and support problems with installed software. However, this new model also eliminates software acquisition challenges, upgrade expenses and long lead-times necessary for software implementations. Emphasis is now on the process, workflow, interface and progress – not the software.

Complexity

Projects, programs and initiatives have become more complex. What goes into this greater complexity?

More projects in a program or initiative

Multiple locations – often global

Multiple vendors, contractors and/or separate work organizations

More tasks

More detail

More deliverables to track

More, more, more...

Traditional approaches or methodologies treated this greater complexity as high-level plans. Thus, as the quantity of detail got greater, the traditional methodologies resulted in plans that ignored the detail and reported only at a higher level. We often hear “Resources understand the detail. We don't have to plan for it.”

Not so. The devil is in the details. The details are where projects get lost. Steps are skipped. Milestones are missed. The details need to be IN the plan. Separate plans – high-level for management and detailed plans for the workers – cause problems. Summarizing the detailed plans into separate high-level plans often results in subjective interpretations and mistakes.

A NEW METHODOLOGY – THE EXECUTION-CENTRIC METHOD

This new project planning, execution and management methodology was developed to solve complex FDA compliance initiatives within the pharmaceutical industry. These initiatives address multi-faceted projects, dealing with the remediation of systems, not bricks and mortar.

Considered ‘soft projects’ by traditional approaches, these remediation activities are anything but that. These initiatives involve cross-functional, multi-location projects that are heavily regulated.

Traditional approaches and tools limit communication, forcing people to work in virtual silos. While the PMBOK emphasizes teams and cross departmental work very well, it seems that it is not possible to carry out that goal when the number of tasks grows too large. In these projects, the tasks get divided up and the silos are re-built. Management and control of projects using that traditional approach is therefore inadequate. In fact, it fails to achieve its own goals. It breaks down.

These projects are, in some sense, programs. They are broken down into many related and overlapping projects, many of which share the same resources, but use these resources for very small time increments. Existing software does not allow interdependencies between projects. This leads little or no coordination between locations, teams or projects, resulting in duplicate work and a lack of optimization for planning, execution, and reporting across all projects within an initiative. A centralized execution-centric environment did not exist, but is needed.

The traditional approach has a simple solution to this type of situation. It relies heavily on getting better and more talented people to handle the more complex initiatives. For this specific reason, the traditional approach is not scalable. The people can’t scale.

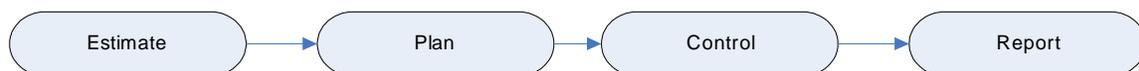
The new methodology was developed around the following requirements:

1. The project-creation process as well as the planning process need to be documented and tracked as much as the actual project execution.
2. Planning standardization and organization is needed to allow comparison and summarization between projects. Templates (at multiple levels) are needed to implement standardization.
3. Workflow control is required to approve projects, protect approved projects from uncontrolled changes, accept work and allow resources to self-report on progress.
4. Plans have to be sufficiently detailed to communicate the specific work to the people doing that work, guarantee that the approved plan is executed and identify the actual manpower that is required. Templates should be designed to enable planning at this greater level of detail by automating repetitive steps and implementing standardization.

In addition to developing an approach that will meet the above goals, there is another issue. This issue is the planning/execution process itself. As seen in practice, it often seems to be set up so that the plan is an end in itself. Execution is an afterthought, and as conditions change in execution, the plan does not change. The project manager is then left basically without a plan at all after some time passes.

Traditional approaches transition from estimates to planning, followed by controls and reporting (see figure 1). There is good reason for this. The approach is one of “management”, so the specifics of execution are left to the technical experts to be managed. A gap exists with this traditional approach.

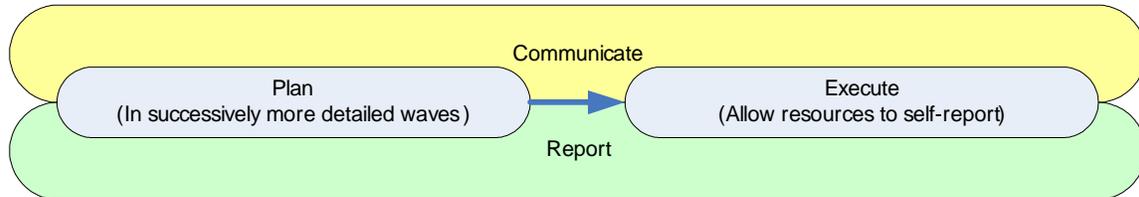
FIGURE 1: THE TRADITIONAL APPROACH'S TRANSITION



The new methodology needs to emphasize the execution phase and the necessity of getting the work done correctly and as planned. Communication of the entire plan, giving the work out to assigned resources, and putting the resources in control of the progress reporting are required. Presentation of the specific work for resources, what work is ready to start, what work needs to

be completed in less time than scheduled, and a view into the context of specific assignments are also be required (see figure 2).

FIGURE 2: EXECUTION-CENTRIC METHOD



This leads to some additional requirements regarding the implementation of the approach in project execution:

5. The problem of tedious progress reporting by project managers has to be solved for this new level of detail.
6. Associated documents have to be connected to the plan, have version control and be available to resources. Additionally, specific workflow related to documents and limiting parallel document changes needs to be implemented.
7. All of the above have to be possible with automatic roll-ups of schedules for reporting so a portfolio view of multiple projects would be available and would be automatically generated utilizing graphics, for all levels of management.

DESCRIPTION OF THE METHODOLOGY

This new methodology attempts to address the issues that: a) in today's business, projects are often much more complex than in the past, and b) traditional planning tools are not adequate, even if well thought out, to assure that major projects will be completed successfully and on time. The traditional methodologies are not optimized for execution – neither as an aid to those doing the work nor as a tool for reporting progress to management. Let's take each step in the methodology separately and examine each step.

Project Creation

This new robust methodology allows for the expansion of what gets planned and executed. Many of the projects being planned and executed today are in the form of process improvement or process remediation. The problem begins with defining the scope of work required to accomplish the expected improvement or change. Traditionally, this Project Creation step is rarely both planned and executed using tools. Add to this step the complexity of multiple (perhaps many) projects created under a whole initiative, some of which are created after the larger initiative is already in progress, and the tracking and governance required become a problem of their own.

This new methodology allows management to view the progress of the creation step – even before actual work begins. Those familiar with the PMBOK methodology will liken this to the Initiation phase, but that approach only takes it as far as a preliminary scope statement.

Standardization and Organization

An important element in this new methodology is Standardization. This includes standards for detailed steps, workflow, progress reporting and management reporting. Implementation of standards is through Templates. Many software tools and methodologies include project-wide templates and/or the ability to “copy and paste” pieces of projects. This traditional approach doesn’t allow for the required flexibility or adherence to defined standards.

Templates are critical to reducing the overhead of planning as well as to achieving conformance to standards. With the Execution Centered methodology, templates can be used at any level within the Work Breakdown Structure (WBS). The Templates can be specialized to specific “types” so that structure and standards are maintained. Templates can be “locked” to block changes or they can be “open” to allow for customization by the planner.

Organization and optimization of the Work Breakdown Structure (WBS) and standardization of organizational attributes allow for the reporting of multiple projects (or even initiatives) within the same framework and to different levels of management. This standardization of project organization enables reporting across projects and initiatives. The new methodology attempts to limit the number of levels within the WBS to keep the plan simple and easy to communicate. Attributes within each WBS level enable reporting and reduce the need for more complex structures.

Workflow

The new methodology addresses Workflow in addition to Planning and Execution. The Workflow defines not only the flow of the process, but also the control of the process.

The process of planning, approval of plans, movement of plans into execution, communication of assignments, the reporting on the progress of execution, and closing the cycle by modification of the subsequent plans all need to be controlled. This control is implemented by roles and rules built into the system.

Roles define who can perform a step in the process. Rules define how work moves through the process step by step.

The new methodology includes an implementation of the Roles and Rules. Existing methodologies do not recognize the need to protect the plans from unwarranted changes – either by those doing the updates or to protect the plans once they have received approvals by management. Again, familiarity with the PMBOK would lead one to think that there is sufficient, even too much, emphasis on change control to protect the plans. But in practice, this is rarely carried through. The new approval process included in this methodology is role-based and controls the movement of work from Planning into and through Execution.

Detailed Plans

A discussion of Detailed Plans is necessary for understanding the workflow from Planning to Execution. The definition of “detailed” is necessary for each implementation as well as within a specific project. For our purposes “detailed” is related to the PMBOK term “work package”. It means:

1. The work assigned to one individual. This concept adheres to plans that include discrete tasks. Each task is assigned to one person – no team activities. A new task should be created when the assignment changes. Within the task can be a description of sufficient detail to define the work. Very complex tasks can include attached documents if necessary.

2. The work that can be accomplished within a 40-hour period. The mindset is to create a task that is reportable as ‘done’ after a week or two of work. Small, manageable workloads are the rule.
3. No partial credit is allowed! Traditional tools and methodologies allow for partial completion and progress reporting. This reporting of partial completion allows for a subjective response that obscures the actual progress.
4. Tasks should be defined as mini-milestones or deliverables that can be performed within the 40-hour rule, and result in specific work that is completed. It is better to have three 40-hour tasks with specific deliverables than one all-encompassing task with 120 hours and spanning a month.

Execution

The methodology recognizes that the successful completion of a project requires the successful execution of the project plan. Traditional methodologies are planning-centric and result in a map for the implementation of the plan, but they don’t give the people doing the work any help in communicating the content and details of the work. The traditional methodologies also require manual and subjective progress-reporting by Project Managers or Project Schedulers. There are constant “are you done yet” cycles which use meetings, telephone calls and e-mail. It is a natural outcome that this manual progress-reporting causes the project plans to be less detailed than they need to be. Otherwise, additional project management staff would be required to keep the plans up to date.

With a continued focus on project execution, communication of the work to resources is also important. Existing tools provide rudimentary communication to the resource about specific work – a 2 or 4 week look ahead listing Activities. The limitation is that this communication is often provided without contextual information. Our new methodology and tools provide predecessor and successor tasks and the Work Breakdown Structure (WBS) under which the target task is located. The objective is to provide all the information necessary for the task to be completed – all descriptions, documentation and parent summary information. It also satisfies the need to view the task as part of something larger. The silo effect is avoided.

Self-Reporting

With traditional methodologies, we consistently hear, “The project is too difficult to keep updated. There are too many tasks to update; too many people to poll and we spend more time updating than working.” This is where the new methodology leverages the power of the Internet. The objective is for each resource to update their tasks directly. This would represent a huge operational change for project management.

However, we have the technology to make self-reporting possible and easier to use. As with many technological advances, the enabling of self-reporting eliminates the project manager middleman. We have direct reporting rather than indirect reporting – without the possibility of interpretation and error.

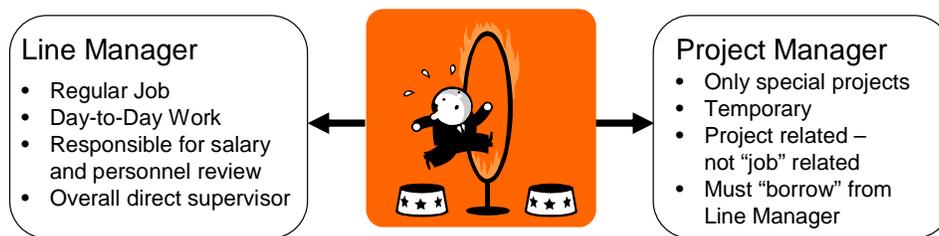
This direct reporting allows for significantly greater detail in plans without the overhead of additional project management personnel. In addition, self-reporting virtually eliminates the interpretation of progress (percent complete) reporting. Project Managers will not have to produce separate high-level reports. The increased detail and smaller deliverables result in self-policing plans. Successive tasks with changing resources insure that the work gets completed appropriately.

Self-reporting requires minimal resource time to log onto a computer and report. Other methods require too many phone calls, e-mails and meetings. The Execution-Centric Method requires only that the Resource update the status of assigned tasks (to On Time, Finish Early, Need Time or Done”) and provide the actual start and actual, or projected finish dates.

The Project Team vs. Line Management Paradox

Traditional project management models call for either the formation of a special project team or the project being executed directly within an existing organization group. As projects have become more complex and cross-functional, the team approach has become popular. With the team approach, the project manager “borrows” team members from the existing organizational (line) groups. The members then have a “project” manager as well as an organizational line manager (who is responsible for regular activities and reviews). This paradox of management also fosters a difficult relationship between the project manager and the line manager. It begins with the selection of team members from within their line manager’s organization. The work load on the team members begins to monopolize the team member’s time. Soon the line manager takes action and reprioritizes a team member’s work, usually without any notice to the project manager. The project manager now must fight for the time of an assigned team member.

FIGURE 3: THE PROJECT TEAM VS. LINE MANAGEMENT PARADOX



The new methodology attempts to address this issue by including the line manager in the assignment of work and the reporting of progress. A new term is used to refer to the organizational line group – Work Unit (WU). And, the manager of the Work Unit is referred to as the Work Unit Manager (WUM). The new methodology’s workflow calls for Tasks to be assigned to Work Units during planning; forwarded to the assigned Work Unit Manager when placing the task into execution; acceptance or rejection by the WUM of the Task as proper for the Work Unit, and assignment of the Task to a Work Unit member (a resource) by the WUM.

The result of this new process is:

Ownership of the work by the line manager and the resource

Time-management of the resource by the direct manager – including reassignment due to absence or resignation

Accountability by the Work Unit Manager for progress reporting

While the new methodology provides this new level of accountability to the line manager, the Project Manager continues to have a specialized view into the work. The Project Manager can view the entire project to assure that cross-functional concerns are addressed. The new methodology provides the best of both worlds without the old conflicts between the two.

The Project Manager and Line Manager are aligned and the paradox is solved.

Reporting

It is fundamental to Reporting, in the new methodology, that all reports are generated by the integrated plan. The need was to eliminate the manual work-around employed by users of existing methodologies, whereby separate “high-level” plans were created to summarize the separate (and perhaps many) detailed plans from each individual area within an initiative. In the existing methodologies the creation of these separate plans necessitated manual summarization and the related risk of error and interpretation.

All summarizations in the new methodology are automatic – the rollups are calculated and performed by the system. Reporting results are no longer subjective. They are generated by the methodology’s rules and algorithms – not by individuals. The result is that not only is all reporting displayed in one tool, but significant time is saved by project management in summarizing and reporting. The methodology assures that the truth is communicated, reducing the need for assessment of the reports and yet another round of meetings.

Liberal use of graphics based on metrics within the plans is important in conveying to management the actual state of affairs in their domain. Getting the “big” picture of an initiative or program by using graphical reporting is certainly a time saver and help to management.

SUMMARY

A new methodology is needed to address the higher complexity of today’s multi-location and cross-functional projects. This complexity is represented by cross-functionality, additional work detail, locations, projects and/or functional work groups. Technology enables the higher detail, interdependencies of projects, online (web-native) access and graphical reports.

Project By Web has developed this new methodology – the Execution-Centric Method - to address the higher complexity and technology to automate much of the project management function – allowing the traditional project manager to better perform the “people” part of the job. The project manager is freed-up to expedite the work and handle problem resolution – instead of polling for progress and tedious reporting.

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