appsential

White Paper

# Using Portfolio Management Tools for Programming, Planning, Budgeting Formulation and Evaluation

Kirby Brace Appsential, LLC

As you strive to ensure your programs and resource investments support today's business goals and future requirements, you need a consistent framework to help you create a strong link between business priorities and projects throughout a program's lifecycle. The Appsential implementation of Oracle Project Portfolio Management (OPPM) allows you to capture project management information, conduct portfolio management analysis, track financial activity and maintain internal resource management status. Our PPM solution is a tailored web-based application using off-the-shelf Oracle technology to provide a consistent framework that Integrates with any project scheduler and Work Breakdown Structures (WBS).

## Introduction

This case study will outline the benefits of utilizing Primavera Portfolio Management (PPM) to streamline the Planning, Programming, Budgeting and Evaluation (PPBE) process. National Nuclear Security Administration (NNSA) Defense Programs has successfully implemented a configured PPM solution for manage their budget formulation and promote better decision making through lower level budgetary transparency.

Currently, NNSA is striving to maximize the budget formulation processes by utilizing PPM to clarify scope, budget, risk and priority of organizational work scope at three to four levels below enacted Congressional reporting levels, ranging in financial scope between $1K and $25M. This represents a level of detail which is providing the organization with enhanced decision support when evaluating mission critical trade-offs in the current environment of a shrinking Federal budget.

**DRIVER** → Visibility and Accountability

Oracle PPM solutions centralize resource and project tracking/reporting enabling real-time business intelligence on the status of project activity and business results. BENEFIT

**DRIVER** → Strategy Execution and Alignment

Oracle PPM solutions ensure project activity and resource investments support business goals and objectives by linking business priorities and project work during the project ideation, selection, and delivery phases. BENEFIT

**DRIVER** → Resource and Capacity Optimization

Oracle PPM solutions optimize resource utilization based on availability, skill and role needs and ensure future capacity needs are accurately projected. BENEFIT

**DRIVER** → Project Team Productivity

Oracle PPM solutions ensure projects are delivered on time and within budget by leveraging state-of-the-art user-interface technology and concepts, easy-to-use project scheduling/ tracking tools, and team collaboration capabilities including mobile and social PPM. BENEFIT

 

By implementing functional "Formulation" portfolios consistent with Congressional budget hierarchies tied directly to enterprise-wide work breakdown structure elements to identify specific organizational work scope packages, and as a result NNSA Defense Programs is now able to drive budget formulation decisions based on financial requirements, validated scope, identified risk and strategic alignment to mission goals and capabilities. This provides NNSA with unique and varying perspectives of their total Weapons Activities portfolio and enables quicker identification of areas less prone to impact.

PPM provides NNSA with the ability to apply top-down budget guidance while at the same time considering the bottom-up summary of financial requirements needed to achieve the work scope defined for the fiscal year. It also provides the analytical tools needed to ensure cuts made are made across related activities, and that more critical weapons capabilities or products are protected from a "salami slice" budgetary cut drill.

## Understanding the Planning, Programming, Budgeting and Evaluation (PPBE) Process

The PPBE process refers to a formalized process implemented within Department of Energy (DOE) to promote standardized budget formulation and execution within the DOE and specifically, for this case study, within the NNSA Defense Programs organization. The PPBE process was first formalized by the Department of Defense and has also been adopted by other Federal Agencies in varying degrees, much like DOE.

The PPBE process consists of four distinct phases, Planning, Programming, Budgeting and Evaluation. Each of the four phases of the process feeds the next in the continual cycle of Federal budgeting and spending. Each of the phases in the process represents an additional level of detail gained to help an organization make better financial decisions with minimal detriment to mission objectives and strategic initiatives.

During the initial phase of the cycle, the Planning phase, an organization defines exactly "WHAT" needs to get done by reviewing and updating existing work scope based on how current activities are performing as well as determining how work scope should be moved adjusted based on changing or shifting objectives or goals. This phase is fiscally unconstrained and results in a set of work scope activities with defined high-level scope aligned to current priorities. Once this high-level scope is set, the next phase of the cycle begins.

Programming takes the high level "WHAT" and begins to elaborate on the "HOW". This brings a healthy dose of reality by applying fiscal guidance where financial goals are set from the top down while more exacting financial requirements are determined from the bottom up; this is a fiscally constrained phase. Programming usually involves internal work scope versus resource negotiations, as well as the careful balancing of competing priorities. Once the initial balance has been achieved, it is time to move into the Budgeting phase.

The Budgeting phase is what provides the "WHY" behind the Programming prioritization decisions. It is results in the justification of the complete budgetary request and begins external negotiations between the Department, Office of Management and Budget (OMB) and Congress. During this time, scenario or

  

The Budgeting phase is what provides the "WHY" behind the Programming prioritization decisions. It is results in the justification of the complete budgetary request and begins external negotiations between the Department, Office of Management and Budget (OMB) and Congress. During this time, scenario or

## NNSA PPBE Process - Room for Improvement

While NNSA Defense Programs had adapted and implemented the PPBE process, there were still inconsistencies across programs, inadequate data to make meaningful decisions and a lack of transparency at the lower levels of work scope. Decisions were based on high-level goals and assumptions in conjunction with program manager knowledge and the organization as a whole lacked sufficient data to justify these decisions.
These issues were clearly identified according to the Government Accountability Office (GAO) audit citing Actions Needed to Identify Total Costs of Weapons Complex Infrastructure and Research and Production Capabilities, GAO-10-582, Jun 21, 2012. The main findings included the following:

"Cannot Accurately Identify the Total Costs to Operate and Maintain Weapons Activities Facilities and Infrastructure, and These Costs Likely Significantly Exceed the Budget Justified to Congress""NNSA Does Not Fully Identify or Estimate the Total Costs of the Products and Capabilities Supported through Stockpile Services R&D and Production Activities."
"Operations of Facilities and Stockpile Services Costs Are Unlikely to Be Significantly Affected by Reductions in Stockpile Size, and NNSA Lacks Cost Information to Help Justify Planned Budget Increases."

**According to the audit, several areas of improvement were identified that resulted in the following recommendations:**
"...NNSA's management information with respect to the base capabilities necessary to ensure nuclear weapons are safe, secure, and reliable, the Administrator of NNSA should develop guidance for management and operating (M&O) contractors for the consistent collection of information on the total costs to operate and maintain weapons activities facilities and infrastructure."
"...NNSA should evaluate the total costs of operating and maintaining existing weapons activities facilities and infrastructure as part of program planning processes and budget formulation, especially in relation to recapitalization and modernization of the nuclear security enterprise."
"...NNSA should, once the Stockpile Services work breakdown structure reflects a product or capability basis, use this work breakdown structure to develop product/capability cost estimates that adequately justify the congressional budget request for Stockpile Services."
"...NNSA should include in future years' congressional budget justifications (a) detailed justifications for how these proposed funding increases will affect program execution and (b) information about how the funding increases affected programs.

In order to "to better oversee management of the nuclear security enterprise", and provide responses to the open recommendations the PPBE process needed to be streamlined.

## PPBE and Portfolio Management

In an effort to streamline the PPBE process and account for total cost of mission product and capability portfolios Defense Programs chose to define a work breakdown structure (WBS) based on how it completes its work. The effort resulted in a consistent WBS that can be utilized consistently to develop groups of like scope work packages. To facilitate identifying financial costs associated with each level of the WBS, totaling approximately $7B – the largest and most diverse segment of DOE's budget – it was determined that a portfolio management system (PPM) would be implemented as part of an Enterprise Portfolio Analysis Toolset (EPAT).

  

While today's popular portfolio management definitions include groupings of financial assets, IT assets and similar ongoing projects, it can also be applied to the world of Federal budgeting. Simply, a portfolio of budgetary items is a group of activities that have commonalities in specific areas such as work scope, location of work, appropriation line item, etc. This being said, a logical solution to the problem of understanding the total costs associated with mission and scope would be to balance the portfolio by clearly understanding where money is being allocated and why.

Once the perspective of a portfolio definition has shifted to generalize a portfolio as a grouping of like 'things', it is easy to understand why PPM is perfectly suited to support the PPBE process.

Through careful configuration of the Forms module, PPM provides a standardized method for collecting and analyzing Planning and Programming requirements data. Each activity can be defined and linked to work scope, mission, goals and priorities. Additionally, PPM provides workflows which easily facilitate management reviews and approvals of budgetary requests. Lastly, linkages between activities are leveraged to determine the total costs dependent on an activity through the dependency analysis capabilities provided by PPM. Investor maps and dashboards have been created to provide further analysis capabilities and to facilitate risk/return scenarios.

Once the low level work scope items are identified, PPM provides the ability to summarize these items into portfolios by key mission, objectives, priorities, location of work, capabilities or any other budgetary data points collected. The flexibility and power of the "Formulation" portfolio hierarchies permits minute changes at the lowest level of work scope to impact parent portfolios up the entire hierarchy.

Additionally, the integration of PPM with Oracle Business Intelligence Enterprise Edition (OBIEE) and project management software such as P6, increase analysis capabilities and enables detailed project management capabilities including scope, schedule, costs and ultimately allows the organization to monitor the health of its portfolios.
The result of NNSA's Enterprise Portfolio Analysis Tool is that the organization is afforded the transparency and decision intelligence needed to drive decisions based on validated and negotiated low level detailed scope, requirements and priorities. In turn this provides adequate justification to INCREASE budgetary funding where needed and decrease funding for underperforming projects.

## Key Benefits of using PPM for the PPBE process

While some of the more noticeable benefits include being able to find the most recent data instead of sifting through hundreds of spreadsheets that are not standardized or may be outdated, PPM really provides an innate flexibility that permits the linking and tracking of mission goals to work scope activities. Once key activities have been identified and prioritized according to mission and goals they can be grouped into multiple portfolios to identify costs associated with any data point, such as capabilities and products produced within an organization, providing a higher level of transparency and justification that can be missed with the use of flat stat tables created in Microsoft Excel.

This flexibility enables decision makers to execute decrements and increases with razor sharp precision, rather than sweeping equally and sometimes detrimentally across the board, while still maintaining the balance between strategic goals, mission objectives and work that can be accomplished for the funding distributed.

NNSA's efforts in providing transparency have not gone unnoticed. In a recent report from the GAO report citing Observations on NNSA's Management and Oversight of the Nuclear Security Enterprise, GAO-12-473T, Feb 16, 2012 direct testimony related to the implementation of PPM was relayed praising NNSA for their efforts.

  