Best Practice Methodologies for the Project Management Office (PMO)

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Executive Summary

Challenge

After understanding the long-term vision of evolving the maturity level of your project management organization, ensuring flawless execution that maps to your strategies is another challenge. CA counsels its customers to follow industry standard best practices, as outlined in some of the leading project management methodologies that have been established for over 20 years to execute planned strategies.

Opportunity

This paper, the third in a four-part series from CA, discusses the three leading formalized project management methodologies — the Project Management Institute's (PMI) Management Book of Knowledge® (PMBOK®), the UK-born Projects in Controlled Environments (PRINCE2), and Control Objectives for Information and Related Technology (COBIT), from the Information Systems Audit and Control Association (ISACA). CA advocates leveraging each of the instructional and impacting methodologies mentioned above to maximize execution success.

Benefits

Best practices span solution implementation methodologies, guidelines on process alignment, reference architectures, configuration recommendations, performance tuning advice, and end-user training (on boarding). A successful solution implementation can:

- Significantly rationalize spending by aligning the project portfolio with business drivers
- Improve the ability to respond quickly to changing needs
- Improve efficiency and quality across delivery

Best Practice Methodologies for the PMO

Introduction to Project Management Best Practices

Project management best practices have been captured, explained and evangelized for more than 20 years. The first formalized methodology came in 1987 through the Project Management Institute (PMI), with its Project Management Book of Knowledge® (PMBOK®). Today, PMBOK is still the broadest and deepest reference of generally accepted best practices, arranged around key processes that are leveraged across market segments and departments.

Adding to this "how to" process is UK-born Projects in Controlled Environments (PRINCE2), which evolved from the first edition of PRINCE that addressed a standard for IT project management in the UK. This is a generic project management method, which has an equally deep set of processes and standards focusing on end-to-end project delivery. The latest entry to the fold is Control Objectives for Information and Related Technology (COBIT), from the Information Systems Audit and Control Association (ISACA). Where both PMBOK and PRINCE2 are more project intensive, COBIT takes a top-down approach for managers and auditors to ensure governance over key issues such as Sarbanes-Oxley compliance.

Following is an overview on how CA advocates using each of the instructional and impacting methodologies mentioned above, with examples of how customers have received even more value by adding project and portfolio management (PPM) technology, such as CA Clarity™ Project and Portfolio Management (PPM) to its effort.

The Three Leading Formalized Methodologies

A Guide to the Project Management Book of Knowledge (PMBOK)

Currently in its third edition since 2004, the PMI's PMBOK Guide is the broadest and most widely used standard reference of industry best practices for project management. It identifies generally accepted and fundamental practices and guidelines that are applicable to a wide range of markets — construction, software, engineering, automotive (for example) — and crossing multiple departments, from IT to operations to services.

In fact, many government and financial organizations in the U.S. and the UK require their managers be PMI-certified. The PMBOK Guide can be used in any industry, and CA has observed that different industries will leverage different aspects of the reference guide to suit their specific needs. The PMI also issues the "The Standard for Program Management" and "The Standard for Portfolio Management," which are complementary to one another.

The PMBOK Guide outlines five key process groups to aid in project delivery:

1. **Initiating** Setting up the project for success by identifying the right team and scope, as well as determining the relationship between the project and its alignment with the organization's overall charter.

2. **Planning** Developing the relevant resources, timelines and milestones, and mapping project delivery to business priorities (i.e. risk management, communications, quality, cost/budgeting, duration and sequencing, external dependencies).

3. **Executing** Assigning the project team and distributing information to ensure the proper activities are undertaken. This process also includes ensuring quality assurance methods are in place to address change management, organizational updates, possible changes to the plan, etc.

4. **Controlling and Monitoring** Ensuring the resulting product maps back to the original plan, and risk from uncontrolled external actions is mitigated. CA Clarity PPM can have a significant impact by setting up a secure infrastructure to:
   – Monitor quality, costs and schedule;
   – Manage stakeholder relationships, risk and contract monitoring;
   – Identify discrepancies (or variations) within the project schedule; and
   – Provide the PMO more control

5. **Closing** Making sure you have delivered everything expected of the project. Once you close, you need to review the project vis-à-vis the plan and likewise ensure contract closure.

The PMBOK Guide arranges the 44 processes into 9 supporting knowledge areas. Each process has identified inputs and outputs along with referenced tools and techniques.

The role of the Project Management Organization (PMO) is to address all process groups and selective processes to address their unique requirements. It should act as the guardians (via education, collateral, templates, standards) to support rollout and increase expertise of their people.

Train to Minimize Culture Shock

If imposed without a broad understanding of benefits, implementing a structured, highly articulated approach to project delivery according to the PMBOK Guide can be a culture shock resulting in unnecessary resistance. In order to gain broader end-user adoption you should provide relevant documentation detailing the processes and standards, along with the tools and techniques, required for implementation. Proper training is critical for achieving a successful business change.

For training and certification purposes, there is a PMI support accreditation in the PMBOK Guide called the "Project Management Professional" (PMP). To obtain this, candidates are required to show an appropriate educational background and experience in the project management field. They will also be required to pass an exam to demonstrate their knowledge. To retain the credential, a Continuous Certification Requirements (CCR) Program is in place.

Beyond the initial PMI certification for staff members, you should designate a few key players in your PMO and key business stakeholders for procedure-level training. This advanced training should be mapped to some or all of the key PMBOK process groups and will be essential to ensure consistent delivery.

Ensure Roles for Both PMBOK Enforcers and Supporters

After training, organizations employing PMBOK should create roles for both top-level "enforcers" of the identified approach, along with "support" staff for consistent delivery according to the identified standards and procedures.

It should be noted that continuous development should be contributed to or undertaken by the following roles:

- **Enforcers** The "Enforcers" are the custodians of procedures and standards, and are responsible for their development under change management. While the enforcer's initial charter will be to effect business change, as the PMO becomes more mature and accepted the role will transition to one of ensuring the necessary procedures and standards are in place for continued maturation.

- **Supporter (Advisors)** The "Support" or "Advisor" roles champion and promote the adopted framework throughout the user community through education, mentoring, and issue and change management. Each resource will have a solid understanding of the end-to-end processes and standards but can also specialize in a particular area such as execution.

CA Clarity PPM software can then be used to manage the implementation, review the process groups, procedures and standards required for success. CA Clarity PPM can be easily configured to the client's requirements and integrated into existing systems to provide continuity. The PMO is therefore enabled by the ability to identify, implement, measure and continually adjust its selected processes, procedures and standards. By obtaining control of the process with CA Clarity PPM, the PMO may extend penetration into additional PMBOK processes and increase maturity levels in key areas.

PMBOK in Action: A Customer Example

After identifying its key processes, a telecommunications company successfully implemented CA Clarity PPM to manage its procedures and controls for collecting information, performing data analysis, optimize decision making and strengthen control. The initial implementation focused on project managers and was designed to allow further adoption of processes to address other areas on a continuing basis. In addition, CA Clarity PPM provided portlets, reports and workflows, which were vital to centrally managing an implementation.

Projects in Controlled Environments (PRINCE2)

Initiated by the UK Office of Government Commerce (OGC) in 1989, the current version of this best practice methodology, PRINCE2, has been in place since 1996 and is planned for an update in 2008-9. This process-based approach is a generic project management method, although widely applied by IT organizations, and has been used worldwide for its ability to be scaled and tailored to provide a standard and consistent approach for organizations.

Specifically, the PRINCE2 methodology is a framework of processes that assist the project manager by using a set of common components to reduce risk and avoid failure. To achieve this, three techniques are employed: "Product Based Planning", "Quality Review" and "Change Control."

Following are the eight process groups outlined by PRINCE2. It should be noted that the "Planning" and "Directing" processes remain ongoing throughout the project lifecycle.

1. **Starting Up** This is done before the initiation of any project. An idea or request from the organization is raised in a project mandate. It is here that information is collected to determine the business case for the project, the plan for moving forward and the team that will be responsible for its delivery.

2. **Initiating** In the initiation phase, the contract will be arranged between the project manager and project board, along with the development of a high-level plan and control approach.

3. **Planning** The technique of product-based planning is used in the identification of project deliverables. In addition to the required resources, quality and testing are addressed. Monitoring and control of the progress is also undertaken.

4. **Controlling a Stage** This is the day-to-day management of the stage by the project manager. Controlled production of the agreed products by monitoring key indicators allows the project manger to control the scope and achieve delivery to time, quality and budget.

5. **Managing Product Delivery** This can be a highly administrative area, which defines how the project will be delivered to the project manager upon completion.

6. **Managing Stage Boundaries** Managing the transition to the next stage in a controlled manner by applying a common structure. Certain items are mandated to ensure delivery of the project within scope.

7. **Closing a Project** This process is a structured closure of the project, which must happen whether the deliverables have been achieved or the project is terminated early.

8. **Directing** The project board proactively manages the project's response to the external environment. Within the project, the project board should "manage by exception," so demands on its time are kept to a minimum.

PRINCE2 is optimized for product-based planning. Here, the "product" is a result, i.e. the production of a document at the end of a task. The product falls into one of two categories:

• **Management Products** are items required to support project management, e.g., a business case, project scope, quality log, etc.

• **Specialist Products** are items contributing to an identified deliverable of the project, e.g., a piece of code, specification, etc.

Ultimately, PRINCE2 helps to provide control and an adaptable method for your business. This is a proven, tailored method for project management, especially in IT. Essentially, PRINCE2 helps PMOs control the chaos of project delivery.

Configure to Your Needs

In CA's experience, success with PRINCE2 comes from configuring it to meet your specific needs. PRINCE2 is more prescriptive than PMBOK, and more detailed therefore configurations in process or standards are common. For example, in some organizations, there might not be a need for the role of "senior supplier" as outlined in PRINCE2, so users might either rename or re-scope this role.

Don't Ignore Training

Training is vital. The PMO needs to be trained on methodology. Review of the method (PMBOK or PRINCE) is a lengthy process, but subsequent payoff in execution support is equally large.

PRINCE2 is widely supported by accredited organizations to assist in training and implementation. OGC's partner organization, APM Group Ltd (APMG), provides two-tier courses called "Foundation" and "Practitioner." The latter course must be taken to become a registered practitioner, and a re-registration exam every three to five years is required to maintain the designation.

The implementation of PRINCE2 and the configuring of the processes and standards can again be supported by CA Services and CA Clarity PPM. The ability to provide template plans according to the organization's approach, governance by configured workflows, and control over stages, etc. enables the PMO to manage the effective rollout of PRINCE2.

PRINCE2 in Action: A Customer Example

IT organizations in many vertical markets have implemented CA Clarity PPM to enable control over its PRINCE2 projects. A financial services company used the application to provide central control over its pipeline and project management by defining key indicators and automated controls using the process engine. The implementation is a benefit to the organization and project managers, providing a controlled framework in which to manage and improve the deployment of the PRINCE2 method.

Control Objectives for Information and Related Technology (COBIT)

The newest of the key project-related methodologies, Control Objectives for Information and Related Technology (COBIT), was created by ISACA (Information Systems Audit and Control Association) and the ITGI (IT Governance Institute) in 1996 for IT governance and control. Four editions have been published since November 2005. The recent incremental release, 4.1, includes streamlined control objectives and application controls, improved process controls and an enhanced explanation of performance management.

As a pivotal set of methodologies to ensure Sarbanes-Oxley compliance, COBIT has been rapidly adopted by managers and auditors across major organizations. While adoption of COBIT is global, the principle marketplaces have been the U.S. (especially from the Sarbanes-Oxley perspective) and Europe. The framework bridges the gap between risks, control needs and technical implementation approaches. It provides a processes-oriented structure classified by domain, which identifies the resources to be leveraged, defines the control objectives to be considered and incorporates major international standards.

COBIT outlines 34 high-level objectives that cover multiple sub-objectives across four domains:

- Planning and Organization Defining the strategic IT plan and information architecture; determining the technology direction; defining the processes organization and relationships; managing the investment; communicating the direction; managing the human resources; and managing risk issues and projects.

- Acquisition and Implementation Identifying and acquiring solutions, software and technology; enabling operation and use; procuring resources; managing changes and accrediting the solutions and changes to them.

- **Delivery and Support** Defining and managing service levels, third-party services, and performance and capacity; ensuring continuous service and security; identifying and allocating costs; managing the service desk and incidents; managing problems, data, configurations, and the physical environment and operations.

- **Monitoring and Evaluation** Monitoring and evaluating performance and internal control; ensuring regulatory compliance; and providing IT governance.

The framework focuses on what needs to be done, rather than providing prescriptive guidelines on how to achieve objectives. For example, as part of planning and organizing, COBIT recommends the implementation of project management frameworks and supports. Typically, this would lead to the set-up of a PMO and implementation of a project management methodology such as PMI or PRINCE2.

COBIT provides a framework that maps directly to the core IT governance focus areas of strategic alignment, value delivery, resource management, risk management and performance measurement.

By following a business-driven implementation approach, effective IT governance becomes part of the organization's DNA.

Focus on Business Drivers and Value to Establish Priorities
While the need for good IT governance is generally acknowledged, the implementation of frameworks such as COBIT are frequently seen as "something we feel we ought to do," with no real perspective of the value that is delivered to the organization. In CA's experience, the keys to successful implementations are focusing on the business drivers and results the organization is seeking, and recognizing that "zero to hero" may be a journey involving many small steps rather than a single leap of faith. Changes to processes will potentially drive organizational and cultural change thus the implementation needs to be managed holistically.

Assess and Plan Before Diving into Implementation
A pragmatic approach for delivery involves two main groups of activity. The first is an assessment, and the second the actual implementation.

A good assessment approach involves the following:

- Establishment/review of the business drivers

- Mapping of business drivers against process areas to identify relative importance to the business

- Capability assessment of the process areas to establish current position

- Comparison with relative importance to set priorities and establish gaps

- Formulation of a high-level solution (this will involve the definition of activity goals, control objectives and audit guidelines)

- Assessment of the impact on the business, which addresses the expected level of cultural change and resistance that is likely to be encountered

- Creation of the roadmap that balances priorities against the ROI (financial and other benefits) that would be expected to accrue (this is likely to be defined as a program involving multiple work streams)

Manage the Implementation Holistically and Involve the Right People
Each delivery phase of the implementation will be a multi-threaded program touching many parts of the organization. While there is no "one size fits all solution," successful implementations of frameworks such as COBIT share some common characteristics, notably:

- A vocal and visible project sponsor capable of taking the "why are we doing this?" message to all levels of the organization

- A project team with subject matter experts who are truly representative of the business, and are empowered to make decisions

- Excellent communications planning and execution

- A focus on delivering framework components within the agreed timelines. This may mean establishing basic-level processes, controls and metrics around an area, rather than trying to implement every detailed requirement. There is always room for process improvement in later phases

Make use of technology solutions to automate controls, processes, metrics and audit tracking wherever possible, but be aware that the technology itself does not offer a "silver bullet." In order to be successful, the organization must want to change. This goal must also be reinforced by rewarding the new behaviors. Take the organizational and individuals' culture and motivation into account when performing the implementation.

COBIT is a framework for IT governance, and there are a number of CA solutions that can be leveraged to deliver a high-level COBIT "dashboard," and provide integrated support to the underlying processes and controls defined as part of that framework.

Typically, an integrated dashboard would be implemented through CA Clarity PPM. This provides configurable support for controls and metrics, and at its most basic level can also capture information on desired maturity and current levels (and trends) for each of the process areas.

The CA Clarity PPM solution also provides support for integrated project, portfolio, financial, risk and issue management, as well as resource management for both IT and non-IT related investments. All processes, including software acquisition, are easily configured. Risk and control management is also catered to, with out-of-the-box support for Sarbanes-Oxley, the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and COBIT. The solution can also be configured for other standards.

CA also provides support for system availability, help desk, configuration management, asset management and security. These solutions can be implemented on a stand-alone basis, or can provide metrics to be integrated into the high-level CA Clarity PPM dashboard.

COBIT in Action: A Customer Example

A large banking organization selected CA Clarity PPM to enable the simplification and centralization of the project, portfolio and resource management capabilities. This initiative addressed multiple processes across COBIT — mainly in the planning and organization, delivery and support, and monitoring and evaluating domains. In addition to core process support, the solution provided capabilities around timesheets and cross charging, enabling additional quality and efficiency gains in that area. The solution is now rolled out across 2,000 users, and in a relatively short time frame, has become mission-critical. The metrics captured in CA Clarity PPM provide the necessary information for both business and IT stakeholders to make informed business decisions.

SECTION 3

Benefits of Leveraging Best Practices

Reduce Time-to-Value and Increase User Adoption

Best practices span solution implementation methodologies, guidelines on process alignment, reference architectures, configuration recommendations, performance tuning advice, and end-user training (onboarding). CA Solution Consultants use these best practices in every implementation. They also work closely in collaboration with global systems integrators who deliver complementary skills around business transformation, and people and process change. By leveraging best practices, time to value is reduced and user adoption increases. Both of these factors are hugely critical to the success of PMI, PRINCE2 and COBIT implementations across the organization.

SECTION 4

Conclusion

CA specialists have been working for more than 10 years with companies in the U.S., Europe and Asia to improve standards in project management, and to ensure the delivery of tangible and measurable benefits with a range of technology solutions. By applying a holistic approach to implementations, and leveraging best practices, training and certifications, our customers put themselves in a better position to rapidly achieve value, and ensure that new methodologies become part of their organizations' DNA.

CA Services specializes in designing, implementing and optimizing PMO solutions to help you achieve the efficient IT performance that drives superior business results through a five-step, rapid time-to-value approach that delivers results quickly and incrementally. CA also offers a variety of professional services packages to help implement a PMO rollout and reduce risk.

Recommended Reference Material

PMBOK® GUIDE   Visit the Web site for the Project Management Institute (www.pmi.org.)

PRINCE2   Visit the Web site for the Office of Government and Commerce (www.ogc.gov.uk/prince2)

COBIT   Visit the Web site for the ISACA (www.isaca.org). This site provides information on basic COBIT implementations and includes links on specialist subjects.

For specifics on COBIT and Sarbanes-Oxley compliance: IT Control Objectives for Sarbanes-Oxley: The Role of IT in the Design and Implementation of Internal Control Over Financial Reporting, 2nd Edition provides guidance on how to assure compliance for the IT environment based on the COBIT control objectives. It can be purchased from the ISACA Web site (see above).

SECTION 6

About the Authors

HAYDN THOMAS brings more than 15 years of experience implementing enterprise-wide project management systems to his position as a certified architect of CA Clarity PPM software. Most recently, Haydn has been responsible for overseeing CA Clarity PPM r8 upgrades within some of CA's marquee financial, telecommunications, pharmaceutical, it and public sector customers. Thomas attended Brunel University, where he studied information technology, and he has obtained SSADM and PMI certifications.

JULIE TILKE has worked in the areas of project portfolio management and ITG governance for over 20 years. Initially working on process and techniques for project management (PROMPT and later PRINCE), Tilke developed an interest in the developing technologies to support these new implementation approaches. After a five-year stint with Softlab managing its UK consulting and training practices, she took time out to manage the European delivery team of a small systems integrator. She then returned to technology providers, initially with HP/Mercury and then with CA, managing IT European delivery capability for IT Governance and Project and Portfolio Management.

CA, one of the world's largest information technology (IT) management software companies, unifies and simplifies complex IT management across the enterprise for greater business results. With our Enterprise IT Management vision, solutions and expertise, we help customers effectively govern, manage and secure IT.

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