

Arboretum Technology, LLC

**Project Management  
In a  
Project Centric Organization**

**White Paper**

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**Helen T. McCullough**

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## 1. Introduction

Purpose of this document is to describe the Project Centric Organization (PCO), the value proposition and the Success Factors along with describing the types of projects that would receive value from this model. A detail discussion of the roles and responsibilities of the project manager along with the skill set of the valued project manager are also provided.

This document is meant to provide insight to the project management process and to augment the infrastructure of the defined project methodology in an organization where the software development life cycle is divided into groups of subject matter experts as in a Software Factory structure. Full discussion of project methodology and the Software Development Factory is outside the scope of this document.

The Appendix A, PCO Rules of Engagement, will also prescribe the activities of the PM on a project engagement and the other stakeholders' involvement in the engagement.

## 2. Business Model

The Project Centric Organization's mission statement is to provide quality, timely and cost effective technology solutions to meet the Business Return on Investment (ROI) while providing excellence in project management approach to deliver the solution.

The PCO is independent of Line Of Business (LOB) and is staffed with resources skilled in the methods of technology delivery to the business.

The key staff member of the PCO model is the Project Manager (PM). This individual is assigned to assist with the formulation of the project with the Business Sponsor and participates in the early investigation of the project activities. Other responsibilities include defining scope of the project, the business drivers and benefits, the objectives and deliverables, defining the project approach, securing project staffing, determining project funding and obtaining project approval.

The PCO will work with staffing pools of Subject Matter Experts in Software Architecture, Software Development, Application Analysis, Application Developers, Software Engineers, Quality Assurance Testers, Network Configuration staff, Production Support Staff, and others as necessary.

Once the project is approved, resources will be allocated to meet the project needs from the pooled and dedicated staff resources.

## 3. Value Proposition

The value of the PCO can be articulated in many ways. A primary benefit is the dedicated professional PM who has demonstrated skill in delivery of large scale business systems with complex technology solutions, which brings a higher likelihood of project success. The PM is skilled in methods of project management, technology deployment, and system integration. Project success is directly related to the strength of the PM and this centralized approach allows the best managers to be assigned to the most critical business initiatives.

The independence of the PCO will ensure focus on the corporate goals. As an independent agent, the PM can act to resolve conflict without bias. Their commitment to the project goals, schedule and cost is their focus without political affiliation.

By centralizing the PM's, the ability to reuse enterprise components, solutions, and processes is enhanced, which provide savings in time and cost of development.

This centralized approach also offers a repository for project experience, models and standards to be shared and mentored to future project managers. This consistent project management practice will enforce common methodology, common tool sets, consistent project artifacts, standard communications, and common issue management and escalation process. Governance and auditing of projects becomes integrated with the project life cycle and independent review is minimized.

The PCO maintains awareness of the larger corporate view of all the projects and their objectives. Trends and global issues can be brought to light and addressed more quickly with less impact to the corporation as a whole.

#### **4. Success Factors for the PCO**

Measurements are required to judge effectiveness of the PCO defined through project on time completion ratios, planned budget vs. actual budget, and subjective measures of meeting customer expectations. The quality and measurement plan for the 1<sup>st</sup> year PCO should include the following:

- 90% Projects meet objectives for budget, scope, and time according to base-lined project, and client satisfaction surveys;
- Project budgets meet approved cost with 10% for specific phase or iteration of project;
- Customer satisfaction survey's return ratings within 80% or greater on average for the year;
- Health indicators (established as part of PCO charter) are consistently managed for action driven escalation purposes;
- Project issues are noted, tracked, and critical ratings resolved 90% of the time within 2 weeks of initiation.

#### **5. Project Model**

Not all projects will require the use of the PCO. A typical maintenance or enhancement project may not require the expertise of the PCO Project Manager. The project that will benefit most from this project centric process is one that may meet some or all of the following criteria:

- Highly critical to the business need and constrained by competitive market forces (most likely time to market);
- Viewed as a large, complex effort that may require input from or delivery to multiple lines of business;
- Requires external resources such as a large pool of contractors or multiple vendors;
- Impact to external customers, the project is highly visible;
- May impact investor views, rating agencies, or governmental regulators.

#### **6. Rules of Engagement**

The PCO will operate under a standard set of practices and procedures refer to Appendix A, Rules of Engagement Worksheet. The PM's responsibility is to adhere to the standards of the PCO rules of engagement. Initiation and commencement of a PCO project should include the following:

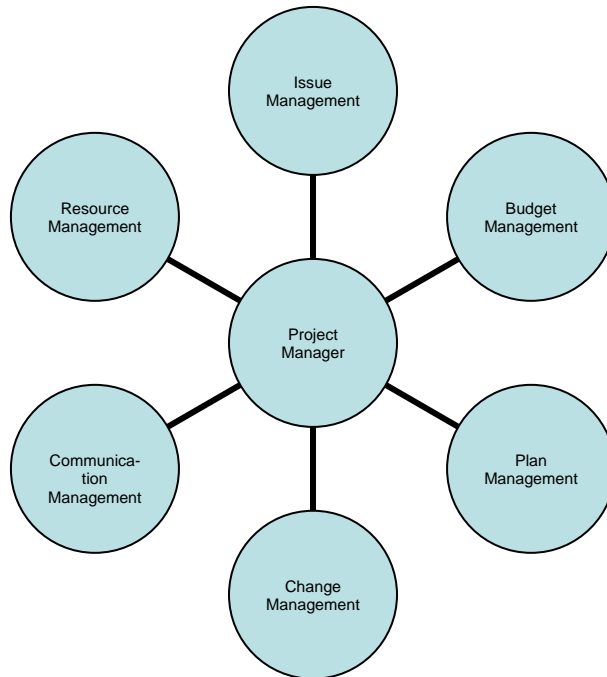
- Assignment of a PM will be upon the request of the Line of Business Director or Executive. The specific PM will be assigned based upon project experience, including line of business expertise, application system knowledge, technical background, and complexity of project.
- The PM's will adhere to the PCO audit requirements and is accountable to PCO management.
- A periodic review process of reporting will be followed and the organization may consider high-level executive review meeting for accountability and status.
- The PM assures the compliance with all corporate, department, and unit policies and procedures including the project methodology practiced by the PCO.

- The communication strategy will be defined as part of the project and periodic written status will be delivered to the project sponsor and other stakeholders, including team members.
- Once the project is approved, resources are secured from either the Development Factory or the Line of Business Application Development group. Resources may be assigned and released as the project progresses through the phases.
- Turnover to the support team is included in the project along with specialized training considerations.
- Feedback is solicited from the Business Sponsor and stakeholders for improvement process monitoring.
- The PCO should develop specific quality and measurement plan for the specific project.

## 7. The Project Manager

The Project Manager skill set includes both analytical/tool based skills and more important behavioral skills. The analytical skills are necessary for the monitoring and control of the day to day project activities and allow the PM to execute the project activities with accuracy and efficiency. The behavior skills allow the PM to transcend the normal projects and take on the mission critical, time sensitive, and complex business issues and execute the project with competency. The skilled PM will have the ability to focus on the big picture with acute attention to detail. These PM's are experts technically, while possessing a true understanding of the business drivers behind the project.

### A. The Project Manager Analytical Skill Set



- i. Plan Management
 

The PM will be an expert in structuring complex projects into meaningful iterations for incremental delivery of benefit to Business Stakeholder. The PM will demonstrate good risk analysis skills, project planning, estimating, and decision analysis skills. The PM will also assign tasks, manage deliverables, identify resource requirements, identify task dependencies, identify key

milestones, estimate task to completion and track progress to the project plan. The PM is responsible for managing status and tracking tasks.

The PM will be skilled in coordinating complex tasks, assignments, and issues while keeping focus on the priorities and impact to the project goals. The skilled PM will demonstrate effective time management and triage skills, and possess a history of sound decision making, and crisis management skills. The PM will manage vendor contracts to performance.

The plan will also include quality measures relevant to project deliverables including verification that quality expectations are met. The PM will monitor quality results and take corrective action as necessary.

ii. Change Management

The PM will establish a change management plan upon project initiation. When a project modification is required, the PM will capture the change, understand the impact to the project in cost and effort, prioritize the change based upon benefit, review the impact with the stakeholders, and obtain stakeholder approval to proceed with the change. Once the change is approved, a new project baseline is established.

iii. Communication Management

The PM will develop a communication plan for the project and identify the team, stakeholders, steering committee, and external interested parties' communication needs. The PM will be able to articulate appropriate detail to the level of understanding of the audience. This requires the ability to discuss technical implication with the system architects and to translate the technical issues into the business impact for the Business sponsors. Conflict resolution and negotiation skills are also required of the PM.

The PM prepares periodic status reports for the business stakeholders, management, the project team, and other audiences. The PM conducts periodic status meetings for all key project team members.

iv. Resource Management

The PM is responsible for identifying project staffing requirements. The PM will monitor the team's workload, quality of deliverables and adherence to schedule. The PM may adjust the schedule, or workload to accommodate staff skill level or project issues as encountered. The PM is also responsible for vendor management of deliverables identified to the specific project requirements.

v. Issue Management

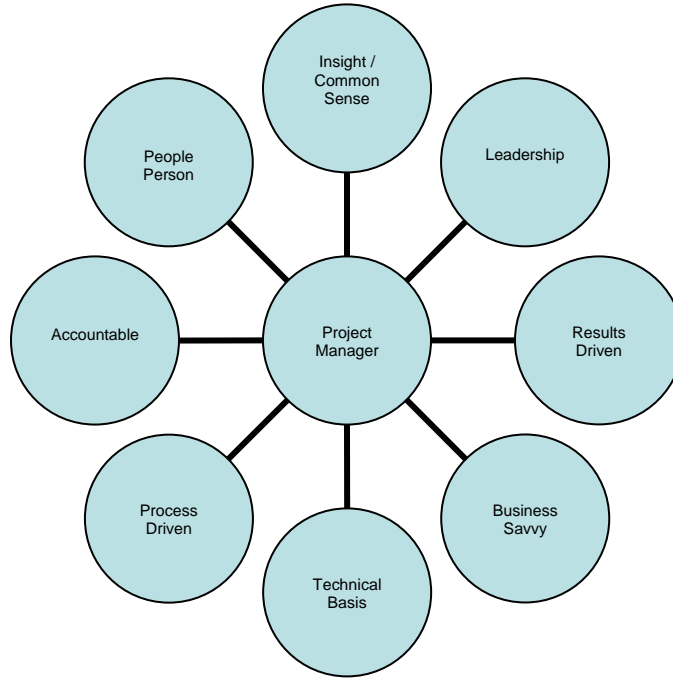
The PM will be a problem solver and will assist with the issue resolution by applying solutions from past experiences, obtaining subject matter expert opinion, or working through options with the team members. The PM is resourceful and creative in their approach to problem solving and issue resolution. They will gather relevant information proactively, drive to decisions, negotiate roadblocks and take manageable risks.

vi. Budget Management

The PM is responsible for forecasting the project budget once resources and technology are established. The costs should be baseline for each phase of the project, once business approval is obtained. Relative increases and decreases due to scope modifications should be tracked and re-forecasted as necessary.

The PM will track actual costs, monitor variances, and communicate according to communication plan.

**B. The Project Manager Behavioral Skill Set**



- i. **Results Driven**  
 The PM's focus is on delivery of the high priority objectives. The schedule will be maintained or improved. Excellence is a high priority; however, success is the key point, not perfection. The PM will act with urgency, and break down impediments to the goal.
  
- ii. **Business Savvy**  
 The PM develops and maintains good customer relations. The PM will have the ability to extrapolate impact to the business from industry or economic events such as regulatory changes. The PM will demonstrate knowledge of the business as it relates to the application and use sound business judgment and perspective. Strategic thinking and ability to make tough decisions is vital to success.
  
- iii. **Technical Basis**  
 The PM will be versed in a variety of technologies with the ability to recommend at a high-level a technical direction. The PM will work with the System Architect and understand technical constraints and benefits to business goals. The PM will be able to discuss the chosen technical architecture in terms of advantage to the business problem.  
  
 The PM will maintain state-of-the art knowledge within areas of responsibility.
  
- iv. **Process Driven**  
 The project methodology will be practiced with precision. The PM will understand how to apply the methodology and appropriate tools to the project with efficiency.

- v. **Accountable**  
The PM will take ownership of the project and is committed to the project deliverables and outcome. The PM will demonstrated follow through on project activities and balances this with delegation, always taking full ownership of the project results.
  
- vi. **People Person/Sensitivity**  
The PM will work well with all types of communication styles and adapt the delivery of their message to their audience in the style that is most effective for the listener. The effective PM will demonstrate leadership and team building skills. Sensitivity is an important characteristic that allows the PM to motivate staff and adjust task allocation to best fit team skills.  
  
The effective leader practices listening skills and includes everyone in the project and keeps the team well informed. The PM directs, values, and respects contributions of individuals and the entire project team. Trust and integrity are installed in the project team.
  
- vii. **Insight/Common Sense**  
The PM will have the ability to exercise insight by extrapolating the impact to business from break through technologies. Common Sense is the ability to make a decision based upon experience and analytical analysis in a timely manner with limited information in which a majority of people in the similar situation would come to the same conclusions.
  
- viii. **Leadership**  
Leadership is the ability to build a shared sense of purpose and direction around a common vision. Leadership is the key trait that the PM demonstrates and in doing so portrays confidence to management and the project team that the project is tracking to a successful completion. Leadership is demonstrated by motivating the team with a commitment and passion to achieve unprecedented project results. Demonstrating commitment to the project over personal goals is clear commitment to sense of purpose and is contagious to team members.

Primary skills include leadership, communication skills, common sense, problem solving, knowledge, sensitivity, and honesty. When staffing large scale projects, experience is a key factor.<sup>1</sup>

### ***C. Best Practices of Project Managers***

- Keep customer involved – It's their budget, their benefits, and their project! The business sponsor is the ultimate owner of the system. They should be involved in every major decision and understand the impact of those decisions.
- Break projects into shorter, more manageable pieces (smaller deliverables sooner) – No longer than 6 month increments. Business drivers may change and long development efforts introduce great risk to completion.
- Communicate and document – 'The palest ink is better than the best memory', Chinese proverb. Through rigorous communication, expectations are managed, status is shared and projects are successful.

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<sup>1</sup> The [www.ganthead.com](http://www.ganthead.com) website article 'The Anatomy of a Project Manager' by Edward P. Youngberg describes these skill sets for the 'Right Kind' of PM.  
<http://www.ganthead.com/article/1,1380,15473,00.html>

- Prioritize development and strategize deployment – Largest benefit items with minimal risks should be developed first.
- Eliminate non-essential tasks; they clutter the focus – What adds value? What does not?

## **8. Tools of the Trade**

The successful PM will be skilled in various tools of the trade. The following outline a few of the tools:

- Project tracking tool such as MS Project for developing plan and tracking progress to plan;
- Issue management tool such as PVCS Tracker for capture, managing, communicating feature requests, defect reports, changes, and project issues;
- Architecture standards will be understood and utilized by subject matter experts during the project;
- Project Methodology such as Rational Unified Process for project control, documentations and roadmap through development;
- Project repository for storage of project documentation.

## **9. Requirements for Success**

The following items are critical for the success of the PCO:

- Available PM who meet the skill sets identified above;
- Funding for the PCO;
- Support and agreement from the Line Of Business, the Application Development groups, and the Development Factory to support project control by the PCO;
- Empowered PM to escalate issues within the business area for resolution;

## **10. Feedback Mechanism**

In order to meet continuous improvement in the Project Centric Organization, feedback metrics should be gathered. Monitoring and control of the key project indicators will be critical to judge the success of the PM. Along with the key indicators; surveys will be used at the project closing to capture the value brought to the project by the PM for improvement in future project activities.

## **Appendix A**

### **Project Centric Organization Rules of Engagement**

(Worksheet)

Required √	Task (Specific Assignment)	Skill Group (Relating to Analytical Skill Set)	Responsible Stakeholder (Dev. Factory, PCO, Line Of Business, Appl. Dev)	Exceptions (Note any change in responsibility or task assignments)
	Develop Project Plan with tasks, deliverables, resources, dependencies, milestones, estimates, and dates	Project Plan Management	PM/PCO	
	Obtain Stakeholder approval of project plan	Project Plan Management	PM/PCO and LOB	
	Baseline Project Plan	Project Plan Management	PM/PCO	
	Manage Project Plan – Updating schedule, completion dates, revised estimates, tasks, and actual hours	Project Plan Management	PM/PCO	
	Manage Methodology requirements including control points	Project Plan Management	PM/PCO	
	Identify & monitor quality expectations & measurement relevant to project deliverables	Quality Plan Management	PM/PCO	
	Obtain stakeholder approval for project goals, objectives, scope and requirements	Change Management	PM/PCO and LOB	
	Establish change management plan for changes to project goals, objectives, scope and requirements	Change Management	PM/PCO	
	Baseline Project goals, objectives, scope and requirements	Change Management	PM/PCO	
	Review & estimate impact of change, prioritize change and track changes by category (defect vs. enhancement) and incorporate into project plan and budget	Change Management	PM/PCO	
	Audit pending change request of inherited projects and resolve if necessary	Change Management	PM/PCO	
	Obtain Business Approval for Change Request	Change Management	PM/PCO and LOB	
	Re-Baseline approved Change Request into project plan	Change Management	PM/PCO	
	Prioritize and track issues and risks to project objectives, deliverables, and plan and assign owners	Issue Management	PM/PCO	
	Monitor risks to determine when mitigation plans should be executed	Issue Management	PM/PCO	
	Provide and support escalation to business and project team for	Issue Management	PM/PCO and LOB	

Required √	Task (Specific Assignment)	Skill Group (Relating to Analytical Skill Set)	Responsible Stakeholder (Dev. Factory, PCO, Line Of Business, Appl. Dev)	Exceptions (Note any change in responsibility or task assignments)
	resolution			
	Identify & Secure project resource requirements	Resource Management	PM/PCO and Dev. Factory and Appl. Dev.	
	Manage teams workload and adherence to schedules	Resource Management	PM/PCO	
	Perform tasks in project plan	Resource Management	PM/PCO	
	Review quality of deliverables & provide feedback on team member performance	Resource Management	PM/PCO	
	Manage vendor relations & project deliverables	Resource Management	PM/PCO	
	Forecast cost of project to establish budget, funding and complete Cost Benefit Analysis (CBA)	Budget Management	PM/PCO	
	Obtain stakeholder approval for budget and obtain funding	Budget Management	PM/PCO and LOB	
	Baseline budget	Budget Management	PM/PCO	
	Manage actual & baseline project cost including staff, consultants, software, hardware, vendor, usage fees, training and travel	Budget Management	PM/PCO	
	Development Communication Plan for project team, business sponsor, stakeholders, and steering committee reporting on quality, budget, and status to plan	Communication Management	PM/PCO and LOB, Dev. Factory, Appl. Dev.	
	Prepare periodic status reports and conduct periodic status meetings	Communication Management	PM/PCO and LOB, Dev. Factory, Appl. Dev	