

Project Workforce Management for Internal and IT Projects

Beyond Project Portfolio Management (PPM)

WHITE PAPER

Executive Summary

Writing on competitive advantages in his seminal work, *“Competitive Strategy: Techniques for Analyzing Industries and Competitors,”* famed business scholar Michael Porter notes, “There is less to fear from outside competition than from inside inefficiency.” In other words, companies should *first* “look within” to do what they do with efficient excellence *before* “looking without” to competitive moves.

One of the wisest ways organizations maximize internal efficiency is investing only in high-performing and strategic initiatives. Project selection, return on investment (ROI) analysis, risk identification and mitigation, and continuous process improvement are imperatives. The challenge is that in many organizations management has little visibility into the scope and progress of projects across the enterprise. “Silo thinking” prevents resources from being assigned most effectively across departmental and geographical boundaries, project management procedures are not standardized, schedules are not met, and budgets are routinely exceeded.

Adding stress to the system are regulations that govern how time and talent must be tracked to accurately allocate cost and revenue to work performed. Some of these regulations are labor-related — such as state-specific wage laws, the Family Medical Leave Act and the Fair Labor Standards Act — and some are related to financial governance and accounting requirements, such as Sarbanes-Oxley, the AICPA’s Statement of Position (SOP) 98-1, and the cost accounting contract guidelines of the Defense Contractors Auditor Agency (DCAA). All require meticulous planning as well as accurate recording, tracking and auditing to ensure compliance.

These challenges have led most organizations to seek technology to simplify and structure the process of prioritizing internal and IT projects, assigning the right talent to them, and guiding their progress. Some organizations have tried using Project Portfolio Management applications (PPM) or Professional Services Automation (PSA) applications, only to be disappointed in their scope and lack of easy integration with their existing business management systems, such as project management, finance, payroll, human resources and procurement.

This white paper introduces Project Workforce Management for Internal and IT Projects, a next-generation solution that helps organizations effectively select and prioritize projects, assign the right talent to them, and track their progress to ensure efficient execution. The paper explores the challenges of internal and IT project management, and notes the shortcomings of Project Portfolio Management applications. Concepts presented also apply to managing service organizations, and reflect information found in our companion white paper *Project Workforce Management for Service Organizations*.

Prioritizing, Planning and Executing Projects is Complex

Quality is never an accident...it represents the wise choice of many alternatives.

William A. Foster

Figure One diagrams five stages involved in project planning, delivery, and analysis. Each of these steps involves choices managers must make as they “look within” to optimize the performance of the business. Companies that fail to leverage the intelligence and controls available through automating the processes and decision systems involved, will likely find themselves at a competitive disadvantage or facing regulatory compliance issues. Optimally, automation solutions should encompass processes at each of these stages:

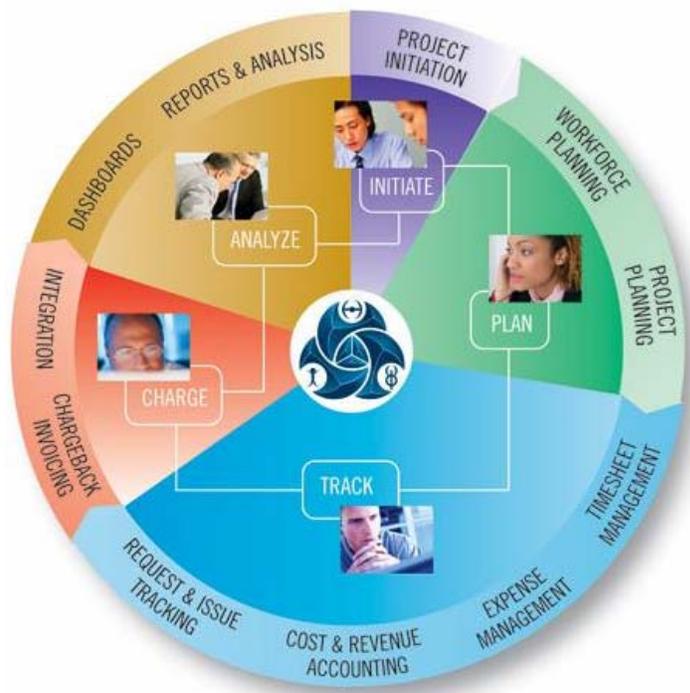


Figure One. The Project Delivery Cycle is comprised of five key stages, each with its own alternative choices, complexities and challenges.

Stage One: Initiating the Project — defining the objectives and scope of the work to be done.

Stage Two: Workforce and Project Planning — planning and assigning the workforce and other resources required to deliver the project, along with key milestones to track the project’s progress.

Stage Three: Tracking — managing time and expenses associated with each milestone of the project; accounting for costs and revenue by person, by project, by project phase, and by activities and tasks within each project phase; and proactively managing requests and issues that affect the status of the work being performed.

Stage Four: Charging — creating accurate and timely charge backs (or invoices) and integrating data with the company's core information systems, including billing, finance, accounting, human resources, and customer relationship management systems.

Stage Five: Analyzing — creating executive dashboards to present high-level metrics that help managers keep projects on track and to measure revenue, utilization rates, costs and profitability. This stage also covers creating reports and analysis that assist with regulatory compliance, process improvement and decision-making.

Automating Project Portfolios and Management is a Business Imperative

With the speed of business ever accelerating, the internal demand for new product and service development is unrelenting. In fact, the 2006 Computer Economics IT Spending, Staffing and Trends Study shows IT operational budgets, as a percent of revenue, are at their highest level since 1997, when the dot-com frenzy and build-up to Year 2000 conversions inflated internal demand.¹

Smart businesses know that project prioritization, solid budget tracking, cost accounting, resource utilization and allocation, project scope control and schedule management translate into optimal performance — and therefore competitive advantage. In 2006, the median of internal IT investment across all business sectors was 2% of revenue², and that investment is expected to grow by 5% in 2007³.

In real dollars, a \$1 billion company spending in the median range invests \$20,000,000 in internal IT projects. Research from Gartner Group suggests that aggressive management of IT assets can shave an average of 13% off a company's total IT bill.⁴ In this case, that equates to saving \$2.6 million. In the Fortune 1000 — where revenue of companies on the 2006 list ranges from \$1.4 billion to just under \$340 billion⁵ — the stakes are much higher. Median IT spending translates into

¹ IT Spending, Staffing and Technology Trends 2006/2007, *Computer Economics*, page 1-3.

² Ibid.

³ Ibid, page 1-6.

⁴ "Capitalizing Software and Creating Business Value," DuLaney, Walter; *Journal of Accountancy*, July 2000.

⁵ Data obtained from http://money.cnn.com/magazines/fortune/fortune500/full_list/index.html

budgets from \$28 million to \$6.8 billion, with potential savings in the range of \$3.6 million to \$884 million.

Automating internal and IT portfolios and project management delivers the intelligence and structure to strategically improve operations, and gives companies a significant edge toward achieving these savings.

In addition, regulatory factors including Sarbanes-Oxley (Bill 198 in Canada), and government accounting requirements demand transparency in transactions and record keeping, regardless of the complexity of the operations involved. This transparency must exist throughout the project lifecycle, from individual project team members to the lead project manager and on to the executive suite. At each stage in the process, the data available for access must be role-specific, so that an individual can easily get to it and understand the information needed to make informed decisions. Equally critical is the requirement for accurate, transparent, secure and audited transactions, and the absence of intended or unintended errors and omissions. Using a blizzard of spreadsheets or other disparate project and workforce tracking systems, that require often-conflicting data to be integrated manually, exposes a company to control weaknesses that do not meet the standards of these regulations.

Project Workforce Management Goes Beyond PPM

With the benefits of automation clear, some organizations have attempted to use Project Portfolio Management (PPM) solutions, only to be disappointed in their scope of impact and implementation approach.

PPM manages projects as investments, with return on investment (ROI) as the most important success metric, followed by risk analysis. If a project's ROI cannot justify the resources required, or cannot mitigate risk satisfactorily, a well-run PPM function will identify a poor-performing non-strategic project and shut it down.

However, PPM solutions are IT-centric, focused primarily on managing IT projects and teams. More organizations are realizing that the optimal solution would apply across their entire organizations to manage all internal, shared service and billable project work, expenses and processes. PPM solutions are often large, self-contained proprietary suites that do not easily interface with other systems such as project management, customer relationship management, accounting, payroll, human resources, or procurement. Companies are faced with having to invest in another silo application or "rip and replace" existing systems—basically forfeiting existing IT investments and acquired knowledge. More companies are looking for solutions that do not take this "rip and replace" approach.

Project Workforce Management is designed to address these needs. Table One delineates the distinctions between PPM and Project Workforce Management.

Table One: Why Traditional PPM Applications Fall Short

<i>Function</i>	<i>Traditional PPM</i>	<i>Project Workforce Management</i>
Workforce Management	Focused primarily on collecting IT project time, with limited workforce management and labor regulation compliance capabilities.	A common engine drives workforce management, time and attendance and leave management data, simplifying compliance with state and federal labor laws. Use extends beyond services teams to entire company.
Expense Management	Internal project expense tracking.	Expense reporting module can be used to track overhead and variable project costs; also supports tracking of billable, non-billable, and reimbursable expenses. Includes credit card transaction import, cash advance management, multi-currency/regional tax support, and reimbursement through payroll/accounting.
Project Process Management	If a workflow engine exists it is an “add-on” module; it is not the underlying foundation for driving all processes & controls.	A common graphical workflow-driven architecture drives all business processes, approvals, controls and automations
Implementation	Typically “all in one system” deployed “all at once”	Modular system that can be purchased and deployed in phases
Integration with Customer Relationship Management (CRM) systems	An IT-centric system with no CRM connectivity	Focus is on project initiation and execution, with CRM functionality gained by built-in integration with major CRM vendors such as salesforce.com or Microsoft CRM
Procurement	Procurement may be a core module	Procurement is not a part of the core modules; it can be added optionally or through integration
Revenue Recognition	An IT-centric system without billing and revenue recognition capabilities	Enterprise-grade revenue recognition and billing capabilities including milestone, fixed, variable and recurring billing
Project Cost Accounting	Cost accounting (and charge backs) is not included out of the box	Project cost accounting is standard, along with the integration to accounting systems (accounts payable and general ledger)
Payroll	Limited or no payroll integration. Companies usually have to use a different system for payroll timesheets.	Application includes pay codes, cost centers and payroll batch processing, and has built-in integration with all major payroll systems

Fundamentally, Project Workforce Management (*without* rip and replace) combines the following disciplines into a synthesized solution that interfaces with a company's other IT investments:

- Customer Relationship Management (CRM)
- Human capital management
- Project management
- Payroll/Accounting

The underlying organization and work structures, and process management workflows in the project workforce management system adapts to your structures, policies and processes. It automates accounting for time and expenses of a project workforce—both within the company and without, to include external service providers. The software can be configured to work the way you do, and fundamentally empower individuals in a decentralized organization.

Project Workforce systems enable companies to meet complex and global cooperative collaboration challenges. The project workforce system establishes a new “system of record” that interrelates the customer (whether internal or external), the project and the workforce (talent) to identify interdependencies and to simplify priority setting and talent sourcing, while balancing project profitability with customer satisfaction (*see Figure Two*). Customer Relationship Management systems (where the “customer” is the system of record), Project Management systems (where the “project” is the system of record), and Human Capital Management systems (where the “employee” is the system of record) cannot accommodate these interdependencies.

Project Workforce Management Identifies Interdependencies

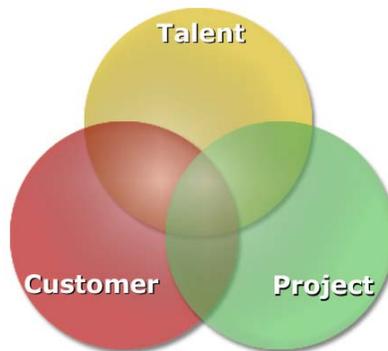


Figure Two: Project Workforce Management links the customer, the project and the talent to create a global system of record.

Project Workforce Management centrally manages project workforce related data, eliminating many of the spreadsheets used to track projects, time and labor, expenses, inter-departmental charge backs, and billable work. Table 2 outlines the functions Project Workforce Management encompasses and integrates:

Table 2: Project Workforce Management At A Glance

Capability	Description
Time & Expense Tracking	Tracks all differentiated time and expenses, by person, project, project phase, activity and task – whether or not they are billable.
Cost & Revenue Accounting	Attributes all revenue (and charge backs) spending and labor costs to specific projects. Establishes a formal charge back system for shared service departments such as IT and engineering. Formalizes and enforces a revenue accounting and recognition policy in compliance with regulations. Produces customer invoices (or charges back other business units) on a project basis for all billable work, spending and labor costs; or invoices based on a pre-defined billing schedule.
Workforce Planning	Handles competency and capacity planning. Optimally schedules your workforce by locating the most optimal available resources to fill specific roles and accomplish specific tasks on a project.
Project Process Management	Manages project processes, including project initiation; risk and issue reporting; and scope control, using policy-based, enforced best practices.
Analytics	Provides a consolidated, real-time, and dynamic view of the company’s projects, processes and workforce, with a special emphasis on reporting the financial perspective of projects.

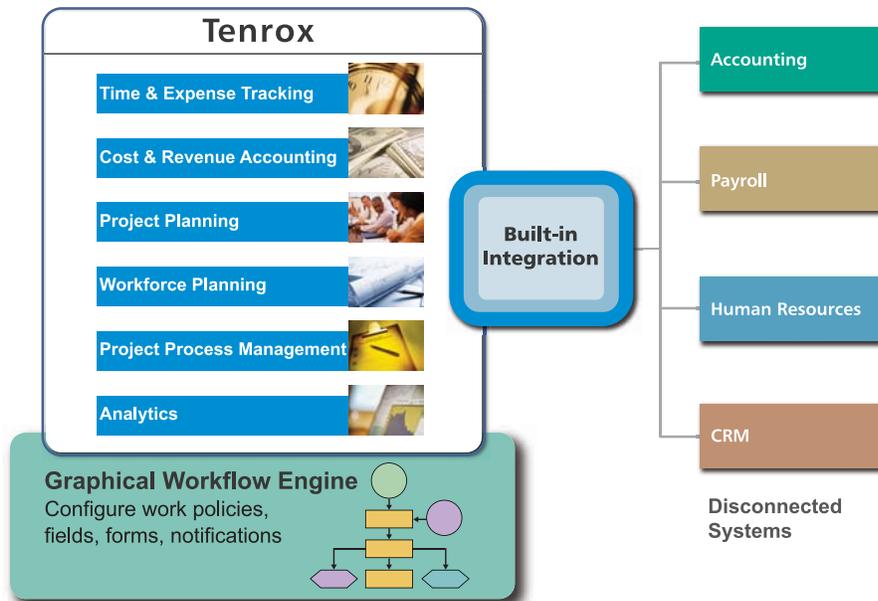
Tenrox Project Workforce Management for Internal and IT Projects

Since 1995, Tenrox has been providing solutions that help organizations meet the challenges of globalization, fragmentation of the enterprise, the projectization of work, and increased regulatory scrutiny.

Tenrox Project Workforce Management for Internal and IT Projects is a modular solution that empowers a project workforce locally, while providing global visibility. Modules tightly integrate with a company’s core information systems, including accounting, payroll, project management, human resources and customer relationship management (*see Figure Three*). The same reviewed and

approved costs and expenses and differentiated time, that are used to update and report on project status, can also be used to track projects and budgets, process charge backs, process payroll, reimburse expenses, invoice for any billable work and spending, and update the accounting system with summary or detailed cost/revenue transactions.

Figure Three: Tenrox Project Workforce Management Leverages Existing Enterprise Software Investments



All Project Workforce processes are driven by an underlying business process management (BPM) platform. This platform graphically represents people, projects and financial processes so that work policies and approvals can be designed, configured and changed by authorized managers, without requiring programming resources.

The Importance of Process-Driven Project Workforce Management

From a study cited in CIO Magazine, It's All About the Execution, November 15, 2006. (Emphasis added).

"The findings quantified distinctions between IT shops that live for the average and the few that take process leadership seriously. Elite IT performers weren't just two or three times better than median performers — they were seven or eight times better. High performers — roughly 13 percent of the 98 sampled — contributed on average eight times more projects, four and a half times more applications and software, four and a half times more IT services, and seven times more business IT changes. They implemented 14 more changes with half the failure rate."

The graphical workflow interface enables users to visually define, control, track and audit approvals, routing, role-based assignments and notifications. All business processes use the same graphical workflow concepts and management interface. By leveraging the same visual framework and concepts, users experience a consistent and intuitive Web interface that is easy to learn and use.

The software also leverages existing investments in a Microsoft-based project and document management infrastructure by integrating with Microsoft Project, SharePoint, OLAP Services, and Reporting Services. These systems are totally integrated into Tenrox Project Workforce Management for Internal and IT Projects. You do not need to access multiple Web sites or applications because all of the functionality is provided from a single access point and with a consistent Tenrox user interface. Tenrox customers do not need to purchase any other third party software or services for tracking, approvals, integration, reporting and analysis requirements when automating their services organizations.

Other highlights of the system include:

- Detailed tracking and auditing of project time, expenses, costs and approvals. Data can be converted into detailed or summarized financial transactions that export directly into payroll and accounting systems to eliminate human error in transferring data.
- Executive dashboards help get the right information to the right people at the right time. They display consolidated, real-time, and dynamic views of the company's customers, projects, processes, and workforce performance, as well as operational and compliance information such as revenue, budgets, costs, project health indicators, issues, risks, approvals and scope changes. Dashboards are role-dependent. For example, a project manager can view the status of projects he/she is managing, while the CIO and CFO can access portfolio status at a glance.
- Workflow designer allows graphical design and management of work processes and provides features such as automatic and role-based work assignments, notifications and routing according to pre-set parameters; policy-based data validation and entry; and management by exception
- Policy and rule-based time, expense and work entry with full lock down and audit support capabilities
- Collaborative resource scheduling based on skill, availability, interest, location, cost and bill rates
- Pay rules, billing rules, budgets, and limits (for initiatives, projects, users, teams and business units) provide an enterprise project cost accounting and billing system

- More than 100 reports and live OLAP analysis documents to monitor projects, portfolios, customers and operations, and to detect inappropriate or inefficient use of funds, fraud or problem areas
- Data is validated at the point of entry against the company's pre-defined policies, rules and limits. Changes result in an audit log, while reports show potentially inappropriate changes
- Project and workforce-related costs are rolled-up or converted into financial transactions that are approved, audited and tagged before being exported to the accounting or payroll system
- The system is available in on-premise or on-demand implementations. On-premise installations do not require installing other third party applications beyond those provided by the standard Windows operating system, SQL Server database, and SharePoint, Microsoft's document management, dashboard and reporting technology.
- Leverages Microsoft SharePoint for a securely managed and centralized repository of project, workforce and financial documents, and project artifacts. Together, Tenrox Project Workforce Management for Services Organizations and Microsoft's SharePoint, SQL Reporting Services and OLAP Analysis Services address all portfolio, project, services and workforce management needs, while integrating with the customer's choice of accounting, payroll and CRM systems

Summary

Business managers seeking competitive advantages must first "look within" to assess whether their internal operations are performing at maximum efficiency. One of the fastest and wisest ways you can create value is to invest only in high-performing and strategic initiatives.

However, obtaining and analyzing the data required to know which IT, internal or shared projects are meeting performance expectations and are contributing strategically to the company can be difficult. Many enterprises struggle with a proliferation of spreadsheet-based reports and tracking that hits business units with a blizzard of assorted and often conflicting data. Disconnected or manually integrated systems, a mish-mash of unapproved data, and a wild email exchange of spreadsheets leads to an environment that is ripe for cost/schedule overruns, errors, fraud and systemic control weakness. Project Workforce Management systems provide a powerful and affordable alternative to this state of disarray.

Meeting Regulatory Compliance Requirements

The requirements of Sarbanes-Oxley (Bill 198 in Canada), cost accounting standards, and labor laws call for internal and external audits of projects, work hours, bill rates, costs, and operations. Tenrox Project Workforce Management provides the audit support, analysis and visibility needed for sustainable compliance. All project and financial approvals are audited and captured to ensure the company has established effective internal controls as mandated by various cost accounting, corporate governance, and government regulations. Some are listed here:

Sarbanes-Oxley (equivalent to Bill 198 in Canada)

- *Section 404 — Effective internal controls for projects and approvals. Spreadsheets and manual processes are control weaknesses avoided using Project Workforce Management*
- *Section 409 — Rapid Reporting of material changes of project portfolios. Project Workforce Management provides real-time status.*
- *Section 802 — Destruction, alteration, or falsification of records including project documents, reports, approvals and artifacts. Tenrox and SharePoint protect and audit project, workforce and financial transactions and documents*

Labor Laws

- *State wage laws — Ensure that exempt and non-exempt employee time is tracked and pay rules account for resource type*

Summary, continued...

Tenrox Project Workforce Management for Internal and IT Projects helps organizations to organize, track and report on project health, performance, budgets, costs, risks and issues. Also, by automatically validating and enforcing policies, rules and limits for time/expense/charge entry — and by auditing all project and financial transactions and approvals — the system facilitates sustainable compliance with government and industry regulations, including Sarbanes-Oxley and cost accounting regulations such as DCAA and SOP 98-1.

Tenrox software leverages your existing enterprise software investments to improve project portfolio performance and drive long-term profitability, customer satisfaction and value.

About Tenrox

Tenrox is the leading provider of Project Workforce Management Software. For more information please call us directly at **1.877.4TENROX** or visit www.tenrox.com. There you will find more information on the power of Project Workforce Management, including these white papers:

- *Family Medical Leave Act (FMLA) — Keep track of and allow FMLA leave time for eligible employees*
- *Fair Labor Standards Act (FLSA) — Track and calculate regular pay, overtime and leave time rules by resource type to ensure FLSA compliance*

Generally Accepted Accounting Principles (GAAP) Regulations

American Institute of Public Accountants (AICPA) Statement of Position (SOP) 98-1 — To meet this guidance for capitalizing or expensing software costs, Tenrox Project Workforce Management for Internal and IT Projects tracks and audits time, expenses and material attributes for capital and R&D projects. Tracks projects by type, phase, activity and task to accurately meet the specifications of what elements of software development or acquisition to expense and what to capitalize as an asset. See Tenrox white paper “Using Software Development GAAP Accounting Regulations to Drive Business Value.”

Cost Accounting for Government Contracts

DCAA (Defense Contractors Auditor Agency) — DCAA audits government contracts. Companies must have strict time and expense entry and tracking policies, and must be able to provide detailed project cost accounting. Tenrox provides policy and rule-based time and expense entry with full lock down and change audit support.

The Rise of the Project Workforce: Managing Projects and People in a Flat World

The Hidden Force: How Workforce Planning Can Lead to a Market Advantage

Project Workforce Management for Service Organizations: Beyond Professional Services Automation

Notes

