Tom Welch, PMP

Project Manager's Roadmap

"We're all smarter together"

Think Top Down!

Game Plan

Initiate
Plan
Execute (And Control)
Close

"Alignment and Focus are the keys to success"

Proactive Project Manager integrates business needs, customer and stakeholder requirements, information technology, financial budget, collaborative team and contributor efforts, processes, and standards into an *effective solution* and *positive return on investment (ROI)*

INITIATE

Establish Project Parameters

Build business case:

- ☐ Need or opportunity
- ☐ Mission and purpose
- ☐ Scope and deliverables
- ☐ Objectives, assumptions, and constraints
- ☐ Timelines and major milestones
- ☐ Budget, costs, benefits, payback period, and ROI
- ☐ Specifications, quality, and standards
- ☐ Major risks and mitigation strategies
- ☐ Project team (organizational structure and skill sets), consultants, and vendors

Define:

- ☐ Target customer (external or internal) and sponsor (funding source)
- ☐ Scope and budget
- ☐ Objectives (clear and realistic)
- ☐ Strategy and tactics
- ☐ Stakeholders, subject matter experts (SMEs) contributors, and vendors
- ☐ Methodology. Click **Methodologies** for high-level review
- ☐ Organization (projectized, matrix, or functional)
- ☐ Core team members (select, evaluate, and monitor)

Tip: Use pass/fail criteria when evaluating team, as opposed to a complex rating system.
Go to **Top 10 Tips** and **Effective Meetings** briefs for more project management insights

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Project Selection (The Keys Are Alignment And Business Value)
Evaluate business cases:
- ☐ SORT and categorize per established criteria
- ☐ SCREEN for alignment, priority, feasibility, resources, and policies
- ☐ EVALUATE in terms of business need, strategy, budget, and technology
- ☐ SELECT projects based on business goals, needs and value. Address competitive advantage and affordability issues. Consider "staged delivery" for complex projects
- ☐ MONITOR projects and review quarterly. RECALIBRATE portfolio when necessary

Tip: Return on investment (ROI), payback period, benefit cost ratio, present value, net present value, and internal rate of return (IRR) are the financial criteria often used. Murder boards, peer review, scoring and economic models are also used to pick projects (portfolio management)

Stakeholder Analysis (Check Temperatures And Attitudes)
Analyze stakeholder requirements:
- ☐ Identify and prioritize stakeholders
- ☐ Determine stakeholder objectives, needs, and expectations
- ☐ Determine stakeholder roles, contributions, and risk tolerances
- ☐ Determine stakeholder knowledge, skills, and commitment to project
- ☐ Assess impact of each stakeholder in terms of project objectives
- ☐ Develop a strategy to manage stakeholders' point of view (POV)

Tip: Incorporate stakeholders' requirements and review periodically. Resolve customer and stakeholders conflicts in favor of the customer (user)

Risk Assessment (Significantly Decrease Problems Later)
Types:
- ☐ Business
- ☐ Technical

Sources:
- ☐ External (market shifts, regulatory, government, and environmental)
- ☐ Internal (schedule, costs, quality, scope, and resources)
- ☐ Technical (changes in technology)
- ☐ Unforeseeable

Tolerances:
- ☐ High
- ☐ Medium
- ☐ Low

Methodology:
- ☐ Identify
- ☐ Evaluate (probability, impact, and alternative strategies)
- ☐ Document and respond (avoidance, mitigation, acceptance, or deflection)
- ☐ Monitor and control (contingency planning, reserves, and insurance)

Assess:
- ☐ Project team (technology and methodology skill level, business knowledge, team composition, location, and environment)
- ☐ User involvement and knowledge
- ☐ Organizational impact and priority
- ☐ Senior management commitment. READ "motivation and intent"
- ☐ Project attributes (development technology and methodology, schedule constraints, project priority and novelty, and project development cycle and implementation)
- ☐ Requirements stability
- ☐ Criticality, size, and complexity

Tip: Document risks, take action, and monitor daily (ongoing process)

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Mentoring Basics (Leverage Knowledge And Skills)
Develop staff potential:
- ☐ Focus on performance, achieving results, and professional growth
- ☐ Provide penalty-free relationship
- ☐ Be a positive, supportive, and candid resource
- ☐ Encourage questions, critical thinking, and self education
- ☐ Develop strengths (knowledge, skills, and abilities)
- ☐ Assist in creating an individualized action plan

Tip: Meet with mentoree on a regular basis

PLAN

Prepare for Success
Generate:
- ☐ Work Breakdown Structure (WBS) (top tier should reflect product life cycle)
- ☐ Define WBS activity levels (phases, subphases, and tasks)
- ☐ Review WBS with project team (and stakeholders)
- ☐ Finalize WBS elements

Tip: WBS should capture the entire scope and provide a framework for planning and estimating. On large and complex projects, also generate a WBS Dictionary
Estimate:
- ☐ Assess planning factors
- ☐ Evaluate personal/team experience
- ☐ Review and select estimating methods
- ☐ Investigate historical data and methodologies
- ☐ Size (lines of code, function point, or feature set)
- ☐ Estimate effort (man-months or FTEs)
- ☐ Document assumptions and estimates
- ☐ Schedule (calendar months)
- ☐ Estimates review and sign off

Tip: Recalibrate after first phase
Prepare:
- ☐ Project charter (signed by senior management)
- ☐ Roles and responsibilities matrix

Tip: Consider project size and complexity, product availability and need, and level (quality) of customer involvement
Kick-off:
- ☐ Assign team members
- ☐ Hold kick-off meeting (agenda, location, props, and minutes)

Buy-in:
- ☐ Brief project team and contributors
- ☐ Obtain commitments from management, team, stakeholders, SMEs, and contributors

Development tools:
- ☐ Identify
- ☐ Document and install
- ☐ Train team members

Metrics protocol:
- ☐ Review project objectives and scope
- ☐ Identify critical success factors (CSF)
- ☐ Identify metrics
- ☐ Balance and prioritize metrics
- ☐ Set targets (knowledge and achievement goals)

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Metrics (starting point):
- ☐ Cost and resource data
- ☐ Number of changes and defects
- ☐ Process conformance
- ☐ Productivity
- ☐ Code changes and growth
- ☐ Requirements changes
- ☐ Use cases (completed, projected, integrated, and tested)
- ☐ Schedule (development phases, milestones, activities, total effort, estimate time to complete, establish baseline, variances, and deliverables)
- ☐ Issues
- ☐ Code builds
- ☐ Risks
- ☐ Quality metrics
- ☐ Lines of code
- ☐ Functioned points

Tip: Apply metrics to control, evaluate, and improve performance

Performance Metrics
- ☐ Clearly identify purpose (if at program level define mission)
- ☐ Develop qualitative requirements for metrics to guide input/output measures
- ☐ Develop primary metrics (indicators and measurements)
- ☐ Implement project metrics

Tip: Performance metrics improve the decision making process and resource allocation. The criteria for metrics is organizationally acceptable, customer-driven, meaningful, timely, credible, responsibility-linked, balanced, cost effective, compatible, comparable, and SIMPLE

Document Activities
Organize:
- ☐ Project notebook
- ☐ Server space (activate backup procedures)
- ☐ Web space (activate backup procedures)

Clarify:
- ☐ Project objectives after preliminary requirements document is available
- ☐ Assumptions and dependencies
- ☐ Requirements (scrub)
- ☐ Development activities are traceable to requirements
- ☐ Project specifications (generate)

Describe:
- ☐ Entry and exit conditions
- ☐ Review and approval criteria
- ☐ External project dependencies

Tip: Tailor all activities to the project, document tailoring rules, and get approvals

Generate Software Development Plan (SDP)
- ☐ Go to **Software Development Plan** for checklist

Prepare Schedule(s)
Top-down and bottom-up process:
- ☐ Identify scheduling tool
- ☐ Identify deliverables and milestones
- ☐ Conduct planning meetings

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- ☐ Get project team inputs
- ☐ Scrub data inputs
- ☐ Generate schedule(s)
- ☐ Review schedule with team
- ☐ Run schedule and update
- ☐ Obtain schedule approval
- ☐ Distribute approved schedule(s)

Tip: Prepare summary schedule for management reviews and micro schedules for day-to-day activities by phase. Schedule complex components first

Notes:

1. Recognize planning for what it is...A RESULTS-ORIENTED PROCESS
2. Go for the jugular! READ "Ship Date!"
3. Knock it apart, then put it back together...ANATOMIZE, THEN SYNTHESIZE
4. ALL activities should support GOAL and methodology
5. RELEVANT approximations are better than inconsequential minute estimates
6. Prepare ONLY plans that can be MONITORED
7. Plans identify activities, but the TEAM MAKES THEM HAPPEN

Establish Key Processes (Best Practices)

Activate:

- ☐ Project planning
- ☐ Requirements, issue, and risk management
- ☐ Tracking and oversight
- ☐ Configuration/change management
- ☐ Quality assurance
- ☐ Outsource management (consultants and vendors)

Tip: Enforce coding standard and software integration procedure. Key results areas are customer, business unit, department, stakeholders, and team members

EXECUTE (And Control)

Drive to Successful Completion

Power sources:

- ☐ Formal
- ☐ Reward
- ☐ Penalty
- ☐ Expert
- ☐ Referent

Prioritize project manageables:

- ☐ Time
- ☐ Cost
- ☐ Quality

Control scope:

- ☐ Gain product understanding and customer agreement
- ☐ Baseline customer's requirements
- ☐ External changes (marketing, user driven, or environment)
- ☐ Internal changes (no gold-plating - meet requirements only)
- ☐ Impact analysis (budget, schedule, and risk)
- ☐ "Fix it in the next release" (establish sustaining engineering bin)
- ☐ Negotiate changes
- ☐ Clear go/no agreement

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Motivate team:
- ☐ Vision and identity
- ☐ Inspire, ENGAGE, and challenge
- ☐ Manage team as a team
- ☐ Communicate, get feedback, and follow-up
- ☐ Build mutual trust (honesty, openness, fairness, and RESPECT)
- ☐ Delegate tasks to team (EMPOWER)
- ☐ Make team responsible for actions, not individuals
- ☐ Maintain productive environment

Daily:
- ☐ Focus on the GOAL. Ship date!!!
- ☐ STOP to evaluate progress
- ☐ Avoid scope CREEP and making MAJOR mistakes
- ☐ Lead and solicit FEEDBACK (emphasize "collaborative" effort)
- ☐ THINK about relevant issues, risks, and concerns
- ☐ Log and ACT on issues and risks (mitigate)!!!
- ☐ Troubleshoot (problem solve), and/or escalate, but resolve quickly
- ☐ MONITOR activities and follow-up, so that you get the desired results
- ☐ Strive for win-win relationships and say "Thank you"

Tip: Three words "responsive issue resolution"! Keep sponsor and stakeholders in the loop. Code build daily (heartbeat of project) during test phase (see **Software Test** for checklist)

Weekly:
- ☐ Conduct project review (focus on measures of merit)
- ☐ Track against the plan (actual progress/work outstanding/gap analysis)
- ☐ Take corrective action(s) (identify issues, recalibrate project, and document)
- ☐ Communicate upcoming events (lookahead schedule with milestones/tasks)
- ☐ Share knowledge, skills, and lessons learned
- ☐ Review metrics, productivity, quality, schedule, and cost
- ☐ Ensure key processes and practices are followed
- ☐ Monitor consultants, vendors, and subcontractors
- ☐ Generate status report (performance reviews, key issues, top 10 risks, jeopardy process (OK, Alert, and Jeopardy), variance and trend analysis, earned value analysis, and communicate state of project)
- ☐ Maintain "user" involvement (critical)

Tip: Conduct business/technical reviews and archive deliverables, after each phase. Promptly make staff changes to improve team performance, but discuss with senior staff members first

Conflict Resolution Modes
- ☐ Collaborate (problem solve)
- ☐ Compromise (sharing)
- ☐ Accommodate (smoothing)
- ☐ Withdrawal (avoiding)
- ☐ Competing (forcing)

Tip: Reduce conflict through EFFECTIVE communication. Schedule, priorities, resources, technical opinions, procedures, cost, and personality are the usual sources of conflict

Contract Outsource Management
- ☐ Outsource planning (procurement resources and plan, market conditions, constraints, assumptions, SOWs, expert judgment, evaluation criteria, and documents)
- ☐ Contract solicitation (qualified vendor list, bidders conference, and Request for Proposal
- ☐ Source selection (procurement policies, proposal screening, estimates, evaluation criteria, and contract negotiation)

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- ☐ Contract administration (contract, schedule, performance reporting, reviews, results, change requests, invoices, payments, correspondence, and contract changes)
- ☐ Closure (documentation, audits, acceptance and closure)

Tip: Carefully select vendors and hold to the same standards of performance as project team members, consultants, SMEs, and contributors

CLOSE

Mission Accomplished *– Effective Solution and Positive ROI*

Exit criteria:

- ☐ Execute system test plans successfully
- ☐ Finalize acceptance test plan (ATP)
- ☐ Complete user's guide and system description
- ☐ Finish user training
- ☐ Complete configuration audits
- ☐ Customer accepts final build per ATP
- ☐ Complete deployment
- ☐ Hold postmortem – Focus on lessons learned and review scope, objectives, and deliverables from business and technical perspectives
- ☐ Outline tangible and intangible project benefits
- ☐ Evaluate costs (planned/actual)
- ☐ Review all information relevant to future development
- ☐ Make recommendations
- ☐ Archive project documentation and source code for later reference and reuse
- ☐ Done!
- ☐ Take project team to an expensive lunch or dinner

Tip: Project closure activities are about learning, future development efforts, improvement of processes, and key result areas. No finger pointing! Act on recommendations

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Supplementary Resources

Checkout **Best of Breed Books** at WWW.MoneyWords.Com. Also, click **BookMarks**, then IT Project Management, Science and Technology, and Internet for additional resources. Links are updated weekly

Note: One size does NOT fit all, a company's culture, values, project management maturity and understanding, budget, goals, and project size and complexity drive the quality and the level of its project management effort

Your mileage may differ

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ACKNOWLEDGEMENTS

Tom Welch gratefully acknowledges the feedback of Dave W. Farthing, School of Computing, University of Glamorgan, UK

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