


Project Management Estimating, Communication, and Risk Management Overview

Presented to the Waukesha County Technical College
Project Management Advanced Certificate Program

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Presenter's Background

Chip Nickolett

- Graduated from WCTC (then WCTI) back in 1984
- I've been managing software projects since 1987
 - I've managed dozens of large and successful projects
- The largest effort was a program for a multi-billion dollar global company
 - 18 months, 50 people, > \$6.5M
- Began standardizing our PM practice in 2000, focusing on gathering metrics, standardization of documents and procedures, and continual process improvement
 - Those efforts became the basis for our "Consulting System"
- Became a PMP in 2005
- Earned a MBA with concentrations in Project Management in 2006



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Common Business Myths

1. My project is important!
2. Somehow things will work out
3. You need to spend money to make money

Business Reality

1. Projects not aligned with business strategy, goals, and requirements are likely not that important
2. Projects fail far too often
3. Businesses make money through innovation, wise allocation of limited resources, and efficiency

1. Estimating & Budgeting Overview
2. Risk Management Overview
3. Communication Planning Overview
4. Q&A

Feel free to ask questions at any time during the presentation

Process

Requirements used to create the scope

- Scope used to create the Work Breakdown Structure (WBS)
 - WBS used to for estimating Level of Effort (bottom-up approach)
 - WBS used for scheduling (could impact cost)
 - WBS and Project Schedule used to develop Estimates
 - These estimates become the baseline for budgeting purposes

Scope

- Create a common vision of what the project will do and how the deliverables will be used in the business
 - Assumptions and ambiguity kill projects!
 - Understand the Critical Success Factors
- Understand what needs to be accomplished for the project to be successful
 - Industry & subject matter expertise is very helpful
- Define the impact to all areas affected by the project
 - Don't overlook training, documentation, or dependent systems
- Identify the specific resources, tools, and products that will be required to make the project a success

Work Breakdown Structure (WBS)

- Work packages should be defined in sizes that are easy to manage
 - My Rule of Thumb is that a work package should almost always be in the 0.5 day to 10 day range
 - Expect push-back from people who tell you to just "trust them"
- As a Project Manager, you should be able to describe what is happening in that work package (process) and the specific deliverables
 - Without this understanding it is easy to miss something important
 - If the person performing the work is unable to succinctly describe the process then the work package likely requires more thought

WBS - Continued

- This level of granularity adds value by:
 - Providing more accurate estimates
 - Reducing the likelihood that something important will be forgotten
 - Making the project easier to track using Earned Value Management (EVM)
 - Makes it easier to schedule and allocate resources since other resources may be available to take on smaller parts of a larger overall effort

Parameters: What's included?

- This is very important from a budgeting perspective
 - These items should be validated as part of the initial project planning efforts
- Is the initial project analysis included?
- Are training & documentation costs part of the project?
- Are infrastructure costs a cost of the project?
- Are there any external costs being applied to the project? (such as a PMO allocation charge)
- Never assume that an item, or the cost of that item, will be covered by someone else!

Parameters: How are items measured?

- Human Resources - Usually the largest cost of a project
 - Actual cost (loaded or unloaded cost)
 - Blended cost (team, department, title, project)
 - Average cost (sometimes by location or region)
- Understand the Contracts!
 - Are there minimums, penalties, or up-charges?
- Who pays for downtime / delays?

It is very important to know WHAT is being tracked / counted, and WHEN it is accrued

Estimating & Budgeting

Comprehensive Solutions: Project Pricing Worksheet - Company Confidential

Client: Acme Manufacturing
Project: OpenSource Ingres Migration
Date: 01/05/07

Prepared By: John Smith
Approved By: Chip Nickolett
Status: Pending

Task ID	Rate	UOM	Quantity	Upcharge	Reason	Total
SOW2-001	\$1,000.00	Day	5.00	1.00		\$5,000.00
SOW2-002	\$1,200.00	Day	15.00	1.00		\$18,000.00
SOW2-003	\$1,200.00	Day	5.00	1.10	Risk - Client Dependency	\$6,600.00
SOW2-004	\$150.00	Hour	36.00	1.25	Weekend w/Nights	\$6,750.00
SOW2-005	\$3,500.00	Month	1.00	1.00		\$3,500.00
Analysis / SOW Prep.	\$500.00	Total	1.00	1.00		\$500.00

Grand Total **\$40,350.00**

Est. Capitalized Costs (Customer): **\$23,850** (Used for NPV/IRR Calculations)



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Estimating & Budgeting

ROI Estimates

Acme Manufacturing		Project: OpenSource Ingres Migration			
Item	Year 1	Year 2	Year 3	Cumulative Impact	
Depreciation (the 35% tax value of the full depreciation amount)	\$7,490	\$6,673	\$6,673	\$20,836	
Savings - Software Support	\$15,000	\$15,000	\$15,000	\$45,000	
Savings - Software Licenses	\$10,000	\$0	\$0	\$10,000	
Savings - Hardware Support / Maint	\$6,500	\$6,500	\$6,500	\$19,500	
				\$0	
				\$0	
				\$0	
				\$0	
				\$0	
Expected Net Cash Flows	\$38,990	\$28,173	\$28,173	\$95,336	
Initial Investment:	-\$64,200	Internal Rate of Return:		24%	
Cost of Capital:	10%	Net Present Value:		\$15,696	



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Process

Create a Risk Management Plan

- Identify risks and create a "risk register"
 - Assess the identified risks
 - Create specific "risk response" plans to address how those risks will be addressed
 - Risk monitoring and communication

A "Project" by Definition Implies Risk!

- Risk is inherent in business
- You are creating new deliverables
- You are doing something new
- You may be working with new technology
- You may be working with a new team
- The more unique or cutting-edge the project, the higher the likely risk is for the project

Risk also Implies Opportunity!

Creating a Risk Management Plan

- Make your audience aware of the importance of this activity
 - This is an area that is commonly ignored or given little attention in far to many projects
- Define "risk" to create a common understanding of what is being discussed and addressed
- Describe the process that will be used / followed
- Make people aware of their role in the process
- Provide information about monitoring and communication of changes (risk event, new risk, etc.)

Identify Risks

- Areas to focus on include:
 - Scope / Requirements
 - Estimates
 - Customers / Implementation / Deliverables
 - Contracts
 - Team (staff and contractors)
 - Complexity / New Technology
- Brainstorming is a good approach to start this effort
- Reviewing historical records can be very helpful
- Expert Review / Assessment can also be very helpful

Assess the Risks

- Define the likely cause (“trigger”)
 - Look for patterns or trends, as a single risk event may have a larger impact due to related risks
- Define the effect of the event
- Create a “risk score”
 - Probability of the risk event * Business Impact of the risk event
- Rank the risks within the project
- Determine the “Risk Owner”
- Group the risks in a way that is logical for this specific business or project

Risk Response Planning

- Work with the “risk owner”
 - At the very least you want them involved so that everyone fully understands the risk and appropriate planning can be performed
 - Validate information to date (e.g., trigger)
 - Their feelings about the risk may differ from yours
- Determine the best course of action
 - Accept (feel it is unlikely), retain (budget for risk), avoid (eliminate the potential), mitigate, or transfer to another party
- Get approval for the action plan
 - If and when the risk event occurs, the last thing you want is to have people second-guessing as to the best course of action to take

Monitoring

- Look for variances in planned activities and costs
 - EVM is your friend
- Look for clues in weekly status reports from the team
- Perform routine “risk audits” to validate the completeness and effectiveness of the entire process
 - If deficiencies are found then reassessment of risks is important to ensure the completeness of these efforts

Communication

- From a communication perspective, this is one area where “no news is good news.”
 - Don't send out weekly messages stating that nothing happened or else people will quickly learn to ignore them!
- If something does happen, inform people on a timely basis
 - Be thorough, letting them know what happened, what action was taken, and what the final results were. Also, note any follow-up actions or next steps.
- Assess the cost and impact, and then communicate that as well
 - This type of communication may be limited to the project stakeholders

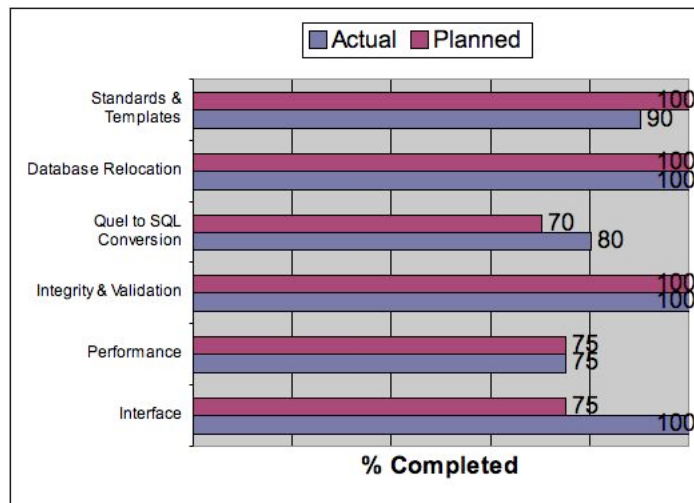
Process

Create a Communication Management Plan

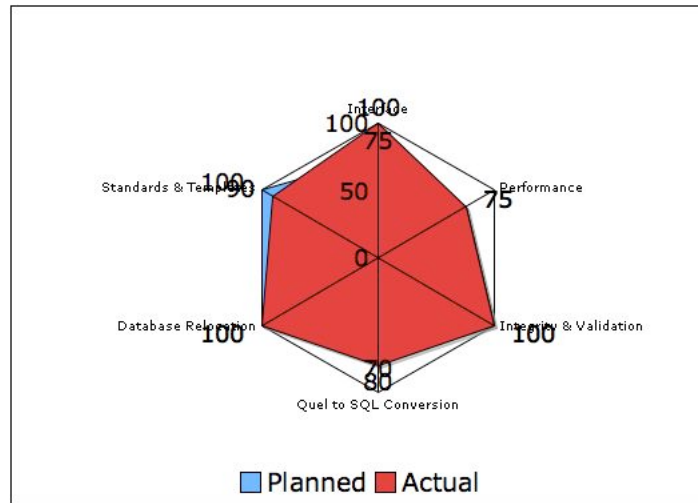
- Identify Stakeholders
 - Plan Communications
 - Set Expectations
 - Report on Performance

- **Different categories of people will have different information requirements**
 - Understand those needs (especially for stakeholders) and then tailor the communication to meet those needs!
- **Information provided should be accurate and relevant**
 - Stakeholders need to be able to trust the reports
- **Information needs be timely & provided when expected**
- **If there is a problem, pick-up the phone!**
 - People don't like surprises.
- **Remember, communication is a two-way process**
 - Make it easy for people to comment or provide feedback
- **Report problems objectively**
 - Focus on what happened and how it will be avoided in the future, not on who is responsible

- **Keep things as simple as possible**
 - If you really understand what is going on, you should be able to convey that message in 1-2 pages
 - Long status reports waste time and typically go unread
 - Use graphics to provide an "at a glance" understanding of where the project is (see following two slides for examples)
- **Maintain a Document Repository that is easy to access and use**
 - The "Basecamp" tool is effective and inexpensive
 - Provides a history of events and communication
 - Can create standard distribution lists
 - Can record comments
 - Things won't get lost, as often happens with email
- **Meet expectations - it inspires confidence!**



Communication



Questions?

