Making project management indispensable for business results.

Project Management 101

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Topics of Discussion

1. Process Groups
2. Triple Constraint
3. Knowledge Areas
4. Professional & Social Responsibility
5. Resources & Tools
6. Certifications
Terms & Definitions

- What is a Project? (vs. Operational Work?)
- What is a Program? (Portfolio & PMO)
- What is Project Management?
- Project Life Cycle vs. Product Life Cycle
- What is a Stakeholder?
- What / Who is a Project Sponsor?
Organizational Structures

- Functional
- Projectized
- Matrix

What is a Project Manager?
1: PM Process Groups

- Initiating
- Planning
- Executing
- Monitoring & Controlling
- Closing
1.1: Process Group - Initiating

- Main Goal: Formally Authorize the Project

- Main Outputs:
  - Project Charter
  - Project Stakeholders Identified
1.2: Process Group - Planning

- Main Goal: To Plan and Schedule the Work to Perform the Project

- Main Output:
  - Project Management Plan with Subsidiary Plans
1.3: Process Group - Executing

- Main Goal: Perform the Planned Work of the Project

- Main Outputs:
  - Project Deliverables: Product, Service, or Results
1.4: Process Group - Monitoring & Controlling

- **Main Goal:** To Monitor the Progress of the Project to identify any Variances from the Plan and attempt to Correct them

- **Main Outputs:**
  - Status Reports
  - Change Requests
  - Recommendations for Preventative and Corrective action
1.5: Process Group - Closing

- Main Goal: To Formally Close the Project

- Main Outputs:
  - Product Acceptance
  - Contract Closure
Process Group Diagrams
Process Group Diagrams
Process Group Diagrams

- Planning
- Execution
- Monitoring & Control
- Closure

Level of Process Interaction vs. Time
2: Triple Constraint

- Scope
- Time
- Cost
- Resources
- Quality
- Risk
- Customer Satisfaction

*** Group Activity ***
Triple Constraint Cartoon

I'll never be able to finish my project on time.

You need to take ownership.

Can I hire more programmers?

No.

Can I reduce the number of features?

No.

So... I'm just taking ownership of the failure?

Don't be greedy.
3: PM Knowledge Areas

- Integration
- Scope
- Time
- Cost

- Quality
- Human Resources
- Communications
- Risk
- Procurement
- Stakeholder Management
3.1: Knowledge Area - Integration

- Statement of Work & Project Charter
- Constraints & Assumptions
- Project Selection Methods
- Project Management Methodology
- PMIS
- Configuration Management & Change Control
- Kickoff Meeting
- Closure Procedures
3.2: Knowledge Area - Scope

- Project Scope Statement
- Work Breakdown Structure (WBS)
- WBS Dictionary
- Decomposition
- Scope Verification
- Scope Control
Work Breakdown Structure

- Filling A Vacant Post
  - The Job
    - The Need
      - Budget
      - Options
      - Approval
    - Job Spec
      - The Job
      - Timing
      - Person
  - The Candidate
    - Attracting
      - Advert Content
      - Advert Location
    - Shortlisting
      - Criteria
      - Review C.V.'s
      - Shortlist
  - The Selection
    - The Interview
      - Venue
      - Interview
      - Tour
      - Decide
    - Post Selection
      - Terms
      - Induction
      - Relocation
Work Breakdown Structure

Work Breakdown Structures (WBS)

Everything you wanted to know about WBS and more...

Created by Timothy G. Bolwerk, PMP
Last updated on Feb. 2, 2006
Work Breakdown Structure
3.2: Knowledge Area - Scope

*** Group Activity ***

Develop a Work Breakdown Structure (WBS)

- Hockey Tournament
- 40th Birthday Party
- Wedding
- Group Ski Vacation
- Work Family Picnic Event
Scope Cartoon

How the customer explained it
How the Project Leader understood it
How the Analyst designed it
How the Programmer wrote it
How the Business Consultant described it

How the project was documented
What operations installed
How the customer was billed
How it was supported
What the customer really needed
3.3: Knowledge Area - Time

- Activity Definition & Sequencing
- Relationships & Dependencies
- Network Diagrams
  - Precedence Diagramming Method
  - Arrow Diagramming Method
  - GERT
- Milestones
- Leads & Lags
Precedence Diagramming Method
Arrow Diagramming Method
3.3: Knowledge Area - Time (cont)

- Duration Estimating
  - Analogous, Parametric, Heuristic, & 3-Point (PERT)
- Schedule Development
  - Critical Path, Float (Slack)
- Schedule Compression
  - Fast Tracking & Crashing
- Gantt Chart
- Progress Reporting
Critical Path Method
Gantt Chart
3.4: Knowledge Area - Cost

- Cost Estimating
  - Bottom-up vs. Top-Down Estimating
  - Variable vs. Fixed
  - Direct vs. Indirect
- Earned Value Technique
  - Planned vs. Earned
  - Variance (Cost & Schedule)
  - Performance Index (Cost & Schedule)
3.4: Knowledge Area - Cost (cont)

- Project Selection Methods
  - Net Present Value (NPV)
  - Internal Rate of Return (IRR)
  - Payback Period
  - Benefit Cost Ratio
- Opportunity Cost
- Sunk Costs
- Law of Diminishing Returns
- Depreciation (Straight Line vs. Accelerated)
3.5: Knowledge Area - Quality

- Quality Assurance
- Quality Control (Benchmarking, Audits, & Metrics)
  - Gold Plating
  - Prevention Over Inspection
  - Marginal Analysis
  - Continuous Improvement (Kaizen)
  - Just In Time (JIT)
  - Total Quality Management
  - Impact of Poor Quality
  - Cost of Conformance vs. Cost of Nonconformance
3.5: Knowledge Area - Quality (cont)

- Six Sigma = 99.999% Quality
- Basic Tools of Quality Control:
  - Cause & Effect Diagram (Fishbone or Ishikawa)
  - Control Charts
  - Flowcharting
  - Histogram
  - Pareto Chart
  - Run Chart
  - Scatter Diagram
Cause & Effect Diagram

People (Shooter) → Concentration → Consistency
People (Shooter) → Motivation → Conditioning
People (Shooter) → Size of Ball → Training

Material (Ball) → Grain/Feel (Grip) → Aiming Point
Material (Ball) → Air Pressure → Bend Knees
Material (Ball) → Lopsidedness → Balance

Method (Shooting Mechanism) → Hand Position → Follow-Through
Method (Shooting Mechanism) → Rim Size → Rim Height
Method (Shooting Mechanism) → Rim Alignment → Rim "Play" - Tightness
Method (Shooting Mechanism) → Backboard Stability → Machine (Hoop & Backboard)

Environment (Weather) → Wind Gusts/Sun/Rain
Environment (Weather) → Open Air Environment

Environment (Weather) → Environment (Weather)

CAUSE

EFFECT

Missed Free-Throws
Control Chart
Flow Chart

START

FIND A MENU ITEM OR BUTTON WHICH LOOKS RELATED TO WHAT YOU WANT TO DO.

OK

I CAN’T FIND ONE

PICK ONE AT RANDOM.

OK

I’VE TRIED THEM ALL.

NO

HAVE YOU BEEN TRYING THIS FOR OVER HALF AN HOUR?

NO

CLICK IT.

YES

DID IT WORK?

NO

ASK SOMEONE FOR HELP OR GIVE UP.

YES

YOU’RE DONE!

GOOGLE THE NAME OF THE PROGRAM PLUS A FEW WORDS RELATED TO WHAT YOU WANT TO DO. FOLLOW ANY INSTRUCTIONS.
Histogram
Pareto Chart
Run Chart

Measured Output

Time
3.6: Knowledge Area - Human Resources

- Roles & Responsibilities
  - Project Sponsor
  - Project Manager & Functional Manager
  - Project Team & Stakeholders
- Responsibility Assignment Matrix (RACI)
- Organizational Breakdown Structure
- Resource Breakdown Structure
- Resource Histogram
### Responsibility Assignment Matrix

<table>
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<tr>
<th>WBS Component</th>
<th>Resource 1</th>
<th>Resource 2</th>
<th>Resource 3</th>
<th>Resource 4</th>
<th>Resource 5</th>
<th>Resource 6</th>
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<td>I</td>
<td>R</td>
</tr>
</tbody>
</table>

A = Accountable  
R = Resource  
I = Informed  
S = Sign off
Organizational Breakdown Structure
Resource Histogram
3.6: Knowledge Area - Human Resources (cont)

- Negotiation
- Halo Effect
- Team Building
- Co-Location (War Room)
- Powers of Individuals (Formal, Reward, Penalty, Expert, Referent)
- Leadership Styles
- Conflict Management
- Motivational Theories
Maslow’s Hierarchy of Needs

- **Self-actualization**: morality, creativity, spontaneity, acceptance, experience purpose, meaning and inner potential
- **Self-esteem**: confidence, achievement, respect of others, the need to be a unique individual
- **Love and belonging**: friendship, family, intimacy, sense of connection
- **Safety and security**: health, employment, property, family and social stability
- **Physiological needs**: breathing, food, water, shelter, clothing, sleep
3.7: Knowledge Area - Communications

- Effective Communication
- Effective Listening
- Communication Methods
  - Formal vs. Informal
  - Written vs. Verbal
- Communication Channels
- Lessons Learned
- Performance Reporting
Communications Activities

- Who wants to play Lego?
- Let’s play with Yarn…
3.8: Knowledge Area - Risk

- Risk Tolerances & Thresholds
- Risk Identification
  - Brainstorming
  - Delphi Technique
  - Interviewing
  - Root Cause Analysis
  - SWOT Analysis
SWOT Analysis

Strengths

Weaknesses

Opportunities

Threats
3.8: Knowledge Area - Risk (cont)

- Risk Register

- Qualitative & Quantitative Analysis
  - Probability & Impact
  - Monte Carlo Analysis
  - Decision Tree

- Risk Response Strategies (Avoid, Mitigate, Transfer, Exploit, Enhance, Share, or Accept)
Risk Planning Diagram

- **Risk Planning**
  - Requirements
  - Responsibilities
  - Definitions
  - Resources

- **Risk Management Plan**
  - Process
  - Procedures

- **Risk Assessment**
  - Identification
  - Analysis
  - Prioritization

- **Risk Monitoring**
  - Metrics
  - Reports
  - Status

- Risk Mitigation Strategies:
  - **AVOID**: Eliminate cause or consequence
  - **TRANSFER**: Control
  - **CONTROL**: Cause, likelihood, or consequence
  - **ASSUME**: Risk and continue on current plan
3.8: Knowledge Area - Risk (cont)

- Contingency Plans
- Risk Response Owners
- Secondary Risks
- Risk Triggers
- Fallback Plans
- Reserves
3.9: Knowledge Area - Procurement

- Make or Buy Analysis
- Contract Types
  - Cost Reimbursable (CR)
  - Time and Materials (T&M)
  - Fixed Price (FP)
- Procurement Documents
  - Request for Proposal (RFP)
  - Invitation for Bid (IFB)
  - Request for Quotation (RFQ)
- Evaluation Criteria
3.10: Knowledge Area – Stakeholder Management

- Identification of Stakeholders
- Managing Stakeholders
- Steering Committee
4: Professional & Social Responsibility

- PMI’s Code of Professional Conduct
- Ethics & Integrity
- Conflict of Interest
- Appearance of Impropriety
- Intellectual Property
- Confidentiality
5: PM Resources & Tools

- PMBOK (Project Management Body of Knowledge) from PMI
  www.pmi.org
- PMI New Brunswick
  www.pminb.ca
- PMI in Canada
  www.pmi.ca
6: Project Management Certifications

- PMI (Project Management Institute)
  - CAPM (Certified Associate in Project Management)
  - PMP (Project Management Professional)
  - PgMP (Program Management Professional)
- CompTIA (Computing Technology Industry Association): Project +
- Office of Government Commerce – United Kingdom
  - PRINCE & PRINCE2
- IBM
  - Certified Solution Designer-Rational Unified Process (RUP)
Comments & Questions?

YOUR PROJECT IS MY TOP PRIORITY. TELL ME EVERYTHING THAT I NEED TO KNOW.

I'M SO BORED... CAN'T... STAY... AWAKE.

I HAVEN'T STARTED TALKING YET.

IT GETS WORSE??!

O-O-OKAY