



*"... building professionalism  
in project management ..."*

# You Can't Manage What You Don't Measure !!! Measuring Project Performance

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## Agenda

- What is a Project, Project Management and a Project Manager?
- Why Measure?
- What to Measure?
- Control is a Good Thing !!!
- Tools & Techniques for Project Monitoring and Control
- Roadmap for Project Monitoring and Control
- Questions



*Consistently successful projects don't just  
happen;  
they are **made** to happen.*

Neal Whitten, PMP

*"Inspect What You Expect"*

*PM Network, Aug 2002*

## What is a Project ?

- A Project is a *temporary* endeavor undertaken to create a *unique* product or service.



## What is Project Management ?

- The application of *knowledge*, *skills*, *tools*, and *techniques* to project activities,
- In order to meet *project requirements*,
- And meet or exceed *stakeholder needs* and *expectations* from a project
  - Involves balancing scope, time, cost and quality.

## How do we measure project success?

- Project success is measured as the ability to complete the project;
  - According to *desired specifications*
  - Within the *specified budget*
  - Within the *promised time schedule*
  - While keeping the *customer and stakeholders happy*.



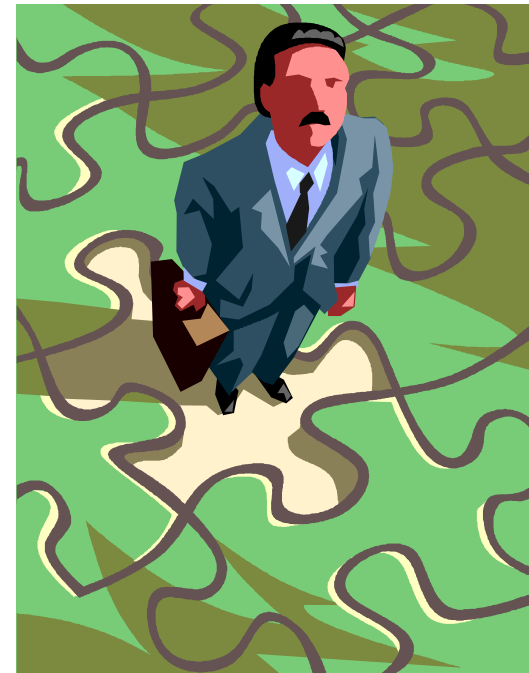
## What is a Project Manager ?

- The person who takes overall responsibility for coordinating a project to make sure the *desired end result*;
  - comes in *on time*
  - within *budget*
  - and *meeting* or *exceeding* the *stakeholders needs*.

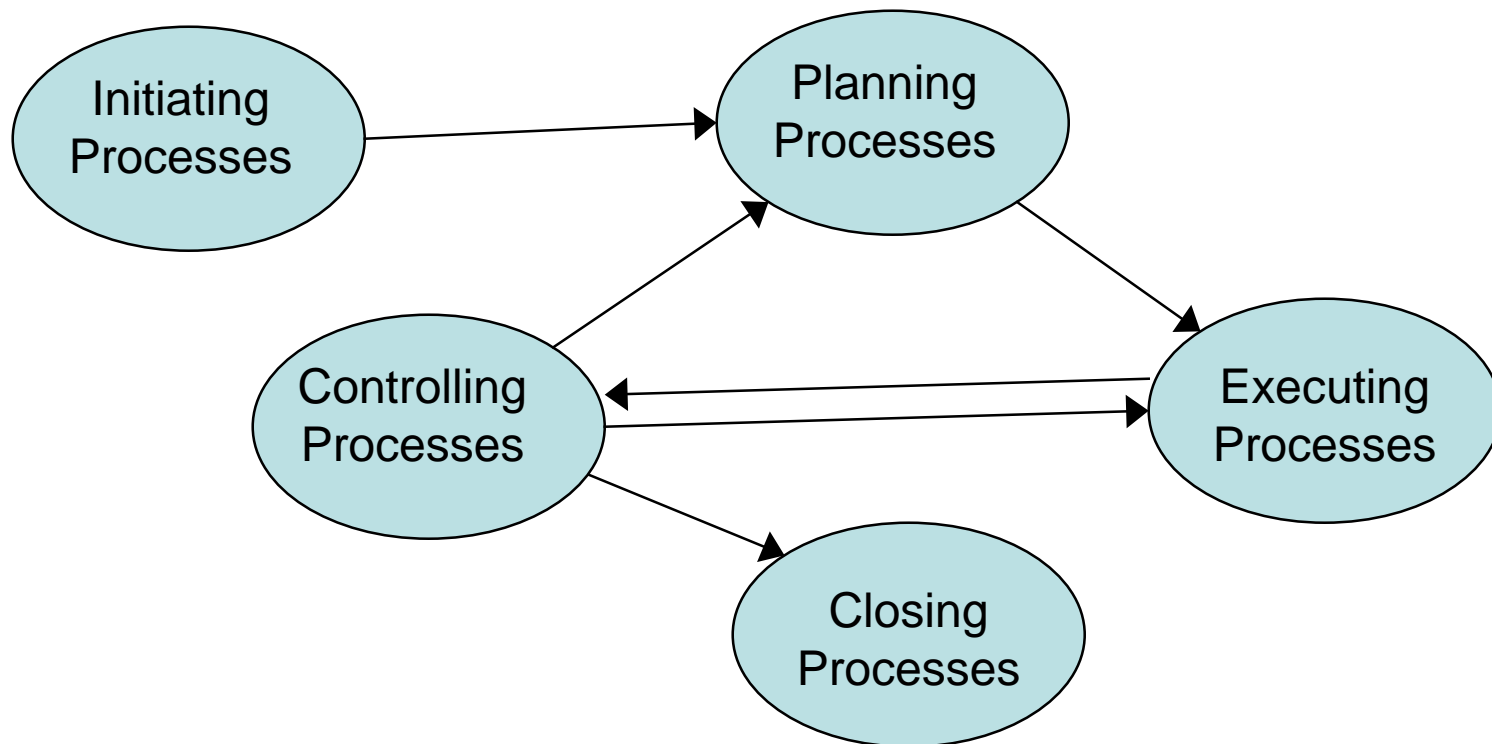


*Project Managers fall into three categories: those who watch what happens, those who make things happen, and those who wonder what happened.*

- Project Manager is concerned with:
  - 5 major process groups
  - 9 project management knowledge areas
  - 39 project management processes



# Project Management Process Groups



<b>Process Group</b> ----- <b>Knowledge Area</b>	<b>Initiating</b>	<b>Planning</b>	<b>Executing</b>	<b>Controlling</b>	<b>Closing</b>
Project Integration Mgt		(1)	(1)	<ul style="list-style-type: none"> <li>▪ Integrated Change Control</li> </ul>	
Scope Mgt	(1)	(2)		<ul style="list-style-type: none"> <li>▪ Scope Verification</li> <li>▪ Scope Change Control</li> </ul>	
Time Mgt		(4)		<ul style="list-style-type: none"> <li>▪ Schedule Control</li> </ul>	
Cost Mgt		(3)		<ul style="list-style-type: none"> <li>▪ Cost Control</li> </ul>	
Quality Mgt		(1)	(1)	<ul style="list-style-type: none"> <li>▪ Quality Control</li> </ul>	
Human Res. Mgt		(2)	(1)		
Communications Mgt		(1)	(1)	<ul style="list-style-type: none"> <li>▪ Performance Reporting</li> </ul>	(1)
Risk Proj Mgt		(5)		<ul style="list-style-type: none"> <li>▪ Risk Monitoring &amp; Control</li> </ul>	
Procurement Mgt		(2)	(3)		(1)
<b>Total 39 processes</b>	<b>1 process</b>	<b>21 processes</b>	<b>7 processes</b>	<b>8 processes</b>	<b>2 processes</b>

## Why measure ?

- If you cannot *measure* it, you cannot *control* it.
- If you cannot *control* it, you cannot *manage* it.



## Why measure?

- Assess current performance
- Set goals for improvement
- Anticipate any potential deviation



## Why Measure?

- Measurement is **not** an end in itself
  - The goal is to achieve an objective
- Measurement is an **essential** component of project management

## What to measure within a project

- Quality
  - Of the **product**--is the deliverable meeting specifications or requirements?
  - Of the **process**—project reviews to ensure that plans conforms to guidelines, plans are being completed as anticipated, and that the business need the project serves is still justifiable.

## What to measure within a project

- Progress of the project
  - Monitor and control the project to ensure *objective* is met *on time*, *within budget* and to *satisfaction of stakeholders*.
- Measure elements regarded as critical for project success (critical success factors)



## Control Is A Good Thing !!!

- “Control” may have a pejorative connotation to some people.
  - “Domination”
  - “Headstrong authority”
- People may be reluctant to implement project control.



## Control Is A Good Thing !!!

- Project Control
  - It is about gathering information to be able to *measure*, *monitor* and *adjust* progress toward the project goals.
  - It is about being able to take action *sooner* so the project will still come in *on time* and *within budget*.



## Control Is A Good Thing !!!

- Project Control
  - *Proactive* project control
    - “Control activities provide an opportunity for people to take the *initiative* in *planning against deviations*, to *head off forces* that might cause a deviation, to *make corrections very quickly* when a deviation occur.....”

(Henri Fayol, *general and industrial management*)

## Control Is A Good Thing !!!

- Success elements for project monitoring & control
  - ✓ Use the project plan as the *primary* guide for coordinating and controlling the project
    - Project plan is the *baseline* against which progress will be measured
    - The tasks, milestones and budget are the starting point for project coordination and control

## Control Is A Good Thing !!!

- Success elements for project monitoring & control (cont.)
  - Workplan and schedule need to incorporate all stakeholders requirements and deliverables of the project and critical points
  - ✓ *Consistently* monitor and update the plan
    - It must reflect the *current status* of the project

## Control Is A Good Thing !!!

- Success elements for project monitoring & control (cont.)
  - ✓ Quality *communication* is a key to project control
    - Objective is to keep people informed, on track and involved in the project
    - Higher level management requires summary reports on progress of the project
    - Members of the team require detailed information
    - Some communication will be formal; other informal

## Control Is A Good Thing !!!

- Success elements for project monitoring & control (cont.)
  - ✓ Monitor progress on the project against the plan on a *regular* basis
    - Project Managers must compare time, cost and performance of the project to the budget, schedule, and tasks defined in the approved project plan
    - It must be done at *regular* intervals, not arbitrary
    - *Consistency* is very important; project must be monitored from start to finish

## Control Is A Good Thing !!!

- Success elements for project monitoring & control (cont.)
  - ✓ Get involved
    - Roll up your sleeves and *get involved*
  - ✓ Adapt the *project schedule*, *budget* and *work plan* and take necessary steps to keep the project on track
    - Project manager is responsible for ensuring that changes are appropriate, valid and approved

## Control Is A Good Thing !!!

- Success elements for project monitoring & control (cont.)
  - ✓ *Document* project *progress* and *changes* and *communicate* them to team members
    - Quality and level of detail in reports and communication need to be consistent, reliable and appropriate for each level of the project team



## Control Is A Good Thing !!!

- Meetings
  - Ensure *meeting productivity* if meeting will be conducted to communicate
    - Distribute an agenda
    - Invite only those required
    - State the purpose of the meeting and stick to it
      - Exchange information
      - Determine status
      - Solve a problem
      - Make a decision



## Control Is A Good Thing !!!

- Meetings (cont.)
  - Start on time—don't wait for late people
  - Keep the meeting on track and control the progress
  - Summarize the results and assign action items
  - Follow-up on action items
  - Ensure that other meetings are summarized

## Control Is A Good Thing !!!

- *Compare, compare, compare*
  - *Compare* current schedule and expenditures with original project plan (baseline).
  - Make clear to the team that monitoring is used to establish the project's current position compared to the planned position. (*It is business, It is not personal*)



## Control Is A Good Thing !!!

- Status Reports
  - Must keep stakeholders informed of progress, problems and changes.



*Graham's Law: If they know nothing of what you are doing, they suspect you are doing nothing.*

*-Robert J. Graham, Understanding Project Management*

## Control Is A Good Thing !!!

- Status Reports
  - Fundamental tool to identify progress and problems
  - Progress should be defined and measured in *quantifiable non-subjective terms*.



*Never make the mistake of  
confusing activity with progress.*

## Control Is A Good Thing !!!

- Status Reports

- 90 Percent-Down Syndrome

- Many people are optimistic about their ability to make up for lost time
    - Others attempt to look good on paper



*Whenever we see the phrase "90 percent done" on a project status report, we know there is a big problem.*



## Control Is A Good Thing !!!

- Status Reports
  - Status reports don't tell the whole story
    - Do not rely on written reports alone to assess progress of the project
    - Need to informally review progress on the project on your own by observing, communicating with the team on an ongoing basis, and listening



# Tools & Techniques for Project Monitoring and Control

## Tools & Techniques

- Critical to the process: a *complete work plan* and *schedule*
  - *Baseline* for measurement



*When you don't know where you want to go,  
any road will get you there.*

*-Source unknown, but obviously  
an experienced project planner*

## Tools & Techniques

- Guidelines for progress measures and workproducts to be produced
  - 50-50% progress measure
  - 2 wk period task duration (manageable periods)
  - Identify and define task work products
  - Task completion requires certification of work product adherence to guidelines

Task	Workproduct	Progress Measure

## Tools & Techniques

- Regular update of workplan (e.g weekly)
- Performance Reporting
  - Should provide information on scope, schedule, cost and quality
  - Includes:
    - Status Reporting
    - Progress Measurement
    - Forecasting

## Tools & Techniques

- **Status Reports**
  - Completed tasks & work product
  - Actual Start/Finish dates
  - Tasks in progress
  - Tasks planned with expected completion dates
  - Overdue tasks, justification and recommended new estimates
  - Problems/Issues
  - Budget expenditures

## Tools & Techniques

- Progress Reporting
  - Quantifiable
    - % of progress (% complete to schedule)
    - Earned Value
  
  - Earned Value Analysis
    - Integrates scope, cost (resource) and schedule measures
    - Involves calculating 3 key values for each activity:
      - Planned Value (cost estimate planned to be spent)
      - Actual Cost (total of costs incurred in accomplishing work)
      - Earned Value (value of the work completed)



## Tools & Techniques

- Progress Reporting
  - Variance Analysis (e.g., cost and schedule)
  - Trend Analysis to examine project results over time to determine if performance is improving or deteriorating
- Project Review Meetings to assess status and/or progress toward meeting objectives
- Project Audits (the most formal)

# Roadmap to Project Monitoring & Control

**Define Clear Project Objectives, Deliverables & Identify CSFs**

**Define Scope (WBS)**

**Develop Schedule & Budget**

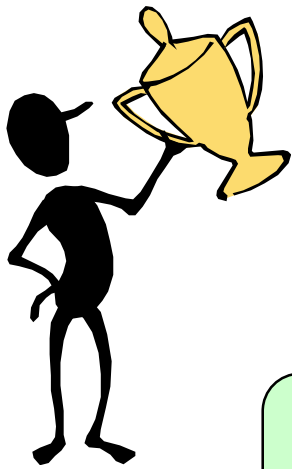
**Identify & Define Project Metrics**

**Develop Procedure to Gather Measurement Data**

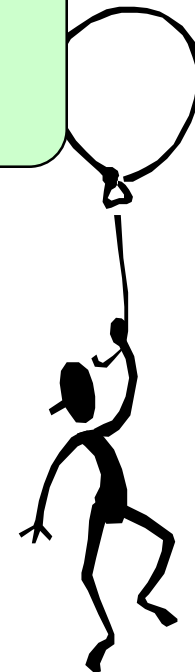
**Monitor & Proactively Control Progress**

**Report Progress**

# Roadmap to Project Monitoring & Control



**Celebrate !!!**





*“Project members must know what they are being held accountable for; that is, what you expect from them. Furthermore, these expectations must be **measurable**. Project members then routinely must **report progress** against these **measures** . . . . Requiring a trackable plan and routine progress reports demonstrates **good leadership**.”*

Neal Whitten, PMP

*“Inspect What You Expect”*

*PM Network, Aug 2002*



# Questions

