Project Management for Engineers



The Basics for delivering Projects on Time and on Budget



When others can't.

Road Map to Success

Start Here:
Introduction to
Project
Deliverables

Relationships of
Quality, Cost and
Delivery

Quality:

- Defining your
 Product
- 2. Building Your Charter

Cost:

- 1. Finding Your Costs
- 2. Contingency Cost Estimating.
- 3. Forecasting Risk & Opportunity.
- 4. Balancing Investment & Product Cost

Delivery:

- 1. Locating your Milestones
- 2. Creating your Work Breakdown Structure
- 3. Developing your Project Schedule

Meeting Management

The Foundation to Delivering the above

Plan

Conduct

Close

Follow Up

Purpose- Focusing on the goal.

<u>People</u>- Engaging others to work.

Process- Delivering on the Purpose

Personal- Dealing with the needs of others.

Summarize the outcome

Review the next actions

Agree to those actions

Evaluate meeting

Thank team

Minutes - Writing Minutes to create action.

Charts

Communicating results to others

PME Sample3[©]

Sound Mind Management Co.

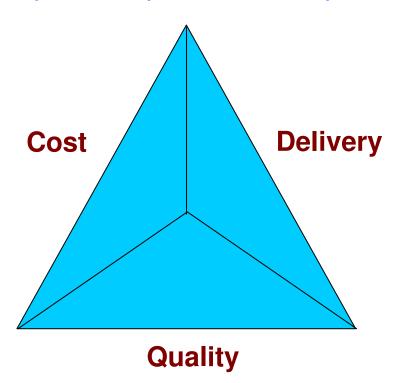
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Sample Page-Balancing Deliverables for Success

Project Managers organize, lead and manage the team to achieve the three Project deliverables. These deliverables are:

- Quality (Q)
- Cost (C)
- Delivery (D)

Relationship of Quality - Cost - Delivery



Quality, Cost and Delivery (QCD) are shown here as three sides of a triangle because each is interdependent on the others. By this I mean.......

Investment and Product Costs Trade Offs

Again, as estimates mature to quotes, true costs are found and the Team will learn how savvy they are at forecasting. In some cases, Investment is significantly over while Product remains under budget. In other situations, Product Cost is significantly over while Investment remains under budget. When one cost is in crisis and the other is not, these two costs can be balanced though within limits.



Scenario: Investment High - Product Cost under Budget:

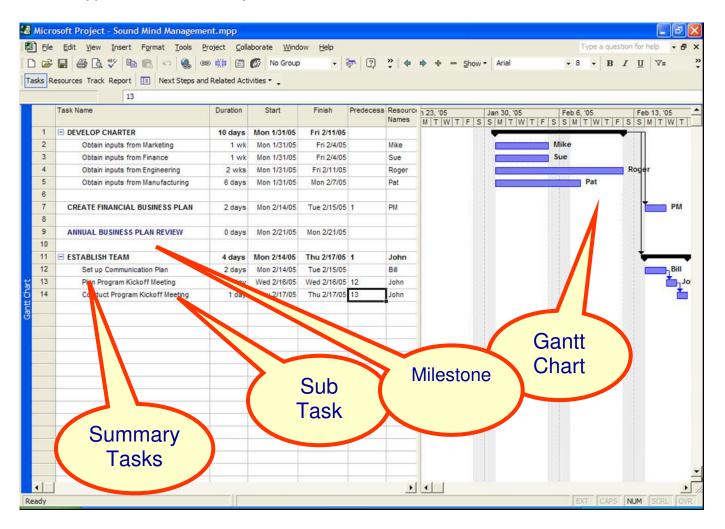
Take action here by soliciting suppliers to amortize all or some of their tooling costs into the piece price. This amortization can spread all or part of the tooling costs into the purchase parts over a period of years instead of paying the whole investment up front. Piece price will be higher for a period of time but it will eventually return to the lower quoted price once the supplier recovers their investment.

Or take action to lower the tooling sophistication and thereby the investment costs. For example, move from a high volume stamping die to a lower volume simple die. Or use no specialized tooling at all but use standard fabrication techniques (like laser cut metal welded together) to prevent all tooling investment. Very obviously the Product Cost or piece price will rise.

Sample Page- Scheduling to Deliver On Time First Time!

Project scheduling can be done manually in Microsoft's *Excel*[®] or *Word*[®] but both of these require more time and finesse than I am willing to invest. Microsoft's *Project*[®] is specifically designed to do Project Scheduling. It has the information as shown above and automatically provides the Gantt chart. *Project*[®] and also provide Network Diagrams views as well.

Typical Microsoft *Project®* View

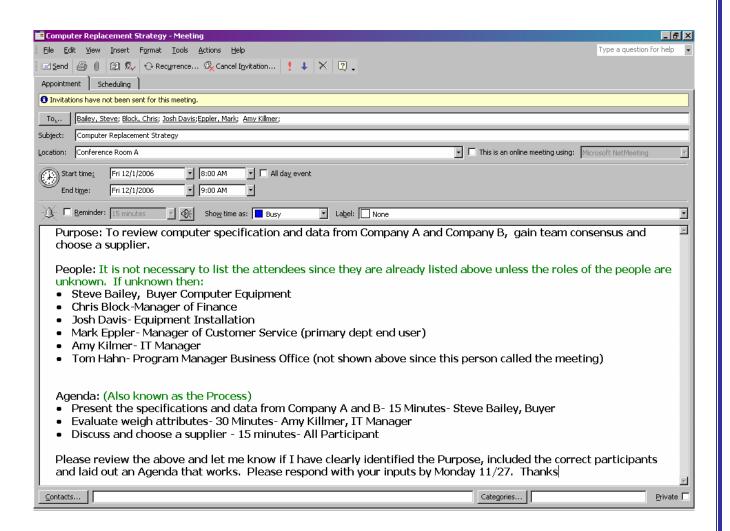


Sample Page- Planning and Executing Meetings that get the Results you Expect!

Process

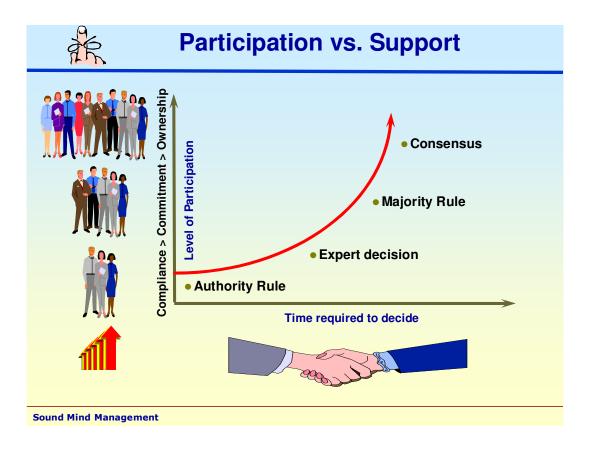
How work gets done.

Building on foundation of a solid Purpose and the right People in the meeting, now consider how the work will get done. Control the process with a strong agenda. A strong agenda will...........



Sample Page-Leading Decisions Effectively to Gain Support

Frequently, a meeting Purpose will be to obtain a decision. The process of the meeting will determine how that decision is made. Decisions



Keep in mind that not all decisions can or should be made by consensus. While this process offers the greatest potential.......