PROCUREMENT

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6 Procurement

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Procurement Outline

- Definitions
- Organizing for Contracting
- Contract Law
- Procurement Planning
- Solicitation
- Source Selection
- Contract Administration
- Contract Closeout

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Procurement Planning

What is needed from outside?

How to buy, contract type, evaluation

FOB, exchange rates

Standard documents

Statement of Requirements or Detailed Scope
or Performance required

Three Types of Specifications

Detailed – plans and specifications are very clear & all are bidding on the same

Functional - describes end use

Performance - measurable

Procurement Planning Exercise

- make or buy
- specification type
- contract type

Solicitation

- Qualify your bidders before they bid!
- Request for information
- check client references ! * Critical - are often biased if they provide Have them provide a list of projects or former clients.
- financial references
- Request for proposals
- Invitation to bid
- Request for quotation

Barry does not ask for references. He picks them from their experience, but ask them for their permission.

Contract Administration

- ensuring that the contractor's performance meets contractual requirements...
- also to provide the contractual obligations of the buying organization.

Contract Administration

- Single point of formal communication — ensure 1 person is overseeing this.
- Contractor payments
  - monthly - progress payments
  - upon achievement of milestones, using checklists — ie. delivery of HVAC unit to site.
- Performance measurement

Contract Administration

Disputes Resolution

- Negotiation
- Mediation
- Arbitration
- Arbitrations Act
- Disputes Review Board
- Litigation

Partnering

Private Public Partnerships are an example.

- Contractual relationship in which each party is committed to help the other party achieve its objectives
- Trust between the parties
- Constant communications
- Top level commitment
- Low-level problem-solving
- Team-building

COST CONTROL

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7 Cost Control

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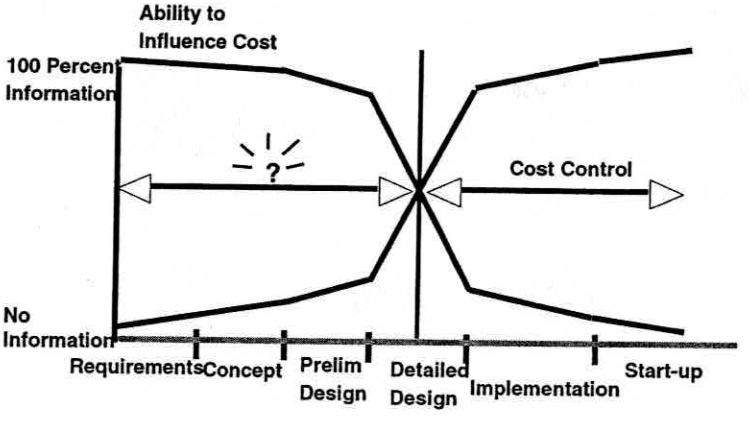
The Information Explosion



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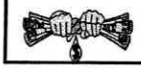
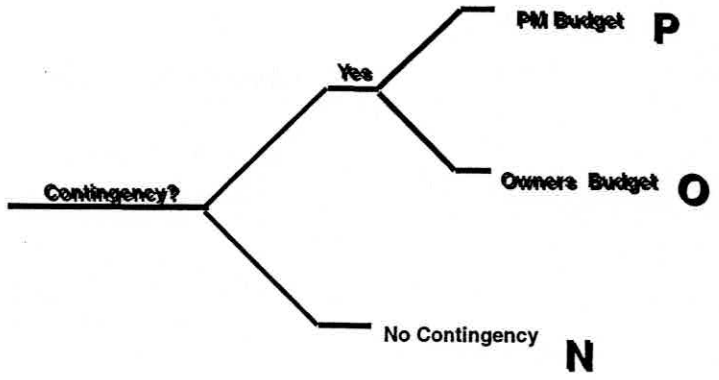
Set Realistic Budget

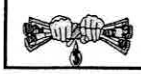
1. Break Work Down into Manageable Parts by WBS

2. Estimate Cost of Each Part
   - Show Contingencies
   - include contingencies only for expected costs
   - structure budget in same manner as actual commitments will be made



Contingency Alternatives

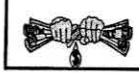




"Plus or Minus" Estimates

Item 1	± 10%
Item 2	± 10%
Item 3	± 10%
Item 4	± 10%
Item 5	± 10%
Total Estimate	± ?

Project over runs or under expenditures could cancel each other out.



Project Contingencies

1. Project Manager's Contingencies
2. Owner's Scope Change Contingencies
3. Plans for Funding Uncontrollable Risks

   if, and only if, they occur

Cost Control

Key - Keep Commitments Within Budget

1. **By Project Manager**
   - **Within Package Contingencies**
   - **Take Designers through reestimates**
   - **Trade-offs**
2. **By Designers and Implementers**
   - **Manage Design and Implementation Within Budget**
   - **Control Cost of Changes**

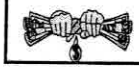
Actuals vs budget is a poor method of monitoring, it does not consider the commitments to complete.

~~Don't Use~~ Bottom Line Contingency

Big Pot

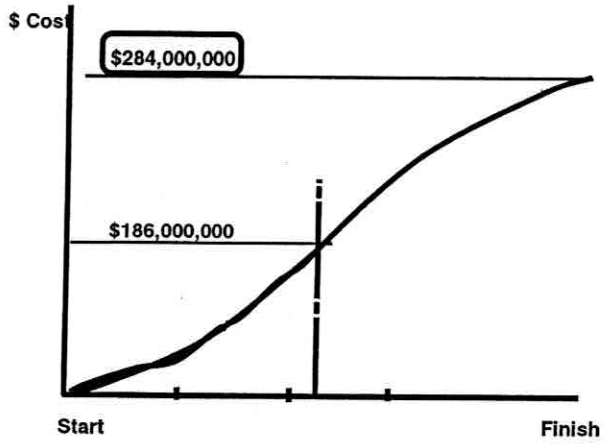
Never Lasts

Mixes Many Different Risks



Break it down into segments of the project that require it.

Actual vs Budget



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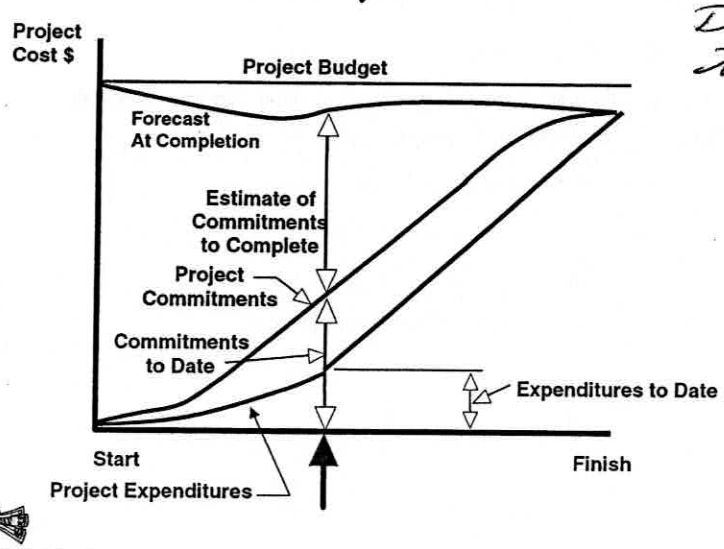
Project Costs - Contracts

Commitment accounting.

Use commitments to date and commitments to complete.

DO NOT use actual expenditures



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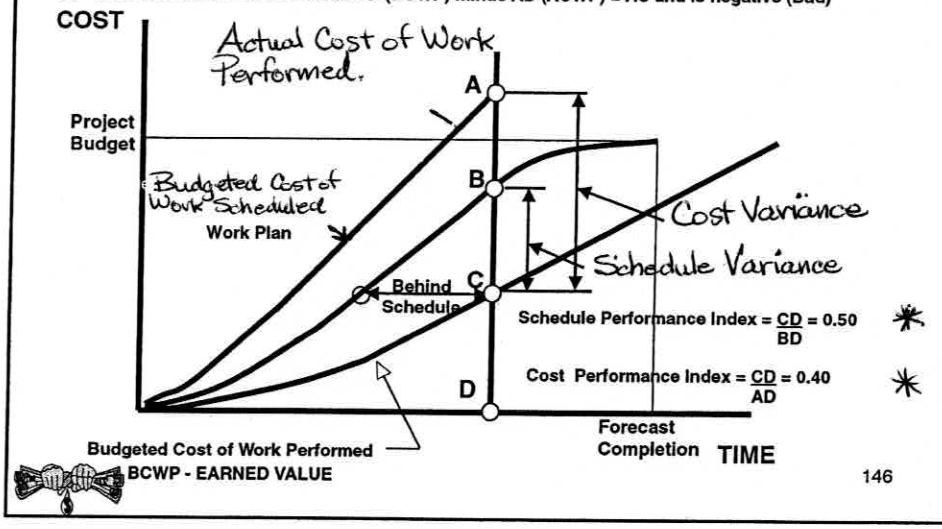
Earned Value Reporting

SV - Schedule Variance is Earned Value CD (BCWP) minus Work Plan BD (BCWS)= BC and is negative (Bad)

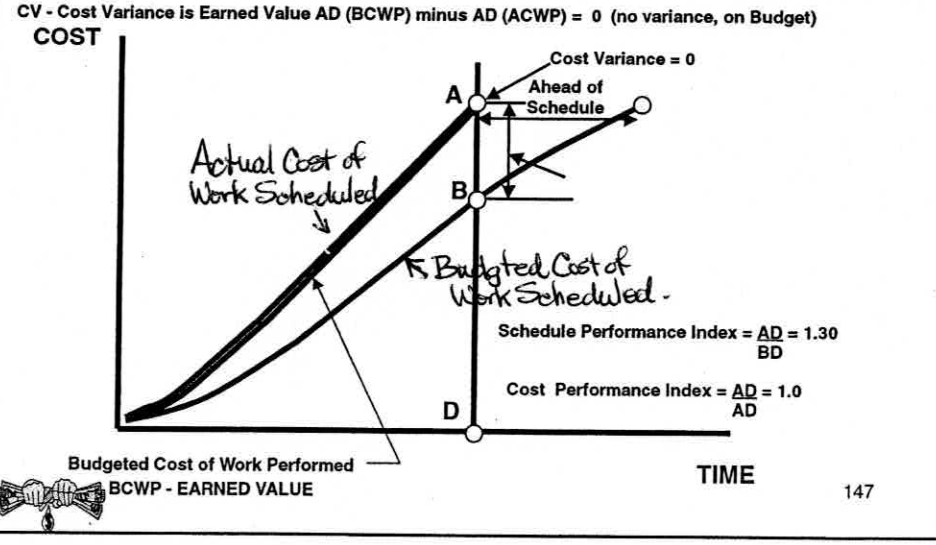
CV - Cost Variance is Earned Value CD (BCWP) minus AD (ACWP) = AC and is negative (Bad)



Earned Value Reporting

SV - Schedule Variance is Earned Value AD (BCWP) minus Work Plan BD (BCWS)= AB and is positive (Good)

CV - Cost Variance is Earned Value AD (BCWP) minus AD (ACWP) = 0 (no variance, on Budget)



RISK

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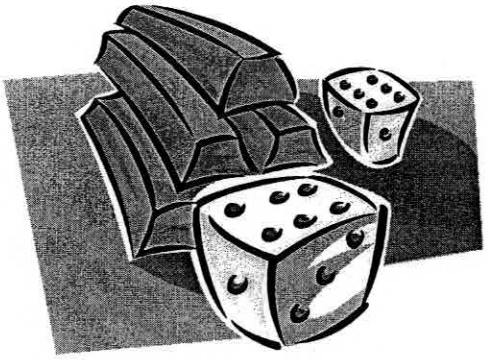
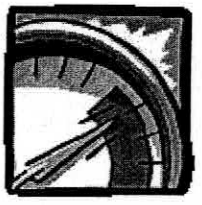
Risk Management



Risk Management

Systematic Process
- **identify** *potential risks*
- **analyze**
- **respond**



Throughout the Life Cycle of the Project

In the Best Interests of the Project's Objectives

Identifying Risk

At one level of the WBS, consider:

- **procurement environment**
- **staffing plan**
- **estimates and schedules**
- **choice of technology**
- **historical information** – learned from previous projects
- **customer priorities**
- **checklists**

Identifying Risk:

Project Charter – is it endorsed by management

Product Description

Project Schedule Logic

Cost and Duration Estimates

Resource Plan

Procurement Plan

Assumptions List

Qualitative Risk Analysis

- **Probability of Risk Event**
- **Information Available to Define Its Potential**
- **Potential Severity of Risk Event**
- **Manageability of the Risk**
- **Visibility of Consequences**
- **Potential Publicity Should Loss Occur**
- **Ability to Measure Consequenses**

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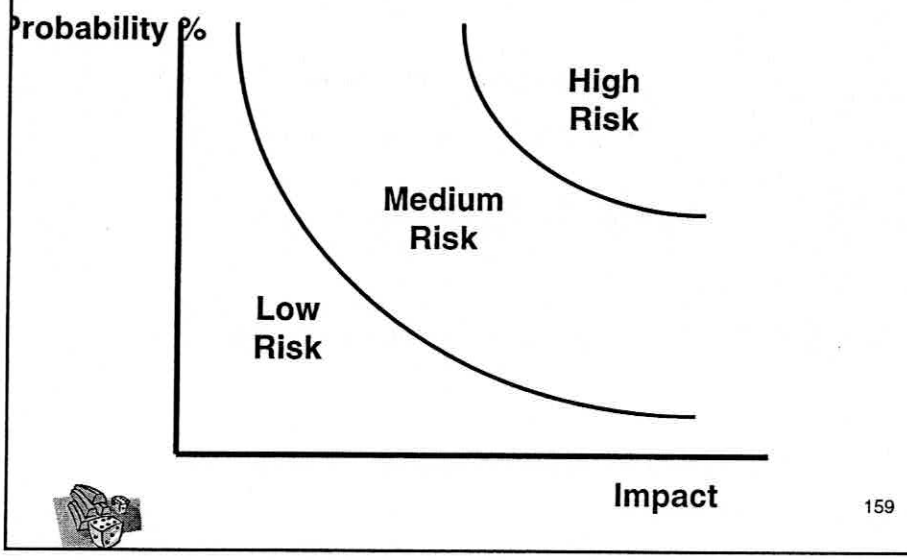
RISK ASSESSMENT



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Workshop

Form small groups

Project Management Improvement project

You are in the planning phase

Think of what can go wrong (some serious, some small, be specific)

Do not solve the risks

Quantitative Risk Analysis

Interviewing

Sensitivity Analysis

Decision Tree Analysis

Simulation

Leads To....

Prioritized list of quantified risks

Probability of achieving cost and time objectives

Trends in Results - over time

Risk Response Planning

Contingency Planning
Responsibility Allocation
Strong Controls
Pareto's Law Control 80%/20%
Critical Items Reporting
Contingency Account Management
Tracing - back to source = assigning responsibility
Risk Reevaluation

Workshop

Pick one of the risks

How would you handle that risk

Risk Monitoring & Control

From Risk Monitoring

- **Workaround plans**
- **Corrective action**
- **Project changes**
- **Update Response Plan**
- **Risk database**
- **Update risk identification checklists**