Session 10: Project-level status tracking

What data do we collect? What do we do with it? How does the user pay?

Responsibilities

- Individual project team members report the status of tasks assigned to them:
  - In week 2 we discussed how to do this:
    - What to report?
    - How often?
  - What about "stand up" oral reports?

- The Project Manager has to aggregate those individual reports, based on the project plan, into a project status report.

Aggregating individual status reports

- Remaining **cost**:
  - sum of individual estimates on assigned tasks + sum of estimated costs on tasks not yet assigned.

- Minimum remaining **time**
  - length of unfinished tasks on the critical path

- Actual remaining **time**
  - minimum remaining durations + estimated durations of tasks that won't be done in parallel, due to forecasted resource limitations

  (A good PMS will generate this easily)

What kinds of cost?

- **Labor** is usually the main development cost
  - Team members record time spent on each task on their weekly time sheets
  - Job categories have associated billing rates

- **Would we prefer to assign a task:**
  - to a junior programmer at $40/hour
  - or to a software engineer at $125/hour?
Other costs?

- Training:
  - of project staff, including programmers
  - of user staff who will operate the system.
- equipment use
- travel
- etc.

Ways of billing and accounting for development cost

- Data from weekly time sheets is always collected, regardless of billing or contract arrangements. Why?

- **Time & materials** contract:
  - The customer is billed (monthly, quarterly, etc.)

- **Fixed-price** contract:
  - Developer organization needs to know if its on track to make profit (or break even)

- Some (usually smaller) companies use an annual cost allocation strategy
  - How does that work?

What happens when I.T. services are "free" (or lump sum)

- Demand for service exceeds capability of the resources
- Users are chronically dissatisfied.
- **Chargeback** is the businesslike approach even within the same company
  - What's that?

- Pseudo-chargeback is helpful when top management won't allow the real thing.

Obligations to inform

- Keeping the **sponsoring users** informed
  - It depends on the relationship
    - a. a formal contract with an outside developer
    - b. an in-house I.T. organization
    - c. users representatives living with the team
  - Should they see all the details?
  - How often should we report status to them?

- Keeping **I.T. management** informed
  - No secrets from our own boss?
  - What about the team members?
How do we catch up once we've fallen behind schedule?

a. By working harder and longer hours?

b. By adding people?
   ▶ What about Brooks's law?
   ▶ How about getting better people?

c. By reducing estimated durations for later tasks?
   ▶ e.g. compress the system-testing schedule

d. By hoping for a miracle!

e. All of the above?

Burden of Proof

In assessing a plan for the remainder of a project the burden of proof is on those who claim that it can be done, but

Many organizations take the opposite view!
   ▶ Anyone who questions a deadline is a poor team player, and lacks commitment.
   ▶ Management often favors those who tell them what they want (hope) to hear.

How do we satisfy that burden?

Independent audit

■ A project manager may sometimes try to avoid or postpone embarrassment by
   ▶ concealing slippage or overrun
   ▶ issuing vague, optimistic status reports

■ Or the project manager may just be naive or inexperienced and really believe the optimistic status reports.

■ A specialist or consultant can be engaged to assess
   ▶ The credibility of the project plan and estimates
   ▶ The correctness of current status reports
   ▶ Project team communications and morale

Project Management Office

■ Some organizations have established a PMO in order to
   ▶ Establish organization-wide standards and methodology for project planning and control
   ▶ Define project roles for the organization
   ▶ Provide consulting expertise to project teams
   ▶ Review (audit) project status

■ The Director of the PMO and his/her staff are assumed to be the organization's most knowledgeable people about project management.
   ▶ Call on them when you need help.