Lecture 06:
Team Environment Issues

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Outline

- What Contributes to a Team's Success?
- Team Models
- Motivation Factors and Killers
- The Roles in Your Team

Resources

- Lectures from winter 2005 (Doug Johnson) and spring 2005 (Richard Anderson)
- Guest lecture (summer 2003), David Schmaltz & Amy Schwab
- *Agile Software Development*, Alistair Cockburn, ch.1
- *Rapid Development*, Steve McConnell, ch.12-13

Why Teams?

- Having more people has benefits (that can be exploited)
  - Attack bigger problems in a short period of time
  - Utilize the collective experience of everyone
- Having more people has risks too
  - Miscommunication of expectations
  - Flowing by inertia; not planning ahead
  - "Fluid" (or lack of) responsibility for tasks
  - Conflict/mistrust between team members

Managing Risks in a Team Setting

- Risks need to be *actively* managed
  - by clearly defining the product and its scope
  - by careful planning and organization
  - by continuously monitoring the progress and direction
    - ... and adjusting when necessary
  - by maintaining an open atmosphere

Issues Affecting Team Success

Issues Affecting Team Success

- Presence of a shared mission and goals
- Motivation and commitment of team members
- Experience level
  - ... and presence of experienced members
- Team size
  - ... and the need for bounded yet sufficient communication
- Team organization
  - ... and results-driven structure
- Reward structure within the team
  - incentives, enjoyment, empowerment (ownership, autonomy)

Models of Team Organization

- Who makes the important product-wide decisions in your team?
  - One person? All by unanimous consent? All by using the Roman Rule? Other options?...
  - Is this an unspoken or an explicit agreement among team members?

Managerial Structures

- Dominion model
  - Pros: clear chain of responsibility; people are used to it
  - Cons: single point of failure at the commander; less or no sense of ownership by everyone
- Communion model
  - Pros: a community of leaders, each in his/her own domain; inherent sense of ownership
  - Cons: people aren't used to it (and this scares them)

Note: Both models allow for having a point-of-contact person, responsible for completing a particular task.

Motivation

"Motivation is undoubtedly the single greatest influence on how well people perform. Most productivity studies have found that motivation has a stronger influence on productivity than any other factor."

   -- Boehm (1981)

Motivation Factors

- Think of up to 3 factors that most often affect your motivation

Motivation Factors for You?

- Achievement
- Recognition
- Advancement
- Salary
- Possibility for growth
- Interpersonal relationships
  - Subordinate
  - Superior
  - Peer
- Status
- Technical supervision opportunities
- Company policies
- Work itself
- Work conditions
- Personal life
- Job security
- Responsibility
- Other?

Motivation Killers (and there are more)

- Micro-management or no management
- Lack of ownership
- Lack of effective reward structure
  - including simple appreciation for completed tasks
- Excessive pressure and resulting "burnout"
- Allowing "broken windows" to persist
- Lack of focus in the overall direction
- Productivity barriers
  - Asking too much; not allowing sufficient learning time; using the wrong tools
- Too little challenge
- Work not in line with personal interests and goals
- Poor communication inside the team

Specifically for Your Team...

- Who will do the scheduling/planning?
- Who will do the development?
- Who will do the testing?
- Who will do the documentation?
  - Includes spec, design, write-ups, presentations, ...
- Who will do the build/release preparation?
- Who will take care of inter-team communication?
- Who will do the customer communication?
- Who will do ...?