
Teamwork and Group Dynamics

*A few tips on effective teamwork,
meetings, and presentations*

What is a Great Team?

- **Diverse Skills**
 - People skills, communication and writing skills, design skills, implementation skills and knowledge
- **Coherence**
 - Ability to build and maintain a shared vision
 - Shared expectations
- **Mutual Respect and Responsibility**
 - You don't *have* to like each other, but you *need* to trust each other — and to earn your teammates trust

Diverse Skills (1)

- At least one person with experience in team projects, preferably with some management experience.
- At least one person with strong skills in programming and program design, preferably including networking.
- At least one person with strong communication skills and good written English.

Team Roles

- Manager: responsible for schedule
 - System architect
 - Quality control
 - Technical documentation
 - User documentation
 - User interface
 - Configuration control (build-master)
- Not 1-1 with people. Backup for each role.*

What do software developers do?

- One way to measure: how do they spend their time?
- IBM study (McCue, 1978):
 - 50% team interactions
 - 30% working alone
 - 20% not directly productive

Technical excellence is not enough

"Egoless" design

(Weinberg, Psychology of Computer Programming)

- Investing ego in group
- "Letting go" of ego investment in code, design, ideas
 - No winning or losing design debates
Once contributed, ideas belong to the group
 - Criticism is aimed at ideas, not people
- The best designers criticize their own designs!

... but we are not egoless people

- Ego investment is normal
 - be aware of it, be in control of it
- Consider the egos of others
 - What are you attacking? Why?
 - What is motivation of the other person?
 - Do they need an ego stroke?
 - Are they feeling ignored?
- Pride in accomplishment is ok, unless it interferes with accomplishment

Consensus decision making

- Consensus is not counting votes
 - Democracy is 51% agreement
 - Unanimity is 100% agreement
 - Consensus is neither
 - It is "buying in" by group as a whole, including those who disagree
- Everyone has their say
- Everyone accepts the decision, even if they don't prefer it

Consensus takes time and work, but is worthwhile

Conflict

- Can be healthy and productive
- Can destroy a team if not carefully managed
- Manage conflict constructively
 - Soothe and protect egos
 - everyone's job, but especially the manager's job
 - Keep conflict on a technical level
 - Consider reward structures
 - Are you rewarding trouble?

Notes on effective meetings

- Have a goal, and a plan
 - known to all
- Plan to goal:
 - Participants
 - Schedule
 - Intended outcome
- End with concrete, specific action items
- Prepare
 - Cost of wasted time = Time x people x hourly cost
 - Cost of individual prep time is much less

Managing a presentation

- Someone is in charge (usually the speaker)
- Deal with short clarification on-line
- Take extended discussions off-line
- This is part of having a plan:
 - Presentation has a goal, and must proceed to that goal

Presentation materials

- Consider your goal
 - What information is necessary?
 - Organize appropriately
- Handouts
 - People cannot read and listen; avoid handouts when possible
 - If handouts are necessary:
 - Control pace - hand out what's needed
 - OR: hand out well in advance
 - (e.g., previous day or week)

Answering questions effectively

- Be sure you understand it
This is most often done badly!
 - Ask for clarification
 - Back up if necessary
- Manage the time
 - If short, answer or deal with it
 - If a diversion (or when it becomes a diversion), push it offline
- Ask for confirmation
 - "Is that what you asked?"
 - "Does that make it clear?"
 - "Does that address your concern?"

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Speaking up

- Always consider:
 - How will this contribute to the goal?
 - Is this the right time and forum?
- Don't hold back
 - out of fear of looking stupid
 - (people will remember the smart things more than the dumb)
 - out of fear of attack
 - (yes, it happens, but you'll survive)

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