Team Management

What is Team Management?

- Making sure things get done
- Making sure work and responsibility is distributed
- Avoiding bottle-necks, pitfalls, and other costly mistakes
Accepting and fulfilling a role

- Why define roles?
  - Most projects include activities other than software development
    - Documenting requirements
    - Documenting test plans
    - Documenting designs
    - Etc.
  - If no one takes responsibility, they’ll never get done
  - It is important to distribute responsibilities
  - **Note:** Roles do not excuse you from these duties, everyone codes, everyone designs, but the lead takes responsibility

Main roles on a software team

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td>Team Leader</td>
<td>Responsible for overseeing all aspects of the team project, holds tie-breaker votes</td>
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<tr>
<td>Technical Lead</td>
<td>Expert on all technical aspects of the project, in particular the hardware and software used for development</td>
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<tr>
<td>Planning Leader</td>
<td>Guide the team in producing/maintaining a detailed plan and precisely tracking progress against that plan</td>
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<tr>
<td>Designer</td>
<td>Designs the project and breaks the project into smaller pieces for the programmers</td>
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<tr>
<td>Lead Programmer</td>
<td>Needs to have an understanding of the project as a whole, organizes all programmers</td>
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<tr>
<td>Technical Writer</td>
<td>Writes all documentation for the project</td>
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<tr>
<td>Configuration Management</td>
<td>Maintains the code base for the project, could include CVS responsibilities</td>
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<tr>
<td>Quality Assurance</td>
<td>Writes, maintains, and conducts all testing associated with the project</td>
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</tbody>
</table>
Team leader

- Enjoys being a leader and takes the role naturally
- Capable of identifying problems and make objective decisions
- Does not worry about making unpopular decisions when needed
- Respects other team members, listen to points of view and help
- Good at delegating
- Organized

- Build and maintain an effective team
- Motivate members to work enthusiastically on the project
- Perform effectively as a team's meeting facilitator

Effective team Meetings

- Run by team leader
- Have an agenda
  - What you need to accomplish
  - How long the discussion should take
  - Who will lead the discussion
- Send out agenda to team members before the meeting
  - Ask for suggestions and/or additions to subjects
- Allow time for “Dynamic Content”
  - When a discussion runs over time, get meeting back on track
  - Unplanned subjects deferred until end
  - Keep track of deferred or unresolved topics
Selecting staff

- An important project management task is team selection.
- Information on selection comes from:
  - Information provided by the candidates.
  - Information gained by interviewing and talking with candidates.
  - Recommendations and comments from other people who know or who have worked with the candidates.

Staff selection factors

| Educational background | This may provide an indicator of the basic fundamentals that the candidate should know and of their ability to learn. This factor becomes increasingly irrelevant as engineers gain experience across a range of projects. |
| Communication ability  | This is important because of the need for project staff to communicate orally and in writing with other engineers, managers and customers. |
| Adaptability           | Adaptability may be judged by looking at the different types of experience that candidates have had. This is an important attribute as it indicates an ability to learn. |
| Attitude               | Project staff should have a positive attitude to their work and should be willing to learn new skills. This is an important attribute but often very difficult to assess. |
| Personality            | This is an important attribute but difficult to assess. Candidates must be reasonably compatible with other team members. No particular type of personality is more or less suited to software engineering. |
People management factors

- Consistency
  - Team members should all be treated in a comparable way without favorites or discrimination.
- Respect
  - Different team members have different skills and these differences should be respected.
- Inclusion
  - Involve all team members and make sure that people’s views are considered.
- Honesty
  - You should always be honest about what is going well and what is going badly in a project.

Factors influencing group working

- Group composition.
- Group cohesiveness.
- Group communications.
- Group organization.
Personality types

- Task-oriented.
  - The motivation for doing the work is the work itself;

- Self-oriented.
  - The work is a means to an end which is the achievement of individual goals - e.g. to get rich, to play tennis, to travel etc.;

- Interaction-oriented
  - The principal motivation is the presence and actions of co-workers. People go to work because they like to go to work.

Myers-Briggs: Q1. Which is your most natural energy orientation?

- Act first, think/reflect later
- Feel deprived when cutoff from interaction with the outside world
- Usually open to and motivated by outside world of people and things
- Enjoy wide variety and change in people relationships
- Think/reflect first, then Act
- Regularly require an amount of "private time" to recharge batteries
- Motivated internally, mind is sometimes so active it is "closed" to outside world
- Prefer one-to-one communication and relationships
Myers-Briggs: Which way of Perceiving or understanding is most "Automatic" or natural?

- Mentally live in the Now, attending to present opportunities
- Using common sense and creating practical solutions is automatic-instinctual
- Memory recall is rich in detail of facts and past events
- Best improvise from past experience
- Like clear and concrete information; dislike guessing when facts are "fuzzy"
- Mentally live in the Future, attending to future possibilities
- Using imagination and creating/inventing new possibilities is automatic-instinctual
- Memory recall emphasizes patterns, contexts, and connections
- Best improvise from theoretical understanding
- Comfortable with ambiguous, fuzzy data and with guessing its meaning.

S       N

Myers-Briggs: Which way of forming Judgments and making choices is most natural?

- Instinctively search for facts and logic in a decision situation.
- Naturally notices tasks and work to be accomplished.
- Easily able to provide an objective and critical analysis.
- Accept conflict as a natural, normal part of relationships with people.
- Instinctively employ personal feelings and impact on people in decision situations
- Naturally sensitive to people needs and reactions.
- Naturally seek consensus and popular opinions.
- Unsettled by conflict; have almost a toxic reaction to disharmony

T       F
MYERS-BRIGGS: WHAT IS YOUR "ACTION ORIENTATION" TOWARDS THE OUTSIDE WORLD?

- Plan many of the details in advance before moving into action.
- Focus on task-related action; complete meaningful segments before moving on.
- Work best and avoid stress when able to keep ahead of deadlines.
- Naturally use targets, dates and standard routines to manage life.

- Comfortable moving into action without a plan; plan on-the-go.
- Like to multitask, have variety, mix work and play.
- Naturally tolerant of time pressure; work best close to the deadlines.
- Instinctively avoid commitments which interfere with flexibility, freedom and variety

TEMPERAMENTS

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<thead>
<tr>
<th>Temperament Type</th>
<th>Role Type</th>
<th>Role Variant</th>
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<tbody>
<tr>
<td>Abstract or Concrete?</td>
<td>Cooperative or Utilitarian?</td>
<td>Directive or Informative?</td>
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<tr>
<td>Introspective (N)</td>
<td>Idealist (NF)</td>
<td>Mentor (NFJ)</td>
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<td></td>
<td>Diplomatic</td>
<td>Developing</td>
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<td>Rational (NT)</td>
<td>Advocate (NFP)</td>
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<td></td>
<td>Strategic</td>
<td>Mediating</td>
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<td>Coordinator (NTJ)</td>
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<td>Arranging</td>
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<td>Engineer (NTP)</td>
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<tr>
<td>Observant (S)</td>
<td>Guardian (SJ)</td>
<td>Administrator (STJ)</td>
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<td>Logistical</td>
<td>Regulating</td>
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<td>Conservator (SFP)</td>
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<td>Supporting</td>
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<td>Operator (STP)</td>
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<td>Entertainer (SFP)</td>
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<td>Improvising</td>
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<td></td>
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<td>Composer (ISFP): Synthesizing</td>
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</tbody>
</table>
**Temperaments**

**Artisans** are concrete and pragmatic. Seeking stimulation and virtuosity, they are concerned with making an impact. Their greatest strength is tactics. They excel at troubleshooting, agility, and the manipulation of tools, instruments, and equipment. *(Crafters, Promoters, Composers, Performers)*

**Idealists** are abstract and cooperative. Seeking meaning and significance, they are concerned with personal growth and finding their own unique identity. Their greatest strength is diplomacy. They excel at clarifying, individualizing, unifying, and inspiring. *(Counselors, Teachers, Healers, Champions)*

**Guardians** are concrete and cooperative. Seeking security and belonging, they are concerned with responsibility and duty. Their greatest strength is logistics. They excel at organizing, facilitating, checking, and supporting. *(Inspectors, Supervisors, Protectors, Providers)*

**Rationals** are abstract and pragmatic. Seeking mastery and self-control, they are concerned with their own knowledge and competence. Their greatest strength is strategy. They excel in any kind of logical investigation such as engineering, conceptualizing, theorizing, and coordinating. *(Masterminds, Fieldmarshals, Architects, Inventors)*