

S/W Project Management

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The Management Spectrum

- S/w project management focuses on people, product, process & project
- People : Highly skilled s/w people
 - An important requirement
 - PM-CMM to “enhance the readiness of s/w org to undertake complex application by attracting, grow, motivate, deploy & retain talent
 - PM-CMM defines key practicing area – recruiting, selection, recruiting, performance management, training, compensation, career development, organization

The Management Spectrum

- Product : before project planning
 - product objective & scope be established
 - consider alternate solutions
 - identify technical & management constraints
 - without this impossible to estimate cost, assess risk, breakdown project tasks & schedule
- Objective states overall goal for product from customer viewpoint
- Scope identifies primary data, function & behavior of the product and binding them
- After that alternate solution to be considered for best approach

The Management Spectrum

- Process : provide a framework
 - plan of s/w development
 - no. of tasks & umbrella activities
- Project : planned & controlled projects to manage complexity
 - In 1998 26% failed & 46% experienced cost & schedule overrun
 - To avoid failure s/w project manager & engineer must avoid common warning signs
 - Understand critical success factor
 - Develop an approach for planning, monitoring & controlling project

People

- S/w development team, important contributor, a primary asset, participants & their way for effective SE
- The Stakeholders : five categories
 1. Senior manager : defines business issues, significant influence on project
 2. Project manager : plans, motivates, organize & control developers
 3. Practitioners : technical skills
 4. Customers : specify requirements
 5. End users : interact with s/w

Project Team

- must be organized to maximize skills & ability of each person
- A job of team leader
- Team leaders : Competent developer a poor team leader, characteristics are
 1. Motivation : encourage technical people, produce at best ability
 2. Organization : ability to mold existing process, initial concept to final product
 3. Ideas/ innovation : ability to encourage people to create & feel creative

Project Team

- Successful project leader apply problem solving mgmt.
- Should concentrate & understand the problem
- Manage the flow of ideas & control quality
- Project manager characteristics are :
 1. Problem solving :
 - Can diagnose technical & organizational issues
 - Structure a solution
 - motivate others to develop solution
 - Past experience
 - Flexible to change directions if initial attempts fails

Project Team

2. Managerial identity :

- take charge of project
- confident to assume control
- assurance to technical people

3. Achievement :

- to optimize productivity of a team
- reward initiative accomplishments

Project Team

4. Influence & team building :

- read people, understand signals & react to needs of people
- remain under control in high stress conditions
- The s/w team