Book consists of six parts:
- “Managing the human resource”
- “The office environment”
- “The right people”
- “Growing productive teams”
- “It is supposed to be fun to work here”
- “Son of peopleware”
Managing People – Survey Results

• Survey results from 500 projects:
  – 15% of the projects were cancelled, postponed or delivered something that was never used
  – 25% of the projects failed to complete
  – No technological issue was found to explain the failure

• The reason for the failure:
  – Politics
    • The term “Politics” is often loosely used to mean people related problems or social problems

Managing Thinking Workers

• Quota for errors:
  – Making occasional mistakes is natural and healthy
  – People get defensive when they are not allowed to make mistakes
  – Creativity will not sustain when there is no room for mistakes

• The Bozo definition of the management:
  – “Management = kicking ass”
  – Kicking can make people active but not creative, thoughtful and inventive
  – Most importantly, it gives short term benefits but not long term
Managing Thinking Workers

- The people store uniqueness:
  - Managers are most of the time threatened by uniqueness
  - Uniqueness is vital and effective to project chemistry
  - Uniqueness needs to be cultivated

- A project in a steady state is dead:
  - Someone who can help a project to jell is worth two people
  - People’s values are often assessed based on the steady state characteristics

Managing Thinking Workers

- No time to think about this job, only to do it:
  - Single-mindedly oriented towards doing something
  - Often, time pressure is used as an excuse for lack of think time
Management’s Misconceptions

- Fear that work expands to fill the available time
- Set phony deadlines
- Put people under time pressure:
  - Management fail to realize that people under time pressure don’t work better; they just work faster

- What is management’s true role?
  - A manager’s function is not to make people work, but to make it possible for people to work

Time Pressure

Pressure beyond a certain level decreases performance

The Inverted-U relationship between pressure and performance
**Time Pressure Consequences**

- Time pressure leads to:
  - Decreased quality products
  - Decreased brainstorming
  - Decreased time spent on investigation and research
  - Decreased performance levels
  - Increased stress levels

**Quality – If Time Permits**

- Quality is often tied to self-esteem
- Quality standards are both external and internal
- Managers think of quality as another attribute that can be supplied in varying degrees
- The notion that “quality – if time permits” assures no quality at all will sneak into the product
Open Office Environment

• A policy of total default:
  – Failure to address the issue by saying that the solution is beyond human capability

• IBM Survey results for Ideal office configuration:
  – 100 sq.ft. of dedicated space per worker
  – 30 sq.ft. of work surface per worker
  – Noise protection in the form of enclosed offices or six foot high partitions
Productivity Factors

- Productivity factors were observed by conducting coding war game with 600 developers from 92 companies
  - Top performers were about 10 times faster the worst performers
  - Top performers were about 2.5 times faster than median performers
  - Best organizations worked 11.1 times faster than the worst organization
Productivity Factors

• Productivity non-factors:
  – Language, years of experience, and salary

• Productivity factors:
  – Work space, noise, privacy and interruptions

Coding war game performance results:

<table>
<thead>
<tr>
<th>Environmental Factors</th>
<th>Those Who Performed in 1st Quartile</th>
<th>Those Who Performed in 4th Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much dedicated work space do you have?</td>
<td>78 sq.ft.</td>
<td>48 sq.ft.</td>
</tr>
<tr>
<td>2. Is it acceptably quiet?</td>
<td>57 % yes</td>
<td>29 % yes</td>
</tr>
<tr>
<td>3. Is it acceptably private?</td>
<td>62 % yes</td>
<td>19 % yes</td>
</tr>
<tr>
<td>4. Can you silence your phone?</td>
<td>52% yes</td>
<td>10 % yes</td>
</tr>
<tr>
<td>5. Can you divert your calls?</td>
<td>76 % yes</td>
<td>19 % yes</td>
</tr>
<tr>
<td>6. Do people often interrupt you needlessly?</td>
<td>38 % yes</td>
<td>76 % yes</td>
</tr>
</tbody>
</table>
A DAY IN THE LIFE...

- Usually manage their own work
- Deskwork
  - ~3 hours per day
  - 37% of day on computer
- Meetings
  - ~2 hours per day
  - 10 per week, 5 scheduled
- Other communication
  - Most occur in chains
  - ~2 hours, 18 minutes each day

Source: González, 2004

MULTITASKING

- “Working spheres” González, 2004
  - high-level projects
  - “central working spheres”
    - primary tasks that one is held responsible for
    - ~6 per day
  - “peripheral working spheres”
    - other projects that are not one’s primary responsibility
    - ~4 per day
- Significant time spent managing these projects
  - ~45 minutes or 8% of day
**INTERRUPTIONS**

- People only spend ~11 minutes on a task before switching to another or being interrupted
- About 25 interruptions per day

**Internal interruptions**

**External interruptions**

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**INFORMATION OVERLOAD: WEB & EMAIL**

- Email
  - ~40-67 emails received each day
  - Management strategies
    - Folders
    - Frequency of email checking
- Web
  - Knowledge workers use bookmarks to keep track of trusted, frequently used information sources
  - Bookmarks tend to be the least organized information collection
Multi-teaming @ Intel

43% on 1-2 teams
~54% on 3 or more teams - ½ those are on 5+ teams

Average size of Teams

What is the average size of the teams you are on?

More than 60% respondents work in teams average size between 4-10 members.
Virtuality Challenges

- 3+ time zones
- Software tools mismatch
- Locations—if too many
- Culture—slight, but needs support

Collaborating with different Cultural backgrounds:

- Daily: 45.4%
- Monthly: 10.2%
- Never: 10.9%
- Quarterly: 8.7%
- Weekly: 22.0%
- Yearly: 4.7%
Team Identity & Cohesion

Team Formation Stages

- **Forming**: Team members define goals, roles, and direction of the team
- **Storming**: Team sets rules and decision-making processes, often renegotiates (argues) over team roles and responsibilities
- **Norming**: Procedures, standards, and criteria are agreed upon
- **Performing**: The team begins to function as a system
**Signs of a Jelled Team**

- Work is fun
- Self-motivated
- Low-turnover
- Sense of pride
- High morale
- Sense of eliteness
- Sense of identity
- Joint ownership of the product
- Loyalty to the team and the team environment

- **Managers are usually not part of the teams**

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**Teamicide**

- Defensive management - not trusting the team
- Bureaucracy - too much paperwork
- Physical separation of team members
- Fragmentation of people’s time – assign multiple projects
- Quality reduction of the product
- Phony deadlines
- Clique control - splitting up teams
Chemistry Building Strategy

- Make a cult of quality
- Provide lots of satisfying closure
- Build a sense of eliteness
- Allow and encourage heterogeneity
- Preserve and protect the successful teams
- Provide strategic but not tactical direction

Motivating People - Salary

- A 10% salary increase
- Stock options and other long-term benefits
Motivating People - Training

- Offer training 1-2 days/year
- Best organizations offer 5-10 days/year
- Customize training to the real needs of the job
- Suggestions:
  - Accrue education days
  - Give software professionals their own individual "training budgets" at the beginning of each year, and let them decide how, when, and where it will be spent.

Motivating People – Creative Ways

- Pilot projects
- War games
- Brainstorming sessions
- Trips, conferences, and retreats
- Study groups: Weekly meetings of 60-90 minutes to discuss technology issues
- Tuition reimbursement plans