The Accidental Project Manager: QA Road Maps and Training Wheels

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The Accidental Project Manager:
Surviving the Transition from Techie to Manager
www.wiley.com/compbooks/ensworth

Agenda

- Cautionary tales
- Navigation aids
- Guidance and support
- Organizational context

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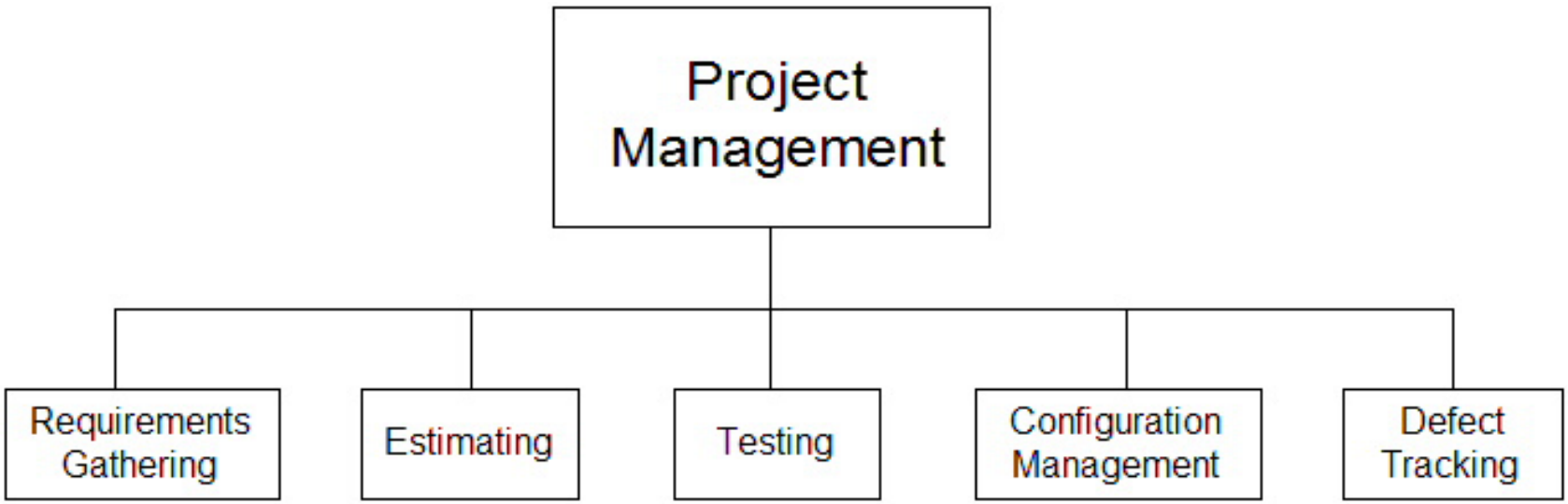
Hierarchy of Processes



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Some Accidental Project Managers

- The Secret Agent

- The Lost Soul

- The Therapist

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QA Road Maps: Cartographers

- ISO
- SEI
- Project Management Institute (PMI)
  - Founded 1969
  - Headquarters in Pennsylvania
  - Chapters in 125 countries, 100,000+ members
  - Standards development organization
  - Project Management Body of Knowledge (PMBOK)
  - Project Management Professional certificate (PMP)
  - Project Management Maturity Model (PMMM)

QA Road Maps: Legend

- Project manager knowledge areas
  - Integration
  - Scope
  - Time
  - Cost
  - Quality
  - Human Resources
  - Communications
  - Risk
  - Procurement

QA Road Maps: Legend

- Project lifecycle
  - Initiating
  - Planning
    - Scope definition
    - Requirements gathering
    - Process formulation
    - Project plan creation
  - Executing
    - Design
    - Development
    - Testing
    - Deployment
  - Closing

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QA Road Maps: Route

- Initiating Phase
  - Project Charter
    - Goal
    - Sponsor
    - Project Manager

QA Road Maps: Route

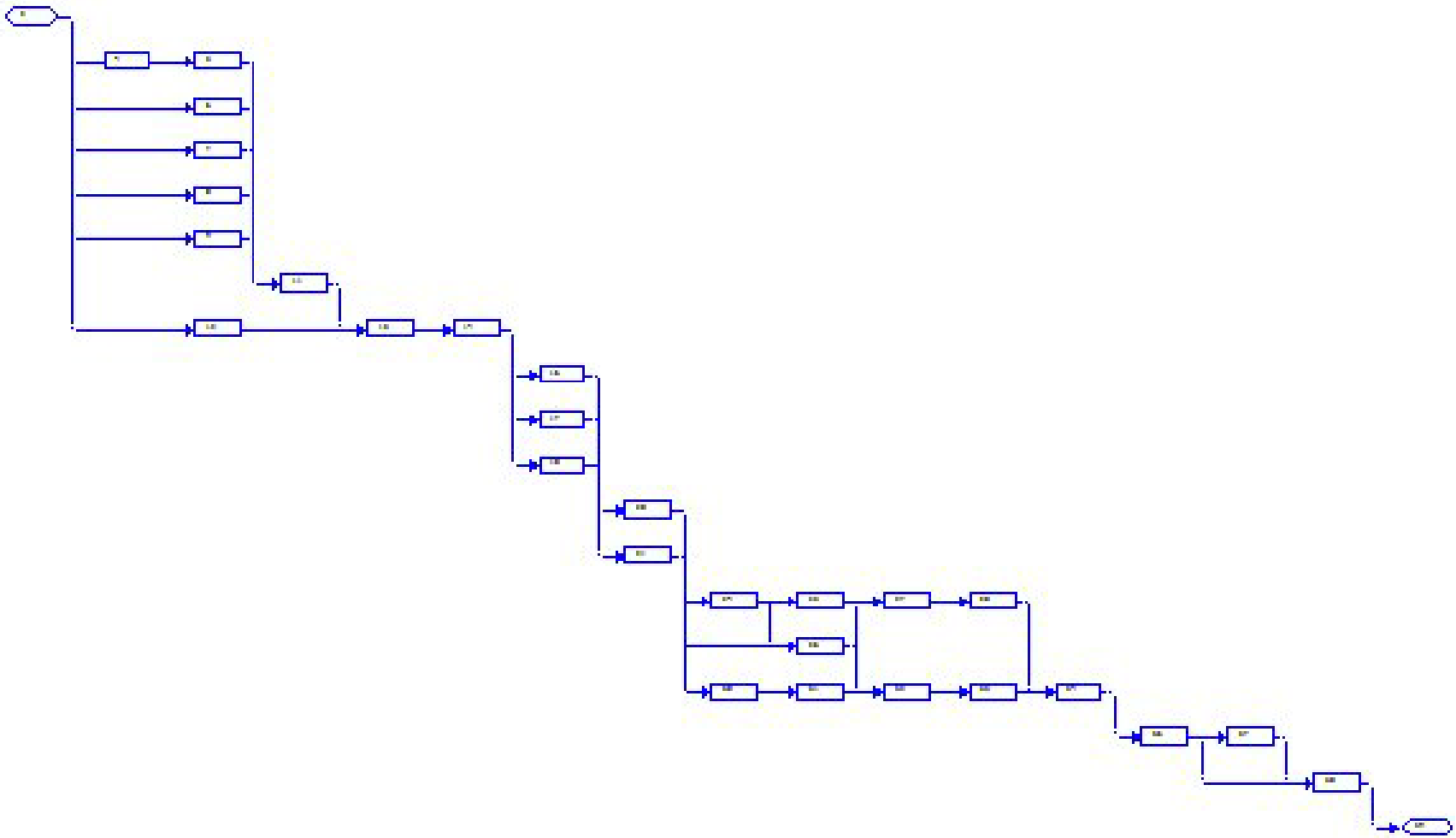
- Planning phase - analysis
  - ***Scope document***
  - Requirements document
  - General responsibility matrix
  - Task analysis
  - ***Work breakdown structure***
  - ***Network diagram***
  - Estimates
  - ***PERT chart***
  - GANTT chart

Scope Document

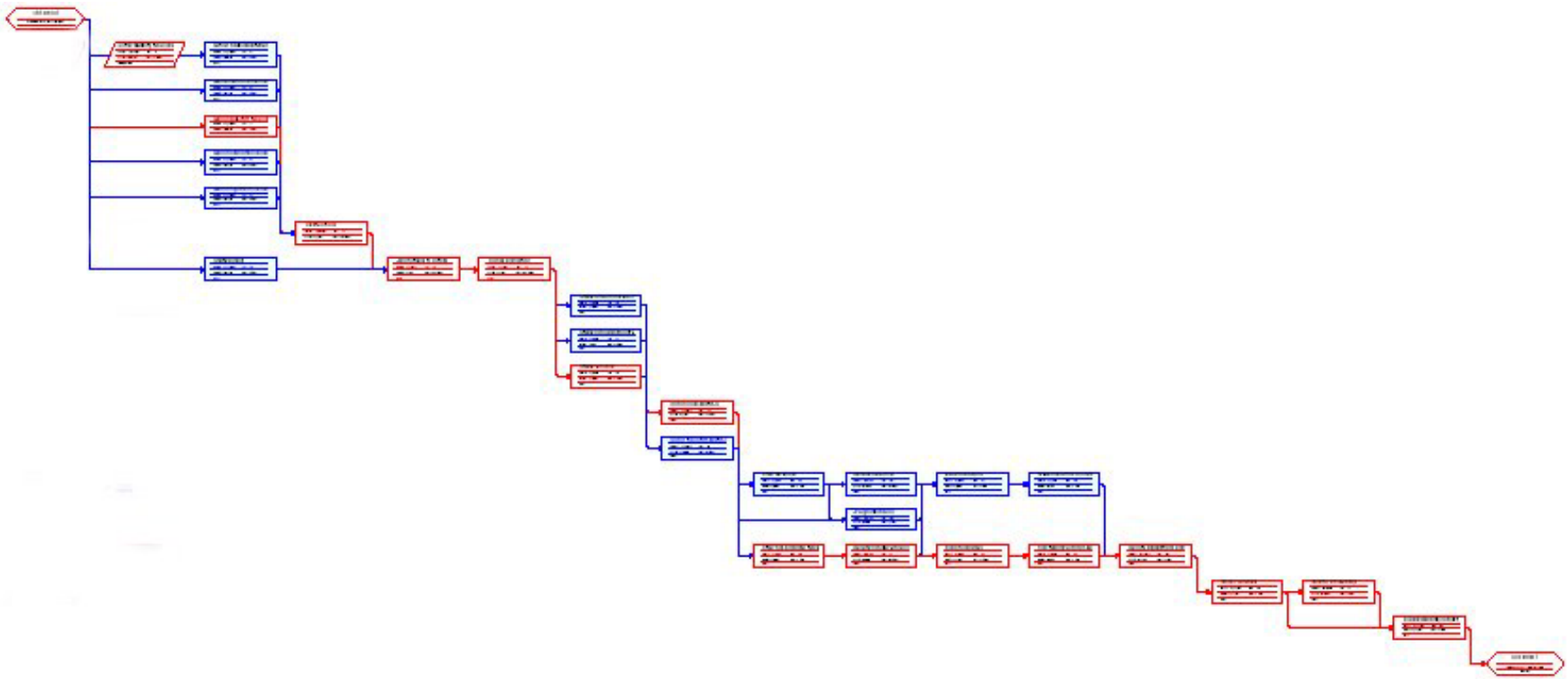
- Goal
- Critical Success Factors
- Critical Success Measures
- Constraints
- Assumptions
- Risks
- Exclusions
- Schedule
- Budget

ID	WBS	Task Name
1	1	Start project
2	**2**	**Initiation phase**
3	2.1	Develop project charter
4	2.2	Project charter approved
5	**3**	**Planning phase**
6	**3.1**	**Product activities**
7	**3.1.1**	**Define pilot design**
8	3.1.1.1	Analyze success criteria
9	3.1.1.2	Develop methodology to meet success criteria
10	3.1.1.3	Success criteria and methodology approved
11	**3.1.2**	**Define requirements for measurements and analytics**
12	**3.1.2.1**	**Define data requirements**
13	3.1.2.1.1	Define sales requirements
14	3.1.2.1.2	Define marketing requirements
15	3.1.2.1.3	Define billing requirements
16	3.1.2.1.4	Define integration requirements
17	3.1.2.1.5	Data requirements approved
18	**3.1.2.2**	**Define IT requirements**
19	3.1.2.2.1	Define SysDev requirements
20	3.1.2.2.2	Define Operations requirements
21	3.1.2.2.3	Define Telcom requirements
22	3.1.2.2.4	Define integration requirements
23	3.1.2.2.5	IT requirements approved

Work Breakdown Structure



Network Diagram



PERT Chart

QA Road Maps: Route

- Planning phase – Project Plan
  - Deliverables
    - WBS
    - Dependencies
  - Schedule
    - Dates
    - Critical path
  - Milestones
  - Resource assignments
    - Task owner
    - Department participation
    - ***Responsibility matrix***

QA Road Maps: Route

- Planning phase – Project Plan
  - Budget
  - ***Communications plan***
  - ***Quality plan***
  - HR plan
  - Risk plan
  - Procurement plan

WIDGETWeb

Responsibility Allocation Matrix (WBS plan)

Task ID	WBS #	Activity/Task Description	IT - SysDev	IT - Ops	IT- Telcom	Strategy	Marketing	Sales	Billing	Finance	HR	Comm	Legal
1	1	Start project											
2	2	Initiation phase											
3	2.1	Develop project charter	P			M	R	R					
4	2.2	Project charter approved	P	D	D		A	A	D	D	D	D	D
5	3	Planning phase											
6	3.1	Product activities											
7	3.1.1	Define pilot design											
8	3.1.1.1	Analyze success criteria	M	O	O	M	M	M	R	R			
9	3.1.1.2	Develop methodology to meet success criteria	M	M	M	M	M	M	M	O			
10	3.1.1.3	Success criteria and methodology approved	P	D	D	M	D	D	D	D	D	D	D
11	3.1.2	Define requirements for measurements and analytics											
12	3.1.2.1	Define data requirements											
13	3.1.2.1.1	Define sales requirements	A					P			O	O	M
14	3.1.2.1.2	Define marketing requirements	A				P				O	O	M
15	3.1.2.1.3	Define billing requirements	A						P		O	O	M
16	3.1.2.1.4	Define integration requirements	A			P							

P	Performs the task and submits the deliverable
R	Reviews the task/deliverable
A	Approves the task/deliverable
M	Provides mandatory input to task/deliverable
O	Provides optional input to task/deliverable
S	Must be notified when task/deliverable is going to start
F	Must be notified when task/deliverable is going to finish
D	On the distribution list for materials related to the task/deliverable

Communication Plan

I. Protocols

A. Meetings
1. **Core management meetings**
   - *Agenda*
   - *Format*
   - *Duration*
   - *Frequency*
   - *Rules / etiquette*
2. **Core team meetings**
   - *Agenda*
   - *Format*
   - *Duration*
   - *Frequency*
   - *Rules / etiquette*
3. **FM / SH / SME meetings**
   - *Agenda*
   - *Format*
   - *Duration*
   - *Frequency*
   - *Rules / etiquette*

B. Status reports
1. **Content**
2. **Format**
3. **Frequency**

C. Procedures
1. **Remote / virtual / telecommuting work**
2. **Tool usage**
3. **Oral instructions vs. written correspondence**
4. **Collaborative authoring**
5. **Conflict resolution**

II. Tools

A. Office applications
B. E-mail
C. Instant messaging
D. Discussion databases
E. Blogs
F. Websites
G. Shared servers
H. Voice mail
I. Teleconferences
J. Videoconferences
K. Phone text messaging

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Quality Plan

I. **Product Quality**

   A. **Quality Assurance**
      1. **Quality criteria definitions**
      2. **Quality assessment methods**

   B. **Quality Control**
      1. **Testing**
      2. **Defect tracking**
      3. **Test results analysis**
      4. **Requirements revisions**
      5. **Focus groups**

II. **Project Quality**

   A. **Quality Assurance**
      1. **Standards and procedures**
         - ***Requirements***
         - ***Change management***
         - ***Documentation***
         - ***Configuration management***
         - ***Source code control***
         - ***Version control***
         - ***Peer review***
         - ***Coding***
         - ***Code commentary***
         - ***Builds***
         - ***Releases***
      2. **Environment**
         - ***Development environment***
         - ***Test environment***
            - **Unit test environment**
            - **System test environment**
            - **Integration test environment**
            - **Automated test environment**
            - **Performance test environment**
            - **International test environment**
            - **Beta test environment**
            - **UAT test environment**
         - ***Staging environment***
         - ***Production environment***
      3. **Tools**
         - ***Development tools***
         - ***Testing tools***

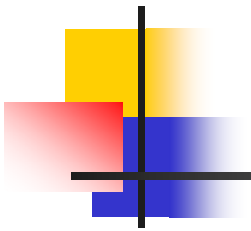
   B. **Quality Control**
      1. **Auditing practices**
      2. **Maintenance activities**

QA Road Maps: Route

- Executing phase
  - Change request form
  - Change log
  - System documentation
  - Test documentation
  - Status reports
  - Metrics
  - Estimates vs. actuals
  - Updated project plan

QA Road Maps: Route

- Closing phase
  - User acceptance agreement
  - Management report
  - Lessons Learned report
  - Maintenance plan
  - Completed documentation
  - Performance evaluations
  - Final version of project plan



QA Training Wheels

- Select appropriate processes
- Review the WBS
- Expand QA roles

QA Training Wheels: Adaptation

- Processes and documents
  - Analyze goals, workflow, team
  - Identify weaknesses and gaps
  - Recommend appropriate solutions

Communication plan

WBS, RAM

Network diagram, quality plan

QA Training Wheels: WBS

- Project management tasks
  - Include in work breakdown structure
  - Link to project plan
  - Create realistic estimates

ID	WBS	Task Name
65	**1.4**	**Execution phase**
66	**1.4.1**	**Product activities**
158	**1.4.2**	**Project activities**
159	**1.4.2.1**	**Manage scope / cost / schedule**
163	**1.4.2.2**	**Manage communications**
175	**1.4.2.3**	**Manage quality**
176	**1.4.2.3.1**	**Manage quality assurance**
177	**1.4.2.3.1.1**	**Establish product standards and procedures**
180	**1.4.2.3.1.2**	**Establish project standards and procedures**
192	**1.4.2.3.1.3**	**Design technical infrastructure**
193	**1.4.2.3.1.3.1**	**Build requirements repository**
196	**1.4.2.3.1.3.2**	**Build change management repository**
199	**1.4.2.3.1.3.3**	**Build documentation repository**
202	1.4.2.3.1.3.4	Implement configuration management database
203	1.4.2.3.1.3.5	Implement source code database
204	1.4.2.3.1.3.6	Implement version control database
205	**1.4.2.3.1.4**	**Configure project environment**
218	**1.4.2.3.1.5**	**Select tools**
221	**1.4.2.3.2**	**Manage quality control**
222	**1.4.2.3.2.1**	**Monitor product quality**
223	1.4.2.3.2.1.1	Analyze defects reported
224	1.4.2.3.2.1.2	Analyze change requests submitted
225	1.4.2.3.2.1.3	Analyze tests failed
226	1.4.2.3.2.1.4	Analyze requirements revised
227	1.4.2.3.2.1.5	Conduct SME focus groups
228	**1.4.2.3.2.2**	**Monitor project quality**
229	**1.4.2.3.2.2.1**	**Perform audits**
242	**1.4.2.3.2.2.2**	**Perform maintenance**
251	1.4.2.3.2.2.3	Implement process improvements

Project Plan – QA tasks

ID	WBS	
65	**1.4**	**Execution phase**
66	**1.4.1**	**Product activities**
67	**1.4.1.1**	**Manage design**
68	1.4.1.1.1	Develop use cases
69	1.4.1.1.2	Create data architecture
70	1.4.1.1.3	Create hardware architecture
71	1.4.1.1.4	Perform impact analysis
72	1.4.1.1.5	Develop migration strategy
73	**1.4.1.1.6**	**Design product**
82	1.4.1.1.7	Product design approved
83	**1.4.1.1.8**	**Design tests**
84	**1.4.1.1.8.1**	**Design manual tests**
85	1.4.1.1.8.1.1	Design UI tests
86	1.4.1.1.8.1.2	Design object tests
87	1.4.1.1.8.1.3	Design workflow tests
88	1.4.1.1.8.1.4	Design rules tests
89	1.4.1.1.8.1.5	Design middle tier tests
90	1.4.1.1.8.1.6	Design database tests
91	1.4.1.1.8.1.7	Design connectivity tests
92	1.4.1.1.8.1.8	Design permissions tests
93	**1.4.1.1.8.2**	**Design automated tests**
94	1.4.1.1.8.2.1	Design automated tests for functionality
95	1.4.1.1.8.2.2	Design automated tests for performance
96	1.4.1.1.8.3	Design beta test
97	1.4.1.1.8.4	Design user acceptance test
98	1.4.1.1.9	Test design approved
99	1.4.1.1.10	Create design documentation
100	**1.4.1.2**	**Manage development**
141	**1.4.1.3**	**Manage deployment**

Project Plan – testing tasks

QA Training Wheels: Roles

- Expansion of activities
  - Sociologist
  - Trainer
  - Ombudsperson
  - Coach
  - Advisor

Organizational strategies

- Independent QA department
  - Collaboration with Project Office
  - Collaboration with Training Department
- Project QA
  - Coordination with other projects
  - Development of templates
  - Education and marketing
- Embedded QA
  - Knowledge base
  - User groups
  - Best practices symposium


TREK