

# The Accidental Project Manager: QA Road Maps and Training Wheels

### Patricia Ensworth

Harborlight Management Services <a href="https://www.harborlightmanagement.com">www.harborlightmanagement.com</a>

The Accidental Project Manager:
Surviving the Transition from Techie to Manager
<a href="https://www.wiley.com/compbooks/ensworth">www.wiley.com/compbooks/ensworth</a>



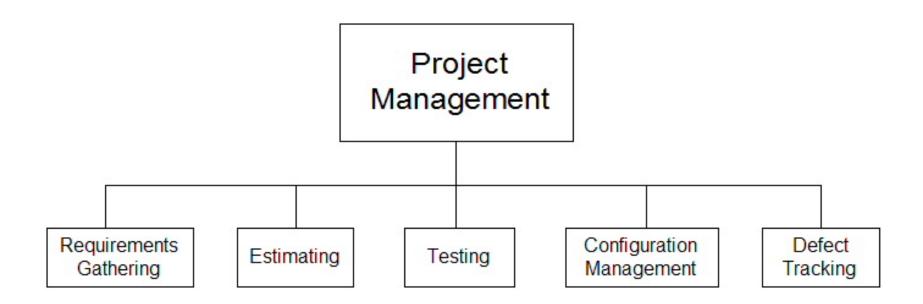
# Agenda

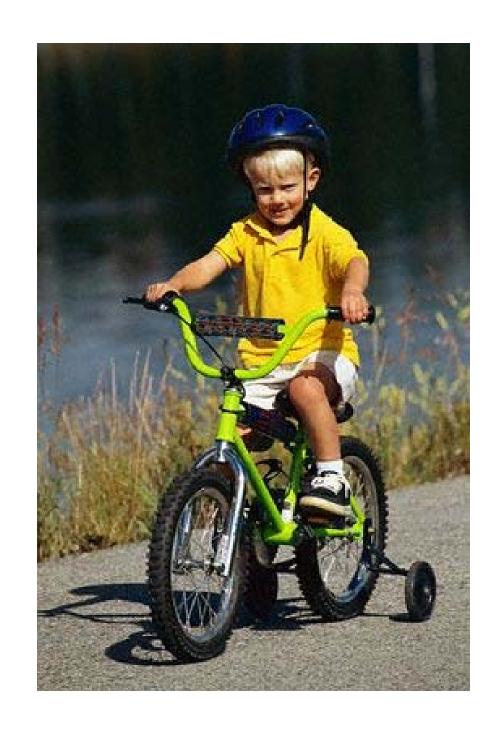


- Cautionary tales
- Navigation aids
- Guidance and support
- Organizational context



# Hierarchy of Processes







# Some Accidental Project Managers



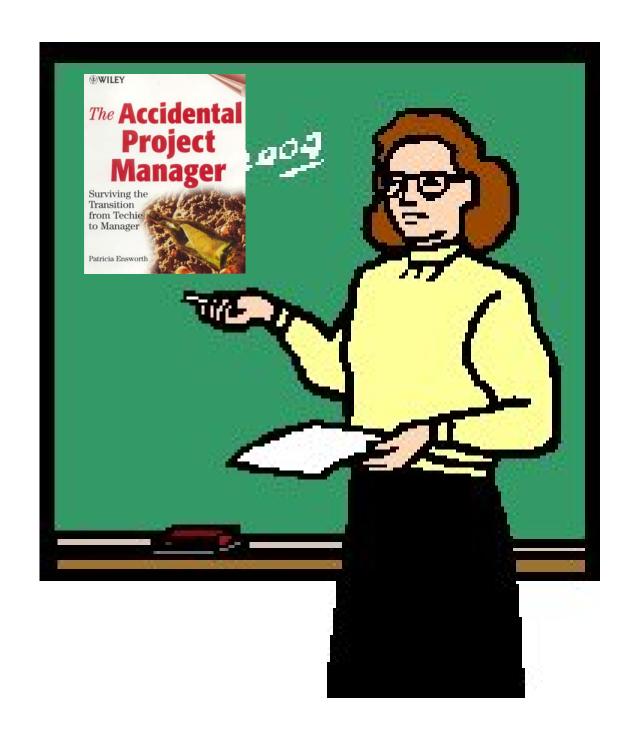
The Secret Agent



The Lost Soul



The Therapist





# 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



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



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

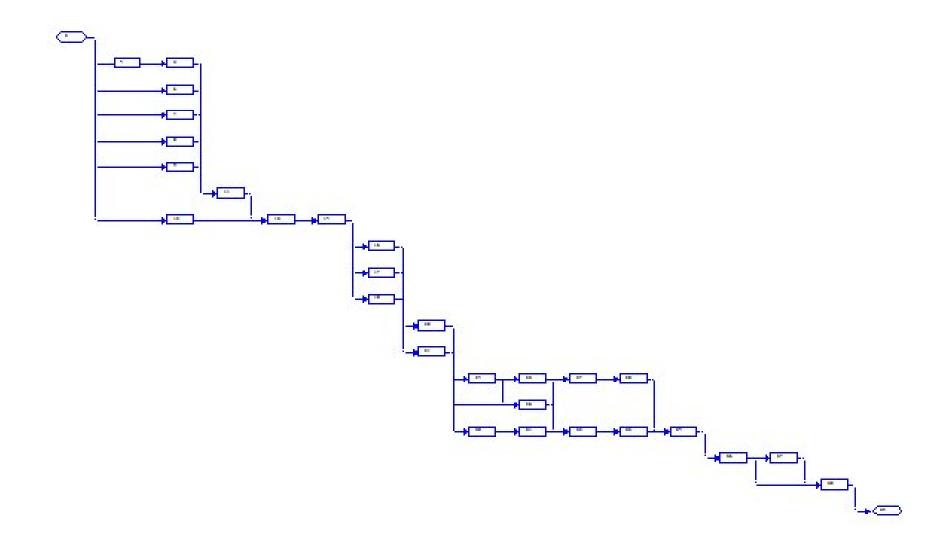


# Scope Document

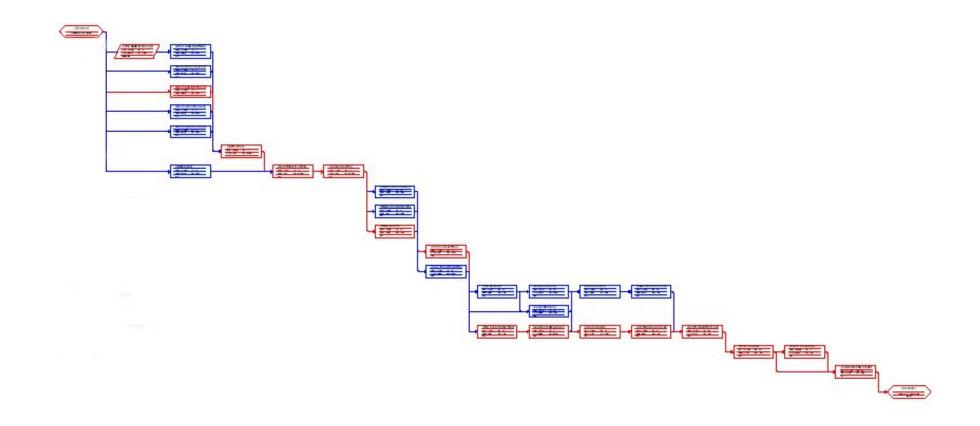
- Goal
- Critical Success Factors
- Critical Success Measures
- Constraints
- Assumptions
- Risks
- Exclusions
- Schedule
- Budget

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**



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



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

Respons	sibility A	llocatio	n Matrix (WBS plan)											
			the state of the s											
Task ID	WBS#		Activity/Task Description	IT - SysDev	IT - Ops	IT- Telcom	Strategy	Marketing	Sales	Billing	Finance	HR	Comm	Lega
1 1		Start pr	oject											
2 2		Initiation	phase											
3 2			evelop project charter	P			M	R	R					200
	2.2	F	roject charter approved	Р	D	D		A	Α	D	D	D	D	D
5 3		Plannin	g phase											
6 3	3.1	Proc	luct activities											
7 :	3.1.1	Define pilot design												
8 3	3.1.1.1		Analyze success criteria	M	0	0	M	M	M	R	R		12	
9 :	3.1.1.2		Develop methodology to meet success criteria	M	M	M	M	M	M	M	0			
10 3	3.1.1.3		Success criteria and methodology approved	Р	D	D	M	D	D	D	D	D	D	D
11 ;	3.1.2		efine requirements for measurements and analyti	CS										
12 3	3.1.2.1		Define data requirements	10000										
13 3	3.1.2.1.1		Define sales requirements	Α					P			0	0	M
14 3	3.1.2.1.2		Define marketing requirements	Α				P				0	0	M
15 3	3.1.2.1.3		Define billing requirements	A						P		0	0	M
16 3	3.1.2.1.4		Define integration requirements	Α			Р							17
			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											
			Provides optional input to task/deliverable						9 9					
			Must be notified when task/deliverable is going	to start										
			F Must be notified when task/deliverable is going	to finish								1		
			On the distribution list for materials related to th	e 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



# **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
  - **Auditing practices**
  - **Maintenance activities**



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



- 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



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