

The Accidental Project Manager: QA to the Rescue

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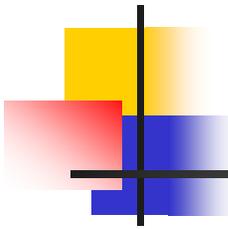
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The Accidental Project Manager:

Surviving the Transition from Techie to Manager

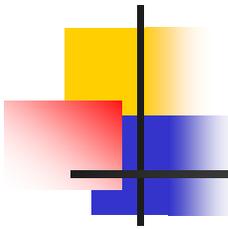
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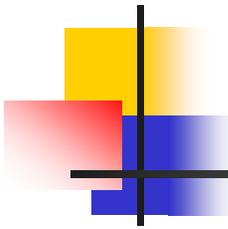
A QA Success Story

- Moody's Investors Service
 - Global credit rating agency
 - \$1B company, 4000 employees
 - Ratings on debts worldwide
 - Real-time electronic publishing
 - High staff turnover
 - "Forensic" project management



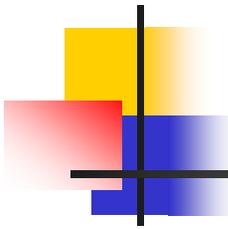
Project Management

- Project Management Body of Knowledge (PMBOK)
 - Standards and practices
 - Collaborative revisions
- Project Management Institute (PMI)
 - Founded 1969
 - Headquarters in Pennsylvania, USA
 - Chapters in 125 countries
 - 100,000+ members
- Project Management Professional (PMP)
 - Certification exam
 - 50,000 worldwide



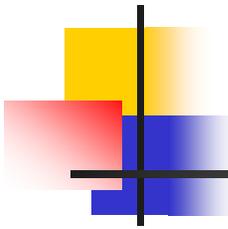
Project Management: Definitions

- Project
 - Temporary
 - Ad-hoc
 - Specific goal



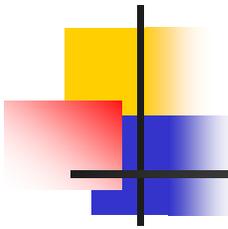
Project Management: Definitions

- Project team
 - Project manager
 - Sponsor
 - Client
 - Stakeholders
 - Functional managers
 - Subject matter experts
 - Workers



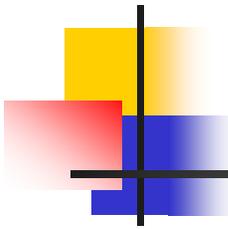
Project Management: Definitions

- Project lifecycle
 - Initiating
 - Planning
 - Executing
 - Closing
 - Controlling



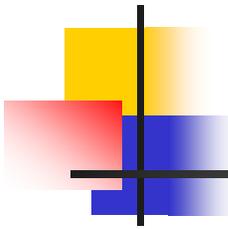
Project Management: Definitions

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



Project Management: Practices

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



Project Management: Practices

- Planning phase - analysis
 - Scope document
 - Requirements document
 - Responsibility matrix
 - Task list
 - Work Breakdown Structure (WBS)
 - Network diagram (PERT chart)
 - Estimates

WIDGETWeb

Scope Document

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

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

Design tests

Design manual tests

Design UI tests

Design object tests

Design workflow tests

Design rules tests

Design middle tier tests

Design database tests

Design connectivity tests

Design permissions tests

Design automated tests

Design automated tests for functionality

Design automated tests for performance

Design beta test

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

Manage quality

Manage quality assurance

Establish product standards and procedures

Establish project standards and procedures

Design technical infrastructure

Build requirements repository

Build change management repository

Build documentation repository

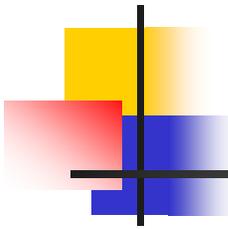
Implement configuration management database

Implement source code database

Implement version control database

Configure project environment

Select tools



Project Management: Practices

- Planning phase – Project Plan
 - Work breakdown structure (WBS)
 - Schedule
 - Resource assignments
 - GANTT chart
 - Budget
 - Quality plan
 - HR plan
 - Communications plan
 - Risk plan
 - Procurement plan

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Quality Plan - outline

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

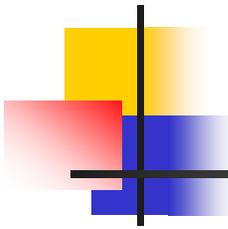
- *Development environment*
- *Test environment*
 - *Unit test environment*
 - *System test environment*
 - *Integration test environment*
 - *Automated test environment*
 - *Performance test environment*
 - *International test environment*
 - *Beta test environment*
 - *UAT test environment*
- *Staging environment*
- *Production environment*

3. Tools

- *Development tools*
- *Testing tools*

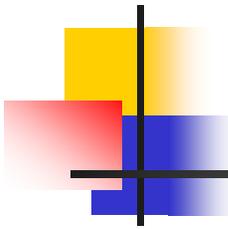
B. Quality Control

1. Auditing practices
2. Maintenance activities



Quality Plan - Product

- Quality Assurance
 - Quality criteria definitions
 - Quality assessment methods
- Quality Control
 - Testing
 - Defect tracking
 - Test results analysis
 - Requirements revisions
 - Focus groups



Quality Plan - Project

■ Standards

- Requirements
- Change management
- Documentation
- Configuration management
- Source code control
- Version control
- Peer review
- Coding
- Builds
- Releases

■ Environment

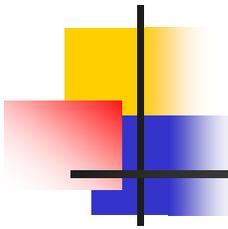
- Development environment
- Test environment
- Production environment

■ Tools

- Development tools
- Testing tools

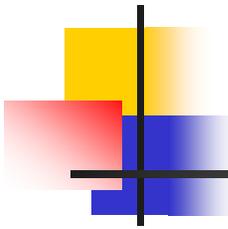
■ Control

- Auditing practices
- Maintenance activities



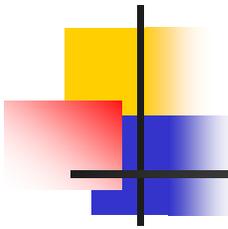
Project Management: Practices

- Executing phase
 - Change control
 - Communication with team
 - Renegotiation of project plan
 - Measurement
 - Tracking estimates vs. actuals
 - Quality champion



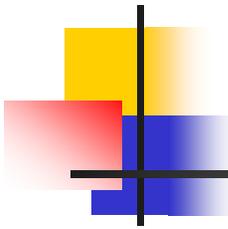
Project Management: Practices

- Closing phase
 - Results
 - Documentation
 - Lessons learned
 - Performance evaluations



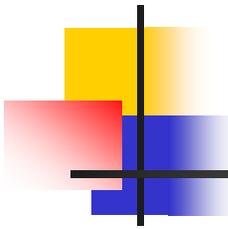
From Doctrine to Advice

- Flexible, contextual approach
- Collaboration with PM
- Ombudsperson
- Senior management support
- Time-saving customization



A Repeatable Process

- Creation of Project Office
- Development of QA templates
- Verification of project data
- Mentoring



Conclusion

- 3-step process
 - Education
 - Improvisation and customization
 - Standardization
- Opportunities for implementation
- Promotion of QA agenda
- Professional advancement



 WILEY

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