

Test management skills

- Introductions
- Course objectives

- Name
- Title
- Organization
- Expectations from the tutorial

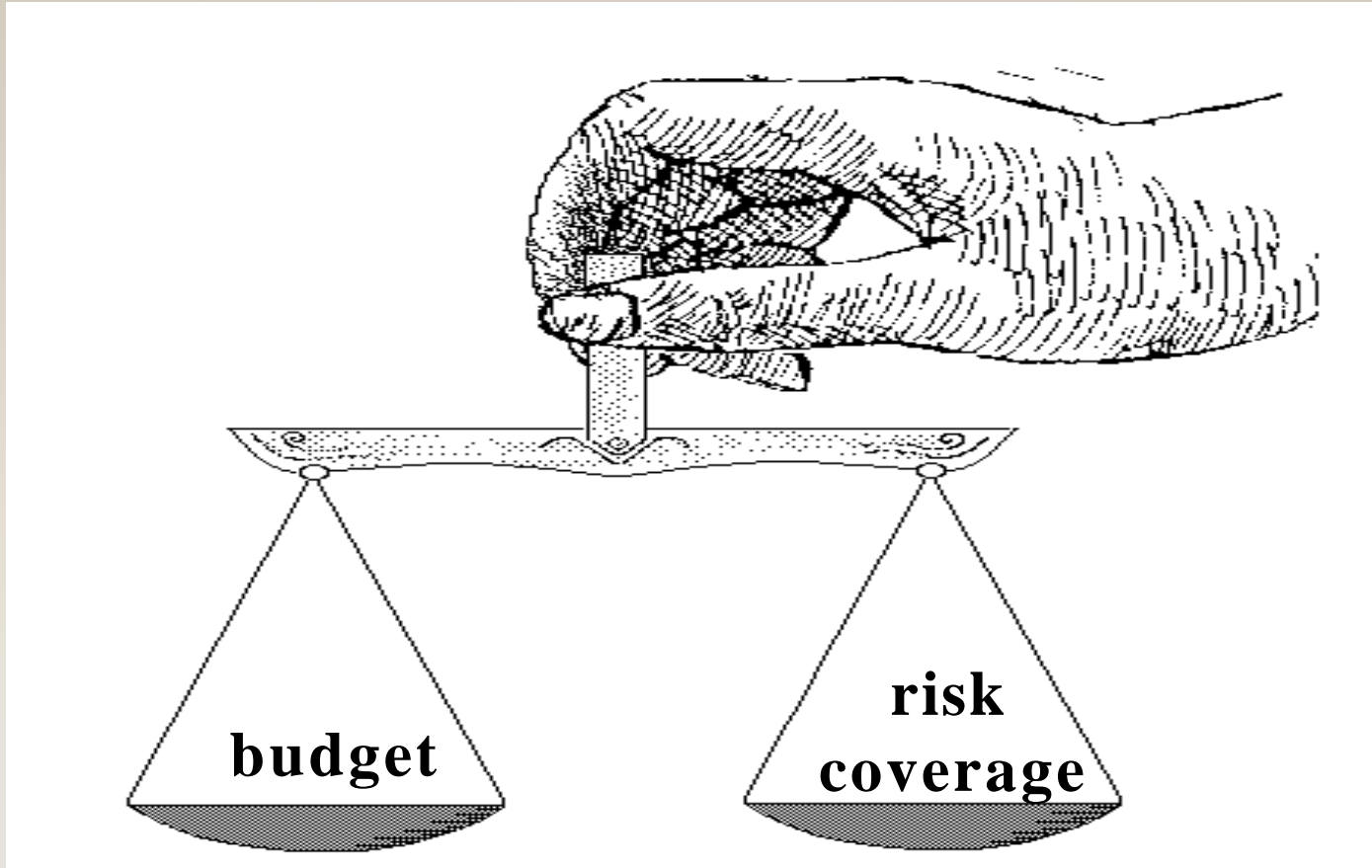
Course objectives

- Critical aspects in managing testing projects
- How to establish a effective test process
- Building highly performing test teams

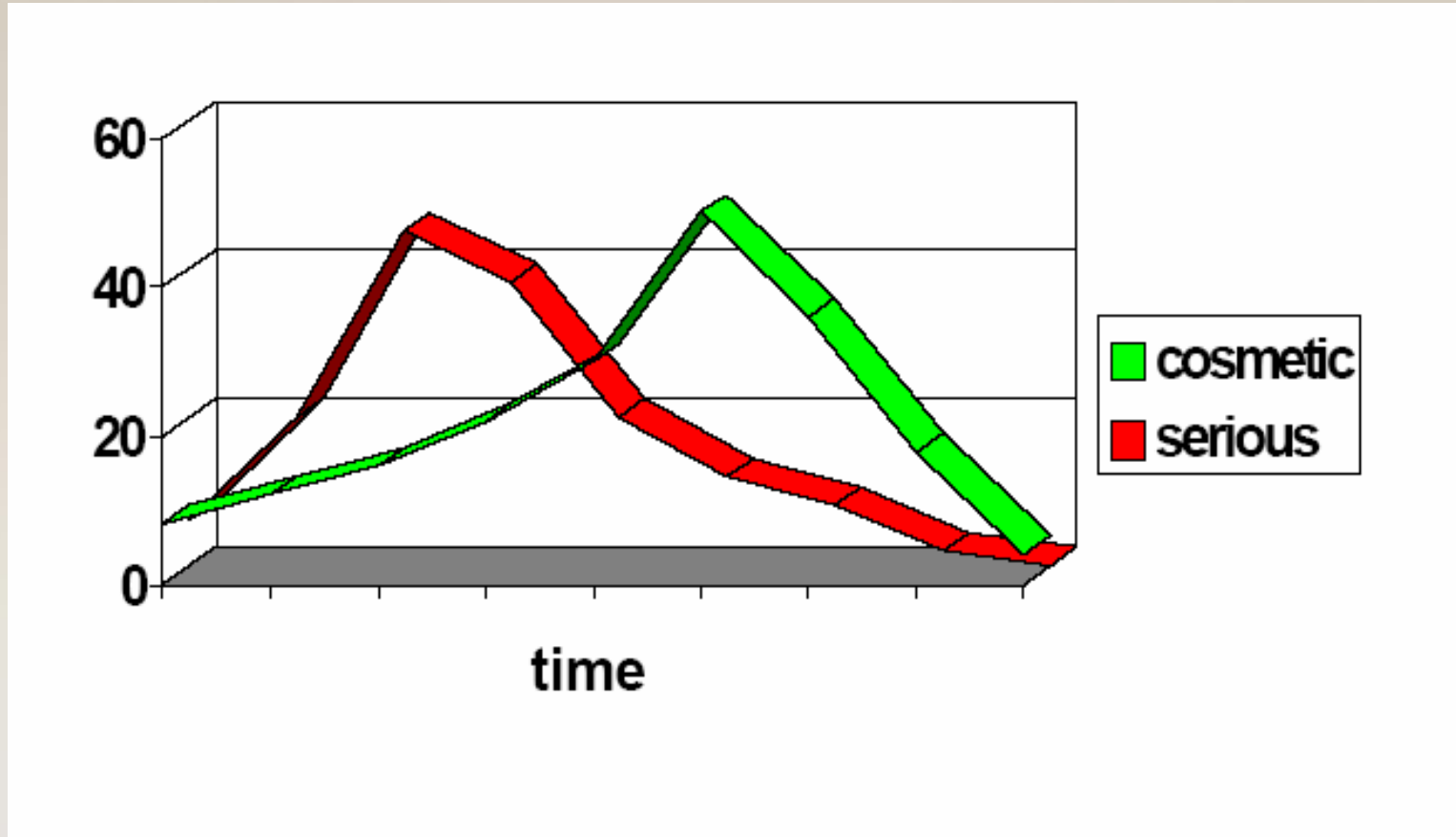
- Introductions
- Course objectives
- **Critical test management skills**
 - Test project management
 - Test process management
 - Building a great test team

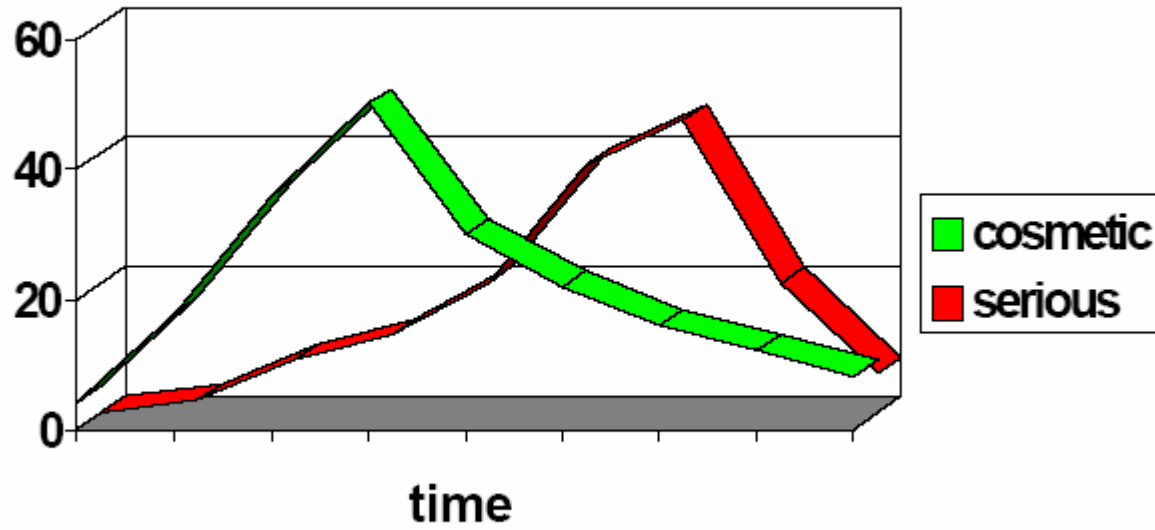
- Strategy
- Planning
- Tracking and control → Doing it through metrics
- Reporting

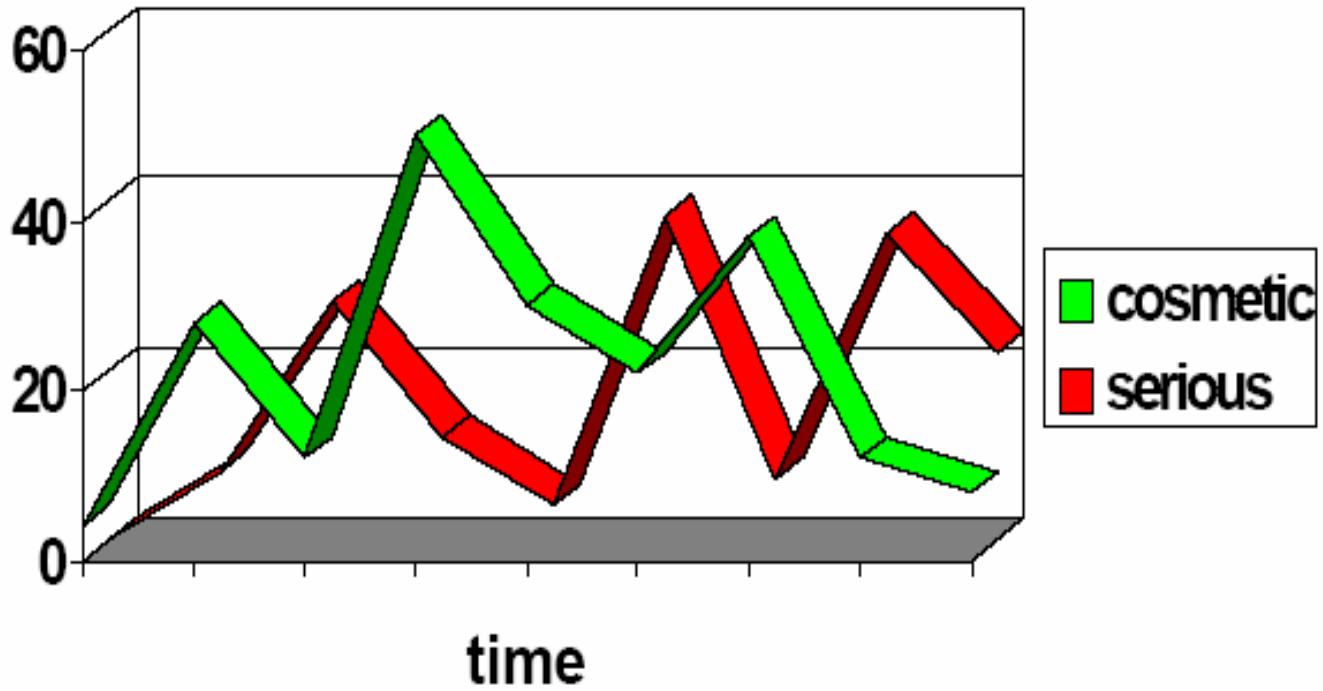
Risk and budget



1. Complex functions;
2. Completely new functions;
3. (Especially frequently) adjusted functions;
4. Functions for which certain tools or techniques were employed for the first time;
5. Functions which were transferred from one developer to another during development;
6. Functions that were realized under extreme time pressure;
7. Functions which had to be optimized more frequently than on average;
8. Functions in which many defects were found earlier (e.g. in previous releases or during earlier reviews);
9. Functions with many interfaces;
10. Inexperienced developers;
11. Insufficient involvement of users;
12. Insufficient quality assurance during development;
13. Insufficient quality of low-level tests;
14. New development tools and development environment;
15. Large development teams;
16. Development teams with sub-optimal communication (e.g. owing to geographical spread or personal causes);
17. Damage







- Test strategy is both art and science
- Steps involved are
 - Decide on the quality characteristics
 - Determine the relative importance quality characteristics
 - Attribute quality characteristics to test levels
- Understanding testing techniques, test levels and test types

- Gather test requirements
- Identify project stakeholders
- Build consensus on test project objectives

1. Test plan identifier
2. Introduction
3. Test items
4. Features to be tested
5. Features not to be tested
6. Approach
7. Item pass/fail criteria
8. Suspension and resumption criteria
9. Test deliverables
10. Testing tasks
11. Test environment
12. Responsibilities
13. Staffing and training needs
14. Schedules
15. Risks
16. Approvals

- FIA (Finger in the air)
- Formula based
- Pricing to win
- Authorized dead-lines
- Consensus of experts
- Previous test effort
- Detailed WBS

- Product
 - Defects, Defect severity index, Time to find a defect, time to solve a defect, Test coverage, test case pass rate, Defects/KLOC
- Project
 - Effort variance, schedule variance, workload capacity ratio, Defect status
- Process
 - Should be found phase, valid defect ratio, Defect removal efficiency, backlog
- Price
 - Cost variance, pyramid structure, CPC, RPC

- State of the test metric
 - > Higher limit, < Lower limit, Trend is increasing, trend is decreasing, Relatively high, Relatively low
- Implications
- Checks
- Corrective actions

- Reporting test progress
- Who are your audience
- Communication channel
- Frequency of reporting

- Product areas
- Testing – Effort, coverage and quality assessment
- Time

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- Why improve test process ?
- Key areas in test process
- What is TPI Model ?
- Framework for change management

- Deliver testing projects on-time
- Improve test coverage
- Provide more insight into testing
- Gain control on testing activities
- Reduce costs
- Reduce test cycle time
- Reduce dependency on “testing heros”
- Many more.....

Key areas in test process

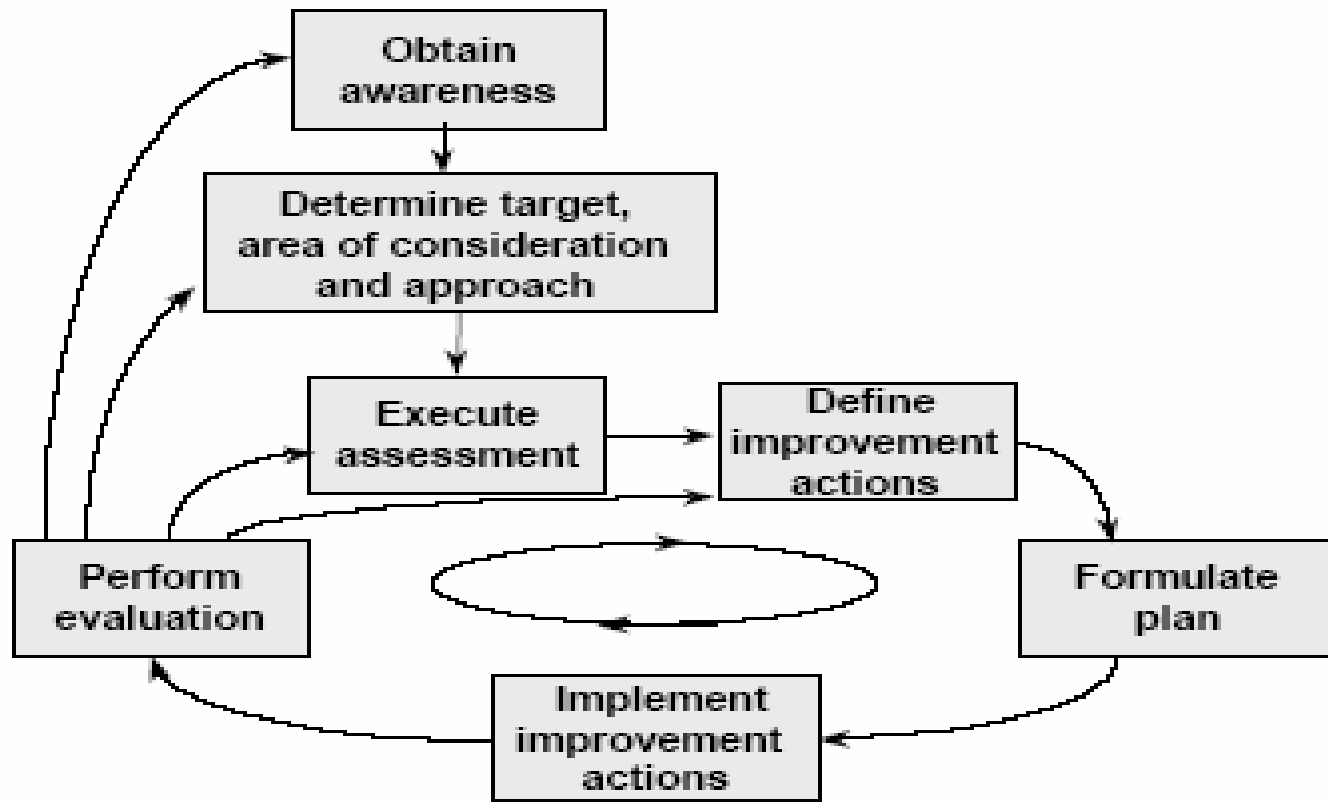
- Test strategy
- Life cycle model
- Moment of involvement
- Estimating and planning
- Test design techniques
- Test metrics
- Test tools
- Test environment
- Work culture
- Commitment and motivation
- Career path and training
- Communication
- Reporting
- Defect management
- Testware management
- Developer testing

Test maturity evolution

	Key area / Scale	0	1	2	3	4	5	6	7	8	9	10	11	12	13		
1	Test strategy		A					B				C		D			
2	Life-cycle model		A			B											
3	Moment of involvement			A				B				C		D			
4	Estimating and planning				A							B					
5	Test specification techniques		A		B												
6	Static test techniques					A		B									
7	Metrics						A			B			C		D		
8	Test tools					A			B			C					
9	Test environment				A				B						C		
10	Office environment				A												
11	Commitment and motivation		A				B						C				
12	Test functions and training				A			B			C						
13	Scope of methodology					A						B			C		
14	Communication			A		B							C				
15	Reporting		A			B		C					D				
16	Defect management		A				B		C								
17	Testware management			A			B				C				D		
18	Test process management		A		B								C				
19	Evaluation							A			B						
20	Low-level testing					A		B		C							
								Controlled				Efficient				Optimizing	

Project  Organization

Process of Change



- Fast, visible results
- Low costs
- Easiest actions first
- Acceptance level
- Reduce highest risk
- Communicate the progress
- Celebrate

- Don't intent to change the entire world
- Don't pursue unrealistic improvements
- Don't act in isolation
- Don't promise too much
- Don't underestimate the effort requires
- Don't plan improvement actions at tag end of the test life cycle

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- Recruiting software test engineers
- Building a team
- Issues in managing test teams

- Job description
- Hard skills and soft skills
- Interviewing tips

- Attitude
 - Professional pessimism
 - Balanced curiosity
 - Focus
- Skills
 - Business domain
 - Technology
 - Testing
 - Software engineering

Applying the above skills in a product, project and process context

- Closed question
- Behaviour description
- Hypothetical question
- Meta question
- Audition question
- Irrelevant question

Who can be on the team ?

- Testing professionals
- Developers
- Software architects
- Business users
- Management graduates
- Consultants
- Internal auditors
- Multi-linguistic personnel
- Usability professionals
- Journalists
- Professional trainers
- Ethical hackers
- Gaming specialists
- Project mgmt. professionals

- Establish the objectives of the test team
- Out-line the required skills, roles, responsibilities
- Establish the right organizational structure
- Goals and expectation management

- Micro management
- Motherly management
- Masterly management

- Problem with motivation
- Unrealistic targets
- Lack of respect
- Too much boring work
- Availability of right people
- Individual career paths and objectives

Thank You