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Web Testing – Re-inventing the wheel?

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Web Testing - Re-inventing the wheel?

Case study by:

Tal Pe'er

TesCom Israel

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Agenda

- New web methodology – A real need?
- The differences between web testing and traditional testing
- Web testing project – case study

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Web Testing Methodology?

- Web application is just like any other application

  BUT
- Common testing methodology doesn't consider unique web issues
- Web project differ from regular projects

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How web projects differ from regular projects?

- Unknown intended audience
- Unknown environment
- Unknown performance requirements
- Fast-paced development
- Security and usability issues - “to be or not to be...”

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Case Study - The Client

- A Start-up company in the wireless communication field
- Their current web site is stable and old
- A new web site was designed without any testing team support and involvement
- The application is near the end of development phase

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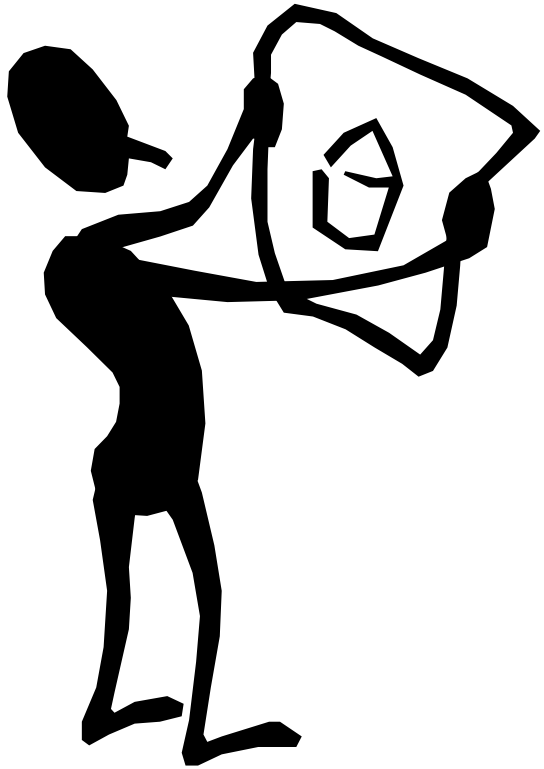
The Application's Targets

- To create an environment for the company's clients to get information regarding the company's products and solutions.
- To position the company as a leading company in the telecommunication technologies.
- The company should gain a USPW (unique selling point on web) through this site.

The First Step

Defining a requirements specification for the site and selecting a sub-contractor for the development



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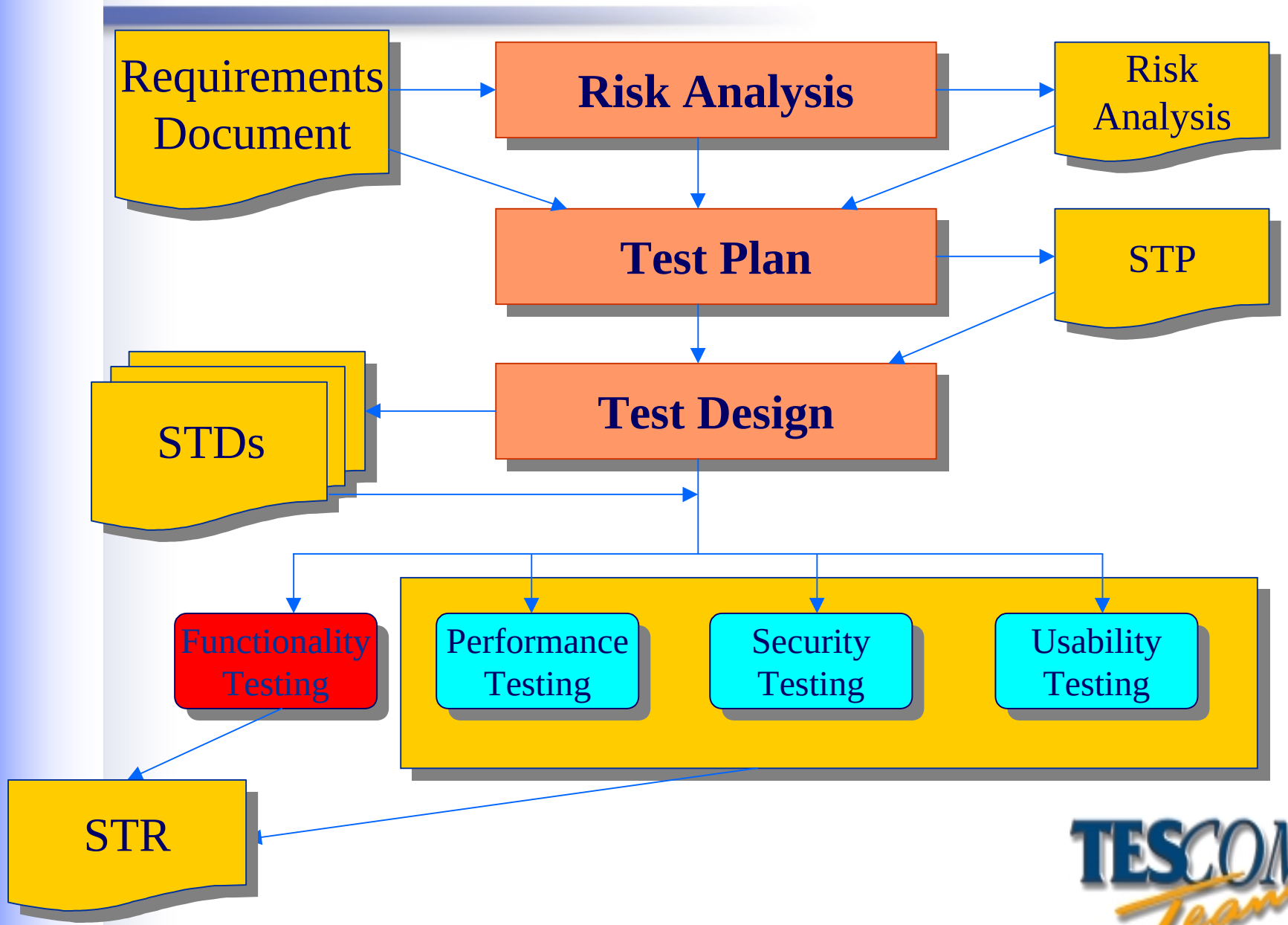
Overall Workflow



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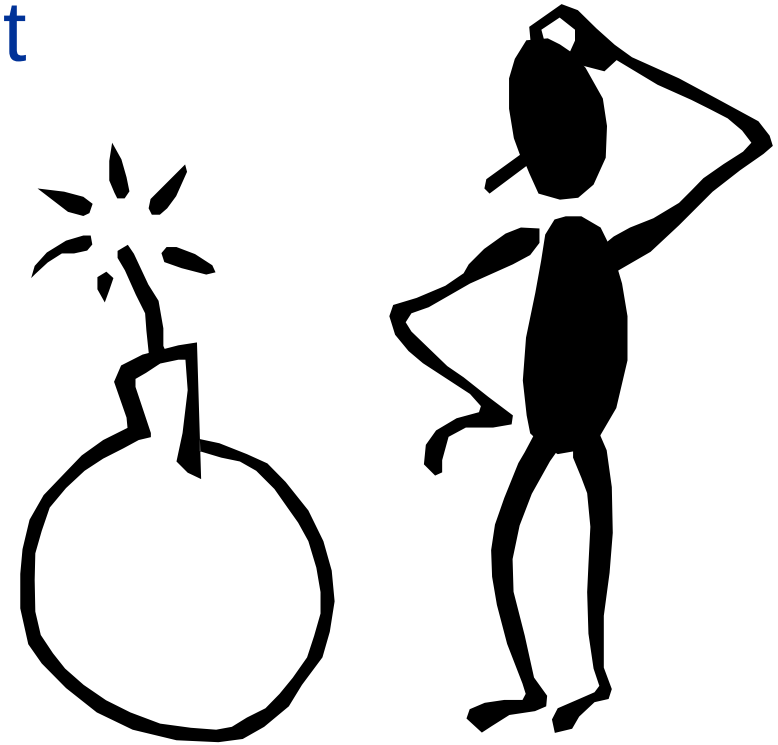
Risk Analysis

- Goals Definition
- Risk Assessment
- Risk Summary



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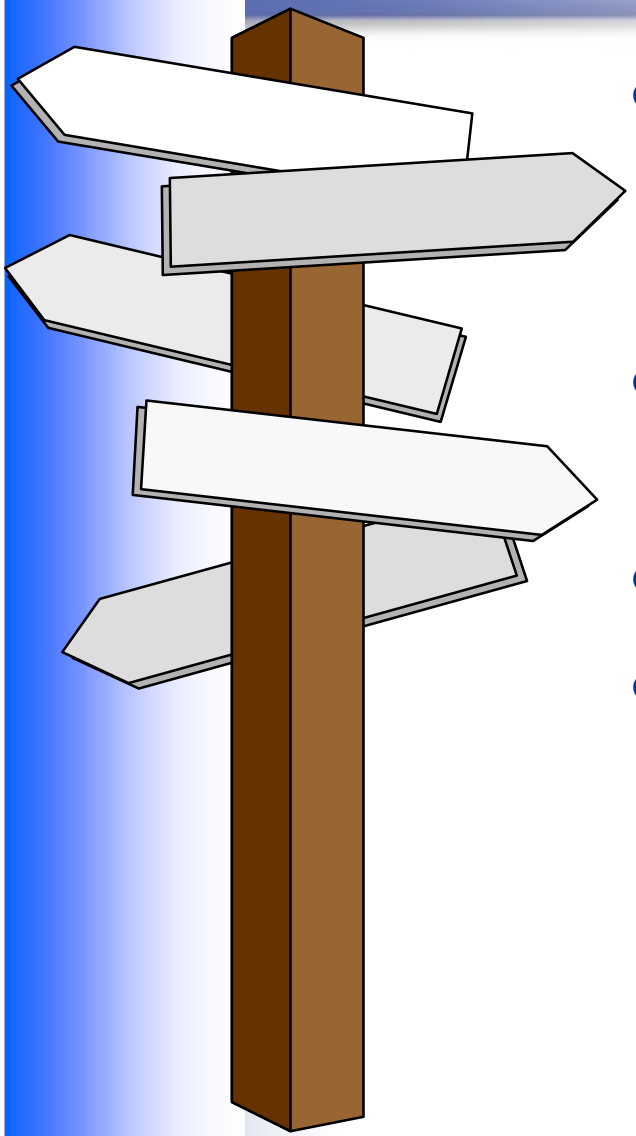
Goals Definition



- The business goal of the site (business, information, entertainment, intranet)
- The time limits (release, update frequency)
- Intended audience
- Intended environments (browsers, OS)

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Risk Assessment

- Topics
  - Functionality
  - Performance
  - Security
  - Usability
- Method
  - Defining the priority of the subject and the Number of Environments to test the subject

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Risk Summary

Subject	Issues to be test	Number of testing env.	Priority (1-10=high)
Functionality			
Performance			
Security			
Usability			

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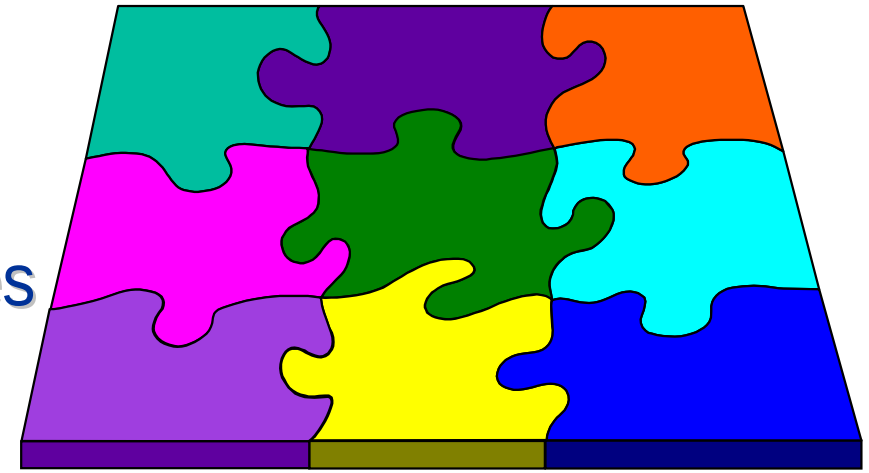
Test Plan

- System breakdown
- Testing environments
- Automated tools
- Resources needed
- Schedule
- Roles & Responsibilities



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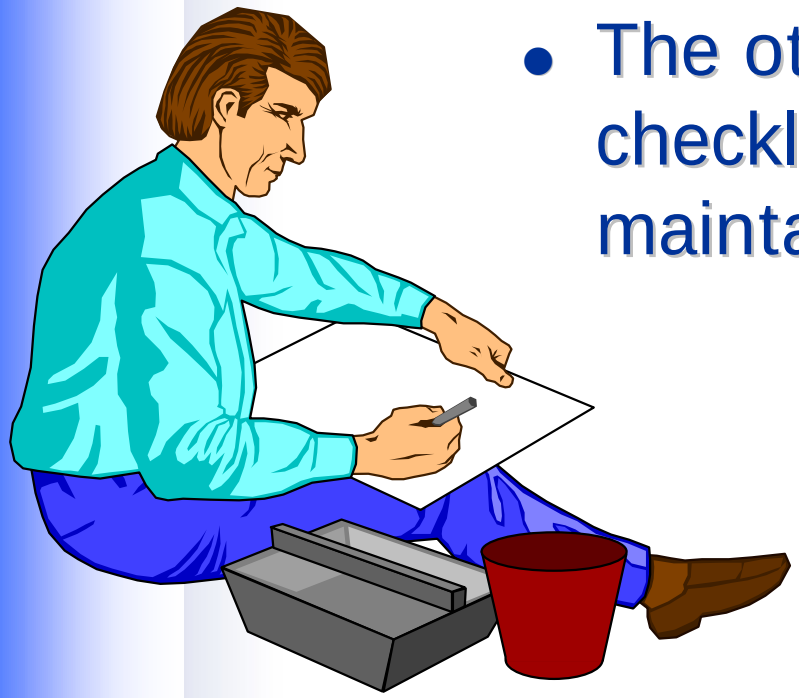
Test Design

- Four design (STD) documents
- Only the Functionality STD has the traditional structure of steps.
- The other STDs can be in a form of checklists, which is quick to run and maintain



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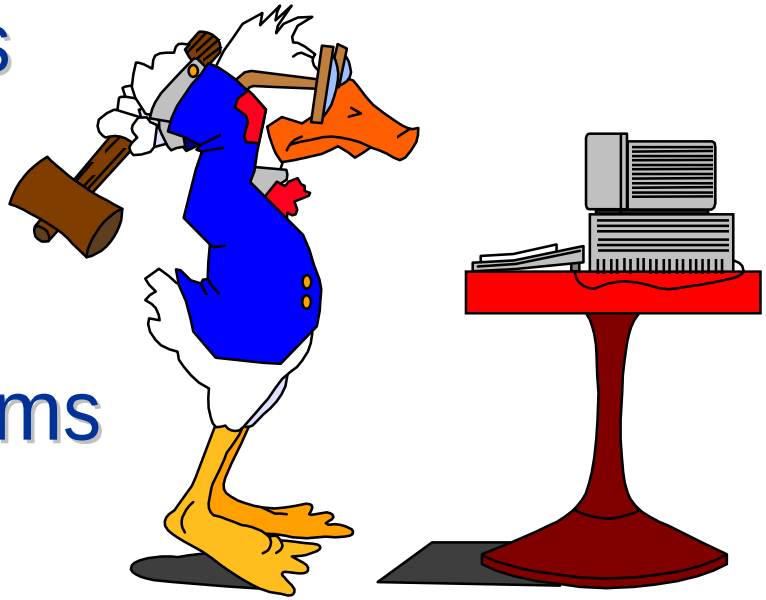
Functionality Testing

- The site main processes
- Database updating
- Database query
- Interface to other systems
- Site Update



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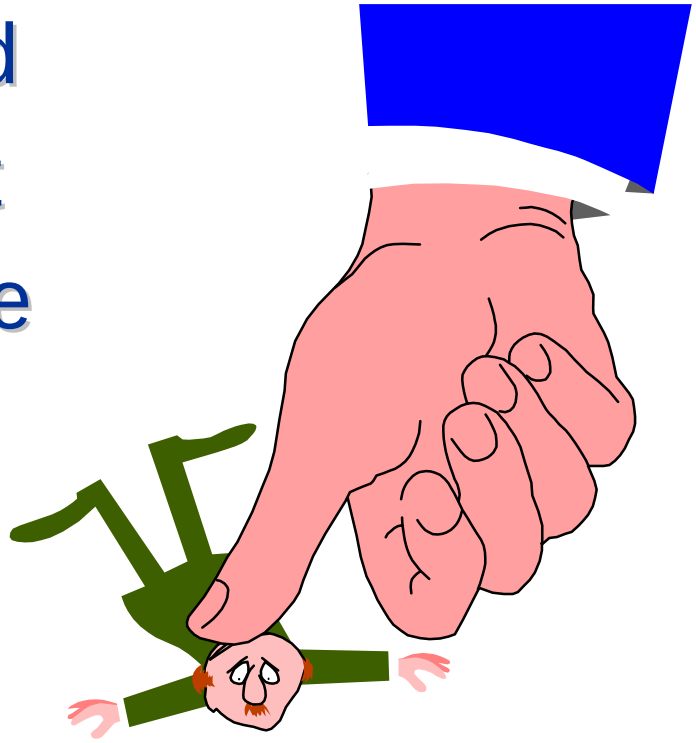
Performance Testing

- Average page load
- Multimedia impact
- Database response
- Load tests
- Stress tests
- 2-8-30 rule



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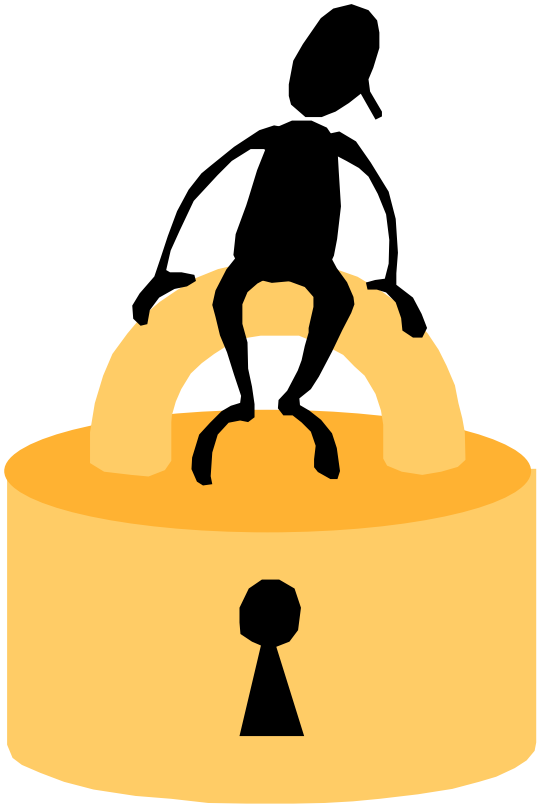
Security Testing

- Logins & Passwords
- Penetration testing
- Hackers' intrusion
- Firewalls functionality
- Secure purchase
- Site Update



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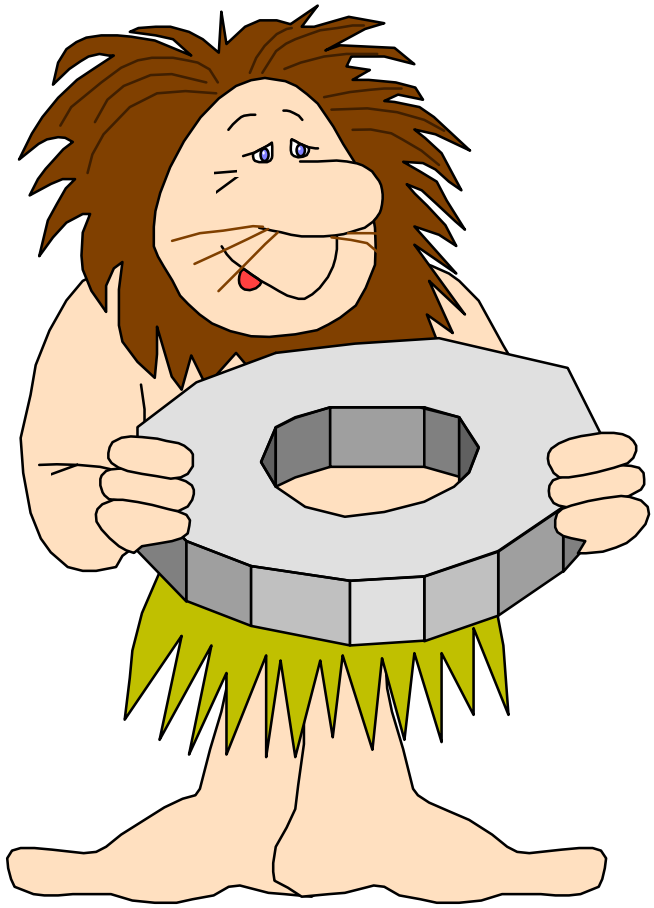
Usability Testing

- Page layout
- Compatibility
- Error handling
- Tagging
- Data filing
- Site Update



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Test Execution

- Functionality tests should be performed first
- Other tests are performed according to definitions in risk analysis

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Usability checklist - example

- Intuitiveness
  - Windows and dialogues appear in a logical business sequence.
  - Information appears in a natural and logical order.
- Data Input
  - Easy to enter data
  - Appropriate field length
  - All the required information is given to the user.

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Usability testing - example

- Using a “typical” user
- Team of 3 persons:
  - Explorer
  - Leader
  - Observer
- Filing a questionnaire

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Summary

- How web projects are differ from regular projects
- Risk Analysis of a web site
- Test phases used in the case study

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Thank you for listening!

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Wednesday 6 December 2000

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Web Testing – Re-inventing the wheel?

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Tal is a CSA (Certified System Analyst) since 1999 and has a BA in Social Sciences from Bar-Ilan University.