

Testing, The Next Level
door Erik Boelen

Dinsdag 31 maart 2009

voordracht georganiseerd door het



TECHNOLOGISCH INSTITUUT
Discussiegroep Software Testing

met de steun van



cronos
e-business integrator



systematically delivering success
quasus



tesco 
testing your software



ps.testWare
Your devil's advocate

Ingenieurshuis - K VIV, Antwerpen

Testing, the next level

Challenges in software testing

Erik Boelen

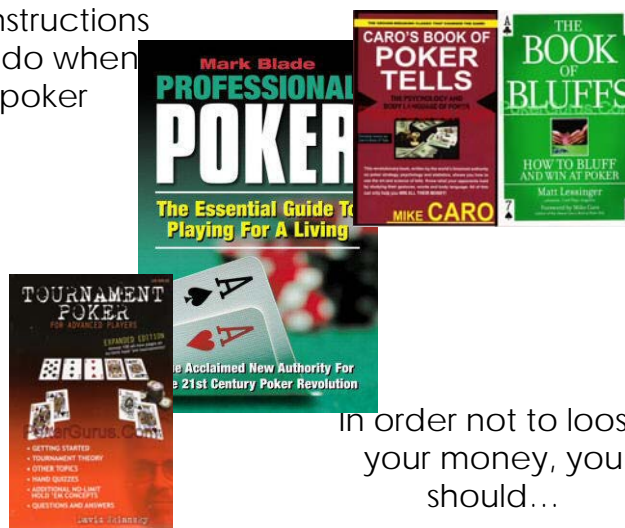


Erik.Boelen@unite-it.be

www.unite-it.be

Playing a game of poker

Very clear instructions
on what to do when
playing poker



In order not to loose
your money, you
should...

And then there's the game!



Web: www.qualtechconferences.com

Emails: info@qualtechconferences.com

What will I talk about?

- My view on where we are in testing right now
- What are the challenges out there for us testers?
- Can these challenges help us grow as testers?

Web: www.qualtechconferences.com

Emails: info@qualtechconferences.com

So where are we now?

'In the starting blocks'

Opinion of peers

'Finally getting some structure in software testing'

'The future is looking bright for software testers!'

So where are we now?

My opinion?

BOOT CAMP

Wikipedia on Boot Camp – Refers to military recruit training, the initial indoctrination and instruction given to new military personnel

So where are we now?

Have you ever played computer games?



Or any other games as such?

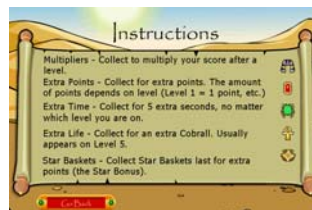


So where are we now?

Remember the introduction screens?



Guitar Hero



Piper Panic

Or the moments where somebody explained the game during the first round?

Monopoly hints from your opponents on buying an expensive street?!

So where are we now?

Computer games' Boot camps



- In order to pick a weapon – E
- In order to fire a weapon – SPACE
- In order to holster – F
- In order to open a door – ENTER
- In order to activate a switch - A

Enemy behind the door that is opened by a switch

Now what?

So where are we now?

- Our instructions have been set
 - Methodologies
 - Testing principles
 - V-Model
 - ISTQB
 - IEEE

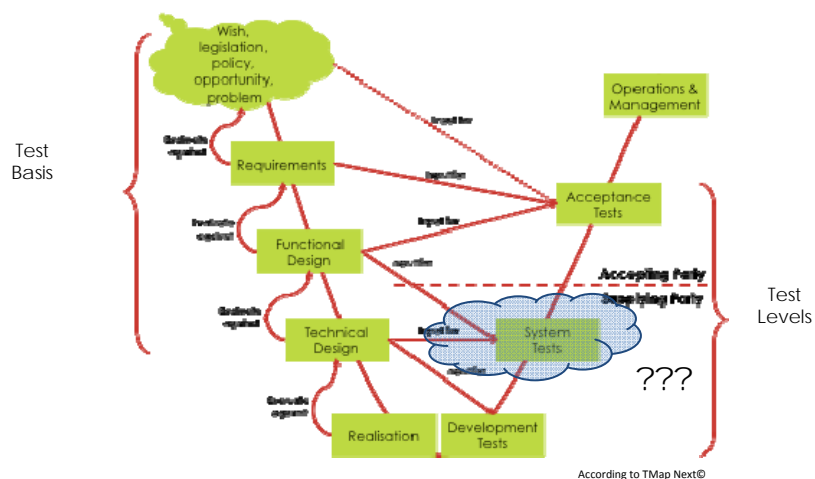
Our instructions are ready to be challenged!

Challenges in software testing

- V-Model needs to be brought back to its roots
- Knowledge sharing needs improvement in software testing
- Set shared objectives
- Be creative in your tool selection
- Apply certain aspects of different methodologies in order to fit your need
- Think about test driven analysis

... and many more

Apply the V-Model, do not use it

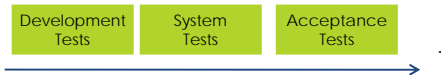
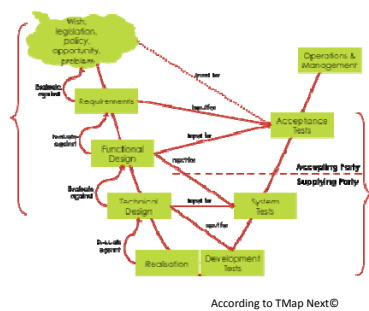


Apply the V-Model, do not use it

- System Testing according to Wikipedia:

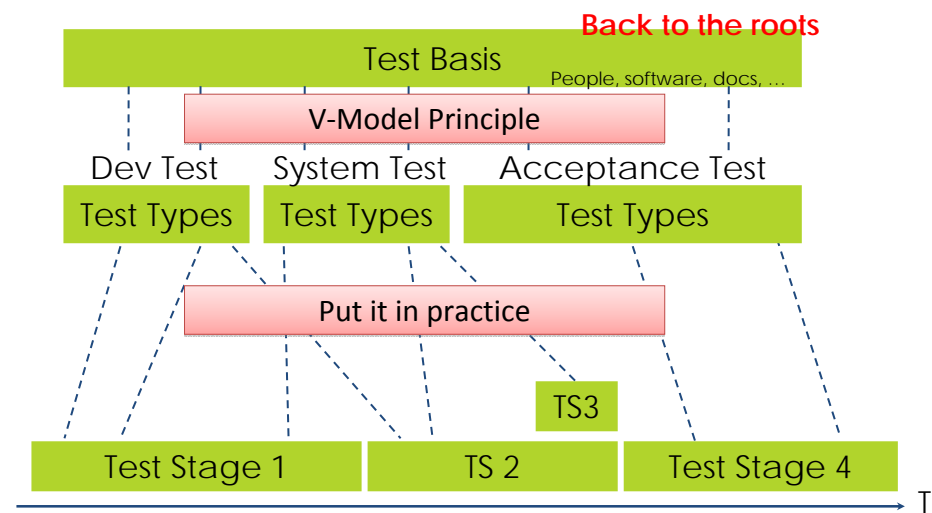
System testing is the testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements

Apply the V-Model, do not use it



We loose flexibility
What is behind the label?

Apply the V-Model, do not use it



Apply the V-Model, do not use it

- Test Types are the drivers of testing
 - What to test?
 - How to test? E.g. Launch Testing
 - Where to test?
 - Who to test?
- Translation to test levels is according to the V-Model principle!
- Test Levels are LABELS
- Test Stages give the flexibility to the project to
 - Define the test types; V-Model applied and fit for purpose
 - According to their test basis;
 - Including the timing aspect

Build, maintain and share knowledge

Quick Google Research

Type in a search string at Google and look at the first page results

	JAVASCRIPT	TESTING
Search string	JavaScript Go Back	Stress testing logon functionality
Practical Results	10	None
Links to forums/ blogs	7	None
Links to vendors	1	4

Build, maintain and share knowledge

- Computer games

- Walkthroughs
- Guidelines
- Tips & Tricks



- So many opportunities for testers

- Blogs
 - Forums
 - Wiki
 - Online communities
- ... and that's just the internet**
- λ Conferences – EuroSTAR
 - λ Discussion groups

Set shared objectives

Methodology says:

'All testers need to be independent from the other skills within a project'



Set shared objectives

- All testers in a separate bubble?
- What about letting others in our bubble?
 - Designers
 - Developers
 - End users

Nothing new here!

It's the team effort that delivers projects

Specify team objectives in your entry & exit criteria of your testing process

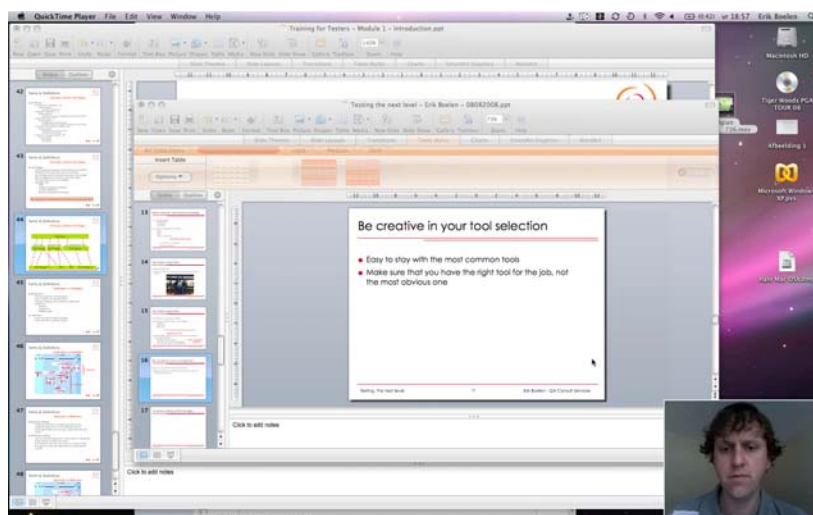
- Release notes are written
- Test execution covers all requirements
- The end user approves the guidelines

**Team cooperation
required!!**

Be creative in your tool selection

- Easy to stay with the most common tools
- Make sure that you have the right tool for the job, not the most obvious one
- Practical example
 - If I need a tool to test usability, what can I do?
 - Take an obvious tool and record test cases in there on usability, execute them and log the result – all textual
 - Use the application Silverback and record all my actions, my visual expression and my voice while testing the new software – a lot more than just textual!!

Be creative in your tool selection



Combine testing methodologies

'We use
TMAP'

'We follow the SCRUM method'

'We only work
iteratively'

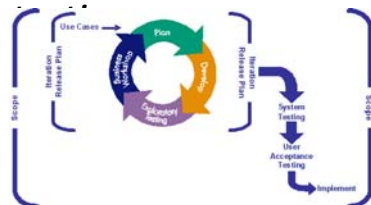
And very rarely

'We combine methodologies in order to fit for purpose'

Combine testing methodologies

- Practical example

We work in iterations while in a non-iterative environment, using exploratory testing as test preparation for scripted



λ Clear combination of different approaches

λ Fit for purpose!

Test Driven Analysis

“**Test-Driven Development** (TDD) is a software development technique consisting of short iterations where new test cases covering the desired improvement or new functionality are written first, then the production code necessary to pass the tests is implemented, and finally the software is re-factored to accommodate changes. The availability of tests before actual development ensures rapid feedback after any change. Practitioners emphasize that test-driven development is a method of designing software, not merely a method of testing.” According to Wikipedia

- λ Used for more than a decade
- λ A lot of developers are OK with this

Test Driven Analysis

- Can we apply this to analysis?
- Are analysts OK to let testers in their bubble?

‘**Test Driven Analysis** (TDA) is a software analysis technique consisting of short iterations where new test cases covering the desired improvement or new functionality are written first, then the production of analysis documents to pass the tests are written, and finally, the analysis documents are re-factored to accommodate changes. ‘

Conclusion

- λ There are many more challenges
- λ Be creative
- λ Let people know about it
- λ Make sure you apply testing principles instead of just using them
- λ Do not get stuck at the instructions you get from others

Get out of boot camp and face the challenges in testing

Questions?

Questions?

Challenges?

Remarks?