

# Use Open Source Testing Tools

Ringo De Smet  
Pascal Van Cauwenberghe

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KVIV/TI Open Source Testing Tools

# Use Open Source Testing Tools

...and eliminate your QA department

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## Commercial Tools

- Expensive
- Inflexible
- Difficult to use
- Lock in
- Hard to integrate into build/process

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## Let's download some tools

- Free!
- Small and easy (to use, understand)
- Big community
  - Lots of documentation
  - Lots of help
- Examples

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## Example 1: unit testing

- Push testing to development team
- xUnit
  - Unit testing tools for developers
- SUnit, JUnit, NUnit, CppUnit, PerlUnit...
- DEMO!
- Test Driven Design/Development

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## Example 2: web testing

- HTTrack
  - Traverse web site
  - Broken links
- + HTML Tidy
  - Test if correct HTML
  - Incorrect HTML indicates bugs in code
- DEMO

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## It doesn't fit QA needs!

- Small and limited
- Too much effort (low level tools)
- Generic
- Developer-centric
  
- Think: What does QA need?

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## Requirements

- Easy to use
- Target audience not only DEV
  - Include QA, architects, analysts and users
- Perfect fit with OUR environment
- Automation
- Not too much effort

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## Customize open source tools

- Developers & QA
- Utilities
  - Higher level test primitives & tools
  - DB, threading, files, XML...
- Integrate into build
- Feedback, visible to everyone
- Incremental, continuous improvement
  - If it annoys us, we fix it

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## Example 3

- JUnit tools for
  - Testing thread synchronisation
  - Database setup/cleanup
  - Upgrade/migrate database scripts
  - Code-DB mapping
  - ....
- HTTPUnit
- XSLUnit

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## Change your code

- Testing makes your code testable
- Better separation of concerns
  - E.g. Separate GUI and business logic
- Widget identities vs position
- Insert markers into HTML
- Open source projects are starting to test
- Make developers test
  - To learn how to program (better)

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## Make your own tool

- Adapt to environment
- Combine tools
  - With scripting
- Customize for different users
- Demos

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## Example 4: TestBench

- JUnit + JFCUnit + FESI JavaScript interpreter
- Test Swing apps
- Write test scenario's in JavaScript
  - Simpler syntax than Java
  - No compilation needed
- QA create test scenario's for new functionality
- DEV uses the test scenario's for regression testing
- QA focusses on new features

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## Example 5: Fitness

- WIKI (Ward Cunningham)
- Use wiki for specifications
- Use automated test for specification
- Combine the two: executable specifications
  - FIT => FITNesse
- Users, analysts (spec) QA (bugs)
- DEMO

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## Eliminate the QA Department

- Hidden agenda is revealed at last:
- Eliminate the QA department
  - And the analyst department
  - and the separate users
  - and...
- Users, analysts, developers, testers in ONE team
- Stories

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## Questions

... and discussion

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## Downloads

- <http://www.xprogramming.com>
  - Links to ALL xUnit tools
- <http://www.junit.org>
  - JUnit
- <http://jfcunit.sourceforge.net>
  - Swing UI tests
- <http://www.httrack.com>
  - Web site traversal & retrieval

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## More downloads

- <http://www.lugrin.ch/fesi/>
  - JavaScript interpreter in Java
- <http://htmltidy.sourceforge.net>
  - HTML checking
- <http://fitnesse.org>
  - Wiki + FIT tests
- <http://cruisecontrol.sourceforge.net>
  - Automatic build/test cycles

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