JDemo
Lightweight Exploratory Developer Testing

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• Summary and Advice
Rich client application with “complex” user interface.
Motivation

hard to test (automatically):

- aesthetics
- usability
Motivation

⇒ manual (exploratory) testing
seeing your creation in action

motivator
Motivation

problem:

to see a specific component in action
  ● start application
  ● prepare needed scenario
known solutions:

- “interactive” unit tests → hack, not permanent, brittle
- write main methods → lots of boiler plate code, unorganized
Questions:

What would a JUnit-like framework for exploratory testing look like?

What would using such a framework be like?
JUnit vs. JDemo

JUnit  JDemo

testCase  DemoCase
test  demo  ...

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JDemo - Lightweight Exploratory Developer Testing
## JUnit vs. JDemo

<table>
<thead>
<tr>
<th>JUnit</th>
<th>JDemo</th>
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<tbody>
<tr>
<td>arrange</td>
<td>arrange</td>
</tr>
<tr>
<td>show</td>
<td></td>
</tr>
<tr>
<td>act</td>
<td>explore</td>
</tr>
<tr>
<td>assert</td>
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Let’s try it!

The Test/Code Cycle in XP
William C. Wake
http://www.xp123.com/xplor/xp0001/index.shtml
Experience

writing demos

- increases flow
- fosters decoupling and reusability
- creates executable documentation
- gives feedback on usability
Case Study

27 demos
Case Study

startup/arrangement times:
- application: 45s
- demo: 4s
Case Study

61 demo-starts, 1 application start

62 application starts (hypothetical)
Demos as Smoketests

problem:

- demos are executed in “chunks”
- unused code breaks

→ demos break over time
idea:

tests are executed regularly, as part of continuous integration

→ automatically convert demos to smoke tests and execute them as part of the projects test suite
More Features

- setup / teardown
- suites of demos
- @Demo annotation
- specification of timeout
- show source code
- run with different look and feels
Even More Features

- demos for AWT, SWT, files, sound ...
- automated creation of screen shots via Ant task
Open Questions

- collaboration with QA/technical writers
- demos for web applications
- web demo runner (applet?)
exploratory testing is a valuable part of the development cycle

tool support can help integrate exploratory testing more tightly into the development work

JDemo is a lightweight open source framework for Java that is aimed at providing that support
Some Small Advice

- **first** learn Test Driven Development
- **then** learn to test-drive user interfaces
- **only then** take a look at JDemo
Thanks!

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www.jdemo.de