JDemo
Lightweight Exploratory Developer Testing

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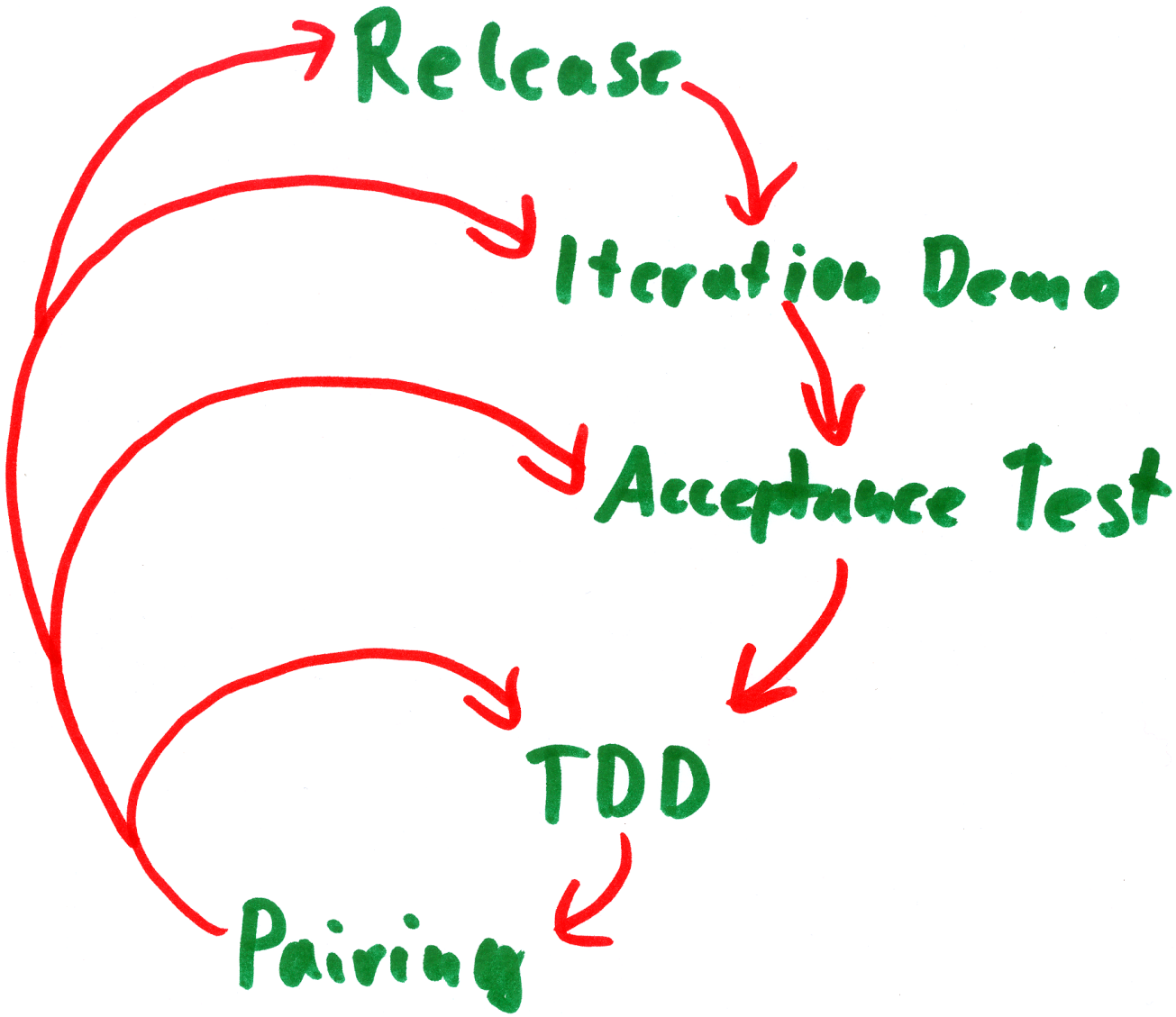
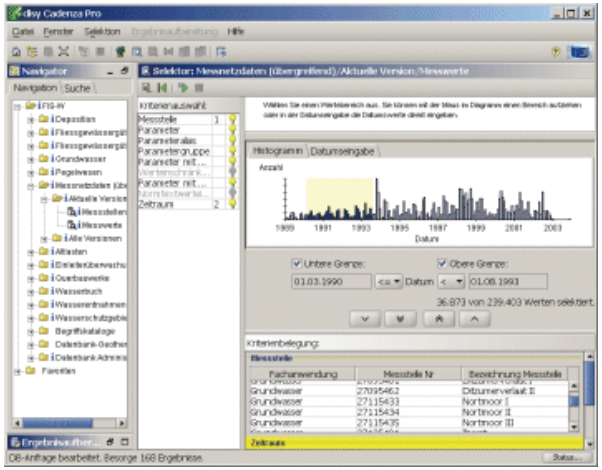
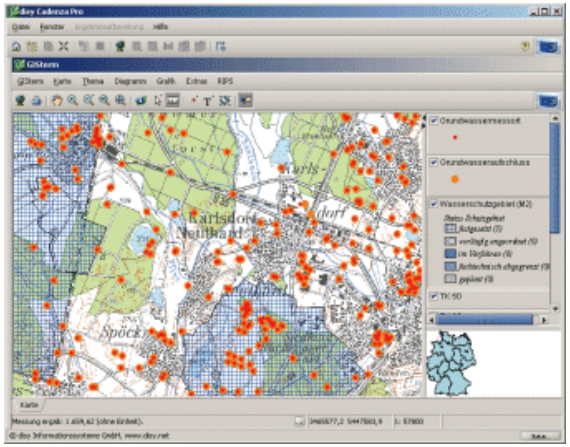

Release
Iteration Demo
Acceptance Test
TDD
Pairing

- Motivation
- Introduction to JDemo
- Demonstration
- Experiences
- Demos as Tests
- More Features
- Summary and Advice

Motivation





Rich client application with “complex” user interface.

Motivation

hard to test (automatically):

- aesthetics
- usability

Motivation

$\Rightarrow$ manual (exploratory) testing

Motivation

seeing your creation in action

motivator

Motivation

problem:

to see a specific component in action

- start application
- prepare needed scenario

Motivation

known solutions:

- "interactive" unit tests $\longrightarrow$ hack, not permanent, brittle
- write main methods $\longrightarrow$ lots of boiler plate code, unorganized

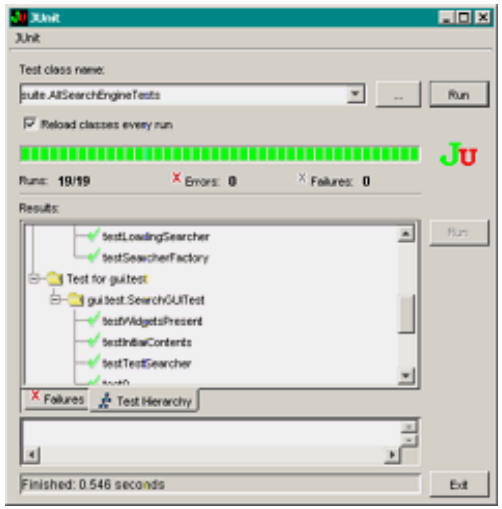
Questions:

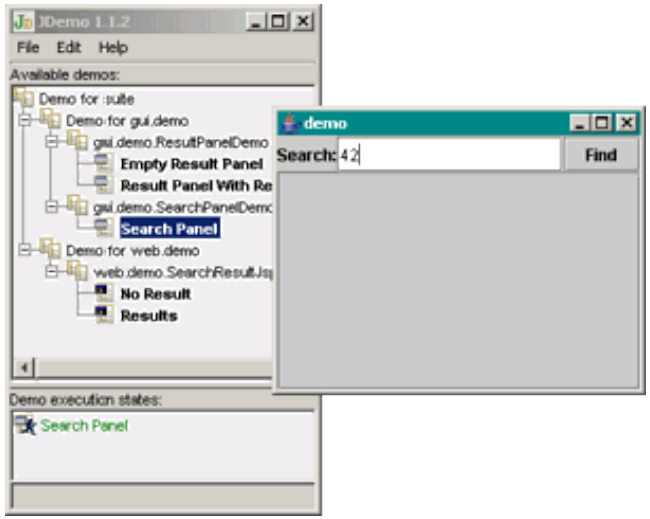
What would a JUnit-like framework for exploratory testing look like?

What would using such a framework be like?

JUnit vs. JDemo

JUnit	JDemo
TestCase	. . . DemoCase
test . . .	demo . . .



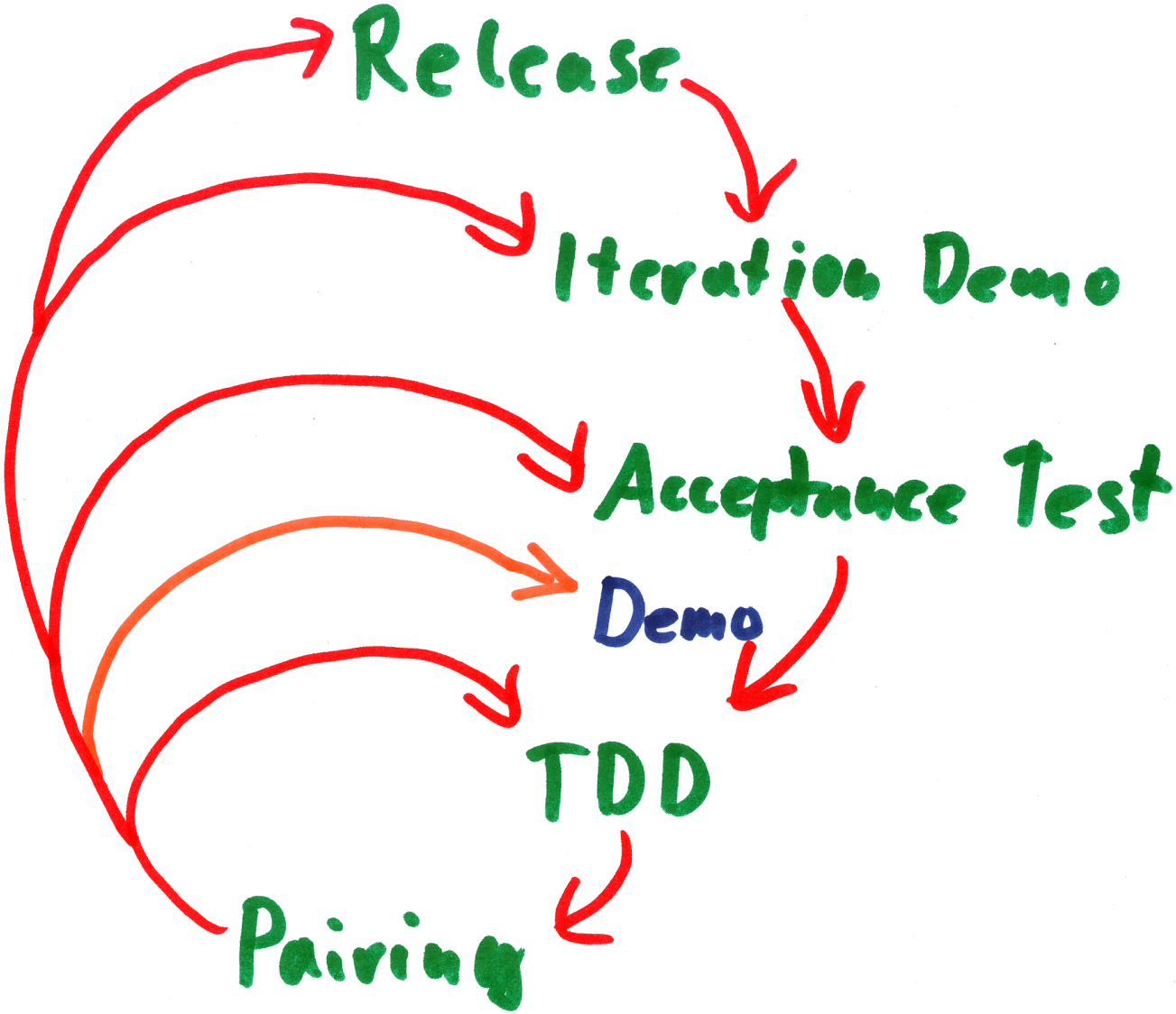


JUnit vs. JDemo

JUnit	JDemo
arrange	arrange
	show
act	*explore*
assert	

Let's try it!

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

writing demos

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

Case Study

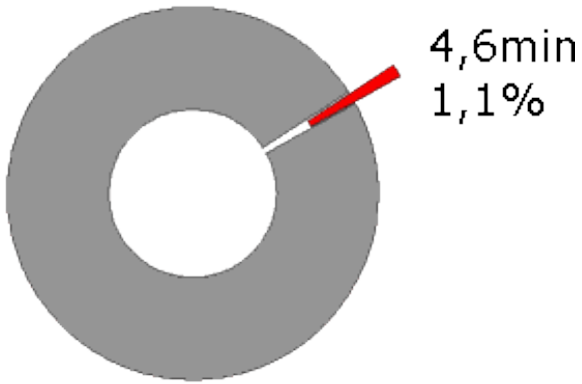
27 demos

Case Study

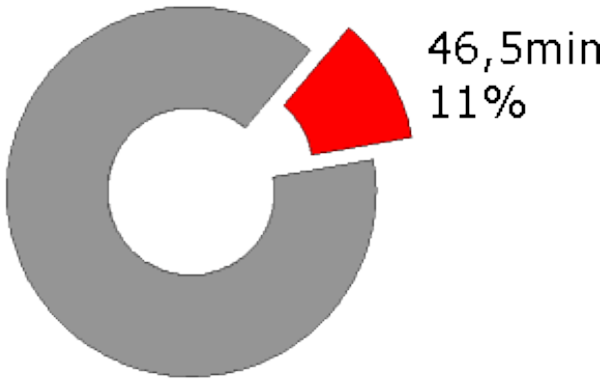
startup/arrangement times:

- 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

Demos as Smoketests

idea:

tests are executed regularly, as part of continuous integration

$\longrightarrow$ 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?)

Summary

- 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