



Device Fitness Testing

TS-6263

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2009 JavaOne
Sun Microsystems Inc.



Agenda

- Device Fitness Test – definition
- Java™ ME Ecosystem
- DeFragmentation
- JATAF – introduction
- Developing device fitness tests
- Live Demo
- Q&A

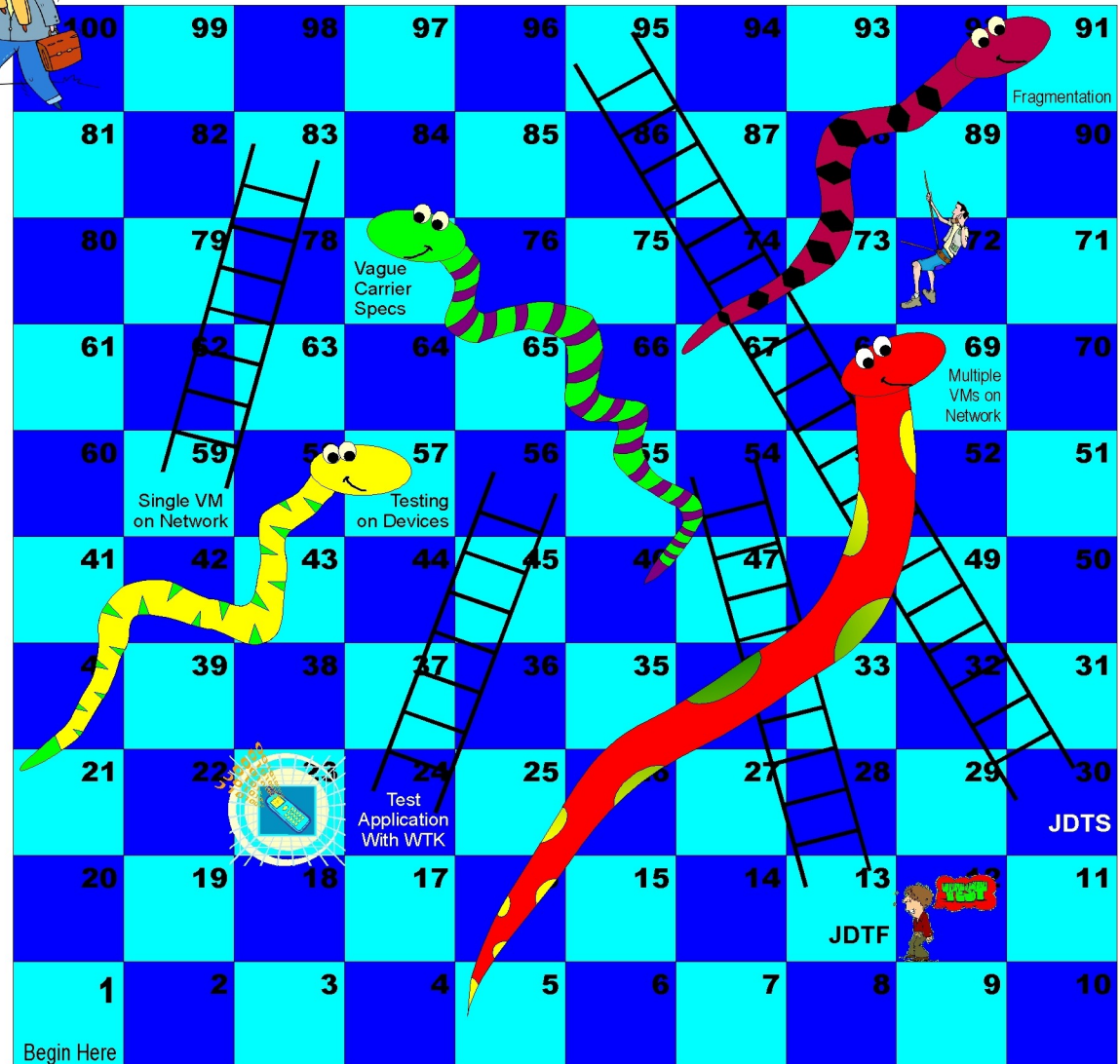
Device Fitness Test - definition

- A test that verifies quality measures such as performance and scalability on a device or class of devices for a particular application
- Fitness is defined as the ability of a device to properly execute an application

Java ME

- Developer
- Carrier
- OEM
- Standard organizations
- Consumers
- Tools
- . . .

Ecosystem



DeFragmentation

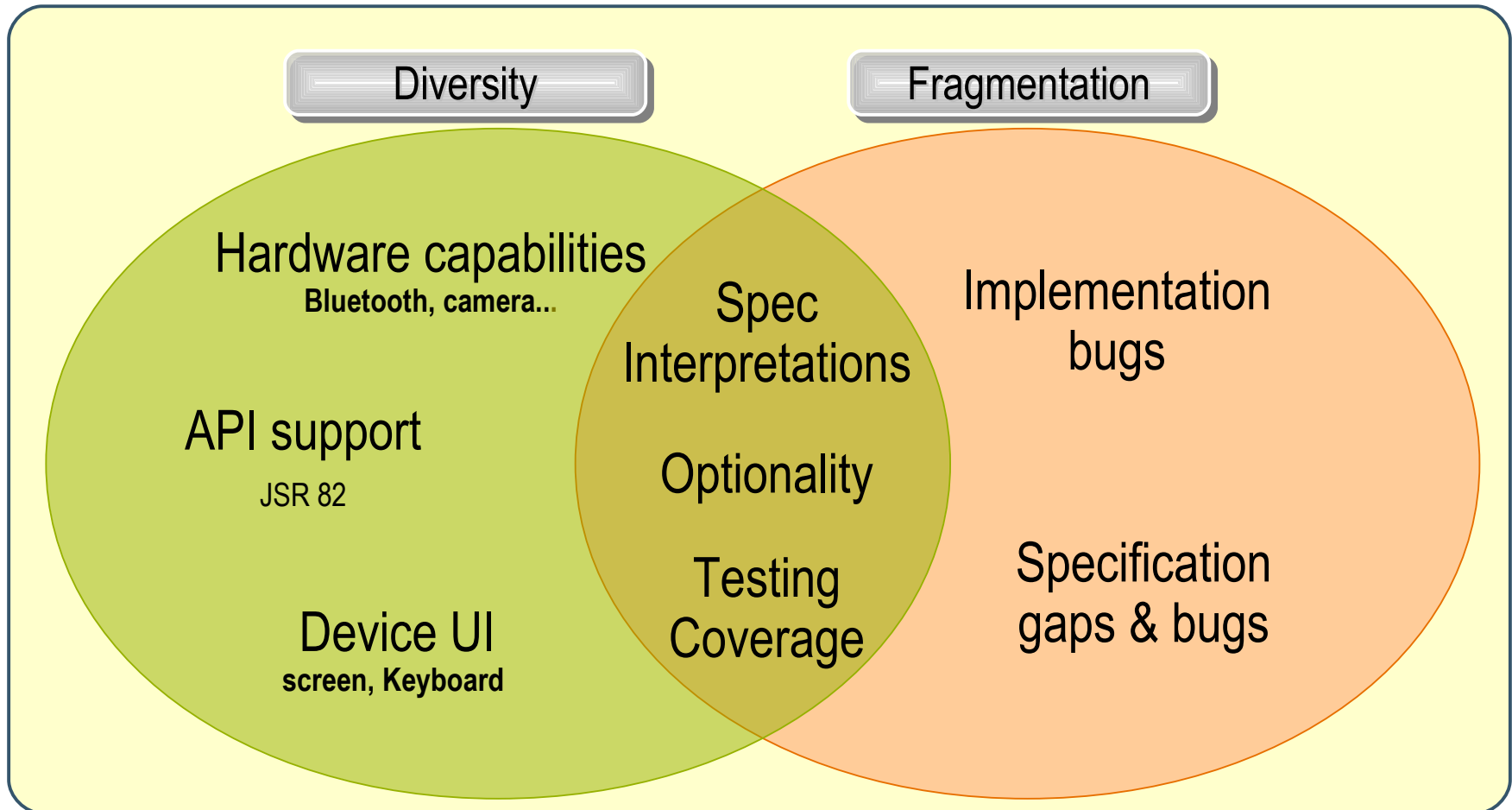


Java ME Fragmentation

- Definition:
 - > variances in Java ME stack implementations across different devices that support the same API
- Impact:
 - > Lowers portability of Java ME apps across devices
 - > Focuses developers on porting instead of on application quality and attractiveness
 - > Increases development time



Diversity vs. Fragmentation

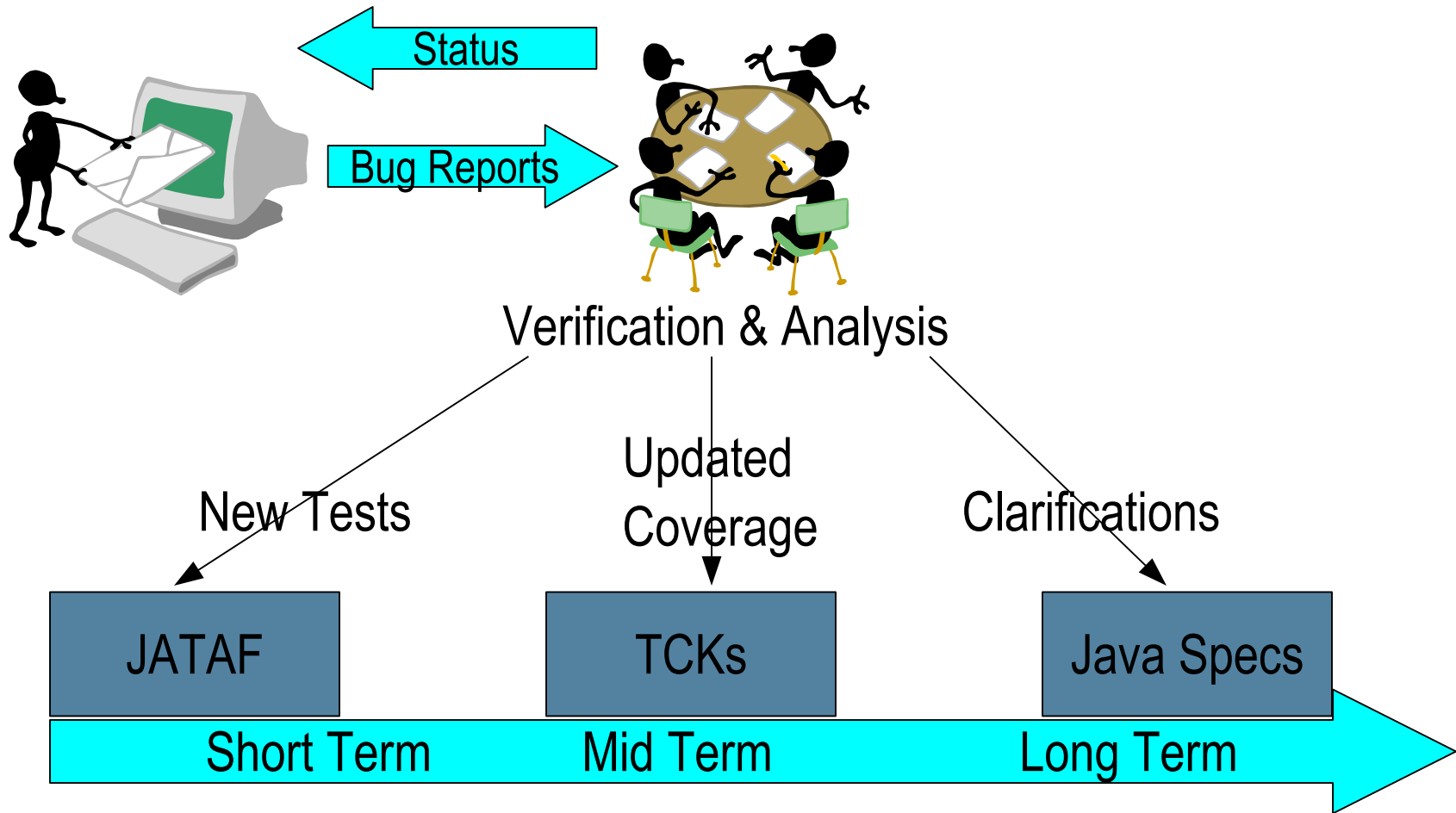


JATAF

Java Application Terminal Alignment Framework

- A collaborative OSS project committed to making Java ME a truly ubiquitous platform for application deployment for mobile devices
- JATAF will deliver test cases which address fragmentation issues
- Test cases which become JATAF-approved will be written in JDTF - Java Device Test Framework
 - Device Fitness Test that is of interest to the community may be a good candidate
- Community: <https://jataf.dev.java.net>

Bug's Life



<https://jataf.dev.java.net>

Developing a Device Fitness Test

- Take JDTF, add NetBeans Plug-in
- Analyze your application requirements
- Create a test
- Distribute

Java Device Test Framework

- JDTF is part of Sun's contribution to JATAF
- An active open-source project, offers free access to the JDTS framework
- With JDTF you can create JDTS-compatible test packs
- Components:
 - > JDTS 2.4 Framework – Test Execution FW
 - > Developer Kit
 - > Sample tests
 - > Readiness Test Packs
 - > NetBeans plug-in

With Java Device Test Framework you can:

- Generate new “Skeleton” test pack projects and new stub test classes
- Code tests using NetBeans™ IDE
- Run the tests on a Java ME device
- Debug the tests on JPDA (Java™ Platform Debugger Architecture) enabled emulator or device
- Share the test pack (test pack is a zip file)

Developing a Device Fitness Test

- Download JDTF from <https://jdtf.dev.java.net>
 - > Familiar yourself with this testing environment.
- Analyze your application
 - > Failure points
 - > Points of functional ambiguity. . .
 - > Required performance threshold
- Write tests (in the JDTF test format) that detect these ambiguities
- Remember: JDTF tests target devices
 - > Simulate the behaviour of an application

Live Demo

- JDTF test pack projects, running/debugging JDTF Tests
 - > Runtime (with Automated and Interactive tests)
 - > Benchmark
 - > OTA
- Create skeleton test pack project
- Add test class
- Add test case
- Run/Debug the test

Take Away



- Device Fitness Testing: the way to fight fragmentation
- JATAF: the open community repository of Device Fitness Tests (see session PAN-7083 on JATAF)
- JDTF: the de facto open source testing framework for Device Fitness Testing
- JDTF allows you to:
 - > Create TestCases in a friendly IDE (NetBeans)
 - > Run/Verify Fitness Tests in NetBeans
 - > Create standardized TestPacks, usable for JATAF and JDTS

To learn more

- JDTF: <https://jdtf.dev.java.net>
- JATAF: <https://jataf.dev.java.net>
- POD 444 in the Sun Pavilion
- JDTF Forum:
<http://forums.java.net/jive/forum.jspa?forumID=145>

Q&A





Thank you

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For more information:
<https://jdtf.dev.java.net/>



For the JAVA™ ME developer

Session	When	Where	Code
Java Verified – Getting Quality Apps To Market...Fast!”. Jam’n with Java Verified™	Wed. Jun3, 12:00	Pavilion Floor	
A Closer Look at the Java™ ME SDK 3.0 [Formerly WTK]	Thu. Jun4, 9:30	Esplanade 303	TS-4529
JATAF Panel: what is it, how to use it. JATAF – A community striving for a unified Java ME platform.	Thu. Jun4, 10:50	North Hall 124	PAN-7083
Device Fitness Testing. Develop tests a device needs to pass if it supports the content in question, using JDTF.	Thu. Jun4, 1:30	Esplanade 301	TS-6263
Application Testing Automation	Fri. Jun5, 1:30	Esplanade 303	TS-7866