Welcome to NetBeans Platform Training

Geertjan Wielenga
geertjan.wielenga@oracle.com
blogs.oracle.com/geertjan
NetBeans Team
Welcome to NetBeans Platform Training
(“How To Create Pluggable Software”)
Agenda

• Day 1: Infrastructure
  > Hello NetBeans Platform
  > Modularity
  > Loose Coupling
• Day 2: GUI Components
  > Nodes
  > Explorer Views
  > Visual Library
• Day 3: Miscellaneous
  > Actions
  > Customizations
  > ...
Hello NetBeans Platform
NetBeans: What Is It?

- NetBeans IDE
- NetBeans Platform
- NetBeans Community
NetBeans Platform

• Overview

> Framework for developing large Java desktop applications.

> Provides

> Runtime container.

> APIs solving typical desktop problems.
NetBeans Platform
Why Use a Rich-Client Platform?

- Pre-defined generic features.
- Code generators for custom features.
- Less boilerplate code, less cycles.
- Consistency of user interface.
- Modularity & loose coupling.
NetBeans Platform Features

- Pluggable:
  - menubar
  - toolbar
  - window system/docking framework
  - Options settings
  - JavaHelp
  - custom features

- Update Mechanism

- Modularity

- Generators for launchers, ZIP distributions, installers, and JNLP.
Examples

http://platform.netbeans.org/screenshots.html

• Boeing
• Northrop Grumman
• South African Defence Force
• Swedish Defence Force
• Banks
• Bioinformatics
• Mining
• ...

NetBeans
Examples
http://agrosense.nl
### VisualVM

**Threads visualization**

- **Live threads:** 23
- **Daemon threads:** 19

**Timeline**

<table>
<thead>
<tr>
<th>Threads</th>
<th>Status</th>
<th>0:30</th>
<th>[m:s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>pool-3-thread-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pool-2-thread-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attach Listener</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- Running
- Sleeping
- Wait
- Monitor
Oracle JDeveloper 11g

Learn how to:
- Model Applications
- Design Databases
- Build Applications
- Integrate Applications

What's New | Release Notes | Samples | Discussion Forum | Books and Training | Online Resources

Copyright © 1997, 2011 Oracle and/or its affiliates. All rights reserved.
Common Basis

Runtime container handles lifecycle.

APIs provide extension points & utilities.
Let's take an existing application... and move it to the NetBeans Platform... and see the steps and the advantages.
Migrating to NetBeans Platform

- Keep all algorithms, processors, etc.
- Port everything to modules.
- Wrap JPanels in TopComponents.
- Wrap business objects in Nodes.
- Move to BeanTreeView from Jtree, etc.
- Integrate NetBeans RCP features.
- Leverage/reuse as much as you can.
- Focus on domain, not infrastructure.
- Porting is a process.
Technical Concepts

- Module
- Lookup for Loose Coupling
- Central Registry
- TopComponent
- Cookies/Capabilities
- Node
- Explorer Views
- Actions: Global/Context Sensitive
Summary

- NetBeans Platform:
  - Framework simplifying the development of modular, scalable, Swing applications.
  - Free & open source.
  - Stable & very extensive.
  - Used internationally in many companies.
Course

- **Basic Course**
  - Cover all the basic NetBeans APIs.
  - A lot of hands on work & coding.
  - One lecture/one workshop pattern.
  - Very practically oriented, free book.

- **Porting Workshop**
  - Brief overview of NetBeans APIs.
  - Step by step guided migration of your app.
  - Simple prototype ready for demo.

- 3 or 5 days, X number of engineers

Resources

- [http://platform.netbeans.org/tutorials/nbm-porting-basic.html](http://platform.netbeans.org/tutorials/nbm-porting-basic.html)
- dev@platform.netbeans.org
- [http://platform.netbeans.org](http://platform.netbeans.org)