Rich Client Development on the NetBeans Platform
Agenda

1. What's a rich-client platform?
2. What's the NetBeans Platform?
3. What's under the hood?
4. What's new and coming up?
5. What resources are there?
What's a rich-client platform?

- Framework for the development of desktop applications
- Consists of:
  - Lifecycle manager, comparable to an application server
  - APIs for typical desktop features, comparable to web frameworks
- Generic desktop application
What's the NetBeans Platform?

- Rich-client platform for Swing applications
- 100% Java
- Consists of runtime container, with modules that implement features
- Part of NetBeans IDE
- NetBeans IDE = NetBeans Platform app
What's the NetBeans Platform?
Why Use a Rich-Client Platform?

- Many features already implemented
- Templates & wizards for more features
- Modularity & loose coupling
- Consistency of user interface
- Less boilerplate code
- Shortening of development cycle
Features of the NetBeans Platform

- Update manager
- Window system
- Integrated JavaHelp system
- Actions framework
  - Global actions (cut, copy, paste, delete)
- Frameworks for dialogs and wizards
- And much much more...
What Are the Alternatives?

- **Swing Application Framework (JSR-296)**
  - Good for CRUD/genereted apps
  - No longer being developed
- **Spring RCP**
  - Reuse existing Spring knowledge
  - Sporadic development, future unclear
- **Eclipse RCP**
  - Compatible features to NetBeans Platform
  - Uses SWT instead of Swing
When to Use NetBeans / Eclipse?

- NetBeans Platform for Swing apps
- Eclipse RCP for SWT apps
What's the Development Process?

- Create new “NetBeans Platform” project
- NetBeans IDE creates & configures app
- Include some of many libraries
- Implement functionality in modules
- Set dependencies between modules
- Build and run
- Test, debug, and profile
- Brand and distribute
Gradient Demo

Opacity Demo

Freeform Demo

Draw rectangular selection. Press escape to clear selection
Ask the Developers!

- Sepix CRM (Aljoscha Rittner)
- Sketsa (Tonny Kohar)
- ChipInspector (Tanja Drueke, Toni Epple)
- BlueMarine (Fabrizio Giudici)
What's Under the Hood?

API Modules/Plugins

Runtime Container

App Module 1
App Module 2
App Module 3
App Module 4
App Module 5
App Module 6
Main Pieces

- Runtime Container
- Module
- System FileSystem
- Actions
- TopComponent
Workshop: Let's Port!

- 1. Know the application you have.
- 2. Create a skeleton NB Platform app.
- 3. Port everything to one module.
- 4. Run the prototype application.
- 5. Modulerize further.
Let's do it...
Workshop: What We Did

• 1. Know the application you have.
• 2. Create a skeleton NB Platform app.
• 3. Port everything to one module.
• 4. Run the prototype application.
• 5. Modulerize further.
What's New in 6.9?

- NetBeans Platform as a product
- OSGi support
- Enhanced Maven support
- REST client support
- Branding editor
- Installer generator
- New book
Conclusion

- NetBeans Platform is:
  - A framework simplifying development of modular extensible Swing applications
  - Free & open source
  - Stable and full featured (10+ years old)
  - Broadly used (defence, banking, oil...)
Books

Rich Client Programming
PLUGGING INTO THE NETBEANS® PLATFORM
Tim Boudreau • Jaroslav Tulach • Geertjan Wielenga

NetBeans Platform 6
Einführung in NetBeans Platform 6
Entwurf, Entwicklung, Verteilung
Eclipse-Applikationen migrieren

NetBeans RCP
Das Entwicklerheft
Jürgen Petri
Links and Resources

- http://platform.netbeans.org
- Tutorials
- Developer FAQ
- Tips & Tricks
- Mailing lists and discussions
Training

- Two/three/five day training.
- Teach you the main NetBeans APIs.
- Practical steps in porting your own app.
- Many experienced trainers.
- Free for universities & schools.
- Write to:
  - geertjan.wielenga@oracle.com
Questions & Answers