



the
POWER
of
JAVA™

C I T E R U S



Testdriving the Rich Client Platforms

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Goal of This Talk

Get an overview of what support RCPs can offer when developing rich client applications using Java™ technology

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans™ Platform
- Eclipse RCP
- Spring RCP

Other Options

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans™ Platform
- Eclipse RCP
- Spring RCP

Other Options

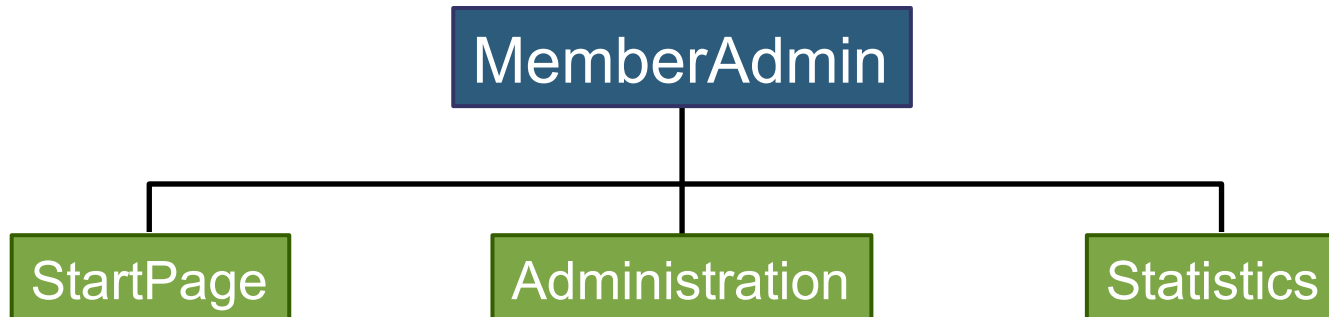
Introduction

Why you should stay for this presentation—Or not!

- Rich Client Platforms (RCPs)
- Technical focus
- Code and demos
- Overview—Not details
- Unbiased, but subjective

Example Application

- Simple administrative application
- Independent modules
- Java Web Start deployment
- GroupLayout/Matisse
- SwingX—Components



DEMO

Example Application

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans Platform
- Eclipse RCP
- Spring RCP

Other Options

Why Use an RCP?

- Speed up development
- Focus on business logic
- Utilize existing modules
- Proven application framework
- Common ground for applications

Agenda

Introduction

Why Use an RCP?

The RCPs

- **NetBeans Platform**
- Eclipse RCP
- Spring RCP

Other Options

NetBeans Platform

Short background information

- Core runtime
- Modules
- IDE built on platform
- Auto-update support for modules
- 100% Java technology, open source

NetBeans Platform

How to build your own application

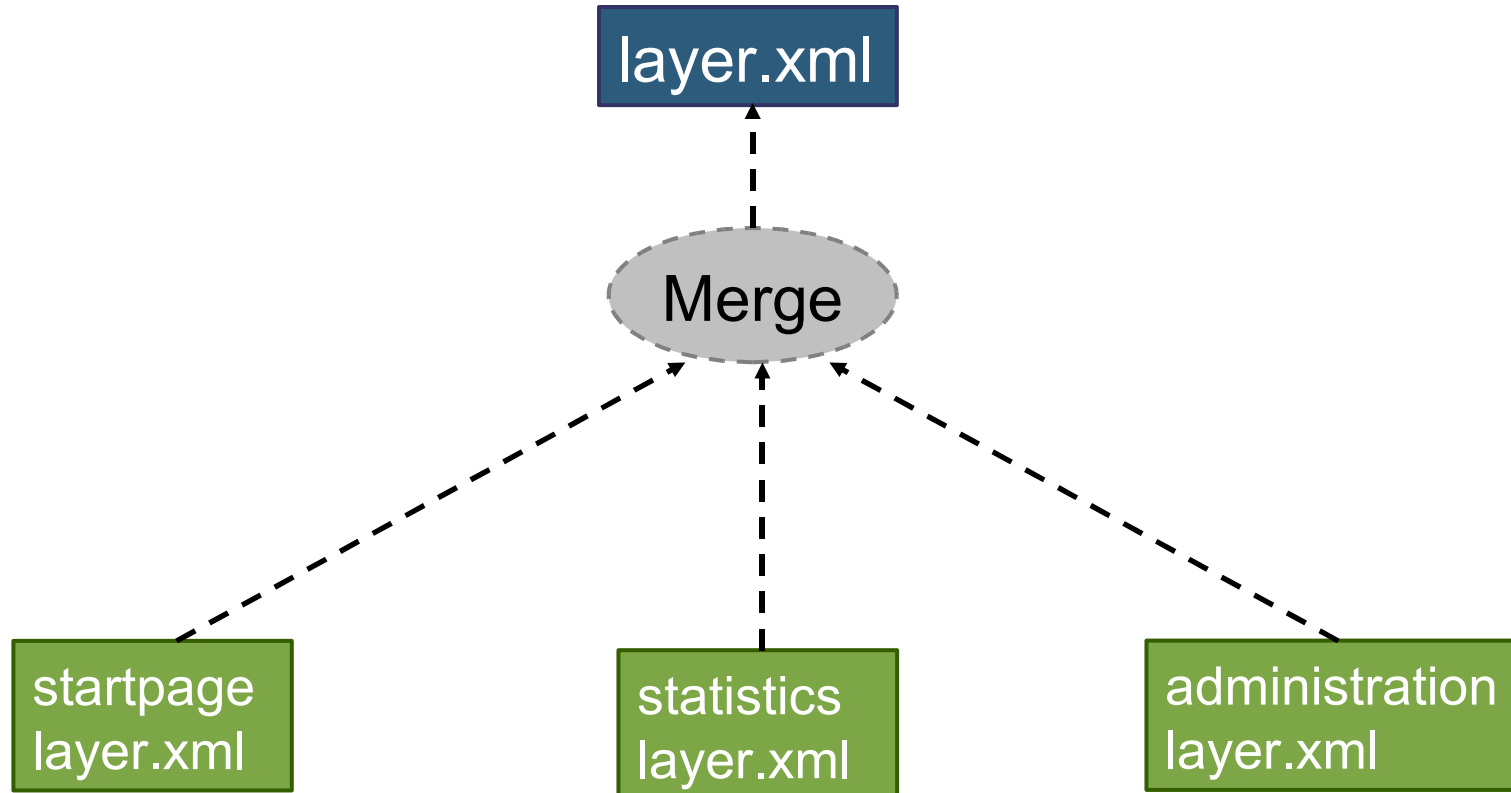
- A terrifying experience in 3.6
- Not easy in 4.1
- Still not easy—But greatly improved

NetBeans Platform

How to build your own application (Cont.)

- Module Suite project
- Library Wrapper project
- Module projects
 - Window System API
 - Utilities API

NetBeans Platform



<http://platform.netbeans.org/tutorials/nbm-idioms.html>

Startpage layer.xml

```
1. <folder name="Menu">
    ...
2.     <attr name="File/Modules" boolvalue="true"/>
3.     <folder name="Modules"/>
4.         <attr name="Modules/Help" boolvalue="true"/>
5.         <folder name="Views_hidden"/>
    ...
6. </folder>
```

Statistics layer.xml

```
<filesystem>
  <folder name="Menu">
    <folder name="Modules">
      <attr name="se-citerus-mib-javaone2006-
netbeans-startpage-StartPageAction.shadow/se-citerus-mib-
javaone2006-netbeans-statistics-StatisticsAction.shadow"
boolvalue="true"/>
      <file name="se-citerus-mib-javaone2006-
netbeans-statistics-StatisticsAction.shadow">
        <attr name="originalFile"
stringValue="Actions/Edit/se-citerus-mib-javaone2006-
netbeans-statistics-StatisticsAction.instance"/>
      </file>
    </folder>
  </folder>
</filesystem>
```


DEMO

NetBeans Platform

NetBeans Platform

How to build your own application—Summary

Positive

- 100% Java technology
- IDE with wizards and templates
- Existing modules

Negative

- Documentation
- GUI design
- Complex

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans Platform
- **Eclipse RCP**
- Spring RCP

Other Options

Eclipse RCP

Short background information

- Core runtime
- Two plug-ins needed for RCP
- IDE is a collection of plug-ins
- Auto-update support for plug-ins
- SWT (Standard Widget Toolkit)

Eclipse RCP

How to build your own application

- Only for the brave in 2.1
- PDE—Plug-in Development Environment
- Lots of templates
- Preferably use SWT
- Possible to use Swing

Eclipse RCP

How to build your own application (Cont.)

- Plug-in Development/Plug-in Project
- Product configuration
- Branding

plugin.xml

```
<plugin>
  <extension
    id="application"
    point="org.eclipse.core.runtime.applications">
    <application>
      <run
class="se.citerus.mib.javaone2006.eclipse.memberadministra
tion.Application">
        </run>
      </application>
    </extension>
    ...
</plugin>
```

DEMO

Eclipse RCP

Eclipse RCP

How to build your own application—Summary

Positive

- SWT—Native experience
- IDE with wizards and templates
- Existing plug-ins

Negative

- SWT—Native libraries
- Swing only in some configurations
- Java Web Start software and Autoupdate compatibility

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans Platform
- Eclipse RCP
- **Spring RCP**

Other Options

Spring RCP

Short background information

- Uses Spring Framework
- Integrate with existing RC-related projects
- Data binding and validation framework
- Command framework
- Swing support classes
- Version 0.1.0 just released

Spring RCP

How to build your own application

- No documentation
- Trial and error
- Surprisingly feature-rich
- Spring beans XML files

richclient-startup-context.xml

```
<beans>
  <bean id="splashScreen"
class="org.springframework.richclient.application.SplashScreen"
  singleton="false">
    <property name="imageResourcePath">
      <value>/images/splash.jpg</value>
    </property>
  </bean>
</beans>
```

DEMO

Spring RCP

Spring RCP

How to build your own application—Summary

- Only for the brave
- Different focus
- Use the source
- <http://pa.rsons.org/node/6>

Agenda

Introduction

Why Use an RCP?

The RCPs

- NetBeans Platform
- Eclipse RCP
- Spring RCP

Other Options

Other Options

- No RCP
- Small RCP
 - Several attempts exist
 - Build it yourself
 - Flexibility at the cost of stability (?)
- Use frameworks
 - <http://swinglabs.org>
 - <http://www.jgoodies.com>
 - <http://jcp.org/en/jsr/detail?id=296>

Other Options

My personal experiences

Before 2002

- Do it yourself—Utilize frameworks for minor tasks

2002–2005

- Homebuilt platform
 - Design requirements
 - Integrated data binding
 - Communication system
 - Small footprint
 - Existing RCPs focused on editors (in 2004)
 - Swing and Java Web Start good enough

2006 →

- Evolve homebuilt—Or use RCPs?

Summary

The factors that decide what solution is right for you

- Type of application
- Design requirements
- Developer expertise
- Personal preference

Summary

The motivation for using an RCP

Speed Up Development

- Focus on business logic
- IDEs with wizards and templates
- Use existing plug-ins/modules
- Proven application framework
- Common ground for applications

Summary

The conclusion

Build on What You Know

For More Information

Home of the RCPs

- <http://www.netbeans.org/products/platform>
- <http://www.springframework.org/spring-rcp>
- http://wiki.eclipse.org/index.php/Rich_Client_Platform

The work behind this presentation

- <http://www.citerus.se/javaone2006/rcps>

Q&A



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