Experiences from porting a commercial RCP application to Eclipse 4.x

Anders Forsell, Fredrik Attebrant – FindOut Technologies
• Products
  • Paipe
  • PrioVis

• Services
  • Eclipse RCP

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PrioVis – A Visual Project Planning Tool
What is e4?

• e4 is the next generation of the platform
  • What that means will be based on who participates
  • Open to all possibilities
  • But it needs to address the issues

• Many potential areas for innovation
  • Some good ideas already
  • More as defined by the community
RCP 4.x Architecture

RCP Pure 4.x parts

- RCP Legacy parts:
  - GEF editor
  - EMF editor

Compatibility Layer, provides 3.x APIs

Application Model, CSS Styling, DI, Application Services

Eclipse 4.x Application Platform

- Equinox
- EMF Core
- SWT, JFace

Java Virtual Machine
Migration paths

- **3.x RCP**
  - **Recompile**
  - Migrate 3.x API to 4.x

- **Compatibility layer 4.x RCP**
  - 3rd party “blockers”:
    - EMF Editor
    - GEF
    - org.eclipse.ui.workbench

- **Pure 4.x RCP**
  - Application Model
  - Dependency Injection
Migration story

4.x Application Services:

- ESelectionService
- ECommandService
- EPartService

Same stuff:
- SWT
- JFace
- OSGi

Rewrite code

org.eclipse.ui.workbench

IViewPart

IEditorPart

...
Mixed mode

- **Recompile**
- **3.x RCP**
  - *Migrate 3.x API to 4.x*
- **Compatibility layer 4.x RCP**
  - Add Application.e4xmi
  - Migrate menus, toolbars
  - Add Pure Parts
  - Add Dependency Injection
- **Pure 4.x RCP**

Not officially supported in 4.2
Mixed mode
Summary

Pros:

• Modernized architecture, True RCP
• Testability, Styling

Cons:

• Lack of support for mixed mode
• Many key components still rely on 3.x
• Bug 351363 “Migration of standard views”
References

• Vogella tutorials
  http://www.vogella.de/eclipse.html - Eclipse 4 Development

• Tom Schindl’s forward compatibility layer
  http://tomsondev.bestsolution.at/2010/06/08/e4-a-forward-compat-layer

• http://wiki.eclipse.org/Eclipse4/RCP

• e4-forum

• e4-dev mailing list

• bugs

• slideshare for our slides
Other talks at EclipseCon 2012

Eclipse 4 API: The Path of Least Resistance talk:
• Today at 14:15-15:00 (next talk) in Grand Ballroom BC

Eclipse 4's Modeled UI: Providing you with the Tools to Chart your own Graph
• Today at 16:15 - 17:00 in Regency Ballroom B

Eclipse 4 Meets CDO: Now You See It, and So Do They!
• Tomorrow at 11:45 - 12:20 in Grand Ballroom BC

Eclipse 4.2: Tips on API best practices for a 3.x plugin running on both platforms
• Tomorrow at 13:30 - 14:15 in Grand Ballroom BC
Q&A

Questions - contact us:

- fredrik.attebrant<at>find-out.se
  - Twitter: @ffxxoo
- anders.forsell<at>find-out.se
  - Twitter: @aforsell

… or let’s meet in the bar…

… or the Eclipse4 BOF at 8:30 pm
Time’s up…

Thank you!
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