creation review:
eclipse rich ajax platform (rap)

June, 21 2006
overview

- the most commonly applied technology for developing user interfaces in the past decade, templating for (simple) HTML, is getting replaced by two new major trends:
  - rich client applications (with concepts for keeping the client up to date)
  - rich internet application, with a strong focus on ajax technologies
- eclipse plays a significant role in the rich client world, providing advanced concepts and technologies that can be easily built upon - and „enforcing“ solid architecture patterns in application development.
- the ajax world to date is very colorful, with many very promising technologies and projects. Most of the effort seems to be focused on providing client-side widget toolkits and a communication layer to the server.

rap enables developers to employ the eclipse concepts for developing ajax applications, leveraging the advanced eclipse programming model
build a platform that enables AJAX development based on eclipse concepts:

- **plugin concept** – based on osgi, implemented by Eclipse Equinox
- **workbench concept** – a powerful UI metaphor that facilitates providing a consistent user experience
- **a widget toolkit** that encapsulates all ajax technologies behind Java objects and rendering kits
- **extensibility for the widget toolkit**: allow creation of custom widgets with javascript and ajax
- **explore the possibility to use the swt api for the widget toolkit**
participants

- Initial committers (Innoopract)
  - Frank Appel
  - Rüdiger Herrmann
  - Jochen Krause
  - Jordi Böhme-Lopez

- interested parties
  - Stephan Wilczek – iMedic
  - Gunnar Wagenknecht
  - Rahul Mehrotra

- make it easy and worthwhile to contribute extensions, ideas and implementation
  - Initial developer community will include interested parties and individuals who have expressed interest in extending
community

- approx. 10,000 visitors on the rap demo application
- the rap proposal has won a European Innovation Award
- many positive comments on blogs, news channels
rap architecture overview

- **client side**
  - web workbench
  - W4T, JFace
  - runtime
  - OSGi

- **server side**

  ➔ selection service, action sets, viewparts
  ➔ widget toolkit, mvc, handling of distributed environment
  ➔ extension points
  ➔ modularity, dependency management (bundles / plugins)

*based on standard jee technology*
code contribution

- large portions of W4Toolkit, a widget toolkit for web development by Innoopract will be contributed to the rap project
- the code contribution provides:
  - a set of UI components
  - event-driven program control
  - a generic mechanism for updating arbitrary UI elements of a web UI based on AJAX
  - a Lifecycle handling comparable to the one used in Java Server Faces.
  - rendering kits for Internet Explorer, Firefox (NoScript, Script, AJAX).
plan

- 2006-06 v0.1: Java component library for UI development
- 2006-09 v0.2: Basic WebWorkbench implementation, exemplary web applications using OSGi inside selected open source servers
- 2007-02 v0.5: Provide all API for Release 1.0
- 2007-06 v1.0: Release 1.0