Eclipse RAP 1.2 Release Review

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eclipse rich ajax platform project (RAP)

mission statement: rap enables developers to build rich, AJAX-enabled web applications by using the eclipse development model, plug-ins and a java-only api

RAP implements a subset of SWT, JFace, Workbench APIs

- is built on top of Equinox, running in server environments
- provides the Eclipse extension point mechanism
- enables single sourcing of rich client and rich internet apps
- uses the Qooxdoo JavaScript library for client side rendering in the browser
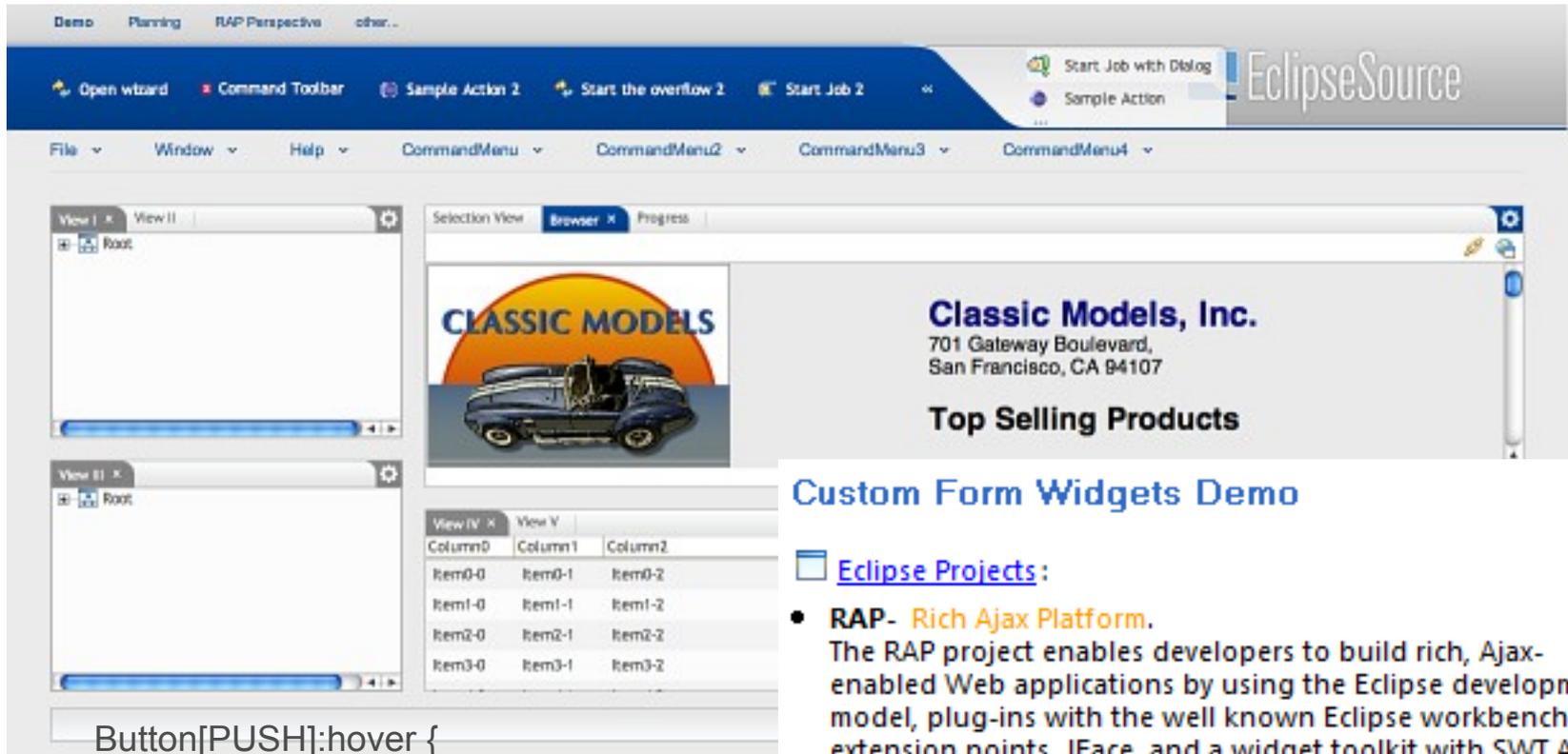
With the combination of RCP and RAP desktop (RCP) and web (RAP) applications can be built from a single code base (single sourcing)

features

- broad coverage of SWT 3.5 apis

- broad coverage of Jface 3.5 apis

    - includes JFace databinding

- good coverage of Workbench 3.4 apis

    - org.eclipse.ui.workbench

    - org.eclipse.ui.views

    - org.eclipse.ui.forms

- tools for launching and automated testing (jUnit)

RAP in action


```
Button[PUSH]:hover {
    font: bold 12px Helvetica;
    color: white;
    background-color: #1695d4;
    border: 2px solid #9dd0ea;
}
```

New and noteworthy features

- New for RAP 1.2 M7 (May 11, 2009)
- New for RAP 1.2 M6 (March 23, 2009)
- New for RAP 1.2 M5 (February 16, 2009)
- New for RAP 1.2 M4 (January 12, 2009)
- New for RAP 1.2 M3 (November 19, 2008)
- New for RAP 1.2 M2 (October 8, 2008)

non-code aspects

- the project has a active community of users and contributors
- there is extensive API documentation (several thousand javadocs)
- a huge set of resources available for RCP can be reused for RAP
- i18n is now implemented

api

- RAP provides a subset of the proven SWT, JFace and Workbench java apis and extension points

- more than 1000 published and documented interface methods from the above mentioned packages

api

- RAP provides a large subset of the Workbench extension points

org.eclipse.ui.activities
org.eclipse.ui.activitySupport
org.eclipse.ui.actionSetPartAssociations
org.eclipse.ui.actionSets
org.eclipse.ui.commands
org.eclipse.ui.commandImages
org.eclipse.ui.contexts
org.eclipse.ui.handlers
org.eclipse.ui.decorators
org.eclipse.ui.editorActions
org.eclipse.ui.editors
org.eclipse.ui.elementFactories
org.eclipse.ui.encodings
org.eclipse.ui.exportWizards
org.eclipse.ui.importWizards
org.eclipse.ui.keywords
org.eclipse.ui.menus
org.eclipse.ui.newWizards

org.eclipse.ui.perspectiveExtensions
org.eclipse.ui.perspectives
org.eclipse.ui.popupMenus
org.eclipse.ui.preferencePages
org.eclipse.ui.preferenceTransfer
org.eclipse.ui.presentationFactories
org.eclipse.ui.propertyPages
org.eclipse.ui.services
org.eclipse.ui.startup
org.eclipse.ui.statusHandlers
org.eclipse.ui.systemSummarySections
org.eclipse.ui.themes
org.eclipse.ui.viewActions
org.eclipse.ui.views
org.eclipse.ui.workingSets
org.eclipse.ui.browserSupport
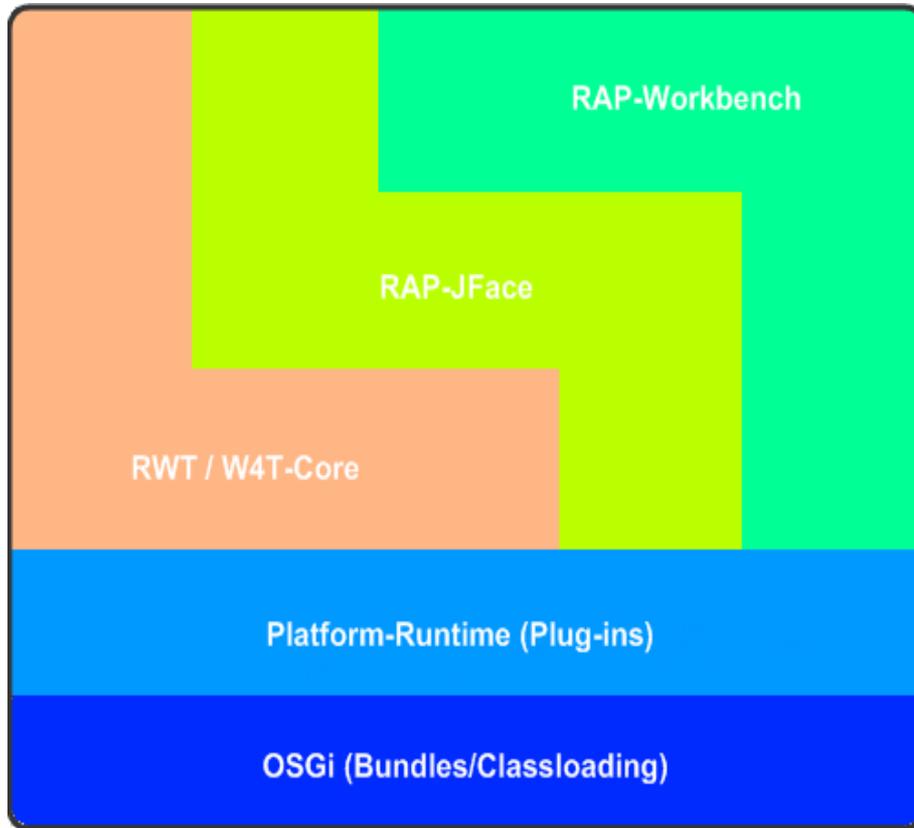org.eclipse.ui.internalTweaklets

api

- RAP specific extension points
  - adapterfactory
  - branding
  - entrypoint
  - phaselistener
  - Resources
  - settingstores
  - themeableWidgets
  - themes

architectural issues

- RAP enables the usage of the fundamental eclipse architecture for web applications

- RAP uses OSGi bundles and the extension point mechanism

- running on the server side RAP faces the challenge of enabling eclipse bundles to run in a multi-user environment

- RAP is a server centric approach to AJAX

  - scalability has been a key topic for the implementation

  - state information about every client is maintained on the server

  - processing of UI and business logic mainly occurs on the server

- applications can be deployed as standard JEE web applications (war) to standard application servers

architectural overview

Server Side (JEE Servlet Container)

Client Side (Browser)

tool usability

- RAP is a runtime technology and not installed into the Eclipse IDE
- however, PDE and JDT provide a well established and superb tooling infrastructure for RAP
- RAP offers tooling for running and debugging applications

tool usability (cont'd)

end-of-life

- does not apply

bugzilla

- as of Mai 28 2009 for RAP 1.2

Severity

Status	blocker	critical	major	normal	minor	trivial	enhancement	Total
NEW	.	2	2	47	1	2	16	70
ASSIGNED	.	2	.	25	1	.	10	38
REOPENED	1	1	.	1	.	.	.	3
RESOLVED	4	10	11	155	6	10	18	214
VERIFIED	.	1	1	6	.	.	4	12
CLOSED	.	.	1	.	.	.	.	1
Total	5	16	15	234	8	12	48	338

Bugzilla query: https://bugs.eclipse.org/..

standards

JEE

- RAP complies with the JEE servlet standards 2.3, 2.4 and 2.5
- RAP applications can be deployed as standard web archives (war)

OSGi

- RAP is built on top of the Eclipse Equinox OSGi reference implementation

Eclipse

- the Eclipse extension point mechanism is a defacto standard utilized by RAP

ui usability

- UI usability has been a main focus of the 1.2 release
    - engaged with a company specialized in usability for designing a new default look & feel
    - implemented new look & fell
    - expanded CSS capabilities for better stylability of widgets

schedule

M2 October 8 – Reduce gap between RCP and RAP
M3 November 19 – Reduce gap, new web centric features
M4 January 12 – Reduce gap, new web centric features
M5 February 16 – Reduce the gap, Consolidation
M6 March 23 – Support other Eclipse projects
M7 May 11 – New web centric features

communities

- **committers**
  - 8 committers from Innoopract (6 active)
  - 1 committer from Critical Systems
  - 2 committers from CAS Software GmbH (1 active)
  - 1 individual committer
  - -> committer diversity is improving
- **contributors**
  - active bugzilla users from several companies / individuals
  - Dozens of patches have been contributed
- **users / adopters**
  - as RAP is not a tool the distinction between users and adopters is difficult, everybody that uses rap is incorporating it in its products (apps)
  - Very active community of users / adopters: 10-50 newsgroup postings per day

communities cont'd

conferences:
- participation in several conferences
  - EclipseCon 2009, Eclipse Summit Europe 2008, Jax 2009, JFS 2008, various Eclipse DemoCamps

cross project:
- talking about integrating RAP with a couple of projects, e.g. Memory Analyzer, BIRT

articles:
- articles on RAP published in German "Eclipse Magazin"

communites / process

- open and transparent planning (using the wiki)
- development has been driven by the community to a large extent
- developer mailing list became more active, but there is still room for improvement

ip issues

see ip log at

http://www.eclipse.org/projects/ip_log.php?projectid=technology.rap

- **committers:**
    - Frank Appel
    - Istvan Ballok
    - Jordi Böhme
    - Rüdiger Herrmann
    - Jochen Krause
    - Benjamin Muskalla
    - Joel Oliviera
    - Stefan Röck
    - Ralf Sternberg
    - Elias Volanakis
    - Ivan Furnadjiev

- **third party software:**
    - qooxdoo 0.7 (rev 9276)
        - ipzilla: #1192
        - location: org.eclipse.rap.tools
        - license: EPL/LGPL
        - package subset

planning

- next release RAP 1.5 planned for June 2010
    - potential topics
        - SWT Browser Edition for client side rendering
        - ...
    - exact 1.5 plan has not yet been discussed

Thanks

eclipse

further information:

http://eclipse.org/rap - rap open source project
http://wiki.eclipse.org/RAP - rap wiki
http://qooxdoo.org - javascript widget toolkit
http://rap.eclipse.org/rap - demo apps