Enabling Web 2.0 User Experience for E-Business Suite

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Agenda

• OA Framework Usability in R12 and 12.1
• Web 2.0 in OA Framework R12.1+
  – Richer component interactivity
  – UI Services through REST Interfaces
  – Embedded Widgets
• Demo
• Portletization
Applications Technology Strategy
What’s New in Applications Technology – 12.1 and Beyond

Oracle E-Business Suite 12.1

Release Value Proposition:
✓ Drive greater usability and productivity
  Increase agility and provide easier integration
  Reduce cost of ownership
  Enhance security and compliance
OA Framework Usability
Evolution over the Years: 11.5.10 to 12.1

HTML + JS

2001

2004

2006
OA Framework 12.1

Usability
- Flexfield Reference support
- Record History support
- BI Publisher Integration

Personalization and Extensions
- Enhanced Administrator Personalization
- Extend Oracle E-Business Suite applications
- BC4J Substitutions

Dashboards
- WSRP 1.0 Portlets
- Consume Services
- Use WebCenter 10gR3
Web 2.0
Key Features

1. AJAX (Asynchronous Javascript with XML)
2. Rich Component Interactions like slide-out, look-ahead
3. RESTful Services
4. Mashups
Web 2.0 in OA Framework 12.1+
Richer and Highly-Enhanced End User Productivity

- Configurable Home Page
- Navigator and Favorites as pull-down menus
- Redesigned component interactions
  - Suggestive List of Values (LOV)
  - Inline Attachments
- New REST Interface layer for UI Services
- Embedded Widgets
  - OBIEE content
  - ADF task flows
  - Third-party rich applications
Web 2.0 in OA Framework 12.1+
Configurable Home Page

- More compact layout
- More real estate for custom content
- Tree-based Navigator
- Easy to personalize
- Favorites now as a pull-down in the global header
Home Page Personalization
WYSIWYG User Experience

- Easy to visualize
- Easy to add content
- Easy to alter layout
Home Page Personalization
Example Home Page

- Reconfigured content
- Reconfigured layout
- Better organized menus
Web 2.0 in OA Framework 12.1+
Navigator and Favorites Menus

**Main Menu / Navigator**

- Allows rapid cross-responsibility, cross-application navigation, enhancing productivity

**BEFORE**

3 steps to complete task

**AFTER**

Single step to complete task

- Avoids navigation to Home Page, eliminating at least two page requests and redrawing
Web 2.0 in OA Framework 12.1+

Navigator and Favorites Menus

**Favorites Menu**

- List of user favorites makes navigation to user’s frequently-used screens fast and easy

**BEFORE**

3 steps to complete task

**AFTER**

Single step to complete task

- Add and manage Favorites with a single click
Web 2.0 in OA Framework 12.1+
Look-Ahead List of Values (LOV)

**Before**

3 steps to complete task

**AFTER**

Single step to complete task

New and Improved LOV Component

- List of Values now provides dynamic experience
- Inline list appears after user types in three or more characters and pauses
- Quick inline access to desired result reduces number of steps and time taken to complete tasks
- Controlled by profile options
- Can also be controlled in pages by developer and/or Personalization
Web 2.0 in OA Framework 12.1+

Inline Attachments

**BEFORE**

- 3 steps to complete task

**AFTER**

- Single step to complete task

**New Inline Attachment Feature**

- Allows attachments to be
  - Added inline
  - Viewed inline
  - Edited inline
  - Deleted inline

- Eliminates navigation to the Add/Edit Attachments and View Attachments pages

- Allows users to work in context to the base page and current task
Web 2.0 in OA Framework 12.1+

### Popups

#### New Feature

**POPUP**

#### New Popup Component

- Single-click drilldown view in a popup
- Displays related links or action links or shortcuts
- Quick view of contextual information of a selected component or row
- Embedded popup as part of request-response
  - Popup content fetched as a separate request with support for parameter passing
Web 2.0 in OA Framework 12.1+
Summary of Core Stack Improvements

• Home Page
• Navigator Menu
• Favorites Menu
• List of Values
• Attachments
• Popups
REST Interface
Web 2.0 in OA Framework 12.1+

REST Interface

“REST strictly refers to a collection of network architecture principles which outline how resources are defined and addressed ” - wikipedia

Concepts:
- Resources and unique addressability
- Uniform interface for state transfer (operations and content types)
- Protocol – client-server, stateless

Example: World Wide Web itself
Web 2.0 in OA Framework 12.1+

REST Interface

• Service Provider / Enterprise exposes APIs
  – Referred to as “RESTful Services”

• APIs send or receive data in standard formats
  – JSON (JavaScript Object Notation)
  – XML
  – E4X – ECMAScript for XML

• Custom UIs built by invoking those APIs
  – All RIA technologies support invocation of RESTful services
Web 2.0 in OA Framework 12.1+

REST Interface Architecture

Rich Client

- Browser based
- Standalone

Oracle E-Business Suite

RF.jsp

- HTTP URL, Cookie & Header
- Cookie Validation
- URL Validation
- Authorization

OAF REST Interface

- HTTP Body
- REST Context
- Initialize Handler
- Process Request
- Custom Handler
- Inline LOV
- Inline Attachment
- OAF Model
Web 2.0 in OA Framework 12.1+
REST Interface – Exposing AM Methods as RESTful Services

1. Register FND Function for your AM method
2. Invoke REST interface from Rich UI
   - Protocol – HTTP
   - Operation – POST (no other operation allowed)
   - URL – https://<host>:<port>/OA_HTML/RF.jsp?function_id=<name>
   - Body – XML representation of method input
3. Handle response in Rich UI
   - Response XML to be parsed by the Rich UI
   - Exception Handling – via HTTP status codes or functional exceptions in body of response
Web 2.0 in OA Framework 12.1+
Embedding Rich Content Using RESTful Service Invocations

Embedded Rich Content

- New Rich Container to embed third-party rich content
- Seamless and transparent context sharing between embedded content and base page content
Web 2.0 in OA Framework 12.1+
Rich Content Embedding

- New Rich Container component in OA Framework to allow embedding of rich, Web 2.0 content
- Support for following content types
  - OBIEE Analytics
  - ADF Task Flows
  - Flash
Web 2.0 in OA Framework 12.1+
Rich Content Embedding

• Rich Container component properties
  – Width, Height
  – Content Type
  – Destination Function / Destination URL
  – Parameters - can be static or context-dependent
Web 2.0 in OA Framework 12.1+
Embedded Analytics

New Feature

Embedded Analytics

• Out-of-the-box support for embedding OBIEE Analytics content

• Seamless and transparent context sharing between embedded content and base page content
Demonstration
Portletization
Portletization
Path to Enterprise 2.0

Enterprise 2.0 = Web 2.0
+ Enterprise Apps
+ Business Processes
+ Communities
+ Social Networks

* “Enterprise 2.0” coined by Harvard Business School Professor Andrew MacAfee in 2006
Portletization
Enterprise 2.0 Enabled Website

Notifications
Email
Documents
Discussions
Contextual Wiring
Preferences
Presence
Search
Favorites
Recent

orcl4isv_us@oracle.com
Portletization
Enterprise Application Mashup with Oracle WebCenter

WebCenter Services
- Social Networking
- Analytics
- Presence
- Workflow
- Mashups
- Search
- RSS/Wiki

WebCenter Framework
- Portlet Runtime
- Resource Catalog
- Search Framework
- JSF Portlet Bridge
- Customizable Components

WSRP  JPDK  JSR 227  JSR 168  REST  XML  Web Services/SOA  JSR 286

ORACLE
E-BUSINESS SUITE

SAP  PeopleSoft  Demantra  JDEdwards  PORTAL  Retek  agile  Autovue
Portletization
Oracle WebCenter with Oracle E-Business Suite

JPDK Portlets

Portlet Generator (Oracle E-Business Suite 12.1+)

Web Services

JSR 227

ADF Task Flows

Oracle WebCenter
Portlets in Oracle E-Business Suite

• 11i
  – Integration based on JPDK
  – Can be consumed by Oracle Portal and WebCenter

• 12.1+
  – JSR 168/WSRP 1.0
  – Can be consumed by Oracle Portal, WebCenter, WLP and WCI
Portletization
Portlet Generator

OAF Applications

Portlet Generator

JDev OA Extensions

Portlets

OAF Web Provider

Portal

ORACLE WEBCENTER
Portletization
Portlet Generator

• Provides UI to introspect OAF Regions in an instance and convert them to portlets
• Support to search for standalone regions based on application and region type
• View capability to verify whether a specific region can be portletized or whether it has any dependencies
• Ability to create the Portlet function without navigating out of the Search UI
Demonstration
OA Framework 12.1+

Summary

1. End-user productivity increases across the Oracle E-Business Suite through improved component interactions

2. Reduced navigation to access commonly-used pages

3. Greater business insight through embedded analytics

4. Greater UI flexibility through embedded rich components

5. Easier and rapid mashup development using Oracle E-Business Suite content
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