Rich Enterprise Applications

Powered by Oracle Application Development Framework (Oracle ADF)

ORACLE®

Rich Web UI made simple – an ADF Faces Overview

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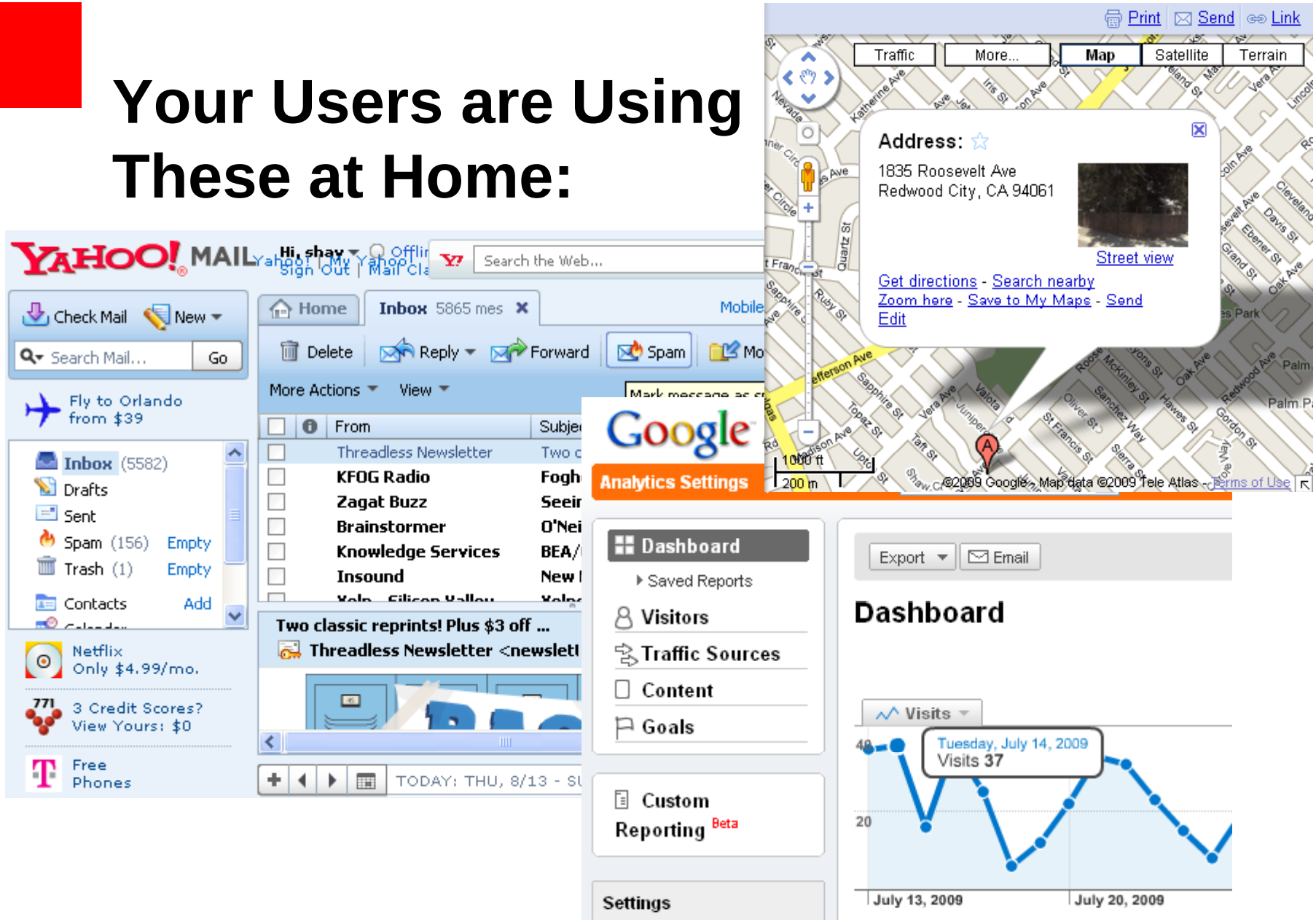
Principal Product Manager – Oracle JDeveloper & Oracle ADF

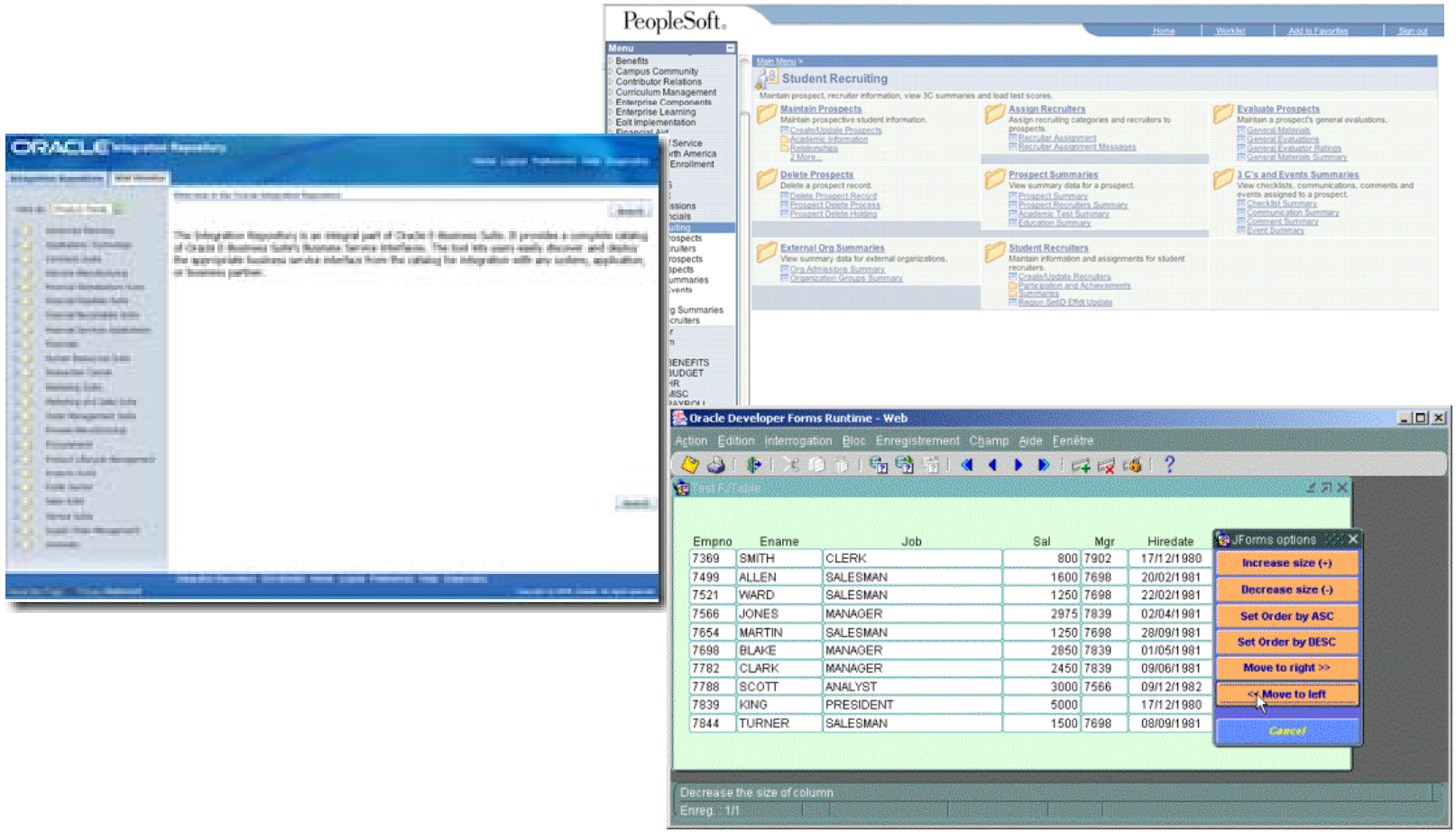
Agenda

- Comparison: New vs. Old
- JDeveloper Provides
- JSF Overview
- ADF Faces Rich Client Components
  - Layout Components
  - Common Components
  - Operation Components
  - DVT Components
- OEPE

Your Users are Using These at Home:



How Do Your Applications Look?



What's The Difference?

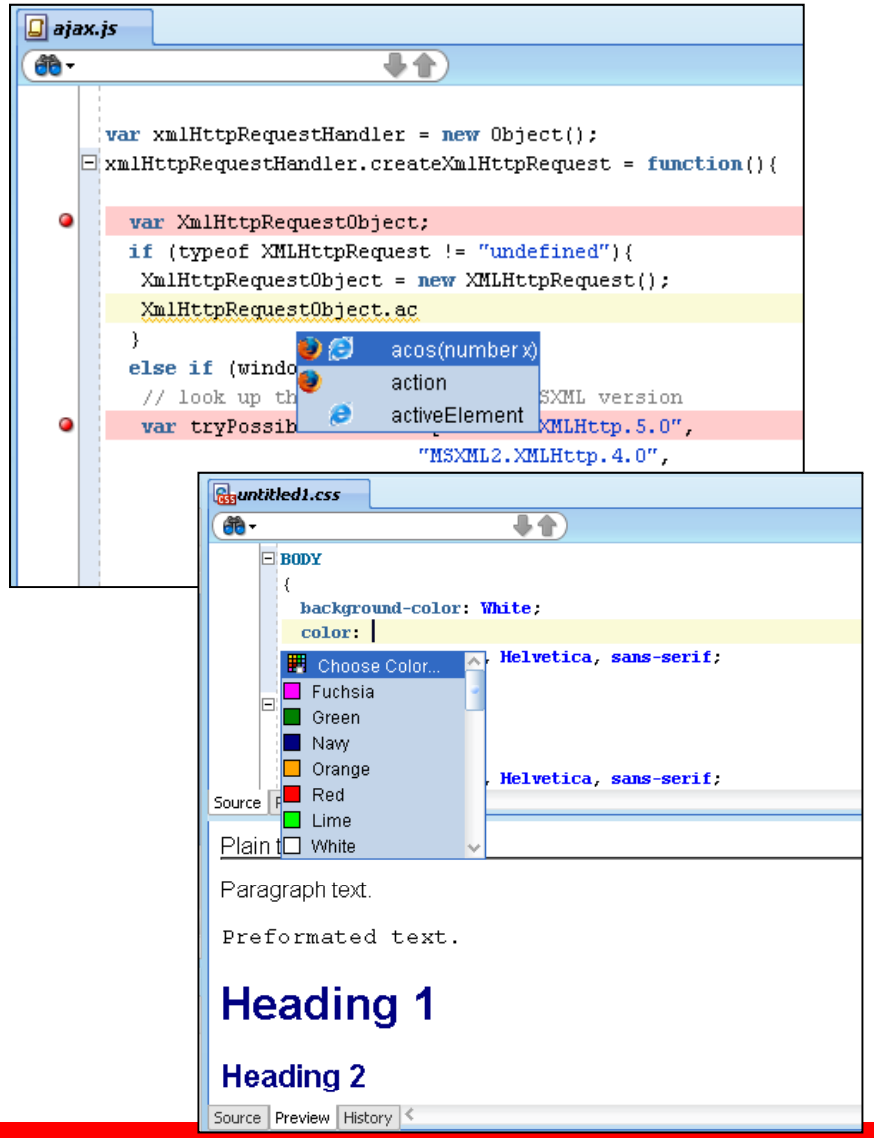
- Better Looking UI
- Better User Interaction
- Better Feedback
- Better Data Visualization
- Better Process Flow

How Does It Work?

- AJAX
  - asynchronous JavaScript and XML
  - DOM
  - XHTML
  - CSS
  - XML/XSLT
  - XMLHttpRequest
  - JavaScript
- Maybe some Flash

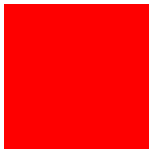
We Have The Tools

- Oracle JDeveloper includes:
  - Visual HTML layout editor
  - JavaScript editor
    - Code insight
    - Refactoring
  - JavaScript Debugger
  - CSS editor
    - Preview tab
  - HTTP Monitor



But The Challenge

- Thousands of developers
- Most don’t know Ajax technologies
- Most come from 4GL background
- Expecting a visual and declarative approach
- Don’t have time to learn all the new Ajax technologies
- Need to focus on their specific application needs



THERE MUST BE A SIMPLER WAY…

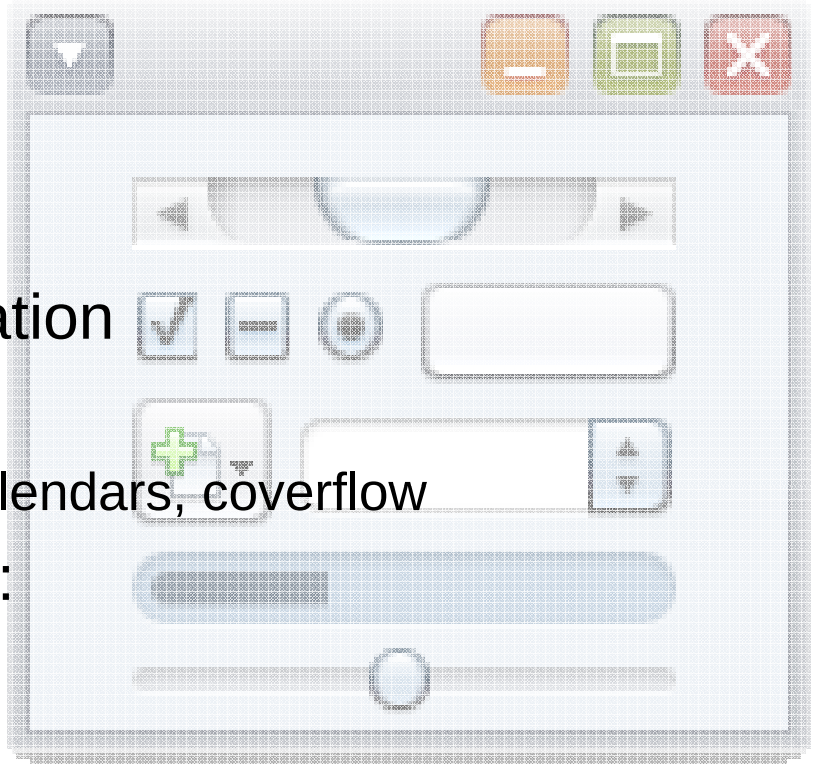
A Simpler Approach
JSF and ADF Faces Components

JSF In 60 Seconds

- Simplifying Web Development
  - Server side UI generation
  - **Component based** not mark-up
  - Automatic event and state handling
  - Diverse client base not just HTML
  - Designed with tooling in mind
  - Applicable to wide spectrum of programmer types
- A Java EE standard

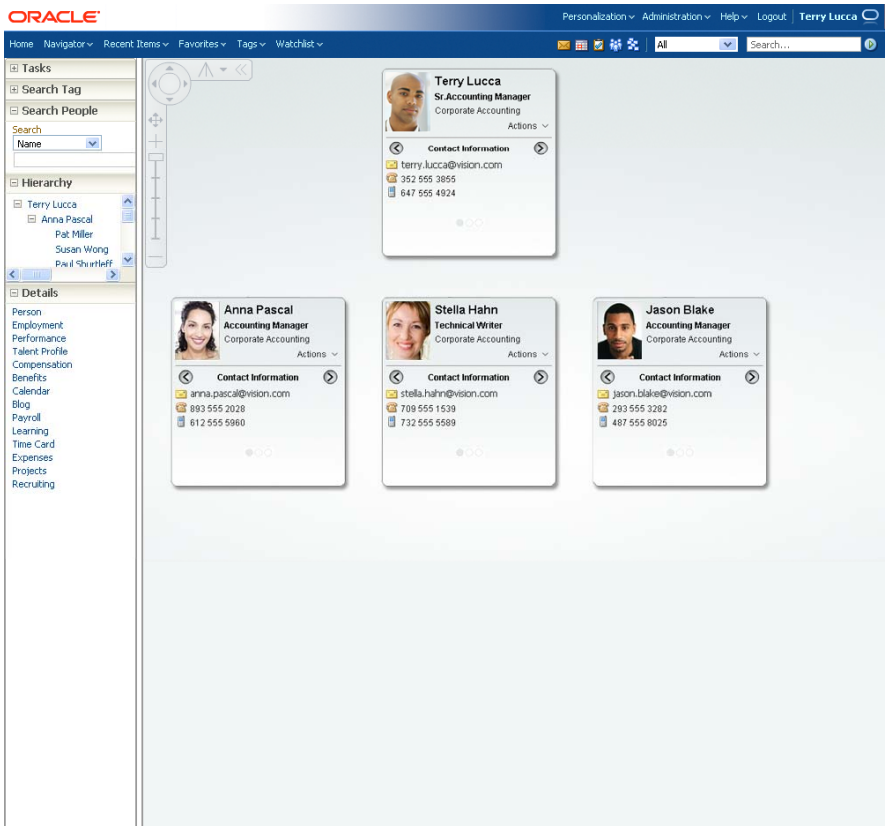
ADF Faces Rich Client Components

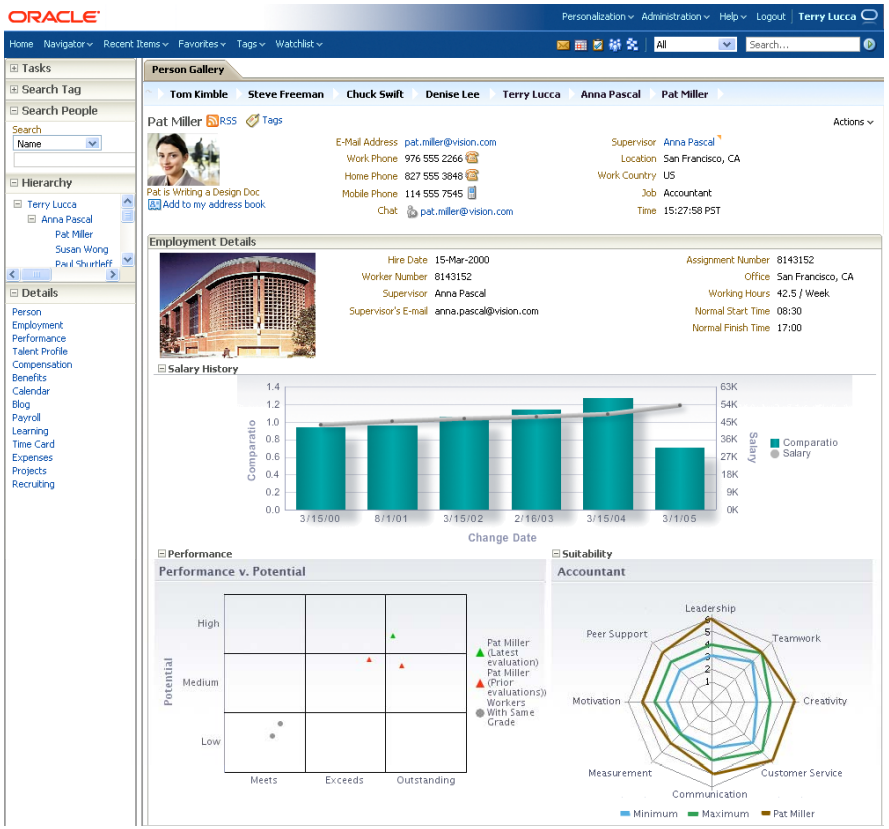
- Over 150 components
- Ajax enabled
- Pluggable look and feel
- Accessibility & internationalization
- The usual components plus:
  - Charts, gantt, geo-map, pivot, calendars, coverflow
- Built in advanced functionality:
  - Drag and drop framework
  - Dialog and pop-up framework
  - “Active Data” - Dashboards / push updates (comet)
  - Templating and declarative components



Fusion Applications

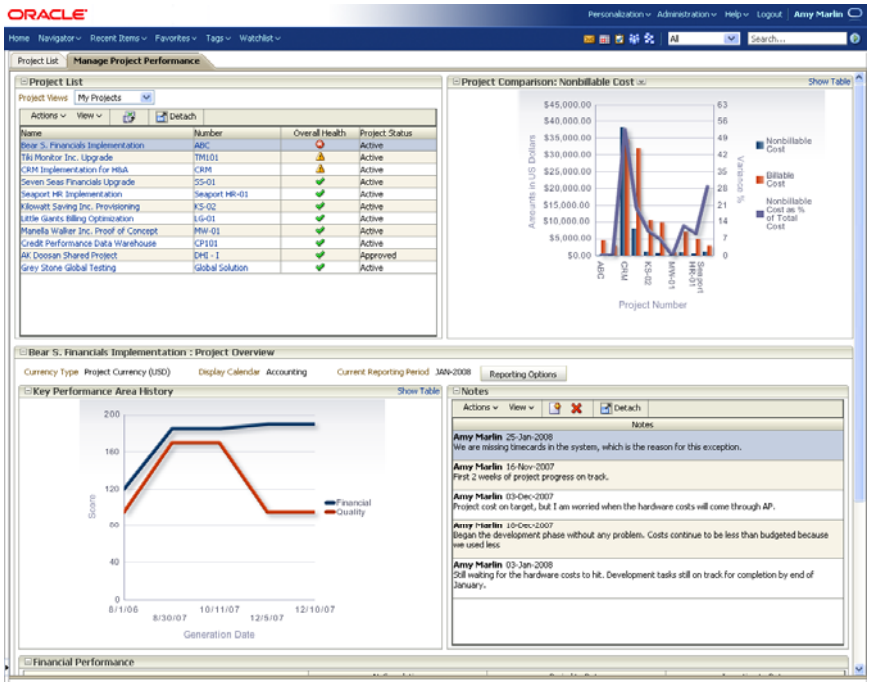
HCM

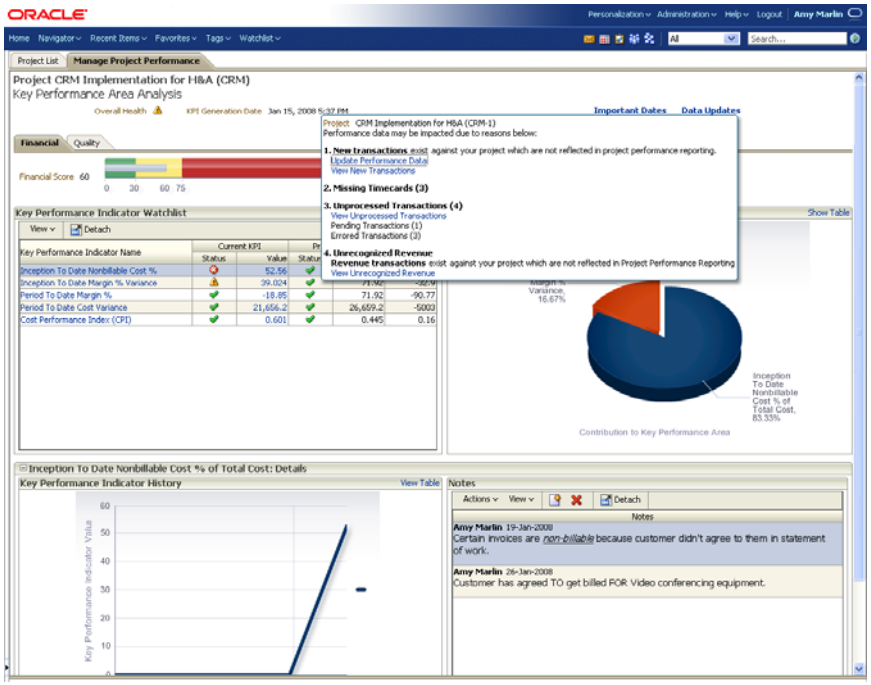




Fusion Applications

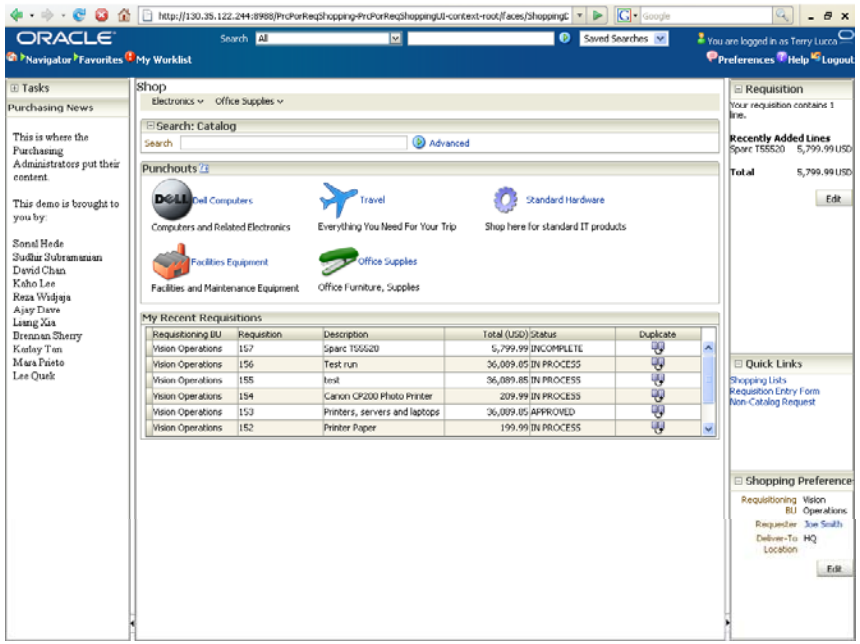
Projects

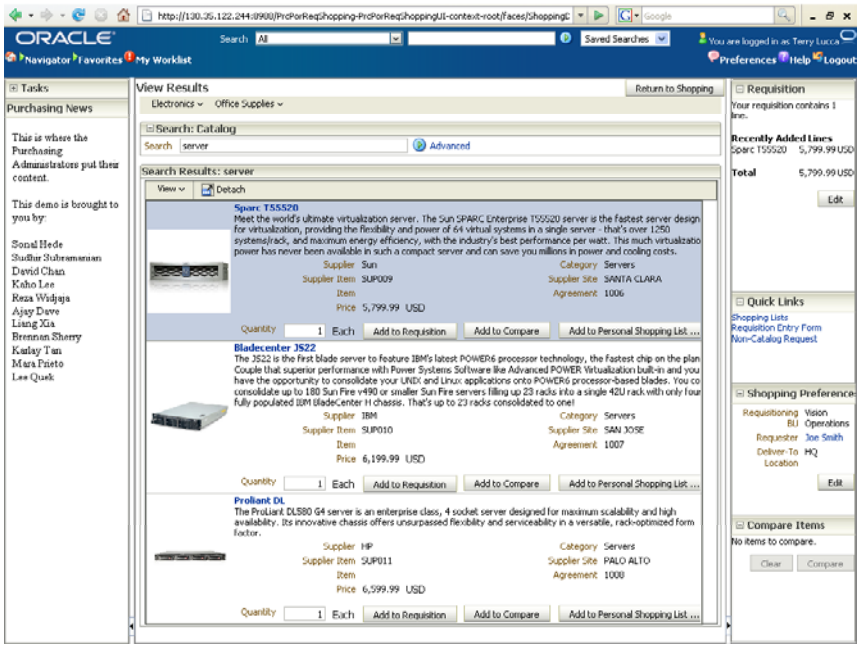




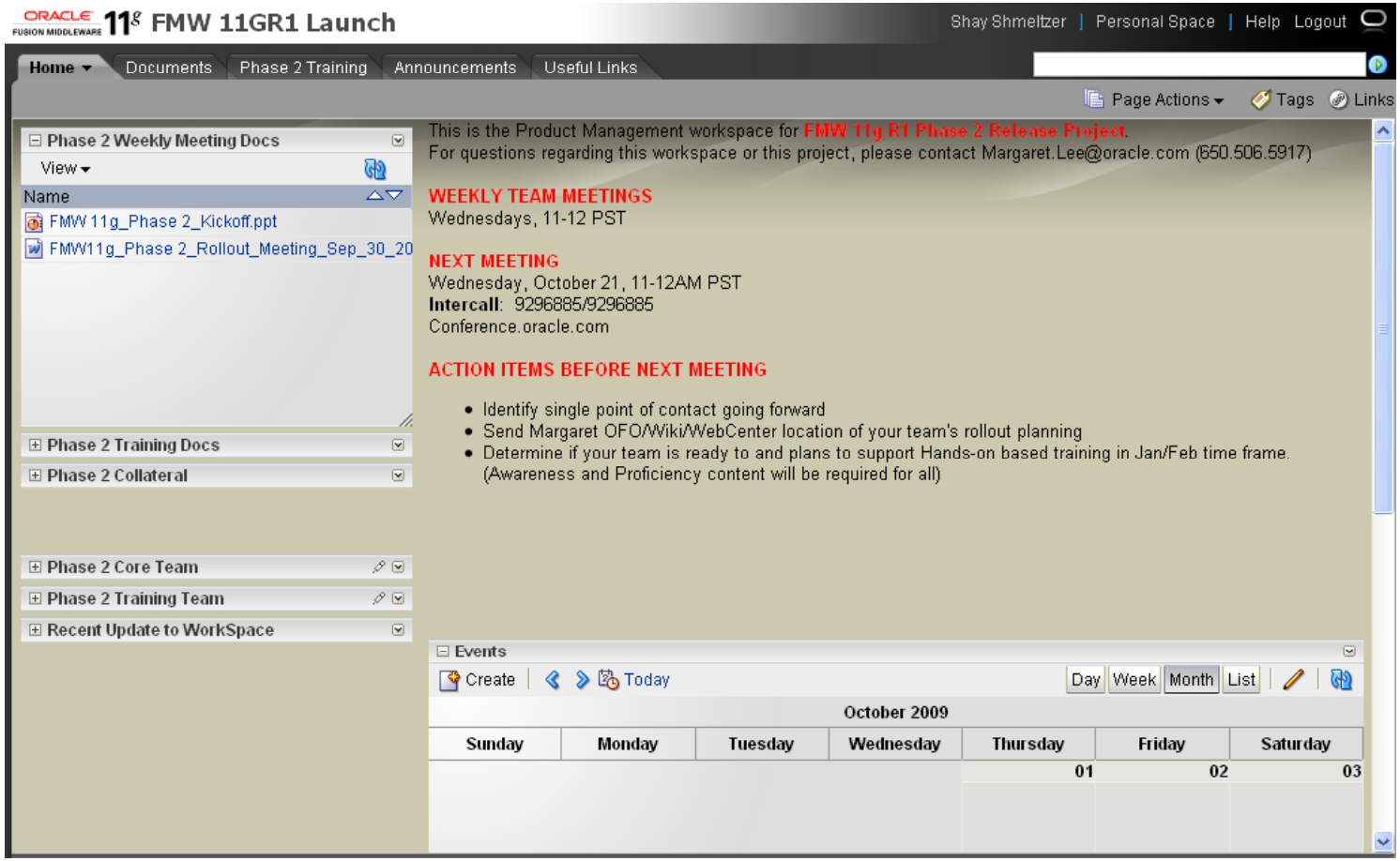
Fusion Applications

Procurement





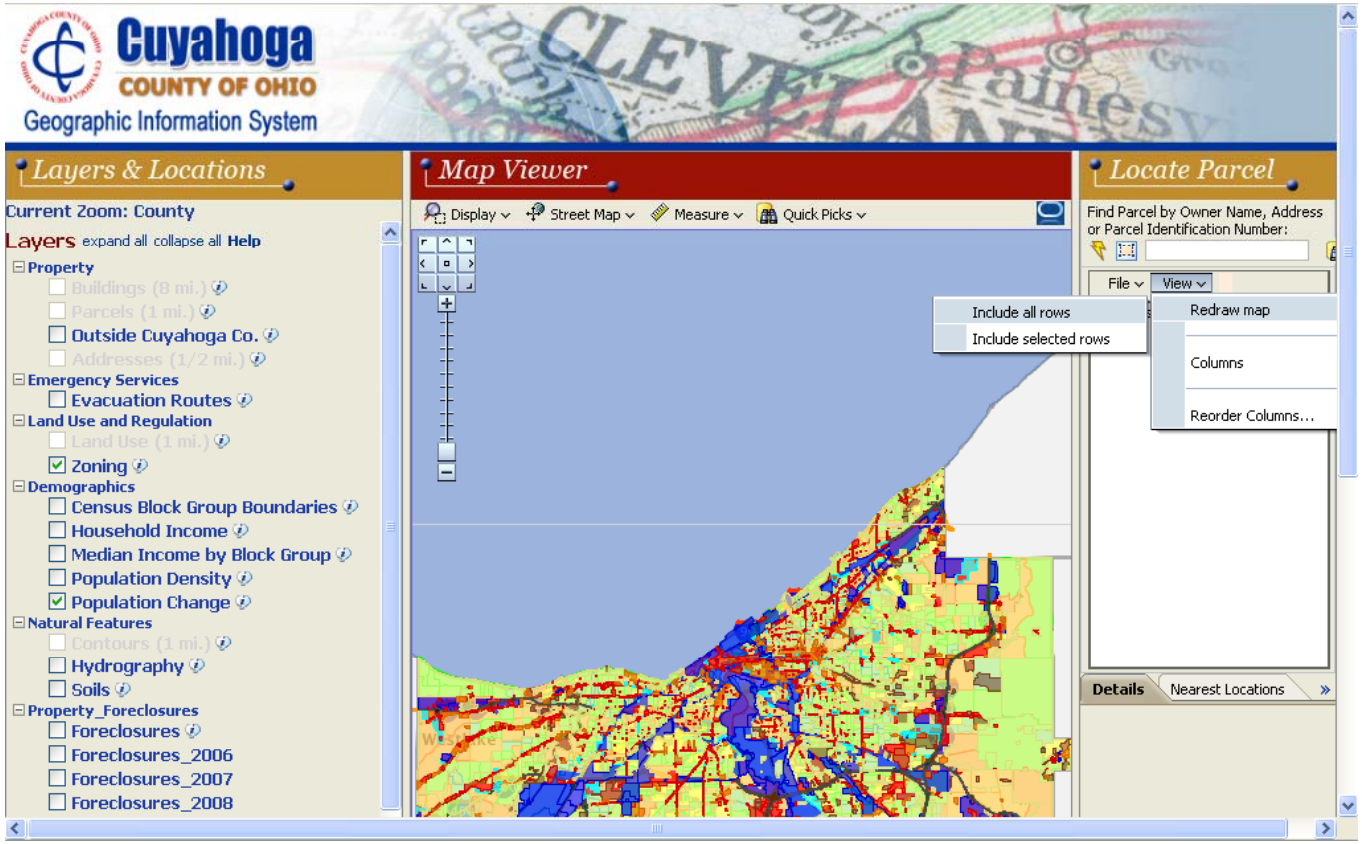
Oracle WebCenter Spaces



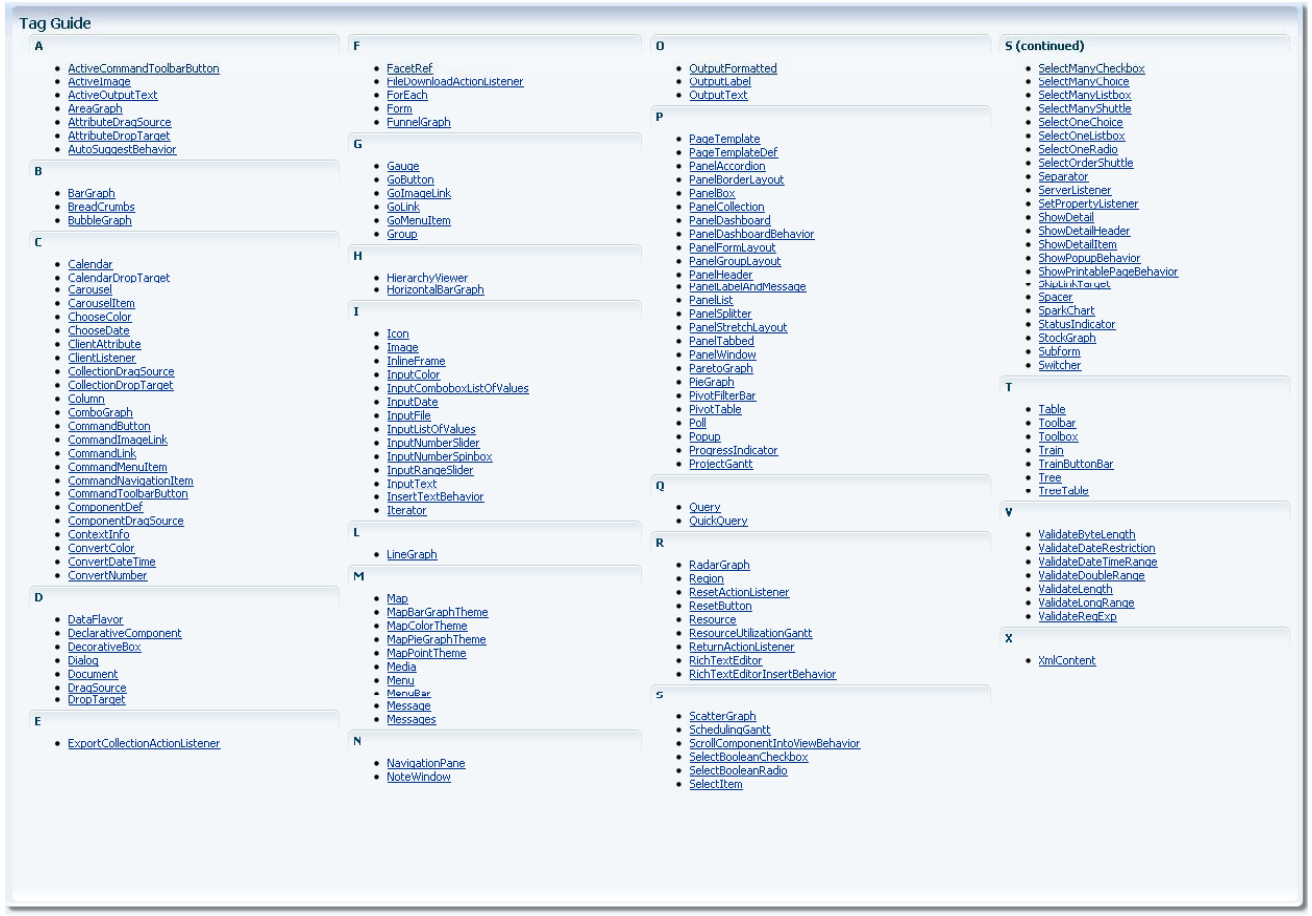
MICROS

Opera Task Manager
GDS - GLOBAL DISTRIBUTION SYSTEM
Services
Messages
Server Name NP
Total Messages 35
Total Success 35
Total Failed 0
Total Timeout 0
START
STOP
Quick Links
Error Log Files
Config Files
DB Sessions
Trace Sessions
Alert Configuration
GDS Simulator
GDS - Messages By Dates
Total Messages
July 2008
Availability From 2008-07-15 to 2008-07-17
GENERAL AVAILABILITY
CREATE BOOKING
DETAIL AVAILABILITY
MODIFY BOOKING
REGIONAL AVAILABILITY
CANCEL BOOKING
Total Messages
OPERA PROCESSORS
Admin
Processors
Forecast Processor
Status RUNNING
Total Threads 2
Pending Messages 0
Total Failed 0
Started Since 09/06 15:34
as of 15-07-2008 09:54
Block Data Processor
ORS Background Processor
Database Scheduler
Profile Auto Merge
IFC Batch Processor
FO ACT Processor
OXI - OPERA INTERFACES
Messages Queue
Total Properties Interfaced 12
Total Messages 545
Total Success 350
as of 06-09-2008 09:54
HOLIDEX, 0.2920%
TIMESHAREWARE, 24.53%
ORS, 50.51%

Cuyahoga County



Over 150 Ajax Enabled Components

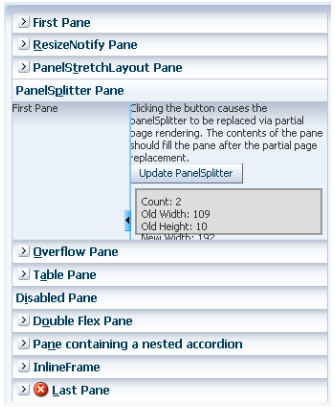


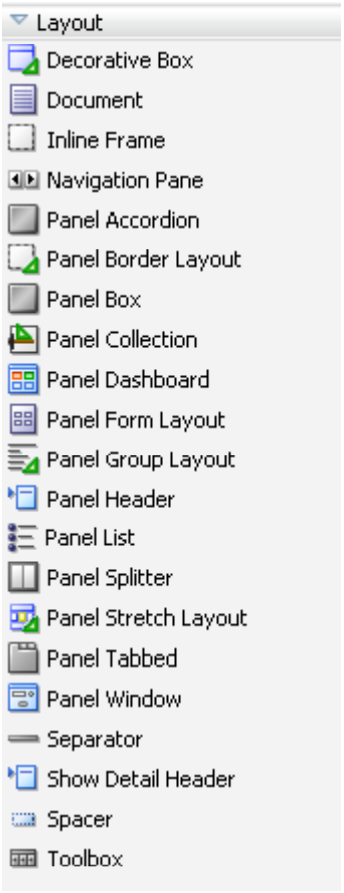
More Than Components – A Framework

- Dialog and popup windows
- Drag-and-drop
- Navigation menu
- Partial page rendering
- Active data framework – ajax communication
- Advanced data streaming – push communication
- Complete JavaScript API
- Templating
- Skinning
- Accessibility

Layout Components

- Arrange your page using areas
- Change page layout at runtime
  - Splitter
  - Accordion
  - Show detail
- Advanced layouts
  - Tabbed
  - Dashboards
  - Borders

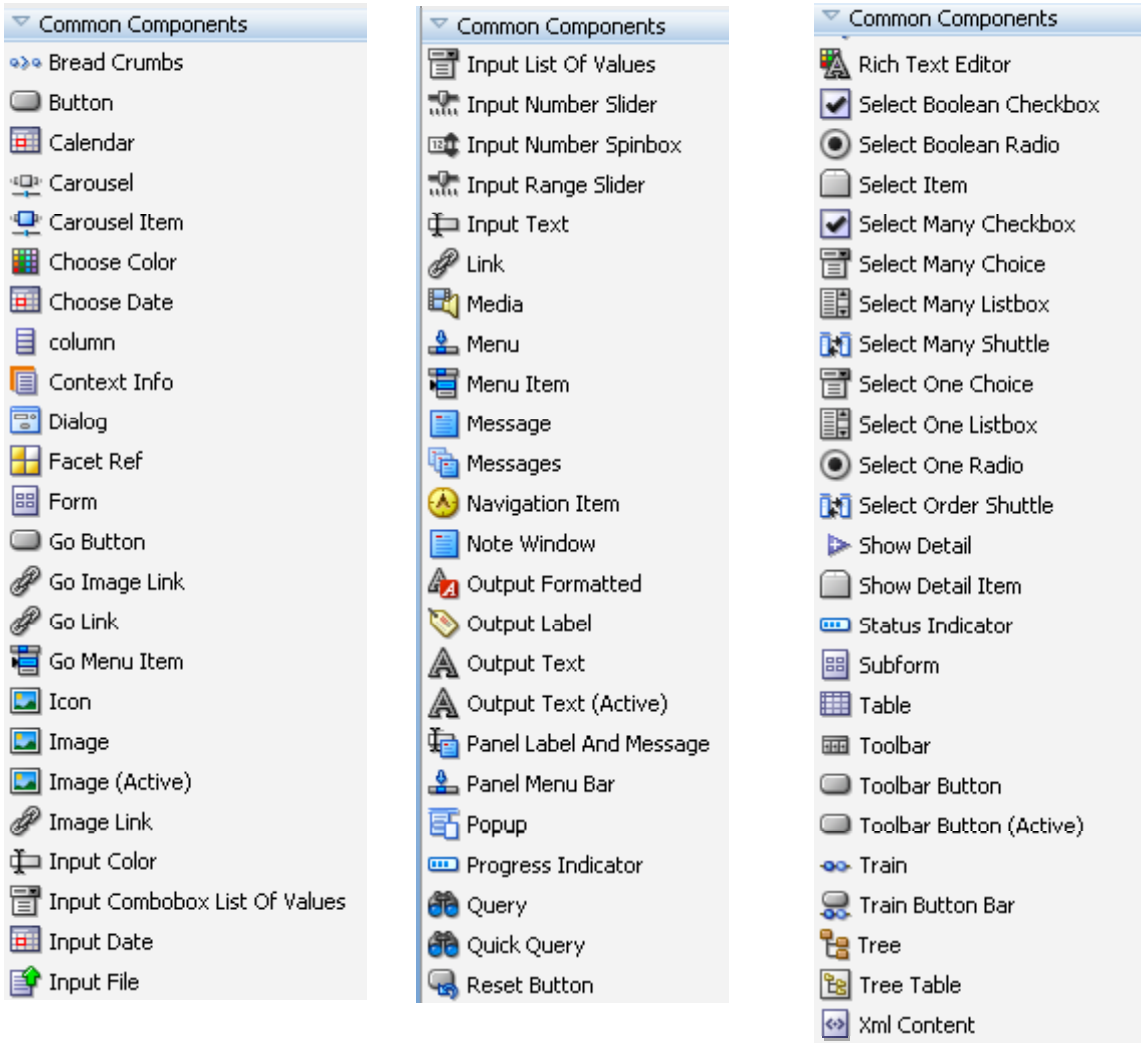




Demonstration

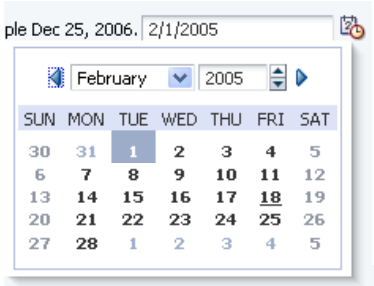
Arranging a Page with Layout Components

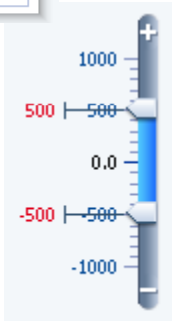
Common Components

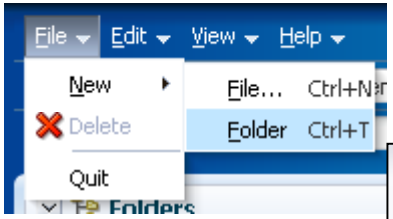


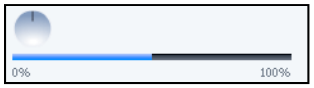
Common Components

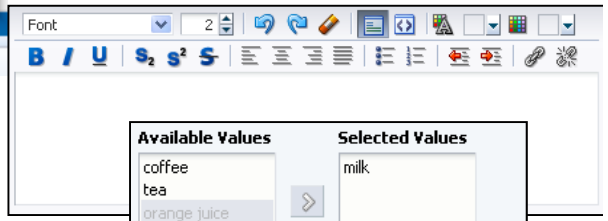
- Input/Output components
  - Text items, check boxes, radio buttons, date
- Selection components
  - Single select, multiple select, combo box, LOV, shuttle
- Tables and Trees
- Navigation components
- Others
  - Progress bar
  - bread crumbs …

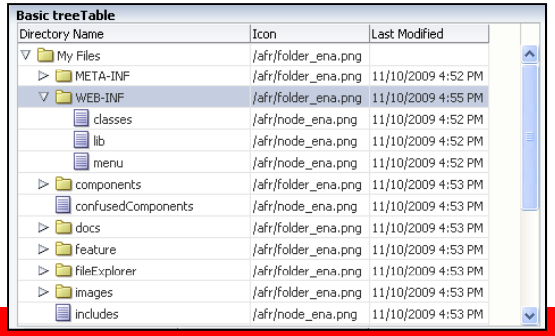






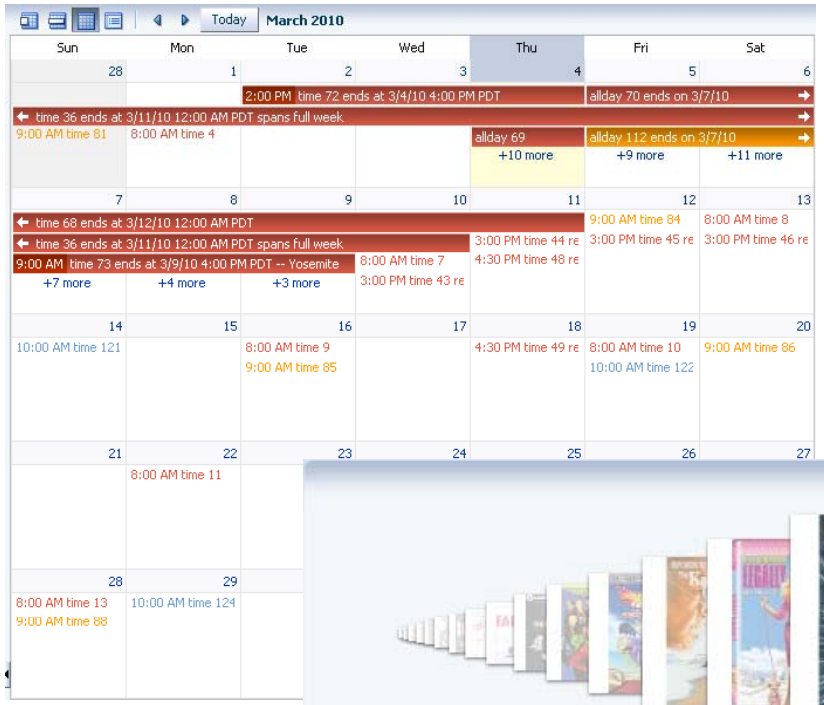




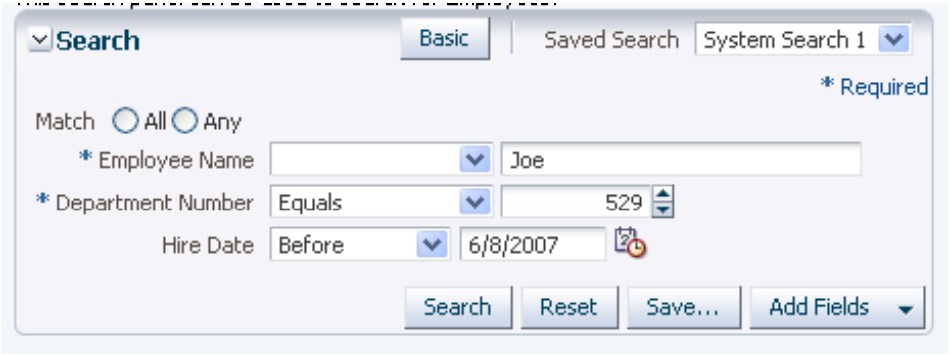


Some More Advanced Components

Calendar



Query



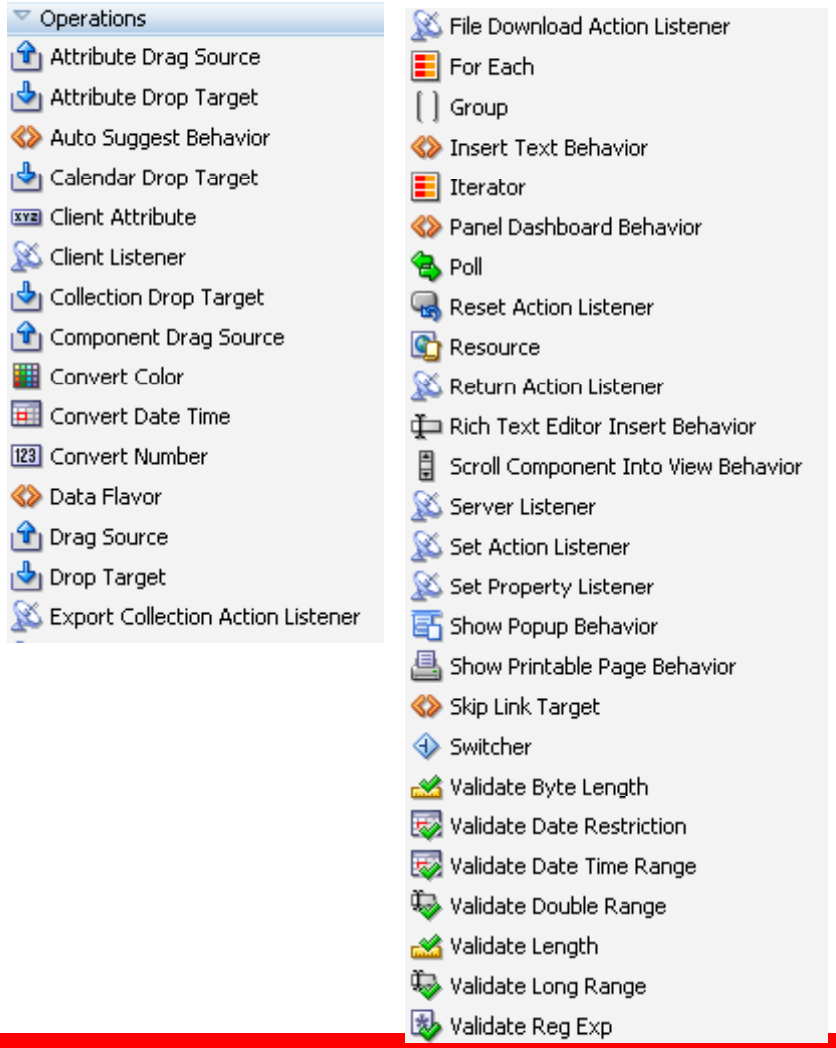
Carousel

Demonstration

Displaying Data with Common Components

Operation Components

- Eliminate JavaScript Coding:
- Drag and drop
- Autosuggest
- Pop up
- Poll
- Validators
- Listeners
- Convertors
- Export
- Print

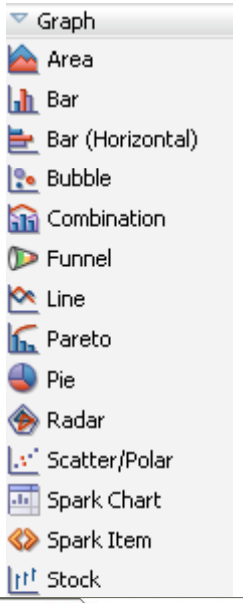


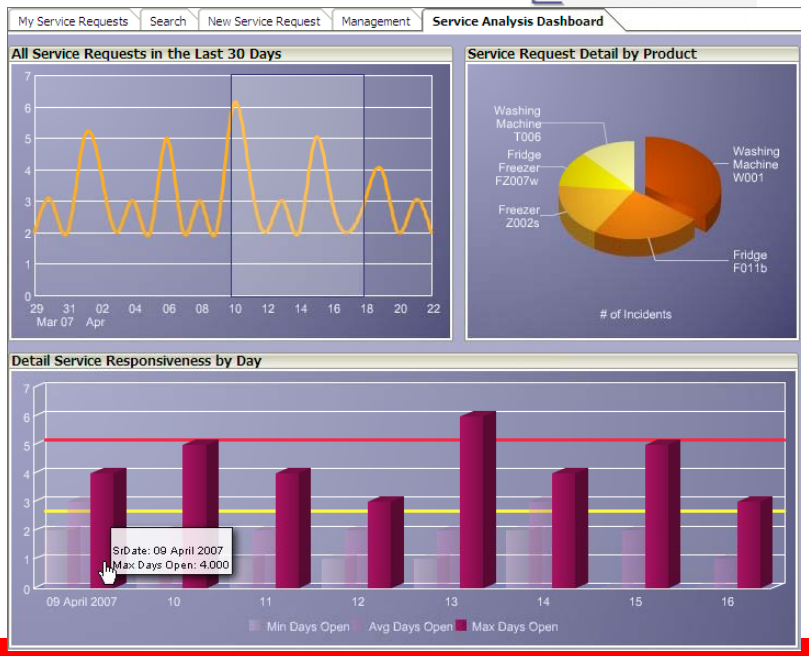
Demonstration

Framework Capabilities: Adding Client Functionality with Operation Components

Graphs

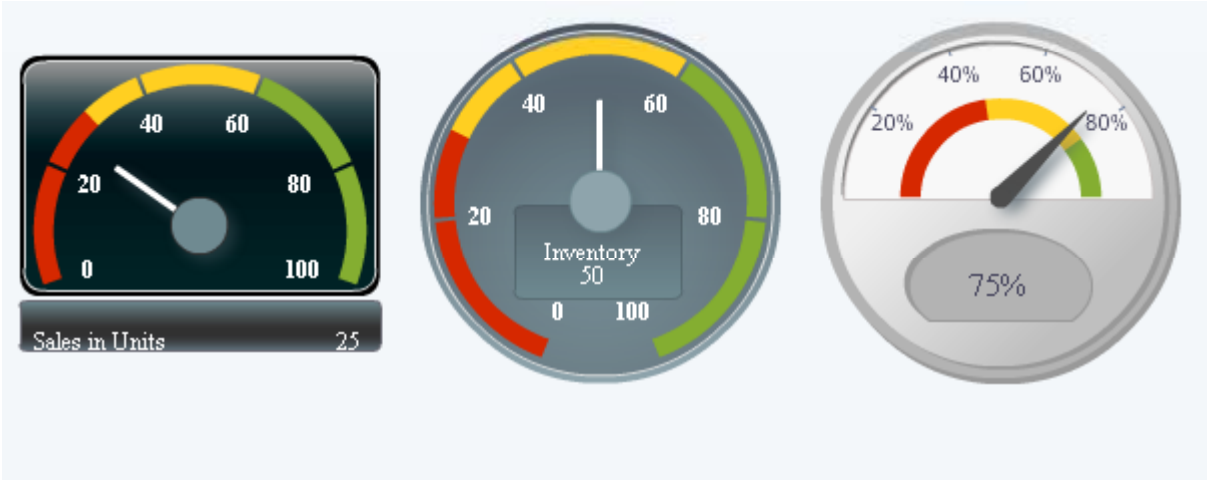
- 50 graph types
- Flash or PNG rendering
- Interactive: zoom, scroll, time selector window, line and legend highlighting/fading, dynamic reference lines and areas

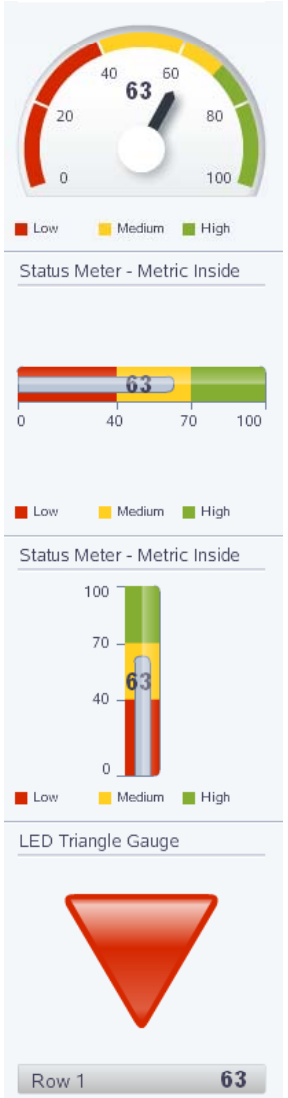




Gauges

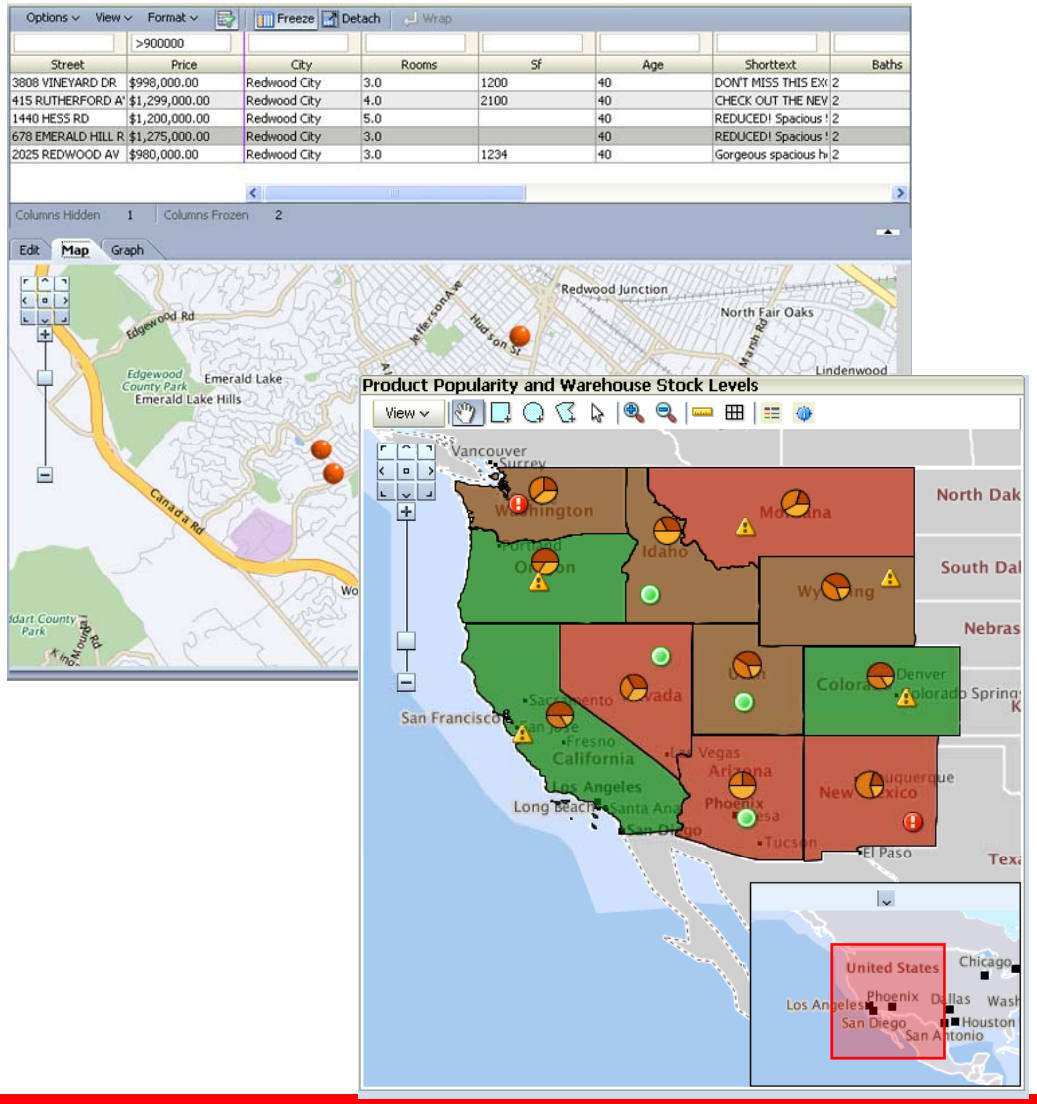
- Dial: standard and threshold
- Status Meter: standard and threshold
- LED





Geographic Maps

- Represents business data on a geographic map
- Supports superimposing multiple layers of information on a single map
- Available Map types are:
  - Thematic
  - Pie
  - Bar
  - Point



Pivot Table

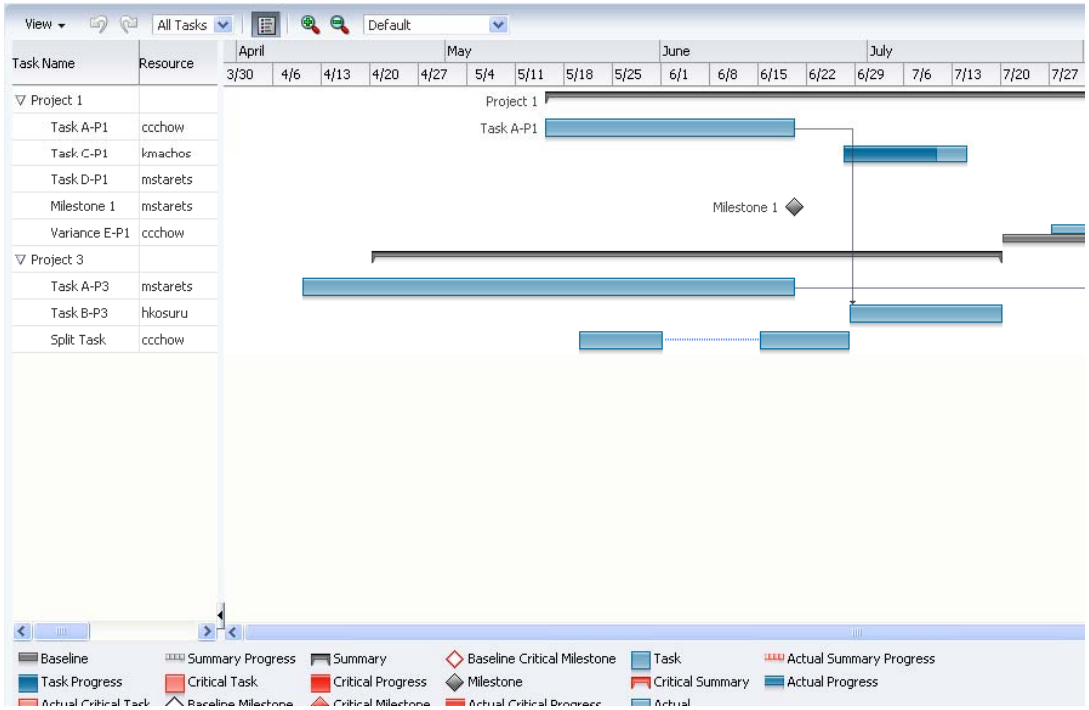
- Multiple layers of data labels on a row or a column edge
- Automatic calculation of subtotals and totals
- Drag and drop pivoting
- Drill and edit enabled

		Sales						
		All Channels						
		2005	2006	2007	2008	2009	2010	Time Total (sum)
Tents	World	5000.0	10000.0	20000.0	8000.0	18000.0	30000.0	
	Boston	125.0	250.0	500.0	200.0	400.0	900.0	
Canoes	World	3750.0	7500.0	15000.0	5000.0	12000.0	29000.0	
	Boston	375.0	750.0	1500.0	450.0	1100.0	3100.0	

	▽ First Quarter			▷ Second Quarter
	January	February	March	
Direct	5,000	5,400	5,800	7,200
Indirect	500	540	580	1,711

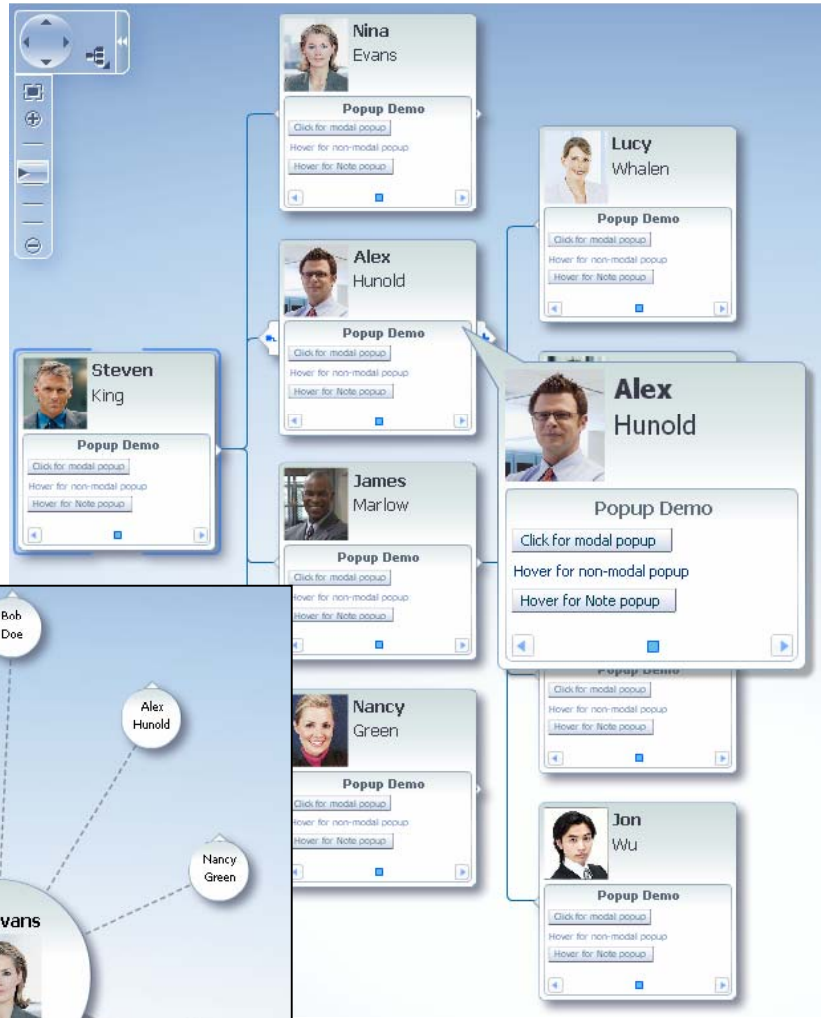
Gantt Chart

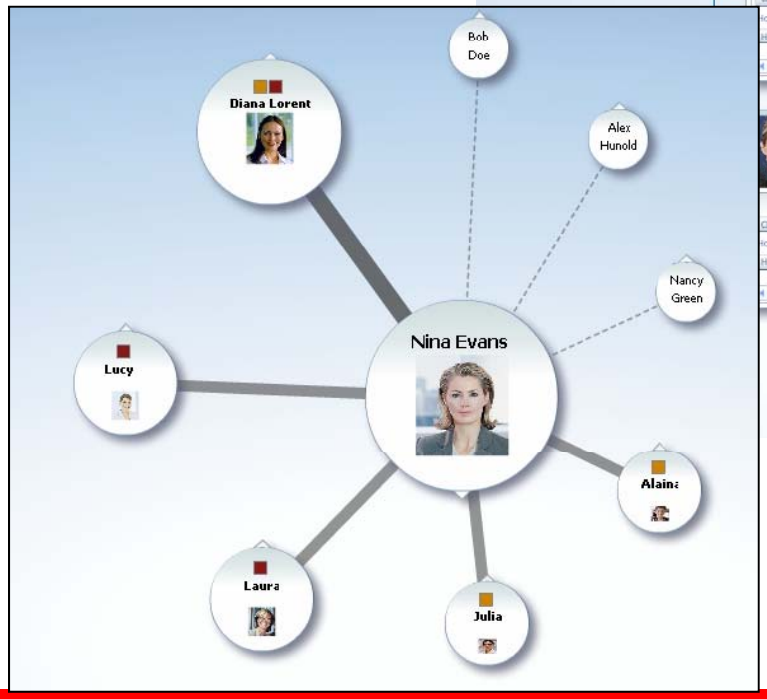
- Track tasks and resources on a Time
- Gantt Chart types
  - Project Gantt
  - Scheduling Gantt
  - Resource Gantt



Hierarchy Viewer

- Drill
- Change Layout
- Zoom
- Cards
- Pop-up





Demonstration

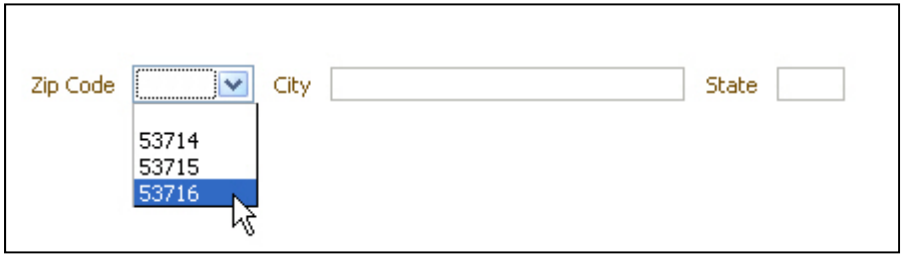
ADF Faces Framework Capabilities

Declarative Partial Page Rendering (PPR)

Partial Page Rendering:

- Enables redrawing only a portion of a page
- Can be enabled declaratively or programmatically

Triggering component:
`id="zipcode"`
`autosubmit="true"`



Target components:
`partialTriggers="zipcode"`

JavaScript API

- Interact with ADF Faces components from client side JavaScript
- Allows you to have a client representation of the component
- Catch events and react on the client side
- Invoke server side events from client side JavaScript code
- As a rule – try to minimize the usage of this feature

Templates

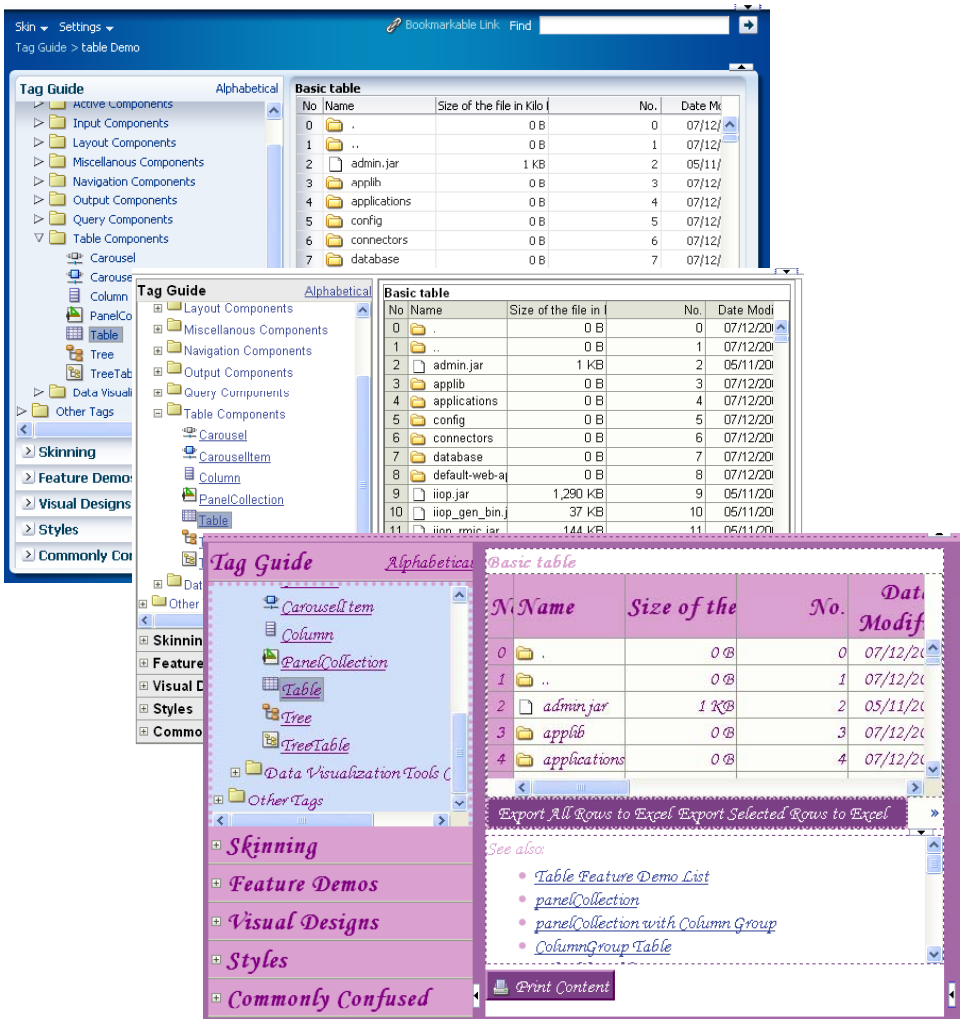
- Reusable ADF Faces page that contains place holders for custom page content
- Templates are interpreted at runtime
- Authors can change the template for an existing application without opening the application itself
- Templates can have their own ADF binding file
- Templates may accept parameters for passing information from the inheriting page to the template

Declarative Components

- Construct composite components from other components
- Can customize behavior using attributes, methods and facets
- Package components for reuse in other applications

Skinning – Customize Look and Feel

- Skins control the standard look and feel of the components
- Defined using CSS
- Control fonts, colors and images
- Extend an existing skin and override specific keys
- Skin selection can be changed at runtime



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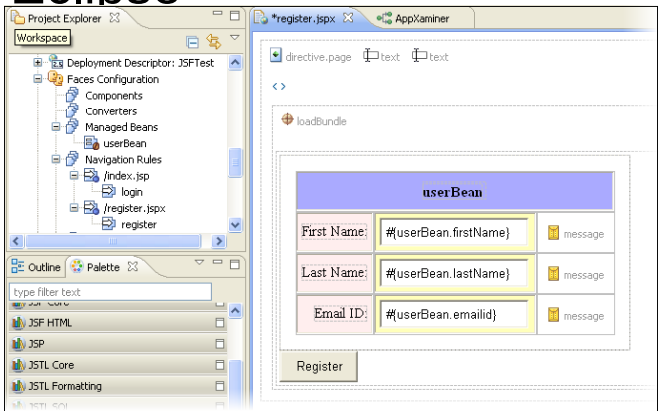
- OEPE

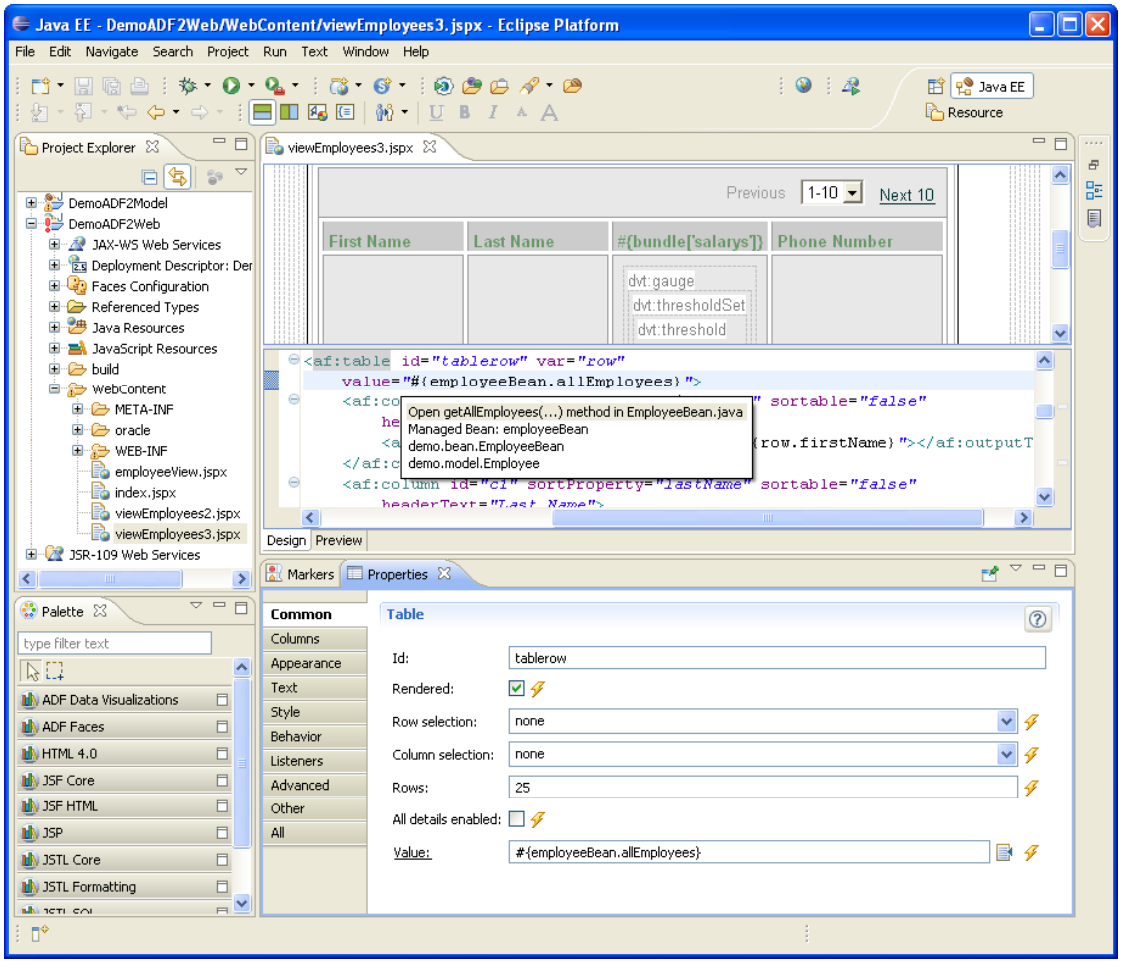
What's new in OEPE 11g (11.1.1.7)?

- **ADF Tooling**
  - Configure & Install JRF with WLS 10.3.4 and Eclipse
    - Install into existing WLS
    - ADF Domain Templates
    - Run & Deploy to Remote and Local WLS
  - ADF Project Configuration and Templates
    - Oracle Application Project
    - Project Facets
    - ADF Shared Libraries
  - ADF Faces Design Time Tooling
    - New ADF page Templates
    - ADF Faces & DVT Enabled Palette
    - Tag Drop Editors for ADF Tags
    - Property Sheet enabled for ADF Tags
    - Syntax highlight, Code Assist, Navigation for ADF
    - AppXRay support for ADF Faces



ADF Design Time Tools

- Web Page Editing
  - AppXRay Validation
  - Syntax Highlighting
  - Code Completion and Navigation
- Tag and Data Palette
  - ADF Faces
  - ADF DVT
- Smart Property Sheet
  - Easy Databinding
- Drag and Drop Tag Editors



AppXRay

Design time dependency analysis, validation and visualization

Java / Java EE

Web Services

AppXRay™

Artifact

HTML | CSS | JSF | JSP | JSTL | ADF Faces

Presentation

Java Variable | Resource bundles | POJO | Web Services | XML schema

Component

EclipseLink | EJB 3 JPA | Spring DAO

Data Access

External Resources

WebLogic Server

Spring, ORM, DB

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Conclusion

- Oracle ADF Faces – a Simpler Way to RIA
  - Rich component set
  - Ajax built-in
  - Data visualization
  - Capable underlying framework
  - Easy to develop with

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- http://oracle.com/technology/jdev

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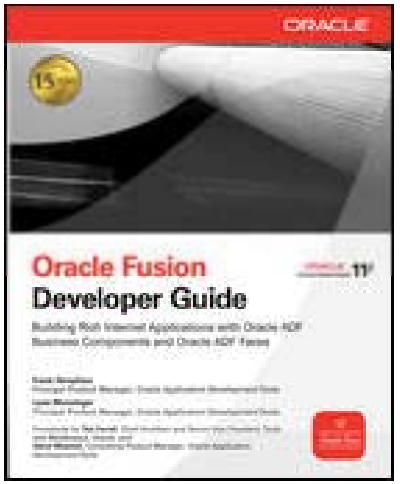
- Quick Start Guide to Oracle Fusion Development
- Oracle JDeveloper 11*g* Handbook
- Oracle Fusion Developer Guide



Learn More at ODTUG K-Scope 2011

- http://kscope11.com/
- Special Fusion Middleware Track
- 50 dedicated sessions and hands on labs
- Presented by Oracle ACEs, developers and product managers
- ADF, WebCenter, SOA Suite and more

Conference Tracks

Time	Basics	Advanced	Hands on Lab	Best Practices	Enterprise
8:00 – 8:15	Conference orientation				
8:15 – 9:00	Keynote: Rich Enterprise Applications				
9:00 – 10:00	Rich Web UI made simple - an ADF Faces Overview	Developing for Mobile Devices with Oracle ADF	LAB – Web Applications with ADF Part 1	Starting an Enterprise ADF project	Developing with Oracle WebCenter
10:00 – 11:00	Next Generation Controller for JSF	ADF Binding Internals	LAB – Web Applications with ADF Part 2	The bit every one forgets: Unit testing your ADF applications with JUnit	Build Killer Sites with Oracle WebCenter
11:00 – 12:00	From Forms to ADF - When, Why, How?	Advanced ADF Faces - Skinning & Javascript	LAB - Web Applications with Oracle WebCenter	ADF Security in a Project-Centric Environment - An ADF Case Study	Building Process Centric Applications with ADF and BPM
12:00 – 12:30	**Survey** & Event checkout				

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