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### **Rich Web UI made simple – an ADF Faces Overview**

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## Agenda

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

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## Your Users are Using These at Home:



Analytics Settings

Dashboard

Saved Reports

Visitors

Traffic Sources

Content

Goals

Custom Reporting Beta

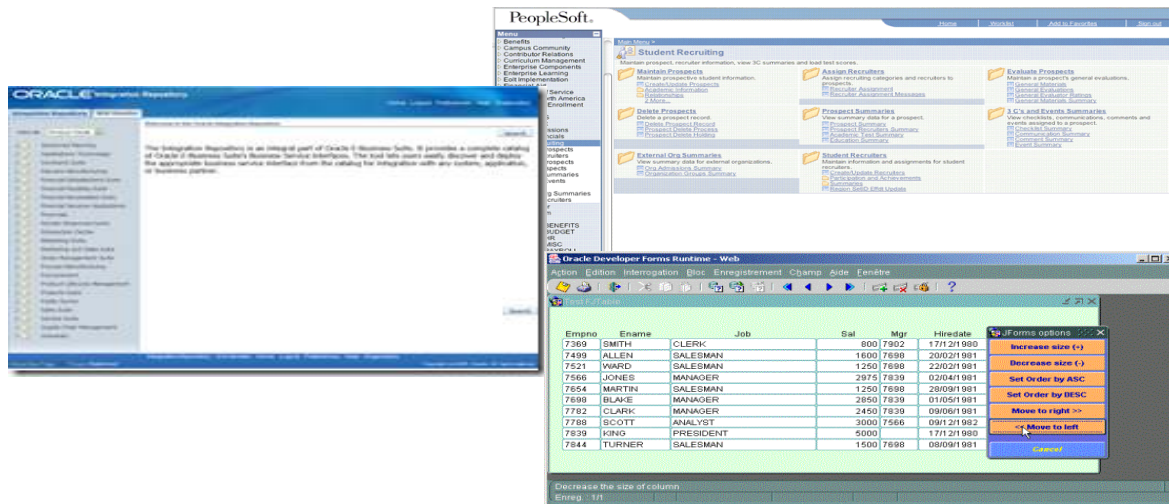
Settings

### Dashboard



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# How Do Your Applications Look?



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## What's The Difference?

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

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## How Does It Work?

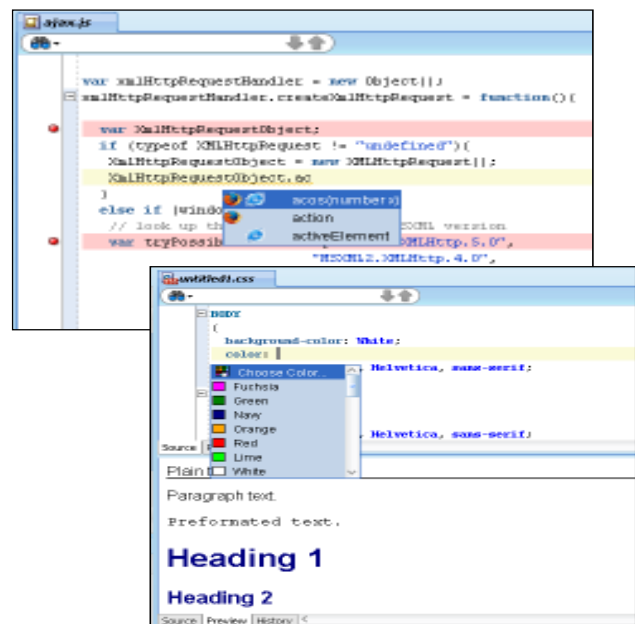
- AJAX
  - asynchronous JavaScript and XML
  - DOM
  - XHTML
  - CSS
  - XML/XSLT
  - XMLHttpRequest
  - JavaScript
- Maybe some Flash

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## We Have The Tools

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



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## 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

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**THERE MUST BE A SIMPLER  
WAY...**

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# **A Simpler Approach**

## **JSF and ADF Faces**

### **Components**

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## 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

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## ADF Faces Rich Client Components

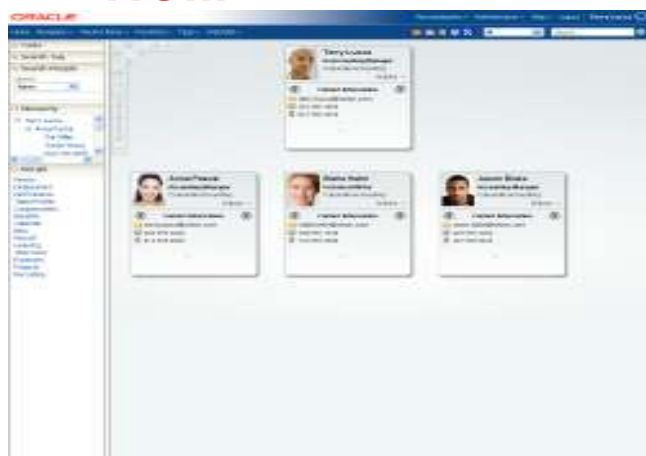
- Over 150 components
- Ajax enabled
- Pluggable look and feel
- Accessibility & internationalization
- The usual components plus:
  - Charts, gantt, geo-map, pivot, calendars, coverflow
- Built in advanced functionality:
  - Drag and drop framework
  - Dialog and pop-up framework
  - “Active Data” -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



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# Fusion Applications

## HCM



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# Fusion Applications Projects



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# Fusion Applications Procurement



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[illegible]

# MICROS



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# Cuyahoga County



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[illegible]

## 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

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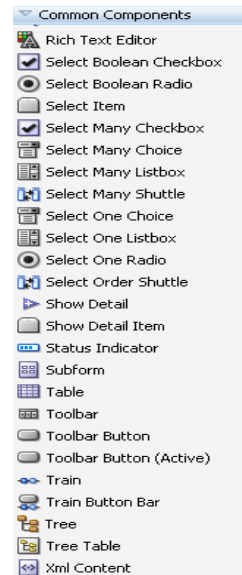
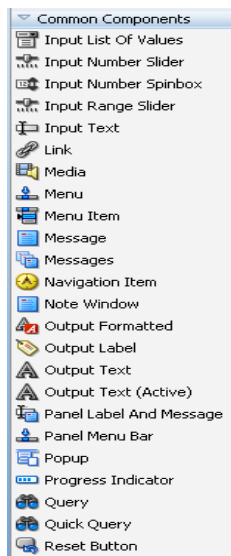
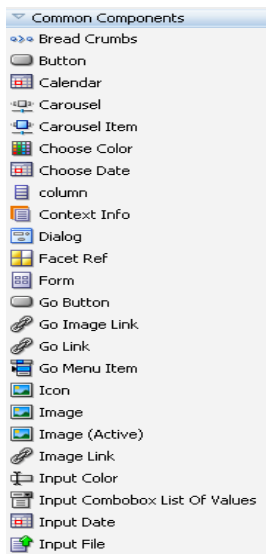
## Layout Components

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



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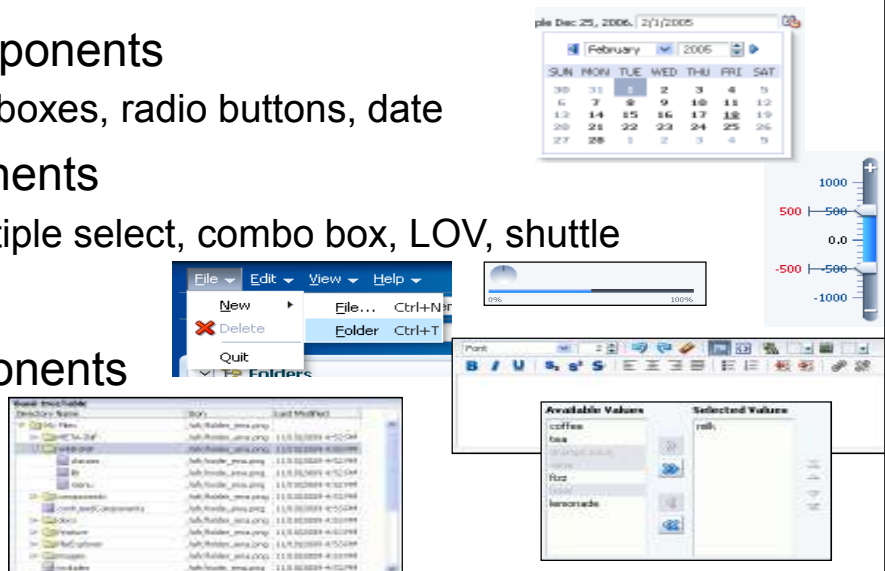
# Common Components





## Common Components

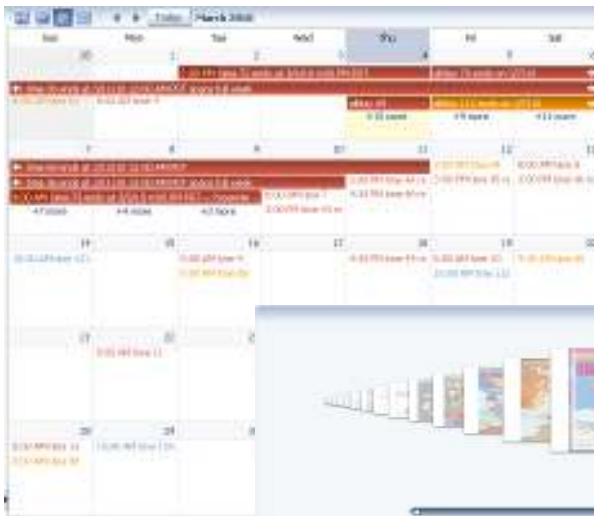
- Input/Output components
  - Text items, check boxes, radio buttons, date
- Selection components
  - Single select, multiple select, combo box, LOV, shuttle
- Tables and Trees
- Navigation components
- Others
  - Progress bar
  - bread crumbs ...



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## Some More Advanced Components

### Calendar



### Query

Search Basic Saved Search System Search 1

Match ☐ All ☐ Any

\* Employee Name

\* Department Number Equals

Hire Date Before

Search Reset Save... Add Fields

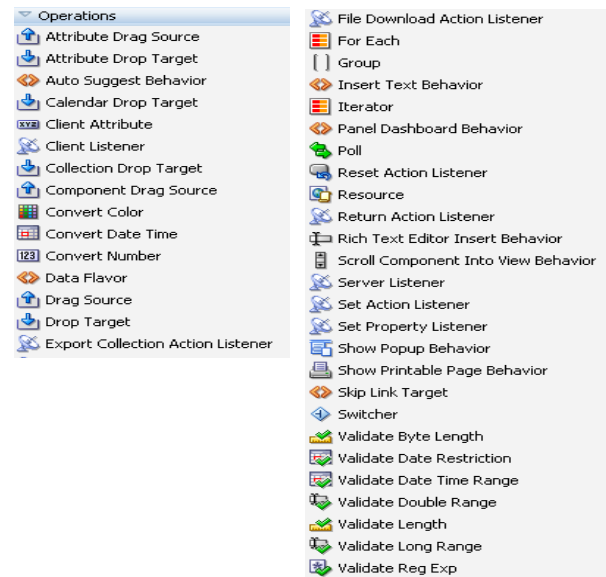
### Carousel



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## Operation Components

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



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# ADF Data Visualization Components

## Overview

- Rich interactive Java Server Faces components
- Significant graphical and tabular capabilities for analyzing data
- Data Visualization components in JDeveloper 11g:
  - Graph
  - Gauge
  - Geographic Map
  - Pivot Table
  - Gantt Chart
  - Hierarchy Viewer
  - Thematic Map

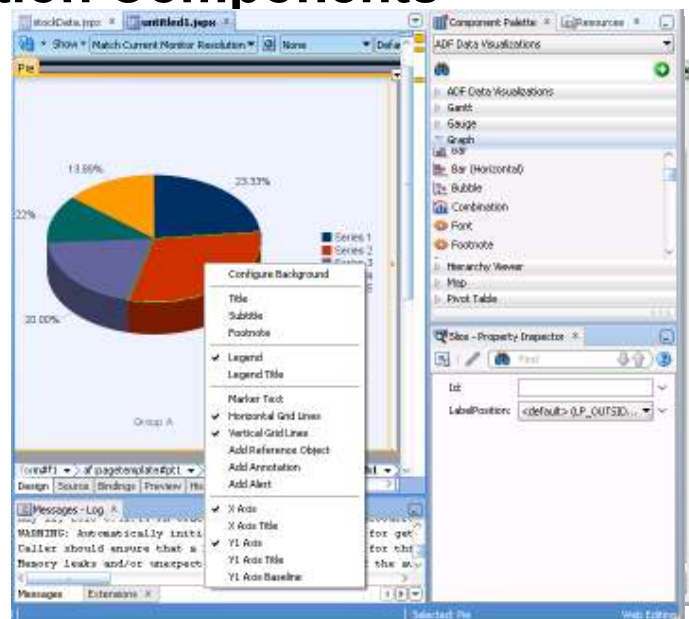


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# ADF Data Visualization Components

## Common Features

- Declarative development using simplified JSF tags
- Design time creation using:
  - Data Control Palette
  - JSF Visual Editor
  - Property Inspector
  - Component Palette
- Live data preview at design time
- Data Binding access to any rowset or tree data control
- Automatic choice of best rendering technology



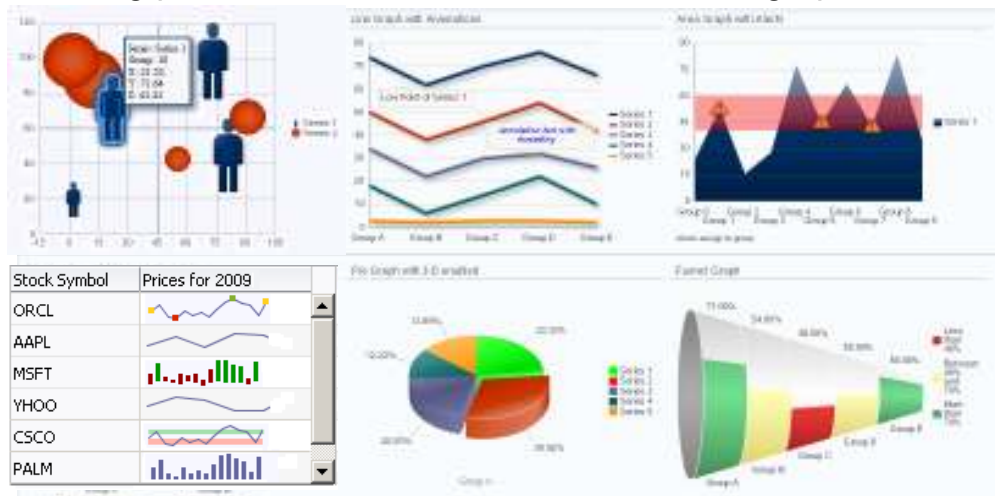
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## ADF Data Visualization Graph

More than 50 types including pie, bar, line, bubble, funnel, and stock graphs

- Interactivity

- Active Data Enabled
- Animation
- Selection
- Data Highlighting
- Dynamic Reference Objects
- Interactive Pie Slices
- Master-Detail
- Scrollable Legend
- Time Selector
- Zoom and Scroll



- Sparkcharts

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## ADF Data Visualization Gauge

- Quickly track key performance indicators
- Available Types:
  - Dial
  - Status Meter
  - Vertical Status Meter
  - LED
    - Arrow, Bulb, Rectangle, Triangle
- Animation and Interactivity
- Custom Graphics Support



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## ADF Data Visualization Geographic Map

- Functionality of Oracle Spatial within ADF
- View business data on a map
- Format by:
  - Point
  - Color
  - Pie
  - Bar
- Active data support



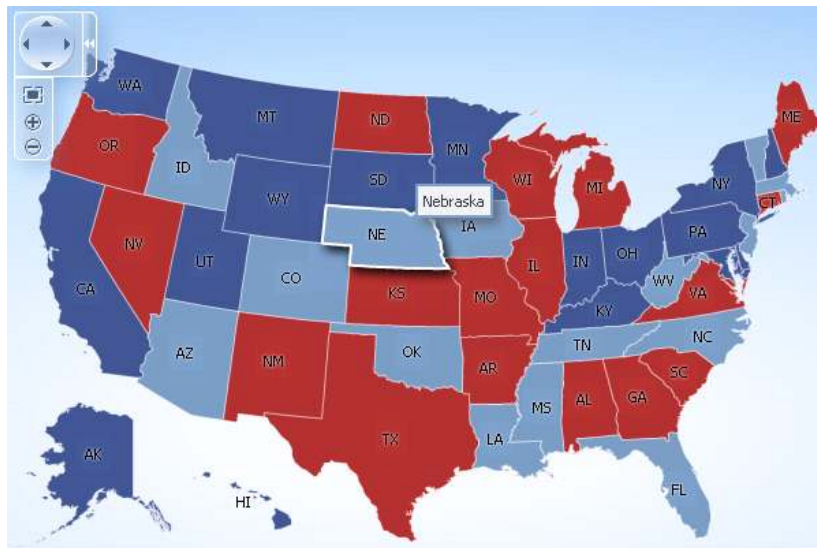
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## ADF Data Visualization Thematic Map

### Features:

- Basemaps
- Custom regions
- Animation
- Drilling
- Selection
- Markers
- Formatting:
  - Colors
  - Gradients
  - Patterns



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## ADF Data Visualization Pivot Table

- Multiple layers on row and column edges
- Supported features include:
  - Drag and drop pivoting
  - Horizontal and vertical scrolling
  - Cell, row and column selection
  - Header and cell formatting
  - Automatic totals/subtotals
  - Data filtering
  - Drilling
  - Sorting
  - Cell editing
  - Stamping, e.g. data bars in cells
- Pivot Filter Bar

		Sales		Units	
		All Channels		All Channels	
		World	Boston	World	Boston
2007	Tents	23000.0	500.0	500.0	50.0
	Canoes	15000.0	1500.0	25.0	6.0
2006	Tents	12000.0	250.0	180.0	25.0
	Canoes	7500.0	750.0	40.0	6.0
2005	Tents	10000.0	125.0	90.0	15.0
	Canoes	3750.0	375.0	20.0	5.0

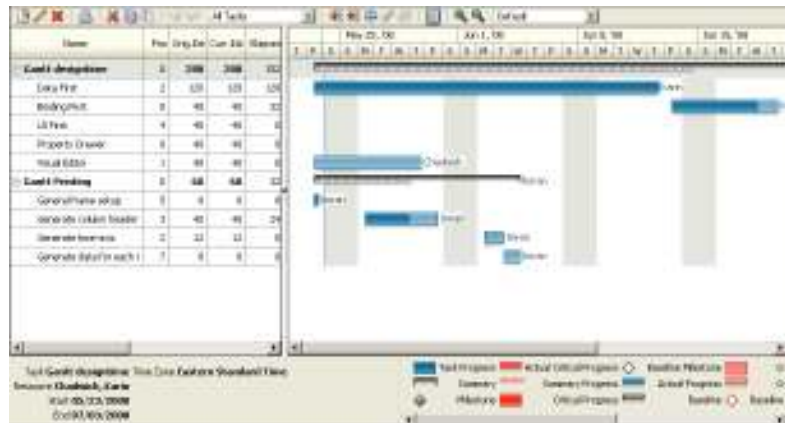
				Dollars		Units	Dollars/Units	
Gloss	1998	CENTRAL REGION	Enterprise					
		EASTERN REGION	Enterprise					
		SOUTHERN REGION	Enterprise					
		WESTERN REGION	Enterprise					
	1999	CENTRAL REGION	Enterprise					
		EASTERN REGION	Enterprise					
		SOUTHERN REGION	Enterprise					
		WESTERN REGION	Enterprise					
Flat	1998	CENTRAL REGION	McCloskey					
		EASTERN REGION	McCloskey					
		WESTERN REGION	McCloskey					
		SOUTHERN REGION	McCloskey					
	1999	CENTRAL REGION	McCloskey					
		EASTERN REGION	McCloskey					
		WESTERN REGION	McCloskey					
		SOUTHERN REGION	McCloskey					
Primer	2000	EASTERN REGION	McCloskey					
	1999	SOUTHERN REGION	McCloskey					

Filters		Direct	Massachusetts	
		Audio Components	Video Components	Gaming
▼ First Quarter	January	5,000	10,000	
	February	5,400	14,000	
	March	5,800	18,000	
▼ Second Quarter	April	2,000	10,000	
	May	2,400	14,000	
	Jun	2,800	18,000	
▼ Third Quarter	July	5,000	10,000	
	August	5,400	14,000	
	September	5,800	18,000	

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## ADF Data Visualization Gantt Chart

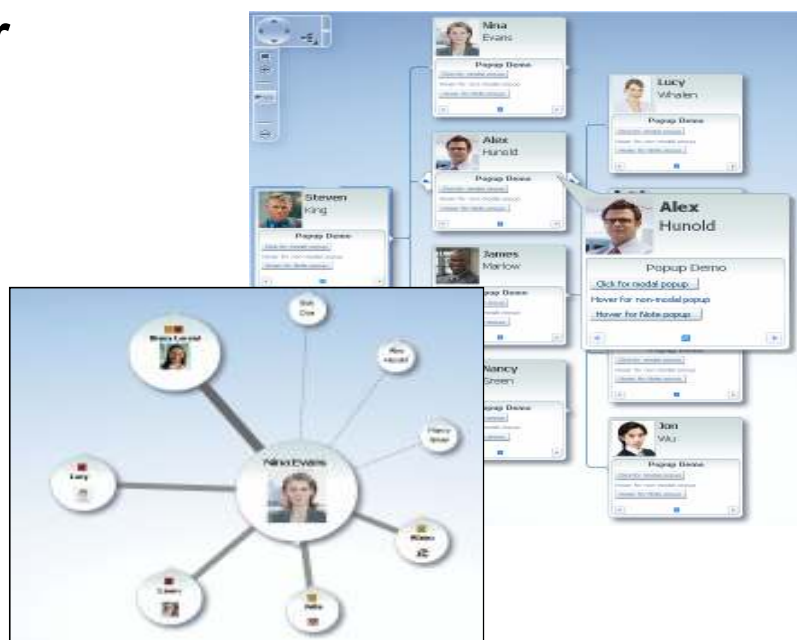
- Track tasks and resources over time for project planning
- Project Gantt (project management)
- Scheduling Gantt (resource management)
- Resource Utilization Gantt (resource utilization)



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## Hierarchy Viewer

- View hierarchical data
- Often used for org charts
- Features:
  - Multiple PanelCards for details
  - Multiple layouts
  - Progressive disclosure of details
  - Expand/collapse nodes
  - Rendering simple ADF components inside the nodes
  - Search



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## ADF Faces and DVT Demo

- Component gallery and feature demos for ADF Faces and DVT features
- View page source directly from the demo
- Available to download and deploy, complete with source code
- Find the [demo and instructions](#) on OTN JDeveloper site under Sample Applications

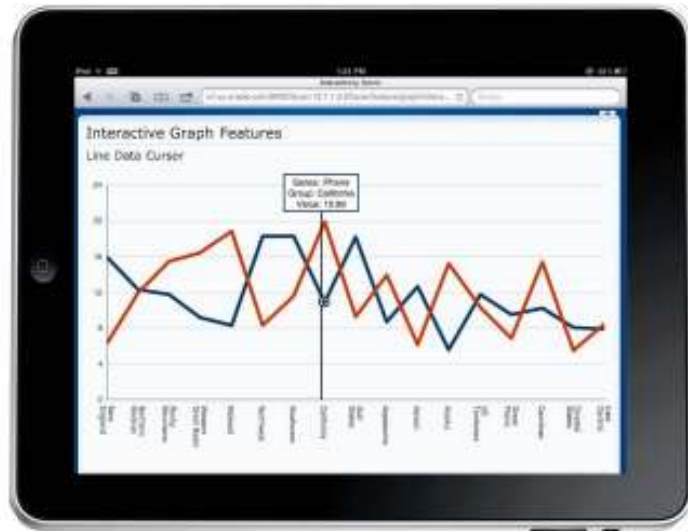


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## ADF Data Visualizations

### Support for Mobile Platforms

- Touch and iOS support
  - HTML5 rendering
  - Interactivity and touch support for mobile devices



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# ADF Faces Framework Capabilities



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## Declarative Partial Page Rendering (PPR)

Partial Page Rendering:

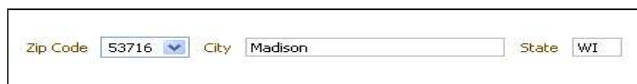
- Enables redrawing only a portion of a page
- Can be enabled declaratively or programmatically

Triggering

component:

`id="zipcode"`

`autosubmit="true"`



Target components:

`partialTriggers="zipcode"`

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## 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

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## 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

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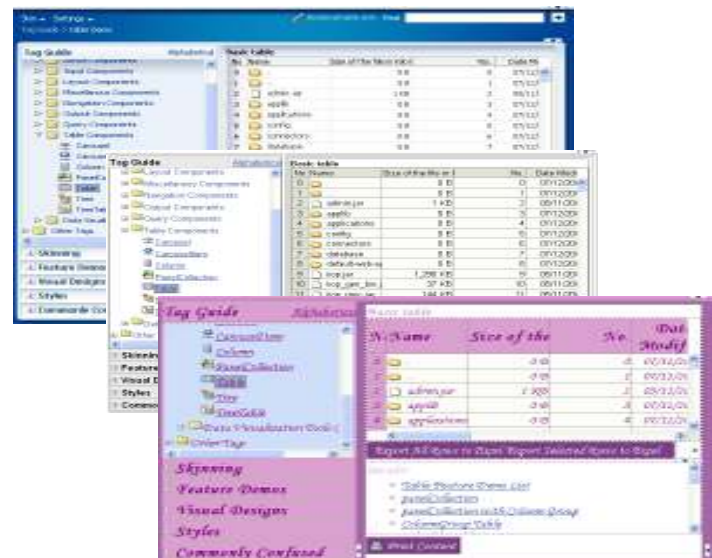
## Declarative Components

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

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## 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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# Demonstration

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- Arranging a Page with Layout Components
- Displaying Data with Common Components
- Framework Capabilities: Adding Client Functionality with Operation Components
- Displaying Data with DVT Components

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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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**Oracle's JDeveloper PM blog**

[blogs.oracle.com/Jdeveloperpm](https://blogs.oracle.com/Jdeveloperpm)



**ADF Developer Newsletter**

[myprofile.oracle.com](https://myprofile.oracle.com)

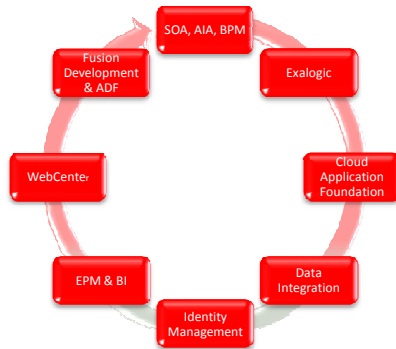


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- Quick Start Guide to **Oracle Fusion Development**
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