Building Web Data Dashboards Without Coding
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Program Agenda

• Introduction
• Overview of ADF Data Visualizations
• Demo: Building a Web 2.0 Dashboard
• Demo: Runtime Visualization Capabilities
• What is Coming: Future Visualizations
“A picture is worth a thousand words”
- Old Chinese phrase

“...But it consumes 3 time the memory.”
- Old geek phrase
A Common Development Framework

Oracle Application Development Framework

• Increase productivity & ease-of-use
  – Visual and declarative development
  – Takes care of the “plumbing” code
  – Implements best practices

• Promote service oriented development
  – Re-usable business services
  – Composite applications development

• Standards-based
  – Java EE, SOA, SDO/SCA …

• End-to-end coverage
  – MVC, security, customization
Oracle’s Strategic Framework

• ADF is used at Oracle for all “next generation” Web User interfaces
  – Fusion Applications (CRM, HCM etc.)
  – Middleware components (Enterprise Manager, SOA Suite, BI EE, WebCenter)
  – Vertical applications (Insurance, telco, pharma…)
  – Many other applications and products

• Anyone can use this
  – Available to customers and partners as part of the platform
Oracle ADF - Major Benefits

• Faster and simpler standard-based development
  – 30% productivity improvement over .Net
• Rich interactive user interfaces without the cost
• Single set of developer skills
  – Mobile, BI, Geographic Information, Cubic data
• Common infrastructure
  – Declarative customization (company, department, personal, portal)
  – End-to-end security
  – Drag-and-drop binding
  – Reliable certification and support
  – Advanced Tooling
Oracle ADF – Multi Channel Framework

- Web
- Desktop
- Mobile
- Office

- Database
- Web Services
- Legacy Systems
- Applications Unlimited
Oracle Fusion Applications
Oracle Fusion Applications

Oracle HCM Talent Review
JDeveloper - Unified Visual Development

Web 2.0
Java
SOA
DB
ADF Faces Rich Client Components

- Component approach to page construction
- Visual and declarative development
- Ajax baked-in the component
- The standard UI platform at Oracle
  - Oracle Fusion Applications
  - Oracle Products
    - Web Center
    - SOA
    - Enterprise Manager
  - More…
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
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
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**

More than 50 types including pie, bar, line, bubble, funnel, and stock graphs.
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
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
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
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)
ADF Data Visualization 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
ADF Data Visualization Thematic Map

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

Building a Web 2.0 Dashboard
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
Demonstration

Data Visualizations Runtime Features
ADF Data Visualizations Future

Support for Mobile Platforms

- Touch and iOS support coming up in a future release
  - HTML5 rendering
  - Interactivity and touch support for mobile devices
ADF Data Visualizations Future

Diagrammer

• Network of nodes that can be arbitrarily linked together
ADF Data Visualizations Future

Treemap and Sunburst

• Display hierarchy using color and size of the nodes to convey information
ADF Data Visualizations Future

Timeline

- Visualizes events on an interactive timeline
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