



# Drinking the Kool-Aid

My Journey To Becoming an ADF Believer

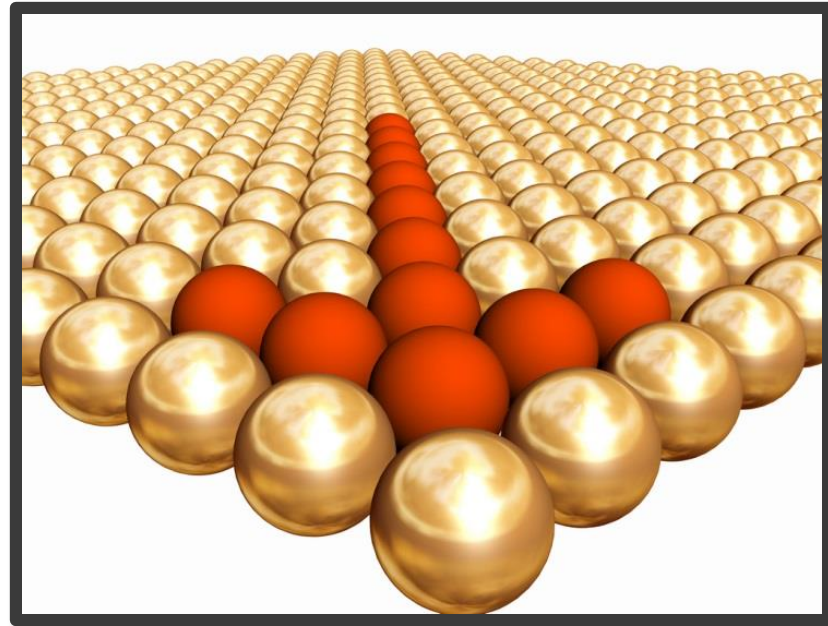
Rob Nocera, NEOS & Vgo Software

# Who am I?

- Founding Partner – NEOS, Vgo Software
  - Modernization Companies
  - NEOS – Business Consulting / Industry Focus
  - Vgo – Technology Modernization
- Java Programmer
- **ADF Believer**

# The beginning of my journey

- IT Department
  - Forms 4.5
  - DBA Work
  - C / Pro\*C
  - Shell Scripting
- First Taste of Automation
- Shell Scripts



# A little farther down the road

- Paradox Database Application
- SmallTalk
  - Introduction to Object Oriented Programming
  - Developed 2 Systems
- First Introduction to Java
  - No Frameworks
  - Swing



# Even farther...

- Larger Company
- Research and Development
  - More Oracle Forms
  - Lots more Java
    - Weblogic Server
    - Integration with Forms
    - In the Database



ORACLE®

# Farther still...

- Internet Startup
  - Streaming Media Company (1999)
- Senior Engineer
  - Website Logic
    - Java Template-base Framework
    - Oracle DB
  - Streaming Media Menu
    - Java Template-based Framework (Velocity)
    - Oracle DB
    - Integration with Flash
    - Visual Basic



# Founding NEOS

- Founded NEOS as consulting company
- Modernization Projects
  - Oracle Forms
  - Powerbuilder
- Common Output
  - Java-based frameworks
    - Struts
    - JSF



# And continued the journey to modernization

- Founded Vgo Software
  - Java-based Tools
    - Velocity
    - Swing
    - JSF
  - First Glimpse of ADF
    - ADFT
    - Conversion Project





# First glimpse at ADF

- ADFT
  - Telnet plug-in for ADF
  - JSF Tags
  - Not in production
- Comfortable with Java/JSF
  - Used Tags
  - Java/JSF back-end
  - Implemented our own persistence
  - Implemented supporting classes



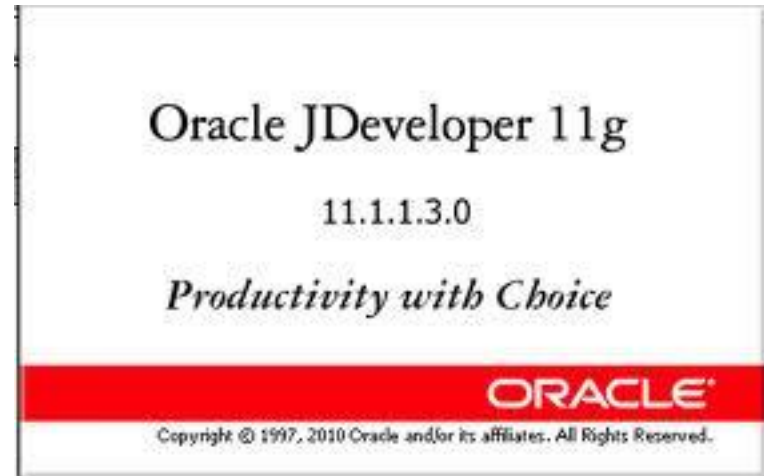
# First impression of ADF

- Did not use JDeveloper
- Did not use BC4J (ADF Business Components)
- Worked with an incomplete project
- Lack of control
- Some Bugs
- Java Expert – ADF Newbie

A screenshot of a Java IDE window displaying a list of classes and their dependencies. The window title is "System" and the content shows a table of class names, package names, and other metadata. The text is small and difficult to read, but it appears to be a list of classes and their relationships.

# Second impression of ADF

- ISV Client
  - Oracle Forms -> ADF
    - Current Team Fluent in Forms
    - Clients pushing for Web interface
- ADF 11g Technical Previews
  - Hired an Expert
  - Used JDeveloper
  - Used full framework
    - ADF Rich Faces
    - ADF Business Components



# ADF dislikes

- Abstractions
  - ADF built on JSF built on J2EE
  - Black Box
    - Loss of Control
    - Difficult to debug
- Difficult Error Messages
- Little Opportunity to Code
  - Where does the code go?



# Wait there are more dislikes

- Lack of Compile-time Error Checking
  - More time to find bugs
- Difficult to Debug
  - Can't debug an XML file
  - Data stored in more complex structures
- Lack of Documentation
  - No docs on XML formats
  - Included help unfinished
  - No Books



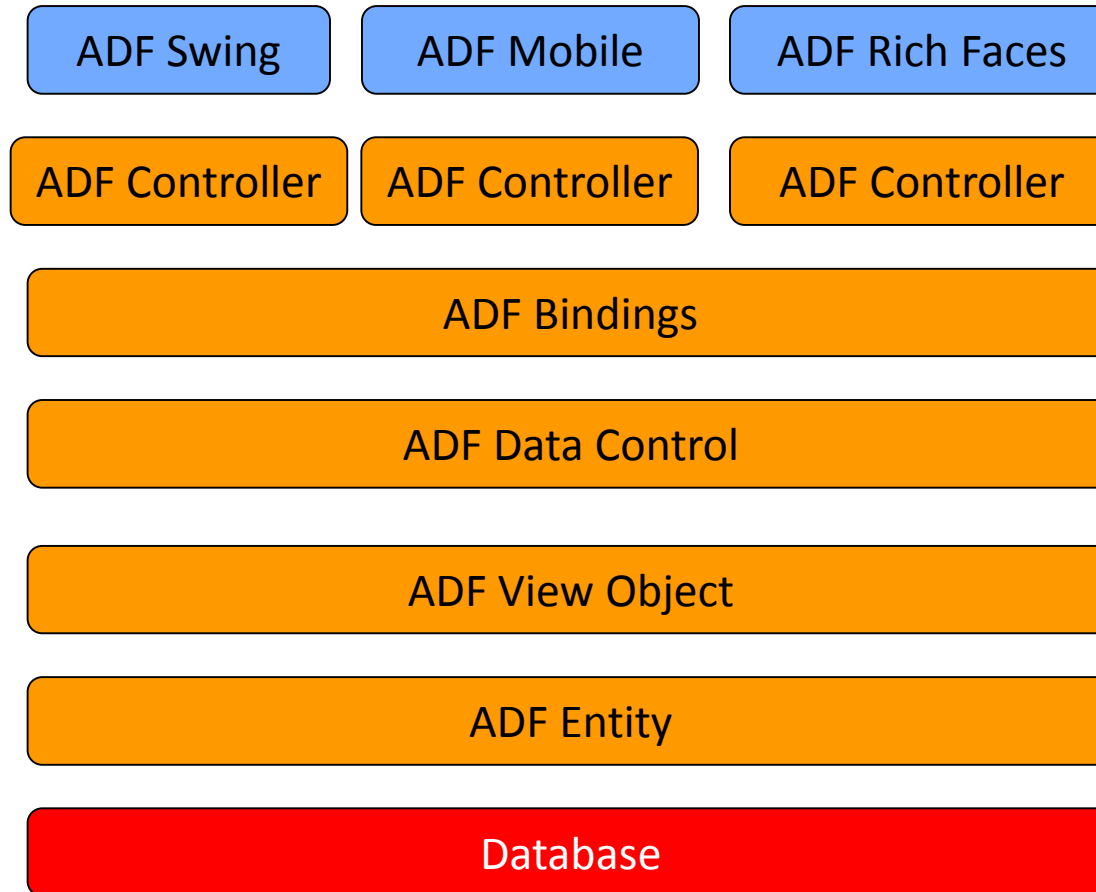
# Starting to believe in ADF

- Work with the Framework, not Against It
  - Using JDeveloper
  - Using ADF Business Components
  - Wizards, Wizards, Wizards



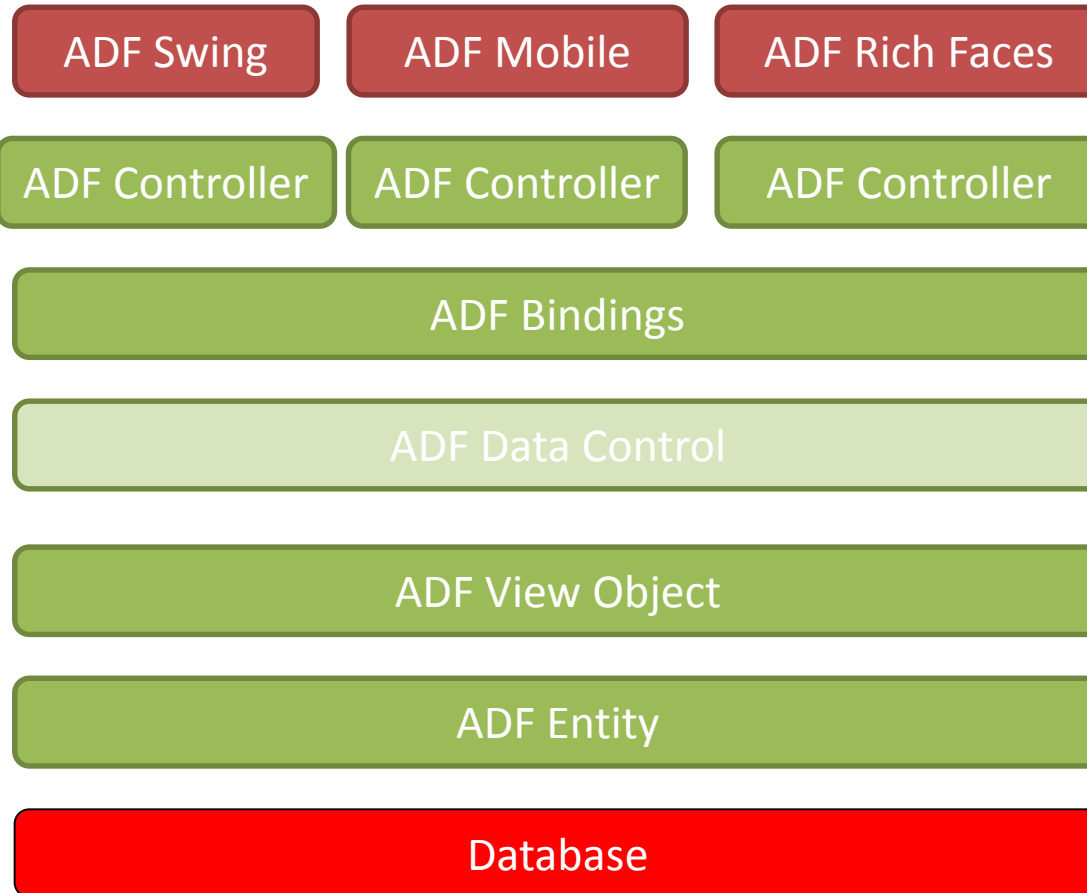
# Structure of an ADF Application

## ADF



# What JDeveloper Does

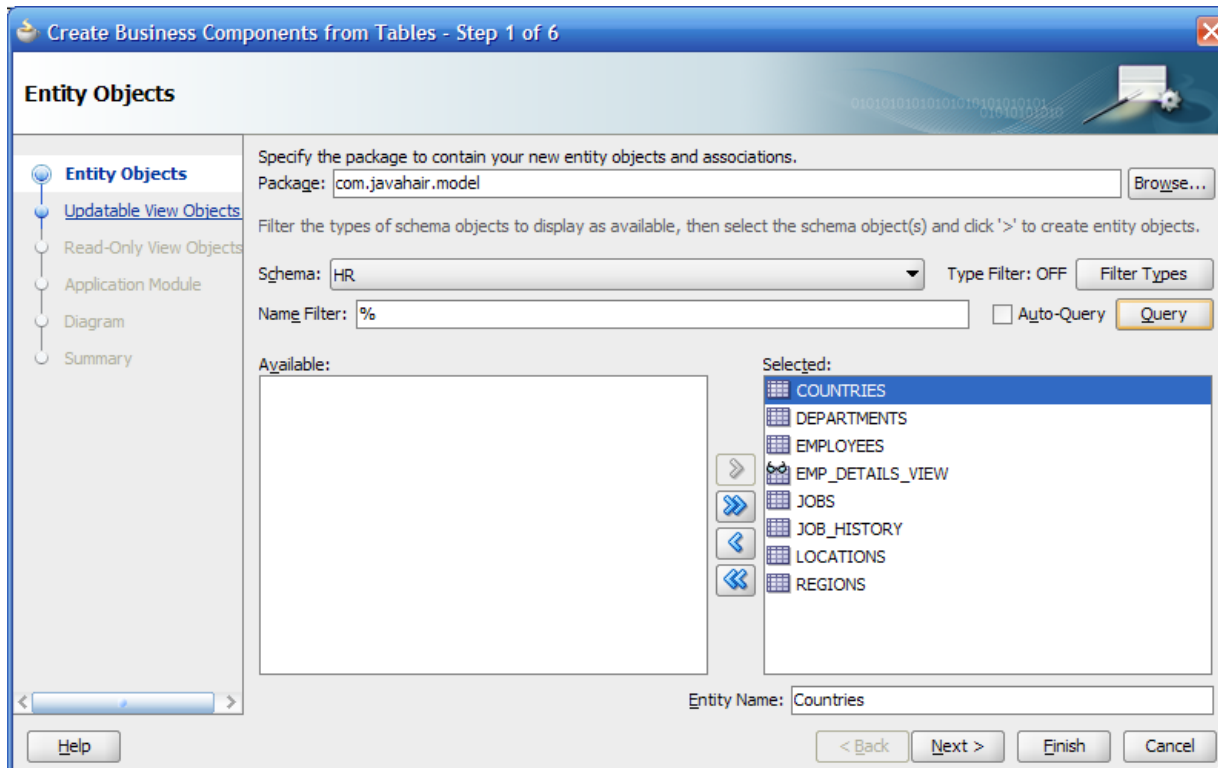
## ADF





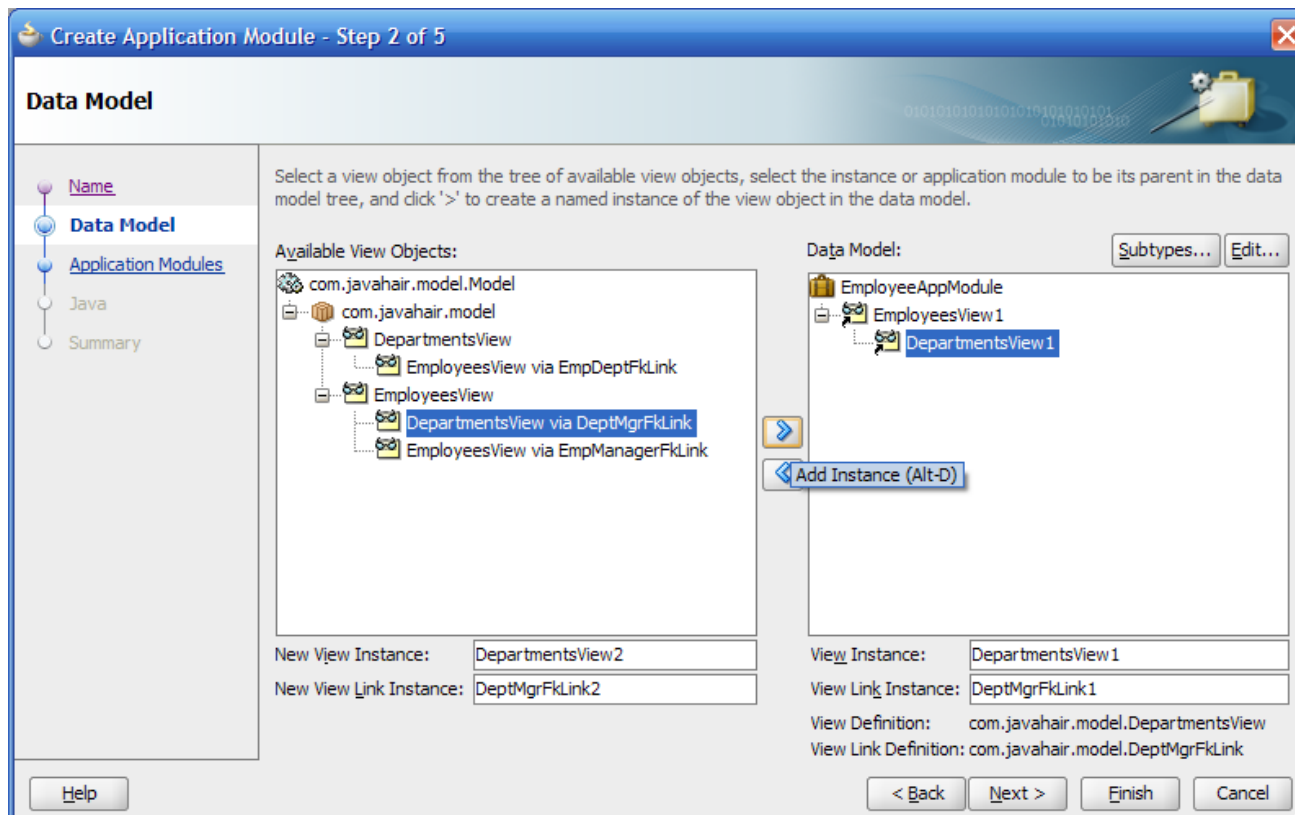
# Wizards of ADF – Business Components

- Business Components Wizard
  - Use it to create the entire persistence layer
  - Caching included



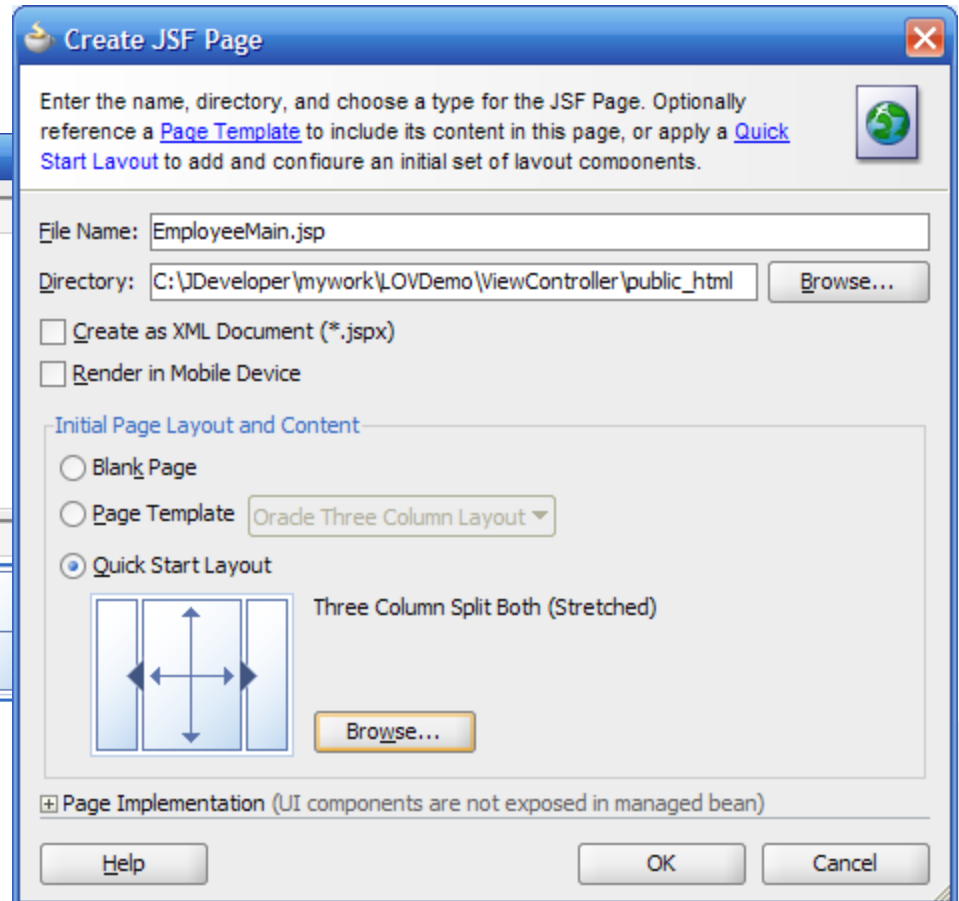
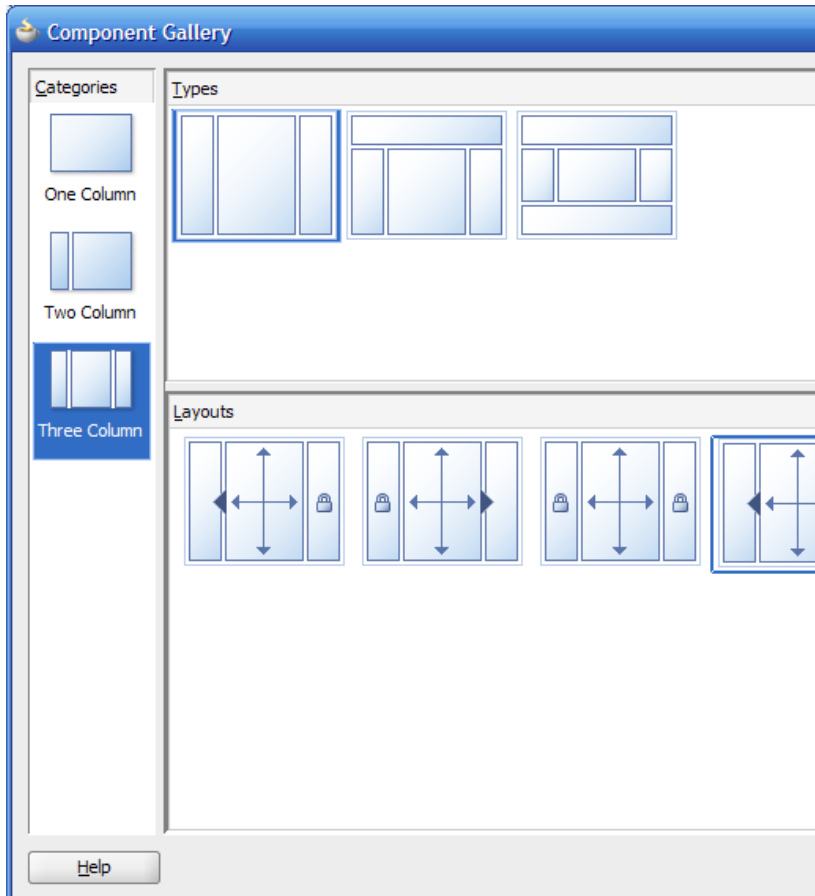
# Wizards of ADF – Application Module

- Application Module Wizard
  - Expose Business Components to the View Controller

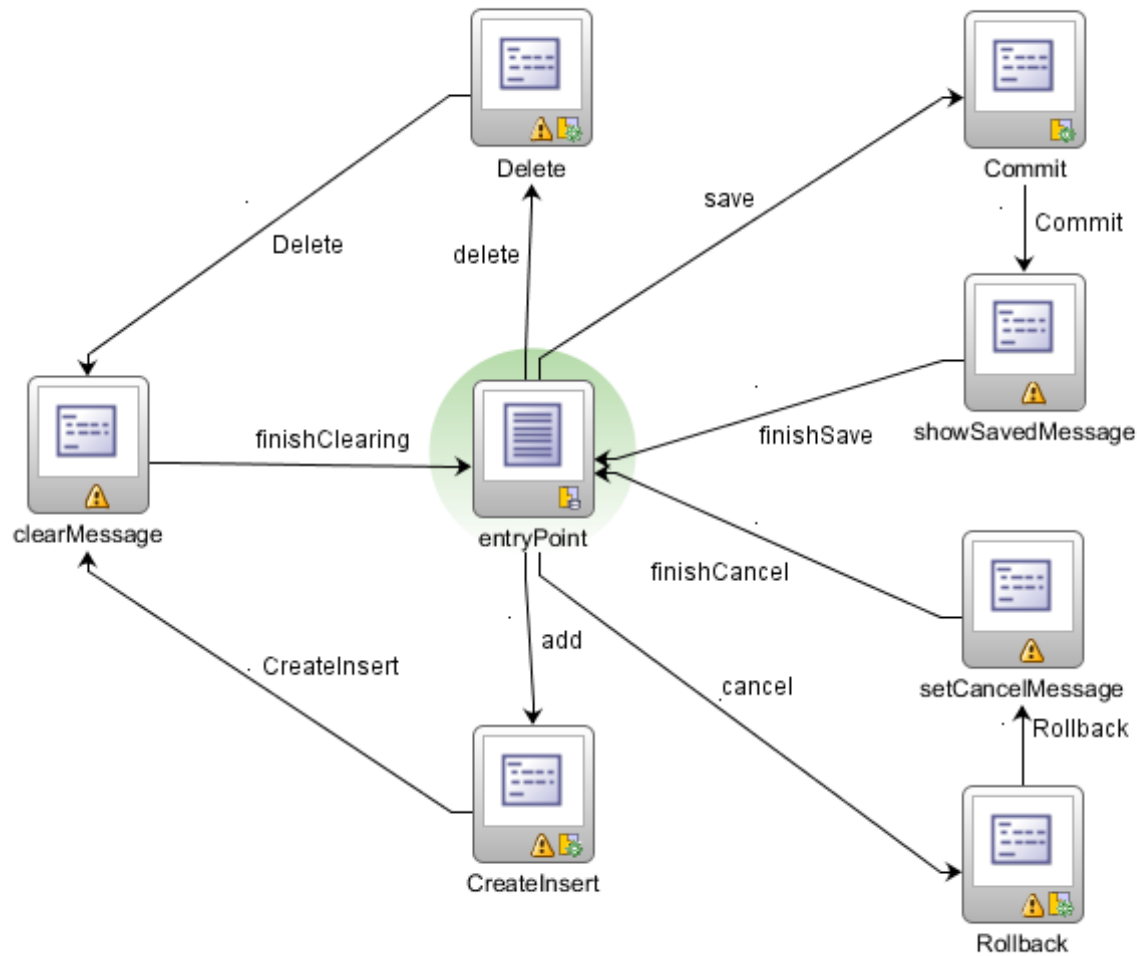


# Wizards of ADF – View Controller

- JSF Page Wizards



# ADF Task Flows



# Example ADF Simple Search/Edit Screen

**Demo** Add Delete Save Cancel

**Search** Advanced

Match  All  Any

TM NAME  TM DESCRIPTION  CTL   
 TM NO  CAT  COUNTRY   
 TM NUMBER  TM CODE

TM NUMBER	TM NO	TM NAME	TM DESCRIPTION	COUNTRY	CAT	TM CODE	CTL	PRC
9-1425-2602-12-1	12-1	MSE SUG	SOFTWARE USER G	UNITED STATE	3			Pal
9-1425-2602-12-2	12-2	MSE SUG	SOFTWARE USER G	UNITED STATE	3			Pal
9-1425-2602-12-4	12-4	MSE SUG	SOFTWARE USER G	UNITED STATE	3			Pal
9-1425-2602-34-2	34-2	MSE SUG	SOFTWARE USER G	UNITED STATE	7			Pal
9-1425-602-12	12	SUG	SOFTWARE USER G	UNITED STATE	3			Pal
9-1425-602-12-1	12-1	SUG	SOFTWARE USER G	UNITED STATE	3	N13-1		Pal
9-1425-602-12-2	12-2	SUG	SOFTWARE USER G	UNITED STATE	3	N13-2		Pal
9-1425-602-12-3	12-3	SUG	SOFTWARE USER G	UNITED STATE	3	N13-3		Pal
9-1425-602-12-4	12-4	SUG	SOFTWARE USER G	UNITED STATE	3	N13-4		Pal
9-1425-602-12-5	12-5	SUG	SOFTWARE USER G	UNITED STATE	3	N13-5		Pal
9-1425-602-34	34	SUG	SOFTWARE USER G	UNITED STATE	7	I7		Pal
9-1425-602-34-1	34-1	SUG	SOFTWARE USER G	UNITED STATE	7	I7-1		Pal
9-1425-602-34-2	34-2	SUG	SOFTWARE USER G	UNITED STATE	7	I7-2		Pal

# ADF JDeveloper

- View Code in a variety of ways

The screenshot displays the Oracle JDeveloper 11g interface. The main window shows the XML code for 'EmployeesView.xml'. The 'Attributes' panel on the right lists various attributes with their types and aliases. The 'Edit Attribute: LastName' dialog box is open, showing the 'View Attribute' configuration for the 'LastName' attribute.

**Attributes Table:**

Name	Type	Alias Name
EmployeeId	Number	EMPLOYEE_ID
FirstName	String	FIRST_NAME
LastName	String	LAST_NAME
Email	String	EMAIL
PhoneNumber	String	PHONE_NUMBER
HireDate	Date	HIRE_DATE
JobId	String	JOB_ID
Salary	Number	SALARY
CommissionPct	Number	COMMISSION_PCT
ManagerId	Number	MANAGER_ID
DepartmentId	Number	DEPARTMENT_ID

**Edit Attribute: LastName Dialog:**

- Name: LastName
- Type: String
- Property Set: <None>
- Value Type:  Literal  Expression
- Value: [Empty field]
- Mapped to Column or SQL
- Selected in Query
- Discriminator:  View  Entity
- Key Attribute
- Queryable
- Effective Date:  Start  End
- Queryable:  Always  While New  Never
- Query Column: Alias: LAST\_NAME, Type: VARCHAR2(25)

# ADF JDeveloper

- Lots of functionality in build-in components

The screenshot shows the Oracle JDeveloper 11g Release 1 IDE. The main workspace displays a JSP page titled 'paneledEmp.jsp' with a search form and a table. The search form includes a 'Query' dropdown menu and a 'Click to select Query' button. Below the search form is a table with columns for 'FirstName', 'LastName', and 'Email'. The table is rendered with a 'Table' component. The interface includes a menu bar (File, Edit, View, Application, Refactor, Search, Navigate, Build, Run, Design, Versioning, Tools, Window, Help), a toolbar, a Project Navigator on the left, a Component Palette on the right, and a Messages-Log at the bottom. The status bar shows 'Inserting after Output Text - #{row.FirstName}'.

FirstName	LastName	Email
#{.FirstName}	#{.LastName}	#{.Email}
#{.FirstName}	#{.LastName}	#{.Email}
#{.FirstName}	#{.LastName}	#{.Email}

# Here is the code!

- Managed Beans
  - Scope taken care of (PageFlow scope!)
  - Assisted Method Creation
- Application Module Implementation
  - Create new pre-populated rows
  - Execute a complex business function
- ViewObjectImpl
  - Modify the SQL before execution (filter)
- ViewObjectRowImpl
  - Calculate a field (or use Groovy!)





# Groovy

**Edit Attribute: CommissionAmount**

Search

- View Attribute
- Custom Properties
- Control Hints
- Dependencies

### View Attribute

**Attribute**

Name:

Type:

Property Set:

Value Type:  Literal  Expression

Value:

Mapped to Column or SQL

Selected in Query

Discriminator:  View  Entity

Default Value:

Passivate

Key Attribute

Queryable

Effective Date

Start  End

**Updatable**

Always

While New

Never

**Query Column**

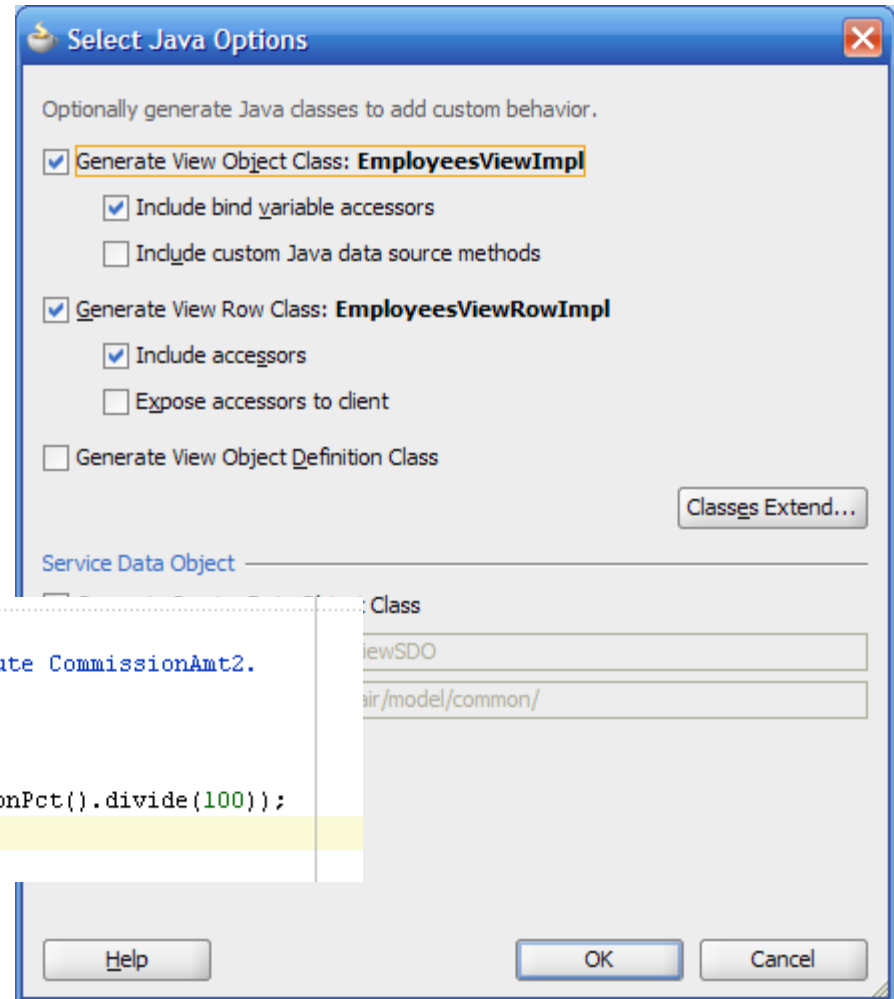
Alias:  Type:

Expression:

# Java

- Wizard to create Java Classes

```
/**  
 * Gets the attribute value for the calculated attribute CommissionAmt2.  
 * @return the CommissionAmt2  
 */  
public Number getCommissionAmt2() {  
    return this.getSalary().multiply(this.getCommissionPct().divide(100));  
}
```



# Knowing is half the battle



# Turning the corner

- Production Releases
  - Currently 11g Patch Set 3 (11.1.1.4)
  - Roughly 1 Release Every 6 months
  - New Plug-ins to come
- New Features
  - ADF Support for IBM WebSphere
  - Enhanced Design-time features
  - New Fusion Skin (11.1.1.2)
- Lots of Bug Fixes



# Turning the corner

- Oracle Purchases
  - BEA
    - WebLogic
  - SUN
    - Java!!!
    - NetBeans
    - Glassfish



# Turning the corner

- Updated Documentation
  - Completed Help
  - Oracle TechNet Site
- Actual Books
  - Grant Ronald
  - Frank Nimphius
  - Lynn Musinger
  - Duncan Mills



# Turning the corner

- Blogs
  - Java-Hair
  - <http://wiki.oracle.com/page/ADF+Blogs>
- Forums
  - ADF & JDeveloper Forum
  - ADF EMG Group



# To ADF or not to ADF



That is the question

## When to ADF

- Need a mature J2EE framework
- Want to be able to prototype quickly
- Want to concentrate on the “meat” of the application
- Have some experienced Java programmers
- Have many Forms Programmers

## When not to ADF

- Do not want to be tied to an Oracle License
- Have other Application Servers in place
- No time for learning curve



# Summary

- Started in Java
- Did not go “all-in” with ADF
- Finally jumped in with ADF
- My Advice - make the leap



# Questions?

- For follow-up questions:
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  - java-hair.com

