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## **JHeadstart: Real world experiences for migrating Forms to ADF**

Steven Davelaar  
Consulting Solutions Architect  
Oracle Fusion Middleware Architects Team (the “A-team”)

twitter: [@stevendavelaar](https://twitter.com/stevendavelaar)  
blog: [blogs.oracle.com/jheadstart](https://blogs.oracle.com/jheadstart)



# Agenda

- Part I:
  - JHeadstart
  - Migrating Forms using JHeadstart
- Part II:
  - Case Study
  - Lessons learned, other pitfalls
  - (Defining a modernization strategy)



# Oracle JHeadstart





# What is JHeadstart?

- JDeveloper extension for template-based automation of ADF development tasks
  - Development Toolkit on top of ADF
  - Builds on ADF Runtime architecture
  - Fully integrates with ADF Design Time
- Provides host of best practices out of the box
- Takes declarative development to the next level
  - Generates complete ADF applications
  - Like the Designer Forms Generator generates Forms apps, JHeadstart generates ADF apps
- Transforms Oracle Forms into ADF applications



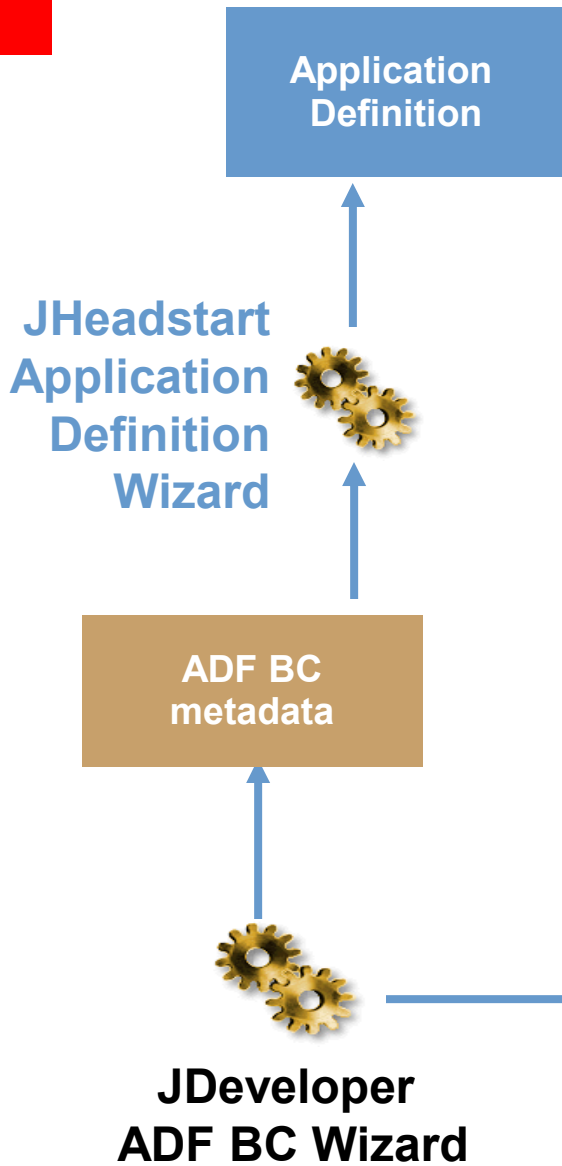
# JHeadstart – Main Components

- JHeadstart Application Generator (JAG)
  - Generates best-practice web application
- JHeadstart Runtime
  - Reusable components to implement complex functionality
  - Auto-implements host of best practices
- JHeadstart Forms2ADF Generator
  - Create fully-functional ADF app based on forms definitions
- JHeadstart Utilities
  - Automate other ADF development tasks
  - Perform quality checks
- JHeadstart Developer's Guide

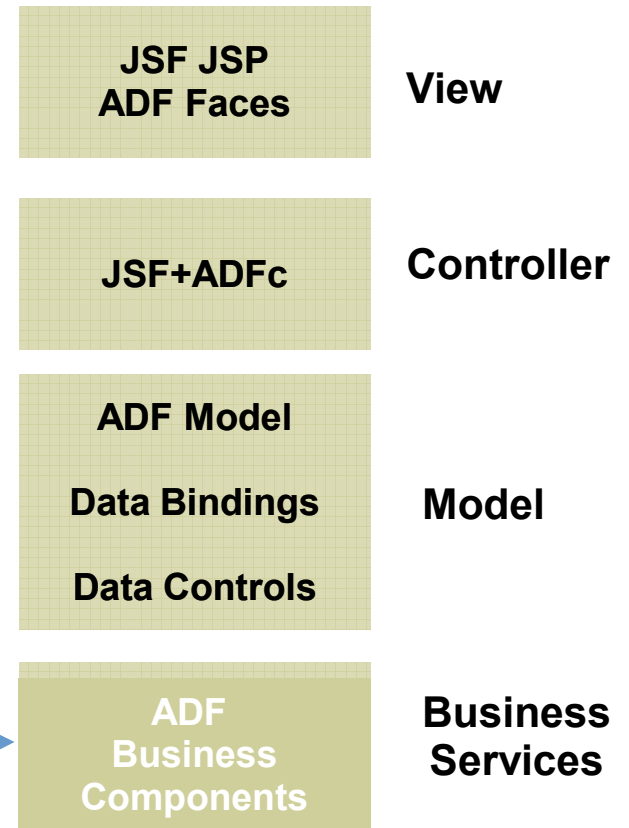


# JHeadstart Application Generator (JAG)

- Generates ADF Faces JSPX Pages, Page Fragments and Regions
- Generates (un)bounded task flows
- Generates PageDefinition XML files (data bindings)
- Does NOT generate any Java code!
- JAG is driven by
  - XML-based Application Definition file, created and edited through GUI Wizard (JDeveloper add-in)
  - Velocity Generator Templates
- Generated output is 100% customizable



# Generation Process





JHeadstart  
Application  
Definition  
Wizard

Application  
Definition

ADF BC  
metadata

JDeveloper  
ADF BC Wizard

The screenshot shows the 'AppModuleApplicationDefinition.xml - Application Definition Editor' window. The left pane displays a tree view of the application structure, with 'Employees' selected under the 'AppModule' folder. The right pane shows the configuration for the 'Employees' entity, including identification, group layout, and query settings.

Identification	
Name	Employees
Short Name	
Description	Employees
Use as List of Values?	<input type="checkbox"/>
Group Image / Icon	

Group Layout	
Layout Style	table-form
Table Overflow Style	inline
Stack Detail Groups on Same...	<input type="checkbox"/>
Same Page?	<input type="checkbox"/>

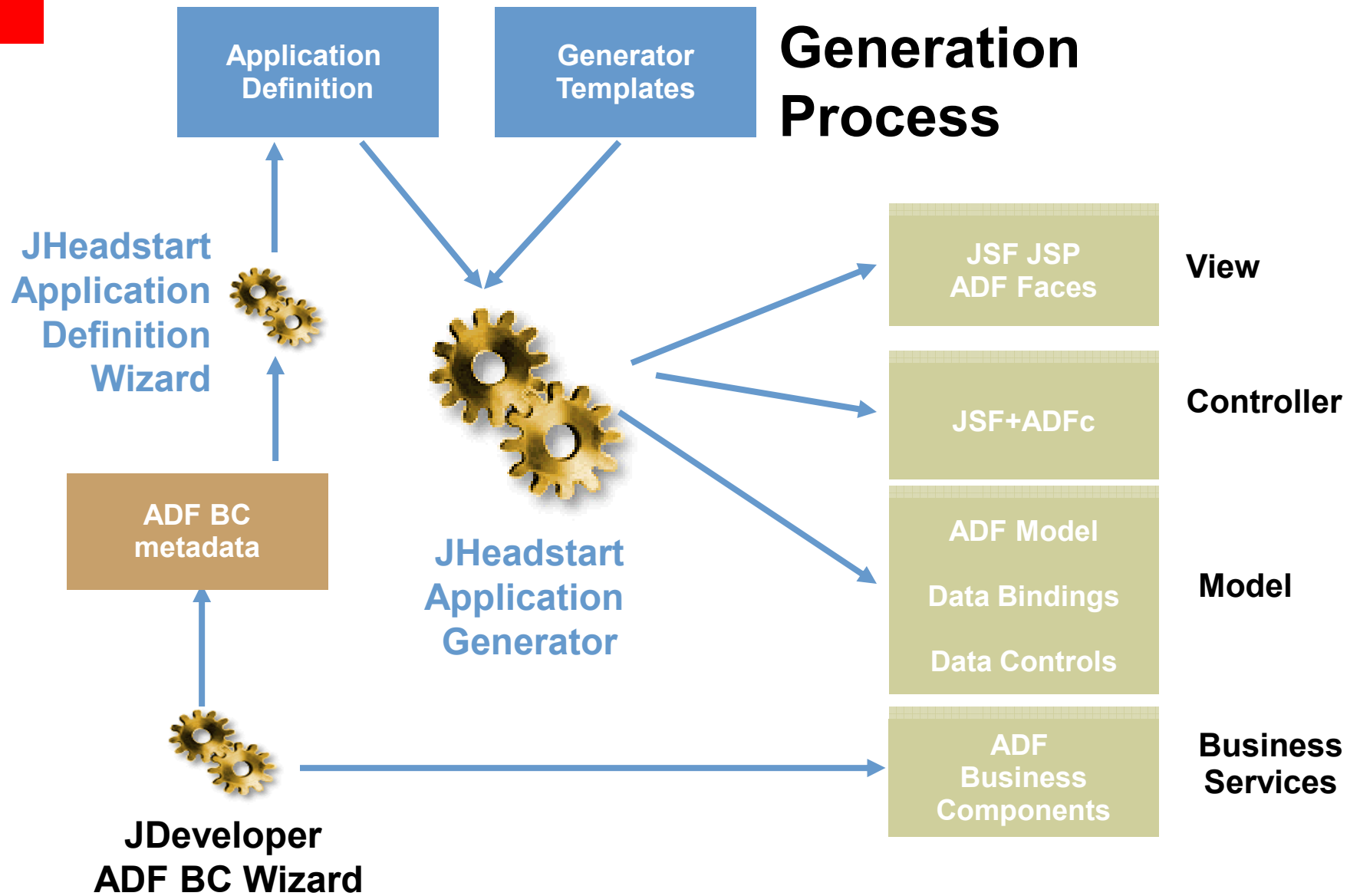
Query Settings	
Data Collection	EmployeesView1
Data Collection Implementation	EmployeesView
Query Bind Parameters	

This attribute determines the number and layout of the pages that are generated to select, view and manipulate the group ViewObject.  
form: generates a single-record page.  
table: generates a single page in Table (multi-record) format.  
table-form: generates a Table Page, as well as a single-record Details page.  
select-form: generates a Select Page with a list box where the user can select a record, and a single-record page.

Properties | Templates

Help Apply OK Cancel







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D E M O N S T R A T I O N

# JHeadstart Application Generator

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# JHeadstart Uses Best Practice ADF Design Patterns

- “One-page” application (UIShell)
  - Generated bounded task flows use page fragments and can be embedded as ADF region in page
  - One page with dynamic region driven by application menu
- Generated task flows are highly reusable
  - Use with traditional menu structure
  - Use with dynamic tabs
  - Use in handbuilt drag-and-drop pages
  - Use as child within another region
  - Use with human workflow task list
  - Use as popup / list of values
  - Use as WebCenter portlet
  - Add at runtime using WebCenter Composer

# JHeadstart-Generated Taskflow in Handbuilt Dashboard Page

Humand Resources Dashboard - Use Drag And Drop to Reposition the Panels

**Jobs**

JobId	IT_PROG
JobTitle	Programmer
MinSalary	4000
MaxSalary	10000

16 of 22

**Employees**

Filter By: LastName

Advanced Search

Action View Format Detach Wrap

EmployeeId	FirstName	LastName	JobId
100	Steven	King	AC_MGR
101	Neena	Kochhar	AD_VP
102	Lex	De Haan	AD_VP

Email: LDEHAAN CommissionPct:   
PhoneNumber: 515.123.4569 ManagerId: King   
HireDate: 13-Jan-2001 Department: Executive   
Salary: 17000

103	Alexander	Hunold	IT_PROG
104	Bruce	Ernst	IT_PROG
105	David	Austin	IT_PROG
106	Valli hhh	Pataballa	IT_PROG
107	Diana	Lorentz	AD_ASST

**Locations**

Locations (Roma) >

Edit Locations Roma [1 / 23]

Departments Save Cal

**Countries**

Filter By: CountryId

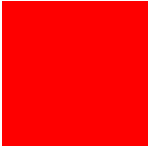
Advanced Search

Save Cancel



# JHeadstart Uses Best Practice ADF Design Patterns

- Generated task flows are highly configurable
  - Configure to start in create mode (new row)
  - Configure to show one specific row (deeplinking)
  - Configure to go to summary or detail page
  - Configure to hide action buttons (Save, Cancel, Nav. Buttons)
  - Configure to hide search region
  - Configure to show in read-only mode
- Generates layout best practices
  - Easy switching between stretching and non-stretching layouts
- Region interaction design patterns are auto-implemented



# Recommended Approach to Customizing Generated Output

- Use the visual design time tools in JDeveloper to make any modifications you like
  - Drag and drop from control palette
  - Structure pane
  - Property inspector
  - ..
- Run the modified page and verify it works as expected
- Move the custom page code to a custom template to preserve the modifications upon regeneration
- (or switch off page generation flag and skip last step)



# JHeadstart – Key Messages

- JHeadstart incorporates a **host of best practices** in developing ADF Fusion web applications
- **Rapid prototyping** to speed up analysis phase, and to figure out most suitable user interface patterns
- Repetitive development tasks are **automated**.
- JHeadstart auto-implements **common user interface design patterns**
- Forms application definitions might be reused to **ease transition to ADF and SOA**
- Learn ADF 11 by example.

# Oracle JHeadstart Forms2ADF Generator



JHeadstart







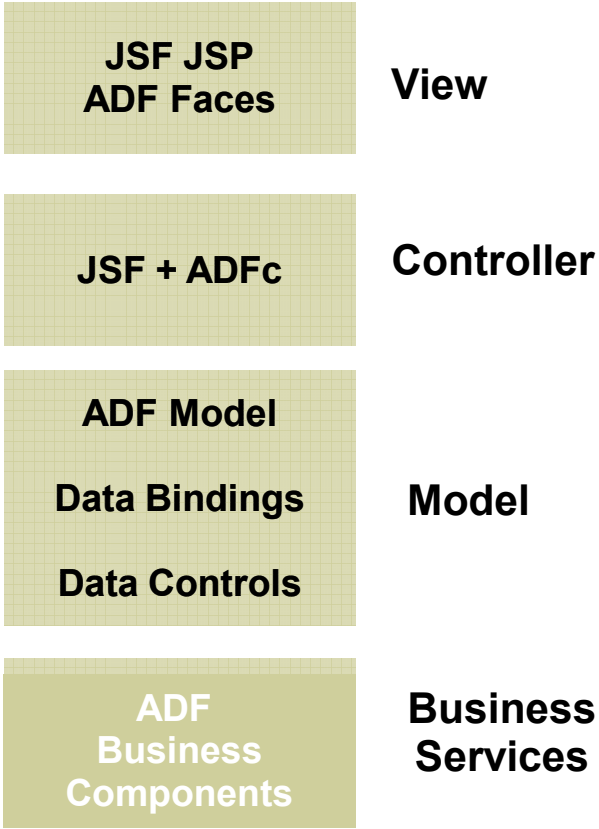
Application  
Definition

Form  
Form  
Form  
Form  
(.fmb)

JHeadstart  
Forms2ADF  
Generator

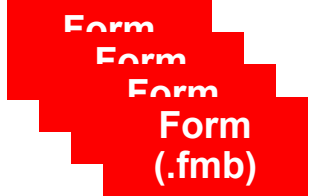


# Forms2ADF Generation Process





Application Definition



JHeadstart Forms2ADF Generator



AppModuleApplicationDefinition.xml - Application Definition Editor

AppModule

- Employees
  - Items
  - Regions
    - BenefitsRegion
      - Salary
      - CommissionPct
    - DepartmentsRegion
    - EmployeesRegion
    - JobHistoryRegion
  - Detail Groups
    - Departments2
    - Employees2
    - JobHistory3
- Departments
- Jobs
- Locations
- Countries
- Regions
- JobHistory
- EmployeesLOV
- Domains

Identification	
Name	Employees
Short Name	
Description	Employees
Use as List of Values?	<input type="checkbox"/>
Group Image / Icon	
Group Layout	
Layout Style	table-form
Table Overflow Style	inline
Stack Detail Groups on Same...	<input type="checkbox"/>
Same Page?	<input type="checkbox"/>
Query Settings	
Data Collection	EmployeesView1
Data Collection Implementation	EmployeesView
Query Bind Parameters	

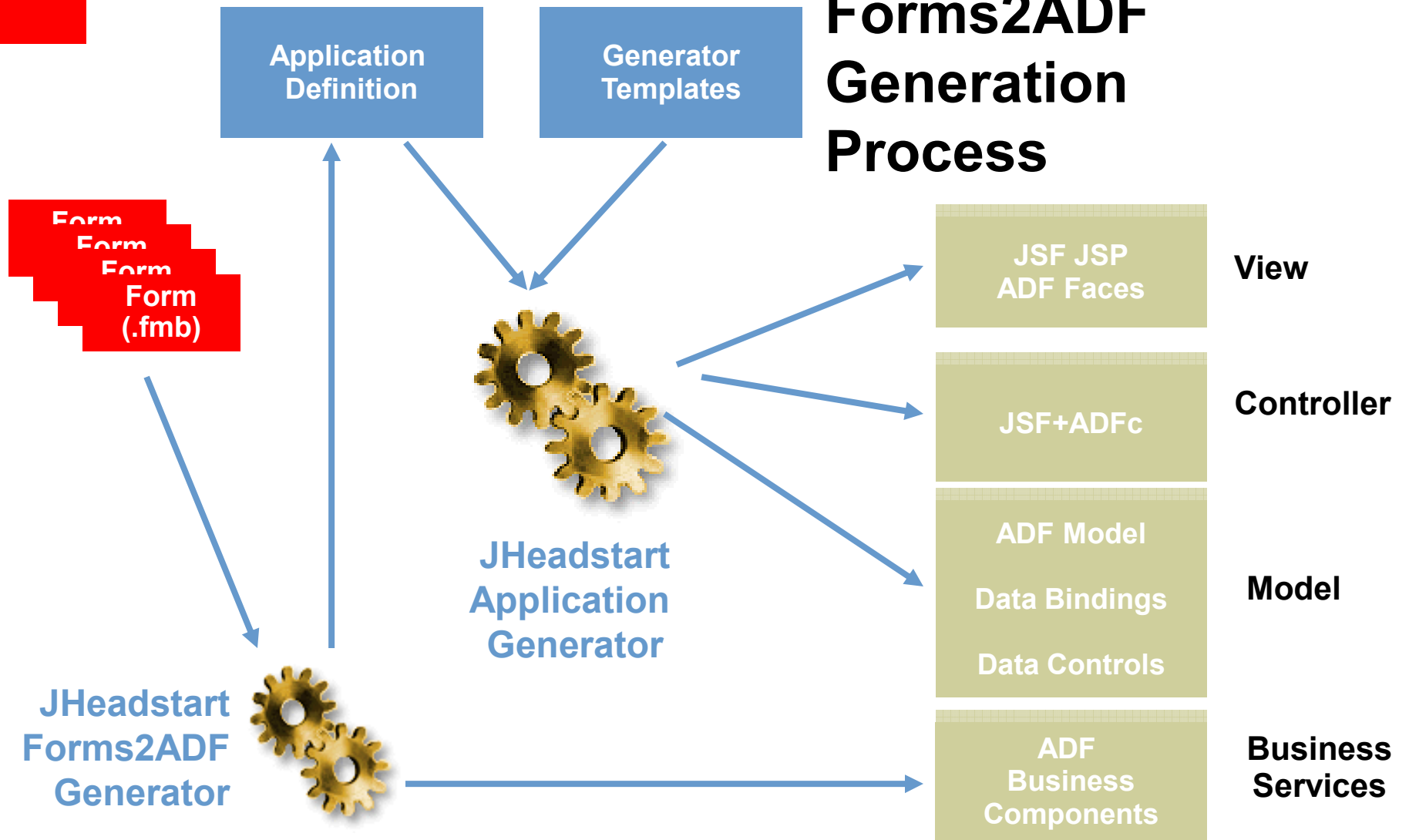
This attribute determines the number and layout of the pages that are generated to select, view and manipulate the group ViewObject.  
 form: generates a single-record page.  
 table: generates a single page in Table (multi-record) format.  
 table-form: generates a Table Page, as well as a single-record Details page.  
 select-form: generates a Select Page with a list box where the user can select a record, and a single-record page.

Properties | **Templates**

Help Apply OK Cancel



# Forms2ADF Generation Process



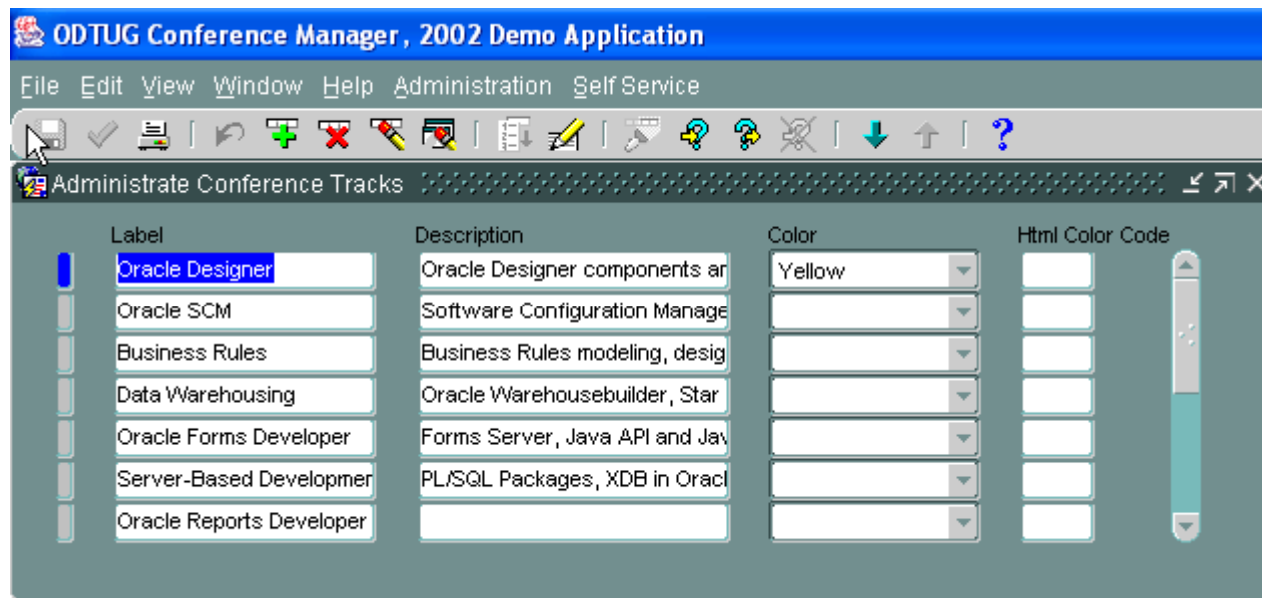


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**Forms to be migrated**

# OCM0010 – Tracks Admin



# OCM0050 – People Admin

The screenshot shows a web application window titled "ODTUG Conference Manager, 2002 Demo Application". The interface includes a menu bar (File, Edit, View, Window, Help, Administration, Self Service) and a toolbar with various icons. The main content area is titled "Administrate People" and displays a table of people with columns for First Name, Last Name, Email, and Company. Below the table, there are two sections: "ODTUG History" with a checkbox for "Odtug Member" and "Personal" information for the selected person, Steven Davelaar.

First Name	Last Name	Email	Company
Ken	Atkins		RightSizing
Frank	Brink	frank.brink@oracle.com	Amis
Bradley	Brown		Explorer Consulting
David	Brown	david.brown@oracle.com	Explorer Consulting
Steven	Davelaar	steven.davelaar@oracle.co	Oracle
Paul	Dorsey		Dulcian
William	Dwight	william.dwight@oracle.com	Oracle
Kent	Graziano		Guest Software
Erwin	Groenendal	erwin@cumquat.nl	cumQuat
Martijn	Hinten	martijn@cumquat.nl	cumQuat

**ODTUG History**  
 Odtug Member

**Personal**  
Country: Netherlands  
Birthdate: 21-SEP-1963  
Biography: He created Headstart, he created JHeadstart and he will create much more. The master of generation is

# OCM0110 – Submit Presentations

The screenshot shows a web browser window titled "ODTUG Conference Manager, 2002 Demo Application". The browser address bar shows "Submit Presentations for ODTUG 2002". The page contains a form for submitting a presentation with the following fields:

- Title: CDM RuleFrame: the framework for analysing, designing and implementing business rules
- Technology Track: Oracle Forms Developer
- Keywords: business rules, design, j2ee, html, forms, eee
- Presentation Level: Novice
- Abstract: Business Rules are key. Multiple technologies (Java/J2ee/HTML, Forms, Portal) used to build applications that act on the same data.

Below the abstract, there are two tabs: "Schedule" and "Administration". The "Administration" tab is active and contains the following fields:

- Room: Capri
- Slot: 2.00 -3.00 PM
- Day: Wednesday 19th June

At the bottom, there is a "Presenters" section with a table of presenters:

First Name	Last Name	Primary presenter?	Demonstrator?
Steven	Davelaar	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kent	Graziano	<input type="checkbox"/>	<input checked="" type="checkbox"/>
William	Dwight	<input type="checkbox"/>	<input type="checkbox"/>

# OCM0120 – Presentation Scheduler (p1)

The screenshot shows the 'Presentation Scheduler' window within the 'ODTUG Conference Manager, 2002 Demo Application'. The window has a menu bar (File, Edit, View, Window, Help, Administration, Self Service) and a toolbar with various icons. The main content area displays a list of presentations with columns for Title, Slot, and Day. Below the list are filters for Room, Technology, and Level. A 'Details' section for the selected presentation shows the Abstract, Keywords, and a checked 'Oracle Presentation?' checkbox. At the bottom, there are buttons for 'Audience', 'Presenters', and 'Ambass...'. The Oracle logo is visible in the bottom right corner.

Title	Slot	Day
CDM RuleFrame: the framework for analysing, design	2.00 -3.00 PM	Wednesday 19th J...
Forms Tuning Techniques -- Users Will Sing Praise	2.00 -3.00 PM	Wednesday 19th J...
High Performance Web Sites with Web Cache	3.15 -4.15 PM	Tuesday 18th June
How the west was won - Oracle Designer makes it		Monday 17th June
Implementing Business Rules in Business Componen	4.45 -6.15 PM	Wednesday 19th J...
Java Race: Case Study Comparing the Performance	8.30-9.30 AM	Monday 17th June
Java/J2EE Application Development with Oracle Desi	11.00-12.30...	Wednesday 19th J...
Migrate to the Web with Oracle9i Designer	3.15 -4.15 PM	Monday 17th June

Room: Capri Technology: Oracle Forms Developer Level: Novice

Details

Abstract: Business Rules are key. Multiple technologies (Java/J2ee/HTML, Forms, Portal) used to build applications that act on the same data.

Keywords: business rules, design, j2ee, html, forms, eee

Oracle Presentation?

Audience Presenters Ambass...



# OCM0120 – page 2

ODTUG Conference Manager , 2022 Demo Application

File Edit View Window Help Administration Self Service

Presentation Scheduler

Audience

First Name	Last Name	Signed Evaluation Form	Duration (minutes)
Mark	Pirie	<input type="checkbox"/>	
Madelon	van Rossum	<input type="checkbox"/>	4
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Personal Details

Birthdate  Email

Country   Odtug Member

# OCM0120 – page 3

The screenshot displays the ODTUG Conference Manager, 2002 Demo Application. The main window is titled "Presentation Scheduler" and contains a "Presenters" table and a "Details" form.

First Name	Last Name	Email	Country	Primary presenter?	Demonstrator?
Steven	Davelaar	steven.davelaar@ors	NL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kent	Graziano		US	<input type="checkbox"/>	<input checked="" type="checkbox"/>
William	Dwight	william.dwight@oracl	US	<input type="checkbox"/>	<input type="checkbox"/>

Details

Room: Capri Technology: Oracle Forms Developer Level: Novice

Abstract: Business Rules are key. Multiple technologies (Java/J2ee/HTML, Forms, Portal) used to build applications that act on the same data.

Keywords: business rules, design, j2ee, html, forms, eee

Oracle Presentation?

Audience Presenters Ambass...



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# Forms2ADF Generator

# Running the Forms2ADF Generator

**JHeadstart Forms2ADF Generator - Step 2 of 7**

### Form Selection

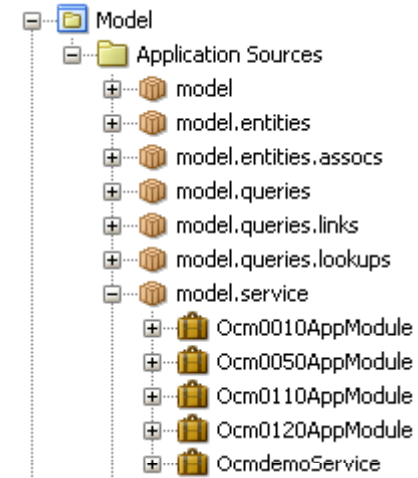
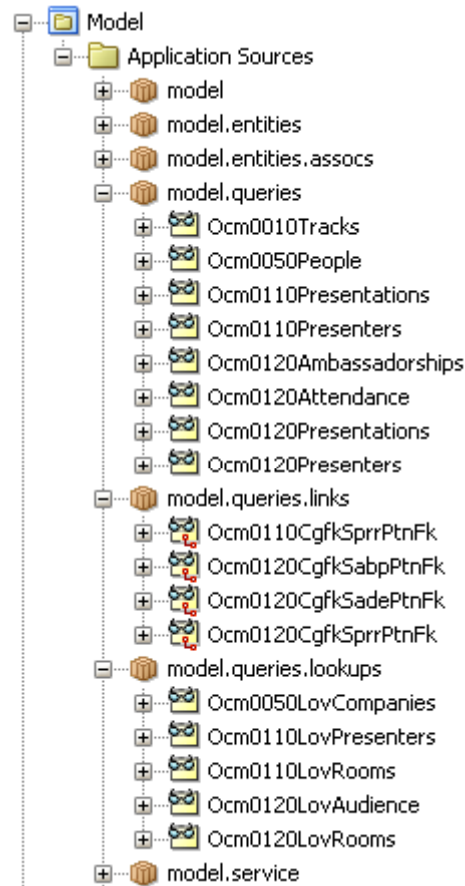
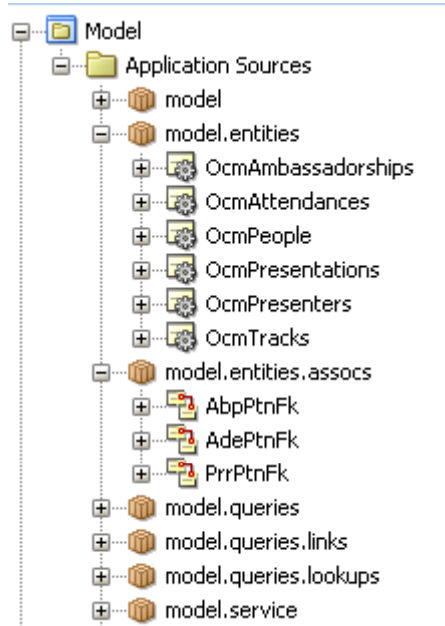
Select the form modules (.fmb or .xml format created with FRMF2XML utility with command line argument 'USE\_PROPERTY\_IDS=yes') for which you want to generate ADF Business Components and JHeadstart metadata.

Selected Form modules:

Name	Type	Remove
file:./j:/ocm/forms/OCM0010.fmb	Form	<input type="checkbox"/>
file:./j:/ocm/forms/OCM0050.fmb	Form	<input type="checkbox"/>
file:./j:/ocm/forms/OCM0110.fmb	Form	<input type="checkbox"/>
file:./j:/ocm/forms/OCM0120.fmb	Form	<input type="checkbox"/>

Buttons: Help, < Back, Next >, Finish, Cancel, Browse

# Generated ADF Business Components



# Generated Application Definition

The screenshot shows the 'OCMDemo - Application Definition Editor' window. On the left is a tree view of the application structure. The 'OdtugMember' attribute is selected under the 'CgSpa1cgBoilerplateGroupcgFrame2' folder. On the right is a properties table for this attribute.

General	
Bound to Model Attribute? *	<input checked="" type="checkbox"/>
Name *	OdtugMember
Short Name	
Attribute Name *	OdtugMember
Value	
Java Type *	java.lang.String
Display Type *	checkBox
Domain	Ocm0050PeopleOdtugMemberDomain

Display Settings	
Display in Form Layout? *	false
Display in Table Layout? *	false
Display in Table Overflow Area? *	true
<input checked="" type="checkbox"/> Display at Right of Item	
Display Summary Type in Table	
Prompt in Form Layout	Odtug Member
Prompt in Table Layout	
Short prompt	
Width	#{HINTS\$.displayWidth}

Buttons: Help, Apply, OK, Cancel

# OCM0110 – Migrated to ADF

The screenshot displays the Oracle JHeadstart Demo application interface. The main navigation bar includes 'Home', 'Administration', and 'SelfService'. The 'SelfService' section is active, showing a breadcrumb trail: 'Submit Presentations' > 'Presentation Scheduler' > 'Presentation Evaluations' > 'Conference Attendance Management'. The 'Presentations' form is the primary focus, with fields for Title, Technology Track, Keywords, Presentation Level, and Abstract. A 'Schedule' dialog box is open, showing 'Room: Capri', 'Slot: 2.00 -3.00 PM', and 'Day: Wednesday 19th June'. Below the form is a 'Presenters' table with columns for First Name, Last Name, Primary presenter?, and Demonstrator?.

**Presentations**

Filter By: Title [v] [Advanced Search]

\* Title: CDM RuleFrame: the framework for analysing, designing and implementing business rules

\* Technology Track: 16

Keywords: business rules, design, j2ee, html, forms, eee

\* Presentation Level: Novice [v]

Abstract: Business Rules are key. Multiple technologies (Java/J2ee/HTML, Forms, Portal) used to build applications that act on the same data.

**Schedule**

Room: Capri [v]

Slot: 2.00 -3.00 PM [v]

Day: Wednesday 19th June [v]

**Presenters**

Action	View	Format	+	Freeze	Detach	Wrap	First Name	Last Name	Primary presenter?	Demonstrator?
							Lucas	Jellema	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
							Steven	Davelaar	<input type="checkbox"/>	<input type="checkbox"/>

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Powered by Oracle JHeadstart 11g

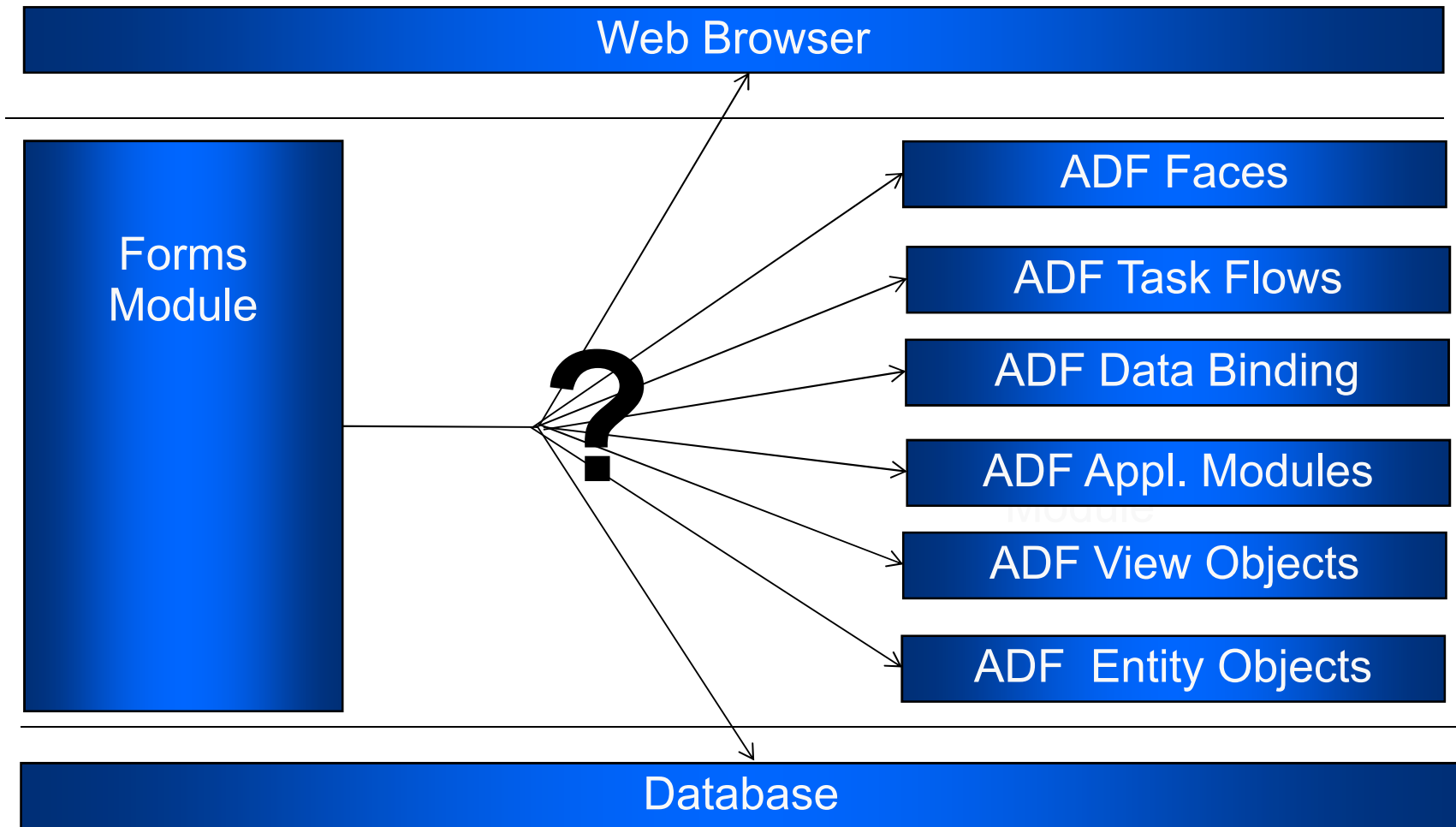


# What about PL/SQL Logic?

- Custom PL/SQL Logic not automatically migrated to Java
- JHeadstart prefers sound multi-tier target architecture (ADF MVC) above automated PL/SQL migration
  - Analyze the logic
  - Determine in which tier(s) it should be implemented
  - Determine how to implement it
- Application Definition Editor shows all form, block and item triggers and all program units
  - Good overview of all custom PL/SQL logic
  - Ability to move logic to database, to ADF BC or to JSF managed beans



# Understanding the Challenge





# JHeadstart Forms2ADF Generator – Key Messages

- Auto-created ADF Business Components, including model-based LOV's and UI Hints
- **Migrates Forms user interface to metadata, not application code**
  - Easy to redesign into task-oriented web 2.0 user interface.
  - Generates best-practice ADF application
- JFG provides most savings for forms with
  - Standard data blocks based on table or view
  - Complex user interface: many (stacked) canvasses, tabs, LOV's, and other display types
  - PL/SQL logic mostly limited to user interface dynamics
- Best Practice ADF architecture



# Agenda

- Part I:
  - JHeadstart
  - Migrating Forms using JHeadstart
- Part II:
  - Case Study
  - Lessons learned, other pitfalls
  - (Defining a modernization strategy)



# Case Study

- Dutch government organisation
- Replacement of 20 year old character-mode Forms system.
- Business drivers:
  - Ensure business continuity
  - Reduce yearly maintenance cost
  - Increase flexibility and adaptability to have shorter time-to-market for new legislation
  - Follow government policy to use open standards and government reference architecture (NORA)



# Case Study – Old System in Numbers

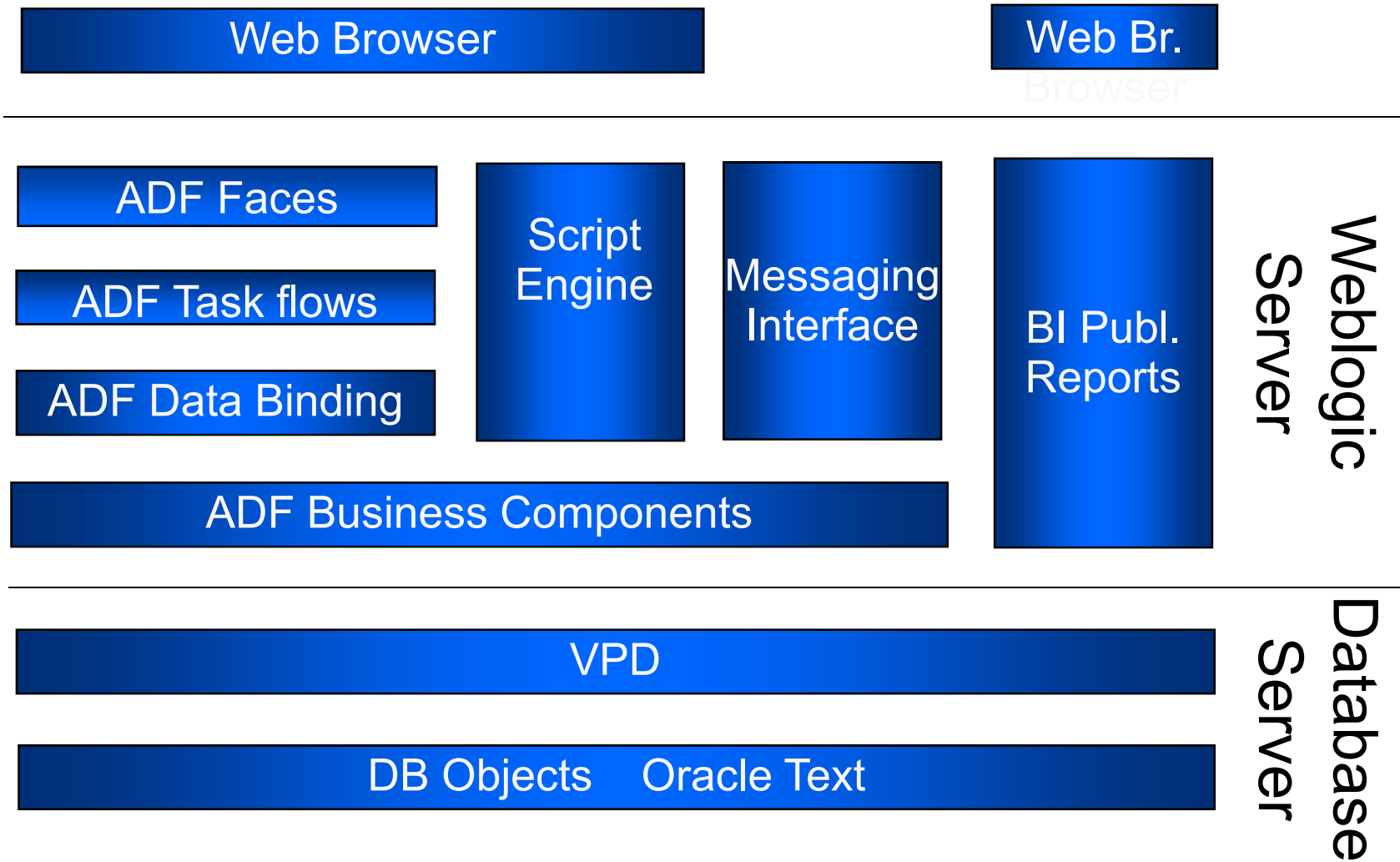
- 110 tables, composite meaningful PK's
- 220 forms (Oracle Forms 4.5)
  - 70 report launch forms
  - 20 read-only forms almost identical to maintenance form
- 8 interfaces
- 70 reports (Oracle Reports)
- 10.000 letter templates in RTF (custom mail-merge)
- 2000 end users
- 19 locations, 19 databases



# Migration requirements

- **AS IS** Migration, no functional enhancements
- Consolidate in 1 database
- Data entry as fast as old system -> keyboard-only data entry as much as possible
- Architectural: split up in 8 (reusable) components
  - At data and business logic level
  - Components identified by enterprise architect

# Software Layers New System





# Usage of JHeadstart

- During 10-day Proof of Concept, JHeadstart Forms2ADF Generator was extensively used
- During actual redevelopment Forms2ADF Generator was not used at all, primarily because
  - Changes to data model
  - Split in components
- However, new ADF application is 100% generated using JHeadstart Application Generator.
- Same pattern at other Forms2ADF customers



# Old User Interface

```

17-09-2009      NK001.01 Onderhoud zaakgegevens
-----
      ZAAK
1      /afd.  V prc.DG  aanbr.EXPL jr.94-1  aanbr.dt 01-01-1994 zksts L
zktyp 1: 2  dagvaarding inzake          variant 1  gewone zaak
      2: 7  bijzondere overeenkomst      dt inv. 26-01-1994
      3: 16 verbruikleen (geldlening)
      4: 99 overige verbruikleen (geldlening)  gldbel 1361.34
dt afd.          dt dagv./dt verw.      HB (J/N) J
onderwerp
opmerking      een opm
roepnaam E/G  Frankenstein          Itsalive
competentie
lettercode
kantonrechter 222  Heerdink
functionaris  172  JONG
clusternr
CJIB nr          CVOM nr
-----
      ZAAKPARTIJEN
rol sub naam          vertegenwoordi
EIS  Arkesteljn      J. Kraaieveld
GED  Spicker         H. Blom
-----
Deze functietoets is hier niet toegestaan.
Count: 1          v
  
```

```

Res/nr.
17-09-2009      NK001.02 Onderhoud zaakgegevens
-----
      ZAAKVERLOOP: HANDELINGEN
18 C -298  aanhouding voor eis          ver J
      bktr 215  Harmsen
      zitnr          dt 11-10-2004  srtzit GN  tijd  termijn
      opm
      conc
      mlzr
-----
17 C -242  vonnis          ver N
      bktr 215  Harmsen
      zitnr          dt 13-09-2004  srtzit GN  tijd  termijn
      opm
      conc
      mlzr
-----
12 L 6  repliek in conv./antw. in reconv.  ver N
      bktr 173  BRUIN
      zitnr 289  dt 17-06-2002  srtzit GN  tijd 12:00  termijn
      opm
      conc
      mlzr
-----
Count: 3          v          <Replace>
  
```

# New User Interface

Bekijken ▾

Home

- ▼ Zaakgegevens
  - Zoeken Zaak
  - Nieuwe zaak
- ▼ Referentie gegevens
  - Afdelingen
  - Default typeringen
  - Zaak statusovergangen
  - Varianten
  - Opmerkingen zaak
  - Gemeenten
  - Functionarissen
  - Domeinen
  - Zittingen

**Zoeken Zaak**   **Zaak 155555**   **Zaak 155552**

**Wijzigen Zaak 155555 ?**   Statistiek   Typeringshistorie   Zaaksoort   Opslaan   Annuleren

**Identificatie**

\* Zaaknummer 155555   Volgnummer 279   Jaar 4   Code afdeling WM   Procestype MD   \* Aanbrengdatum 19-mrt-2004   \* Aanbrengwijze VERZ   Zaakstatus A

**Zaaktyperingen**

\* Type 1 8 mulder  
Type 2 4 toepassing dwangmiddel  
Type 3  
Type 4  
Variant 3 vordering

**Data e.d.**

Invoerdatum 19-mrt-2004  
Datum afdoening 22-apr-2004  
Datum dagvaarding/verweerschrift  
Geldelijke belang  
Hoger beroep mogelijk?

**Referentie nummers**

CJIB nummer  
CVOM nummer

**Overige gegevens**

Onderwerp  
Opmerking CJIBnr. 47137260  
Roepnaam eiser Zwiers E.  
Roepnaam gedaagde CJIB  
Competentie code   Omschrijving  
Lettercode

Descente, bezoek of perceeladres  
Code registratie   Registratienummer  
\* Kantonrechter code 40   Naam Houterman  
Functionaris code 291   Naam Bisscheroux  
Clusternummer   Naam

**Zaakpartijen**   **Zaakverloop**   **Statusovergangen**

Actie ▾   Bekijken ▾   Opmaak ▾   +   Blokkeren   Ontkoppelen

	Volgnr	Lokatie	* Handeling
✖	10	C	-882 verzenden eindbeslissing
✖	8	C	-878 eindbeslissing
✖	6	C	-873 mondelinge behandeling
✖	4	C	-872 oproeping
✖	2	C	-871 dagbepaling mondelinge behandeling (heden)
✖	1	C	-870 verzoek vordering dwangmiddel ingekomen

Kantonrechter 40  
Zittingsnummer   Datum zitting 22-apr-2004  
Soort zitting GN   Tijd   Datum termijn  
Opmerking  
Concipient  
Meelezer  
\* Kamer EV

# New User Interface

- Context-sensitive function key support
- Autosuggest LOV “As You Type”
  - Search on code, name, phone..

Kantonrechter

Functionaris code 213 M.H.A. Geerlings 043-3465520

Clusternummer 295 mr. R.M.J. van Gent 587

260 R.A.M. Gerards

161 S. Ghanem

202 M. Goerke 043-3465566

243 L.J.C. Goertzen 836

223 mr. A.G.H. Gorissen 043-3465267

24 mr. J.J. Groen 046-4577913

313 mr. B.C. Groen-Witvliet 913

238 E.C.G. Groothuysen

Kantonrechter

Functionaris code 213 M.H.A. Geerlings 043-3465520

Clusternummer 295 mr. R.M.J. van Gent 587

260 R.A.M. Gerards

Key	Description
Alt+1	Zoeken Zaak
Alt+2	Zaak 100550
Ctrl+K	Show Function Keys
Ctrl+L	List of Values
Ctrl+S	Save
Ctrl+Z	Cancel
Down	Next Row
End	Next Data Block
F6	Details
Home	Previous Data Block
Insert	Add Row
Shift+Delete	Delete Row
Shift+Down	Last Row
Shift+Insert	Duplicate Row
Shift+Up	First Row
Up	Previous Row

OK



# New User Interface

- Multi-tasking through dynamic tabs
- High levels of reuse
  - 1 dynamic, table-driven, report launch form, replacing 70 old report launch forms
  - Same ADF task flow used for maintenance screens, read-only screens and lookup screens
- ADF regions even allowed for component separation at the user interface level
  - Added complexity ...



# New User Interface

- New “modern” user interface very well received by end users so far
- But still room for lot of improvement...
  - Screens still “window-on-data” instead of task-oriented
  - No integrated human taskflow capabilities
  - No integrated business intelligence
  - No integrated content management



# Redevelopment - Timeline

- PoC with ADF/JHeadstart in December 2009
- Project started march 2011
- Until July little progress
  - Slow and error-prone process to get new datamodel
  - Small dev team (2 ADF developers)
- August - December
  - Team scaled up to 16 people: 1 PM, 5 ADF, 2 interfaces, 2 reports, 1 data migration, 2 designers, 2 testers
  - Acceptance testing in december
  - First location live planned for 02-01-2012
  - Initial budget exceeded significantly



# Forms Redevelopment Process

- Excellent team of ADF developers
- JHeadstart improved productivity and flexibility significantly
- Yet, it took much longer than initial estimates:
  - No reliable documentation
  - Lack of functional knowledge
  - ADF developers had to examine Forms source to find out exact functionality
  - This examination sometimes revealed omissions/flaws in new datamodel...
  - Separation into components introduced more complexities than anticipated



## Lessons learned

- Splitting up in components is usually a good thing, but has huge impact -> do thorough analysis!
- Organize/ensure/invest in 100% correct understanding of current functionality
- Rebuilding “as is” is good to prevent scope creep, but might contrive business benefits
- Even with rebuilding “as is” you need a new design, ADF stack is much more powerful than Forms
- Migration project involves MUCH more than just migration of forms





# Some Other Common Pitfalls

- Migration tool seems more important than new development platform
- Modernization effort underestimated
  - There is no magic bullet
- ADF learning curve underestimated
  - ADF is by far the most feature-rich and productive framework in the market, but ....
  - Best-practice use of ADF has steep learning curve, is different from Forms development, and requires advanced ADF skills
- People are forgotten, they are more important than tools!

# Defining a Modernization Strategy





# Defining a Forms Modernization Strategy

- More comprehensive discussion of this topic in my talk at UKOUG 2010:

**Guidelines for moving from Oracle Forms to Oracle ADF and SOA**

- Google for above title to view or download slides.
- Next slides in this presentation are high-level summary



# Defining a Forms Modernization Strategy

- Where are we now?
  - Analyze current situation
- Where do we want to go?
  - Identify top business drivers / business benefits
- How do we want to go?
  - Identify and choose modernization options
- What do we need to do when and with whom?
  - Define modernization approach/timeline/project plan



# Where Are We Now - Analyze current System and Situation

- Technical architecture
- Functionality
- Data model
- User interface
- Documentation
- End user community
- Supporting IT staff



# Where Do We Want to Go - Common Business Drivers

- User Interface
  - RIA, self-service, task-oriented, web 2.0, mobile, PDA/Smartphone
- Customization and Personalization
  - Organisation unit, user group or marketing label
- Software-as-a-Service (SAAS) Model
- Time-to-market
  - New products not held back by IT constraints
- Business process improvement
  - Internal, B2B, B2C
  - Human workflow



# How do we want to go - Common Modernization Options

- Move logic from Forms to database
- Upgrade and integrate
- Add (self service) extensions
- Migrate functionality
- Redesign and rebuild functionality



# Final Recommendations

- Think strategic and big - Start small
- Do thorough analysis of current system and environment
- Define key *business* drivers for this transition
- Do trial migrations / assessment workshop
  - Assess added value migration tools
  - Get better insight in migration effort
- Make Lasagna and Ravioli rather than Spaghetti
- Understand capabilities ADF, JHeadstart and SOA Suite
- Invest heavily in training and coaching on the job