# Razvoj formi pomoću JDeveloper i ADF

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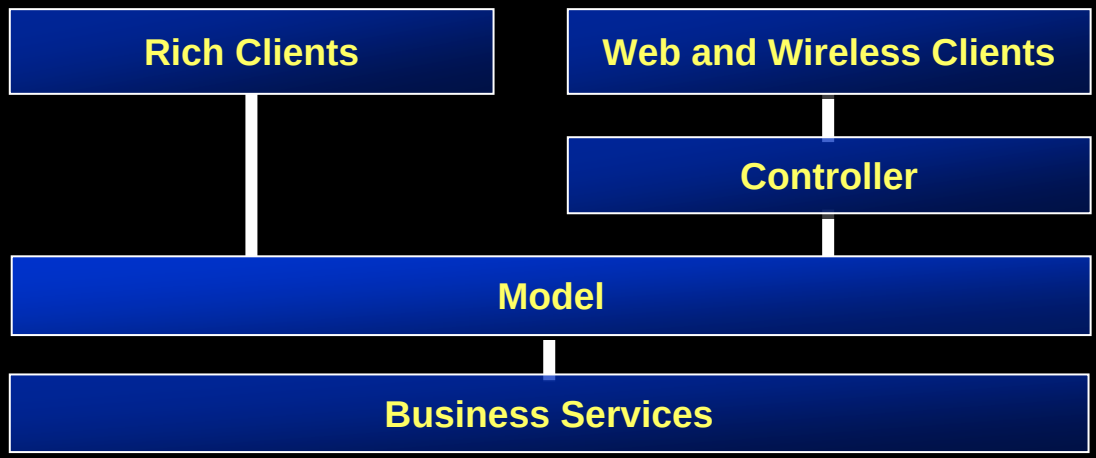
# Oracle Application Development Framework

- Reduces the complexity of J2EE development by providing visual and declarative development
- Increases development productivity
  - Less coding, more reuse
  - Focus on the application, not the “plumbing”
- Encourages J2EE best practices by implementing standard J2EE design patterns (MVC)
- Provides a flexible and extensible environment by allowing multiple technology choices and development styles

# Oracle ADF

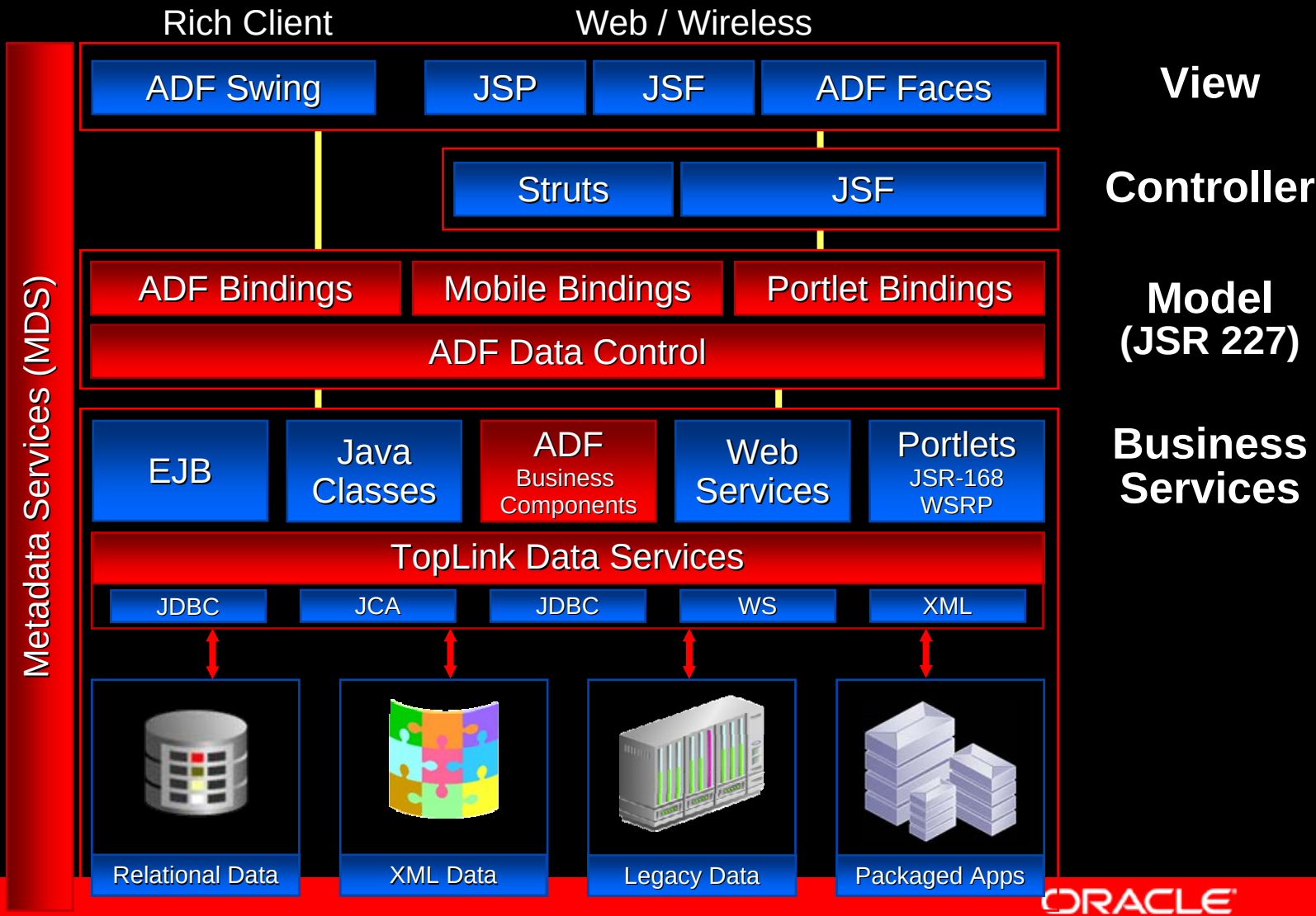
## *End-to-end J2EE Framework*

- Implements standard J2EE best practices
- Model-View-Controller (MVC) design pattern




- Focus on the application, not the “plumbing”
- Consolidation and evolution of previous frameworks

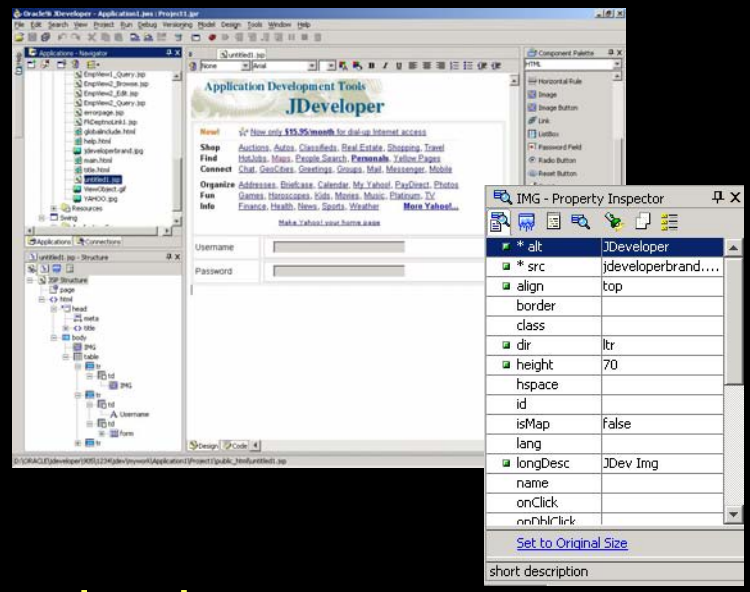
# Oracle ADF Architecture



# Oracle ADF

## *Visual and Declarative Development*

- End-to-end Application Development
  - J2EE & Services
- Visual
  - WYSIWYG editors
  - UML modelers
  - Structure pane
- Declarative
  - Structure pane
  - Property inspector
- Code View/Design View Synchronization
  - No separate generation step - always synchronized
  - Underlying code always accessible



# Development Tools

- JDeveloper (IDE)
- ADF Business Components
- TopLink
- ADF Faces
- JHeadstart
- BI Publisher

# New Tools : Old Tools

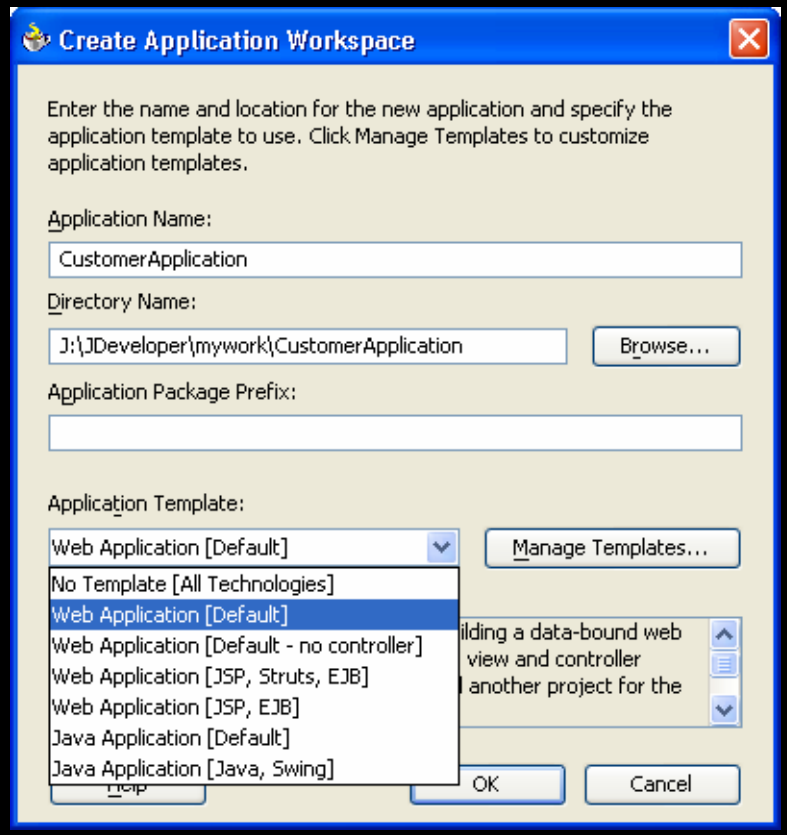
| | Forms | Reports | Designer |
|---|---|---|---|
| **JDeveloper** | All | Web Reports | DB Design |
| **ADF BC** | Block, BR | | DB Design |
| **TopLink** | Block, BR | | DB Design |
| **ADF Faces** | Layout, SR | | |
| **JHeadstart** | | | Appl. Design and Gen. |
| **BI Publisher** | | All | |

# Building an Application

1. Create an application workspace.
2. Select the technology scope.
3. Design the business services for the Model.
4. Design the application page flow for the Controller.
5. Create pages for the View.

# Creating an Application Workspace

1. Click New Application (Workspace before 10.1.3).
2. Enter a name.
3. Select the application template.



# Business Services Choices

- **ADF Business Components**
- **TopLink**
- EJB
- Web Services
- JavaBeans
- Build Your Own

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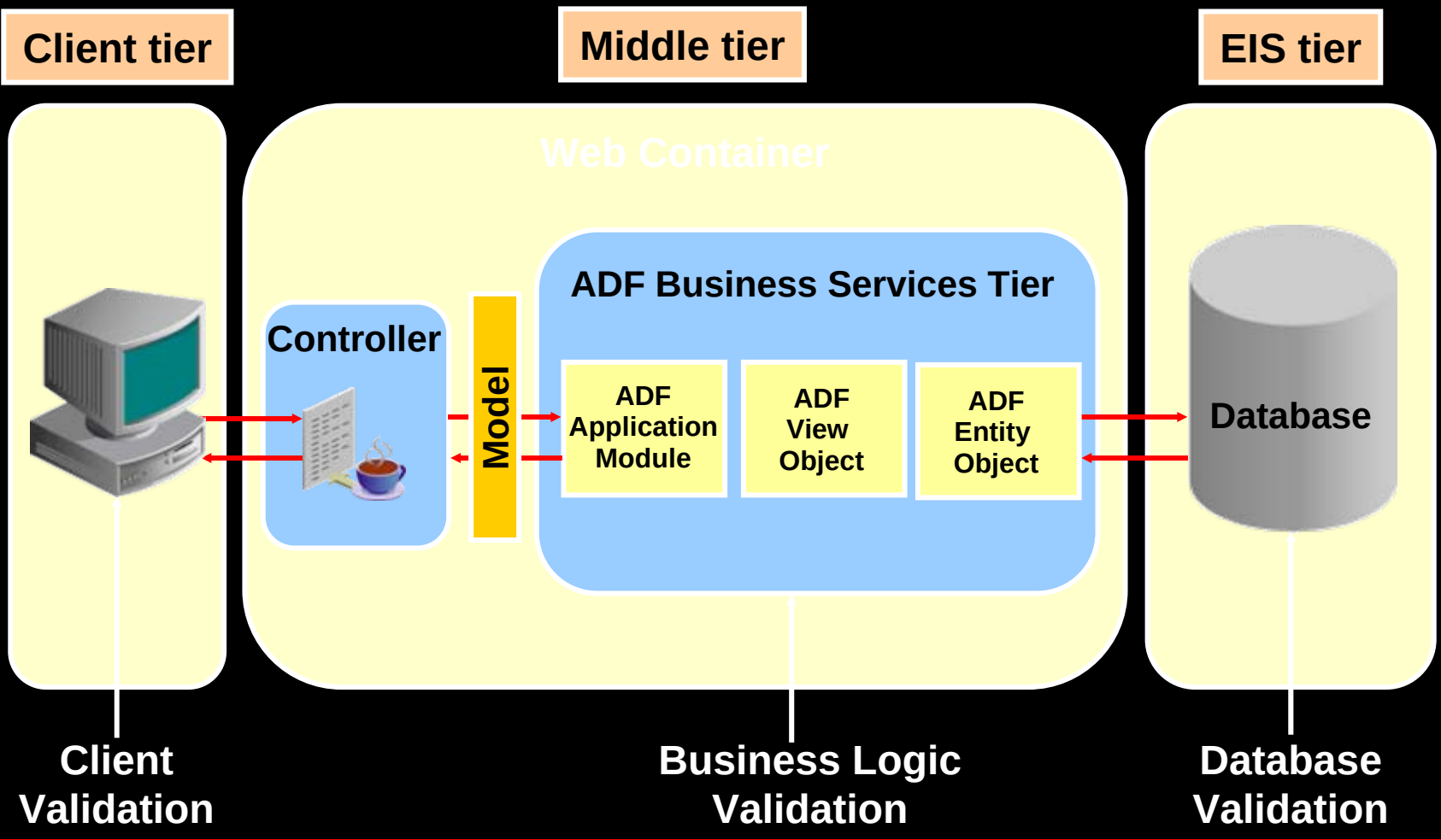
# ADF Business Components

- Declarative “SQL based” persistence
  - Declarative, familiar approach for 4gl developers
- Wizards, Editors, and UML Modelers
  - Visually design and modify declarative component settings
- XML-Configured, Lightweight JavaBeans
- *ApplicationModule* - Business Service Component
  - Use as JavaBean, EJB, Web Service
- *ViewObject* - Data Access Component
  - Performs SQL queries and coordinates with entity objects
- *EntityObject* - Business Domain Component
  - Encapsulates business domain data and validation

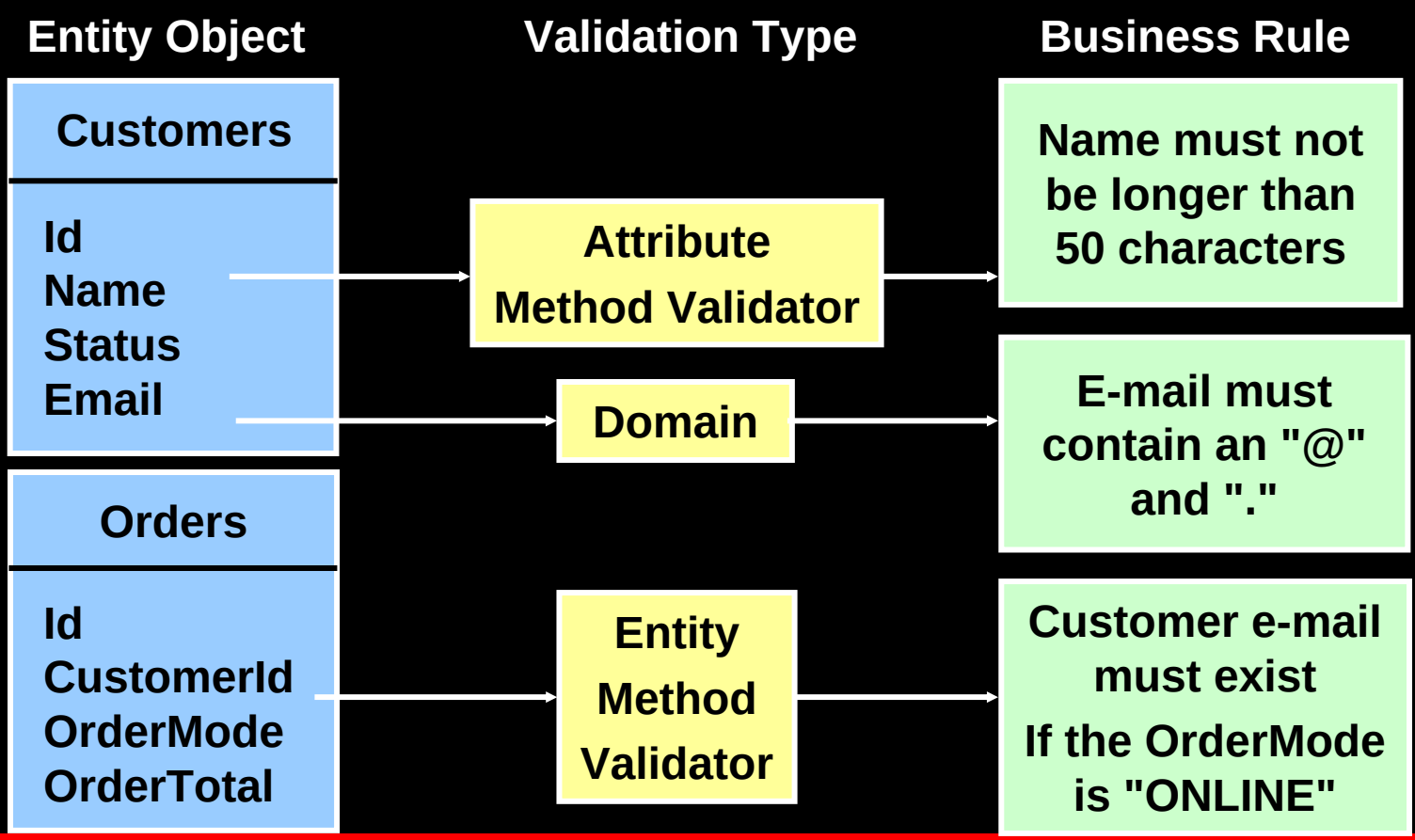
# TopLink

- Object-Relational Mapping
  - JPA: Java Persistence API (EJB 3.0/SE)
  - POJO in any Java container/architecture (EE/SE)
  - EJB 2.1 CMP and BMP (OC4J)
- Object-XML
  - JAXB
  - Non-Intrusive (meet in the middle) mapping
- EIS mapping using JCA Resource Adapters
  - XML mapping leveraging OXM and CCI mapping
  - Support MQSeries, OracleAQ, Sun JCA, XML Files, …

# Business Logic Validation



# Add Custom Validation



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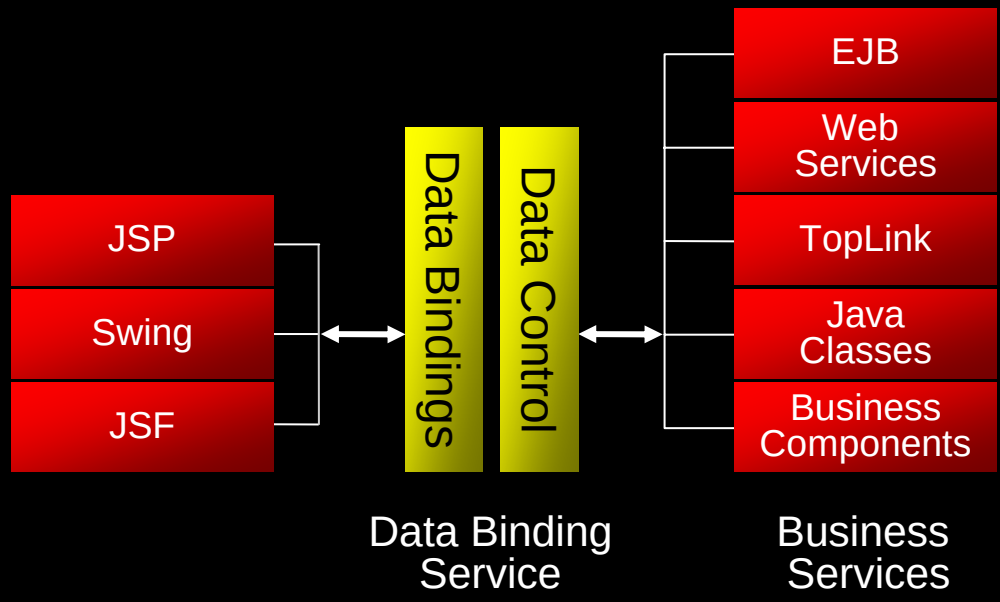
# JSR 227 – J2EE Data Binding

- Data Controls
  - Unified description of any Business Service
    - Collections
    - Attributes
    - Operations
- Data Bindings
  - Usages



# Using JHeadstart

- Develop new application
- Migrate Forms modules from Designer to ADF Faces

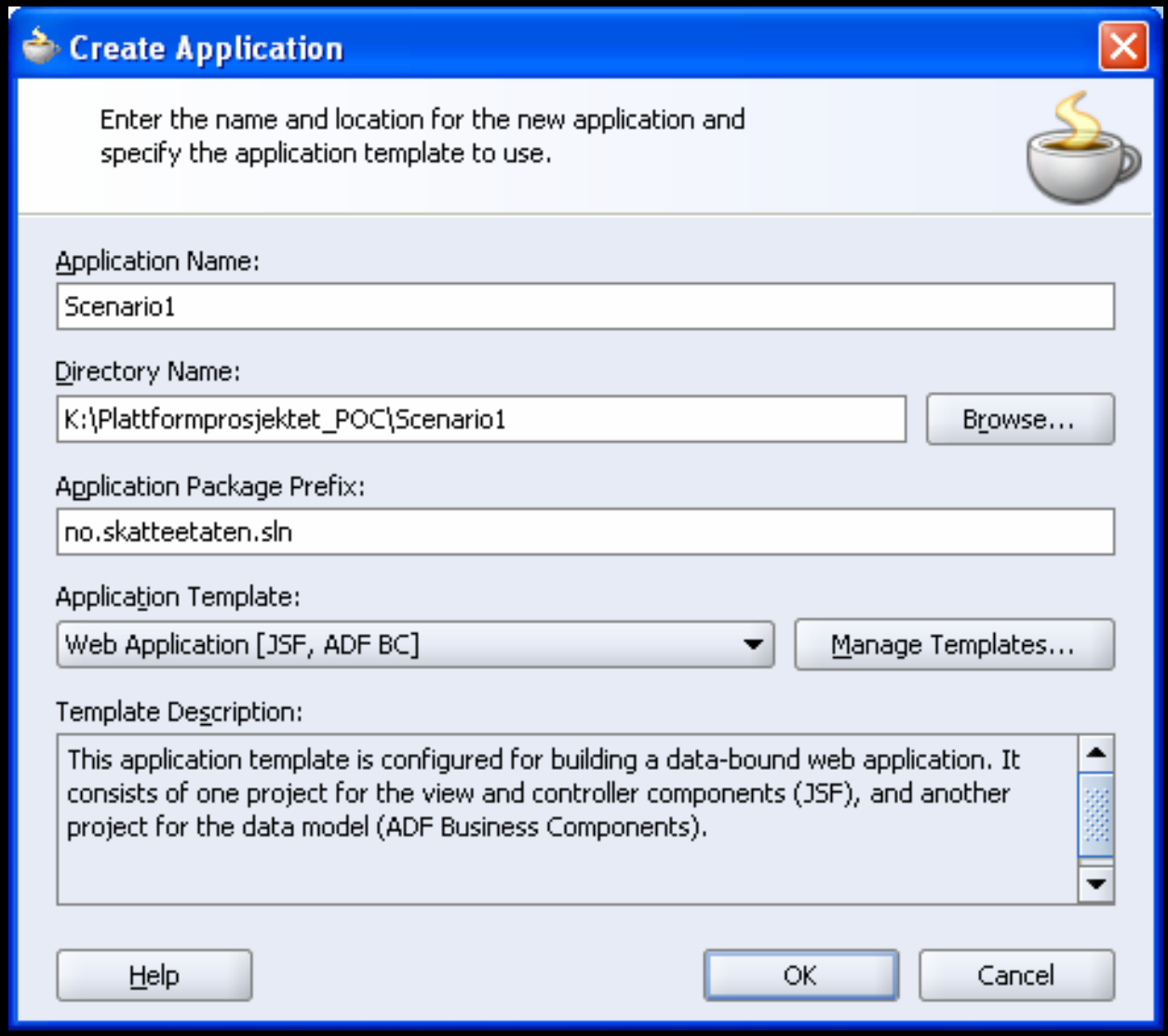
# Using JHeadstart to Develop a New Application

1. Create an application workspace (JSF, ADF BC)
2. Specify base classes and database connection for Model
3. Create new ADF BCs in the Model project (from database tables)
4. Adjust the Data Model of the Application Module
5. Test the Application Module
6. Enable JHS in the ViewController project
7. Create the initial JHS Application Definition
8. Edit (refine) JHS Application Definition
9. Generate the application, run and test
10. Repete steps 8-9 until satisied

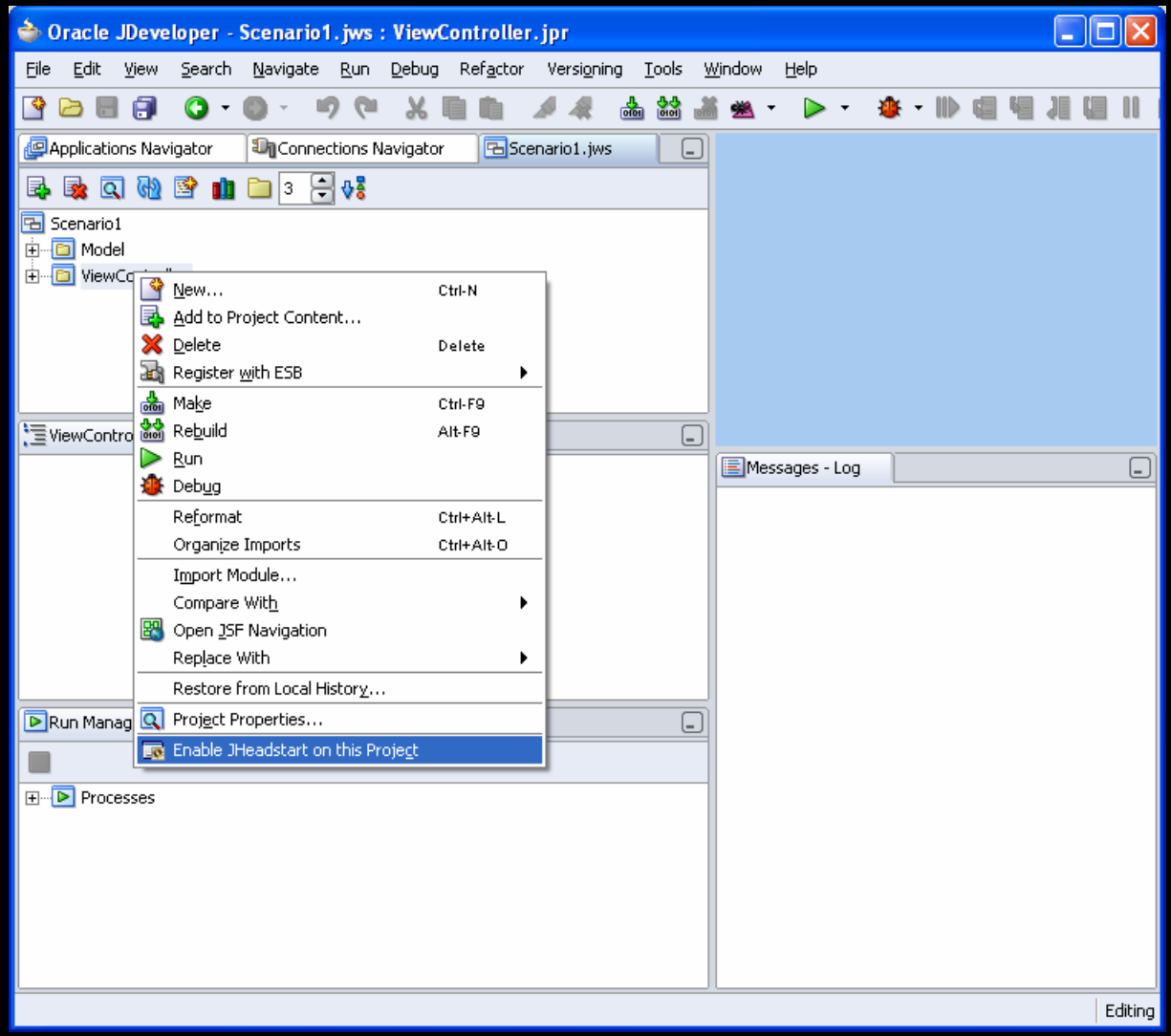
# Using JHeadstart to Migrate Forms from Designer

1. Create an application workspace
2. Enable JHS on ViewController project
3. Create new JHeadstart Designer Generator on Model project
4. Select Designer Workarea connection
5. Select Forms module(s) from Designer workarea/application
6. Select database connection for ADF BC
7. Specify ADF BC package name
8. Specify base classes and View project
9. Check summary and run JDG
10. Edit JHS application definition
11. Generate application and run

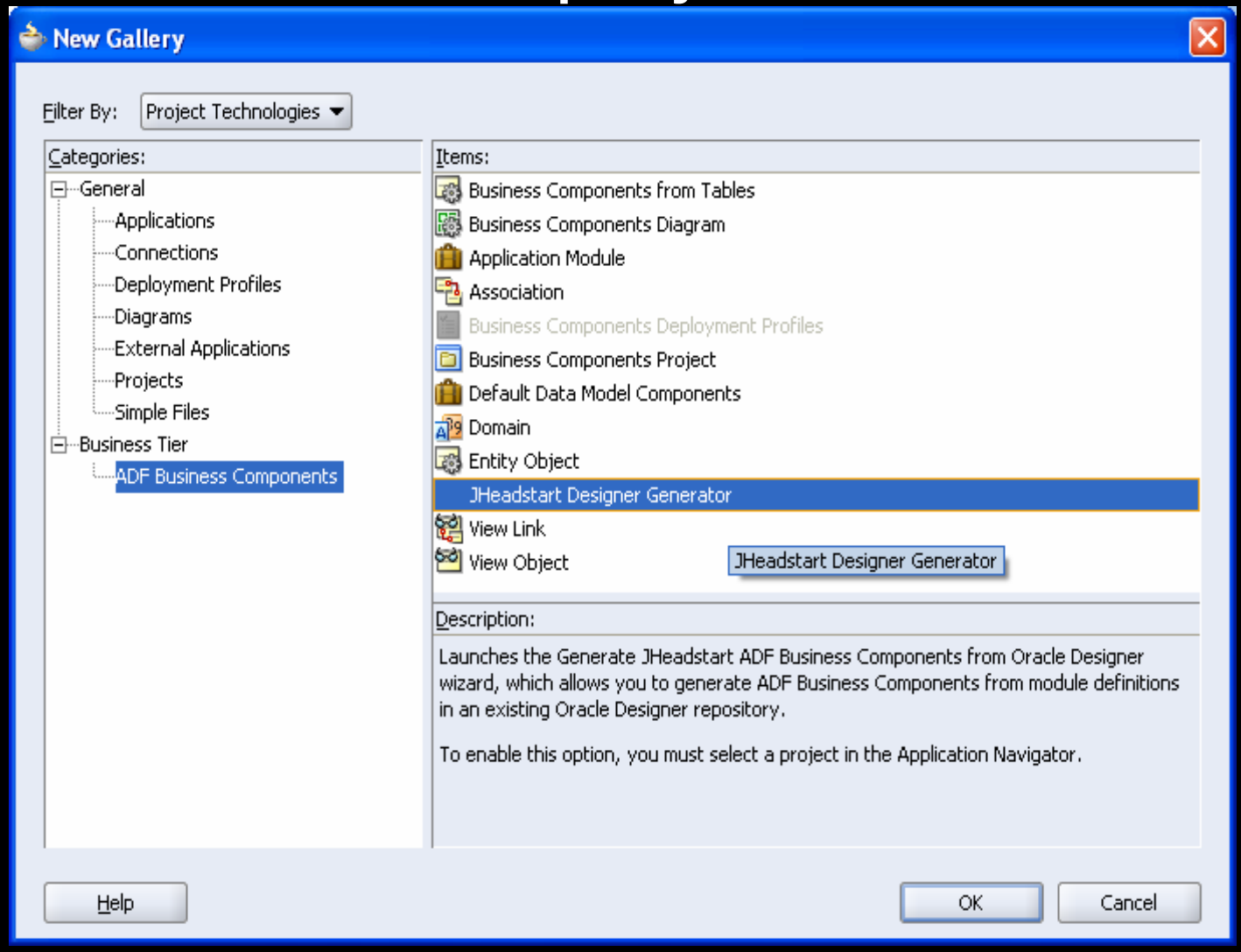
# Create an application workspace



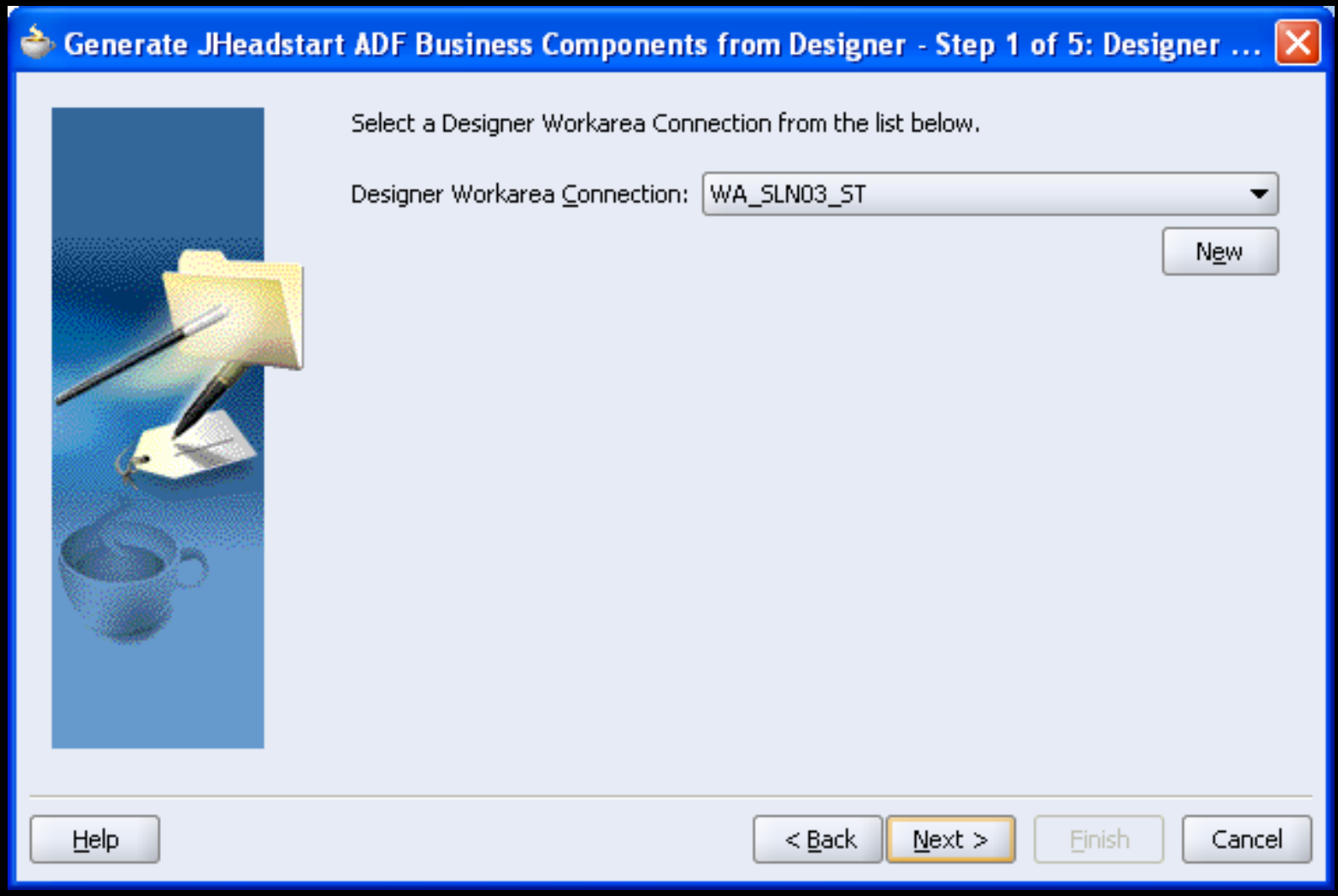
# Enable JHS on ViewController project



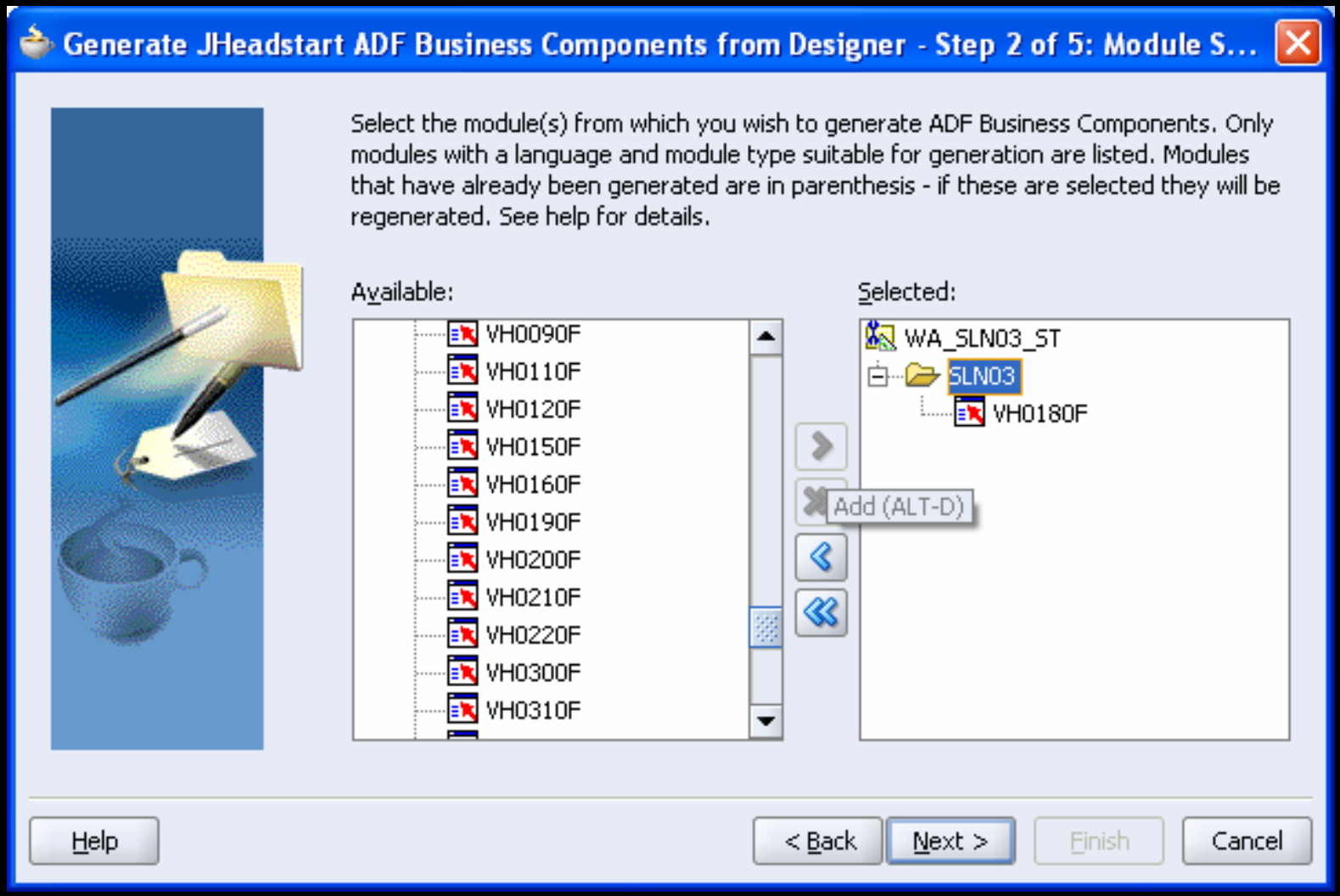
# Create new JHeadstart Designer Generator on Model project



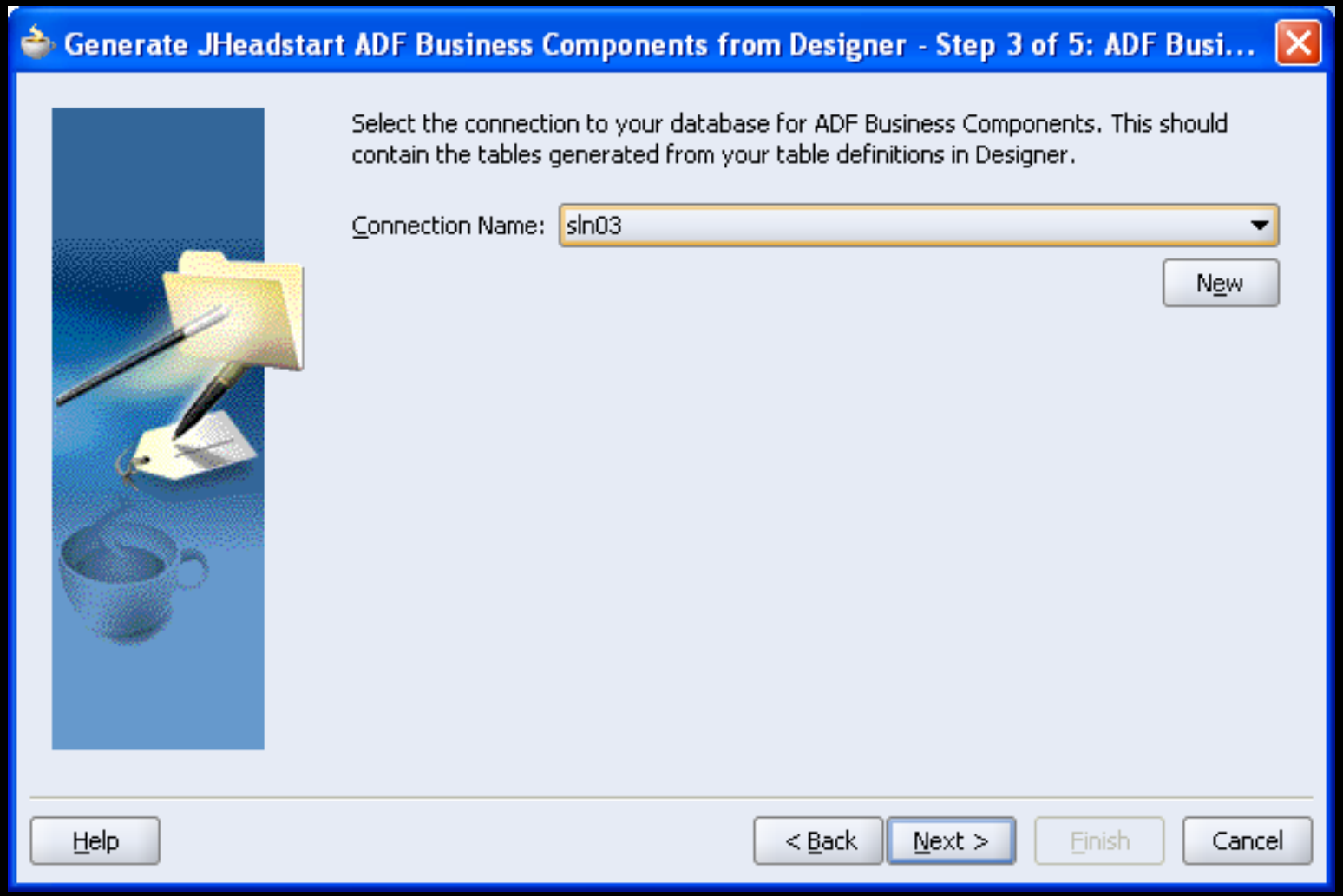
# Select Designer Workarea connection



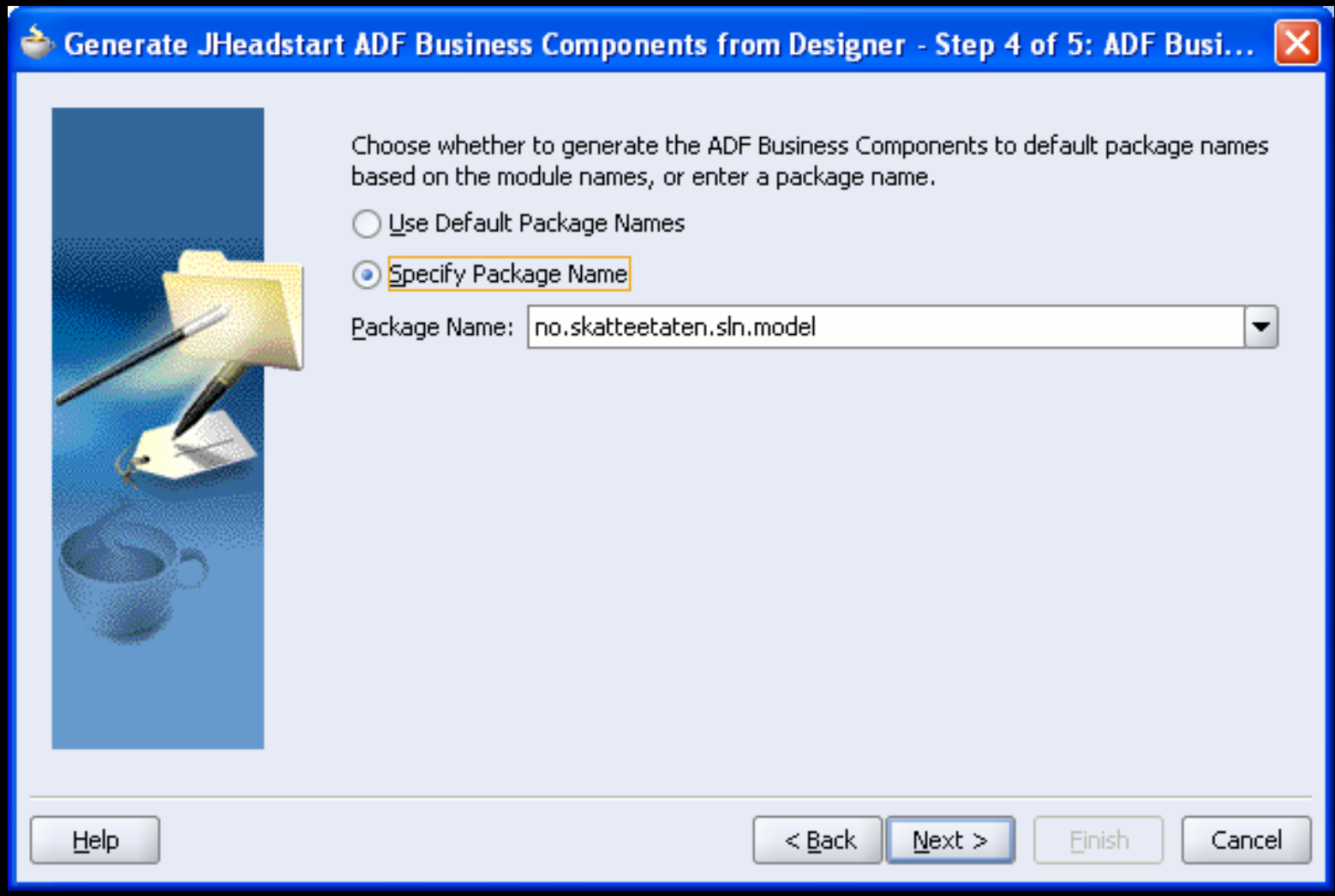
# Select Forms module(s) from Designer



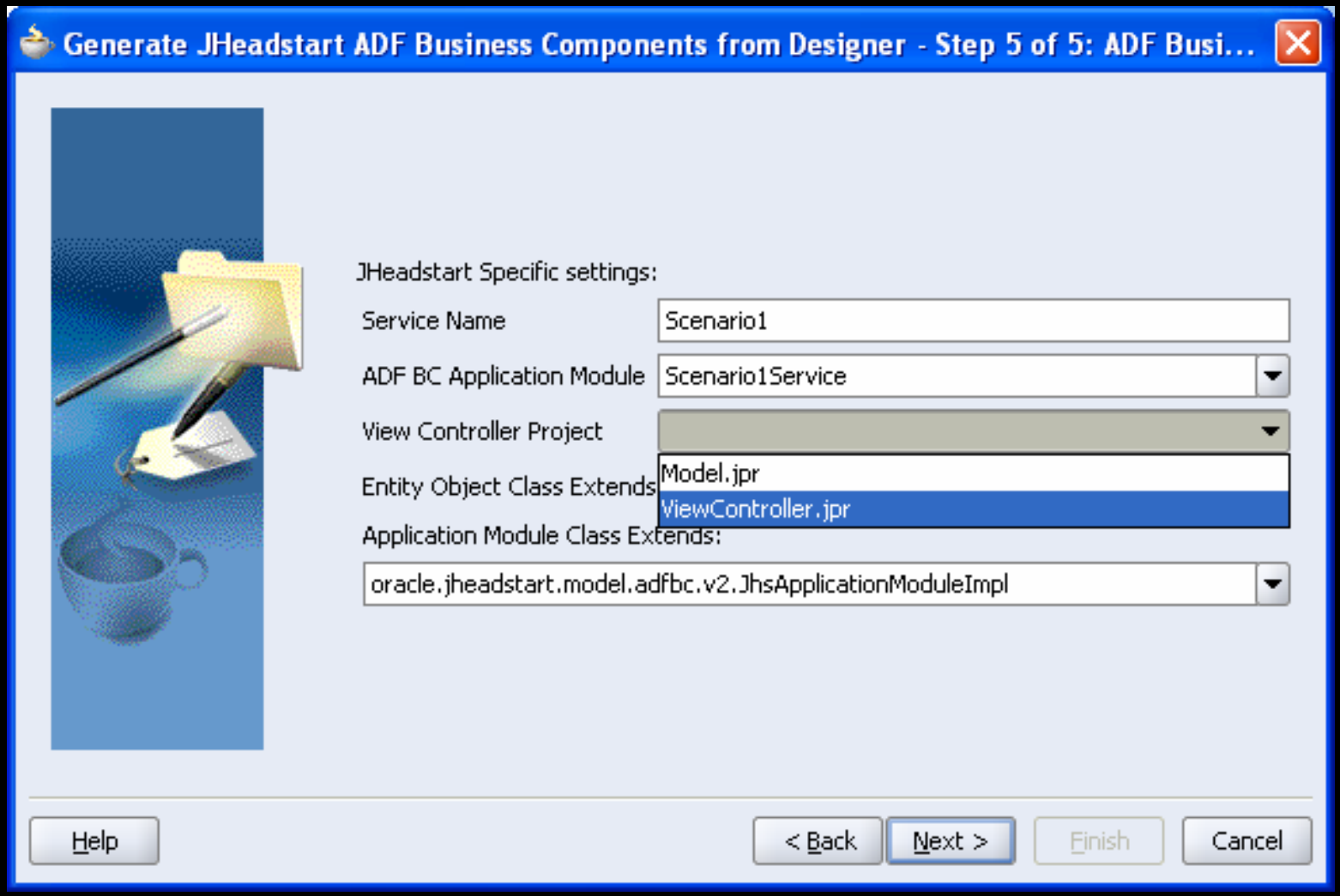
# Select database connection for ADF BC



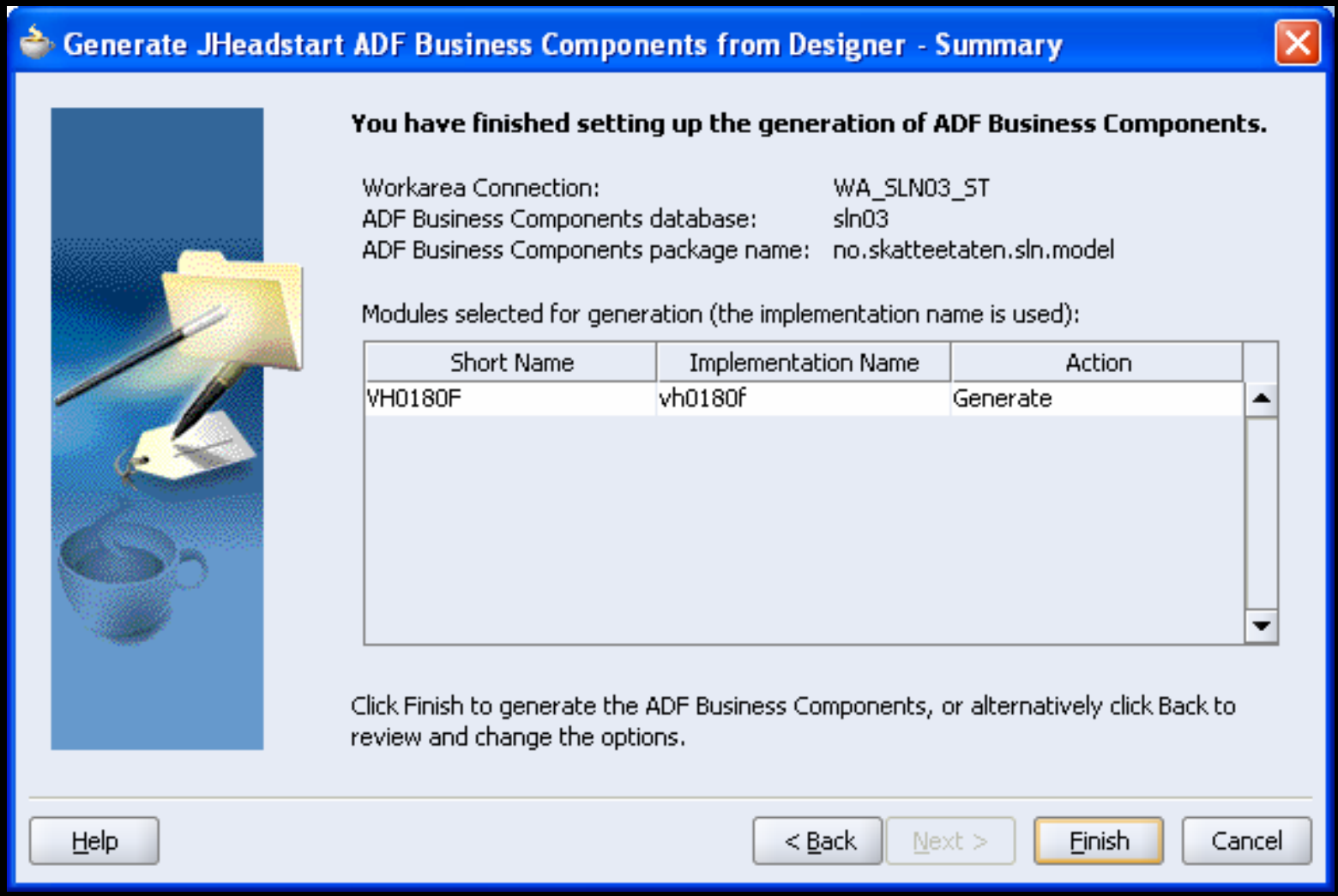
# Specify ADF BC package name



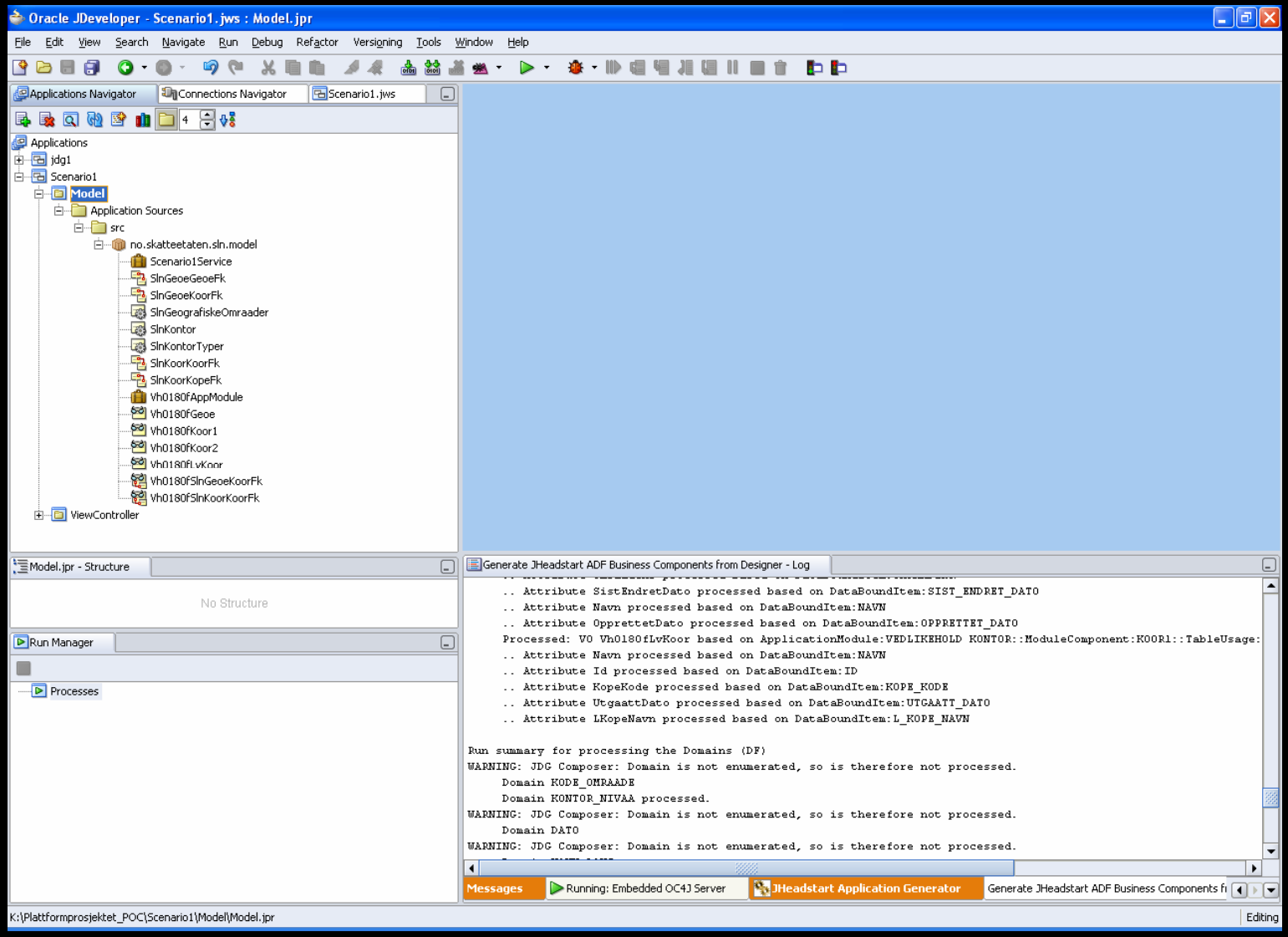
# Specify JHeadstart specific settings



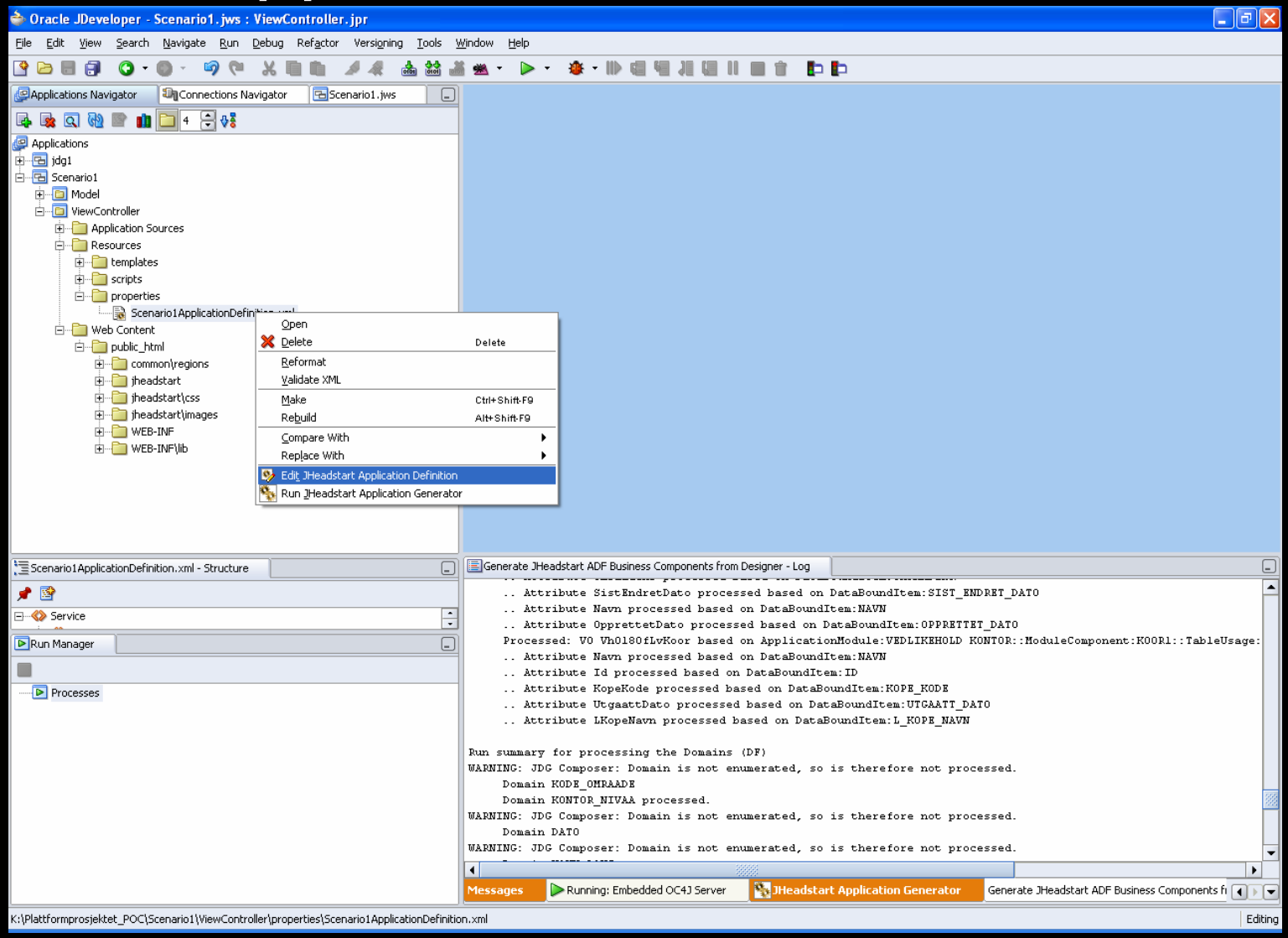
# Check summary and run JDG



# Inspect created objects and log



# Edit JHS application definition



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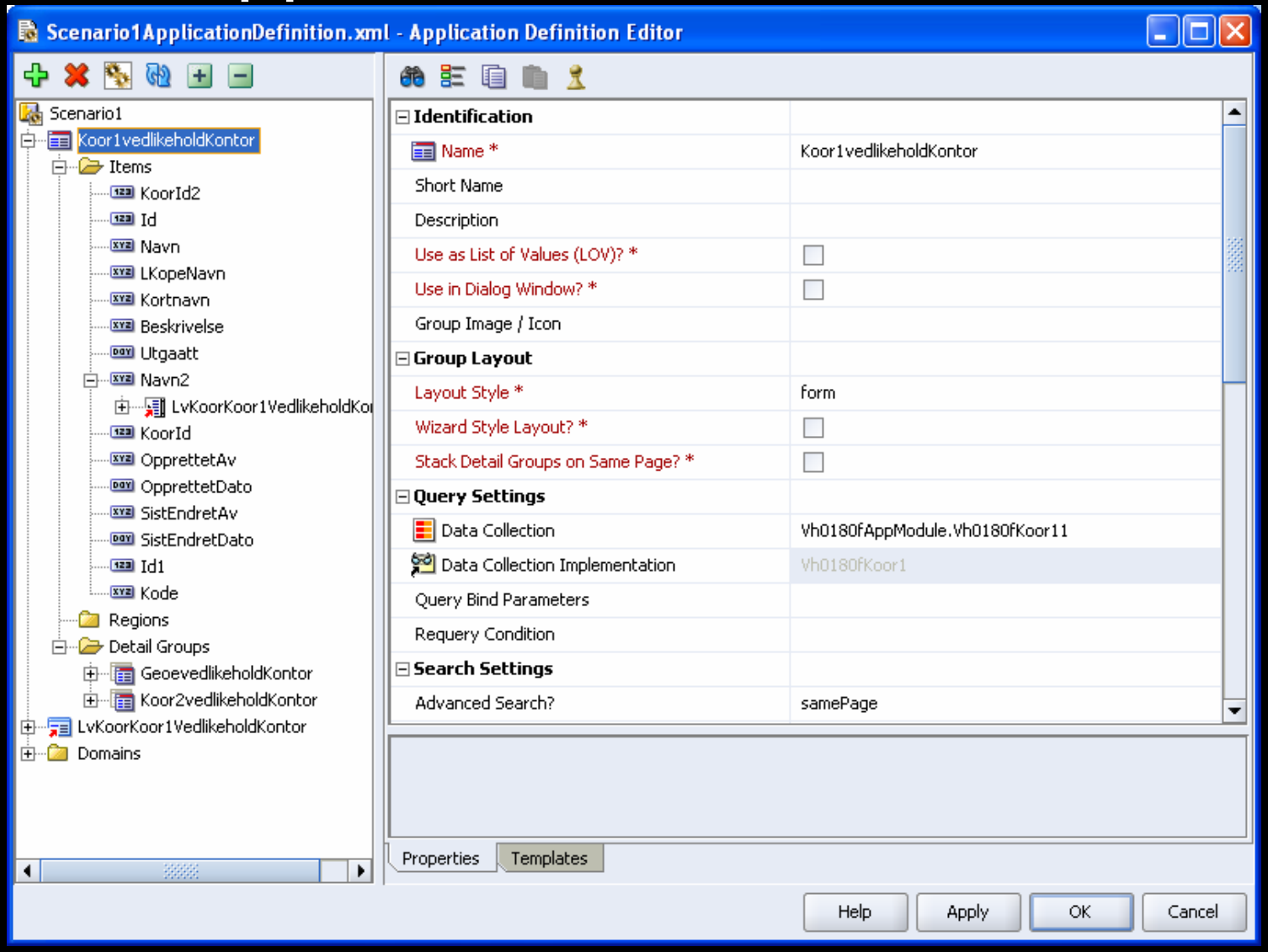
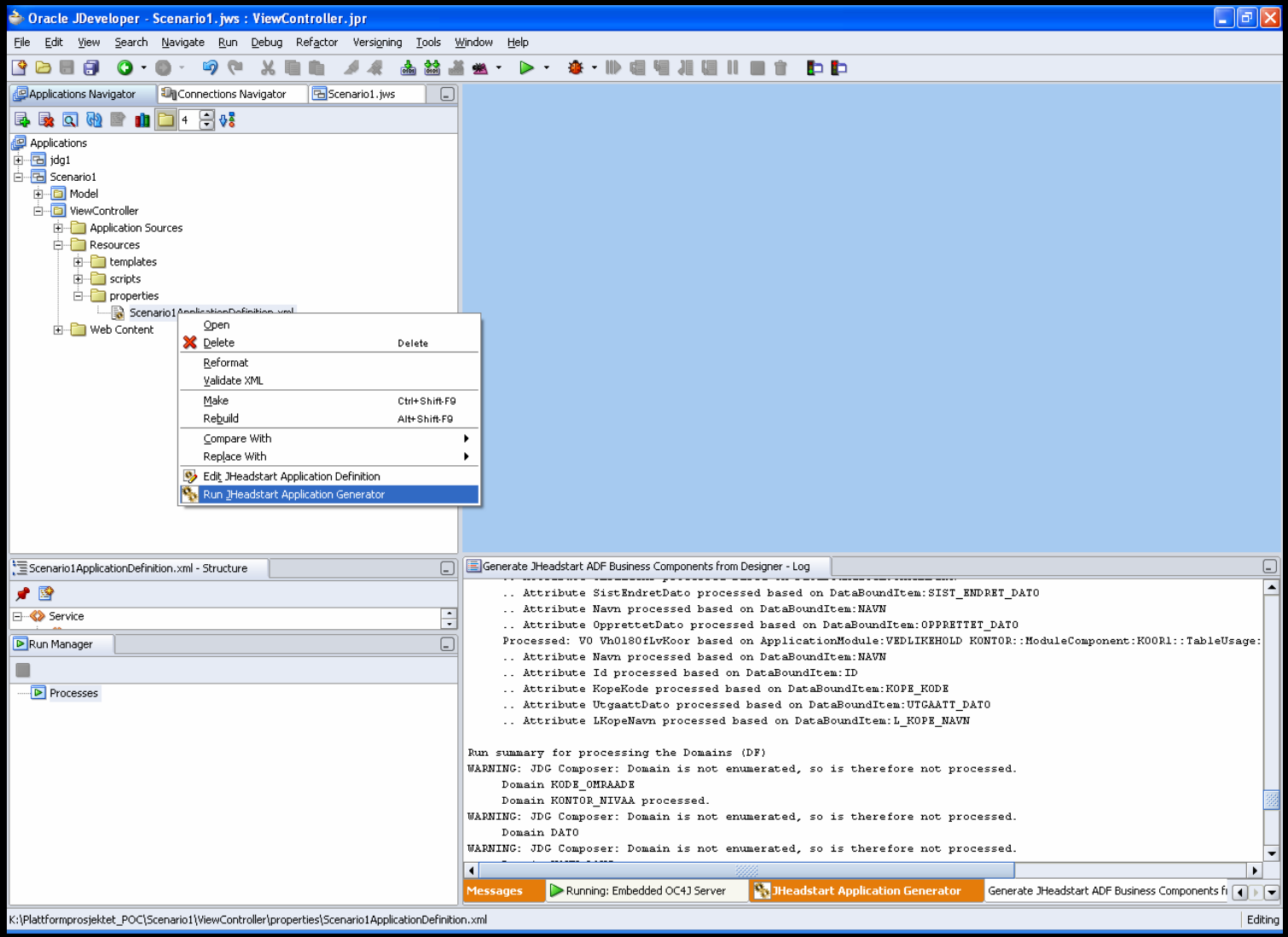
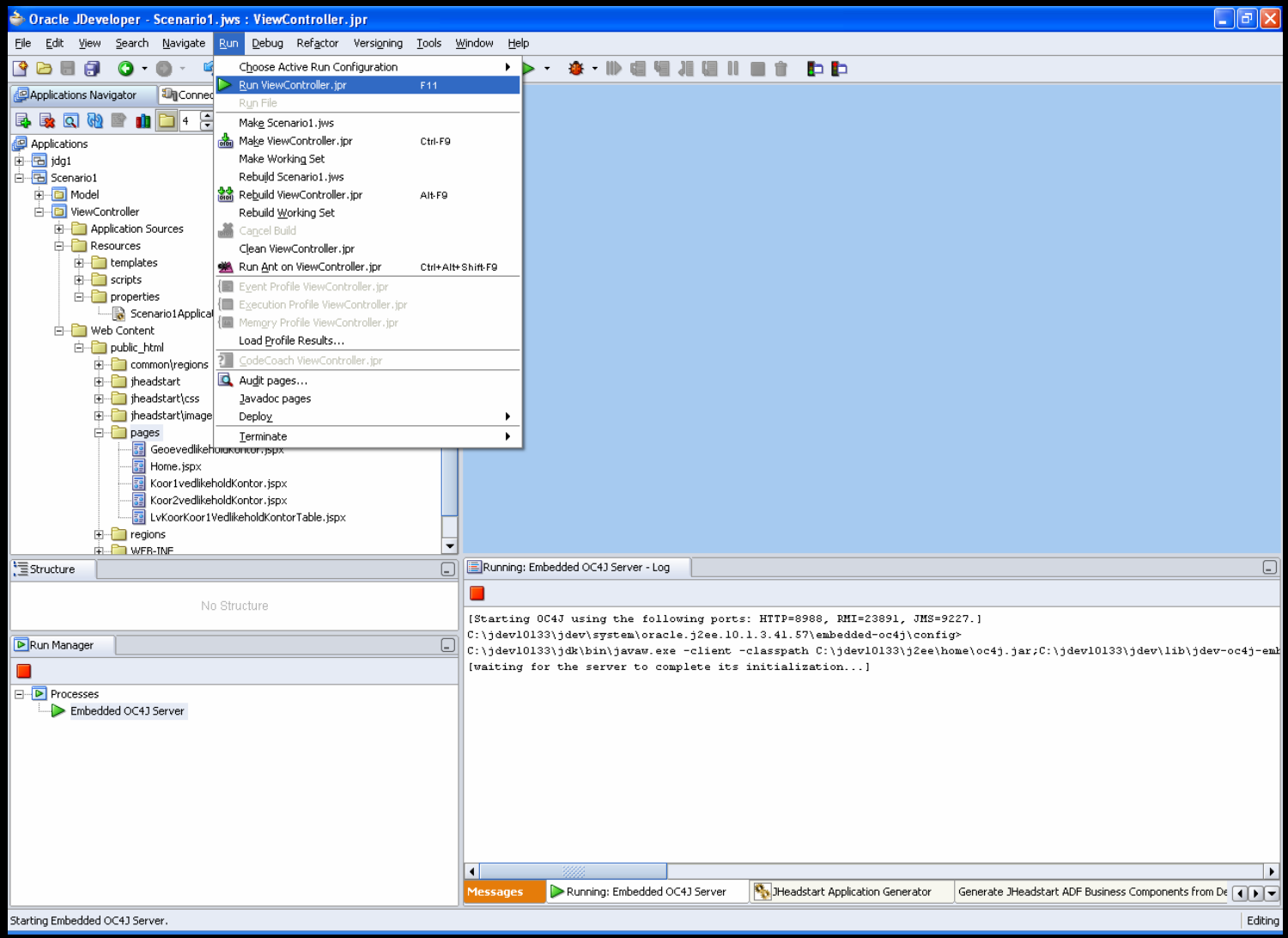


# Generate application...



# …and run


Oracle JDeveloper - Scenario1.jws : ViewController.jpr
File Edit View Search Navigate Run Debug Refactor Versioning Tools Window Help
Choose Active Run Configuration
Run ViewController.jpr F11
Run File
Make Scenario1.jws
Make ViewController.jpr Ctrl-F9
Make Working Set
Rebuild Scenario1.jws
Rebuild ViewController.jpr Alt-F9
Rebuild Working Set
Cancel Build
Clean ViewController.jpr
Run Ant on ViewController.jpr Ctrl+Alt+Shift-F9
Event Profile ViewController.jpr
Execution Profile ViewController.jpr
Memory Profile ViewController.jpr
Load Profile Results...
CodeCoach ViewController.jpr
Audit pages...
Javadoc pages
Deploy
Terminate
Applications Navigator
Applications
jdg1
Scenario1
Model
ViewController
Application Sources
Resources
templates
scripts
properties
Web Content
public_html
common\regions
jheadstart
jheadstart\css
jheadstart\image
pages
Home.jspx
Koor1vedlikeholdKontor.jspx
Koor2vedlikeholdKontor.jspx
LvKoorKoor1VedlikeholdKontorTable.jspx
regions
Structure
No Structure
Run Manager
Processes
Embedded OC4J Server
Running: Embedded OC4J Server - Log
[Starting OC4J using the following ports: HTTP=8988, RMI=23891, JMS=9227.]
C:\jdev10133\jdev\system\oracle.j2ee.10.1.3.41.57\embedded-oc4j\config>
C:\jdev10133\jdk\bin\javaw.exe -client -classpath C:\jdev10133\j2ee\home\oc4j.jar;C:\jdev10133\jdev\lib\jdev-oc4j-emb
[waiting for the server to complete its initialization...]
Messages
Running: Embedded OC4J Server
JHeadstart Application Generator
Generate JHeadstart ADF Business Components from De
Starting Embedded OC4J Server.
Editing

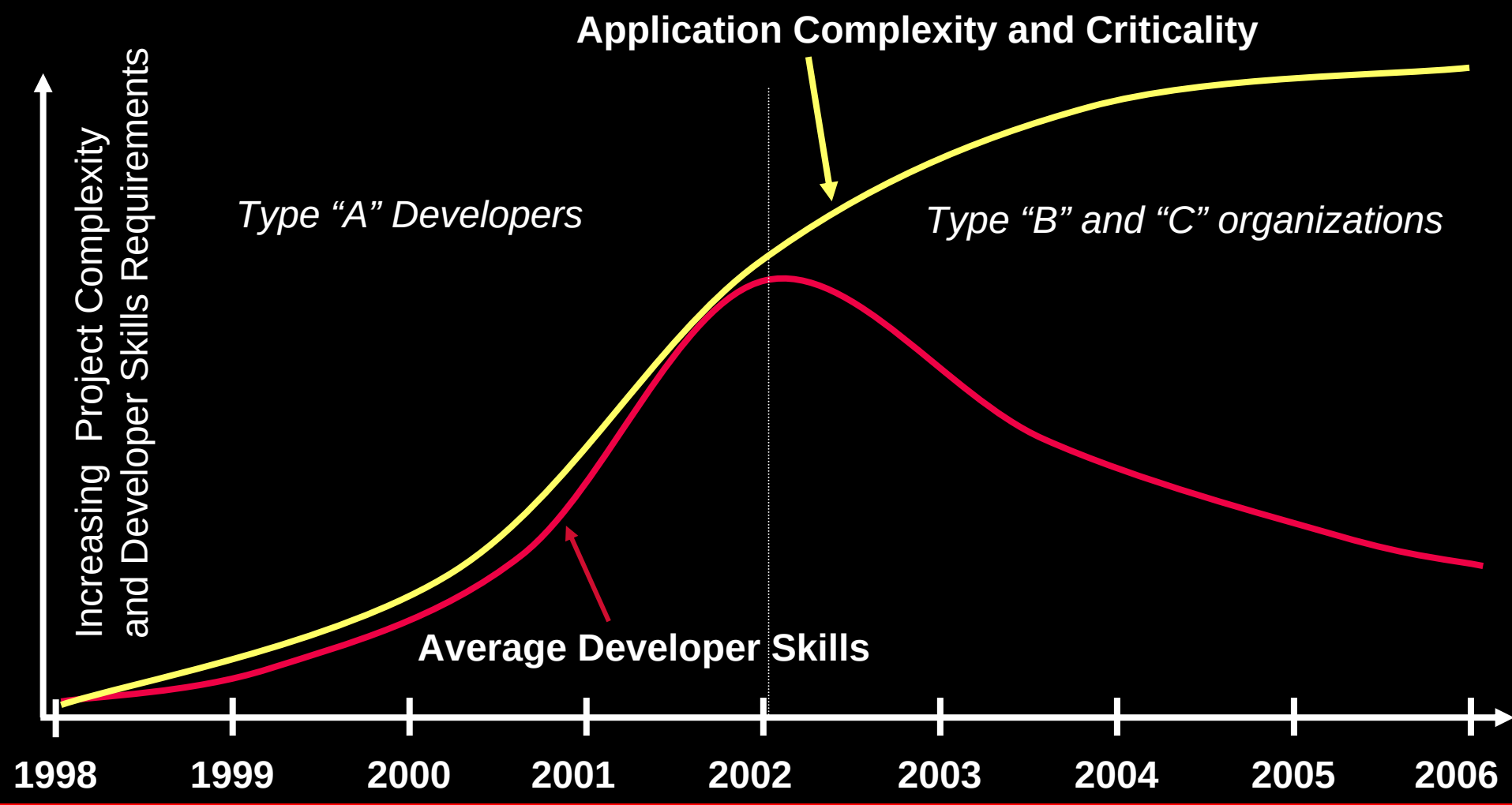
# What Do You Need to Start?

- Language skills needed
  - Java is omnipresent
    - But only at a scripting level
    - Still need a Java architect on the project
  - XML is a handy skill
    - If you know “elements” and “attributes”, that’s enough
  - HTML is not really used in ADF Faces
    - Helps to know what an HTML table is
- ADF development method
  - ADF Business Components
  - ASF Faces

# How to learn?

- **OTN ADF/SOA tutorials**
- **JHeadstart tutorials**
- **Developer Guides**
  - Oracle ADF Developer's Guide
  - Oracle ADF Developer's Guide For Forms/4GL Developers
  - Oracle SOA Suite Developer's Guide
  - Oracle TopLink Developer's Guide
  - Oracle Jheadstart for ADF Developer's Guide
- **Oracle Universoty Courses**

# The J2EE Paradox




Source: Gartner, Inc.

# Is it Oracle Forms Yet?

# NO!

But it’s a close second!

( Peter Koletzke
from “Quovera”
on Oracle Opwn World 2006 )

Truth!

Coming in 2008

**ADF 11g**

**better then Forms!**


Hvala na pažnji!
I ja imam mnogo pitanja …