


# Integrating Oracle EBS with FOEX

FOEX & appsmode

# Key things about appsmode

- We implement, extend and integrate E-Business Suite
- Are passionate about making E-Business Suite more efficient with modern User interfaces
- Integrate with Mobile, Cloud and API Architecture
- Are excited about the emerging ecosystem of open source solutions that we can plug into E-Business Suite, such as Streaming frameworks
- ♥ APEX & FOEX
-  The logo consists of a red rectangular box containing the word "ORACLE" in white, uppercase letters. To the right of the box, the words "Gold" and "Partner" are stacked vertically in a black, sans-serif font.

# Why would you want to integrate EBS & APEX?

- Optimize the workflow according to your business
- Empower users to have information connected throughout the application
- Create a powerful work environment that is fun rather than frustrating
- Option of future cloud integration – reuse User interface and business logic while gradually switching over to cloud services

# Why did we go for FOEX

- Single Page Application Design -> great for Business Apps you use all Day
- Great Foundation with APEX under the hood
- Lots of extra useful plugins, managed in Releases
- Forum support and paid support via Support Credits/Tickets and Portal
- The underlying Sencha architecture is a well established and tested framework used by many large multinationals

# WebServer Configuration

- ORDS with Tomcat or Weblogic (recommended)
- ORDS in standalone mode
- HTTP Server + mod/plsql
- EPG (embedded gateway, not recommended)

Using parts of the EBS server architecture is not recommended.

# Database-level integration

- In-Database vs Database links vs Sync + API's
- Isolate parsing Schema from APPS
- Grant Privileges sparingly

# Authentication

- OSSO (Oracle Single Sign-on)
- OAM (Oracle Access Manager)
- Custom Authentication (presented here)
  - Login directly from APEX
  - Log into EBS and use cookie-based /ICX\_SESSIONS integration

# Calling APEX from EBS – Setup in EBS

- Install Patches if on 12.1.3 (see APEX integration doc)

- Setup integration URL

Profile Option Name	Site
FND: APEX URL	http://mod3:8080/ebsdev

- Setup Function

Description	Properties	Form	Web HTML	Web Host	Region
Function	HTML Call				
XXGL_FLEXFIELDS	GWY.jsp?targetAppType=APEX&p=103:100				

- Include Into Menu

Seq	Prompt	Submenu	Function	Description
10	GL Flexfields		XX GL Flexfields Screen	

Menu	User Menu Name	Menu Type	Description	Icon
XXAPEX_MASTER	XX Apex Master Menu			



# Authorization

- Check Functions
- These can be simply appended to menus
- For more complex scenarios consider Role-based Access Control (RBAC)
- Use pipelined table functions in complex authorization scenarios, e.g. context-clicks in grids

# Read-only privileges

- Coarse or grain granularity depending on business needs
- In FOEX, the lowest-level setting decides the outcome.
- Use Function Authorizations for Basic R/O handling
- Use more sophisticated solutions to take into account business rules
- This can be done on a Form and grid column level

# Language

- Multi-Lingual capabilities of EBS can be extended to APEX & FOEX
- Consider Lightweight MLS if you can keep the EBS and APEX frontends in a single language. This only translates multilingual tables in the database.
- Consider setting up NLS initialization from EBS profile settings

# How do we integrate with EBS APIs

- APIs where possible (Technical Doc / Integration Repository)
- Alternatively: Use Open interfaces with Transaction managers or Concurrent Managers with minimal sleep times, check interface results and feed back to users
- Prototype in PL/SQL first
- Log 😊. E.g. Logger, Blend with APEX, FND Logging
- Every module is different

# Integration User Interface, Validation, EBS

- APEX/FOEX hold visual components only
- Interaction from forms and grids is via CRUD packages that read out the fields of the form / the column of the table
- This calls API Packages. This way you can create your business logic in a way that you can call the program units AS API's as well as for the user interface
- Also avoid building validation logic into APEX as much as possible, encapsulate it in Packages at a micro-level so that it can also be used by API calls.

# Batch / Concurrent Processing Integration

- Integrate the Concurrent Manager directly into FOEX
- Other rendering engines can be integrated
  - → For example we have implemented near-realtime document provision using Oracle BI Publisher Standalone using Web Service Integration

# Flexfield

- Dynamic form can be used to work with Flexfields that have variable structures → This works for Key and Descriptive Flexfields
  - Example: Flexfield Screen
- Other Attribute Fields can be built in seamlessly into Forms and Grids, and fed back via the APIs

# History

- Using Flashback Data Archive



# Business Events

- Responsibility: Workflow Administrator Web Applications
  - Administer Workflow/Business Events
- Sometimes you need to enable Business events being raised, e.g.
  - set profile OM: Raise Status Change Business Event to Yes.
  - Set profile Concurrent: Business Intelligence Integration Enable to Yes
- Test OE event: oracle.apps.ont.oip.statuschange.update

# Notes and References

- [Extending Oracle E-Business Suite Release 12.1.3 and Above Using Oracle Application Express \(APEX\) \(Doc ID 1306563.1\)](#)
- [Function Security and Role-Based Access Control \(RBAC\) in Oracle E-Business Suite \(Doc ID 1537100.1\)](#)
- [Creating a custom Application in Oracle E-Business Suite](#)
- [Application Express 5.1 Installation guide](#)
- [Order Management API documentation](#)
- [Process Order API In Order Management \(Doc ID 746787.1\)](#)
- [Order Management Testcase Repository Library \(Doc ID 743389.1\)](#)
- [Sample Code using Process\\_Order OE\\_ORDER\\_PUB API to Record Customer Acceptance for Sales Orders \(Doc ID 2261978.1\)](#)
- [Logger](#)
- [Using Lightweight MLS With Oracle E-Business Suite Release 12.1.3 and higher \(Doc ID 1077709.1\)](#)
- [Business Events in OM \(Doc ID 113492.1\)](#)

Q&A