



# Workflow SIG Meeting OpenWorld 2009

**John Peters**  
Workflow SIG Coordinator



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# COLLABORATE 10

Technology and Applications Forum for the Oracle Community

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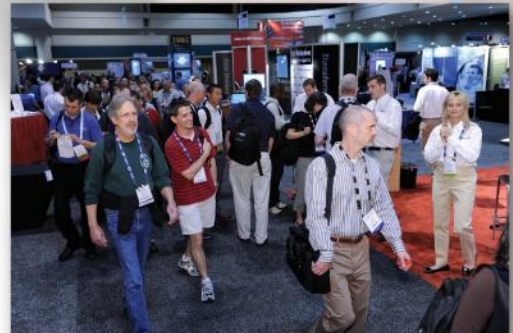
April 18-22, 2010  
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# Introduction

- **Welcome to San Francisco**
- **Thanks for attending SIG Day on a Sunday**
- **John Peters, JRPJR, Inc.**  
Workflow SIG Coordinator
- **Vijay Shanmugam, Oracle**  
Workflow Development Manager



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# Workflow SIG

- This presentation, prior presentations and references are posted on the OAUG Workflow SIG web site.  
<http://workflowsig.oaug.org>
- You don't have to be an OAUG member to access the Workflow SIGs web site.
- I apologize for the web site being “scrambled” for the past month, I think I have come up with a solution.



# Agenda

- Future of Workflow
- Current Workflow Functionality
- Future Workflow Enhancements
- Other resources for Workflow Information



# Versions of Apps People Are On

- 11i, Pre-11.5.10.2
- 11.5.10, ATG RUP6
- 11.5.10, ATG RUP7 - 783600.1
- R12, Pre-12.0.6
- 12.1



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# Future of Workflow



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# Future of Workflow

- Desupported as an Oracle product for standalone use.
- No longer part of the 11G DB install. Will be installed as part of the Apps Tech Stack.
- Still heavily used in R12 and will be supported by Applications Technology Group.
- Will not be used in Fusion.



# BPEL - Business Process Execution Language

- BPEL is the primary replacement for Workflow Technology.
- You can use BPEL today with your 11i and R12 Applications.
- Attend some of the BPEL sessions at OpenWorld to get some exposure to this powerful tool.



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# Workflow to BPEL Migration

- There will be no automated conversion/migration available.
- A good reference on migrating to BPEL is:  
Migrating to BPEL from Oracle Work Flow  
An Oracle White Paper  
March 2008

<http://www.oracle.com/technology/products/ias/bpel/pdf/owf2bpel.pdf>



# Current Workflow Functionality



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# Current – Recent Releases

- Metalink Note: **464727.1**  
Oracle Workflow Documentation Updates for 11i.ATG\_PF.H.delta.7 (RUP 7)
- Metalink Note: **737857.1**  
Oracle Workflow Documentation Updates for Release 12.0.6
- Metalink Note: **565731.1**  
Oracle Workflow Release Notes, Release 12.1.1

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# Current – Bulk Notification Response

- ATG, RUP6, MetaLink Note: **760386.1**  
How to enable Bulk Notification Response Processing for Workflow in 11i
- This feature allows users to respond to multiple notifications with a similar response.

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# Current - Notification Subject Lines

- ATG RUP 7, adds the ability to include a PL/SQL Document Attribute in your notification subject line.
- This is really helpful if having to deal with translations in emails.



# Current – WF\_MAIL.SEND

- ATG RUP 7, There is now a PL/SQL API call to allow a message to be sent via email that does not have to be associated with a Workflow Item Type/Key.
- Sends a message to be dispatched through e-mail by a notification mailer.
- The message content and recipients provided in the parameters do not need to be associated with any workflow process or directory service roles.
- The message content must be complete, preformatted, and email-ready, and should conform to the content type specified.



# Current – Business Event Test

- Business Event test page is enhanced to test a business event using PLSQL API `WF_EVENT.Raise` and also using Java API `racle.apps.fnd.wf.BusinessEvent.raise()`.

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# Current – Best Practices

- Oracle Workflow Best Practices  
Release 12 and Release 11i  
Metalink Note: 453137.1
- This document is updated regularly so check it periodically.



# Current - Workflow Directory

- How many of you have had trouble trying to activate a responsibility that was assigned to the user and deactivated in the past?
- The responsibility does not show up for the user after you remove the end date.
- ML Note: 433473.1 also ML Note: 734282.1  
This note has both a patch fix from 11i and R12 as well as instructions for a workaround.



# Current - Workflow Directory (cont)

- The basic issue is Business Events for products you probably don't have or use, that are enabled but error out. Just disable them is the easy workaround.
- This works I have implemented this at two different clients!!!





# Current - Workflow Directory (cont)

- Also use the 'Workflow Directory Services User/Role Validation' concurrent program (FNDWFDSURV) to validate and correct the information about user/role associations.
  - Fix dangling user/roles - Select Yes
  - Add missing user/role assignments - Select Yes
  - Update Who columns in WF tables - Select No to preserve the existing Row Who values



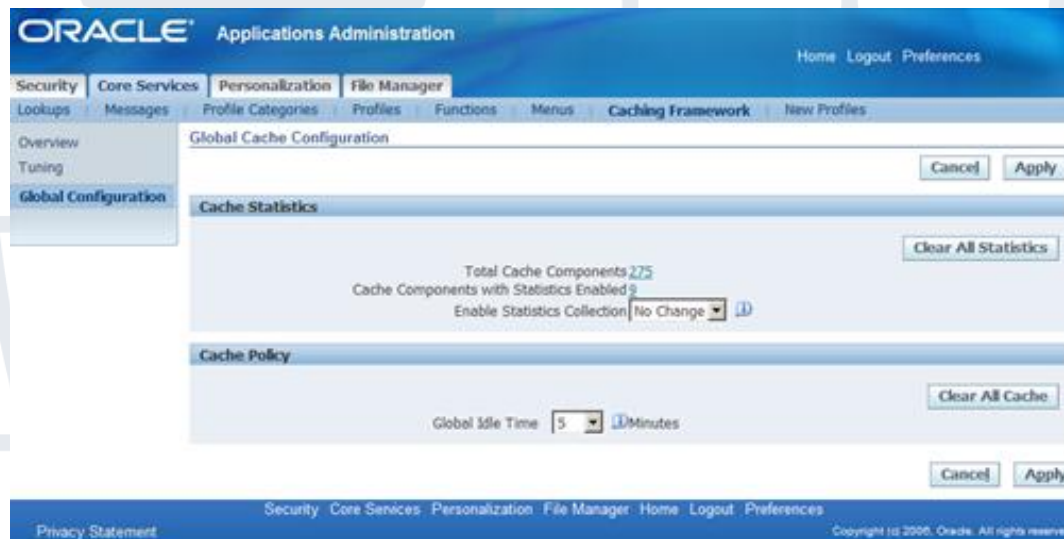
# Current - Workflow Directory (cont)

- Also when you assign a new responsibility and it does not show up for a long time, you can manually flush the mid-tier cache.

Responsibility = Functional Administration

Core Services : Caching Framework : Clear All Cache

- This also resolves other issues related to lookups, profile options, etc (basically any data that is cached by the Apps Tier)



# Current – Workflow Retry

- This is implemented as a Concurrent Program to mass retry errored activities.
  - Available in 11iRUP6, 5903106
  - Available in 12.0.2, 5934464
- This is a great fix for transient errors
  - PO Approvals
  - Notifications where the performer is not yet there due to Synchronize Workflow Local issues.



# Current – Administrator Role

- Autoconfig runs change the role back to SYSADMIN
- There is a fix in the Best Practices document
- Or use the following SQL:  
(Oracle does not recommend or support direct updates of it's tables)

```
update wf_resources  
set text = 'FND_RESP|FND|FNDWF_ADMIN_WEB_NEW|STANDARD'  
where name = 'WF_ADMIN_ROLE';
```

This assigns Workflow Administrator (New) to the Admin Role.



# Current – Test Emails

- The Notification Mailer in 12.0.6 will now send two Test Emails:
  1. Framework Body type which requires a connection to the web server to pull and embed the framework data in the message body
  2. PL/SQL Body which is a PL/SQL Document Type email

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# Current – Workflow Purge

- You absolutely must run the workflow purge concurrent program
- Troubleshooting Workflow Data Growth Issues  
ML Note: 298550.1
- If you find really old workflows that have previously errored you need to work with Oracle Support to complete/close these workflows so they can be purged.





# Future Workflow Enhancements

post 11.5.10 RUP7

post 12.0.6

12.1.2



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# Future - Assignee Type LOVs

- Meant to provide security on the Assignee LOV's.
- This allows a user to select an Assignee Type first then select the User/Role. The following pages will support this functionality:

Reassign

ROLE type respond attribute

Group Respond Vacation Rule

Admin Vacation Rule Admin

Admin Status Monitor Search

Request More Information

Group Reassign

Grant Worklist Access

Notification Search

- Workflow ships two objects one for Assignee Type and other for Users/Roles.
- At Customer site, instance sets can be created on these objects with appropriate predicates and granted to users or roles or responsibilities to enforce data security.

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# Future – DB Session Context Cleanup

- First how many people are aware that Workflow is Database Session Context unaware
- It is essential in an environment where you have multiple OU's you must understand how Workflow maintains Database Session Context
- Oracle Workflow Developers Guide, Chapter 6, 'Standard API for an Item Type Selector or Callback Function'
- It is up to the Application module using Workflow to check and set the correct Database Session Context using a special Selector function called with the following commands (modes):
- TEST\_CTX - to determine if the current item type context information is correct before executing a function
- SET\_CTX – The Workflow Engine calls the selector/callback function with this command each time it encounters a new item type and item key combination
- Run



# Future – DB Session Context Cleanup

- It is up to the Application module using Workflow to check and set the correct Database Session Context using a special Selector function called with the following commands (modes):
  - **TEST\_CTX** - to determine (validate) if the current item type context information is correct before executing a function
  - **SET\_CTX** - The Workflow Engine calls the selector/callback function with this command each time it encounters a new item type and item key combination (with exceptions)
  - **Run** - to select the appropriate process to start in specific situations
- The selector function is implemented as a PL/SQL procedure



# Future – DB Session Context Cleanup

- Where is the Selector function specified in the Workflow

**Navigator Control Properties**

Item Type | Roles | Access

Internal Name: DEOL

Display Name: OM Order Line

Description: Oracle Order Management includes the concept of an Order Line. One or many lines belong to a specific Header.

Persistence: Temporary

Number of Days: 0

Selector: OE\_STANDARD\_WF.DEOL\_SELECTOR

OK Cancel Apply Help



# Future - Context Cleanup (cont)

- This has resulted in DB Session Context's not always being set in all cases and one workflow's context to remain in effect for a next workflow.
- As part of this enhancement in 12.1.2, Workflow will cleanup any context set by a workflow process and restore to original context set at the time of startup.

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# Future - Mailer Performance

- For every notification sent from Workflow engine, a message is enqueued to WF\_NOTIFICATION\_OUT queue.
- Even if the recipient does not have an e-mail address or if the recipient's notification preference is not MAILXXXX.
- The mailer then dequeued this message and discarded it since it is not e-mailable.
- Oracle has created a new subscription for the notification events to filter these messages off before they are enqueued to WF\_NOTIFICATION\_OUT queue.

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# Future - R12.1, and 11i-RUP7

- Full NLS context support for workflow e-mail notifications
- Currently the e-mail notification content is generated only as per recipient role's Language and Territory preferences
- In 12.1 Oracle plans to honor other preferences as well such as Date Format, Number Format and so on that the user may set from the Preferences screen

Vijay Shanmugam, Workflow Development Manager



# Future - R12.1

- Oracle has extended the Business Event System to consume and invoke web services using a simple wizard based WSDL consumer as part of Integrated SOA Gateway feature
- Oracle plans to ship an out-of-the-box Java rule function that helps invoke the consumed web service

Vijay Shanmugam, Workflow Development Manager



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# My Contact Information

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Copies of the presentation and other workflow related presentations are on:

<http://workflowsig.oaug.org/>

<http://jrpjr.com/>



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# Other Resources

## Karen Brownfield, Solution Beacon

Patches: <http://www.solutionbeacon.com/Patches.pdf>

### Workflow Performance Tuning

Slides: <http://www.solutionbeacon.com/WorkflowPerformanceTuning.pdf>

WP: <http://www.solutionbeacon.com/WorkflowPerformanceTuningWP.pdf>

### Workflow Trouble Shooting

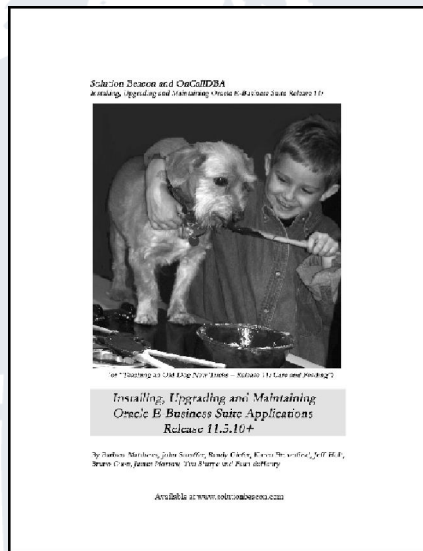
Slides: <http://www.solutionbeacon.com/WorkflowTroubleshootingOAUG09.pdf>

WP: <http://www.solutionbeacon.com/WorkflowTroubleshootingOAUG09.pdf>

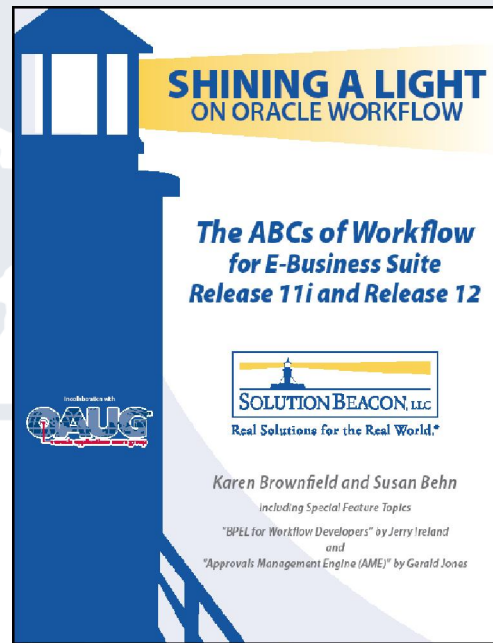


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Installing, Upgrading and Maintaining Oracle E-Business Suite Applications 11.5.10.2+



The ABCs of Workflow for Oracle E-Business Suite Release 11i and Release 12



The Release 12 Primer - Shining a Light on the Release 12 World



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# Questions & Answers



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