



COLLABORATE14

TECHNOLOGY AND APPLICATIONS FORUM
FOR THE ORACLE COMMUNITY

Workflow SIG

Session ID#: 15347

*Monday April 7, 2014
02:10 PM - 03:10 PM
Sands, Level 1 - 203*

Prepared by:

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REMINDER

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We appreciate your feedback and insight

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Introduction

- **John Peters**, Independent Consultant
Workflow SIG Coordinator
JRPJR, Inc
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- **Karen Brownfield**, Oracle Practice Director
Infosemantics, Inc.
karen.brownfield@infosemantics.com

We don't work for Oracle but we both have extensive experience with the Oracle Workflow product



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Back by Popular Demand!

#C14LV

OAUG Connection Point® — AppsTech
July 22-23, 2014
Pre-conference Training: July 21, 2014
Pittsburgh Marriott City Center
Pittsburgh, PA, USA

If you are a technologist that supports Oracle's E-Business Suite of applications, you won't want to miss this two-day seminar designed exclusively for you.



Presentation proposals are being accepted between February 19 and April 20 on the following topics:

- Applications Strategy and Service
- Applications Development
- Business Intelligence/ BI Analytics
- Database
- Middleware
- Upgrade



Submit your proposal at cp.oaug.org



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Who Should Attend

- Database Administrators
- Oracle Applications Database Administrators
- System Administrators supporting Oracle E-Business Suite
- Oracle Applications Developers
- Middleware Technologists supporting Oracle E-Business Suite
- Security Officers supporting Oracle E-Business Suite

Key Dates

- •February 19, 2014: Call for presentation proposals begins
- •April 1, 2014: Registration opens
- •April 20, 2014: Deadline to submit presentation proposals



Call for Presentation Proposals

Presentation proposals relaying best practices, customer success stories and how-to, deep-dive instruction will be accepted for the following educational tracks between February 19 and April 20, 2014:

- Applications Strategy and Service
- Applications Development
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- Database
- Middleware
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Agenda

- Future of Workflow
- Current Workflow Functionality
- Future Workflow Enhancements
- Other resources for Workflow Information
- Questions and Answers



This Presentation is Posted

- I will reference many My Oracle Support Notes, but don't worry about writing them all down. Just get one of these two URL's.
- This presentation is on the OAUG Workflow SIG web site:
<http://workflowsig.oaug.org/>
As well as my web site:
<http://jrpjr.com>
In fact that is what I am using here for this presentation
- This presentation has been revised since it was initially uploaded to the conference presentation management system several months ago, so go to one of the above sites for the updated copy



Future of Workflow



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Future of Workflow

- De-supported as an Oracle product for **standalone** use.
<http://www.oracle.com/technetwork/middleware/ias/workflow-sod-089843.html>
- No longer part of the 11G DB install. Will be installed as a patch as part of the Apps Tech Stack.
- Still heavily used in R12 and will be supported by Applications Technology Group.
- R12 SubLedger Accounting use is on the rise replacing the Account Generators.
- Will not be used in Fusion.
- It is still being enhanced as a product and in R12 functional usage is being expanded (example PO Approvals now using AME)



Primary Replacements

- BPEL (Business Process Execution Language) Process Manager is the primary replacement for Workflow Technology.
- You can use BPEL Process Manager today with your 11i and R12 Applications.
- This is part of the Oracle SOA Suite, licensing might be required.

- SubLedger Accounting (SLA) replaces the Account Generator functionality currently in Workflow
- You can use SLA today in your R12 Applications
- No licensing required.

- Attend some of the BPEL sessions at Collaborate 14 to get some exposure to this powerful tool.



Workflow to BPEL Migration

- There will be no automated conversion/migration available.
- The technology while similar is too different to support an automated conversion
- 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/technetwork/middleware/ias/owf2bpel-132189.pdf>



Collaborate14 BPEL Sessions

- **Understanding the Basics of BPM/BPEL From an Oracle EBS Developers Background**
Thomas Korbecki, OAppsNet
Mon 4/7 1:00 - 2:00, Sands, Level 1 – 305



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OAUG SubLedger Accounting Refs

- Introduction to the Subledger Accounting Engine in Oracle R12
Thomas Simkiss, COLLABORATE 08
- Let Subledger Accounting Custom Sources Release You From Account Generator Workflows
Manoj Menon, COLLABORATE 12
- Transitioning from Account Generators to the R12 Subledger Accounting Engine
Alyssa Johnson, COLLABORATE 10
- Turbo-Charge Your Accounting With the Release 12 Subledger Accounting Engine
Alyssa Johnson, COLLABORATE 12
- Demystifying the new Release 12.1 Subledger Accounting Engine
Alyssa Johnson, OAUG Connection Point - Austin 2012



OAUG BPEL References

- BPEL Process Manager: Tips and Techniques
Hilal Khan, COLLABORATE 07
 - BPEL for Workflow Developers
Jerry Ireland, COLLABORATE 08
 - From Workflow to BPEL, Prepare for the Future
Arian Stijf, COLLABORATE 12
 - Oracle BPEL 11g Training
Basheer Khan, COLLABORATE 10
-
- In order to access the OAUG Conference Presentation database you must be an OAUG Member
 - One more reason to be an OAUG Member Company



Last Take Away Point on the Future of Workflow in EBS



- Workflow is a core component of the Oracle E-Business Suite
- Workflow continues to be enhanced by Oracle Development
- Workflow to support Oracle E-Business Suite will be with us for a long time



Current Workflow Functionality



Workflow Analyzer Script

- Workflow Analyzer script for E-Business Suite Workflow Monitoring and Maintenance [ID 1369938.1] 
Latest Version (v5.06)
- How to run EBS Workflow Analyzer Tool as a Concurrent Request [ID 1425053.1]
- E-Business Suite Applications Technology Group (ATG) Advisor Webcasts [ID 1186338.1] 
- This is a non-invasive SQL Script you can run against you system it will provide some very good information to help you manage the workflow product.



Workflow Analyzer Script - Example

- The script generates an HTML file which you can open in your browser

Workflow Analyzer for VIS on HANDARGE-PC.US.ORACLE.COM

ORACLE PREMIER SUPPORT GET PROACTIVE!

WF_Analyzer v4.05 compiled on : 18-APR-2012 05:40:3

This Workflow Analyzer script reviews the current environment, providing helpful feedback and recommendations.

Table of Contents

[Workflow Analyzer Overview](#)

- E-Business Suite Version
- Workflow Database Parameter Settings

[Workflow Administration](#)

- Verify the Workflow Administrator Role
- SYSADMIN User Setup for Error Notifications
- SYSADMIN Worklist Access
- SYSADMIN Notification Routing Rules
- Verify AutoClose_FYI Setting
- E-Business Suite Profile Settings
- Workflow Profile Settings
- Verify Error Messages
- Verify #STUCK Activities
- Totals for Notification Preferences
- Check the Status of Workflow Services

[Workflow Footprint](#)

- Volume of Workflow Runtime Data Tables
- Verify Closed and Purgeable TEMP Items
- SUMMARY of Workflow Processes by Item Type
- Check the Volume of Open and Closed Items
- Average Volume of Opened Items in the past 8 Days
- Total OPEN Items Started Over 90 Days Ago
- Check Top 30 Large Item Activity Status History

Workflow Runtime Data Table Gauge

Your overall Workflow HealthCheck

The WF_ITEMS Table has obsolete workflow runtime data that should be purged.

We reviewed all 18,569 rows in WF_ITEMS Table for Closed Items. Currently 82% (15,216) of WF_ITEMS are OPEN, while 18% (3,353) are CLOSED.

Note: Once a Workflow is closed, its runtime data that is stored in the WF_ITEMS table is not deleted. All the pertinent data is stored in the functional tables (FND_MESSAGES, WF_ITEM_ACTIVITY_STATUSES, WF_ITEM_ATTRIBUTE_VALUES, WF_NOTIFICATIONS). Remember that each row in WF_ITEMS is associated to 1000 rows of data in the functional tables.

E-Business Suite Version

SID	RELEASE	HOSTNAME	STARTED
VIS	11.5.10.2	handarge-pc.us.oracle.com	20-FEB-2012 16:37:32

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Workflow Database Parameter Settings

NAME	VALUE
cpu_count	2
nls_language	american
nls_territory	american
utl_file_dir	/usr/tmp, /usr/tmp, /usr/tmp
job_queue_processes	2
parallel_threads_per_cpu	2
aq_tm_processes	1

SYSADMIN User Setup for Error Notifications

Warning
The SYSADMIN User appears to be setup to not receive email notifications!

This is fine.
However, this means SYSADMIN can only access notifications through the Oracle Workflow Web Services. Please verify that the SYSADMIN User is actively processing the 19,413 Error Notifications that are currently in the queue.

Please review System Administration Setup Tasks in the [Oracle Applications System Administrator's Guide](#).

Show the status of the Workflow Error Notifications for this instance

Workflow Error Notifications by Type

Looking at major Error Notification Types

Attention
There are 19,679 Error Notifications of type (ECXERROR,OMERROR,POERROR,WFERROR) found in the WF_ITEMS table. Please review the following table to better understand the volume and status for these Error Notifications.

Please review [Note 760386.1](#) - How to enable Bulk Notification Response Processing for Workflows.

Summary of Error Message Recipients (WFERROR, POERROR, OMERROR, ECXERROR)

NAME	DISPLAY_NAME	STATUS	PREFERENCE	EMAIL	TYPE
SYSADMIN	SYSADMIN	SYSADMIN	ACTIVE	QUERY	WFERROR
SYSADMIN	SYSADMIN	SYSADMIN	ACTIVE	QUERY	OMERROR
USER_A	USER_A	USER_A	ACTIVE	MAILHTML	WFERROR
USER_A	USER_A	USER_A	ACTIVE	MAILHTML	WFERROR
SSCFR	Saint-Gratien, Christiane	SSCFR	ACTIVE	MAILHTML	POERROR

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Worklist Access
The Oracle Workflow Advanced Worklist allows you to grant access to your worklist. That user can then act as your proxy to handle the notifications in your list on your behalf. That user can then act as your proxy to handle the notifications in your list on your behalf. That user can then act as your proxy to handle the notifications in your list on your behalf. That user can then act as your proxy to handle the notifications in your list on your behalf. That user can then act as your proxy to handle the notifications in your list on your behalf.

Workflow Footprint

Workflow Runtime Data Tables

Warning
The Workflow Runtime Tables logical space which is used for all full-table scans is 39% greater than the physical or actual tablespace being used. It is recommended to have a DBA resize these tables to reset the HighWater Mark. There are several ways to coalesce, drop, recreate these workflow runtime tables.

Please review [Note 388672.1](#) - How to Reorganize Workflow Tables, for more details on ways to do this.

Volume of Workflow Runtime Data Tables (in MegaBytes)

Workflow Table Name	Logical Table Size	Physical Table Data	Difference
WF_COMMENTS	15	11	5
WF_DIG_SIGS	0	0	0
WF_ITEMS	15	9	6
WF_ITEM_ACTIVITY_STATUSES	146	62	84
WF_ITEM_ACTIVITY_STATUSES_H	32	19	13
WF_ITEM_ATTRIBUTE_VALUES	780	494	286
WF_NOTIFICATIONS	52	42	10
TOTALS	1040	637	404

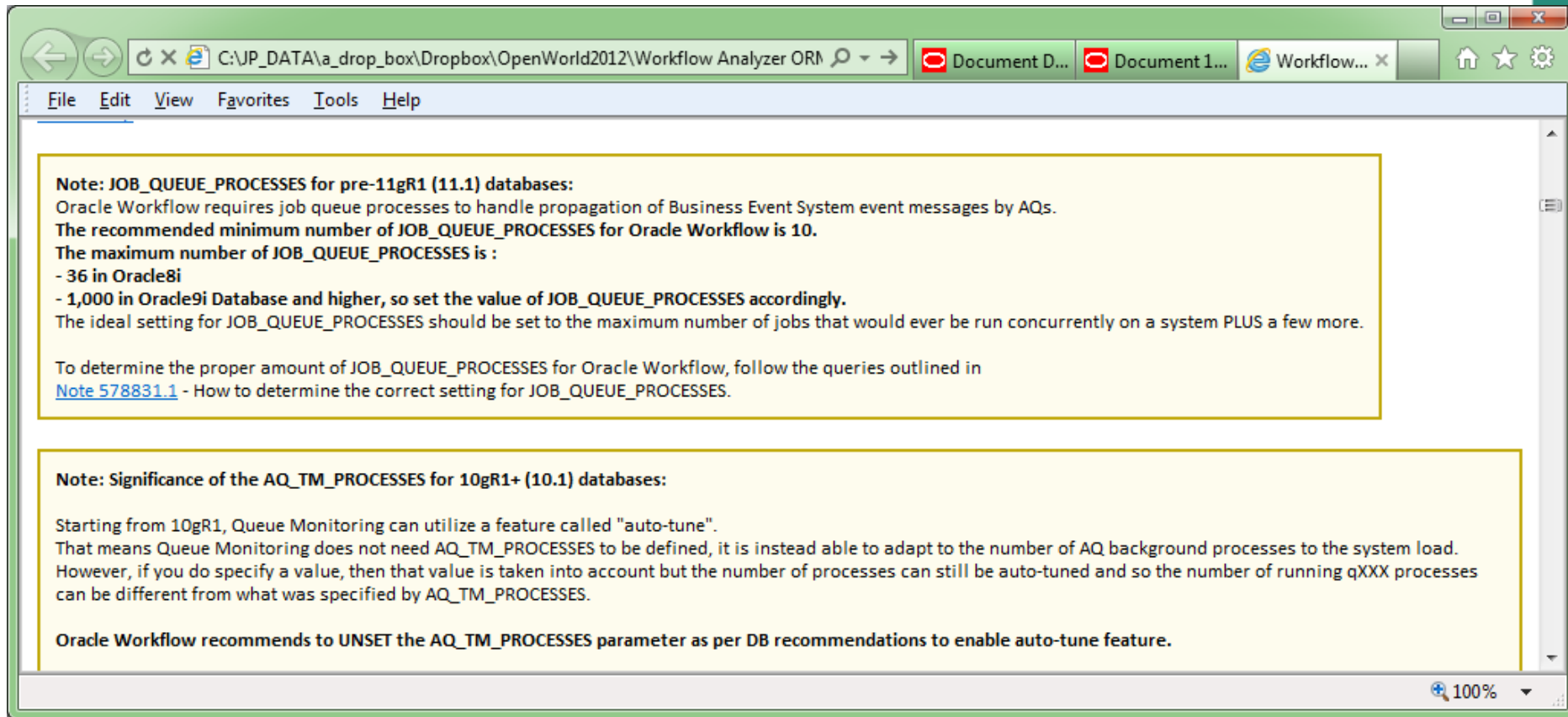
[SQL Script](#)

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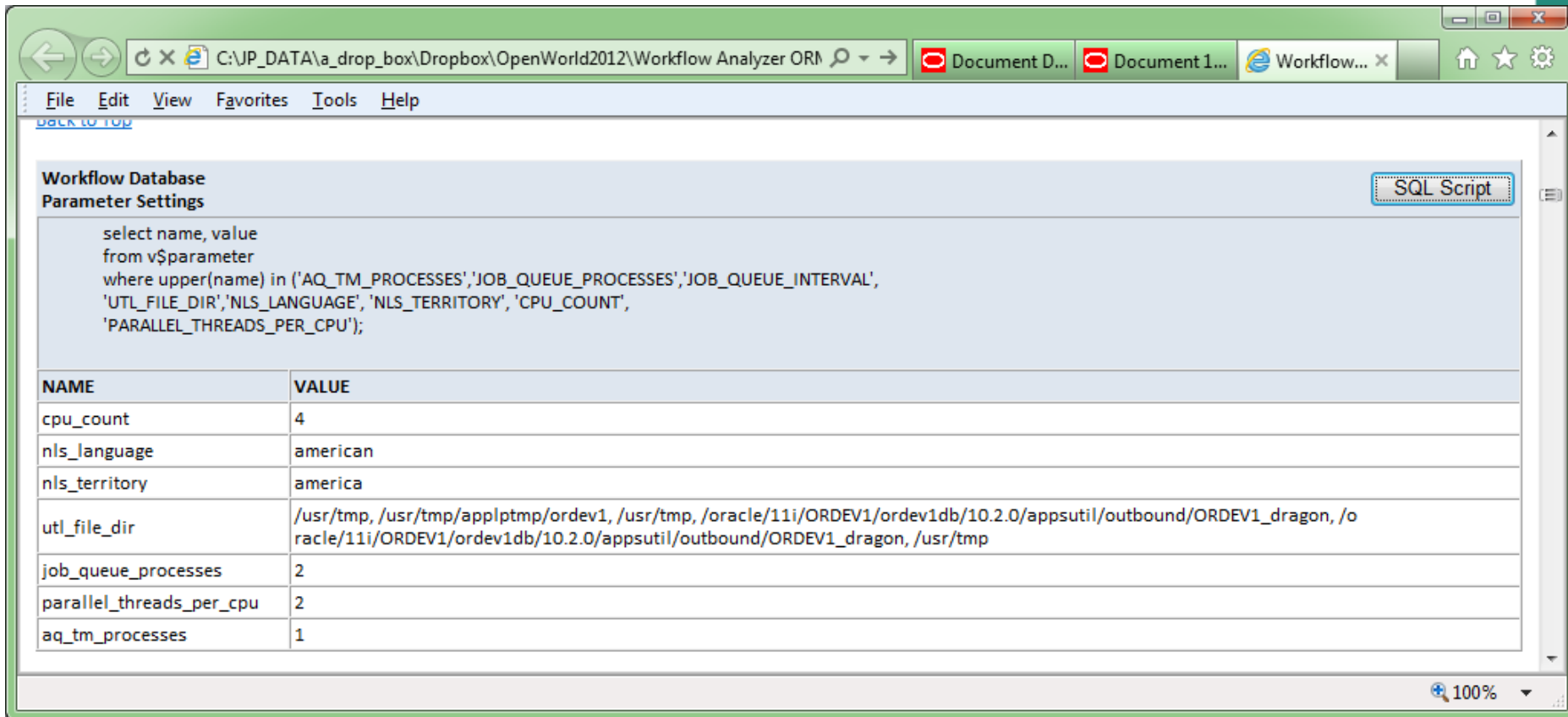
Workflow Analyzer Script - Example

- This script not only provides data it also has comments and suggestions in the output with references to My Oracle Support.



Workflow Analyzer Script - Example

- You can get the SQL that was run for each result (in case you want to drill deeper or filter differently).



The screenshot shows a web browser window with the address bar displaying the URL: C:\JP_DATA\drop_box\Dropbox\OpenWorld2012\Workflow Analyzer ORM. The browser has several tabs open, including 'Document D...', 'Document 1...', and 'Workflow...'. The main content area displays a 'Workflow Database Parameter Settings' section with a 'SQL Script' button. The SQL script is as follows:

```
select name, value
from v$parameter
where upper(name) in ('AQ_TM_PROCESSES','JOB_QUEUE_PROCESSES','JOB_QUEUE_INTERVAL',
'UTL_FILE_DIR','NLS_LANGUAGE','NLS_TERRITORY','CPU_COUNT',
'PARALLEL_THREADS_PER_CPU');
```

Below the script, a table displays the results of the query:

NAME	VALUE
cpu_count	4
nls_language	american
nls_territory	america
utl_file_dir	/usr/tmp, /usr/tmp/aplptmp/ordev1, /usr/tmp, /oracle/11i/ORDEV1/ordev1db/10.2.0/appsutil/outbound/ORDEV1_dragon, /o racle/11i/ORDEV1/ordev1db/10.2.0/appsutil/outbound/ORDEV1_dragon, /usr/tmp
job_queue_processes	2
parallel_threads_per_cpu	2
aq_tm_processes	1

The browser's status bar at the bottom right shows a magnifying glass icon and '100%' zoom level.



PO Approvals Using AME

- AME will allow add: Approvers, Reviewers, E-Signers
- AME will allow any Purchase Order to be withdrawn as long as the approval status is 'In Process'
- 12.1 AME : Approval, E-Review, E-Sign and Withdrawal Features for Purchase Orders [ID 1487661.1]
 - This note details the patches, setup steps, and functionality provided along with videos
- 12.1.3 - Required Setups For Purchase Order Approval Using Approvals Management Engine (AME) [ID 1487713.1]



New Worklist Features

- Patch 13646173 for 12.1.3 introduces some new Worklist features
 - See the last action and comments from the approver on top of a notification
 - Submitter can reassign a request for information notification
 - Actual sent date comes from the reassign action

- Notification counts show up in the corner of the screen



R12.2 Changes

- **Deferring Worklist Response Processing**
You can defer user Worklist Responses to Workflow Background Process, allowing the users session to immediately return control to the user.



R12.2 Changes

- **Oracle Workflow E-mail Character Encoding Configuration**

Workflow Administrator can now specify the character encoding for each language in workflow notifications.



R12.2 Changes (actually in 12.1.3)

■ #RELATED_HISTORY

- You can now use the special message attribute #RELATED_HISTORY to include the action history of another notification within response-required notifications as well as within FYI notifications.
- The value you set the attribute to is:
{TITLE}[ITEM_TYPE:ITEM_KEY]PROCESS_NAME:ACTIVITY_LABEL_NAME

Oracle Applications Home Page >

Simple Fwk Response Message - 4682813 (Fwk Content)

Approve Reject

To **Smith, Jonathan**
Sent **16-Nov-2012 14:34:55**
ID **4682813**

This is some simple text with hardcoded HTML tags and without tokens that will prompt the notification system to consider this as Fwk content. The final content for the e-mail will be constructed by the Fwk content notifications with Fwk content.

Action History

Num	Action Date	Action	From	To	Details
1	16-Nov-2012 14:34:55	Submit	Workflow System	Smith, Jonathan	

Action History of the current approval notification

Related Action History

Num	Action Date	Action	From	To	Details
1	16-Nov-2012 14:33:44	Submit	Workflow System	Smith, Jonathan	
2	16-Nov-2012 14:34:18	Reject	Smith, Jonathan	Workflow System	
3	16-Nov-2012 14:34:24	Reject	Smith, Jonathan	Workflow System	
4	16-Nov-2012 14:34:28	Approve	Smith, Jonathan	Workflow System	

Action History from a previous approval notification



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R12.2 Changes (actually in 12.1.3)

■ Worklist Usability Enhancements

- A user who receives a request for more information can now transfer that request to another user and include a comment to that user.
- Improvements on the Date Sent for reassigned notifications now showing the date of the reassignment, not the original notification date.
- Notification Details displays if the notification has been delegated or transferred along with any comment provided.
- Worklist Icon can be displayed on all OAF based pages. Enable the Profile Option 'WF: Enable Worklist Global Header'



Workflow Lives On! in R12

- So yes Workflow continues to live on, even though it has been desupported for **standalone** use.
- **For more information:**
Oracle E-Business Suite Releases 12.1 and 12.2 Release Content Documents [ID 1302189.1]



Future Workflow Enhancements



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Future Enhancements

- At this time we don't know of any future Workflow Enhancements.
- Oracle is very interested in Workflow Enhancements from the user community.
 - Put a posting up in the My Oracle Support Community https://community.oracle.com/community/support/oracle_e-business_suite/core_workflow
 - Drop me an email on the topic so we can help push it through Oracle: john.peters@jrpjr.com



Other Resources for Workflow Information



Workflow Product Information Center

- E-Business Suite: Oracle Workflow (WF) Product Information Center (PIC)
[ID 1320509.1]



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Collaborate14 WorkFlow Presentations

- **Workflow Troubleshooting in R12**
Karen Brownfield, Infosemantics, Inc
Tue, 4/8, 4:15 – 5:15, Sands, Level 1 – 305
- **Making Workflow Flow**
Jerry Ireland, Rightsizing, Inc.
Thu, 4/10 4:15 – 5:15, Sands, Level 1 – 305



Web Resources

- **Workflow SIG Web Site**

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

- **Workflow Blog**

<http://blogs.oracle.com/oracleworkflow>

Great information on using GMAIL SMTP and IMAP servers

- **My Oracle Support Community**

https://community.oracle.com/community/support/oracle_e-business_suite/core_workflow

- **Integration Blog**

<http://blogs.oracle.com/ebusinesssuiteintegration>



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Karen Brownfield, InfoSemantics

- **List of Recommended Patches**

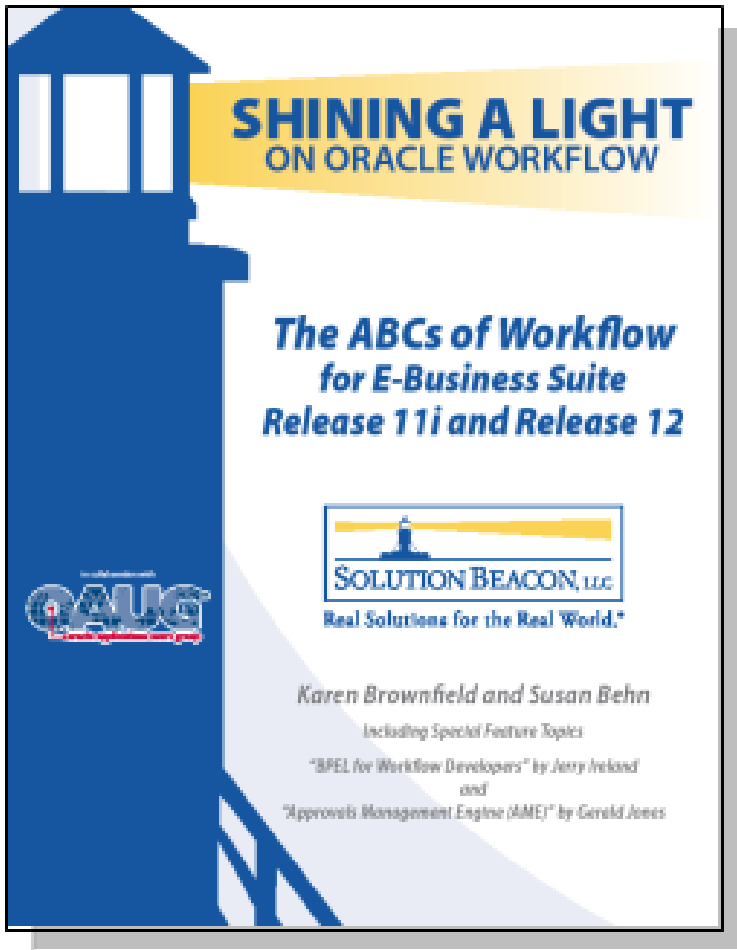
http://workflowsig.oaug.org/reference_files/Karen_Brownfield_latest_WF_patches_2014.xlsx

- **Notes on 'Instant Client for Microsoft Windows' install**

http://workflowsig.oaug.org/reference_files/Karen_Brownfield_Create_11g_Oracle_Home.docx



Karen Brownfields reference book on Workflow



To purchase either the hard copy
or electronic book

<http://lulu.com>

Search for:

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

\$69.99



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Thank You For Attending

John Peters, JRPJR, Inc
john.peters@jrpjr.com

This paper is posted on my web site along with many others I have done over the years:
<http://jrpjr.com/>

Click on Paper Archives on the right hand side, then:
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Questions?
Comments?

