



Workflow Troubleshooting

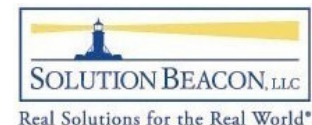
Susan Behn





Agenda

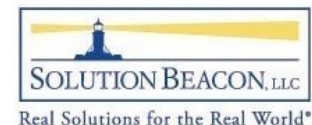
- Overview/Business Benefit
- Workflow Troubleshooting by Role
- Workflow Administration for End Users and Super Users
- Workflow Troubleshooting for Administrators
- Workflow Troubleshooting for Developers and DBAs
- References and More Presentations

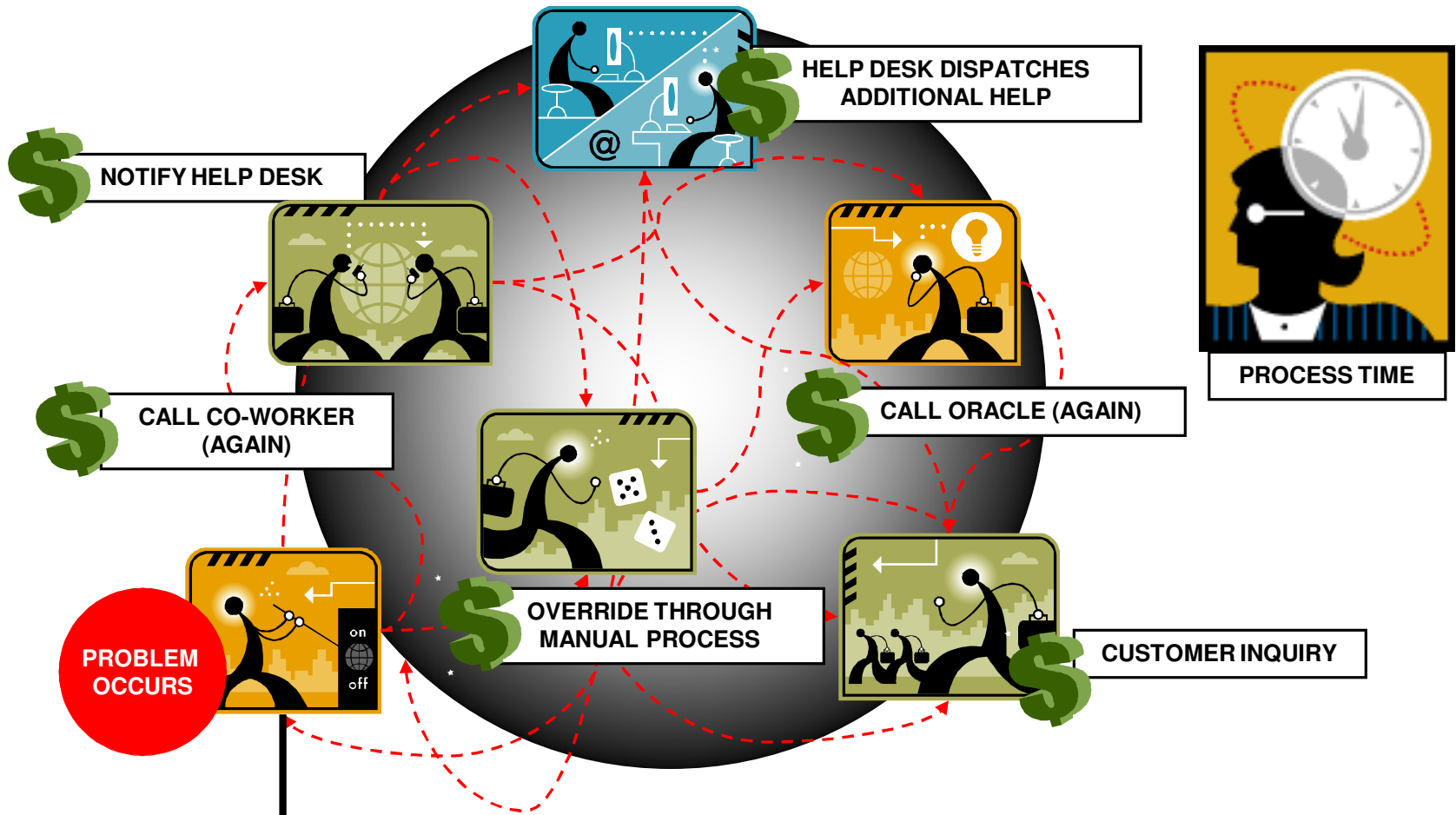




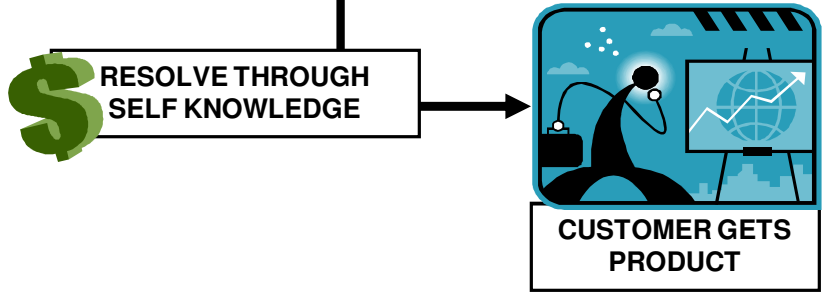
Overview

- Workflow Functionality in Release 12 and Release 11i.10 (if patched current) are nearly identical
 - Forms may look different due to new R12 look-and-feel
- Release 12 forms will be used in screen shots
- Focus on efficiency
 - Empower Users





WITH TROUBLESHOOTING EDUCATION



\$\$\$\$\$\$\$ NET SAVINGS

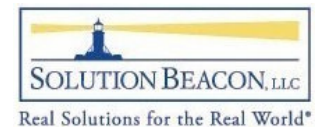


Workflow Troubleshooting by Role

- **Workflow End Users and Functional Super Users**
 - Personalize notification page
 - Monitor your own workflows
 - Run workflow specific concurrent programs
 - Run Diagnostic Reports for Functional Areas
- **Workflow Administrators/DBAs/Developers**
 - Troubleshoot all workflows using Administration Menus
 - Junior Administrator limits administration to a workflow type or specific actions
 - Consider setting up Junior Administrator for Super Users
 - Troubleshoot workflows using Oracle Applications Manager
 - Keep old workflows purged for performance improvement
 - Run Diagnostic Reports for Troubleshooting and Maintenance



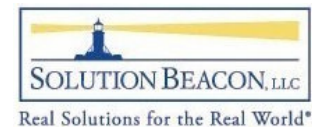
Workflow Troubleshooting for End Users





Improved Efficiencies for Users

- Provide end users tools for efficiency
 - Add personal worklist to menus
 - Provide training for use of the status monitor and other features
 - Set owner attribute in workflows where needed
 - Provide access to diagnostic reports
 - Oracle Diagnostic Tool Responsibility
 - Security is built in – you can only access reports related to responsibilities you are assigned
 - Add concurrent programs to Superuser menus if missing





Seeded User Menu

- Workflow User Web Applications
 - Advanced Worklist
 - Self Service Workflow
 - Home Page
 - Status Monitor
 - Notifications – same as Advanced Worklist

ORACLE Self Service Workflow

Diagnostics Home Logout Preferences Help Personalize Page

Home Status Monitor Notifications

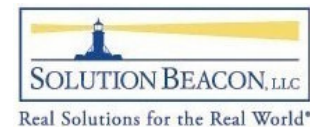
Welcome Stock, Pat
to Oracle Workflow

Notifications

Below is a list of your most important notifications. Select the subject to respond or select "Full List" to see all your notifications. [Full List](#)

From	Type	Subject	Sent	Due
	PA Workplan Workflow	Workplan Version EC-100: Workplan VIII, 4 (EC-100, EC-100) published	03-Aug-2006	
	PO Create Documents	Standard PO : 5362 created.	09-Aug-2006	
	PO Requisition Approval	Purchase Requisition 2528 has been returned by the buyer	03-Feb-2009	
	XXHR Validate New Employee	Please set up the email address for Bowen, Mrs. Carol and enter it below	04-Feb-2009	05-Feb-2009
	XXHR Validate New Employee	Please set up the email address for Bowen, Mrs. Carol and enter it below	04-Feb-2009	05-Feb-2009

✓ **TIP** [Vacation Rules](#) - Redirect or auto-respond to notifications.
✓ **TIP** [Worklist Access](#) - Specify which users can view and act upon your notifications.





Personal Worklist

- Add the function 'Personal Worklist' to the Workflow User menu for additional features
- **What's great about this?**
 - Create a personal worklist view to separate notifications by type
 - PO Approval more important than Invoice Approval so respond to these first

Menu: FND_WFUSER
User Menu Name: Workflow User
Menu Type: Standard
Description: Workflow User menu

Seq	Prompt	Submenu	Function	Description	Grant
5	Advanced Worklis		Advanced Workflow Work	Advanced Notifications Worklis	<input checked="" type="checkbox"/>
10	Self Service Work	Workflow Self-Service Nav		Self-Service Home Page Navigation Men	<input checked="" type="checkbox"/>
20		Workflow Guest Self-Serv		Self-Service menu for "guest" status monito	<input checked="" type="checkbox"/>
25	Status Monitor Po		Workflows	Portlet displaying user's workflows cl	<input checked="" type="checkbox"/>
36		Workflow Self-Service App		Self-service workflow incorporating ne	<input checked="" type="checkbox"/>
40	Personal Worklis		Personal Worklist		<input checked="" type="checkbox"/>

Add the Personal Worklist function to the menu for additional features



Personal Worklist

- Personal Worklist additional Features

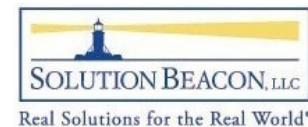
Personalize – create new views or change existing view

Simple Search – search for specific notifications

The screenshot shows the Oracle Personal Worklist interface. At the top, there is a navigation bar with the Oracle logo and links for Diagnostics, Preferences, Help, Personalize Page, and a partially visible 'Window' link. Below this is a 'Worklist' section with a 'Simple Search' button. A 'View' dropdown menu is set to 'Open Notifications', with 'Go' and 'Personalize' buttons next to it. Below the view menu are 'Select Notifications:' buttons: 'Open', 'Reassign', 'Close', 'Close', and 'Export'. There are also 'Select All' and 'Select None' links. A table of notifications is displayed with columns: 'Select From', 'Type', 'Subject', 'Sent', and 'Due'. The table contains four rows of data. Below the table are two tips: 'TIP Vacation Rules - Redirect or auto-respond to notifications.' and 'TIP Worklist Access - Specify which users can view and act upon your notifications.'

Select From	Type	Subject	Sent	Due
<input type="checkbox"/>	Expenses Export	Expenses Export Re	11-Feb-2008	
<input type="checkbox"/>	Expenses Export	Expenses Export Re	11-Feb-2008	
<input type="checkbox"/>	Expenses Export	Expenses Export Re	11-Feb-2008	
<input type="checkbox"/> Brown, Casey	PO Requisition Approval	Purchase Requisition	02-Nov-2007	

Export – downloads to .csv file format





Personal Worklist Simple Search

- Use Simple Search to search for specific notifications in your worklist

The screenshot shows the Oracle Worklist interface. At the top, there is a blue header with the Oracle logo and navigation links: Diagnostics, Preferences, Help, Personalize Page, and Close Window. Below the header, the page is titled "Worklist". On the right side, there is a "Save Search" button. The main section is titled "Simple Search" and includes a note: "Note that the search is case insensitive". There are three input fields for "Subject", "From", and "Sent", with a calendar icon next to the "Sent" field. Below these fields are "Go" and "Clear" buttons. To the right of the input fields are buttons for "Advanced Search" and "Worklist Views". Below the search section is an "Export" button. A table with the following columns is shown: "Select Subject", "From", "Sent", "Type", "Status", and "Due". The table contains one row with the text "No search conducted." Below the table, there are two tips: "TIP Vacation Rules - Redirect or auto-respond to notifications." and "TIP Worklist Access - Specify which users can view and act upon your notifications." At the bottom right, there is another "Save Search" button.



Status Monitor

- Check the status of approval of your requisitions

ORACLE Self Service Workflow

Home **Status Monitor** Notifications

Status Monitor >
Monitor Search

Workflows

Search

Specify search criteria and select "Go" to find workflows.

* Status

Hide Search Options

* Workflow Started

Workflow Type

Results: Workflows

To see all notifications sent by the workflow, click on "Notification History." Select "Participant Responses" to view comments and other data collected for response-required notifications.

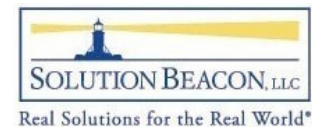
TIP Workflow histories are periodically purged from the system and may no longer be available for review.

Select Workflow and click on **Notification History** | **Status Diagram** | **Participant Responses**

Select	Status	Workflow Type	Workflow	Process Name	Started
<input type="radio"/>	✓	Active PO Requisition Approval	134002-391957	Main Requisition Approval	02-Nov-2007 09:15:23
<input type="radio"/>	✗	Error PO Requisition Approval	5146-6228	Main Requisition Approval	16-May-2000 09:47:24
<input type="radio"/>	✓	Active PO Requisition Approval	6001-7188	Main Requisition Approval	25-Sep-2000 07:19:04

Click on status monitor
Enter search criteria
Click Go to search

Click the radio button next to a process
Then click the Notification History, Status Diagram or Participant Responses button





Status Monitor

- Notification History Page
 - All notifications sent by the workflow process selected
 - Click recipient name to send an email
 - Reassign if recipient is unavailable

ORACLE Self Service Workflow

Diagnostics Home Logout Preferences Help Personalize Page

Home **Status Monitor** Notifications

Status Monitor > Monitor Search >

Monitor Activities History

Notification History: 134002-391957

Workflow Type **PO Requisition Approval** Started **02-Nov-2007 09:15:23**
Status **Active** Completed

Current Status

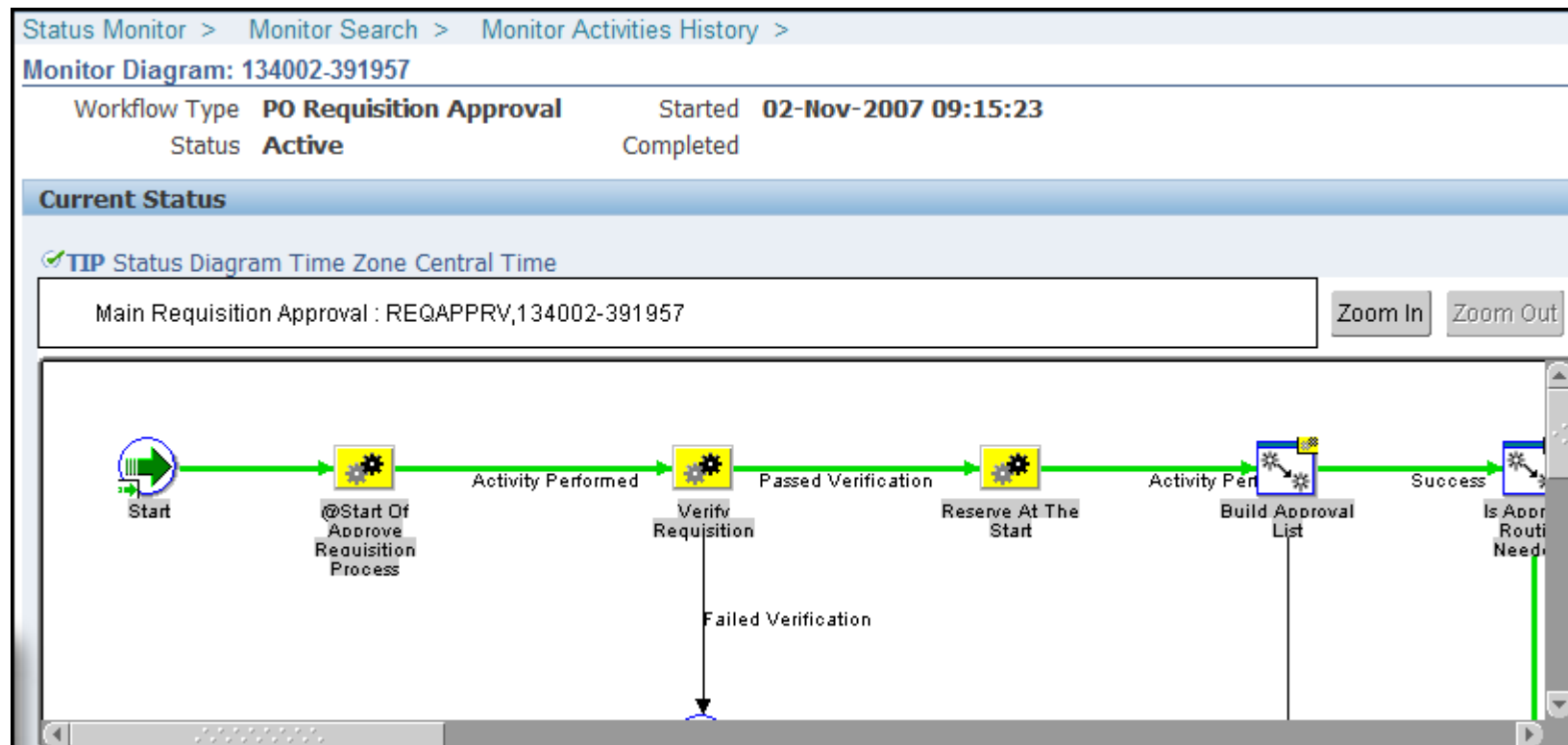
Select Notification and...

Select	Status	Notification Subject	Notification Recipient	Notification Sent	Response Received	Response Activity
<input type="radio"/>	Notified	Purchase Requisition 1434 for Stock, Pat (43,000.00 USD)	Baker, Catherine	02-Nov-2007 09:15:24		Approve Requisition Notification



Status Monitor

- Follow the green line to follow the process





Status Monitor

- Double click in the process box to drill down

The screenshot displays the Oracle Self Service Workflow Status Monitor interface. At the top, the Oracle logo and 'Self Service Workflow' are visible, along with navigation links for Diagnostics, Home, Logout, Preferences, Help, and Personalize. Below this, there are tabs for Home, Status Monitor, and Notifications. The main content area shows the workflow details for 'PO Requisition Approval', including its status (Active) and completion date (02-Nov-2007 09:15:23). A 'Current Status' section contains a process diagram for 'Main Requisition Approval : REQAPPRV,134002-391957'. A red arrow points to a process box labeled 'Approval Routing Chooser' in the diagram.



Status Monitor

- Tabs below the status monitor provide information about the node
 - Notification has been sent to Catherine Baker
 - Catherine has not responded

TIP Status Diagram Time Zone Central Time

Notify Approver : REQAPPRV,134002-391957

Zoom In Zoom Out

Activity Performed

Timeout

Approve Requisition Notification

Forward Approve

Definition Usage Status Notification

Current Location : Notify Approver/Approve Requisition

Status : Notified

Result :

Begin Date : 02-NOV-2007 11:15:24

End Date :

Due Date :

Assigned User : Baker, Catherine



Status Monitor

- Errored items appear outlined in red

Status Diagram: APEXP, 28994, W28994
Workflow Type **Expenses** Started **10-Jul-2006 00:09:56**
Status **Error** Completed

Current Status
✓ TIP Status Diagram Time Zone Central Time

Manager (Spending) Approval Process : APEXP,W28994

Definition Usage **Status** Notification

Current Location : manager (spending) Approval Process\Inform Preparer Expense Report Approval
Status : Error
Result : Exception
Begin Date : 10-JUL-2006 02:10:01
End Date :
Due Date :
Assigned User :
Error Message : 3205: 'LBECKMANN' is not a valid role or user name.

The Status Tab shows the error message



Status Monitor

- Status Monitor → Participant Responses Tab shows responses to all the notifications for the workflow

Home | **Status Monitor** | Notifications

Status Monitor > Monitor Search >

Monitor Responses

Notification List: 134002-391957

Workflow Type **PO Requisition Approval** Started **02-Nov-2007 09:15:23**
Status **Active** Completed

Search

Set activity filters and select the "Go" button to view corresponding results.

Response Notifications
 FYI Notifications
 Closed Notifications

Notification List

Activity	Notification Subject	Recipient	Comment	Notification Response	View Response Details
Approve Requisition Notification	Purchase Requisition 1434 for Stock, Pat (43,000.00 USD)	Behn, Susan		Approve	





Worklist Flexfields

- Introduced in RUP 3
- Allows any value in the message body to be displayed in the notification worklist
 - Only Available Using Personal Worklist
- Specific to particular workflow
 - Best used when creating special view for that workflow
- **What's great about this?**
 - Create a personal worklist view to see error messages



Worklist Flexfields Create Flexfield Rule

- Example – Add the error text to the worklist
 - Workflow Administer creates flexfield rules
 - End Users can access the flexfields created
 - Click Create Rule to assign message attribute to flexfield

Worklist Flexfields Rules
Enter at least one of Rule Name, Display Name, Level or Workflow Type criteria.

Search

Rule Name

Display Name

Phase

Status

Level

Workflow Type

Message Attribute

Column Name

Details	Rule Name	Display Name	Phase	Level	Status	Update
	No search conducted.					



Worklist Flexfields Create Flexfield Rule

- Name the rule and leave other attributes as shown

The screenshot shows the Oracle Worklist Flexfields Rule configuration interface. At the top, the Oracle logo is on the left, and navigation links for 'Diagnostics', 'Preferences', 'Help', 'Personalize Page', and 'Close Window' are on the right. Below this is a progress bar with four steps: 'Enter General Properties' (active), 'Select Filter Criteria', 'Select Message Attributes', and 'Map Attributes to Columns'. The main title is 'Create Worklist Flexfields Rule: Enter General Properties'. A descriptive paragraph explains that lower phase rules are applied before higher phase rules. There are 'Cancel' and 'Next' buttons on the right. The form fields are as follows:

- * Rule Name:
- * Display Name:
- Level: **User**
- Status: (dropdown arrow)
- * Phase:
Seeded Rules have Phase 1-99, Customer Site Rules have Phase 100 or higher.
- Description:
- * Owner Name:
- * Owner Tag:

At the bottom right, there are 'Cancel' and 'Next' buttons, with 'Step 1 of 4' in between. A blue callout box with a pointer to the 'Next' button contains the text 'Click Next'.

Click
Next



Worklist Flexfields Create Flexfield Rule

- Select the System: Error workflow using display name and move it from the “available filter” to the “selected filter”

Enter General Properties **Select Filter Criteria** Select Message Attributes Map Attributes to Columns

Create Worklist Flexfields Rule: Select Filter Criteria

Identify Workflow Types to use as filter criteria to select notifications to which to apply this rule. Cancel Back Step 2 of 4 Next

Available Filter Criteria

Workflow Type

System Module
System: Mailer

Description

Selected Filter Criteria

System: Error

Description
Handles workflow runtime errors.

Move Move All Remove Remove All

Cancel Back Step 2 of 4 Next



Worklist Flexfields Create Flexfield Rule

- Select the message attributes you want to add to the worklist for the workflow chosen in step 2

Enter General Properties Select Filter Criteria **Select Message Attributes** Map Attributes to Columns

Create Worklist Flexfields Rule: Select Message Attributes

Identify Message Attributes to be duplicated in the notifications table and available for display in the Worklist. Cancel Back Step 3 of 4 Next

Selected Filter Criteria

Workflow Type	Type	Internal Name	Remove
System: Error	WFERROR		

Message Attributes

Message Attributes with the same Internal Name, Display Name and Data Type across multiple messages are displayed once.

Available Selected

Attribute Type: All Go

Available	Selected
Error Activity ID (Number)	Error Item Type (Text)
Error Activity Label (Text)	Event Name (Text)
Error Assigned User (Text)	Error Message (Text)
Error Item Key (Text)	Error Stack (Text)
Error Notification ID (Number)	
Error Result Code (Text)	
Error Type (Text)	
Error User Key (Text)	
Error name (Text)	
Event Data URL (URL)	

Move Move All Remove Remove All

Description: (Occurs in multiple messages)

TIP <Message Name> (<Internal Name>) appear in Description
TIP + indicates this Message Attribute exists in Multiple Messages



Worklist Flexfields Create Flexfield Rule

- Map the message attributes to a mapped column based on data type (Text, date, etc...)
 - Click the Find Conflicts button to confirm no duplicate mappings

Enter General Properties Select Filter Criteria Select Message Attributes **Map Attributes to Columns**

Create Worklist Flexfields Rule: Map Attributes to Columns

Map message attributes to notification table attribute columns according to the message attribute type. Step 4 of 4

Display Name	Message Attribute Name	Type	Mapped Column	Remove
Error Item Type	ERROR_ITEM_TYPE	Text	TEXT_ATTRIBUTE1	
Error Message	ERROR_MESSAGE	Text	TEXT_ATTRIBUTE2	
Error Stack	ERROR_STACK	Text	TEXT_ATTRIBUTE3	
Event Name	EVENT_NAME	Text	TEXT_ATTRIBUTE4	

TIP Multiple Message Attribute Display Name appear for Message Attributes with same Internal Name and Data Type across multiple messages.

Step 4 of 4



Worklist Flexfields

Create Personal Worklist View

- Use the Personalize button to create a new view

Worklist Simple Search

View

Select Notifications: Previous 1-25 Next 25

[Select All](#) | [Select None](#)

Select From	Type	Subject ^	Sent	Due
<input type="checkbox"/>	OKL: CS Credit Memo	Approve Credit Memo Request for contract MAHLS07	06-Aug-2003	
<input type="checkbox"/>	OM Change Order	Change Approval Notification	08-Jun-2007	
<input type="checkbox"/> VCCONMGR	Contract Template Approval	Clauses Adopted for Vision France	24-May-2005	



Worklist Flexfields

Create Personal Worklist View

- Click the Rename Columns button to assign a name to the attributes created
 - This will be the column name on the worklist

Original Column Name	New Column Name	Show Total
Subject	Subject	
From	From	
Sent	Sent	
Type	Type	
Status	Status	
To	To	
Information Requested From	Information Requested From	
Due	Due	
Closed	Closed	
Priority	Priority	
Notification ID	Notification ID	<input type="checkbox"/>
From Me	From Me	
Message Name	Message Name	
Type Internal Name	Type Internal Name	
Text_Attribute1	Errored Workflows	
Text_Attribute2	Error Message	
Text_Attribute3	Error Stack	



Worklist Flexfields

Create Personal Worklist View

- Limit the search to WFERROR workflows
 - Create one view where the Subject contains “Event” and another view without this limitation

Sort Settings

	Column Name	Sort Order
First Sort	Sent	descending
Second Sort	Errored Event	ascending
Third Sort		no sort order

Search Query to Filter Data in your Table

Specify parameters and values to filter the data that is displayed in your table.

Advanced Search

Show table data when all conditions are met.
 Show table data when any condition is met.

Status	is	OPEN
Response Required	is	YES
Type Internal Name	is	WFERROR
Type Internal Name	is	
Subject	contains	Event

Add Another Subject Add

Cancel Revert Apply and View Results Apply



Worklist Flexfields Sample Views for WFERROR

Worklist

View: WFERROR by Event

Select Notifications:

Select All | Select None

Select Errored Event	Subject	Sent	Error Message	Error Stack
<input type="checkbox"/> oracle.apps.fnd.system.exception	Local Event ERROR : oracle.apps.fnd.system.exception / 4456427	09-Feb-2008	3142: Process 'OAM_BE/4456427' has no activities waiting to receive event 'oracle.apps.fnd.system.exception'.	Wf_Engine.Event(OAM_BE, 4456427, ALERT_PROC, oracle.apps.fnd.system.exception) Wf_Rule.Default_Rule (oracle.apps.fnd.system.exception, 262D2FBF8297B4C2E0401490CAC44E25
<input type="checkbox"/> oracle.apps.fnd.system.exception	Local Event ERROR : oracle.apps.fnd.system.exception /	08-Feb-2008	3142: Process 'OAM_BE/4456190' has no activities waiting to receive event	Wf_Engine.Event(OAM_BE, 4456190, ALERT_PROC,

Errors from Events

Worklist

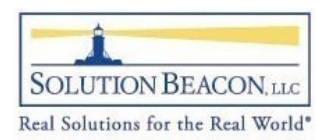
View: WFERROR by Item Type

Select Notifications:

Select All | Select None

Errored Select Workflows	Subject	Sent	Error Message	Error Stack
<input type="checkbox"/> EPBCYCLE	Error in Workflow EPBCYCLE/Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49 ORA-01688: unable to extend table APPLSYS.WF_ITEM_ACTIVITY_STATUSES_H partition WF_ITEM22 by 16 in tablespace APPS_TS_TX_DATA	09-Feb-2008	ORA-01688: unable to extend table APPLSYS.WF_ITEM_ACTIVITY_STATUSES_H partition WF_ITEM22 by 16 in tablespace APPS_TS_TX_DATA	Wf_Engine_Util.Move_To_History(EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219) Wf_Engine_Util.Reset_Activities (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219) Wf_Engine_Util.Reset_Activities (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219) Wf_Engine_Util.Process_Activity (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628211, 50) Wf_Engine_Util.Complete_Activity (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219, #NULL) Wf_Engine_Util.Execute_Activity (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219, RUN) Wf_Engine_Util.Process_Activity (EPBCYCLE, Netherlands Budget-2163-5-GENERATE_TEMPLATE-07/15/2005-14-33-49, 628219) Wf_Queue.ProcessDeferredEvent (EPBCYCLE,

Errors from Item Types





Notification Search for End Users

- Introduced in RUP 5
- Assign function 'Workflow Notification Search' (WF_WORKLIST_SEARCH) to end-user menus
 - This is the Notifications Administrator Web Page
 - In end-user menus, allows users to search only for their own notifications
- **Better Efficiency** - When someone calls about a specific notification, this feature allows you to find the notification quickly



Notification Search for End Users

- More options than the simple search

Notifications

Enter filter criteria such as From, Workflow Type, Type Internal Name, Subject
* Indicates required field

Search

From: All Employees and Users

* Status: Open

Workflow Type:

Type Internal Name:

Subject:

* Sent Date: Any Time

* Due Date: Any Time

* Priority: All

Select From	Type	Subject	Sent	Due	End Date
No search conducted.					



Incorrect Preferences Cause Problems

- If users are not getting emails or emails display incorrectly, check the email style in the preferences
 - If users choose summary email styles, the summary email notification must be scheduled in the mailer setup

A screenshot of a user preferences page. The page is divided into several sections: Languages, Accessibility, Regional, Change Password, Start Page, and Notifications. The 'Notifications' section at the bottom is highlighted with a red border. In this section, the 'Email Style' dropdown menu is set to 'Do not send me mail'. Below the dropdown, there is a small note: 'Notifications will be sent in your current default language, American English.'



Preferences

- Users can change the notification type preference via the preferences button
- Changing global preferences do NOT override preferences set individually
 - Preferences button can be removed by setting profile option *General Preferences Show Flag* to No

The screenshot shows the Oracle Self Service Workflow interface. At the top, the Oracle logo and "Self Service Workflow" are displayed. Navigation links include "Diagnostics", "Home", "Logout", "Preferences" (highlighted with a red box), "Help", and "Personalize Page". Below the navigation bar, there are tabs for "Home", "Status Monitor", and "Notifications". The main content area starts with a "Welcome Stock, Pat to Oracle Workflow" message. Below this is a "Notifications" section with a description: "Below is a list of your most important notifications. Select the subject to respond or select 'Full List' to see all your notifications." A "Full List" button is visible. A table of notifications is shown below:

From	Type	Subject	Sent	Due
	PA Workplan Workflow	Workplan Version EC-100: Workplan VIII, 4 (EC-100, EC-100) published	03-Aug-2006	
Stock, Pat	PO Approval	Standard Purchase Order 3058 has been approved	06-Feb-2009	



Concurrent Program Retry Errored Workflows

- Dates - based on error date – not on original start date
- Perform Commit
 - ‘No’ = commit at end
 - ‘Yes’ = commit after each retry

Parameters	
Item Type	PO Approval Error
Item Key	
Process Name	
Activity Label	DOCUMENT_MANAGER_FAILED_SYSADM
Errored On or After (DD-MON-RRRR)	
Errored On or Before (DD-MON-RRRR)	
Maximum Retries	5
Perform Commit	Yes



Concurrent Program Resend Failed/Error Workflow Notifications

- Introduced in RUP6
- Resend notifications with a mail status of FAILED or ERROR
 - Make corrections first such as email address corrections

The screenshot shows a 'Submit Request' dialog box for the concurrent program 'Resend Failed/Error Workflow Notifications'. The dialog is divided into several sections:

- Run this Request...:** Contains a 'Copy...' button.
- Name:** 'Resend Failed/Error Workflow Notifications' (highlighted in yellow).
- Operating Unit:** (Empty field)
- Parameters:** A sub-dialog box is open, showing:
 - Mail Status:** (Empty field)
 - Message Type:** (Empty field)
 - Recipient Role:** (Empty field)
 - Notifications sent on or after:** (Empty field)
 - Notifications sent on or before:** (Empty field)
- At these Times:** (Empty field)
- Run the Request:** (Empty field)
- Upon Completion:** (Empty field)

At the bottom of the dialog are buttons for 'OK', 'Cancel', 'Clear', and 'Help'.



Concurrent Program Resend Failed/Error Workflow Notifications

- **Caution**
 - You don't always want old notifications to be sent
 - Many workflow systems need cleanup and have orphaned workflows and notifications many years old
 - Consider first a SQL update to set Mail_Status to null where status = 'CLOSED' or 'CANCELLED'
 - Status is the workflow status
 - Mail_status is the notification status
 - Refer to the workflow book for more details on cleanup of your workflow system



Concurrent Program Workflow Directory Services User/Role Validation

- Symptoms
 - Not receiving notifications
 - Missing responsibilities for users
- What it does
 - Data fix for user/role associations in WF_LOCAL_ROLES
 - WF_LOCAL_ROLES is a critical workflow table
 - Refer to workflow foundation presentation for detail table descriptions and relationships
- Caution – There are performance issues prior to RUP4
 - Patches available



Concurrent Program Workflow Directory Services User/Role Validation

- Run Twice Metalink Doc ID: 418765.1
 1. Fix Dangling User/Roles
 - Fix Dangling User/Roles=Yes
 - **Removes invalid associations** from WF_LOCAL_USER_ROLES (if user or role is missing)
 - Add Missing User/Role Assignments=No
 2. Add Missing User/Role Assignments
 - Fix Dangling User/Roles=No
 - Add Missing User/Role = Yes
 - **Adds missing associations** in the WF_LOCAL_USER_ROLES to have corresponding user/role assignments in WF_USER_ROLE_ASSIGNMENTS

The screenshot shows the 'Submit Request' dialog box for the Concurrent Program 'Workflow Directory Services User/Role Validation'. The dialog is titled 'Submit Request' and has a 'Run this Request...' section. The 'Name' field is set to 'Workflow Directory Services User/Role Validation'. The 'Operating Unit' field is empty. The 'Parameters' field is empty. The 'Language' field is set to 'American English'. Below the 'Run this Request...' section, there are several options: 'At these Times...', 'Run the', and 'Upon Completion'. The 'Run the' section is expanded, showing a 'Parameters' dialog box. The 'Parameters' dialog box has the following fields: 'p_BatchSize' set to '10000', 'p_Check_Dangling' set to 'No', 'Add missing user/role assignments' set to 'No', 'Update WHO columns in WF tables' set to 'No', and 'Number of parallel processes' set to '1'. The 'OK' button is visible at the bottom right of the 'Parameters' dialog box.



CRM Workflow Issues Synchronize Workflow Roles

- Symptom
 - Workflow errors with “x’ is not a valid role or user name” error message
- Resource Manager enables group and Team members to receive Workflow notifications
 - This program synchronizes all attributes and records in the workflow wf_local_* tables with the mismatching records in Resource manager



Synchronize WF LOCAL tables

- Symptom – user not receiving emails
- Synchronizes data from applications to
 - WF_LOCAL_ROLES
 - WF_LOCAL_USER_ROLES
- Synchronize Workflow LOCAL Tables request set
 - Runs a separate request of Synchronize WF LOCAL tables for each application
- Run this program if the application's incremental synchronization fails
- If on 11.5.10 RUP3 or earlier, this should be scheduled nightly



Diagnostic Reports

- Need Oracle Diagnostic Tool Responsibility
 - Starting in 12.0.6, RBAC is utilized for Diagnostics
 - See MetaLink Note Id: 358831.1
- Sample of workflow related user tests
 - Other workflow related tests are available

Po Approval	<p>This test collects all the data related to approvals for any purchasing document type. Use this test whenever a data collection of approvals data is required specific to a document.</p> <p>Parameters: Responsibility, Operating Unit, Document type and document number are required. Release number is only required when collecting workflow data for a release against a blanket or contract agreement. Leave this parameter blank in all other cases.</p> <p>To resolve any issues with the execution of this test, please refer to the Diagnostics FAQ.</p>
Account Generator	<p>This diagnostic test will help diagnose issues related to the PO Account Generator for non-OPM installations. This test is meant for items of type expense and inventory and not shop floor</p> <p>To resolve any issues with the execution of this test, please refer to the Diagnostics FAQ.</p>

- New presentation on Diagnostics to be delivered at Collaborate 09
 - 11i Presentation on web



Diagnostics

- MetaLink Note Id: 342459.1 shows full catalog
 - Drill down on application hyperlink for list of reports
 - Includes extensive documentation for R11 and R12

Release 12.0 RUP 6 Diagnostics		
Applications Core Technology <ul style="list-style-type: none">• Applications DBA• Oracle Alert• Oracle Application Object Library	Business Intelligence <ul style="list-style-type: none">• Business Intelligence System• Oracle Balanced Scorecard	CRM Applications Foundation <ul style="list-style-type: none">• CRM Applications Foundation• CRM Technical Foundation• Oracle CRM Foundation
Distribution/Supply Chain <ul style="list-style-type: none">• Oracle Advanced Pricing• Inventory Management• Oracle Order Management• Procurement (Purchasing and iProcurement)• Oracle Release Management• Oracle Shipping• Supply Chain Localizations	Document Management and Collaboration <ul style="list-style-type: none">• Document Management and Collaboration	E-Commerce <ul style="list-style-type: none">• Oracle Quoting
Financials <ul style="list-style-type: none">• E-Business Tax• Financials Common Modules• Oracle Assets• Oracle Cash Management• Oracle Collections• Oracle General Ledger• Oracle Payables	Human Resource Management Systems <ul style="list-style-type: none">• Oracle Advanced Benefits• Oracle Human Resources• Oracle Time and Labor	Interaction Center <ul style="list-style-type: none">• Oracle Universal Work Queue• Oracle eMail Center



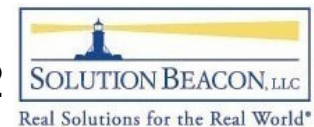
Workflow Troubleshooting for Administrators



42

Copyright 2009 Solution Beacon, LLC All Rights Reserved Any other commercial product names herein are trademark, registered trademarks or service marks of their respective owners.

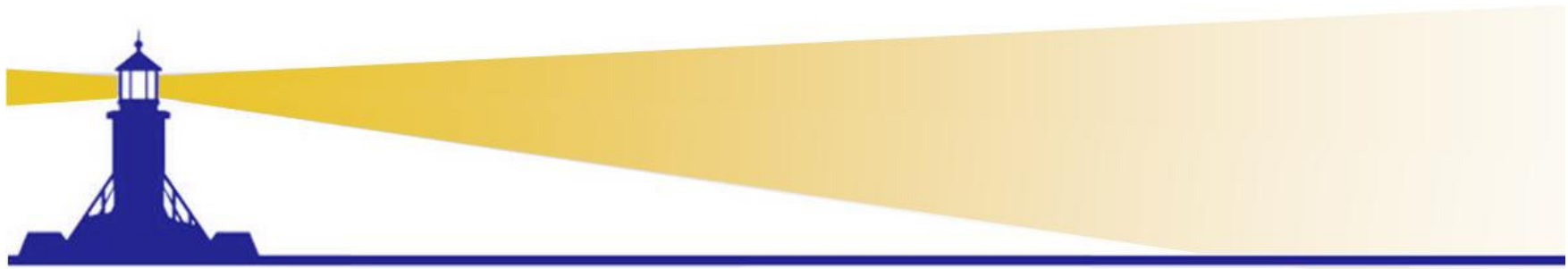
42





OAM vs Workflow Administration

- OAM Workflow Page
 - Use to monitor the workflow system as a whole
 - Research all errors
 - Drill down to workflow type and process
 - Set up mailer
 - Monitor Agents and Queues
- Workflow Administration Menus
 - Troubleshoot specific errors
 - Troubleshoot specific notifications



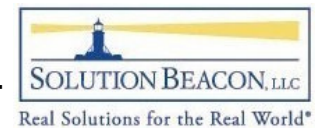
Troubleshooting in OAM



44

Copyright 2009 Solution Beacon, LLC All Rights Reserved Any other commercial product names herein are trademark, registered trademarks or service marks of their respective owners.

44





OAM – Workflow Page

ORACLE Applications Manager Support Cart Setup Home Logout Help

Applications Dashboard | [Site Map](#)
Applications System: a120int1 >

[Workflow Metrics](#) [Related Links](#)

Workflow System: a120int1
Last Updated: 08-Feb-2009 20:59:37

Submit Request For:

Notification Mailers	Up	Background Engines	Up
Agent Listeners	Up	Purge	Up
Service Components	Up	Control Queue Cleanup	Up

Related Database Parameters

Last Updated: 08-Feb-2009

Parameter Name	Parameter Value	Recommended Value	Description
job_queue_processes	10	10	number of job queue slave processes
aq_tm_processes	1	>= 1	number of AQ Time Managers to start

Workflow Metrics [Return to Top](#)

Work Items	Agent Activity
Show	Show



Related Links [Return to Top](#)


Configuration	Throughput
Service Components	Work Items
Queue Propagation	Agent Activity
	Notification Mailers











OAM Dashboard

- Notification mailer will not show  if notification mailer is not activated
 - Notifications still appear in worklist
- All other icons should be green
 - Background Engines, Purge and Control Queue Cleanup show  if concurrent requests scheduled

Workflow System: a120int1
Last Updated: 08-Feb-2009 20:59:37 

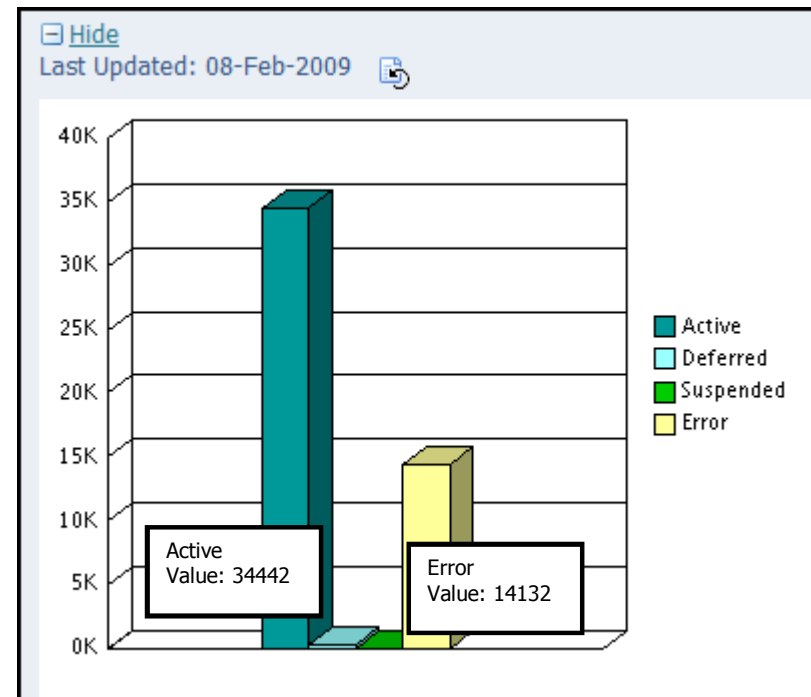
Notification Mailers  Up	Background Engines  Up
Agent Listeners  Up	Purge  Up
Service Components  Up	Control Queue Cleanup  Up

Submit Request For



OAM – Work Items

- Hovering mouse over bar yields exact count
 - Active includes errored processes
- Click on bar to drill down





OAM – Work Items Drill down

- Shows errored work items by **item type**
 - Workflow types with high error counts most likely indicate a problem in the process

Errored Work Items: a120int1 View **Errored Work Items** Go

Filter Work Item Type Contains

Last Updated: 05-Feb-2008

Select a work item type and ... View Details Previous 1-15 of 73 Next 15

Select Work Item Type ^	Count
<input checked="" type="radio"/> ADS HR Custom Workflows	2
<input type="radio"/> ADS Sales Notification	749
<input type="radio"/> AMS Marketing Approvals	9
<input type="radio"/> AMS: List Generation	10
<input type="radio"/> AP Invoice	103
<input type="radio"/> AP Procurement Card Employee Verification Workflow	2
<input type="radio"/> Address Change	28

Click on item type hyperlink to drill down further



OAM – Work Items Drill down

- Shows **process** in error for item type

Errored Work Items: a120int1 View Errored Work Items Go

Stage Summary: AP Invoice

Filter Start Date within last __ days Go

Last Updated: 08-Feb-2009 21:25:18

Select a work item activity stage and ... View Details

Select Work Item Activity Stage ▲	Count
<input checked="" type="radio"/> APINV IA	103

Default is 30 days

Click on process name hyperlink to drill down further



OAM – Work Items Drill down

- Shows **specific workflows** in error for specific process
 - Abort All and Retry All buttons unique to OAM

Errored Work Items: APINV_IA: a120int1 View Errored Work Items Go

Filter Activity Name Go

Last Updated: 08-Feb-2009 21:27:02

Abort All Retry All

Select Activity and ... Abort Retry Launch Workflow Monitor Previous 1-15 of 103

Select	Activity Name	Start Date	Due Date	Assigned User	Item Key
<input checked="" type="radio"/>	APINV_IA	20-Sep-2004 07:18:33			83994_1
<input type="radio"/>	APINV_IA	20-Sep-2004 07:18:33			84111_1
<input type="radio"/>	APINV_IA	20-Sep-2004 07:18:34			

Select workflow and launch workflow monitor
--Same as admin menus



OAM – Work Items Drill down

Activity History
Status Diagram
 Participant Responses
 Workflow Details

Status Diagram: APINV, 83994_1
 Workflow Type **AP Invoice** Started **20-Sep-2004 07:18:33**
 Status **Error** Completed

Current Status
 TIP Status Diagram Time Zone Central Time

Invoice Approval - Main : APINV,83994_1 Zoom In Zoom Out

Also includes links to Activity History, Participant Responses and Workflow Details --Also in admin menus

```

graph LR
  A[Receive Invoice] --> B[Check if Matched to PO]
  B -- No --> C[Identify Approver]
  B -- Yes --> D[Send Notifications]
  C --> E[Update Approval History]
  E --> F[Approve]
  F --> D
  
```

Definition Usage Status Notification

Current Location : Invoice Approval - Main/Invoice Approval - Main
 Item Type : AP Invoice
 Activity Name : Invoice Approval - Main
 Description :
 Activity Type : Process
 Result Type :





New Look for Activity History

- Introduced in RUP6

Monitor Activities History

Activity History: APIIV, 83994_1

View Process Hierarchy

[Expand All](#) | [Collapse All](#)

⊕

Focus	Process Name	Status	Workflow Type	Item Key	User Key	Owned By	Started	Completed
⊕	Invoice Approval - Main	Error	AP Invoice	83994_1			20-Sep-2004 07:18:33	

Workflow Type **AP Invoice** Started **20-Sep-2004 07:18:33**
 Status **Error** Completed

Search

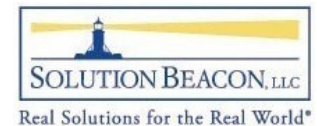
Set activity filters and select the "Go" button to view corresponding results.

Activity Type Response Notifications Activity Status Active
 FYI Notifications Complete
 Functions and Processes Error
 Standard Workflow Suspended
 Events

Results: Activities

Select	Status	Activity	Parent Activity	Notification	Performer	Started	Completed	Activity Result	Reassign	Suspend / Resume
<input type="radio"/>	Error	Identify Approver	Invoice Approval - Main			20-Sep-2004 07:18:33		Exception		
<input type="radio"/>	Complete	Check if Matched to PO	Invoice Approval - Main			20-Sep-2004 07:18:33	20-Sep-2004 07:18:33	No		
<input type="radio"/>	Complete	Receive Invoice	Invoice Approval - Main			20-Sep-2004 07:18:33	20-Sep-2004 07:18:33			
<input type="radio"/>	Active	Invoice Approval - Main				20-Sep-2004 07:18:33				

[Return To Notifications](#)





Activity History **Hierarchy Section**

- Expand the list to show child workflows

Activity History: APINV, 83994_1

View Process Hierarchy

[Expand All](#) | [Collapse All](#)

Focus	Process Name	Status	Workflow Type	Item Key	User Key	Owned By	Started	Completed
<input type="checkbox"/>	Invoice Approval - Main	Error	AP Invoice	83994_1			20-Sep-2004 07:18:33	
<input checked="" type="checkbox"/>	Default Error Process	Complete	System: Error	WF119723			20-Sep-2004 07:18:33	25-Jan-2006 04:16:52

Click the Error hyperlink to get the full error stack



- Click the process name hyperlink to show activity history for the child workflow



New Look for Activity History

Process Detail

- Added Notification Column

Select	Status	Activity	Parent Activity	Notification	Performer	Started	Completed	Activity Result	Reassign	Suspend / Resume
<input type="radio"/>	<input checked="" type="radio"/> Notified	Approve Requisition Notification	Notify Approver		Jones, Gerald	28-Jun-2008 12:32:28				
<input type="radio"/>	<input checked="" type="radio"/> Complete	Update Action History (Expect Response)	Notify Approver			28-Jun-2008 12:32:28	28-Jun-2008 12:32:28	Activity Performed		

Click notification icon to view and respond to notification



OAM – Participant Responses

- Participant Responses – view list of all notification activity and status

Monitor Responses

Notification List: REQAPPRV, 134061-392018

View Process Hierarchy

[Expand All](#) | [Collapse All](#)

Focus	Process Name	Status	Workflow Type	Item Key	User Key	Owned By	Started	Completed
	Main Requisition Approval	✓ Active	PO Requisition Approval	134061-392018		Berry, Halle	28-Jun-2008 12:32:28	

Workflow Type **PO Requisition Approval** Started **28-Jun-2008 12:32:28**
Status **Active** Completed

Search

Set activity filters and select the "Go" button to view corresponding results.

Response Notifications
 FYI Notifications
 Closed Notifications

Notification List

Activity	Notification Subject	Recipient	Comment	Notification Response	View Response Details
Approve Requisition Notification	Purchase Requisition 1124 for Berry, Halle (100.00 USD)	Jones, Gerald		Approve	

Click on the notification icon to see response details



OAM – Participant Responses

- Participant response detail including any notes

Notification Response Details	
Notification Response Details	
Notification Subject	Purchase Requisition 1124 for Berry, Halle (100.00 USD)
Respondent	Behn, Susan
Original Recipient	Jones, Gerald <small>If different from "Respondent", the original recipient delegated responsibility for replying to the respondent.</small>
Notification Sent	28-Jun-2008 12:32:28
Response Received	08-Feb-2009 23:01:11
Response	Approve
Signature Details	
This notification did not require a signature.	
Additional Response Information	
This notification asked the respondent to provide the following information. Some or all fields may be blank.	
Forward To	
Note	



OAM – Workflow Details

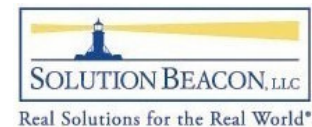
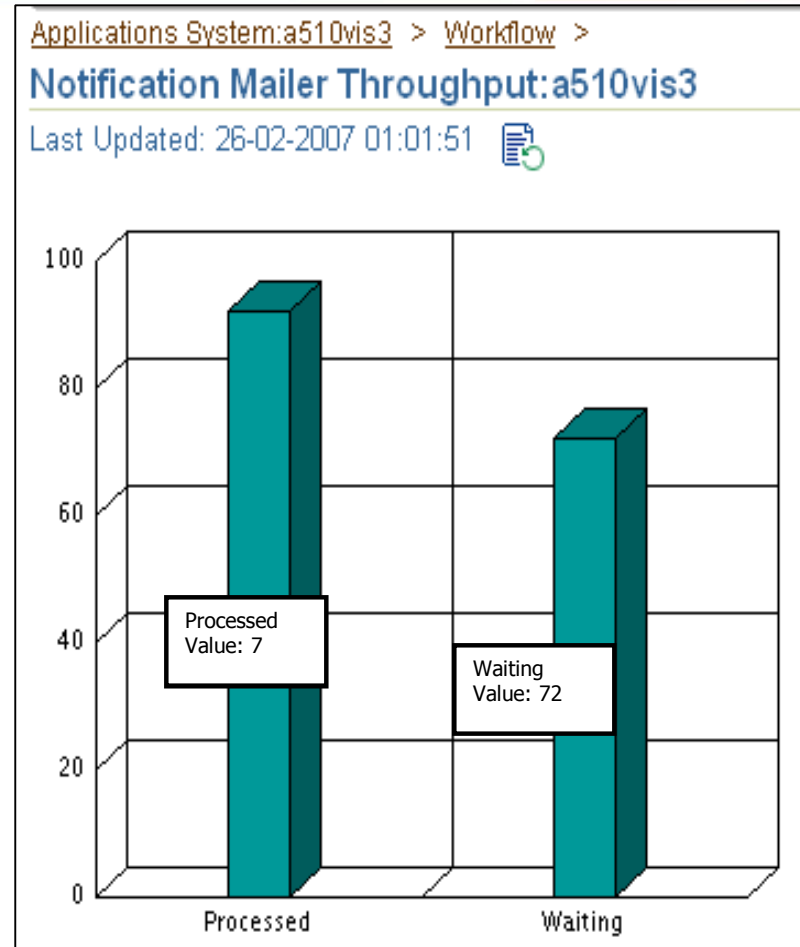
- Workflow attributes
 - Shows all values related to the workflow process including error messages
 - Partial list shown here
- Workflow administrator can edit attributes and rewind/restart process

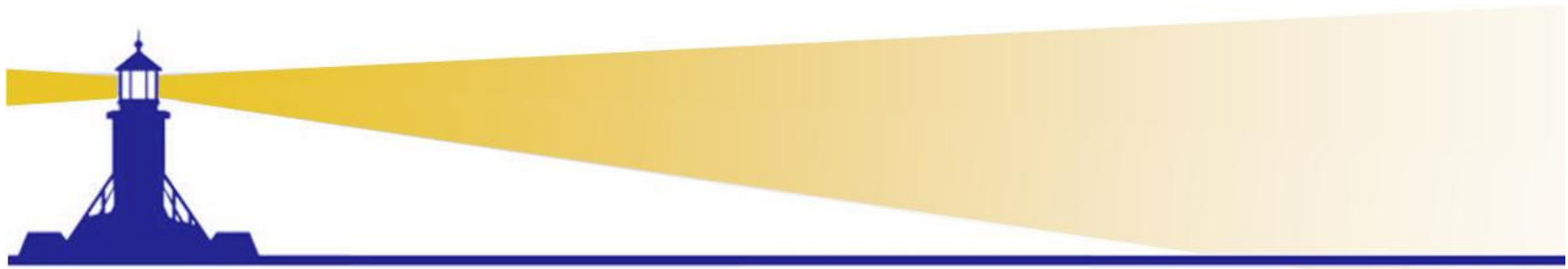
Workflow Attributes	
Approval Path ID	
Authorization Status	APPROVED
Authorization Status Display	Approved
Closed Code	
Closed Code Display	
Document Id	134061
Requisition Number	1124
Document Subtype	PURCHASE
Document Type	REQUISITION
Document Type Display	Purchase Requisition
Emergency PO Number	1739
Forward From Display Name	Berry, Halle
Forward From Id	27775
Forward From User Name	Berry, Halle
Forward To Display Name	Jones, Gerald
Forward To Id	27734
Forward-To ID Old Value	
Forward To User Name	Jones, Gerald
Response Forward-To	
Functional Currency	USD
Interface source	POR
Note	
Online Report Id For Doc Complete Check	



OAM – Throughput Section of Main Page

- If mailer is down, notifications waiting will continue to grow
 - Common in cloned environments
 - See workflow book for proper cloning steps
- Processed
 - Status = OPEN
 - Mail_Status = SENT
- Waiting
 - Mail_Status = MAIL





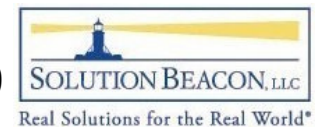
Troubleshooting in Workflow Administration



59

Copyright 2009 Solution Beacon, LLC All Rights Reserved Any other commercial product names herein are trademark, registered trademarks or service marks of their respective owners.

59





Workflow Administration

- Troubleshooting tools are in Status Monitor and Administration tabs

ORACLE Administrator Workflow

Diagnostics Home Logout Preferences Help Personalize Page

Home Developer Studio Business Events **Status Monitor** Notifications **Administration**

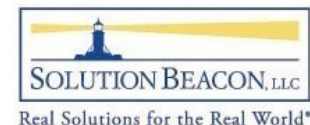
Welcome Behn, Susan
to Oracle Workflow

Notifications at a Glance

Below is a list of your most important notifications. Select the subject to respond or select "Full List" to see all your notifications. [Full List](#)

From	Type	Subject	Sent	Due
	System: Tests	PLSQL Message for Testing Workflow Notification Mailer - A120INT1	08-Feb-2009	
	Expenses Export	Expenses Export Rejections	11-Feb-2008	
	Expenses Export	Expenses Export Rejections	11-Feb-2008	
	Expenses Export	Expenses Export Rejections	11-Feb-2008	
Brown, Casey	PO Requisition Approval	Purchase Requisition 13930 has been approved	02-Nov-2007	

[TIP Vacation Rules](#) - Redirect or auto-respond to notifications.
[TIP Worklist Access](#) - Specify which users can view and act upon your notifications.





Workflow Administration Status Monitor

- Search for specific workflows here
 - Activity history, status diagram, participant responses and workflow detail same as OAM

Monitor Search

Workflows

Search

Select "Show More Search Options" to search for workflows by activity characteristics.

Workflow Type

Type Internal Name
(Example: WFDEMO, WFERORR)

Workflow Owned By

Item Key

User Key

* Workflow Status

* Workflow Started

[Show More Search Options](#)

Results: Workflows

To view or administer a workflow, select "Activity History" for activity history, "Status Diagram" for status diagram, "Participant Responses" for participant responses, or "Workflow Details" for workflow details. Select "Activity History" to view comments and other information gathered for closed, response-required notifications.

TIP Workflow histories are periodically purged from the system and may no longer be available for review.

Select Workflow and View... **Activity History** Status Diagram Participant Responses Workflow Details 1-25

Select	Status	Workflow Type	Item Key	Process Name	User Key	Owned By	Started	Completed	Child Workflows
<input type="radio"/>	<input checked="" type="checkbox"/> Error	@AP Invoice Approval	155960_1	Main Approval Process			01-Nov-2007 14:36:07		
<input type="radio"/>	<input checked="" type="checkbox"/> Error	@AP Invoice Approval	155958_1	Main Approval Process			31-Oct-2007 15:54:00		
<input type="radio"/>	<input checked="" type="checkbox"/> Error	AP Invoice	84516_1	Invoice Approval - Main			20-Sep-2004 11:51:57		

Need invoice id

Look for items in error



Workflow Administration Administration

- Notification search in this window allows search for notifications for others

Enter filter criteria such as Notification ID, Owner, To, From, Workflow Type, Type Internal Name, Subject
* Indicates required field

Search

Notification ID
Find the Notification matching this Notification ID only, other search parameters will be ignored

Owner: All Employees and Users

To: All Employees and Users

From: All Employees and Users

* Status: Open

Workflow Type

Type Internal Name

Subject

* Sent Date: Any Time

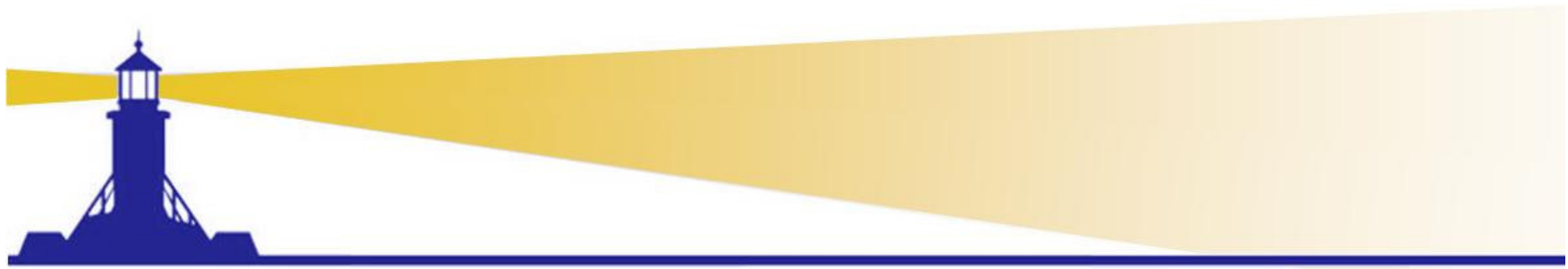
* Due Date: Any Time

* Priority: All

Select Notifications:

[Select All](#) | [Select None](#)

Select From	Type	Subject	Sent	Due	End Date
<input type="checkbox"/>	XXHR Validate New Employee	Please set up the email address for Bowen, Mrs. Carol and enter it below	07-Feb-2009	08-Feb-2009	



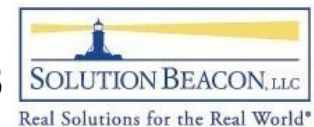
Workflow Troubleshooting for Developers and DBAs



63

Copyright 2009 Solution Beacon, LLC All Rights Reserved Any other commercial product names herein are trademark, registered trademarks or service marks of their respective owners.

63





Overview

- MetaLink Doc. IDs
 - 461431.1 – "Script to Check What Workflow Related Patches Are Installed in EBusiness Suite R12"
 - One-offs not usually included
 - 336843.1 or 275379.1 – "Oracle Workflow Diagnostic Script wfreleases.sql (Release 11i)", "Script to Check What Workflow Related Patches Are Installed In Ebusiness Suite 11i"
 - Includes very few one-offs
 - 368280.1 – "How Can Version of AME Be Determined?"
 - 135266.1 – "Oracle HRMS Product Family – Release 11i and 12 Information"



Tips – Refresh Button

- RUP4 and later, OAM forms do not perform new queries (unless refresh button is pressed)
 - Schedule the following programs for refresh
 - Workflow Agent Activity Statistics concurrent Program
 - Workflow Mailer Statistics Concurrent Program
 - Workflow Work items Statistics Concurrent Program

A screenshot of the Oracle Applications Manager interface. The top navigation bar includes the Oracle logo and 'Applications Manager' text. On the right, there are icons for Support Cart, Setup, Home, Logout, and Help. Below this is a blue navigation bar with 'Applications Dashboard | Site Map'. The main content area shows 'Applications System: a510vis3 > Workflow > Errored Work Items: a510vis3'. There are 'View' and 'Go' buttons. A filter section shows 'Filter Work Item Type' and 'Contains' dropdowns. At the bottom left, the text 'Last Updated: 23-01-2007 00:56:36' is displayed next to a refresh icon (a circular arrow), which is circled in red.



Workflows MUST be configured

- Timeouts
 - Example – REQAPPRV
 - Timeout not defined

The screenshot shows a software interface for configuring a workflow node. The node is labeled 'Approve Requisition Notification'. A dialog box titled 'Navigator Control Properties' is open, showing various configuration options. The 'Timeout' section is circled in red, indicating that the 'Type' is set to 'No Timeout'. Other sections include 'Label' (PO_REQ_APPROVE-1), 'Start/End' (Normal), 'Comment', 'Priority' (Type: Default), and 'Performer' (Type: Item Attribute, Value: Approver User Name). The dialog box has 'OK', 'Cancel', 'Apply', and 'Help' buttons at the bottom.



Workflows MUST be configured

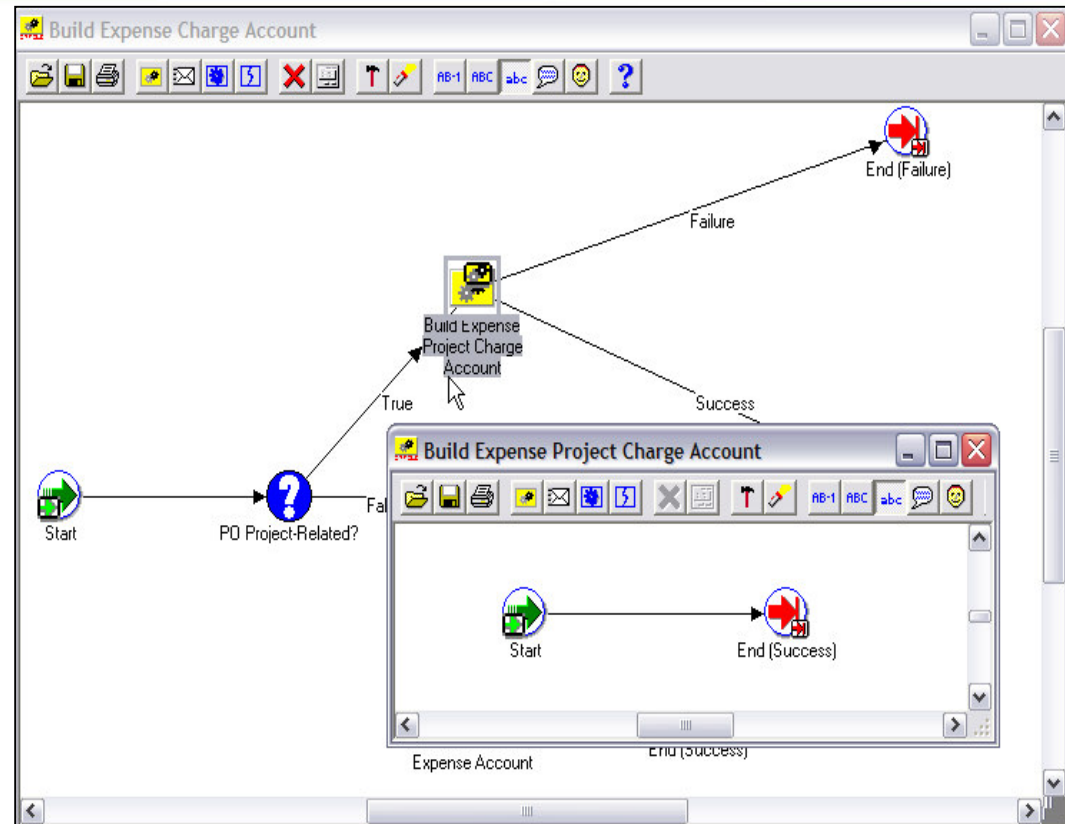
- Performers
 - Example – APEXP
 - Who is informed if rejected

The image shows two overlapping screenshots of the 'Navigator Control Properties' dialog box. The left screenshot shows the 'Details' tab with the following fields: Label: INFORM_AP_MANAGER_REJECTED, Start/End: Normal, Comment: (empty), Timeout Type: No Timeout, Priority Type: Default, Performer Type: Item Attribute, Performer Value: AP. The right screenshot shows the 'Access' tab with the following fields: Item Type: Expenses, Internal Name: PAYABLES, Display Name: AP, Description: Payables, Type: Role, Default Type: Constant, and Default Value: <None> (circled in red). Below the dialog boxes is a small flowchart diagram showing a node 'LE Expense Report Has Been Payables Reviewed' with a question mark icon, leading to a node 'Inform AP Expense Report They Reviewed Is Mgr Rejected' with an envelope icon. A 'Yes' arrow points from the first node to the second.



Workflows MUST be configured

- Account Generators
 - If Using Projects, MUST customize POWFPOAG, POWFRQAG, PAAPINVW



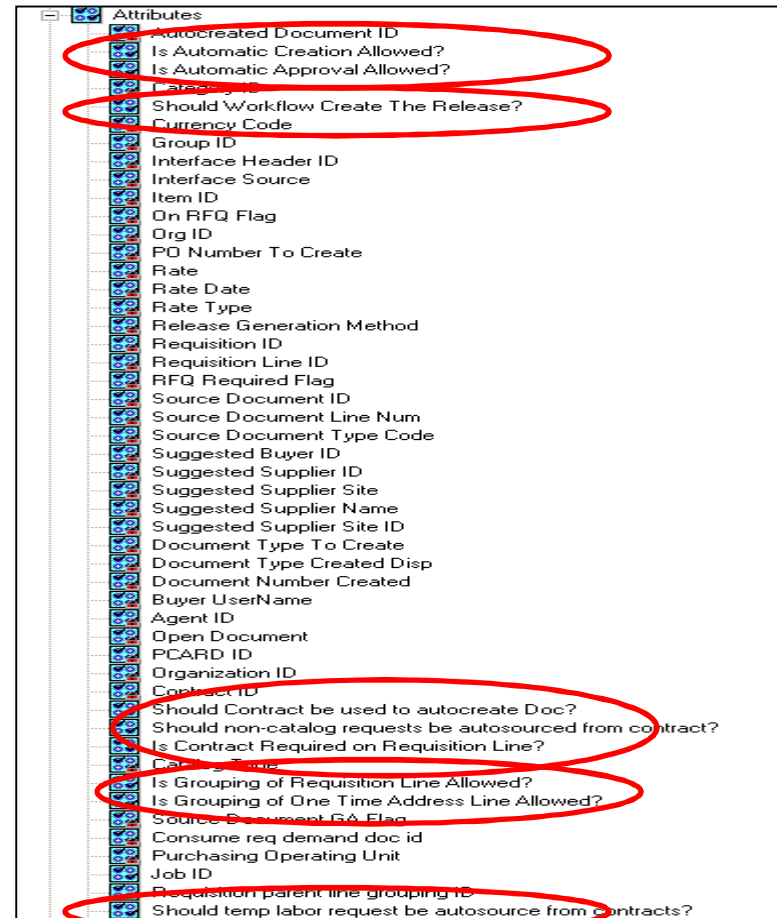


Workflows MUST be configured

- Attributes

- Example – CREATEPO,
POERROR

- Auto Create Allowed
- Auto Approval Allowed
- Is contact required





Tips – Clean up to Improve Performance

- Close orphan WFERROR, POERROR workflows
 - bde_wf_clean_worklist – MetaLink Note 255048.1
 - Closes WFERROR workflows where the parent is complete
 - Duplicate script and replace WFERROR with POERROR
 - Closes POERROR workflows where the parent is complete
- Schedule Purge Processes
 - Purge completed workflows > 30 days old
- Schedule Control Queue Cleanup every 12 hours
 - Removes inactive Subscriptions that occur when a middle tier Process dies



Tips – Help for OEOH/ OEOL

- MetaLink Doc. IDs
 - 398822.1 – "Order Management Suite – Data Fix Script Patch"
 - 405275.1 – "How to Detect Data Corruption and Purge More Eligible OEOH/OEOL Workflow Items for Order Management Workflow"
- Contain scripts to close unneeded OEOH/OEOL with associated OMERROR and WFERROR as well as close the records in the Order Management Tables



Tips – Workflow Administrator

- Problem:
 - Patching resets Workflow Administrator to SYSADMIN
 - Cannot troubleshoot all workflow without Workflow Administrator access
- Solution:
 - MetaLink Doc. ID: 274842.1 "How To Set The Workflow System Administration Role To Be Performed By A Specific Responsibility Instead Of The User SYSADMIN And Not Letting Autoconfig Overwrite It"



Tips – Worklist Access

- Monitor notifications to SYSADMIN
 - Grant Worklist Access

Grant access to SYSADMIN messages to Workflow Administrator Users

ORACLE Self Service Workflow

Home | Status Monitor | Notifications

Welcome Stock, Pat
to Oracle Workflow

Notifications

Below is a list of your most important notifications. Select the subject link and or select "Full List" to see all your notifications. [Full List](#)

From	Type	Subject	Sent	Due
	PA Workplan Workflow	Workplan Version 8.0.0: Workplan VIII, 4 (EC-100, EC-100) published	03-Aug-2006	
	PO Create Documents	Standard PO 1002 created.	09-Aug-2006	
	PO Requisition Approval	Purchase Requisition 2528 has been returned by the buyer	03-Feb-2009	
	XXHR Validate New Employee	Please set up the email address for Bowen, Mrs. Carol and enter it below	04-Feb-2009	05-Feb-2009
	XXHR Validate New Employee	Please set up the email address for Bowen, Mrs. Carol and enter it below	04-Feb-2009	05-Feb-2009

✓ **TIP** [Vacation Rules](#) - Redirect or auto-respond to notifications.
✓ **TIP** [Worklist Access](#) - Specify which users can view and act upon your notifications.



RUP 5 Issues

- ATG_PF.H rollups created problems (esp. RUP5)
 - Accessing links to OA Framework pages
 - Inability to read emails sent to SYSADMIN
 - Mailer refusing to send emails unless bounced or until several hours have passed
 - MetaLink Doc. ID: 405970.1 "Oracle ATG Newsletter – December 2007, Volume 6" contains recommended notes and actions
- Skip RUP5 – Go to RUP6 instead
 - Plus apply patches in MetaLink Doc. ID 459464.1 "Known Issues on Top of 11i ATG_PF.H.delta.6 (RUP6)"



SYSADMIN User Profile Options

- Recommended Profile Option Values for user SYSADMIN (not site level)
 - ICX:Session Timeout – 12000
 - ICX: Limit connect – 1000000 (one million)
 - ICX: Limit time – 192
- See MetaLink Doc. ID: 414376.1 "You Have Insufficient Privileges For the Current Operation" On Reqapprv Notif"



Mailer Parameter Changes

- Processor Close on Read Timeout
 - On Step 2 of Mailer setups (Advanced)
 - Should be checked
 - MetaLink Doc. ID: 422870.1 "Java mailer not Removing Processed Emails from Inbox after Folder RUP4"
 - MetaLink Doc. ID: 437986.1 "E-Mail Notifications Are Not Getting Processed, Remain Sitting In The Inbox"
 - MetaLink Doc. ID: 418077.1 "Workflow Notification Mailer Stops Processing"
 - MetaLink Doc. ID: 332152.1 "OWF.H Diagnostics and Solutions"



Mailer Parameter Changes

Applications Dashboard | Site Map

Define Details EMail Servers Message Generation Schedule Events Tags More

Edit Workflow Mailer: Details: a120int1

Cancel Back Step 2 of 8 Next

ID **10006**
Status **✓ Running**
Name **Workflow Notification Mailer**

* Container Workflow Mailer Service

* Max Error Count 10

* Inbound Thread Count 0

* Outbound Thread Count 1

* Log Level Error

* Processor Read Wait Timeout 10

* Processor Min Loop Sleep 5

* Processor Max Loop Sleep 60

* Processor Error Loop Sleep 60

Processor Close on Read Timeout



Mailer Parameter Changes

- Expunge Inbox on Close
 - On Step 3 of Mailer setups (Advanced)
 - Should be checked
 - MetaLink Doc. ID: 422870.1 "Java Mailer not Removing Processed Emails from Inbox after Folder RUP4"



Mailer Parameter Changes

Applications Dashboard | Site Map

Define Details **E-Mail Servers** Message Generation Schedule Events Tags More

Edit Workflow Mailer: E-Mail Servers: a120int1

Cancel Back Step 3 of 8 Next

Indicates parameters that can be dynamically changed while the process is running.

General

* Mailer Node Name

* Email Parser

* Alternate email parser

Expunge Inbox on Close

Inbound E-Mail Account

* Inbound Protocol

* Inbound Server Name

* Username

* Password

* Inbound Folder

* Inbound connection time out

* Inbound message fetch size

* Maximum Ignore List size

Inbound SSL Enabled



Mailer Parameter Changes

- Framework User, Responsibility, Application ID
 - On Step 4 of Mailer Setups (Advanced)
 - User assigned to Mailer must be the workflow administrator or be assigned the responsibility assigned as workflow administrator
 - Responsibility assigned to the mailer must be assigned to this user and contain the workflow administration menu
 - Application_id assigned to the mailer must be same as responsibility assigned to the mailer
 - MetaLink Doc. ID: 344936.1 "Email Body Contain: ORA-20002: 3207: User 'SYSADMIN' does not have access to notification" describes how to set these parameters



Mailer Parameter Changes

- Framework URL Timeout
 - On Step 4 of Mailer Setups (Advanced)
 - Set to 120
 - MetaLink Doc. ID: 414376.1 ""You have Insufficient Privileges For The Current Operation" On Reqapprv Notif"



Mailer Parameter Changes

Edit Workflow Mailer: Message Generation: a510vis3

Cancel Back Step 4 of 8 Next Finish

Indicates parameters that can be dynamically changed while the process is running.

Send

- * From: Workflow Mailer - vis11510int2
The value that appears in the From field in the header of outbound e-mails.
- * Reply-to Address: vis11510int2@solutionbeacon.net
The address of the e-mail account that receives incoming messages, to which notifications are sent.
- * HTML Agent: http://vis11510int2.solutionbeacon.net:80/pls/a510vis3
The base URL that identifies the HTML web agent that handles HTML notifications.
- * Message Formatter: oracle.apps.fnd.wf.mailer.NotificationFormater
- * Framework User: 0
- * Framework Responsibility: 20420
- * Framework Application ID: 1
- * Framework URL timeout: 120

Attach images to outbound emails
 Attach stylesheet to outbound email
 Autoclose FYI
Select this option to automatically closes notifications that do not require a response after the notification has been successfully sent.
 Direct response
Check this to specify that direct response is required (only available for notifications to 'MAILTEXT')
 Reset NLS
Select this option to set the character set for e-mail notifications according to the notification recipient's character set.
 Inline Attachments
Select this option to have the mail client display attachments inline.
 Send warning for unsolicited e-mail
 Send e-mails for canceled notifications

Must be WF admin or have resp assigned as WF admin

Must contain WF admin menu and be assigned to user above

Must be ID for Resp above

120 to avoid insufficient privileges error



Tips - Mailer Maintenance

- For installations that run 24/7, mailer needs to be shut down and re-started once/week
- Can schedule events that will do this
- Page 5 of Advanced Setup
- 10080 represents 7 days
 - MetaLink Doc. ID: 443643.1 "How To Automatically Restart Workflow Mailer Processes Regularly"
- Bug that ignores time parameter fixed in:
 - Release 12.0.4 and Release 12.0.6
 - Release 11.5.10.2+RUP6 – patch 7225671, 7380217

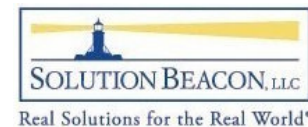


Workflow Diagnostic Reports

- Diagnostics tool alternative for scripts in \$FND_TOP
- Partial list shown

Select Focus Tests		Description	Last Status	Last Execution Time	Last Failure Time
<input checked="" type="checkbox"/>	Workflow Tests				
<input type="checkbox"/>	Duplicate User Test	This test checks the Oracle Workflow directory service to verify that there are no roles in the WF_LOCAL_ROLES table with the same internal name, originating system, and originating system ID.	✓	06-Dec-2005 20:24:21	
<input type="checkbox"/>	Notification Preference Validation Test	This test checks the Oracle Workflow directory service to ensure that all roles with a notification preference for receiving e-mail notifications have an e-mail address defined.	✗	06-Dec-2005 20:24:23	06-Dec-2005 20:24:23
<input type="checkbox"/>	Rule Function Validation Test	This test checks the rule functions defined for subscriptions and the generate functions defined for events in the Business Event System. For PL/SQL functions, the test verifies that the package and function exist in the database and are valid. For Java functions, the test verifies that the Java class exists in the classpath.	✗	06-Dec-2005 20:24:25	06-Dec-2005 20:24:25
<input type="checkbox"/>	BES Clone Test	This test checks certain standard agents and subscriptions required for internal Business Event System and notification mailer processing to verify that they are enabled and that their definitions include the correct local system.	✓	06-Dec-2005 20:24:25	
<input type="checkbox"/>	GSC Control Queue Test	This test verifies that the Workflow control queue, WF_CONTROL, is properly accessible. The Generic Service Component Framework uses this queue to handle control events for containers and service components.	✓	06-Dec-2005 20:24:27	
<input type="checkbox"/>	Workflow Advanced Queue Rule Validation Test	This test checks the standard WF_ERROR and WF_DEFERRED queues to verify that only one subscriber rule is defined for each queue. These queues are reserved for internal Oracle Workflow processing. You should not add any custom subscribers to these queues.	✓	06-Dec-2005 20:24:27	
<input type="checkbox"/>	Workflow Agents/AQ Status Test	This test checks the Business Event System agents for Oracle Workflow and Oracle XML Gateway, as well as the queues associated with these agents. The test verifies that the agents are enabled within the Business Event System. It also verifies that the queues and the queue tables in which they reside are valid database objects, and that the queues are enabled for enqueueing and dequeuing within Oracle Streams Advanced Queuing (AQ).	✓	06-Dec-2005 20:24:28	
<input type="checkbox"/>	Workflow Objects Validity Test	This test checks the Oracle Workflow and Oracle XML Gateway database objects to verify that all the objects are valid.	✗	06-Dec-2005 20:24:28	06-Dec-2005 20:24:28
<input type="checkbox"/>	XML Parser Installation Test	This test checks your Oracle Applications installation to verify that the Oracle XML parser is installed and valid.	✓	06-Dec-2005 20:24:28	
<input type="checkbox"/>	Event Diagnostic Test	This test checks the set-up of both Workflow Business Event System as a whole and a given business event and its subscriptions. This also checks processing status of that instance of the event using the event key supplied.	■		
<input type="checkbox"/>	GSM and Mailer Setup Test	This test checks the Generic Service Management (GSM) setup required for Oracle Workflow in Oracle Applications Manager (OAM). The test verifies that GSM, Oracle Workflow service instances are enabled and Notification Mailer has been configured with correct parameter values.	■		
<input type="checkbox"/>	Workflow Item Details	Use this test to collect data about a workflow item and its associated notifications. To resolve any issues with the execution of this test, please refer to the Diagnostics FAQ .	■		

Select Test: |





Queries for Error Message From Errored Activity

```
SELECT   wiasv.item_type
         ,wpa.process_name || ':' ||
           wiasv.activity_label activity
         ,wiasv.item_begin_date ,wiasv.item_end_date
         ,wiasv.activity_begin_date
         ,wiasv.activity_end_date ,wiasv.item_key
         ,REPLACE (wiasv.error_message, CHR(10), '; ')
           error_message
         ,REPLACE (wiasv.error_stack, CHR(10), '; ')
           error_stack
FROM     wf_item_activity_statuses_v wiasv
         ,wf_process_activities wpa
WHERE    wiasv.activity_id = wpa.instance_id
         AND wiasv.error_message IS NOT NULL
         AND wiasv.activity_status_code = 'ERROR'
ORDER BY 1 ASC, 2 ASC, 3 DESC;
```



Queries for Error Message From WFERROR – Errored Item Type

```
SELECT      Wf_Notification.GetAttrText(notification_id,
        'ERROR_ITEM_TYPE') errored_workflow
        ,Wf_notification.GetAttrText(notification_id,
        'ERROR_ACTIVITY_LABEL') errored_activity
        ,begin_date sent
        ,REPLACE (subject, CHR (10), ';' ) subject
        ,REPLACE (Wf_Notification.GetAttrText(notification_id,
        'ERROR_MESSAGE'), CHR (10), ';' ) error_message
        ,REPLACE
(Wf_Notification.GetAttrText(notification_id,
        'ERROR_STACK'), CHR (10), ';' ) error_stack
FROM wf_notifications
WHERE MESSAGE_TYPE = 'WFERROR'
      AND message_name = 'RESET_ERROR_MESSAGE'
      AND status = 'OPEN'
ORDER BY 1 ASC, 2 ASC, 3 DESC;
```



Queries for Error Message From WFERROR – Errored Event

```
SELECT      Wf_Notification.GetAttrText(notification_id,  
          'EVENT_NAME') error_event  
          ,Wf_Notification.GetAttrText(notification_id,  
          'EVENT_KEY') event_key  
          ,begin_date sent  
          ,REPLACE  
          (Wf_Notification.GetAttrText(notification_id,  
          'ERROR_MESSAGE'), CHR (10), '; ') error_message  
          ,REPLACE  
          (Wf_Notification.GetAttrText(notification_id,  
          'ERROR_STACK'), CHR (10), '; ') error_stack  
FROM wf_notifications  
WHERE MESSAGE_TYPE = 'WFERROR'  
      AND message_name = 'DEFAULT_EVENT_ERROR'  
ORDER BY 1 ASC  
        ,3 DESC;
```



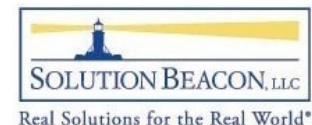
Summary

1. Enabling users increases efficiencies
2. Increased efficiencies reduce cost and make employees happy further increasing efficiencies
3. Reducing costs increases profitability
4. Increased profitability secures jobs making employees even happier increasing efficiencies more
5. Go back to #1



Additional Solution Beacon Workflow Presentations

- http://solutionbeacon.com/ind_pres2008.htm
 - Care and Feeding of Workflow – What’s New
 - Includes detail setup instructions for Junior Administrator
 - Tuning Oracle Workflow
- http://solutionbeacon.com/ind_pres2007.htm
 - Technical Foundation – Workflow
 - Explains table structures for workflow processes and run time tables
 - Oracle E-Business Suite Workflow Functional Overview
 - Workflow for End Users
 - ABCs of Workflow – Business Event Essentials
 - Diagnostics for Functional Users
 - Release 11i version
 - Collaborate 2009 - Release 12 Diagnostics to be presented





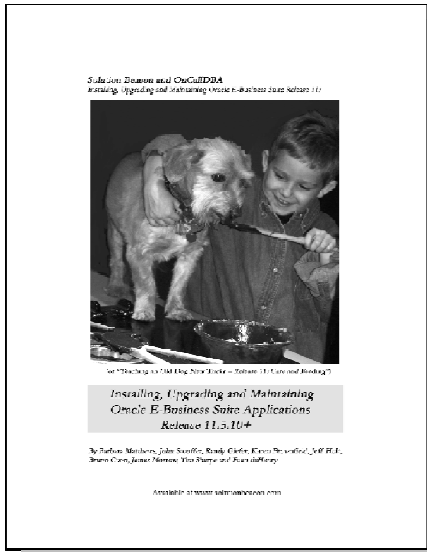
Workflow Patches Document

- www.solutionbeacon.com → Industry Leadership → Presentations
 - [White Paper: One-off Patches for Workflow and AME for Release 11i.10 and Release 12](#)
- Direct Link
 - <http://www.solutionbeacon.com/Patches.pdf>

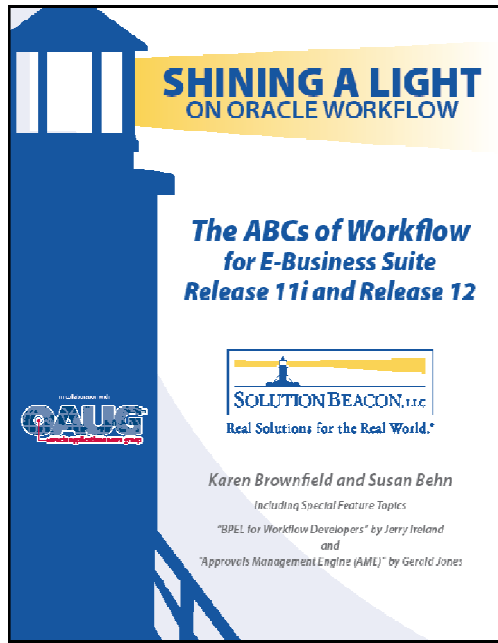


Available at
www.solutionbeacon.com

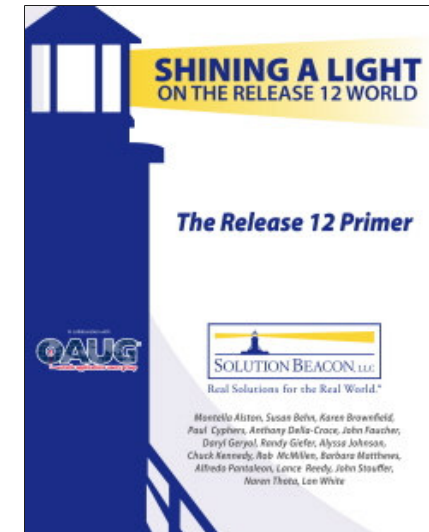
Got Oracle? Get the Books!



**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**



Copyright 2009 Solution Beacon, LLC All Rights Reserved Any other commercial product names herein are trademark, registered trademarks or service marks of their respective owners.





Ranked Scorecard Free Consultation



How Does The Scorecard Work

- Answer multiple-choice questions
- Identify areas of risk (business and IT)
- Ranked score helps measure your status on issues
- Provides recommendations for next steps
- Feedback on issues that concern steering committees and ROI

Scorecard Focus Areas

- Competitive Optimization
- Functional and Process Issues
- Project Approach and Complex Issues
- Workflow Issues
- Customization Reduction
- Database
- Data Integrity
- System Optimization
- Business Intelligence



Questions and Answers

Thank You!

Susan Behn

sbehn@solutionbeacon.com

www.solutionbeacon.com

Real Solutions for the Real World[®]

