

WORKFLOW INS AND OUTS

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Introduction

Every year you see the list of "what's in, what's out." Oracle Workflow is also rapidly changing. PL/SQL forms are "out"; Oracle Applications Framework is "in." Additionally, administration for Oracle Workflow is gradually moving to Oracle Applications Manager (OAM). The objective of this paper is to identify major differences in Oracle Workflow use, setup, administration and monitoring between 11.5.10.2 and earlier releases.

Assumptions

New features presented are based on the E-Business Suite version 11.5.10.2 with Applications Technology Patch 11i.ATG_PF.H RUP3. It is assumed the reader is familiar with workflow administration and use.

Workflow Menus – 11.5.8 and earlier vs 11.5.10.2

OWF.G, available as a patch for 11.5.8 or included in 11.5.9, introduced major changes to workflow on the server. Some of the most significant changes are as follows:

- The java-based mailer is introduced replacing the c-based mailer in earlier releases.
- The inbound mailer must be IMAP4 compliant.
- Oracle Applications Manager (OAM) is now used for setup and administration of workflow including the workflow mailer.
- OWF.G with patch 3409889 introduces the SMTP outbound mailer in the database. Setup of client software for outbound mail is no longer required.
- The following workflow forms are now in the OA Framework (java) format. The PL/SQL Web Toolkit grey forms are gone.
 - Worklist
 - Advanced Worklist
 - Personal Worklist
 - Developer Studio
 - Administrator version of the Status Monitor
 - Self-service version of the Status Monitor
 - Business Event System pages
- The notification mailer and workflow agent listener are now service components rather than concurrent programs.

OWF.H included replacement of the remaining PL/SQL Web Toolkit grey forms with the OA Framework (java) forms. This includes:

- Workflow Configuration (formerly Global Workflow Preferences)
- Administration, Notification Search (formerly Find Notifications)
- Administration, Vacation Rules (formerly Routing Rules)

Figure 1 shows a sample menu from releases 11.5.8 or earlier without the OWF.G patch. Figure 2 shows the newest workflow menu. The Administrator Workflow menu items link to a single page with tabs. Each tab may include links to other functions. Figure 3 shows an example of this new home page. The following pages map the 11.5.8 menu to the appropriate location in the current release.

- Workflow

- Find Notifications
- Find Processes
- Notification Rules
- User Preferences
- Global Preferences
- Document Nodes
- Item Type Definition
- Launch Processes
- Y
- Add Events/Event Groups
- Find Event Groups
- Add Systems
- Find Systems
- Add Agents
- Find Agents
- Add Event Subscriptions
- Find Event Subscriptions
- Check Event Manager Setup
- Raise Business Event
- System Signup
- Get System Identifier
- Event Queue Summary
- Worklist

- Workflow

- Administrator Workflow
 - Home
 - Developer Studio
 - Business Events
 - Status Monitor
 - Notifications
 - Administration
- Transaction Monitor
 - Transaction Monitor
- Oracle Applications Manager
 - Workflow Manager

Figure 2 – 11.5.10.2

Figure 1 – 11.5.8 and earlier

ORACLE Administrator Workflow [Home](#) [Logout](#) [Preferences](#) [Help](#)

Home | [Developer Studio](#) | [Business Events](#) | [Status Monitor](#) | [Notifications](#) | [Administration](#)

Welcome SBEHN
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](#)

[Switch User](#)

Type	Subject	Sent	Due
Service Messages	Message for Testing Notification Mailer	25-Apr-2006	
Service Messages	Message for Testing Notification Mailer	25-Apr-2006	
Service Messages	Message for Testing Notification Mailer	25-Apr-2006	
Service Messages	Message for Testing Notification Mailer	06-Apr-2006	
Service Messages	Message for Testing Notification Mailer	06-Apr-2006	

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

[Home](#) | [Developer Studio](#) | [Business Events](#) | [Status Monitor](#) | [Notifications](#) | [Administration](#) | [Home](#) | [Logout](#) | [Preferences](#) | [Help](#)

Figure 3 – Workflow Home Page

What Went Where

Workflow → Find Notifications

The Find Notification Form has been replaced by Workflow → Administrator Workflow → Administration → Notification Search. The functionality of this form has not changed.

Workflow → Find Processes

The Find Processes Form has been replaced by Workflow → Administrator Workflow → Status Monitor.

Click on *Owned by* to send an email to the owner.

For activities with a status of error, click on *Error* to show additional error details and optionally choose to reassign, skip or retry. Note: You can no longer *skip* functions except the standard *Compare* function. You can only *retry* functions. Other activities such as notifications may still be skipped. Typically you can find even more information related to a specific error by using key words from the error message in a MetaLink search.

To view individual activities for the workflow and the corresponding result, select a radio button by an activity and click the *Activity History* Button.

On the activity page, buttons are available to view diagram, update attributes, rewind, suspend, skip, retry or cancel the workflow. You may filter activities by type of activity and get additional details on the activity and its status by clicking on the activity name. Notifications may be reassigned on this page.

To view the status diagram, select a radio button by an activity and click the *Status Diagram* Button.

To view responses to notifications requiring a response, select a radio button by an activity and click the *Participant Responses* Button.

To view additional details, select a radio button by an activity and click the *Workflow Details* Button. Details included are information about the workflow definition, workflow attributes and status. The Workflow Details page also includes buttons to update attributes, rewind, suspend or cancel the workflow.

Workflow → Notification Rules

Notification Rules became *Routing Rules* in 11.5.9 and then were renamed *Vacation Rules* with OWF.H. These rules can be updated on the worklist page. Additionally, the workflow administrator can create vacation rules for others in Workflow → Administrator Workflow → Administration → Vacation Rules.

Vacation Rules

In 11.5.8 and earlier releases, the default list of item types a user could select when creating notification rules included all item types. Now the default list of item types a user can select when creating vacation rules displays those item types for which the user has previously received at least one notification. First there was too much. Now there is not enough.

To allow users to create vacation rules for other item types, navigate to the Application Developer Responsibility → Application → Lookups → Application Object Library. Query for *Meaning* "WF: Vacation Rule Item Types." Enter the item type in both the code and meaning fields for workflows you would like to include in the list of values for vacation rules as shown in Figure 4. Note: In earlier releases, this lookup type was "WF: Notification Rule Item Types."

Code	Meaning	Description	Tag	From	To	Enabled
APEXP	APEXP	AP Expenses		05-APR-2006		<input checked="" type="checkbox"/>

Figure 4 – Vacation Rule Item Types

Worklist Access

The latest workflow release also introduced new functionality called Worklist Access. This allows the user to grant access to his/her notifications to others without redirecting the notifications. Users receiving access to a worklist, must use the Switch User button to access the worklists for which they were granted access. This feature is ideal in cases where one user needs to perform duties for another user who is away from work unexpectedly. For this reason, it would be a good idea to grant worklist access to your supervisor. The notifications are kept separate as opposed to being redirected to your own worklist as is the case for vacation rules. This would also be the preferred method to give others access to messages sent to the user SYSADMIN.

Workflow → User Preferences

User preferences are now accessed via a link at the top of the worklist page as shown in Figure 5. The following new preferences are available on this page:

- Timezone
- Currency
- Accessibility features (None, Screen Reader Optimized or Standard Accessibility)
- Client Character Encoding
- Start Page Responsibility and Page

The screenshot shows the Oracle E-Business Suite interface. At the top, the logo 'ORACLE E-Business Suite' is on the left, and navigation links 'Logout', 'Preferences', and 'Help' are on the right. A red arrow points to the 'Preferences' link. Below the navigation bar, the user is logged in as 'SBEHN'. The main content area is divided into two sections: 'Worklist' and 'Favorites'. The 'Worklist' section contains a 'Switch User' button and a table of messages. The 'Favorites' section contains an 'Edit Favorites' button and a message stating that no favorites have been selected.

Subject	Sent	Type	Due
Message for Testing Notification Mailer	25-Apr-2006	Service Messages	
Message for Testing Notification Mailer	25-Apr-2006	Service Messages	
Message for Testing Notification Mailer	06-Apr-2006	Service Messages	

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

Figure 5 – User preferences

Workflow → Global Preferences

The Global Preferences page has been changed to Workflow Configuration and is accessed via Workflow → Administer Workflow → Administration. This page is available on multiple responsibilities such as Workflow Administrator Web Applications, Workflow Administrator Web (New) and System Administrator, however, only users with workflow administrator privileges can make changes to this page. If you see boxes around the fields, you have administrator privileges and can make updates. Otherwise you can still view the information. Figure 6 shows the Workflow Configuration page in view only mode. In earlier releases, the form would display the 'Only workflow administrators can edit Default settings' unless you had administrator privileges. To determine the workflow administrator in these earlier releases, execute the following sql statement.

```
Select Text from wf_resources where name = 'WF_ADMIN_ROLE';
```

ORACLE Administrator Workflow [Home](#) [Logout](#) [Preferences](#) [Help](#) [Diagnostics](#)

[Home](#) [Developer Studio](#) [Business Events](#) [Status Monitor](#) [Notifications](#) [Administration](#)

[Workflow Configuration](#) | [Vacation Rules](#) | [Notification Search](#)

Workflow Configuration Cancel

* Indicates required field

Workflow System Administrator **Workflow Administrator Web Applications**
Set the value to '*' to grant administrative privileges to all users.

LDAP
Enter the Oracle Internet Directory details to enable LDAP (Lightweight Directory Access Protocol) synchronization with the Workflow Directory Service.

Host	Port
Username	Change Log Base Directory
User Base Directory	

Business Event Local System
Enter the Workflow Business Event System Name and System Processing Status.

System Name: **A510VIS3.SOLUTIONBEACON.NET**
This is the system name of the database where this instance of Oracle Workflow is installed.

Status: **Enabled**

Global Preferences
The following preferences are set as default values for all new users.

Notification Style: **Plain text mail with HTML attachments**
Notifications will always appear in the Workflow regardless of which Notification Style is selected.

Browser Signing DLL Location: **<OBJECT id="oCAPICOM" codeBase="http://download.microsoft.com/download/E/18/E18ED094-8005-4377-A7D7-0A8E13025B94/ea DLL file location for Digital Signatures.**

JInitiator

Class ID: **CAFECAFE-0013-0001-0021-ABCDEFABCDEF**

Download Location: **http://vis11510int2.solutionbeacon.net:80/OA_HTML/oajinit.exe**

Version: **1.3.1.21**

Cancel

[Home](#) | [Developer Studio](#) | [Business Events](#) | [Status Monitor](#) | [Notifications](#) | [Administration](#) | [Home](#) | [Logout](#) | [Preferences](#) | [Help](#) | [Diagnostics](#)

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Figure 6 – Workflow Configuration – View Only

Workflow Administrator issues and tips


- Autoconfig, which runs after most patches resets the workflow administrator to 'SYSADMIN'. Change the \$APPL_TOP/admin/SID.xml file so that Autoconfig resets the administrator back to your choice. Refer to MetaLink note 274842.1 to ensure you have the correct version of afadmprf.sql.
- In 11i.10, prior to ATF_PF.G RUP3, the workflow administrator cannot be updated to a responsibility in the Workflow Configuration form. MetaLink note 308160.1 provides the following SQL statements to update the workflow administrator as a workaround. It is recommended you set the workflow administrator to a responsibility rather than a user.
 - To set the workflow administrator to System Administrator


```
update wf_resources
set text = 'FND_RESP|SYSADMIN|SYSTEM_ADMINISTRATOR|STANDARD'
where name = 'WF_ADMIN_ROLE';
```
 - To set the workflow administrator to Workflow Administrator Web (New)



```
update wf_resources
set text = 'FND_RESP|FND|FNDWF_ADMIN_WEB_NEW|STANDARD'
where name = 'WF_ADMIN_ROLE';
```
 - To set the workflow administrator to Workflow Administrator Web Applications


```
update wf_resources
set text = 'FND_RESP|FND|FNDWF_ADMIN_WEB|STANDARD'
where name = 'WF_ADMIN_ROLE';
```
- SYSADMIN must be assigned the responsibility assigned as workflow administrator

Workflow → Document Nodes

This functionality was not applicable in earlier releases. In the current release, this functionality is located in OAM. Click on the  icon next to Service Components. Click on the Workflow Document Web Services Service Container link to view additional information. This setup is seeded with the 11.5.10 installation.

Workflow → Launch Processes

Launching workflows has moved to Workflow → Administrator Workflow → Developer Studio. Query the item type or internal name. Click the run button  as shown in Figure 7. On the next page, enter any attributes that are required and click the *Submit* button to begin processing.

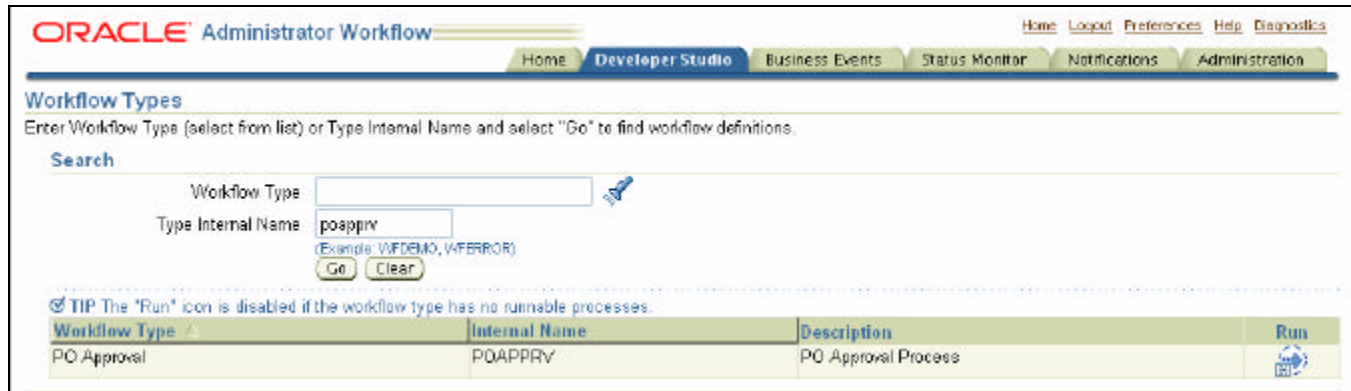


Figure 7 – Launch a workflow

Workflow → Add Events/Event Groups and Find Event Groups

Business Events are now defined in Workflow → Administrator Workflow → Business Events → Events. Enter search criteria, then click the *Go* button to search for an existing event or click the *Create Event* button to create a new event.

Workflow → Add Systems and Find Systems

Systems are now defined in Workflow → Administrator Workflow → Business Events → Systems. Enter search criteria, then click the *Go* button to search for an existing system or click the *Create System* button to create a new system.

Workflow → Add Agents and Find Agents

Agents are now defined in Workflow → Administrator Workflow → Business Events → Agents. Enter search criteria, then click the *Go* button to search for an existing agent or click the *Create Agent* button to create a new agent. Agent groups have also been introduced. Agent groups result in a copy of the message being sent to each agent in the group and can be created by clicking the *Create Agent Group* button.

Required workflow agents and listeners are now seeded with the Oracle Applications. It is not necessary to create any other agents unless you have custom workflow requirements. Start the *Workflow Agent Listener Service* container the first time you use workflow. Listeners start workflow events and send notifications. The *Workflow Agent Listener Service* is the container for several other listeners. The listeners with a status of “Running” are the listeners automatically started by the *Workflow Agent Listener Service* container. The startup mode for the running listeners will be set to “Automatic.”


Do not change this setting.

Workflow → Add Event Subscriptions and Find Event Subscriptions

Subscriptions are now defined in Workflow → Administrator Workflow → Business Events → Subscriptions. Choose the system for which you want to find or create a subscription and click the *Go* button. Enter search criteria for the event and click the *Go* button to search for an existing event and subscriptions or click the *Create Subscription* button to create a new subscription. Oracle has added many new events in 11.5.10. Run the ‘Synchronize Product Licenses and Workflow BES

Licenses' concurrent program to ensure events for installed/shared applications are enabled and that events associated with uninstalled products are disabled.

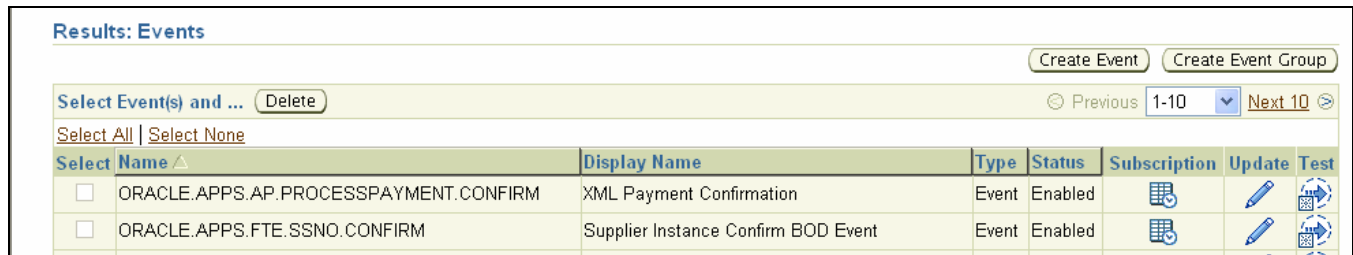
Workflow → Check Event Manager Setup

The details previously on the Check Event Manager Setup page are now in OAM as shown later in Figure 10. Database Init.ora Parameters are displayed on the OAM → Workflow dashboard. Local Agents and listeners can be viewed by clicking the  icon next to agent listeners. To drill down, select a service component and click the *View Details* button.

Propagation must be scheduled through Oracle Enterprise Manager.

Workflow → Raise Business Event

Business Events are now raised by clicking the *Test*  button in Workflow → Administrator Workflow → Business Events → Events as shown in Figure 8.









Select	Name	Display Name	Type	Status	Subscription	Update	Test
<input type="checkbox"/>	ORACLE.APPS.AP.PROCESSPAYMENT.CONFIRM	XML Payment Confirmation	Event	Enabled			
<input type="checkbox"/>	ORACLE.APPS.FTE.SSNO.CONFIRM	Supplier Instance Confirm BOD Event	Event	Enabled			

Figure 8 – Raise Business Event

Workflow → System Signup

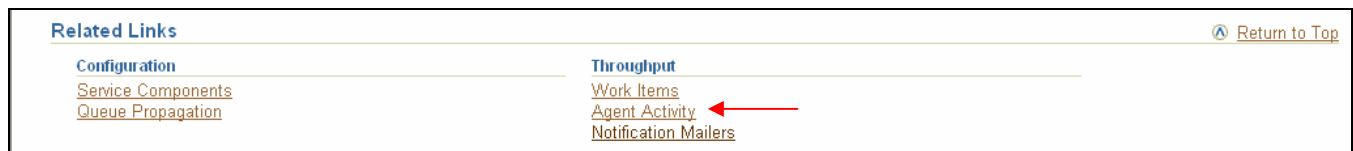
External Systems are now registered in Workflow → Administrator Workflow → Business Events → Systems → Register External System. Enter a unique event key then either cut and paste in the System identifier XML document, or upload it from your local file system.

Workflow → Get System Identifier

The System Identifier is now defined in Workflow → Administrator Workflow → Business Events → Systems → Generate Local System Identifier. Click the *Generate* button to generate the XML file for your own system. This XML file can be saved as a flat file and sent to other workflow systems.

Workflow → Event Queue Summary

Event queues can be viewed in OAM by clicking on *Agent Activity* in the OAM Related Links as shown in Figure 9.



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

Figure 9 – OAM Related Links

Workflow → Worklist

The worklist now includes buttons to set vacation rules, switch user and grant worklist access as shown previously in Figure 5. Note: Starting with RUP3, workflow will now put the notification in your worklist if there is no email address without recording an error. Previously, a notification would be sent to sysadmin stating the event failed and error records would exist even if the notification was acted upon properly via the worklist.

Oracle Applications Manager

OAM is now used for setup and administration of workflow. See Figure 10 below.

The screenshot displays the Oracle Applications Manager (OAM) interface for the Workflow System: a510vis3. The page includes a navigation bar with links for Support, Cert, Setup, Home, Logout, and Help. The main content area shows the system's status, including a 'Submit Request For' dropdown set to 'Background Engines'. A table of 'Related Database Parameters' lists parameters like 'job_queue_processes' and 'aq_tm_processes'. Below this, there are sections for 'Workflow Metrics' and 'Related Links' with 'Show' buttons and 'Return to Top' links.

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

Figure 10 – OAM


Workflow Metrics include:


- Dashboard
- Required init.ora parameters
- Work Items
- Agent Activity



Related Links on the Workflow OAM page include:


- Service Components
- Queue Propagation
- Work Items – same as Metrics, but no graph
- Agent Activity – same as Metrics, but no graph
- Notification Mailers

Dashboard



If the notification mailer is configured, all lights (except Purge) MUST be green . Click on this icon to set up the notifications mailer or change existing settings.

If the notification mailer is not configured, Unavailable  is a legitimate status for the Notification Mailer (but not service components).

If the Notification Mailer  indicates errors,  will also show for service components due to errors in Workflow Mailer Service.

Click the refresh button  located next to the 'Last Updated' time to update indicators.

Concurrent Request Functions

Background Engines, Control Queue Cleanup, and Purge will have a  if there is a concurrent request for the function that is scheduled to repeat at specified intervals. Click on the  to see the details of the last run.

Setting an Override Notification Mailer Address

For non-production instances, you should set an override mailer address to allow for testing of notifications without sending notifications to users who may confuse them with production notifications.

This functionality has moved in RUP3 and now requires verification.

From the OAM Notification Mailer page, click the "View Details" button.

The mailer details page will appear. Click the "Set Override Address" button.

Enter the email address where you want to direct ALL notifications and click "Submit."

New RUP3 functionality: You must wait until the email arrives for the override address. This email will include a verification code which must be entered here. This prevents you from setting an override email address to an invalid or incorrect address.

To clear the override address, go back to this page and click the "Clear Override Address" button.

Summary

Workflow setup and administration has many more features as you move to the latest release. The graphical forms are easy to use and well documented. One favorite enhancements with the java based forms is the amount of detailed instructions on the form. As you navigate through these new forms there is less guesswork. Refer to the release notes for further information and practice using these new forms in our public vision databases on www.solutionbeacon.com.