

Using Approvals Management Engine (AME) for Requisitions in R12

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Agenda

- What is the need?
- Non-AME requisition approvals
- Overview of AME
- Examples
- Summary

Standard Requisition Approval Process

- Position hierarchy
- Employee - Supervisor
- Direct or Hierarchical Routing
- Include and Exclude amounts for various attributes such as document totals and account ranges.

Standard Requisition Approval Process

- There are many ways that the standard approval methods can support your organization.
- Need more? Modify workflow.
- Administrative overhead with maintaining a position hierarchy if your organization changes often.

What is the Approvals Management Engine (AME)?

- A common way for Oracle to manage approvals for it's applications.
- AME has a self-service business analyst dashboard to perform maintenance.
- Uses business specific rules to manage the approvals required for a specific type of transaction

AME Business Analyst Dashboard

ORACLE Approvals Management

Business Analyst Dashboard

This table displays the transaction types in the order you accessed them.

Transaction Types

Previous 1-5

Name	Application	Rules	Test
Purchase Requisition Approval	Purchasing		
Payables Invoice Approval	Payables		
Work Confirmation	Purchasing		
Requester Change Order Approval	Purchasing		
AMW Audit Procedure Approval	Internal Controls Manager		

Recently Updated Rules

This table displays the rules whose definition and usages has changed.

Since number of days

Name	Rule Type	Transaction Type	Action	Date	User
No results found.					

Approval Process Setup

- 1. Select the transaction type**
- 2. Define the components**
 - Approvals Management uses these components within the approval rules.
 - [Attributes](#)
Define attributes to fetch business facts for a specific transaction.
 - [Conditions](#)
Define conditions to evaluate attributes within rules. If all conditions in a rule are true then the rule is active for the transaction.
 - [Action Types](#)
Enable action types to specify the action to take if a rule is active for a transaction.
 - [Approver Groups](#)
Define approver groups to contain approvers who are usually members of peer groups such as payroll or expenses department.
- 3. Define the approval rules**
 - Approval Rules determine the approvers or FYI notification recipients required for a business transaction.
 - [Rules](#)
- 4. Test Workbench**
 - Define test cases or test real transactions to verify the approval setup, rules and associated approvers.
 - [Test Workbench](#)

Approval Rules

- Business rule that determines the approval process used by a transaction.
 - Rules are constructed by Conditions and Actions.
- **Example:**
 - **If** requisition amount > \$250,000.00 USD (condition), **THEN** require post-chain-of-authority approval (action) from the Legal Team (approval group).

Approval Rules

If

requisition amount > \$250,000.00 USD,

condition

THEN

use post-chain-of-authority approval to add the approval group of Legal team

action

Approval Rules

- Transaction Types
- Attributes
- Conditions
- Action Types
- Approval Groups

Transaction Type

- Represents “Which” type of application transaction type will have a set of distinct rules applied to it.
- Types of Transaction Types:
 - Requisition Approval
 - Requisition Change Approval
 - Work Confirmation
 - Supplier Registration Approval

Attributes

- Business variables that have a single outcome for a transaction:
 - Transaction amount
 - Purchasing Category
 - Cost Center
 - Item Number
- Attributes are used in conditions to provide one piece of the rule.
- Create attributes that do not come seeded

Conditions

- Tells us what is true or false about a transaction.
- If X is true, then do Y.
- Two types of conditions
 - Ordinary
 - Evaluates dates, numbers, currencies.
 - List-Modifier
 - checks for a given approver.

Action Types

- An *action type* is an instruction to AME to modify a transaction's approval process in the manner you specify.

Available Action Types

- Available Action Types Are:
 - Chain of Authority – Uses HR supervisory or HR position hierarchies.
 - List Modification
 - Substitution
 - Pre Approval Group
 - Post Approval Group

Approval Groups

- When using pre- or post- list approval group action types you will have to create an Approval group
- An approver group can either be an ordered set of one or more approvers (persons and/or user accounts) or it can be a list, which is dynamically generated at rule evaluation time.

Approval Groups

- Are typically created to support non-financial approvals such as:
 - Legal Review
 - Gate Keeper for specific commodities
 - Engineering
 - Project Management
- This means in addition to the approval list that was automatically built based on financial constraints (emp/supervisor hierarchy)

Example 1- Simple Business Rule

- At a local electric transmission company all requisition transactions over \$250,000.00 Require the approval of a legal representative
- The legal team should be notified after the initial financial approval list has reviewed and approved the requisition
- First team member to respond provides the approval

Example 1

If

requisition amount > \$250,000.00 USD,

condition

THEN

use post-chain-of-authority approval to add the approval group of Legal team

action

Example 1 - Attributes

ORACLE® Approvals Management
Transaction Type: Purchase Requisition Approval

Return to Dashboard Diagnostics

Rules | **Test Workbench** | Setup

Attributes | Conditions | Action Types | Approver Groups

Attributes

This page enables you to view attributes present in your transaction type, create new, and reuse existing attributes to specify the business components of a transaction such as total amount, a percent discount, and a person's salary.

Search

Attribute Category: All
Item Class: All
Data Type: All
Name: REQUISITION_TOTAL
Go Clear

Create Use Existing Attribute

Attribute	Description	Category	Usage Type	Item Class	Data Type	Update	Delete
<u>REQUISITION_TOTAL</u>	Requisition Total	Others	Dynamic	Header	Currency		

Example 1 - Conditions

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval Return to Dashboard Diagnostics

Rules | Test Workbench | Setup

Attributes | **Conditions** | Action Types | Approver Groups

Setup: Conditions >

Update Condition: REQUISITION_TOTAL is greater than 250000,USD

Condition Type **Ordinary**
Attribute **REQUISITION_TOTAL**
Data Type **Currency**
Item Class **Header**

Show rules using this condition

Details

Currency Code **USD**

REQUISITION_TOTAL is greater than **250000**

Example 1 - Approval Group

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval Return to Dashboard Diagnostics

Rules | Test Workbench | Setup

Attributes | Conditions | Action Types | **Approver Groups**

Setup: Approver Groups >

Update Approver Group :Legal Review Team

* Indicates required field Cancel Apply

Rules Using the Approver Group

Details

Name **Legal Review Team**

* Description Legal Review Team is required to review requisitions ove \$250K

* Order Number 2

Voting Method First Responder Wins

Usage Type Static

Query

Dynamic Approver Group requires a SQL.

Validate

Group Members

Enter members for the static approver group.

Approver Type	Approver	Order Number	Delete
HR People	HR People: Ecker, Susan	1	
HR People	HR People: Andersen Richards, Katherine	2	

Add Another Row

Example 1 - Rule Set Up

ORACLE® Approvals Management
Transaction Type: Purchase Requisition Approval Return to Dashboard Diagnostics

Rules **Test Workbench** Setup

Rules >

Update Rule: Legal review required for Requisitions over \$250K

* Indicates required field Cancel Apply

Item Class **Header** * End Date 31-Dec-4712

Rule Type **Post List Approver Group**

* Name Legal review required for Requisitions over \$250K

* Start Date 17-Dec-2007
(example: 29-Feb-2008)

Other Instances of this Rule

Conditions

Add Condition

Condition	Condition Type	Item Class	Remove
REQUISITION_TOTAL is greater than 250000,USD	Ordinary	Header	

Actions

Add Action

Action Type	*Action	Remove
post-chain-of-authority approvals	Require post-approval from Legal Review Team	

Cancel Apply

Example 1 - Outcome

Shopping Cart

Save Checkout

Line	Item Description	Special Info	Unit	Quantity	Price	Amount (USD)	Delete
1	Services over \$250,000.00					250,001.00	
Total						250,001.00	

Return to Shopping

Save Checkout

Example 1 - Outcome

ORACLE iProcurement

Shopping Cart Home Logout Preferences Help Diagnostics

Shop Requisitions Receiving

Requisition Information **Approvals** Review And Submit

Checkout: Approvals and Notes

Your requisition will be sent to the following list of approvers.

Save Submit Back Step 2 of 3 Next

Approvals

Manage Approvals

Schoon, Duane → Tindall, Paul → Petras, Jane → **Legal Review Team**

Example 2 – Medium Complexity

- If project type is Indirect, require requisition approval by Project Manager and then requester's immediate supervisor.

Example 2 - Attributes

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval

Return to Dashboard Home

Rules | Test Workbench | **Setup**

Attributes | Conditions | Action Types | Approver Groups

Setup: Attributes >

Update Attribute : JM_PROJECT_TYPE

* Indicates required field

Name	JM_PROJECT_TYPE
Item Class	Line Item
* Description	JM_PROJECT_TYPE
Data Type	String
Approver Type	None
Value Set	<input type="text"/>
Usage Type	Dynamic
* Value	<pre>select pap.project_type from pa_projects_all pap, po_req_distributions_all prd, po_requisition_lines_all prl where prl.requisition_header_id = po_ame_setup_pvt.get_new_req_header_id(:transactionId) and prl.requisition_line_id = prd.requisition_line_id and pap.project_id = prd.project_id order by prd.distribution_id</pre>

Enter SQL query for dynamic attributes.

Example 2 - Conditions

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval

Return to Dashboard Home

Rules | **Test Workbench** | Setup

Attributes | **Conditions** | Action Types | Approver Groups

Setup: Conditions >

Update Condition: JM_PROJECT_TYPE in (Indirect)

Condition Type **Ordinary**
Attribute **JM_PROJECT_TYPE**
Data Type **String**
Item Class **Line Item**

Show rules using this condition

String Values

String Value	Delete
Indirect	

Example 2 - Approver Groups

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval

Return to Dashboard Home

Rules | Test Workbench | Setup

Attributes | Conditions | Action Types | **Approver Groups**

Setup: Approver Groups >

Update Approver Group : JM Project Manager

* Indicates required field

Cancel Apply

Rules Using the Approver Group

Details

Name	JM Project Manager
* Description	JM Project Manager Indirect
* Order Number	1
Voting Method	Serial
Usage Type	Dynamic
Query	<pre>select 'person_id: ' person_id from apps.pafv_key_members key, po_req_distributions_all prd, po_requisition_lines_all prl, pa_projects_all pap where prl.requisition_header_id = po_ame_setup_pvt.get_new_req_header_id(:transactionId) and prl.requisition_line_id = prd.requisition_line_id and key.project_id = prd.project_id and pap.project_type = 'Indirect'</pre>

Dynamic Approver Group requires a SQL.

Validate

Example 2 - Rule Set Up

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval

Return to
Dashboard Home Logout Prefer

Rules | **Test Workbench** | **Setup**

Rules: Approver Groups >

Update Rule: JM Project Manager

* Indicates required field

Item Class **Header** * End Date 31-Dec-4712

Rule Type **List Creation**

* Name JM Project Manager

* Start Date 04-Nov-2007
(example: 20-Oct-2007)

+ Other Instances of this Rule

Conditions

Condition	Condition Type	Item Class	Remove
JM_PROJECT_TYPE in (Indirect)	Ordinary	Line Item	<input type="button" value="Remove"/>

Actions

Action Type	* Action	Remove
Supervisory level	Require approvals up to the first superior.	<input type="button" value="Remove"/>
approval-group chain of authority	Require approval from JM Project Manager	<input type="button" value="Remove"/>

Example 2 - Outcome (Test)

ORACLE iProcurement

Shopping Cart Home Logout Preferences Diagnostics

Shop Requisitions Receiving

Requisition Information Approvals Review And Submit

Requisition Information: Edit Lines

* Indicates required field Apply

Delivery Billing Accounts Attachments

Select Lines: Update Copy Delete

Select All | Select None

Select	Line	Description	Project	Task	Expenditure Type	Expenditure Organization	Expenditure Item Date	Split
<input type="checkbox"/>	1	Paper - requires 2-way match office supply item	JM 1	1.1	Supplies	Vision Operations	10-Aug-2007	
<input type="checkbox"/>	2	Paper - requires 2-way match office supply item	JM 2	1.1	Supplies	Vision Operations	10-Aug-2007	
<input type="checkbox"/>	3	Paper - requires 2-way match office supply item	JM 1	1.1	Supplies	Vision Operations	10-Aug-2007	
<input type="checkbox"/>	4	Paper - requires 2-way match office supply item	Bldg Renovation	1.0	Supplies	Vision Operations	10-Aug-2007	
<input type="checkbox"/>	5	Paper - requires 2-way	JM 1	1.1	Supplies	Vision Operations	10-Aug-2007	

Example 2 – Outcome (Test)

ORACLE Approvals Management
Transaction Type: Purchase Requisition Approval

Return to Dashboard Home Logout Preferences Help Diagnostics

Rules **Test Workbench** Setup

Test Workbench

[Run Real Transaction Test \(1\)](#)

Test Cases

[Create](#)

Select	Name	Description	Last Updated	Update	Delete
	No results found.				

[Run Real Transaction Test \(1\)](#)

Test Workbench

The Workbench enables you to define test cases to verify your approval setup. Approval Management treats a test case as a real transaction, It evaluates your defined rule and generates an approver list for your review.

Getting Started

- To create a new test case for the current transaction type, click Create.
- To view the applicable rules and approver list for an existing test case, select the test case and click Run.
- To duplicate an existing test case that you can modify later, select the test case and click Copy.
- To view the applicable rules and approvers for a real transaction, click Run Real Transaction Test.

Rules Test Workbench Setup Return to Dashboard Home Logout Preferences Help Diagnostics

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Example 2 - Outcome (Test)

ORACLE Approvals Management
 Transaction Type: Purchase Requisition Approval

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[Preferences](#)
[Help](#)
[Diagnostics](#)

Rules
Test Workbench
Setup

[Test Workbench](#) > [Test Workbench](#) > [Real Transaction Test](#) >
 View Approval Process Stages (1)

Run Real Transaction

To review the process stages that Approvals Management took to arrive at the applicable rules and approver list, click [View Approval Process Stages](#).

Transaction ID **134110**

Applicable Rules

Details	Description	Class	Rule Type	Category
+ Show	JM Project Manager	Header	List Creation	Approver

Final Processed Approver List

Details	Order Number	Approver Type	Approver	Category	Status
+ Show	1	HR People	Baker, Catherine	Approver	
+ Show	2	HR People	Marlin, Amy	Approver	
+ Show	9	HR People	Brown, Casey	Approver	

[Return to Test Workbench](#)
View Approval Process Stages (1)

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Example 3 – Complex Business Rule

- At a construction company where the project teams can be rather large, special conditions for requisition approval can exist
- Whenever a requisition is created utilizing a project type of construction, do the following:
 - Make the project manager the first approver
 - Follow the project manager's employee/supervisor hierarchy rather than the preparer's.

Example 3

If

requisition includes a project with a type of “PM” for the approval path

condition

THEN

Change the first approver in the list to the project manager of the project and follow their approval path

action

Example 3 – Update Seeded Attribute

Update Attribute **JOB_LEVEL_NON_DEFAULT_STARTING_POINT_PERSON_ID**

* Indicates required field

Cancel

Apply

Name **JOB_LEVEL_NON_DEFAULT_STARTING_POINT_PERSON_ID**

Item Class **Header**

Description

Data Type **Number**

Approver Type **HR People**

Value Set

Usage Type **Dynamic**

* Value

Enter SQL query for dynamic attributes.

Validate

Example 3 – Custom Attribute

Transaction Type: Purchase Requisition Approval

[Return to Dashboard](#) [Diagnostics](#)

Rules | **Test Workbench** | **Setup**

Attributes | Conditions | Action Types | Approver Groups

Setup: Attributes >

Update Attribute : ATC_REQ_HDR_APPROVAL_PATH

* Indicates required field

Name **ATC_REQ_HDR_APPROVAL_PATH**

Item Class **Header**

* Description Returns PM or Requester based on the project on the requisition distribution.

Data Type **String**

Approver Type **None**

Value Set

Usage Type **Dynamic**

* Value

```
select max(ppt.attribute2)
  from pa.pa_project_types_all ppt,
       pa.pa_projects_all ppa,
       po.po_requisition_lines_all prl,
       po.po_req_distributions_all prd
 where ppt.project_type = ppa.project_type
       and ppt.org_id = prd.org_id
       and ppa.project_id = prd.project_id
```

Enter SQL query for dynamic attributes.

Example 3 - Conditions


Update Condition: ATC_REQ_HDR_APPROVAL_PATH in (PM)

Cancel Apply

Condition Type: Ordinary
 Attribute: ATC_REQ_HDR_APPROVAL_PATH
 Data Type: String
 Item Class: Header

+ Show rules using this condition

String Values

String Value	Delete
PM	

Add Another Row

Example 3 – Rule Set Up

Update Rule: PM Path and Requisition_Total > 100,000 and <= 250,000 requires at least Level 5 approval

* Indicates required field

Cancel Apply

Item Class **Header**

Rule Type **List Creation**

* Name PM Path and Requisition_Total > 100,000 and <= 250,000 requires at least Level 5 approval

* End Date 31-Dec-4712

* Start Date 17-Dec-2007
(example: 29-Feb-2008)

Other Instances of this Rule

Conditions

Add Condition

Condition	Condition Type	Item Class	Remove
REQUISITION_TOTAL is greater than 100000 and less than or equal to 250000,USD	Ordinary	Header	
ATC_REQ_HDR_APPROVAL_PATH in (PM)	Ordinary	Header	

Actions

Add Action

Action Type	* Action	Remove
absolute job level	Require approvals up to at least level 5.	

Example 3 – Other Set Up

- Flexfield on Project Type information to indicate if it is a “PM” path
- Set up job levels on each job in HR

Example 3 - Outcome

- Preparer = Gary Marines
- Requester = Gary Marines
- Project Manager = Duane Schoon

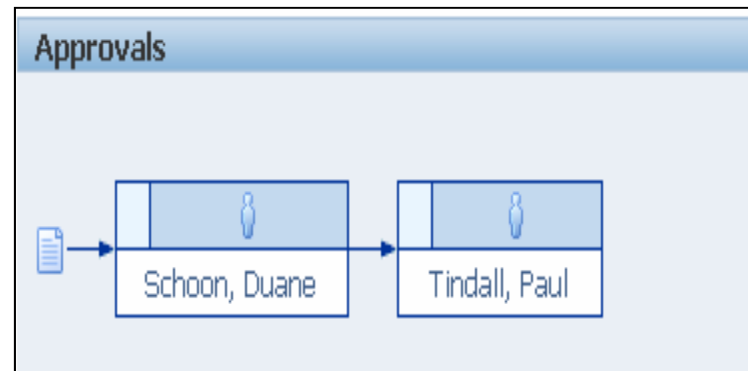
Delivery

Urgent

* Need-By Date: 02-Mar-2008 00:00:00
(example: 29-Feb-2008 19:45:00)

* Requester: Marines, Gary

* Deliver-To Location: Headquarters
Enter one-time address



What else does AME do?

- Parallel approvals
- FYI notifications
- List-Creation Exception
 - **If** invoice amount > \$500 USD and pay group = Employee, **THEN** require approval two job levels above requestor.
- List-Modification
 - **If** any approver = Sam Clark, **THEN** grant final authority.

What else does AME do?

- Conflict Resolution
 - An approver will only be required to take action once if they are repeated for some reason
 - If chain-of-authority and pre or post approval rule include the same person, chain-of-authority wins.
 - If pre and post rules include the same person, pre wins.

What else does AME do?

- Much More!
- We have just skimmed the surface today

THANK YOU

Questions and Answers