Using the Approval Management Engine (AME)

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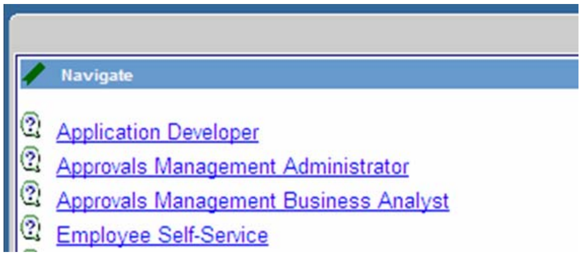
Introduction – Get the most out of using the Approvals Management Engine. Set up attributes, conditions, rules, and approval chains using your existing hierarchies—then go further and learn how to increase the power of AME by capturing current transaction values and customizing the approvals Workflow to meet the most exacting business rules.

Overview of AME – The Approvals Management Engine (AME) is a module included in the Oracle E-Business Suite. It is not part of a specific module, but is used by HRMS and other modules such as Purchasing and Accounts Payable to manage and direct the approval process for various functions. AME is intended to be a user-friendly environment for functional users to create approval flows to reflect the organization's business rules, without the need for program code. However, the use of PL/SQL and a working knowledge of Workflow can greatly increase the flexibility of AME. This paper will address both seeded functionality and ways to customize. The examples used with be for Self Service Human Resources (SSHR) transactions.

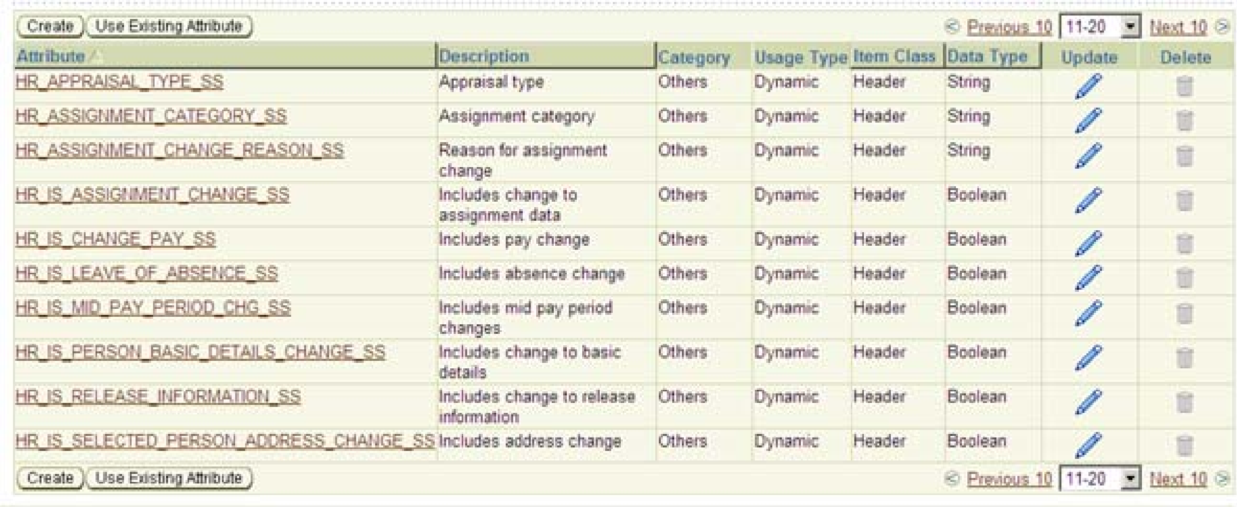
AME functions are divided into Administrator and Business Analyst responsibilities.


Navigate
Application Developer
Approvals Management Administrator
Approvals Management Business Analyst
Employee Self-Service

This paper will primarily focus on the Business Analyst. Before using Business Analyst, however, open the Administrator responsibility to change the Configuration Variable **allowFyiNotifications** to "Yes" to grant that ability to SSHR and/or any transaction type you are using.

The major components of AME include Attributes, Conditions, Action Types, Approver Groups, and Rules.

Attributes – Attributes are variables used to hold business facts of interest for the transaction in progress. Most attributes are dynamic, meaning they will be evaluated at run time, thus, they can change for each transaction. Oracle provides over 50 seeded attributes for SSHR which can be used directly or as the basis of creating the user's own. Some examples of attributes include a True/False determination of whether or not this transaction is for a basic details change (Boolean), the years of service for an employee (number), and Person Type (string). The following shows some of the attributes provided by Oracle:



Attribute	Description	Category	Usage Type	Item Class	Data Type	Update	Delete
HR_APPRAISAL_TYPE_SS	Appraisal type	Others	Dynamic	Header	String	✎	🗑
HR_ASSIGNMENT_CATEGORY_SS	Assignment category	Others	Dynamic	Header	String	✎	🗑
HR_ASSIGNMENT_CHANGE_REASON_SS	Reason for assignment change	Others	Dynamic	Header	String	✎	🗑
HR_IS_ASSIGNMENT_CHANGE_SS	Includes change to assignment data	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_CHANGE_PAY_SS	Includes pay change	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_LEAVE_OF_ABSENCE_SS	Includes absence change	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_MID_PAY_PERIOD_CHG_SS	Includes mid pay period changes	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_PERSON_BASIC_DETAILS_CHANGE_SS	Includes change to basic details	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_RELEASE_INFORMATION_SS	Includes change to release information	Others	Dynamic	Header	Boolean	✎	🗑
HR_IS_SELECTED_PERSON_ADDRESS_CHANGE_SS	Includes address change	Others	Dynamic	Header	Boolean	✎	🗑

Each transaction type (SSHR vs. Purchasing Requisition) has its own seeded attributes.

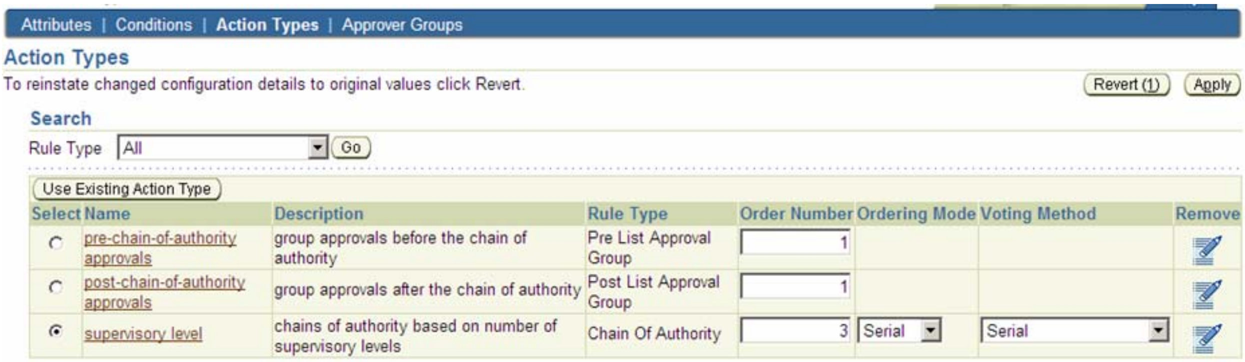
When creating a new attribute, the user must enter a unique name, description, data type, a usage type—normally dynamic—and the SQL query used to return the desired data item. Existing Value Sets may be attached to the attribute to edit acceptable values. Transaction tables can provide almost any information desired about the ongoing transaction; the SQL query can contain any existing function that returns the correct data type value. Sample Attribute, Condition, Approval Group and Rule definitions are provided in the section "Interpreting a Sample Business Rule."

Conditions—Attributes are used in Conditions. Conditions are the IF part of rule. Conditions evaluate the Attribute and return a value of True or False. All Conditions must be true for a rule to fire.

Action Types—Action Types provide two important aspects of the generated approval chain. Action Types, by their nature, indicate HOW approvers are generated, i.e., whether by utilizing an existing hierarchy, or by a user-specified list of persons. The second aspect is regarding the order in which approvers are notified. Pre-chain Action Types will be triggered before Chain of Authority action types, which are triggered before Post-chain type.

AME provides many Action Types. Three of most common include: 1) pre-chain of authority approvals, 2) supervisory level, and 3) post-chain of authority approvals. Chain of Authority Action Types are typically those which include authority figures who are dependent upon the person initiating the transaction, for example, the employee's immediate supervisor, the next immediate supervisor, and so on. Pre- and Post Chain Action Types are normally used for approvers in functional areas who have an interest in the transaction because of the type of change being done, not because of the specific employee. An example of typical pre- and post-chains are Human Resource personnel.

Users will not generally create new Action Types. It may be necessary, however, to ensure that the desired Action Type is made available to Oracle Self-Service Human Resources. It is strongly suggested that at least the three types mentioned above have been selected for use by SSHR. If they do not appear in the Action Types screen, add them with the "Use Existing Action Type" button.



Action Types

To reinstate changed configuration details to original values click Revert.

Search

Rule Type: All

Select	Name	Description	Rule Type	Order Number	Ordering Mode	Voting Method	Remove
○	pre-chain-of-authority approvals	group approvals before the chain of authority	Pre List Approval Group	1			
○	post-chain-of-authority approvals	group approvals after the chain of authority	Post List Approval Group	1			
●	supervisory level	chains of authority based on number of supervisory levels	Chain Of Authority	3	Serial	Serial	

Approver Groups—If Action Types give the HOW to generate a list of approvers, Approval Groups specify the WHO to include. Approval Groups are not needed for Chain of Authority Action Types, since these are implicit as should already be assigned in your database, i.e., if using a supervisor level action, AME assumes that supervisors have been assigned to all employees via normal data processing. Pre- and Post-chain Action Types do require the user to specify a list of persons, since these are normally not reliant on the employee making the transaction.

The simplest way to identify the approvers in the group is to just list them by name. A list of HR and Benefit personnel who must approve the transaction is static enough that changes to the Approver Group definition can be made as they occur.

However, if approval is needed by, say, the chairperson of a specific department, and this changes each academic year, a user may want to set up the Approver Group as *dynamic*. Dynamic group definitions require a SQL query which is executed at run-time. A dynamic Approval Group which returns the current Biology Chairperson would not require a change to the Approval Group definition itself as individuals move in and out of this position, but would rely on a change made to position codes on the Assignment screen.

IMPORTANT: The SQL query must return the information for dynamic Approval Groups in the format “PER:person_id”, not the text name or just the person_id number. Generating effective and useful dynamic approval groups is reliant upon a working knowledge of the HR database tables and/or views. The syntax for other modules may be different, so check Purchasing or AP documentation to verify what those modules need.

Actions—Actions are combinations of Action Types and Approver Groups, and are the THEN statement of a rule. Actions are automatically generated for Pre- and Post-chain Action Types. For example, if an Approver Group of HR personnel, named “MUSS Benefit Specialists” is created, Oracle automatically creates Actions called “Require pre-approval from MUSS Benefit Specialists” and “Require post-approval from MUSS Benefit Specialists.”

Many seeded Actions for Chain of Authority Action Types are available. For the Action Type supervisor_level, Actions exist to specify from 1- to 10-up supervisor levels. Other chain actions involve job or position hierarchies—again, information that should already be recorded in your database.

Rules—A rule can be depicted as follows:

```
IF (Condition 1 is true, Condition 2 is true, …) THEN (Action 1, Action 2, …)
```

This illustration shows that Rules can have more than one condition and more than one action. Although multiple Conditions can exist, they all must be true for the rule to fire—ORs are not available for use.

There are six different types of Rules. The most commonly used ones would include List-Creation (based on Chains of Authority Actions), Pre-List Approver Group, and Post-List Approver Group. Substitution Rules are used to replace a specific approver, however generated, with another person.   A Combination Rule can be used to combine pre-chain, chain, and post-chain actions as long as conditions and the rule category are the same.   The other types of Rules will not be discussed within this paper.

Rules are created by identifying which Conditions need to be true, and which Actions are desired. A Rule is assigned one of two categories, Approver or For Your Information. The category designation of Approver indicates that the transaction will be halted until approval is granted or denied. If the category is For Your Information, a notification will be sent to the approvers, but the transaction will continue to flow. Remember, For Your Information rules are only available if the configuration variable allowFyiNotifications is set to Yes for SSHR or your transaction type).

Interpreting a Sample Business Rule

The following theoretical business rule will be used to demonstrate how to create AME Rules to reflect an organization's Business processes.

Business Rule: If an employee uses SSHR to terminate a subordinate, the following approvals and FYI notifications are desired:

1. FYI to Budget Department ***before*** supervisor approval is granted;

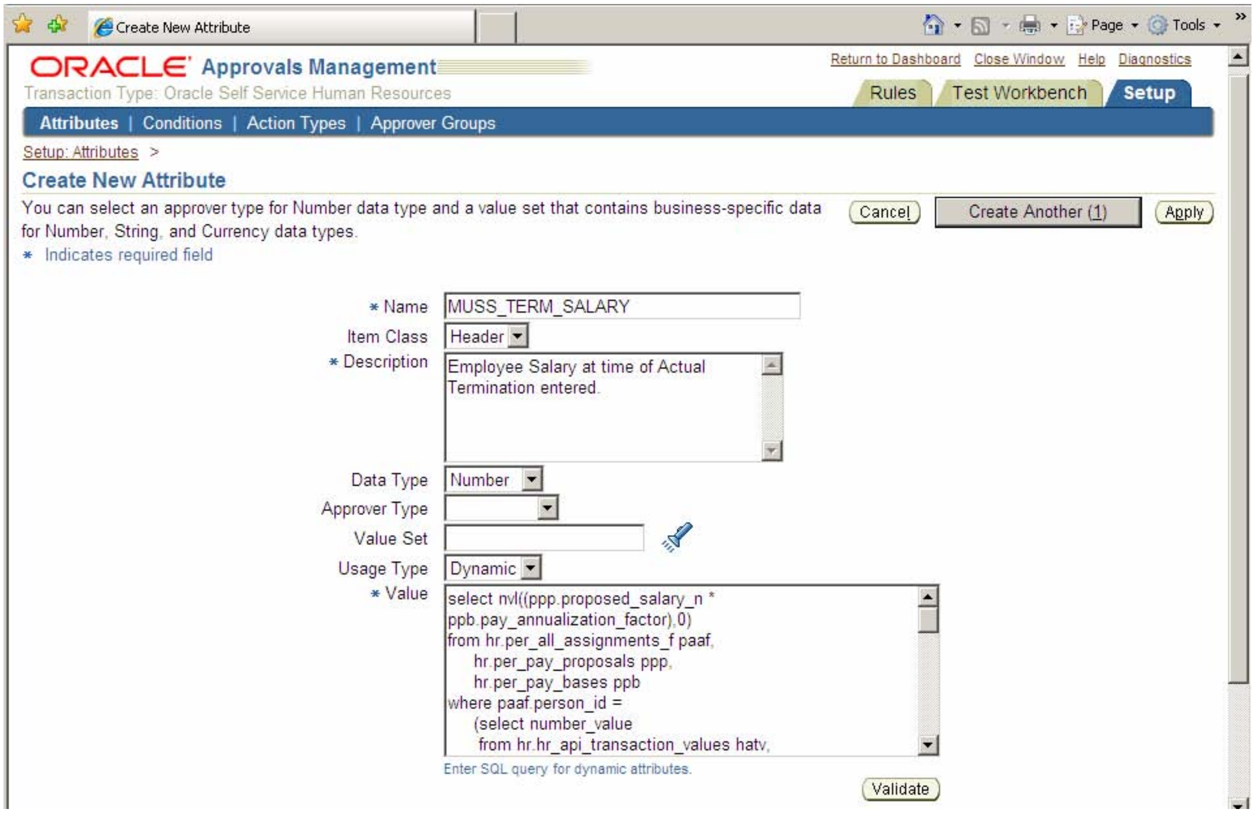
2. Approvals required from up to 2 ***supervisors;***

3. FYI to Benefits Dept. ***after*** supervisor approval, but only if Salary >= $50,000;

4. FYI to anyone to whom employee Released Information;

In order to start identifying how many AME rules will be needed, it should be noted that both Approval and FYI rules are involved. Rules must be of one and only one category, hence, we know at least two rules will be needed. Pre-chain, chain, and post-chain rule types can be combined into a Combination Rule, but only if the conditions are identical. Since item 3 changes the conditions, a Combination Rule will not work to combine 1, 3 and 4, but could be used to combine 1 and 4. This example will not use Combination Rules, so here all four rules will be illustrated.

Two Attributes are needed, a true/false value to indicate if this transaction is for a termination, and the annual salary of the employee being terminated. Oracle provides a seeded attribute which returns a True or False if the transaction is a termination, namely, HR_IS_TERMINATION_SS, so this Attribute does not need to be recreated. Current annual salary, however, must be created. Complete setups for this Attribute follows:



Transaction Type: Oracle Self Service Human Resources

Create New Attribute

You can select an approver type for Number data type and a value set that contains business-specific data for Number, String, and Currency data types.

* Indicates required field

* Name	MUSS_TERM_SALARY
Item Class	Header
* Description	Employee Salary at time of Actual Termination entered.
Data Type	Number
Approver Type	
Value Set	
Usage Type	Dynamic

* Value

```
select nvl((ppp.proposed_salary_n *
ppb.pay_annualization_factor),0)
from hr.per_all_assignments_f paaf,
    hr.per_pay_proposals ppp,
    hr.per_pay_bases ppb
where paaf.person_id =
    (select number_value
     from hr.hr_api_transaction_values hatv,
```

Enter SQL query for dynamic attributes.

The complete text of the SQL statement is:

Be sure to return a value—cannot [illegible]

```
select nvl((ppp.proposed_salary_n * ppb.pay_annualization_factor),0)
from hr.per_all_assignments_f paaf,
     hr.per_pay_proposals ppp,
     hr.per_pay_bases ppb
where paaf.person_id =
     (select number_value
      from hr.hr_api_transaction_values hatv,
           hr.hr_api_transaction_steps hats,
             hr.hr_api_transactions hat
      where hatv.name = 'P_PERSON_ID'
      and hatv.transaction_step_id = hats.transaction_step_id
      and hats.transaction_id = hat.transaction_id
      and hat.transaction_id = :transactionId)
and  (select date_value
      from hr.hr_api_transaction_values hatv,
           hr.hr_api_transaction_steps hats,
             hr.hr_api_transactions hat
      where hatv.name = 'P_ACTUAL_TERMINATION_DATE'
```

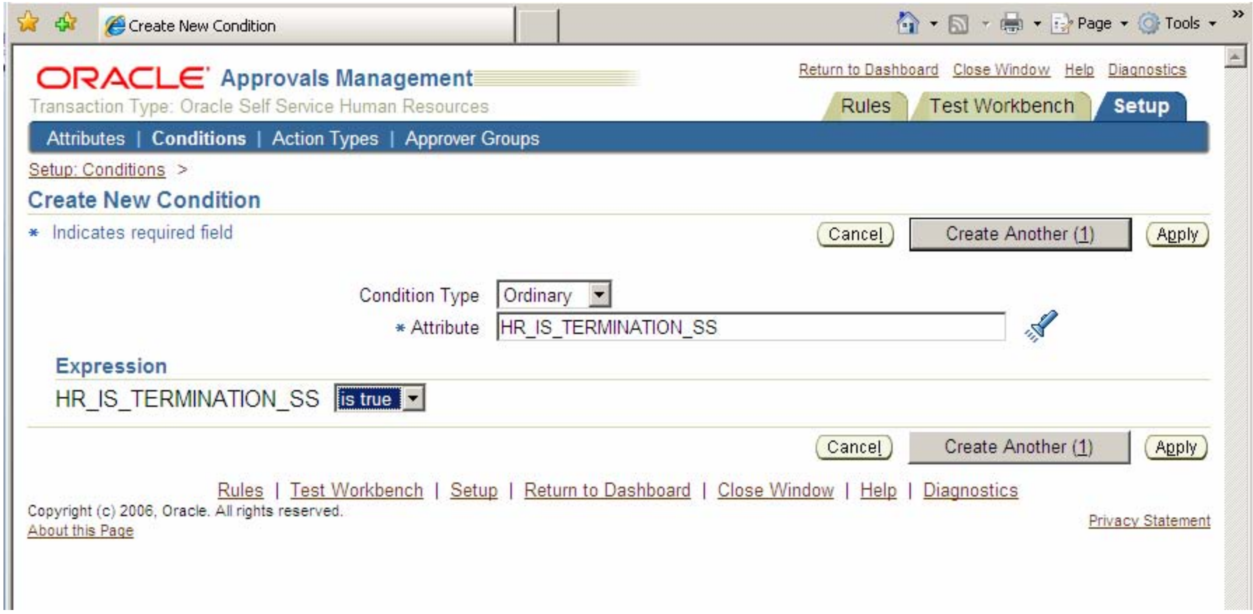
Note the transaction tables

Context variable provided automatically at run time

```
      and hatv.transaction_step_id = hats.transaction_step_id
      and hats.transaction_id = hat.transaction_id
      and hat.transaction_id = :transactionId) between
paaf.effective_start_date and paaf.effective_end_date
and ppb.pay_basis_id = paaf.pay_basis_id
and ppp.assignment_id = paaf.assignment_id
and ppp.change_date =
   (select max(xppp.change_date) from hr.per_pay_proposals xppp
    where xppp.assignment_id = paaf.assignment_id
    and xppp.change_date <=
      (select date_value
      from hr.hr_api_transaction_values hatv,
           hr.hr_api_transaction_steps hats,
             hr.hr_api_transactions hat
      where hatv.name = 'P_ACTUAL_TERMINATION_DATE'
      and hatv.transaction_step_id = hats.transaction_step_id
      and hats.transaction_id = hat.transaction_id
      and hat.transaction_id = :transactionId))
```

Query statements can be quite complex, as shown. This SQL includes the three **transactions tables** a user would query against most often for HRSS. These tables contain a wealth of information about the current transaction. *Database tables* can also be accessed, allowing comparisons between existing information on record for the employee and proposed changes, and other needed information. For this Attribute, the person id of the employee being terminated is retrieved from the transaction table, along with the actual termination date entered. The query uses this information to read the database tables to get the current salary. Please note that the query MUST return a value. AME will try to interpret this Attribute for every transaction (not just terminations) and a run-time error will result if the value is null. This query will return a zero rather than a null value for non-termination transactions.

After the Attributes are created, Conditions can be set up.


Create New Condition
Page
Tools
ORACLE Approvals Management
Transaction Type: Oracle Self Service Human Resources
Return to Dashboard
Close Window
Help
Diagnostics
Rules
Test Workbench
Setup
Attributes | Conditions | Action Types | Approver Groups
Setup: Conditions >
Cancel
Create Another (1)
Apply
Rules | Test Workbench | Setup | Return to Dashboard | Close Window | Help | Diagnostics
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About this Page
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Create New Condition

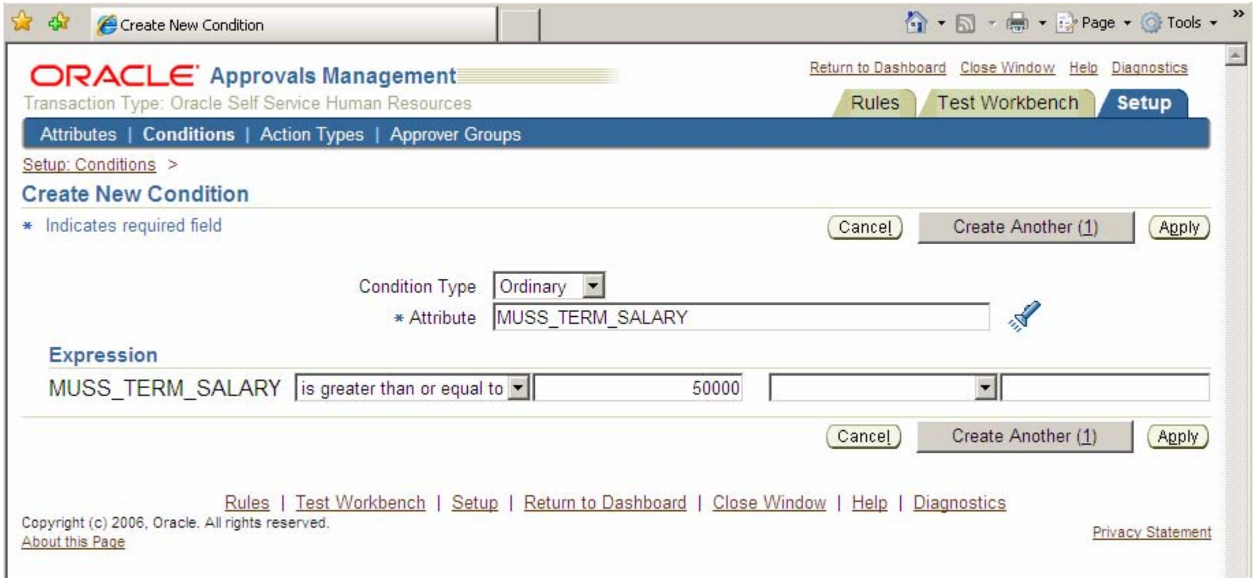
* Indicates required field

Condition Type: Ordinary

* Attribute: HR_IS_TERMINATION_SS

Expression

HR_IS_TERMINATION_SS is true



ORACLE Approvals Management

Transaction Type: Oracle Self Service Human Resources

Setup: Conditions >

Create New Condition

∗ Indicates required field

Condition Type: Ordinary

∗ Attribute: MUSS_TERM_SALARY

Expression

MUSS_TERM_SALARY is greater than or equal to 50000

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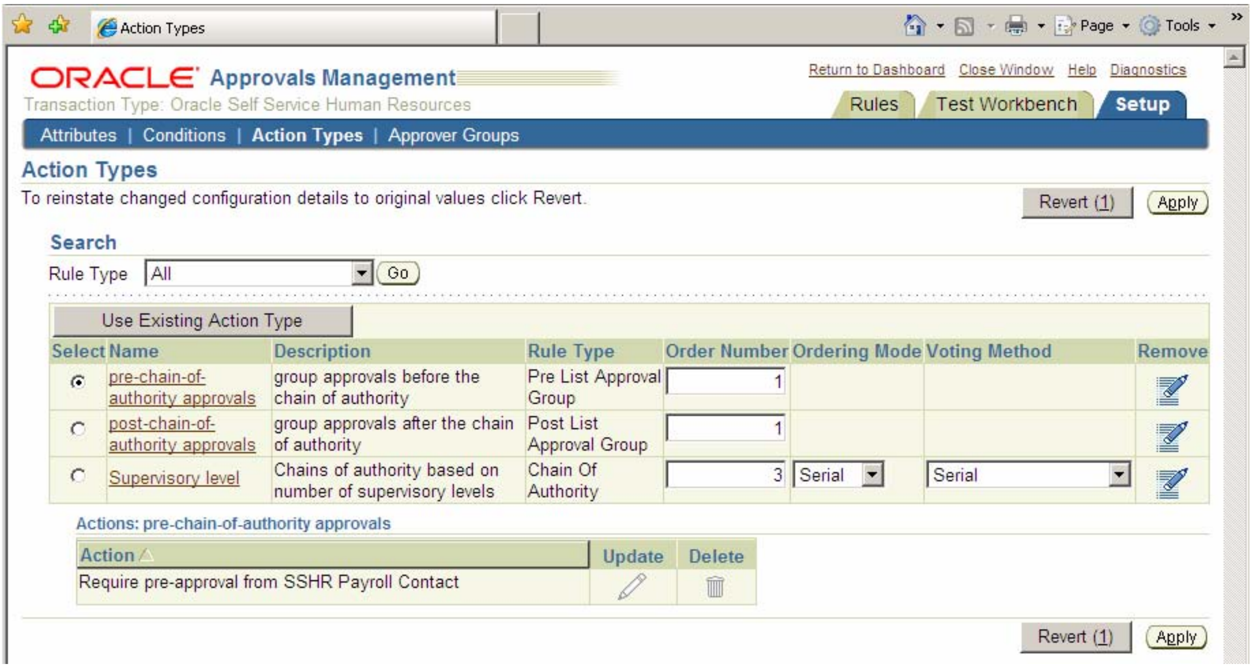
Next, Approver Groups must be set up. Before groups are defined, however, note how the Action Type screen looks:



ORACLE Approvals Management

Transaction Type: Oracle Self Service Human Resources

Action Types

To reinstate changed configuration details to original values click Revert.

Search

Rule Type: All

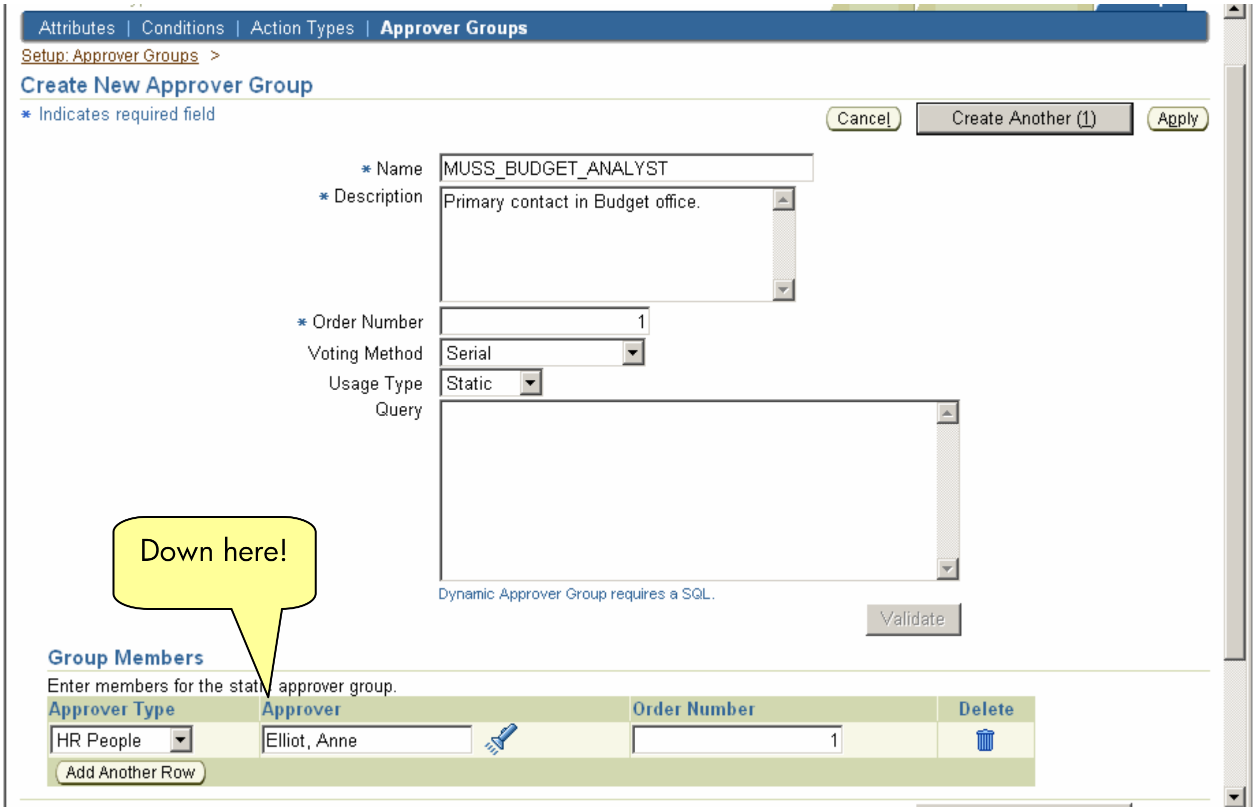
Select	Name	Description	Rule Type	Order Number	Ordering Mode	Voting Method	Remove
●	pre-chain-of-authority approvals	group approvals before the chain of authority	Pre List Approval Group	1			
○	post-chain-of-authority approvals	group approvals after the chain of authority	Post List Approval Group	1			
○	Supervisory level	Chains of authority based on number of supervisory levels	Chain Of Authority	3	Serial	Serial	

Actions: pre-chain-of-authority approvals

Action	Update	Delete
Require pre-approval from SSHR Payroll Contact		

At present, there is only one Action available for pre-chain-of-authority approvals, namely, "Require pre-approval from SSHR Payroll Contact." SSHR Payroll Contact is a seeded Approver Group, so an action for this was automatically created. After new Approver Groups are defined, this list of available actions will grow.

The Approver Groups for the Budget person(s) and the group for Benefit Specialist(s) are defined as static lists of persons.



Create New Approver Group

* Indicates required field

* Name: MUSS_BUDGET_ANALYST

* Description: Primary contact in Budget office.

* Order Number: 1

Voting Method: Serial

Usage Type: Static

Query:

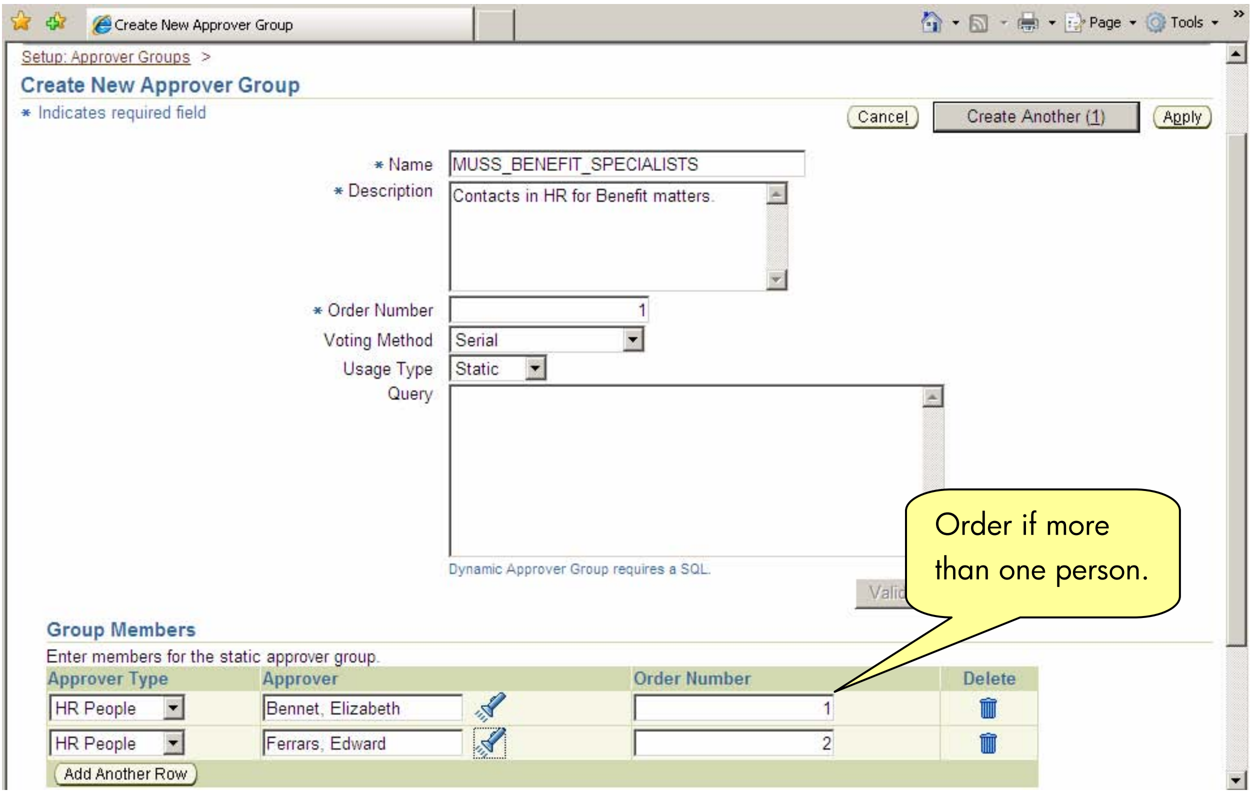
Dynamic Approver Group requires a SQL.

Down here!

Group Members

Enter members for the static approver group.

Approver Type	Approver	Order Number	Delete
HR People	Elliot, Anne	1	



Create New Approver Group

* Indicates required field

* Name: MUSS_BENEFIT_SPECIALISTS

* Description: Contacts in HR for Benefit matters.

* Order Number: 1

Voting Method: Serial

Usage Type: Static

Query:

Dynamic Approver Group requires a SQL.

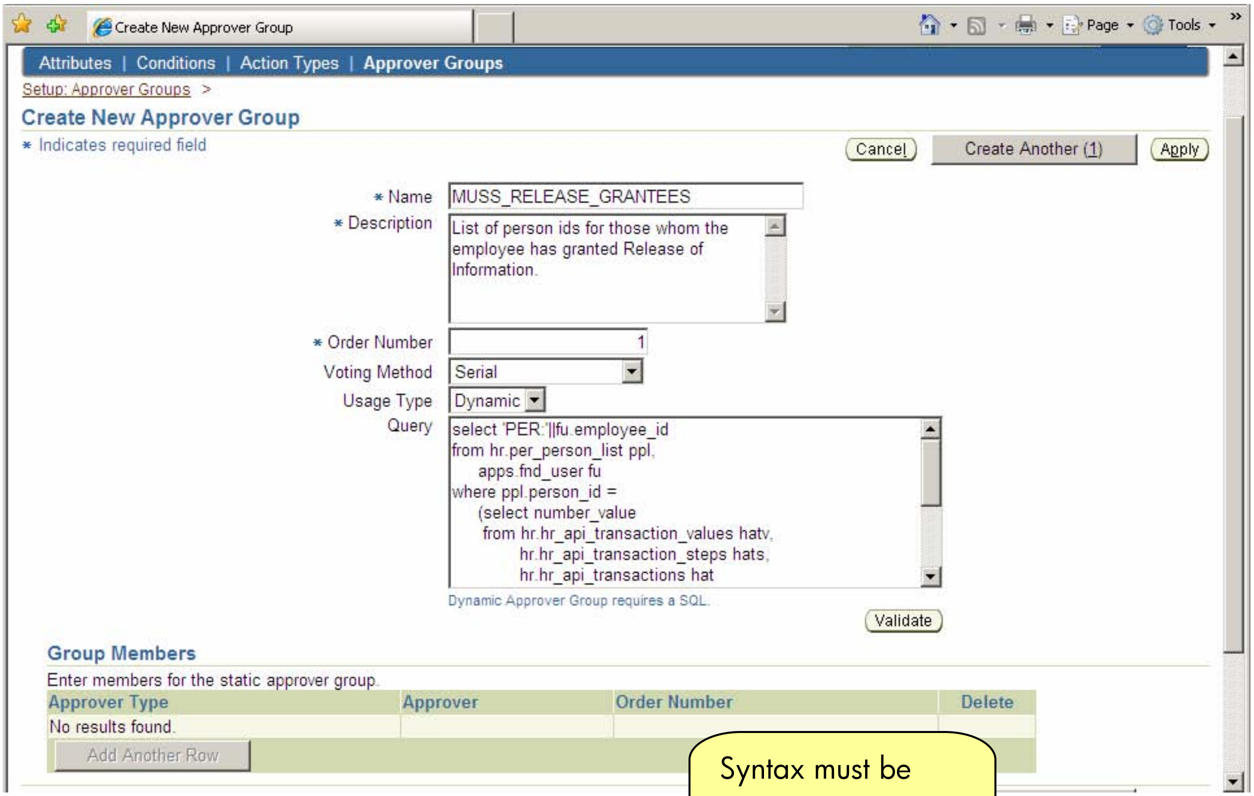
Order if more than one person.

Group Members

Enter members for the static approver group.

Approver Type	Approver	Order Number	Delete
HR People	Bennet, Elizabeth	1	
HR People	Ferrars, Edward	2	

The third Approver Group is a list of the persons to whom the soon-to-be-terminated employee has granted access via the Self Service Release Information function. Since this information is dependent upon a particular person and could change at any time, this is best set up as a Dynamic list of individuals.



Create New Approver Group

* Indicates required field

* Name	MUSS_RELEASE_GRANTEES
* Description	List of person ids for those whom the employee has granted Release of Information.
* Order Number	1
Voting Method	Serial
Usage Type	Dynamic

Query

```
select 'PER:'||fu.employee_id
from hr.per_person_list ppl,
     apps.fnd_user fu
where ppl.person_id =
     (select number_value
      from hr.hr_api_transaction_values hatv,
           hr.hr_api_transaction_steps hats,
           hr.hr_api_transactions hat
```

Dynamic Approver Group requires a SQL.

Group Members

Enter members for the static approver group.

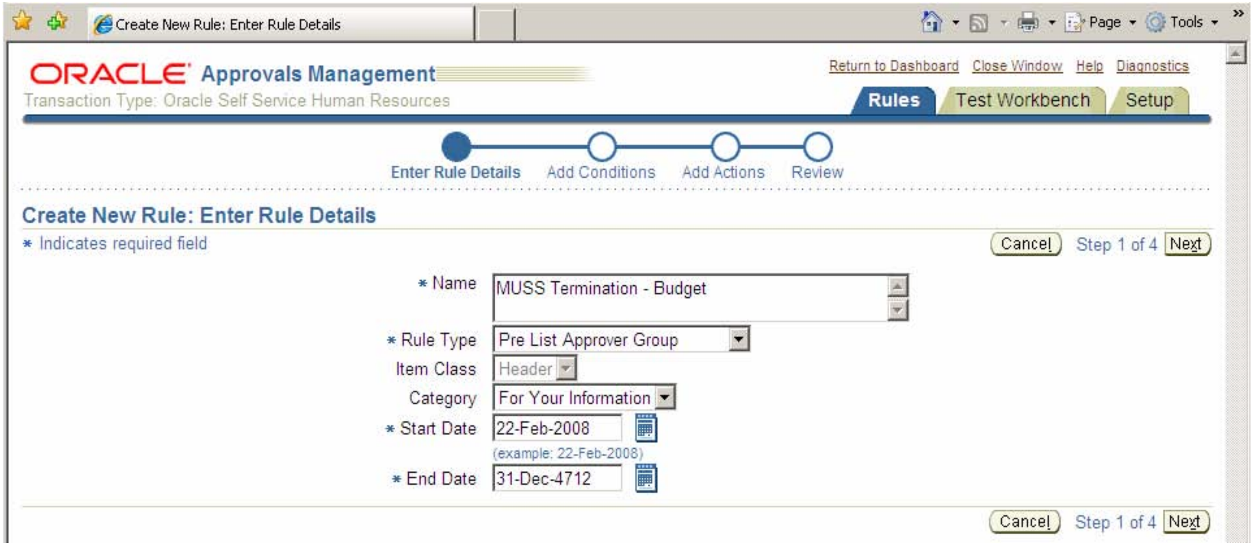
Approver Type	Approver	Order Number	Delete
No results found.			

Syntax must be exact for the module calling

The full Query statement is :

```
select 'PER:'||fu.employee_id
from hr.per_person_list ppl,
     apps.fnd_user fu
where ppl.person_id =
     (select number_value
      from hr.hr_api_transaction_values hatv,
           hr.hr_api_transaction_steps hats,
             hr.hr_api_transactions hat
      where hatv.name = 'P_PERSON_ID'
      and hatv.transaction_step_id = hats.transaction_step_id
      and hats.transaction_id = hat.transaction_id
      and hat.transaction_id = :transactionId)
and security_profile_id IS NULL
and ppl.granted_user_id = fu.user_id
```

Remember, an Approver Group is not needed for Chain of Authority Actions. Rules can now be defined.



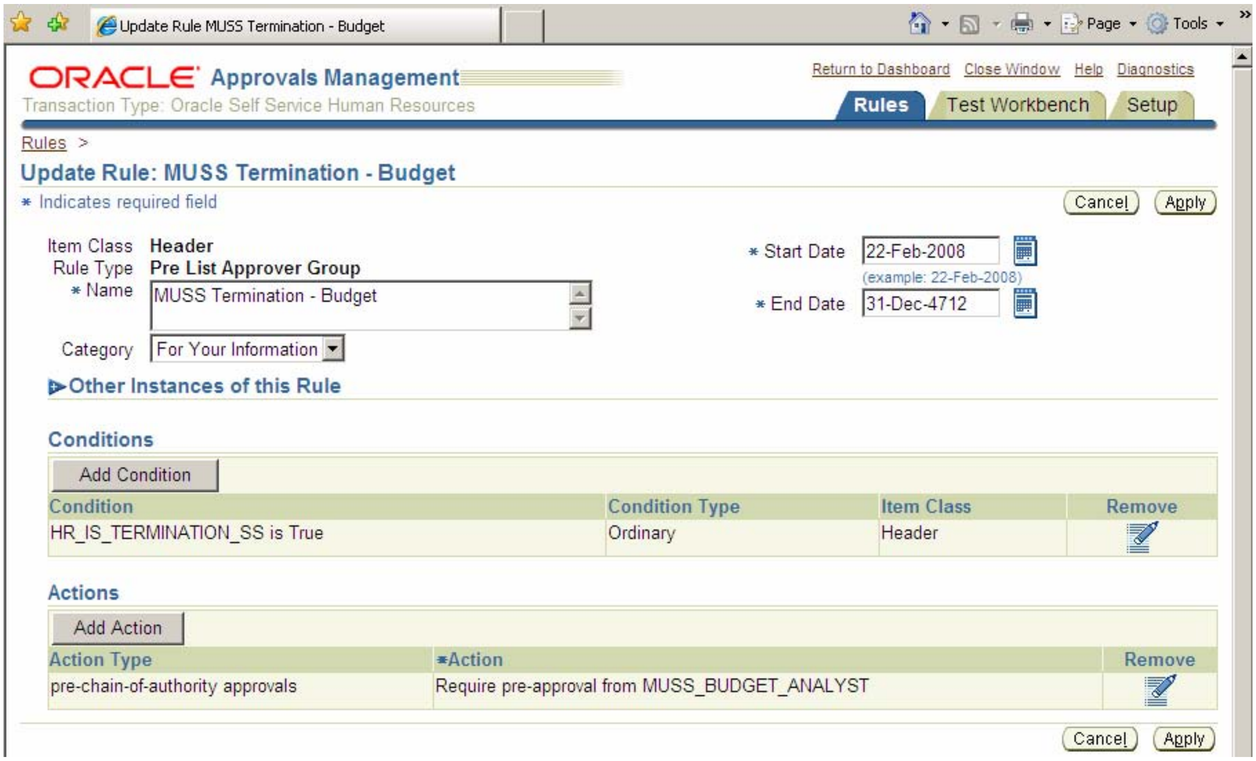
Transaction Type: Oracle Self Service Human Resources

Create New Rule: Enter Rule Details

* Indicates required field

* Name	MUSS Termination - Budget
* Rule Type	Pre List Approver Group
Item Class	Header
Category	For Your Information
* Start Date	22-Feb-2008 (example: 22-Feb-2008)
* End Date	31-Dec-4712

After selecting Conditions and Actions, the completed Rule looks like this:



Transaction Type: Oracle Self Service Human Resources

Update Rule: MUSS Termination - Budget

* Indicates required field

Item Class	Header
Rule Type	Pre List Approver Group
* Name	MUSS Termination - Budget
Category	For Your Information
* Start Date	22-Feb-2008 (example: 22-Feb-2008)
* End Date	31-Dec-4712

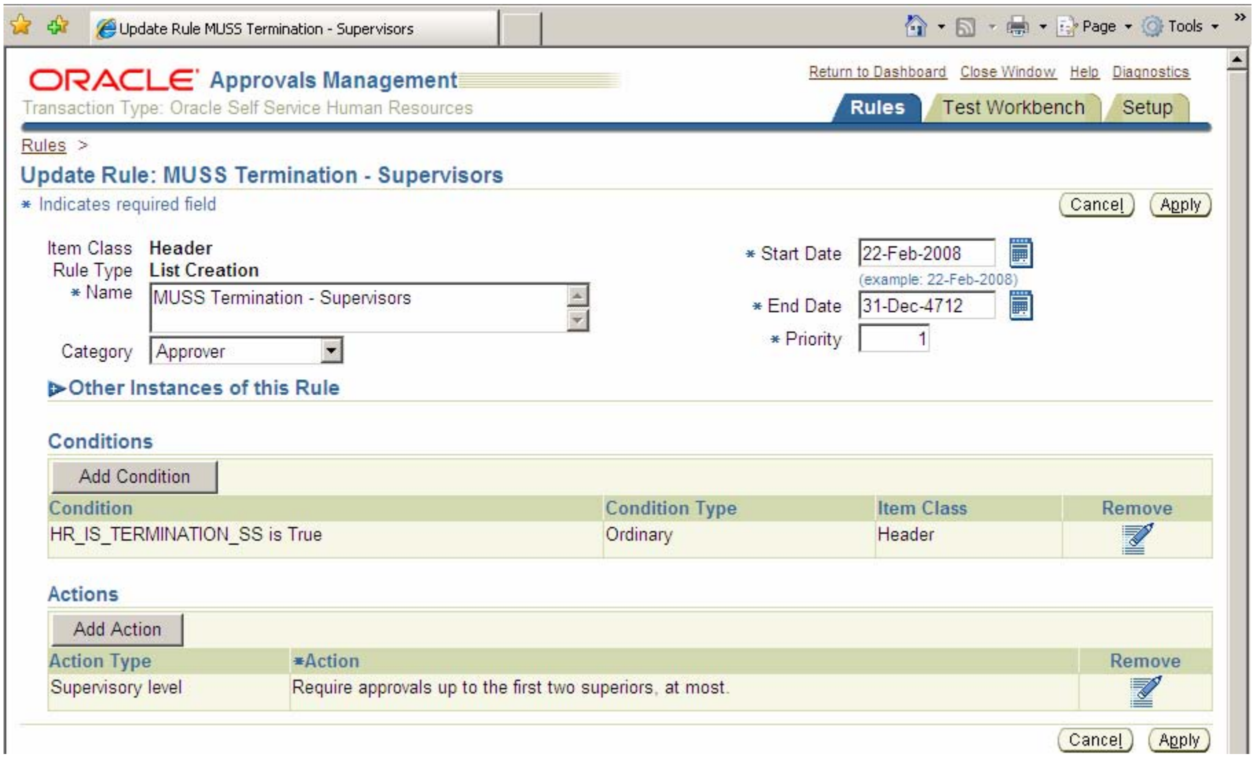
Conditions

Condition	Condition Type	Item Class	Remove
HR_IS_TERMINATION_SS is True	Ordinary	Header	✎

Actions

Action Type	*Action	Remove
pre-chain-of-authority approvals	Require pre-approval from MUSS_BUDGET_ANALYST	✎

The other three rules follow.



Transaction Type: Oracle Self Service Human Resources

Rules >

Update Rule: MUSS Termination - Supervisors

* Indicates required field

Item Class	Header	* Start Date	22-Feb-2008 (example: 22-Feb-2008)
Rule Type	List Creation	* End Date	31-Dec-4712
* Name	MUSS Termination - Supervisors	* Priority	1
Category	Approver		

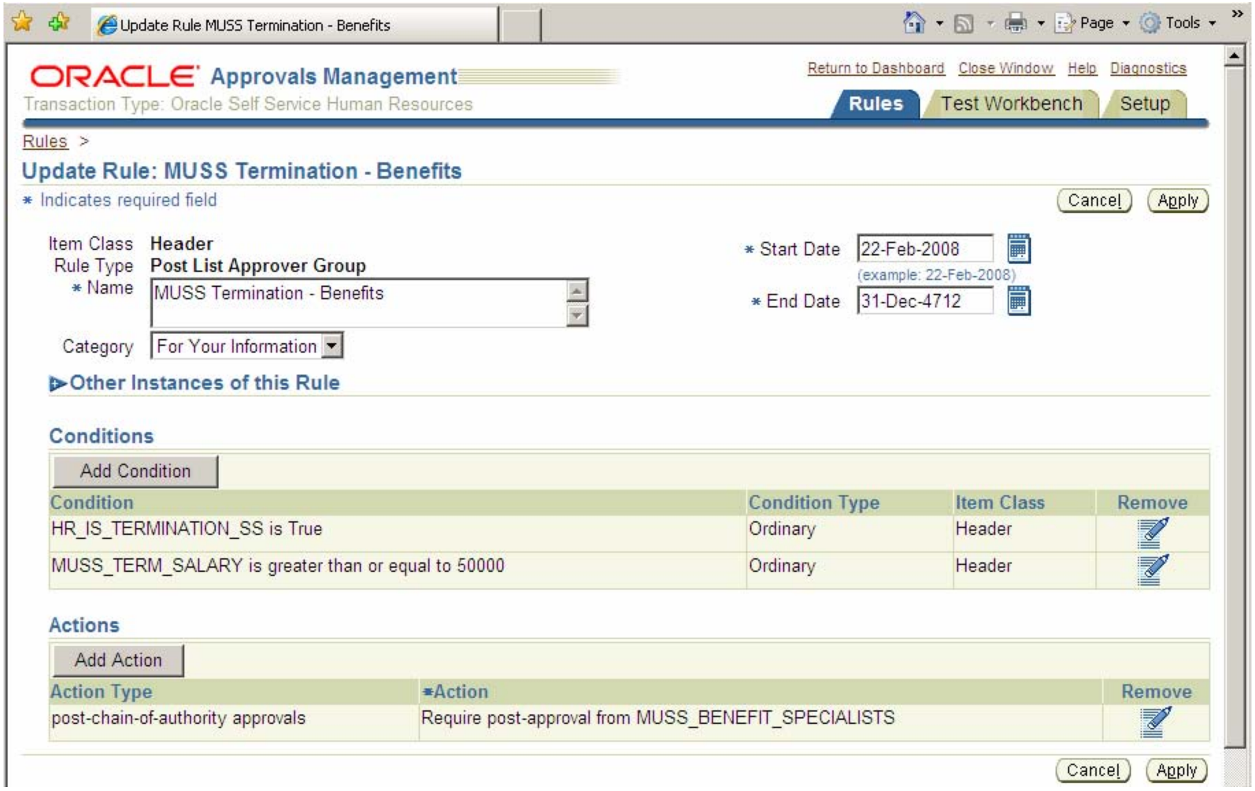
▶Other Instances of this Rule

Conditions

Condition	Condition Type	Item Class	Remove
HR_IS_TERMINATION_SS is True	Ordinary	Header	✎

Actions

Action Type	*Action	Remove
Supervisory level	Require approvals up to the first two superiors, at most.	✎



Transaction Type: Oracle Self Service Human Resources

Rules >

Update Rule: MUSS Termination - Benefits

* Indicates required field

Item Class	Header	* Start Date	22-Feb-2008 (example: 22-Feb-2008)
Rule Type	Post List Approver Group	* End Date	31-Dec-4712
* Name	MUSS Termination - Benefits		
Category	For Your Information		

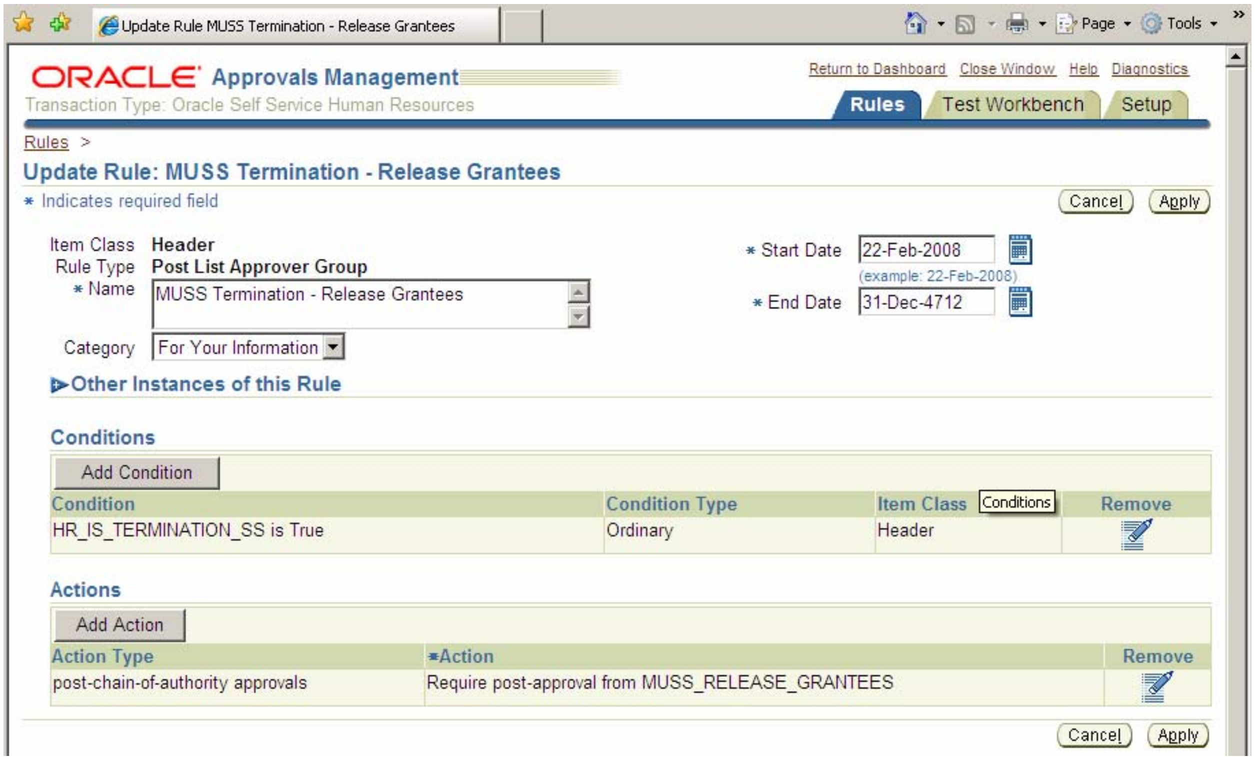
▶Other Instances of this Rule

Conditions

Condition	Condition Type	Item Class	Remove
HR_IS_TERMINATION_SS is True	Ordinary	Header	✎
MUSS_TERM_SALARY is greater than or equal to 50000	Ordinary	Header	✎

Actions

Action Type	*Action	Remove
post-chain-of-authority approvals	Require post-approval from MUSS_BENEFIT_SPECIALISTS	✎



Transaction Type: Oracle Self Service Human Resources

Rules >

Update Rule: MUSS Termination - Release Grantees

* Indicates required field

Item Class	Header
Rule Type	Post List Approver Group
* Name	MUSS Termination - Release Grantees
Category	For Your Information
* Start Date	22-Feb-2008 (example: 22-Feb-2008)
* End Date	31-Dec-4712

▶Other Instances of this Rule

Conditions

Condition	Condition Type	Item Class	Remove
HR_IS_TERMINATION_SS is True	Ordinary	Header	

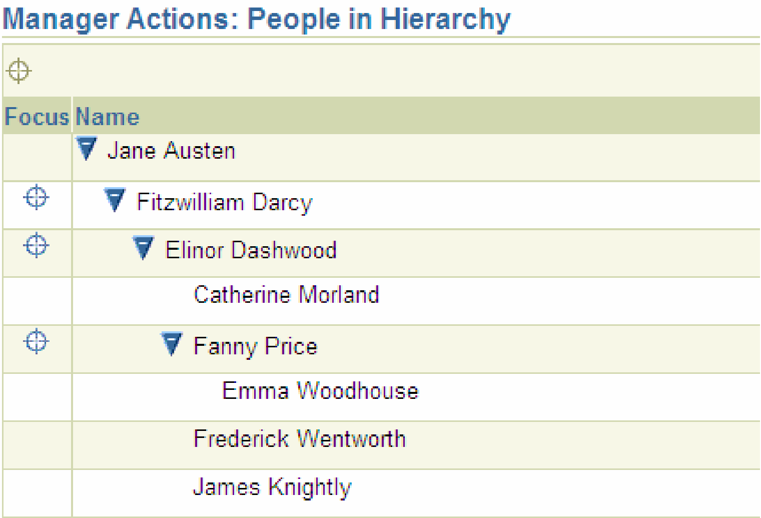
Actions

Action Type	*Action	Remove
post-chain-of-authority approvals	Require post-approval from MUSS_RELEASE_GRANTEES	

Setup is now complete.

Results at Run Time for Sample—Two Examples

In our sample organization, the sample involves the following players:



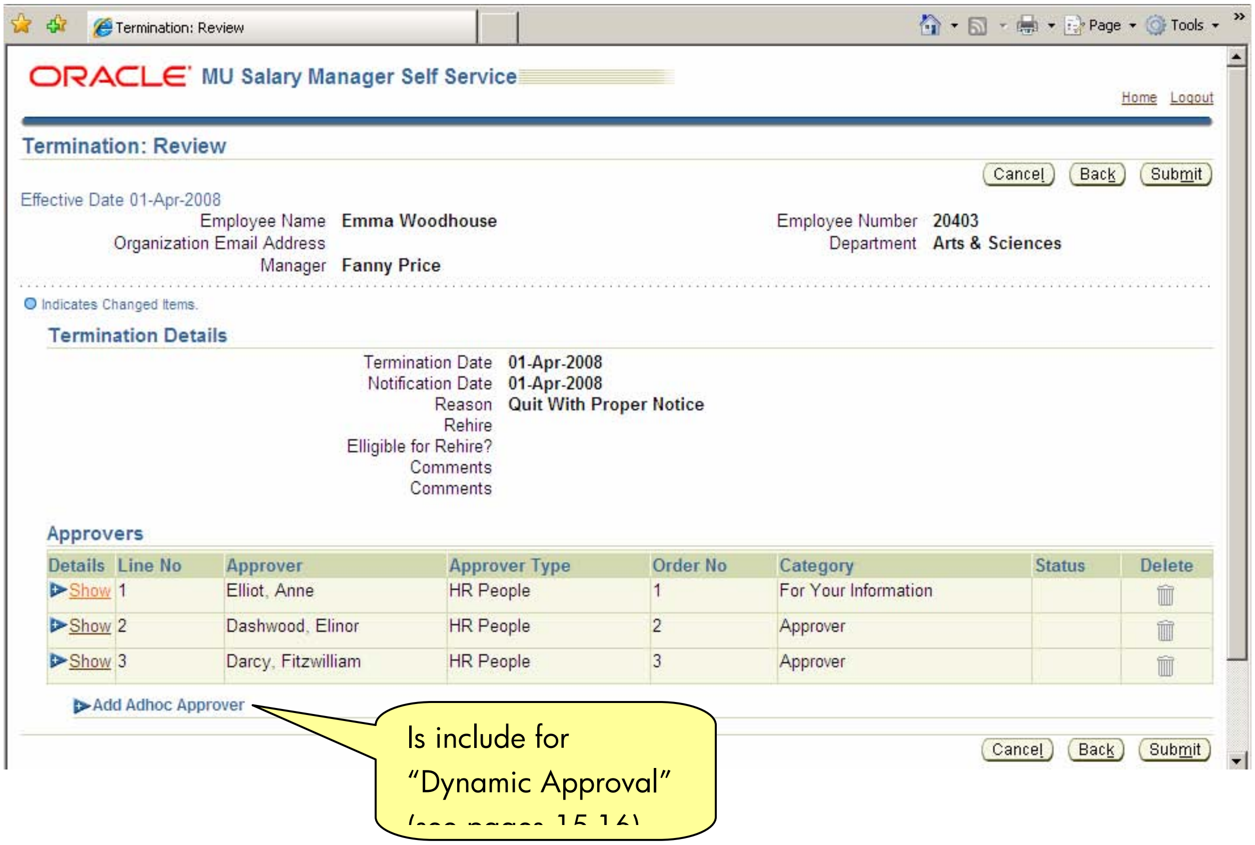
Manager Actions: People in Hierarchy

Focus	Name
	▼ Jane Austen
⌖	▼ Fitzwilliam Darcy
⌖	▼ Elinor Dashwood
	Catherine Morland
⌖	▼ Fanny Price
	Emma Woodhouse
	Frederick Wentworth
	James Knightly

The first example show a Termination of Emma Woodhouse, initiated by Fanny Price. Emma's salary is currently $26,000/year, and she has not released her information to anyone else.

According to our rules, this transaction should generate 1) an FYI to Anne Elliot in the Budget office, and 2) required approvals from Fanny's two-up supervisors, namely, Elinor Dashwood and Fitzwilliam Darcy. Notifications should not go to the Benefits Specialists, as her salary is too low to trigger that rule.

The Review page of the Self Service Termination process shows the expected actions:



Termination: Review

Effective Date 01-Apr-2008

Employee Name	Emma Woodhouse	Employee Number	20403
Organization Email Address		Department	Arts & Sciences
Manager	Fanny Price		

Indicates Changed Items.

Termination Details

Termination Date	01-Apr-2008
Notification Date	01-Apr-2008
Reason	Quit With Proper Notice
Rehire	
Elligible for Rehire?	
Comments	
Comments	

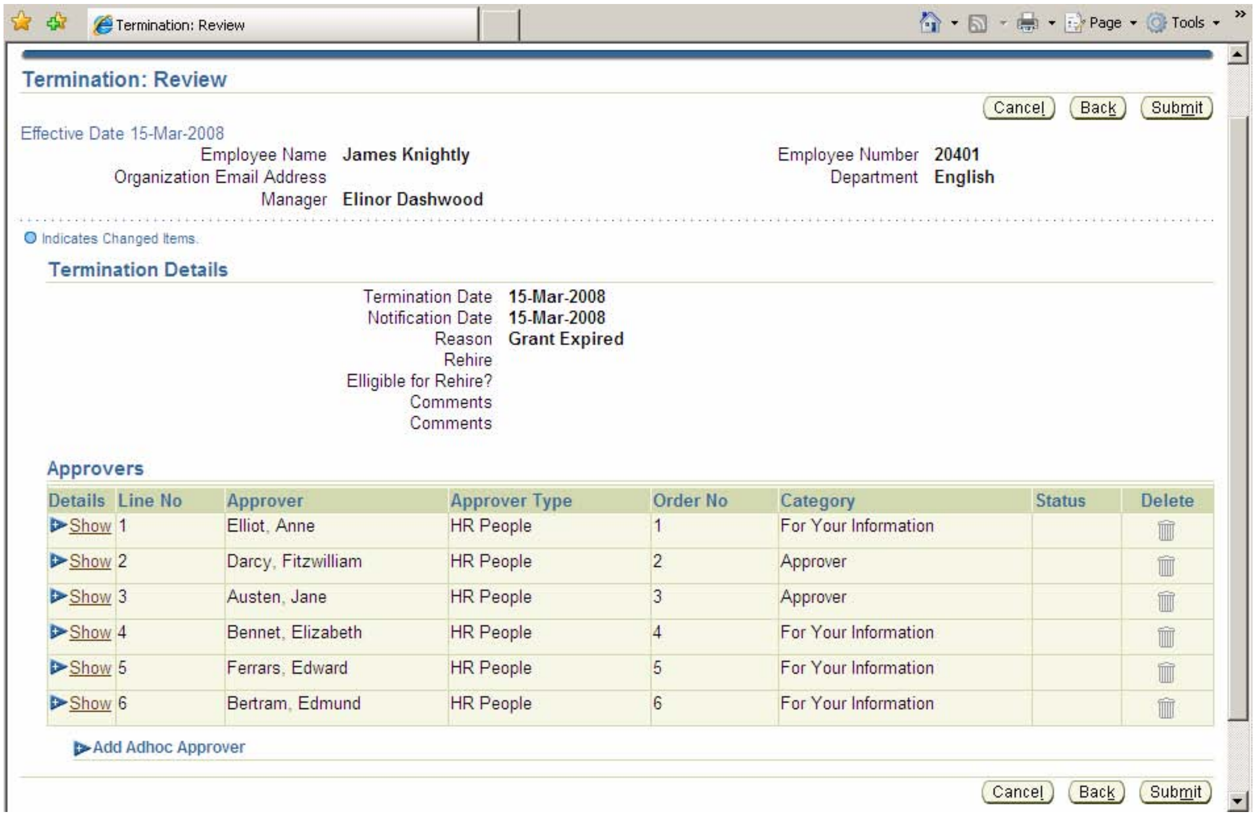
Approvers

Details	Line No	Approver	Approver Type	Order No	Category	Status	Delete
Show	1	Elliot, Anne	HR People	1	For Your Information		
Show	2	Dashwood, Elinor	HR People	2	Approver		
Show	3	Darcy, Fitzwilliam	HR People	3	Approver		

Is include for "Dynamic Approval" (see pages 15-16)

The second example will involve a Termination of James Knightly by Elinor Dashwood. James is currently making $60,000/year and has released his information to Edmund Bertram. Given our rules, the expected notifications are 1) an FYI to Anne Elliot in the Budget office, 2) required approvals from Fitzwilliam Darcy and Jane Austen, 3) an FYI to Elizabeth Bennet and Edward Ferrars in the Benefits department, and 4) an FYI to Edmund Bertram.

The Review page of this transaction gives the expected Approvers list. (Hint: Notifications can also be verified by querying the WF_NOTIFICATIONS table.



Termination: Review

Effective Date 15-Mar-2008

Employee Name	James Knightly	Employee Number	20401
Organization Email Address		Department	English
Manager	Elinor Dashwood		

○ Indicates Changed Items.

Termination Details

Termination Date	15-Mar-2008
Notification Date	15-Mar-2008
Reason	Grant Expired
Rehire	
Elligible for Rehire?	
Comments	
Comments	

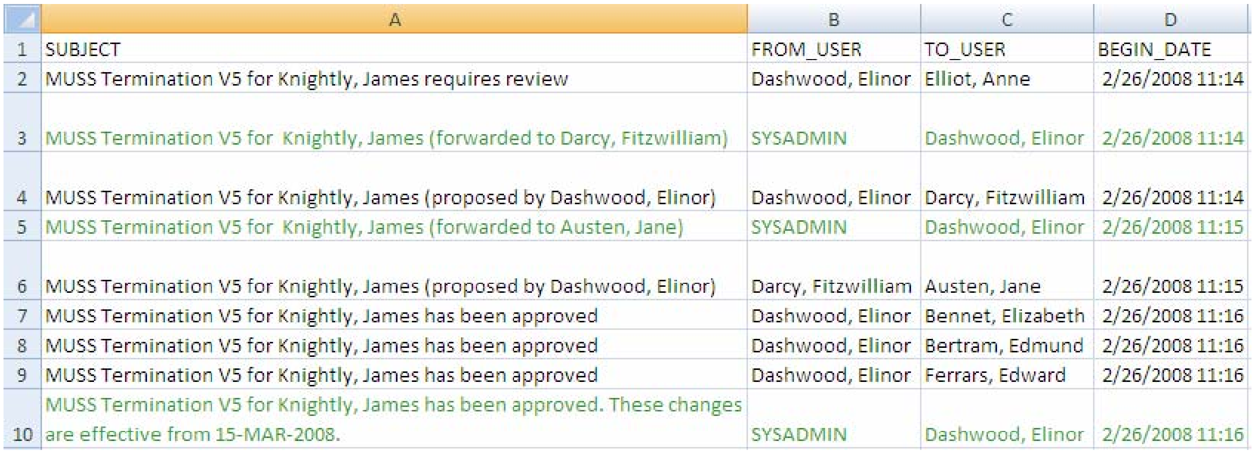
Approvers

Details	Line No	Approver	Approver Type	Order No	Category	Status	Delete
▶Show	1	Elliot, Anne	HR People	1	For Your Information		🗑
▶Show	2	Darcy, Fitzwilliam	HR People	2	Approver		🗑
▶Show	3	Austen, Jane	HR People	3	Approver		🗑
▶Show	4	Bennet, Elizabeth	HR People	4	For Your Information		🗑
▶Show	5	Ferrars, Edward	HR People	5	For Your Information		🗑
▶Show	6	Bertram, Edmund	HR People	6	For Your Information		🗑

▶Add Adhoc Approver

In addition to these six Notifications, three more will be generated as the transaction works its way through the process, one to the originator each time the transaction is passed to an Approver (but not for FYIs), and a final one at the end informing the originator that final approval has been granted.

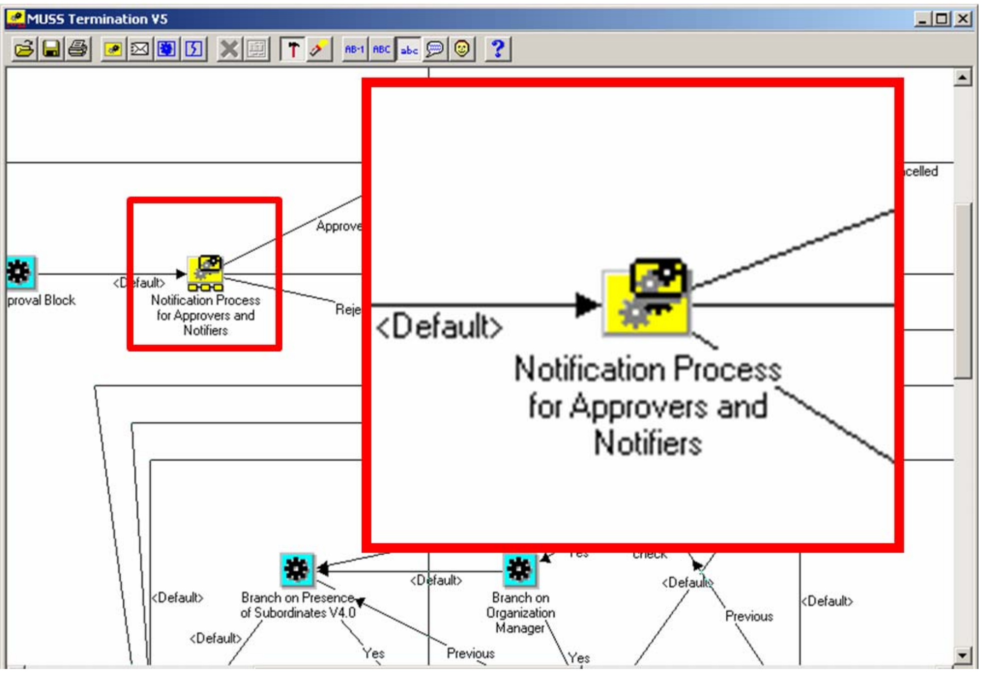
A check of the WF_NOTIFICATIONS table shows all the Notifications generated. Those is green are sent to the transaction originator.



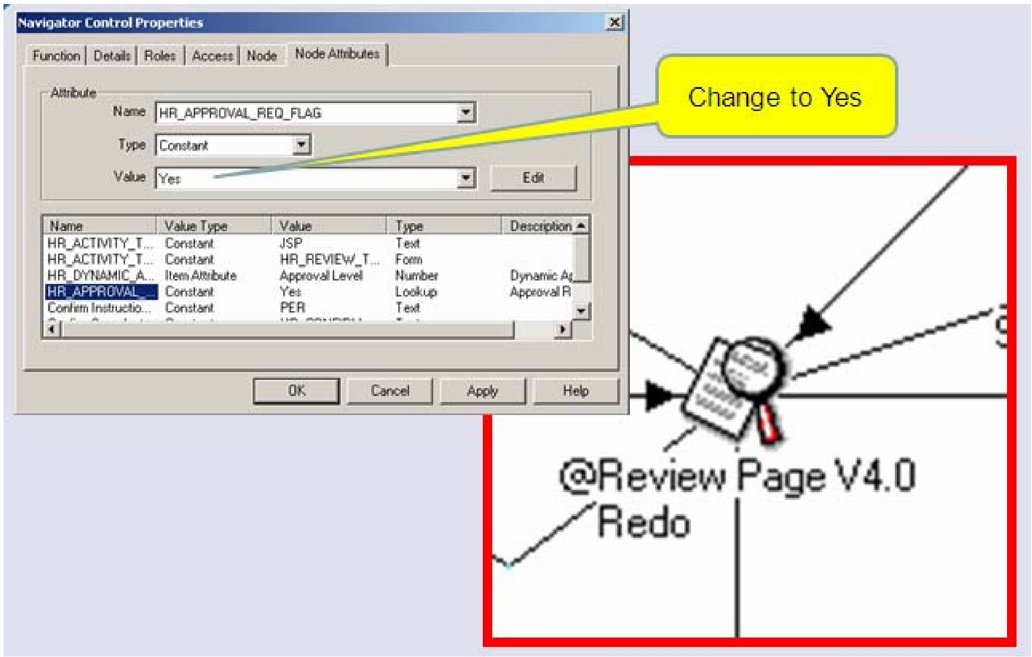
	A	B	C	D
1	SUBJECT	FROM_USER	TO_USER	BEGIN_DATE
2	MUSS Termination V5 for Knightly, James requires review	Dashwood, Elinor	Elliot, Anne	2/26/2008 11:14
3	MUSS Termination V5 for Knightly, James (forwarded to Darcy, Fitzwilliam)	SYSADMIN	Dashwood, Elinor	2/26/2008 11:14
4	MUSS Termination V5 for Knightly, James (proposed by Dashwood, Elinor)	Dashwood, Elinor	Darcy, Fitzwilliam	2/26/2008 11:14
5	MUSS Termination V5 for Knightly, James (forwarded to Austen, Jane)	SYSADMIN	Dashwood, Elinor	2/26/2008 11:15
6	MUSS Termination V5 for Knightly, James (proposed by Dashwood, Elinor)	Darcy, Fitzwilliam	Austen, Jane	2/26/2008 11:15
7	MUSS Termination V5 for Knightly, James has been approved	Dashwood, Elinor	Bennet, Elizabeth	2/26/2008 11:16
8	MUSS Termination V5 for Knightly, James has been approved	Dashwood, Elinor	Bertram, Edmund	2/26/2008 11:16
9	MUSS Termination V5 for Knightly, James has been approved	Dashwood, Elinor	Ferrars, Edward	2/26/2008 11:16
10	MUSS Termination V5 for Knightly, James has been approved. These changes are effective from 15-MAR-2008.	SYSADMIN	Dashwood, Elinor	2/26/2008 11:16

Workflow—AME is called from Workflow, so it is necessary to verify that approvals have been "turned on" for the process in question.   The main process must call the subprocess "Notification Process for Approvers and

Notifiers", and individual processes must have the Node Attribute HR_APPROVAL_REQ_FLAG on the Review Page set to Yes, or Yes – Dynamic Approval. For example, if the process in question is a termination, the HR Workflow process of HR Termination V5 must be checked (or your organization's customized versions of this process).


MUSS Termination V5
proval Block
<Default>
Notification Process for Approvers and Notifiers
Approve
Reje
celled
Branch on Presence of Subordinates V4.0
Branch on Organization Manager
<Default>
Yes
Previous
check
<Default>
Notification Process for Approvers and Notifiers

Next, find the Review Page function icon for the process. Double-click on it to open the Properties. On the Node Attributes tab, select HR_APPROVAL_REQ_FLAG and set to Yes or Yes – Dynamic Approval.


Navigator Control Properties

Function | Details | Roles | Access | Node | Node Attributes

Attribute

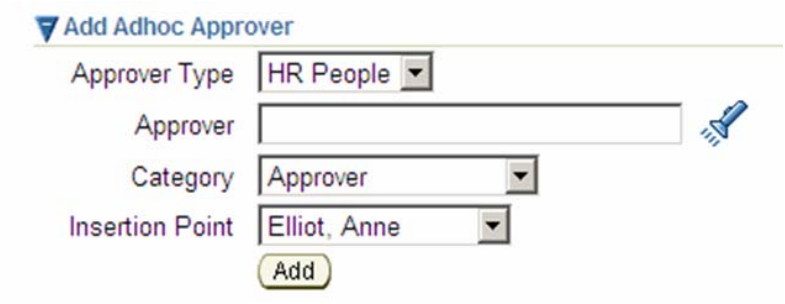
Name: HR_APPROVAL_REQ_FLAG

Type: Constant

Value: Yes

Name	Value Type	Value	Type	Description
HR_ACTIVITY_T...	Constant	JSP	Text	
HR_ACTIVITY_T...	Constant	HR_REVIEW_T...	Form	
HR_DYNAMIC_A...	Item Attribute	Approval Level	Number	Dynamic Ap
HR_APPROVAL_...	Constant	Yes	Lookup	Approval R
Confirm Instructio...	Constant	PER	Text	

If Yes – Dynamic Approval is selected, transaction submitters can insert Approver or FYIs into the approval chain. This allows maximum flexibility if departments have different approval structures that cannot be easily defined as business rules for all.



Add Adhoc Approver

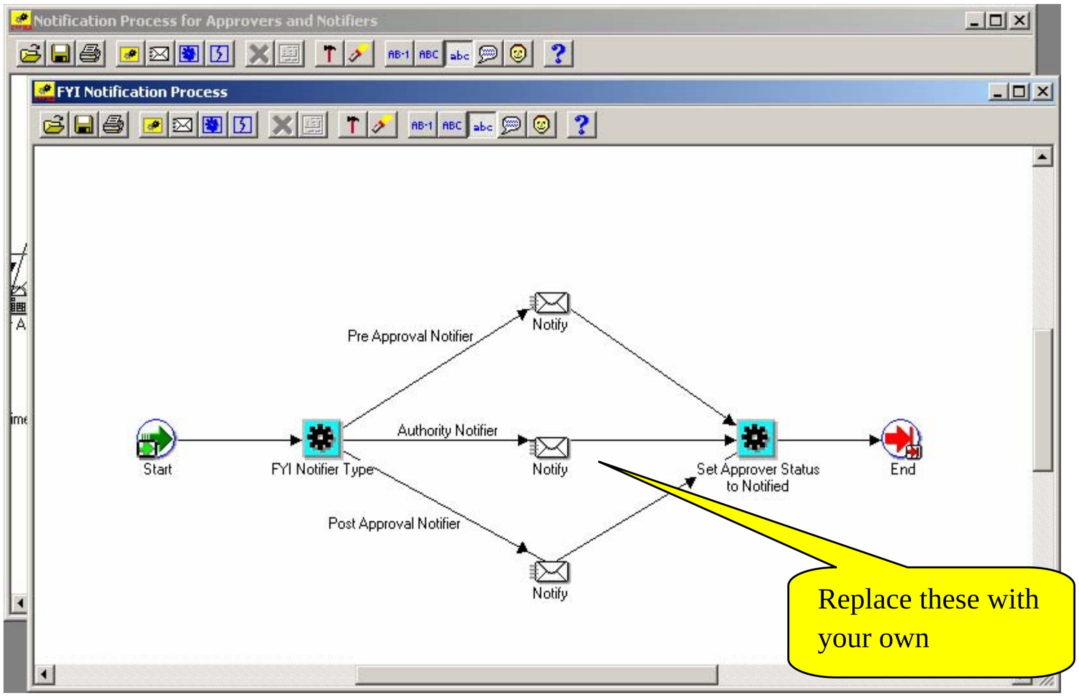
Approver Type: HR People

Approver:

Category: Approver

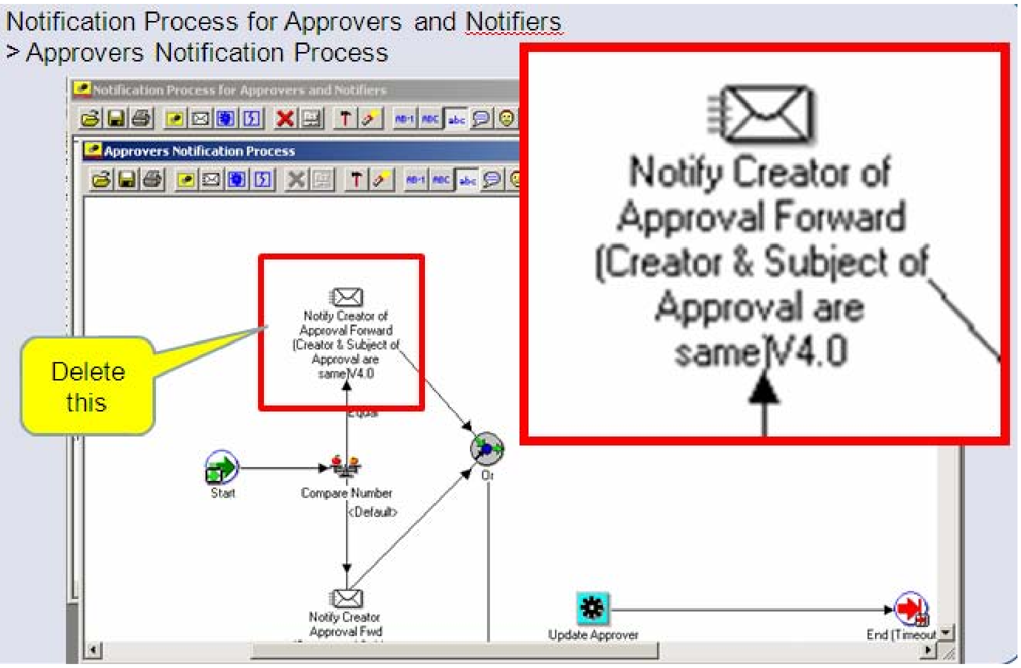
Insertion Point: Elliot, Anne

With no further changes to Workflow, the seeded processes will send a generic Notification to approvers. The seeded notification for Approvers includes Review Page-like information regarding the transaction and should be sufficient for your needs. Using the standard notifications for FYI approvers, however, can sometimes be undesired, since once a transaction has been finalized, the detail behind it is lost to Notifications. If you want to customize your FYI Notifications, substitute the FYI Notification Process with your customized version and create your own messages.



Replace these with your own

Another change a user may wish to make to Workflow is to suppress the notification sent to the initiator every time the transaction is forwarded to the next Approver.


Notification Process for Approvers and Notifiers
> Approvers Notification Process
Notification Process for Approvers and Notifiers
Approvers Notification Process
Notify Creator of Approval Forward (Creator & Subject of Approval are same)V4.0
Delete this
Equal
Start
Compare Number
<Default>
Or
Notify Creator Approval Fwd
Update Approver
End (Timeout
Notify Creator of Approval Forward (Creator & Subject of Approval are same)V4.0

Conclusion—The Approvals Management Engine is a powerful and fairly user-friendly tool to allow functional users to set up approvals to meet their organization's needs. Version AME.B comes with many seeded attributes. Users would be best served, though, by working with a technical support person to develop SQL queries; access to database and transaction tables will greatly expand the capabilities.