
Oracle Alert

Release R12



課程目標

完成本課程後，學員應能學習到下列主題：

- ❖ **Basic Concepts of Alerts**
- ❖ **Defining Alerts**
- ❖ **Defining Response Processing**
- ❖ **Checking Alert Processes**



課程綱要

本課程的內容將涵蓋有：

- ❖ **Chapter 1 : Overview of Alerts**
- ❖ **Chapter 2 : Defining All Types of Alerts**
- ❖ **Chapter 3 : Defining Response Processing**
- ❖ **Chapter 4 : Check Alert Processes**
- ❖ **Chapter 5 : Customization 注意事項**
- ❖ **Chapter 6 : Alert Setup**



Chapter 1

Overview of Alerts

Overview of Alerts

❖ Basic Functions of Oracle Alerts

- Keep you informed of database exception conditions
- Let you specify the exception conditions you want to know about
- Keep you informed of exception conditions through a single point ---your electronic mail.
- Take the actions you specify



Overview of Alerts

❖ **Types of Alerts**

➤ **Event Alert**

--- 針對Database異動時，所做的即時反應

➤ **Periodic Alert**

--- 針對事先定義的時間，對Database內的資料做檢查



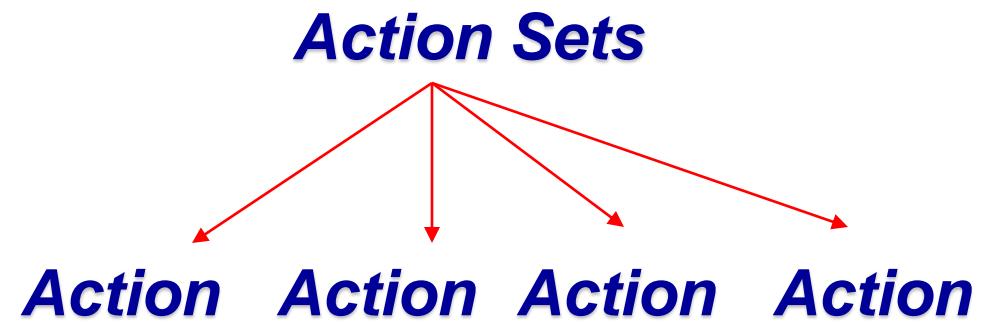
Overview of Alerts

❖ Actions of Alerts

--- Alert可執行的動作，一般為以下四種：

- message actions
- concurrent program actions
- operating script actions
- SQL statement script actions

❖ Action Sets



Overview of Alerts

❖ Attributes of Alerts

- 跨模組的設定，可將不同 Application 的變化掌握其中
- 是 Base on database 的變化，而做的 Monitor 動作

❖ Variables of Alerts

- Input Variables (:)
- Output Variables (&)



Overview of Alerts

0 Alerts

Application Order Management Name Jack_Test_MAILID
Description
 Enabled

Periodic Event

Event Details

Application Order Management Table OE_ORDER_HEADERS_ALL
 After Insert (B) After Update

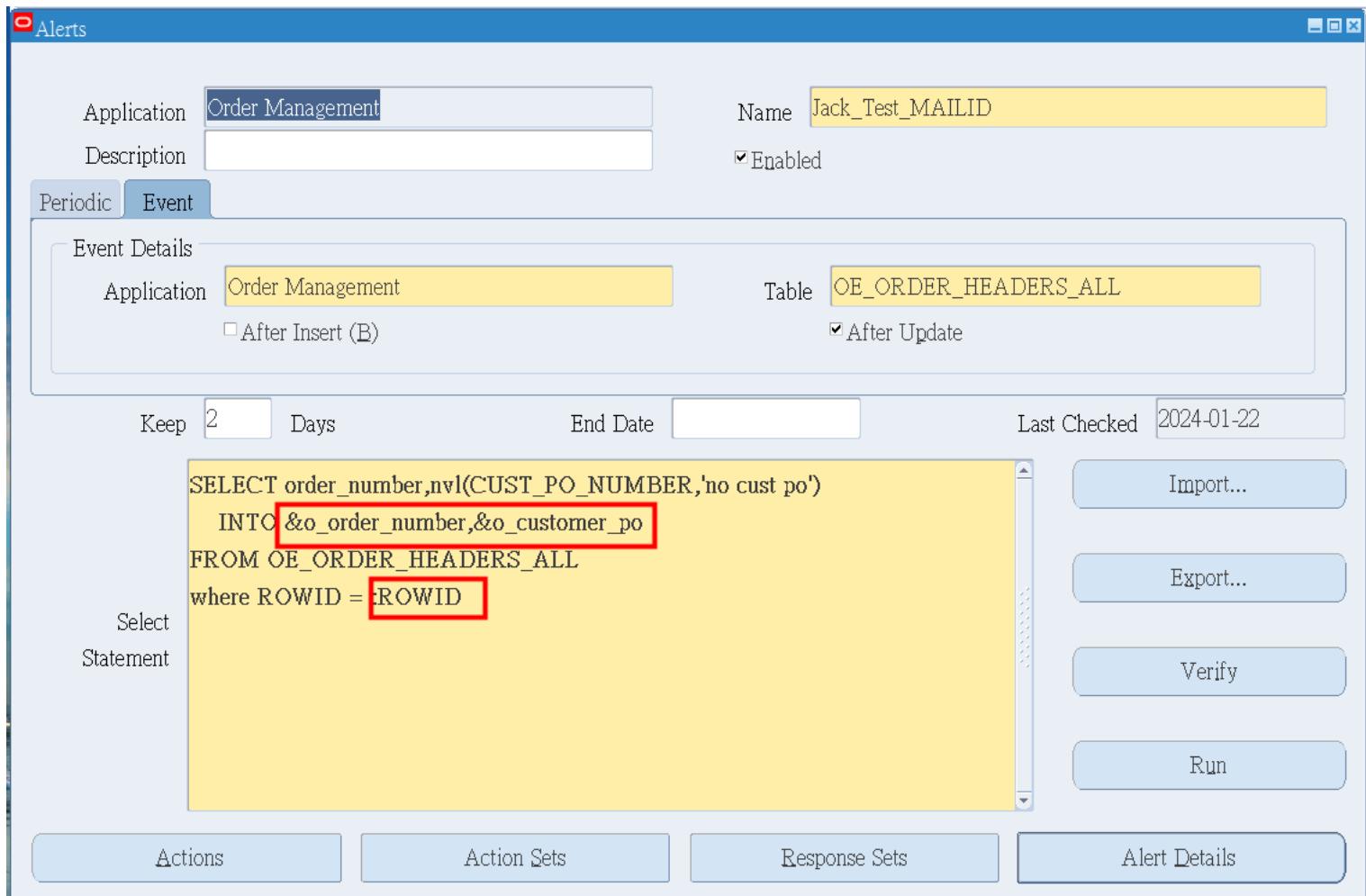
Keep 2 Days End Date Last Checked 2024-01-22

Select Statement

```
SELECT order_number,nvl(CUST_PO_NUMBER,'no cust po')
  INTO &o_order_number,&o_customer_po
FROM OE_ORDER_HEADERS_ALL
where ROWID = :ROWID
```

Import... Export... Verify Run

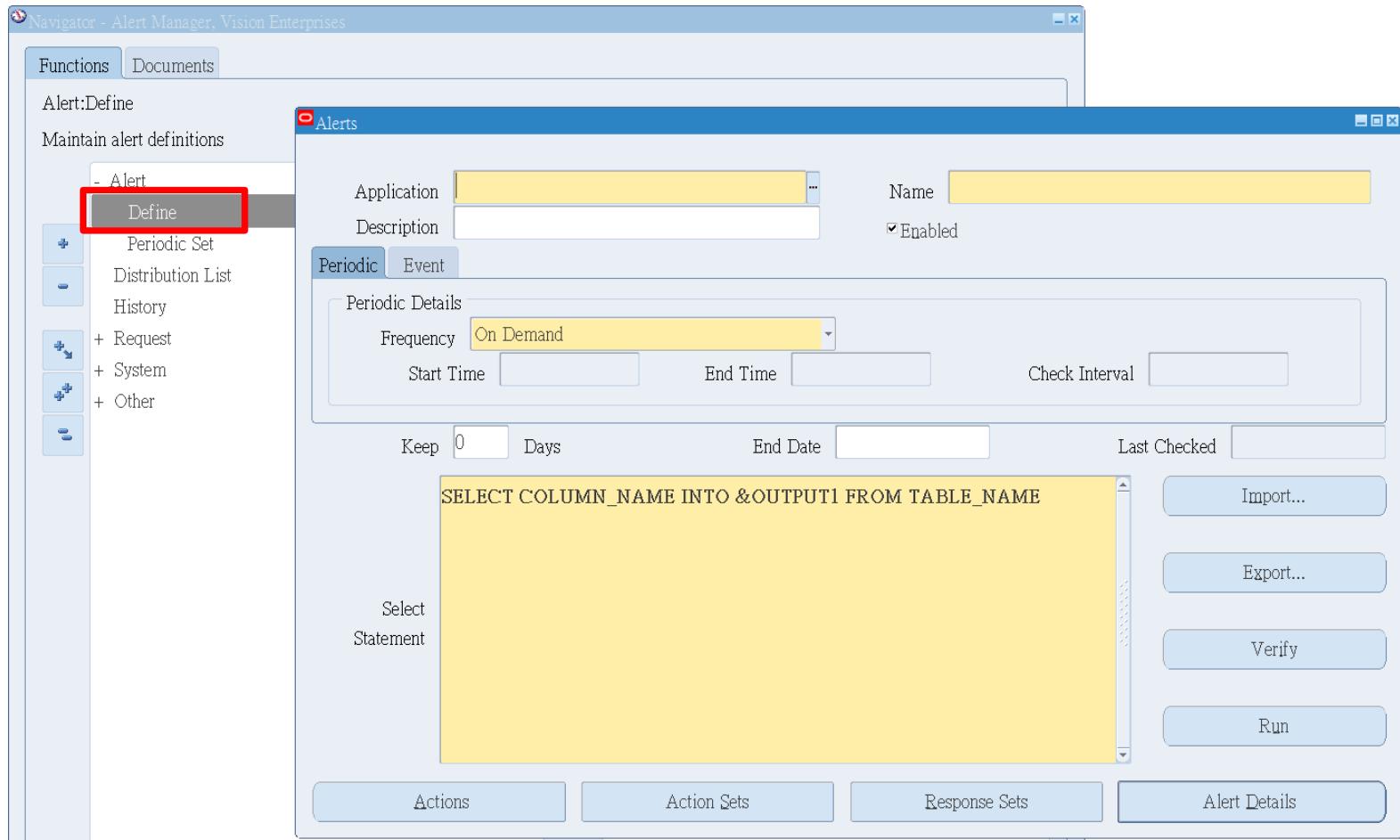
Actions Action Sets Response Sets Alert Details



Chapter 2

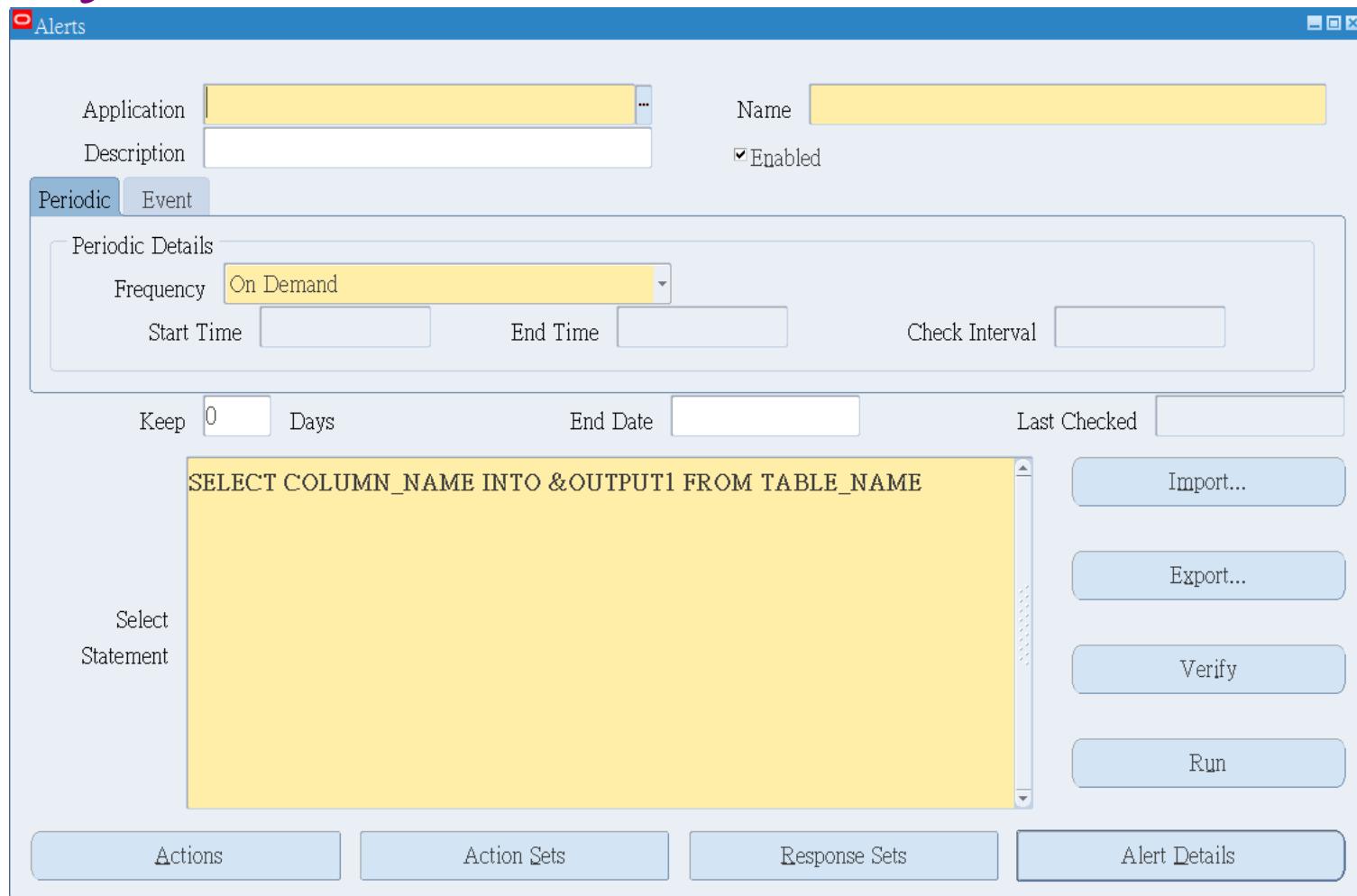
Defining All Types of Alerts





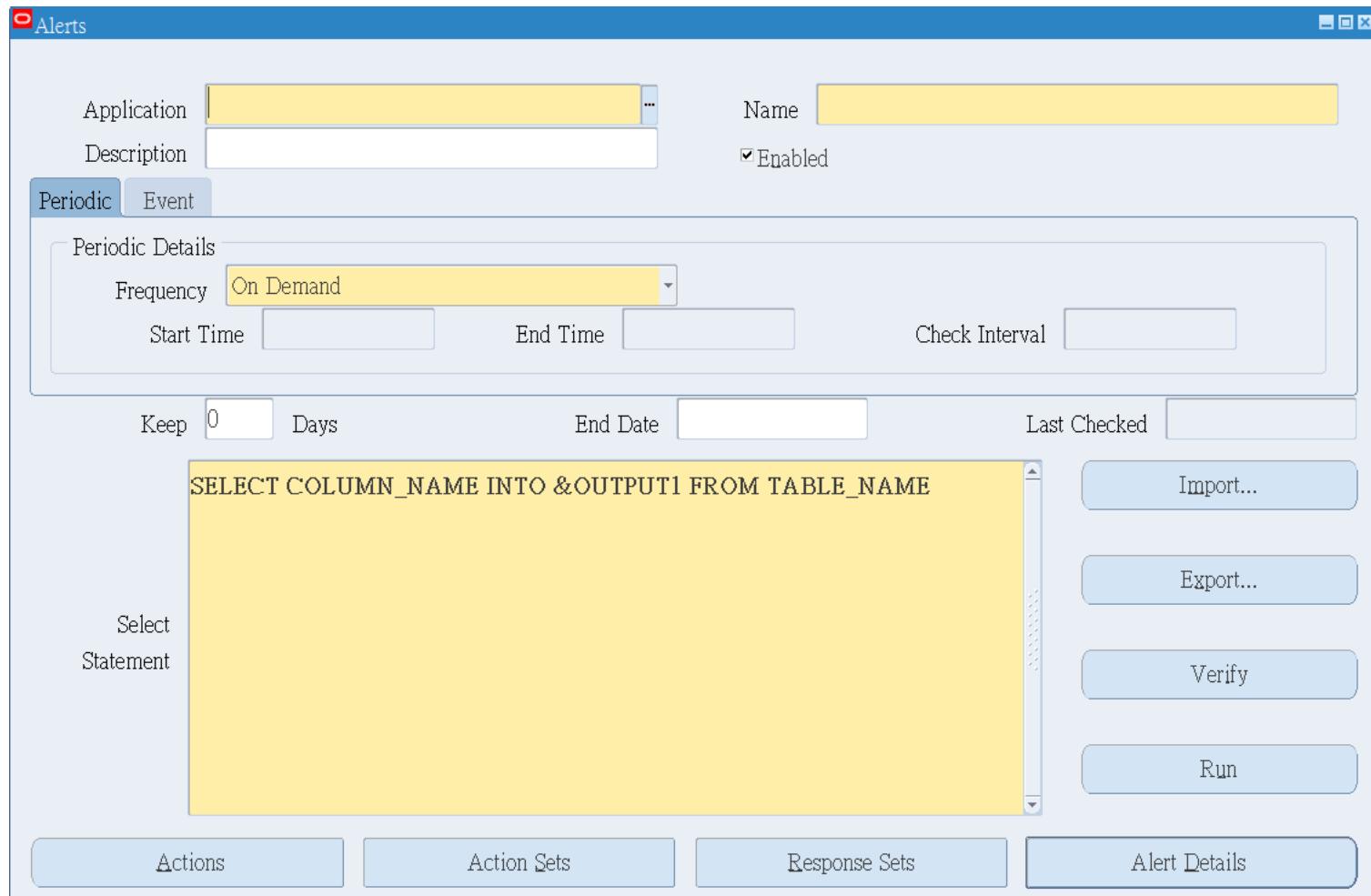
Defining All Types of Alerts

- Define Periodic Alerts



Defining All Types of Alerts

- Define Periodic Alerts



Defining All Types of Alerts

• Define Event Alerts

The screenshot shows the Oracle Database Alert Definition interface. The 'Event' tab is selected. The 'Event Details' section shows the application as 'Order Management' and the table as 'DEM_ORDERS'. The 'Select Statement' field contains the SQL query:

```
select order_id  
      into &order_id  
      from DEM_ORDERS  
     where rowid = :ROWID
```

. The 'Actions' button is highlighted with a red box.

Alert Details

Actions

Action Sets

Response Sets

Alert Details

Import...

Export...

Verify

Run

Name: Jack_Test_Concurrent

Enabled

Application: Order Management

Description:

Periodic Event

Event Details

Application: Order Management

Table: DEM_ORDERS

After Insert (B)

After Update

Keep 1 Days

End Date:

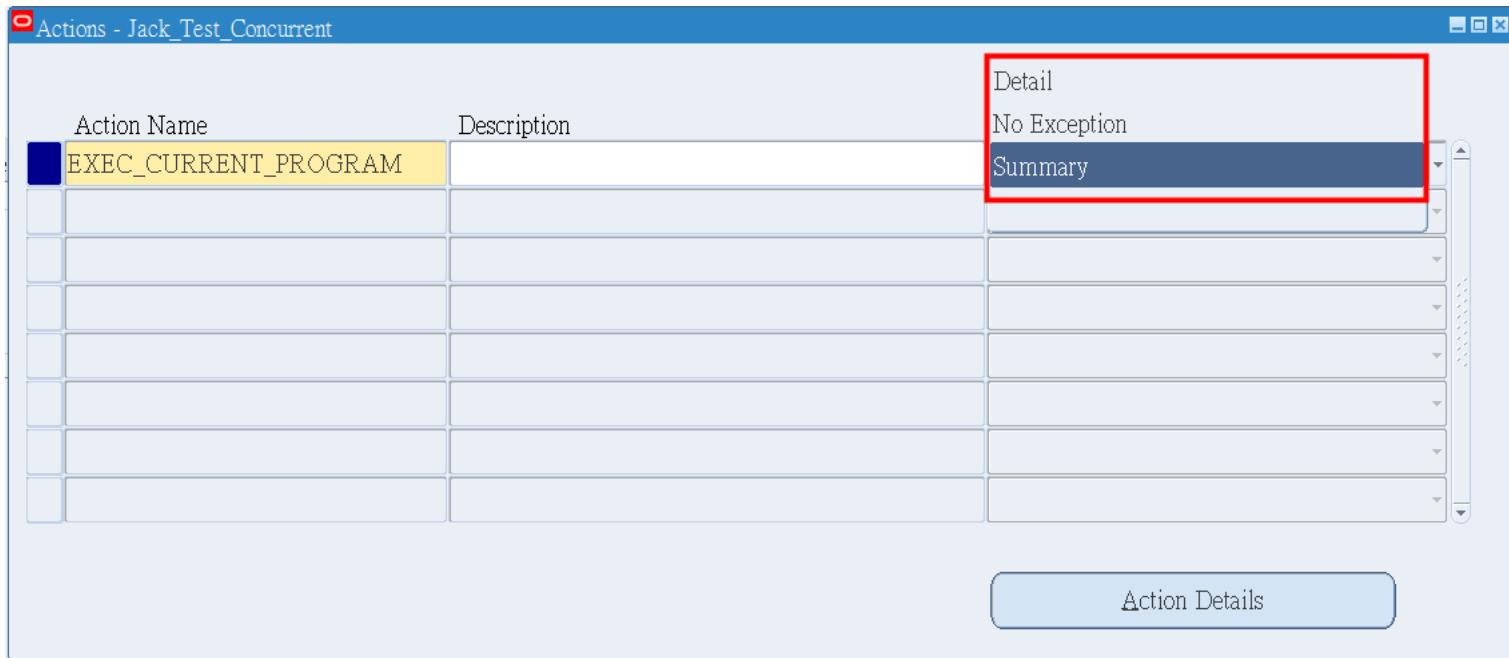
Last Checked: 2024-01-24

Select Statement

```
select order_id  
      into &order_id  
      from DEM_ORDERS  
     where rowid = :ROWID
```

Defining All Types of Alerts

- *Define Actions*



Defining All Types of Alerts

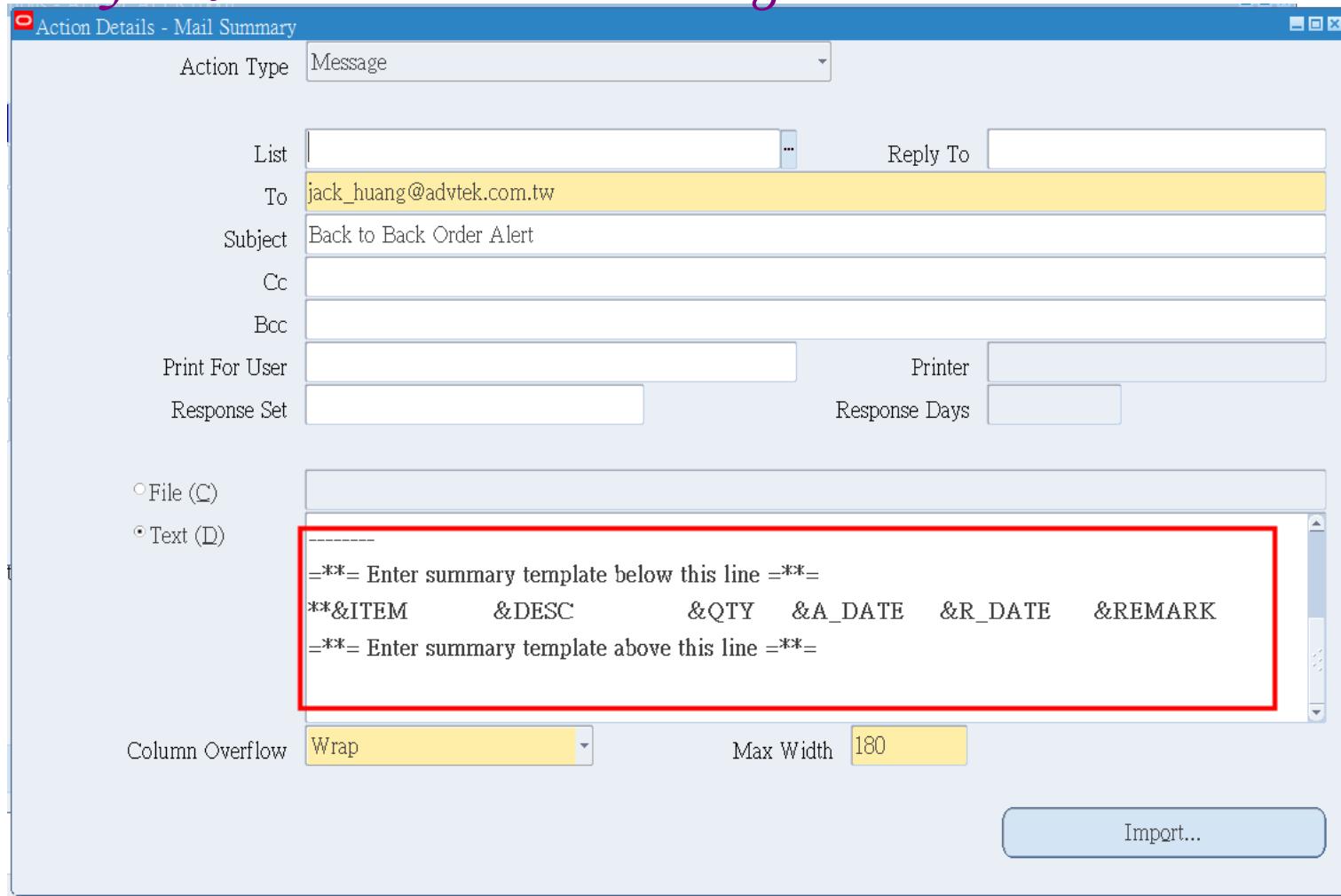
• Define Action Details - Message

Action Details - Mail Summary

Action Type	Message												
List	jack_huang@advtek.com.tw												
To	jack_huang@advtek.com.tw												
Subject	Back to Back Order Alert												
Cc													
Bcc													
Print For User													
Response Set													
Printer													
Response Days													
<input type="radio"/> File (C)													
<input checked="" type="radio"/> Text (D)	The Back to Back Order has been generated. Please convert it to PR. SO No. : &SO_NO <table border="1"><thead><tr><th>Product</th><th>Description</th><th>Quantity</th><th>Apply Date</th><th>Need by Date</th><th>Note</th></tr></thead><tbody><tr><td colspan="6"> </td></tr></tbody></table>	Product	Description	Quantity	Apply Date	Need by Date	Note						
Product	Description	Quantity	Apply Date	Need by Date	Note								
Column Overflow	Wrap												
	Max Width 180												
	Import...												

Defining All Types of Alerts

- Define Action Details - Message



Defining All Types of Alerts

• *Define Action Details - Message*

The Back to Back Order has been generated. Please convert it to PR.

SO No. : &SO_NO

Product	Description	Quantity	Apply Date	Need by Date	Note
---------	-------------	----------	------------	--------------	------

=**= Enter summary template below this line =**=

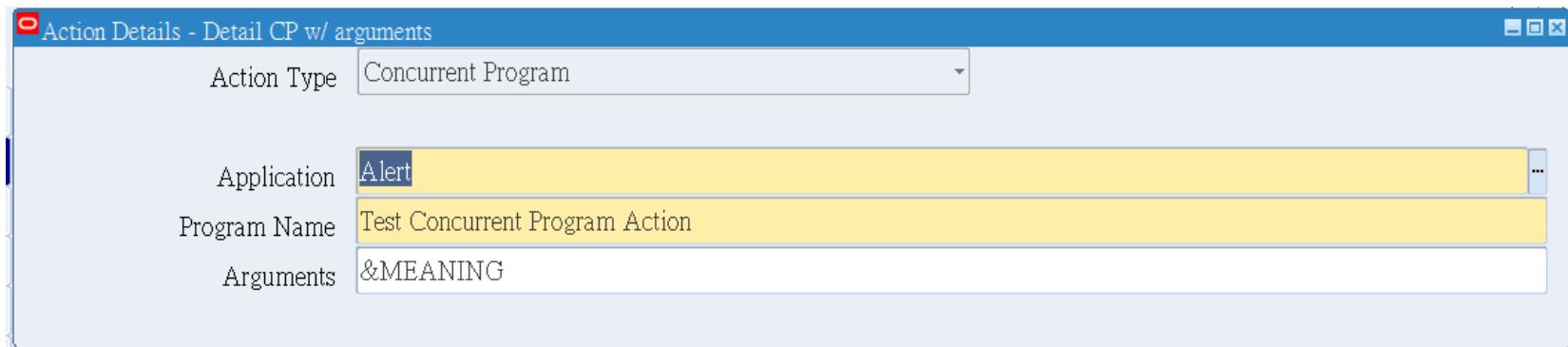
**&ITEM &DESC &QTY &A_DATE &R_DATE &REMARK

=**= Enter summary template above this line =**=



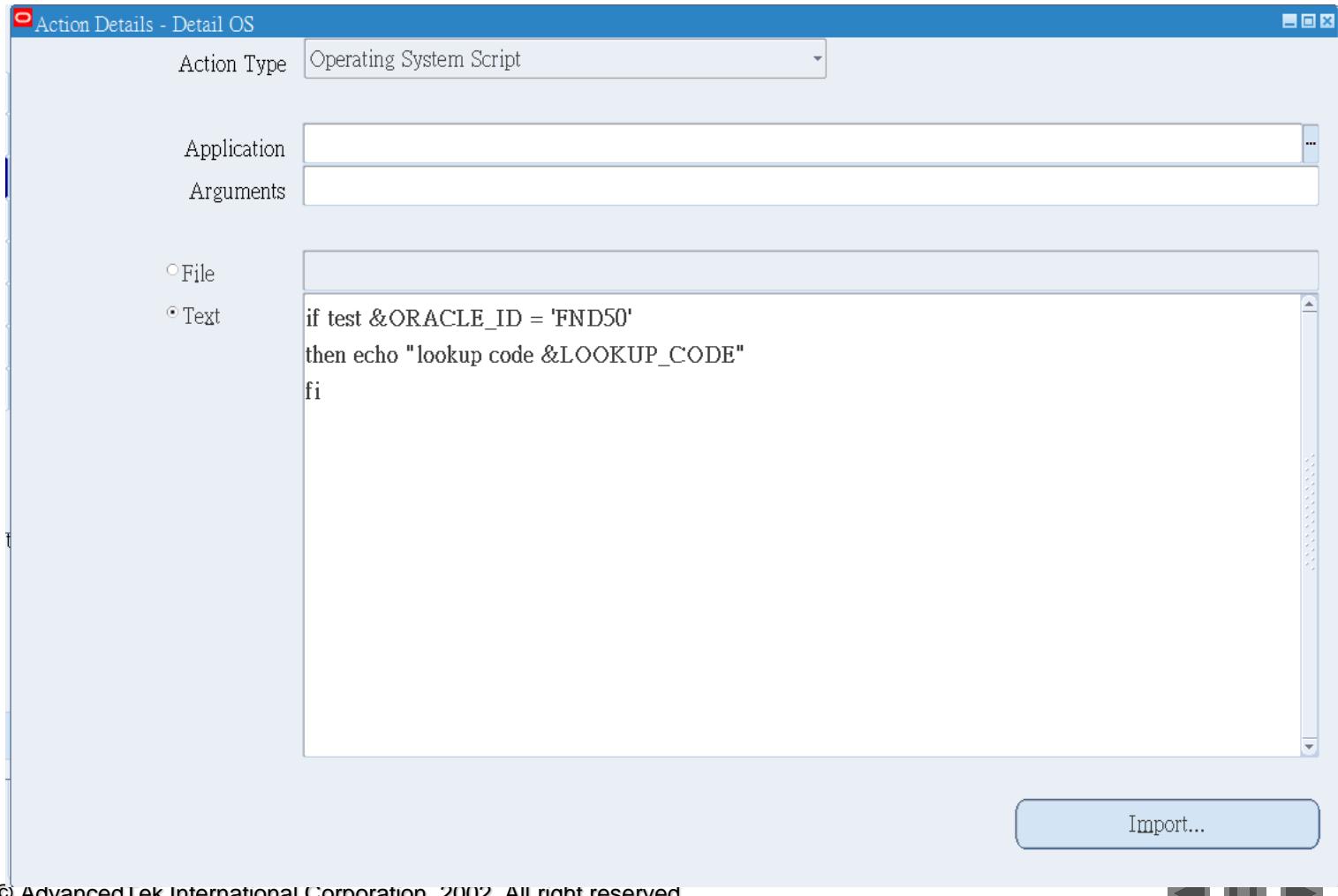
Defining All Types of Alerts

- *Define Action Details – Concurrent Program*



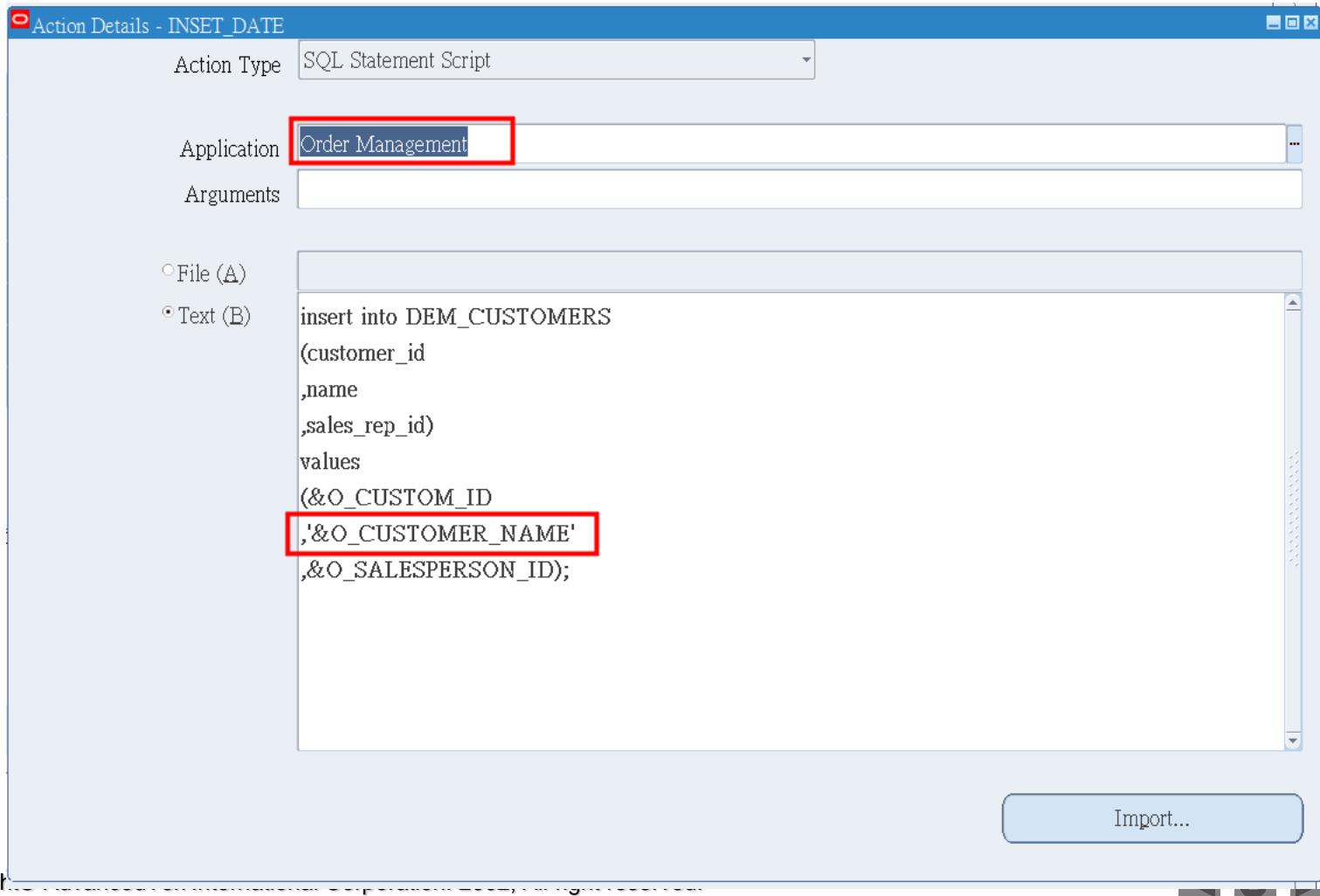
Defining All Types of Alerts

- *Define Action Details – Concurrent Program*



Defining All Types of Alerts

- Define Action Details – Sql Statement Script



Defining All Types of Alerts

- *Define Action Details – Sql Stmt Script*

The screenshot shows a web browser window for Oracle E-Business Suite R12. The URL is <http://r122.ad...VN8K-D6egIA..>. The page title is "GFM Upload Page". The main content area displays a "File Upload" form. It includes a required field labeled "Upload File" with a "瀏覽..." button and a message "未選擇檔案。". Below the form are "Submit", "Clear", and "Cancel" buttons. To the right of the form, a "Decision" dialog box is open, asking "Has the file been uploaded successfully?". It has "Yes" and "No" buttons.

Defining All Types of Alerts

- *Define Action Sets*

The screenshot shows two windows. The top window is titled "Action Sets - test" and contains a table with columns: Seq, Action Set Name, Description, Suppress Duplicates (checkboxes), Enabled (checkboxes), and End Date (text boxes). A row with Seq=1 is present. The bottom window is titled "Action Set Details" and has tabs for Inputs, Outputs, and Members. The Inputs tab is selected, showing a table with columns: Input Name, Description, Type, and Value.

Seq	Action Set Name	Description	Suppress Duplicates	Enabled	End Date
1			<input type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

Input Name	Description	Type	Value

Defining All Types of Alerts

- Define Action Sets

The screenshot shows two windows related to defining action sets:

- Action Sets - Jack_Test_Message**: This window lists the action sets defined for the message "Jack_Test_Message". It has columns for Seq, Action Set Name, Description, Suppress (Duplicates), Enabled, and End Date. A single row is visible with Seq 1 and Action Set Name MIAL. The "Enabled" checkbox is checked. A red box highlights the "Action Set Details" button at the bottom right of this window.
- Action Set Details**: This window provides detailed configuration for the MIAL action set. It has tabs for Inputs, Outputs, and Members, with the Inputs tab selected. It includes fields for Action (SUMMARY MAIL), Type (Action: Message), Summary Threshold, On Error (Action: Abort, Set: , Member:), and Enabled status. The "Action" field is highlighted with a red box.

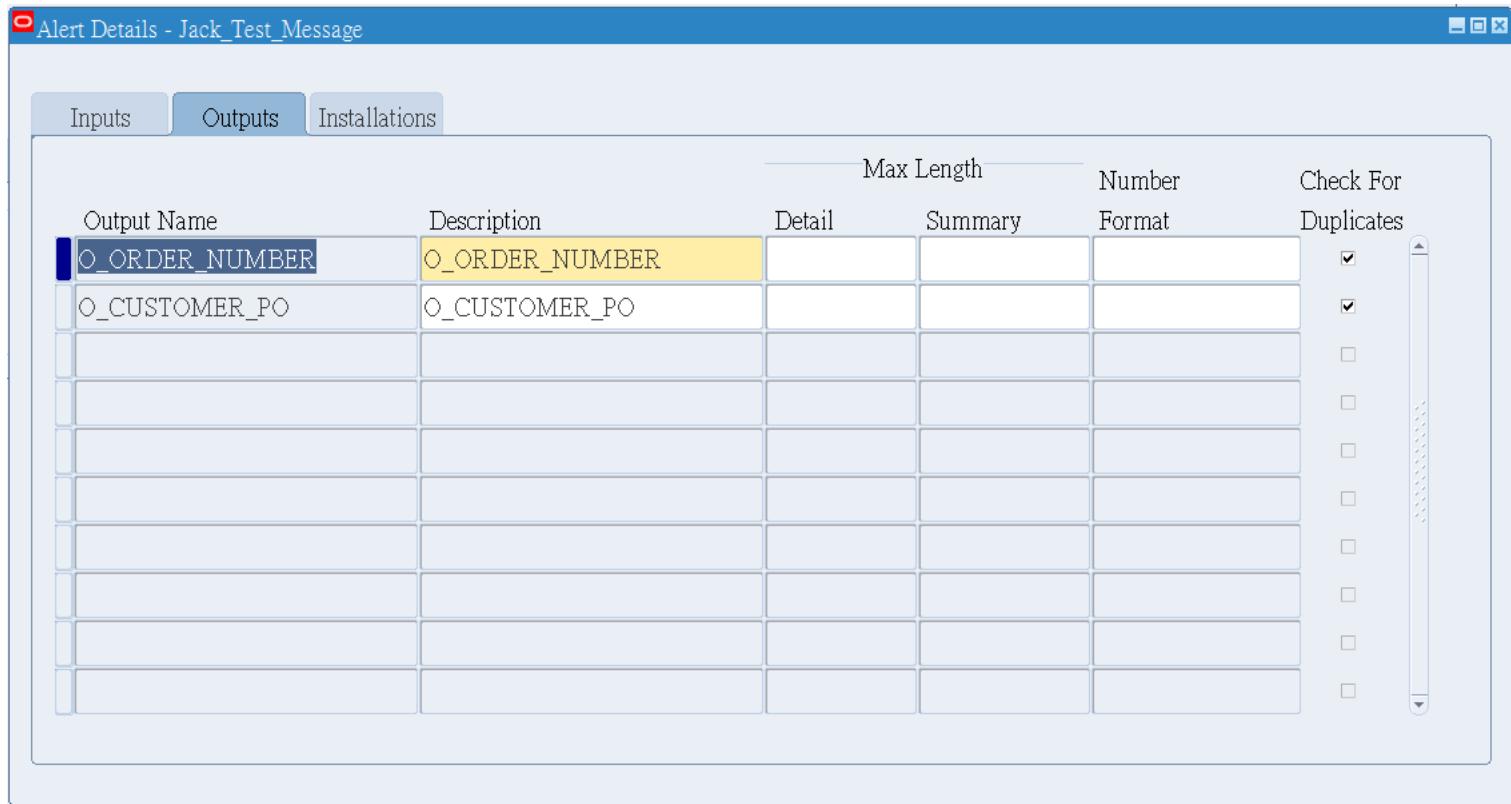
Defining All Types of Alerts

- Define Alert Details

The screenshot shows a software application window titled "Alert Details - test". The window has a blue header bar with three tabs: "Inputs" (which is selected and highlighted in blue), "Outputs", and "Installations". Below the tabs is a table with four columns: "Input Name", "Description", "Data Type", and "Default Values". The "Data Type" column for the first row is set to "Character". A cursor arrow is visible, pointing towards the "Input Name" column of the first row. The "Default Values" column contains a scroll bar.

Defining All Types of Alerts

- *Define Alert Details*



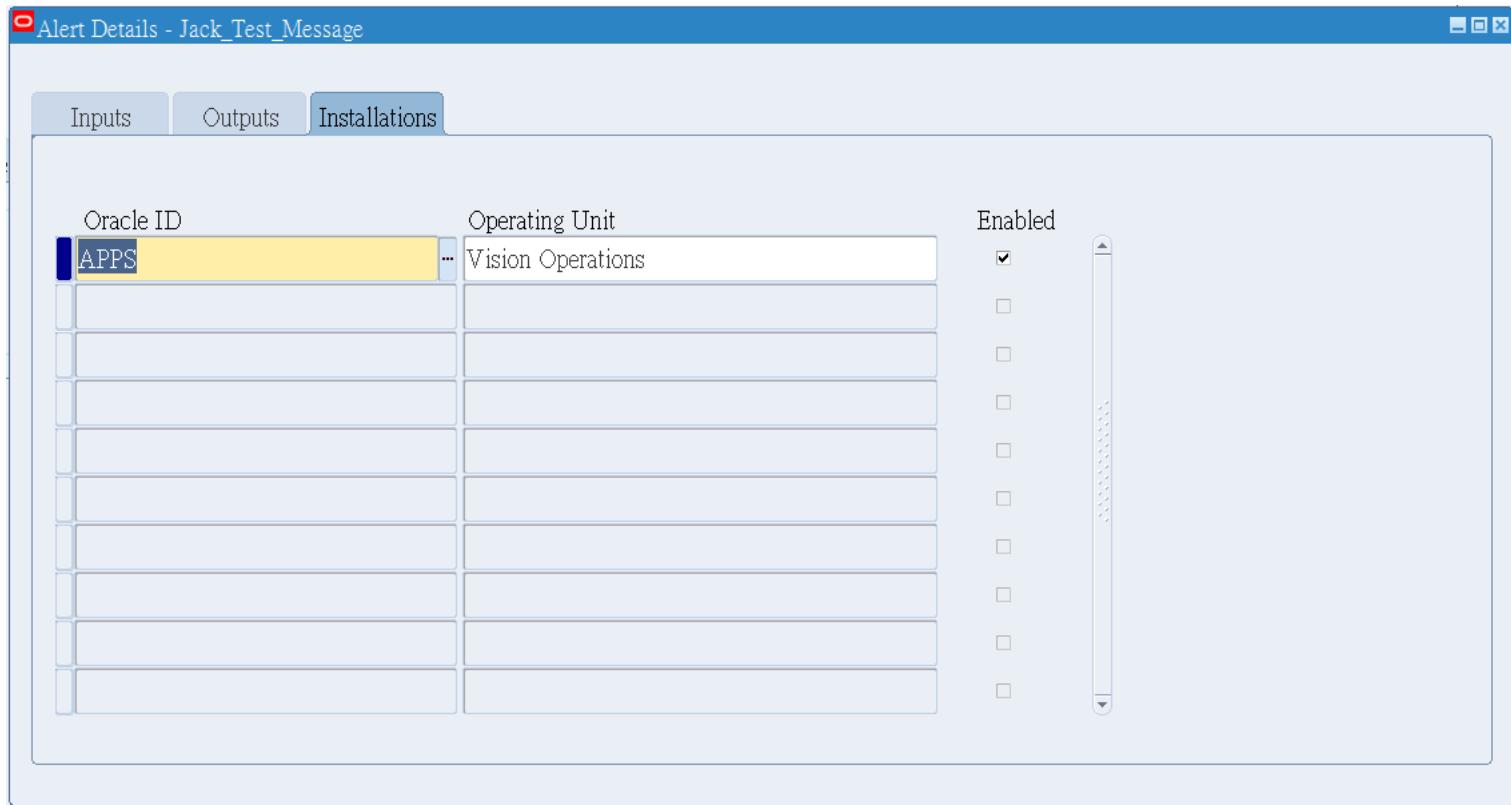
The screenshot shows a software interface titled "Alert Details - Jack_Test_Message". The window has tabs for "Inputs", "Outputs", and "Installations", with "Outputs" selected. The main area is a grid table with columns: Output Name, Description, Detail, Summary, Number Format, and Check For Duplicates. Two rows are visible:

Output Name	Description	Detail	Summary	Number Format	Check For Duplicates
O_ORDER_NUMBER	O_ORDER_NUMBER				<input checked="" type="checkbox"/>
O_CUSTOMER_PO	O_CUSTOMER_PO				<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>



Defining All Types of Alerts

- *Define Alert Details*



Defining All Types of Alerts

- *Avoid Duplications*

The screenshot shows two windows. The top window is titled "Action Sets - test". It has columns for Seq, Action Set Name, Description, Suppress Duplicates (with a checked checkbox), Enabled (with a checked checkbox), and End Date. A single row is visible with Seq=1. The bottom window is titled "Action Set Details". It has tabs for Inputs, Outputs, and Members, with the Inputs tab selected. It has columns for Input Name, Description, Type, and Value. A single row is visible.

Seq	Action Set Name	Description	Suppress Duplicates	Enabled	End Date
1			<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Input Name	Description	Type	Value

Defining All Types of Alerts

- *Avoid Duplications*

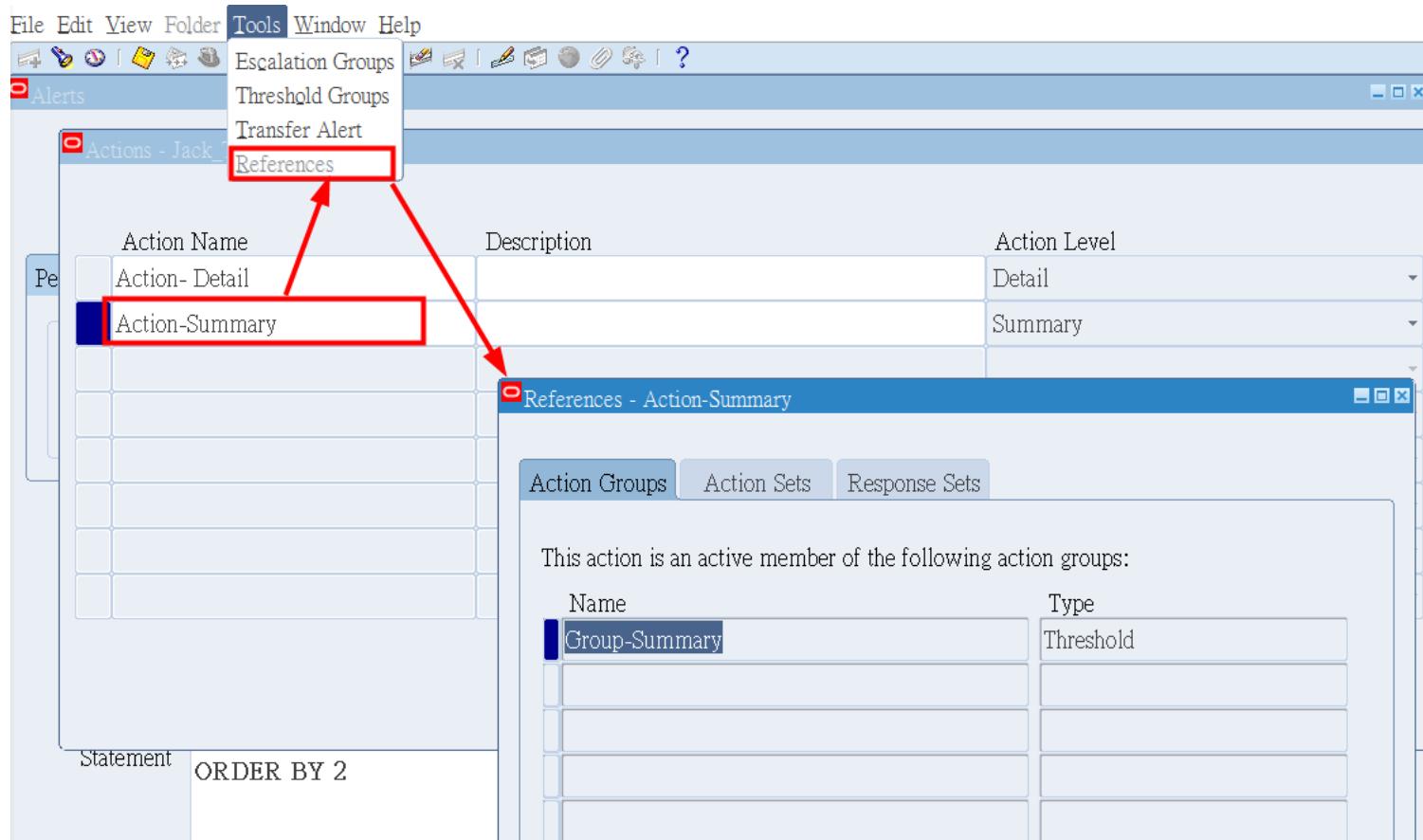
The screenshot shows a software interface titled "Alert Details - test". At the top, there are three tabs: "Inputs", "Outputs" (which is selected), and "Installations". Below the tabs is a table with the following columns: "Output Name", "Description", "Detail", "Summary", "Max Length", "Number Format", and "Check For Duplicates". The "Check For Duplicates" column contains a vertical list of checkboxes, with the first one checked. The table has 10 rows, each corresponding to a row in the grid.

Output Name	Description	Detail	Summary	Max Length	Number Format	Check For Duplicates
						<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>



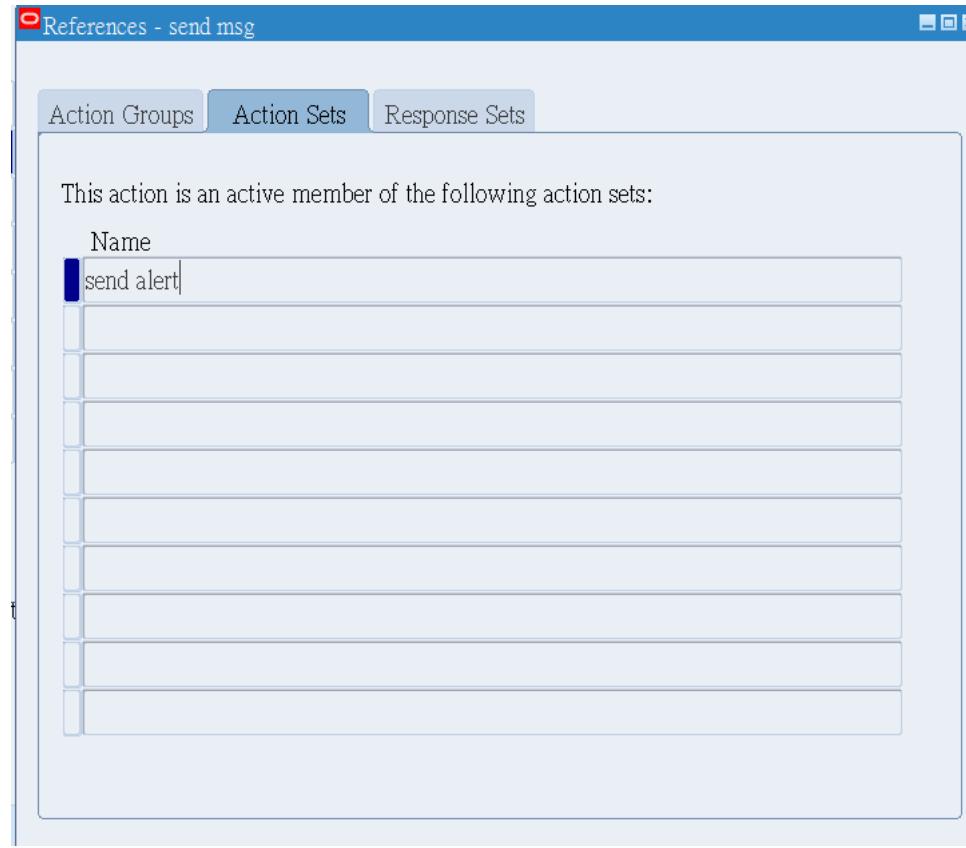
Defining All Types of Alerts

- *Alert Action References*



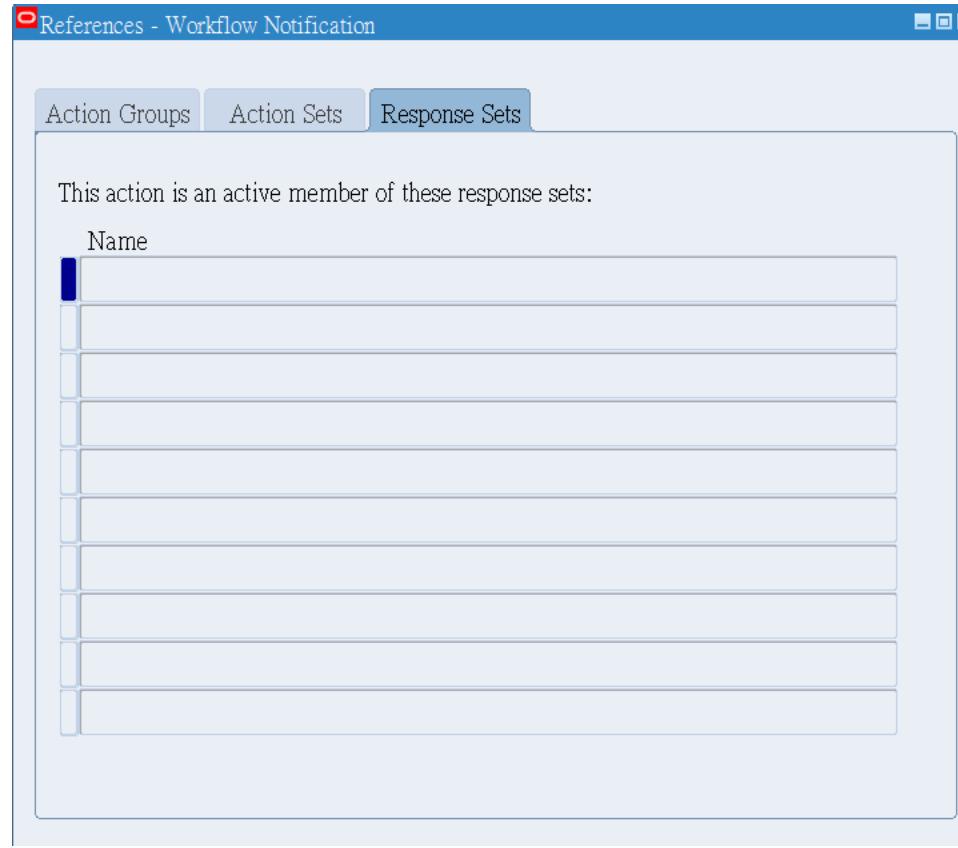
Defining All Types of Alerts

- *Alert Action References*



Defining All Types of Alerts

- *Alert Action References*



Defining All Types of Alerts

- *Escalation Groups*

Escalation Groups - Jack_Test_Escalation

Group Name	Description	Type
Normal Group		Message

Escalation Group Members

Action Name	Level	Enabled	End Date
Alert Normal	1	<input checked="" type="checkbox"/>	
Alert Escalation	2	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	



Defining All Types of Alerts

- ## • Threshold Groups



Defining All Types of Alerts

- ## • Threshold Groups





Defining All Types of Alerts

- *Threshold Groups*

The screenshot illustrates the configuration of a threshold group. At the top, the 'Action Sets' window shows a single entry for a 'Threshold Group'. Below it, the 'Action Set Details' window provides a detailed view of the actions within this group.

Action Sets - Jack_Test_Threshold

Seq	Action Set Name	Description	Suppress Duplicates	Enabled	End Date
1	Threshold Group		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

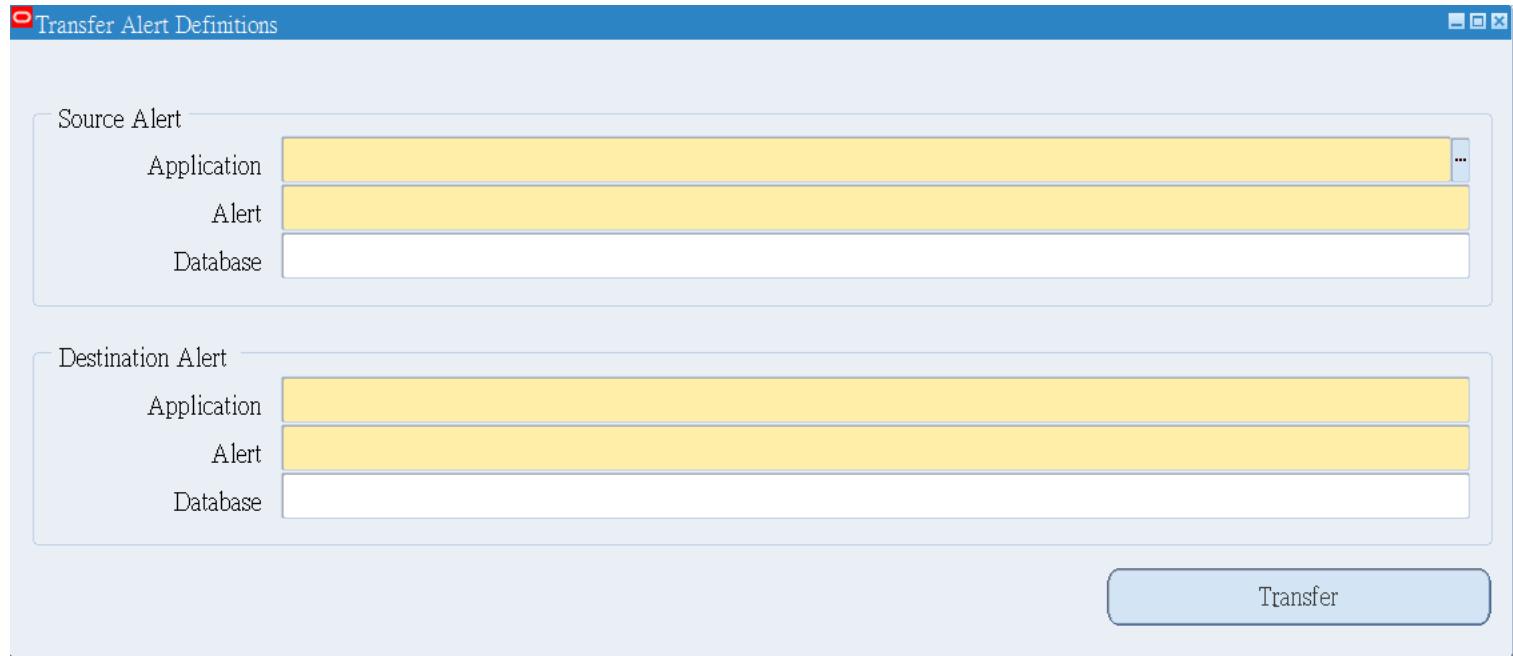
Action Set Details

Inputs		Outputs		Members	
Seq	Action	Type	Summary Threshold	On Error Action	Enabled
1	Group-Detail	Threshold Group: Met:5		Abort	<input checked="" type="checkbox"/>
2	Group-Summary	Threshold Group: Met:5		Abort	<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

A red box highlights the 'Summary Threshold' column for the first action, which is set to 'Threshold Group: Met:5'. A red arrow points from the 'Action Set Details' button in the main window to the 'Action Set Details' tab in the sub-window.

Defining All Types of Alerts

- *Transfer Alert*



Defining All Types of Alerts

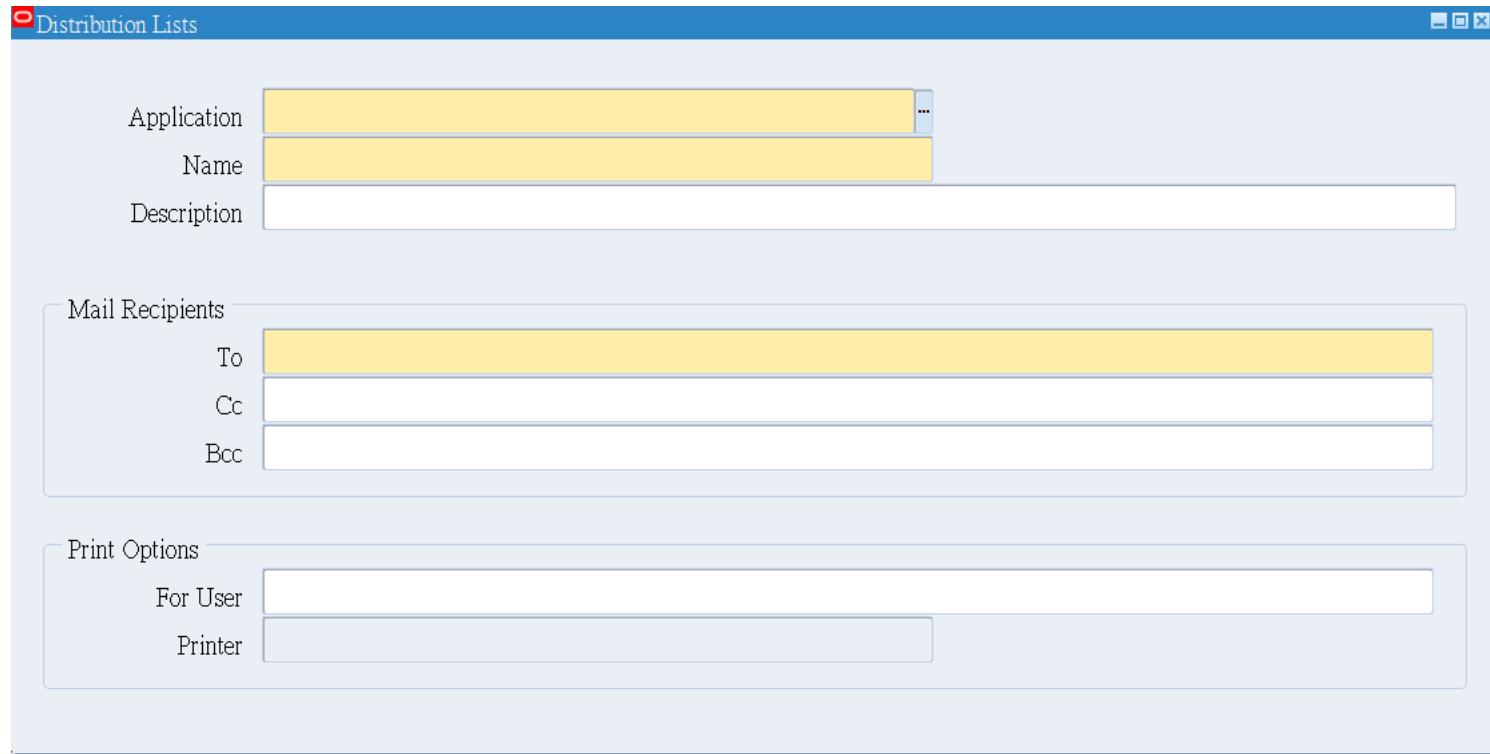
- *Define Periodic Sets*

The screenshot shows a software interface titled "Periodic Sets". At the top, there are three input fields: "Application" (with a yellow background), "Name" (with a yellow background), and "Description" (with a white background). Below these is a section titled "Periodic Set Members" containing a table with columns: Seq, Application, Name, Type, Enabled, and End Date. The "Enabled" column has a checked checkbox in the first row. The "End Date" column contains a dropdown menu with ten empty options. A vertical scroll bar is visible on the right side of the table.

Seq	Application	Name	Type	Enabled	End Date
1				<input checked="" type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	

Defining All Types of Alerts

- *Define Distribution List*



Defining All Types of Alerts

- *Define Distribution List*

The screenshot shows a Windows-style application window titled "References". Inside the window, there is a message: "This distribution list is used by the following actions:". Below this message is a table with two columns: "Alert Name" and "Action Name". The table has 10 rows, each consisting of a small blue square icon in the "Alert Name" column and a blank white space in the "Action Name" column. A vertical scroll bar is visible on the right side of the table.

Alert Name	Action Name

Chapter 3

Response Processing

自動回覆機制



Response Processing

- ❖ 針對特定Alert，要求接收者回應的動作。
- ❖ 可讓系統管理者清楚目前流程，Alert 執行Action 的狀況。
- ❖ 目的：
 - 可以減少操作間繁複的交易訊息流通。





Response Processing

0 Alerts

Application [] Name []

Description [] Enabled

Periodic Event

Periodic Details

Frequency On Demand

Start Time [] End Time [] Check Interval []

Keep 0 Days End Date [] Last Checked []

Select Statement

```
SELECT COLUMN_NAME INTO &OUTPUT1 FROM TABLE_NAME
```

Import... Export... Verify Run

Actions Action Sets Response Sets Alert Details

The screenshot shows a software interface for managing alerts. At the top, there's a header bar with a '0' icon and the word 'Alerts'. Below it, there are fields for 'Application' and 'Name', both highlighted in yellow. There's also a 'Description' field and a checked checkbox for 'Enabled'. A tab labeled 'Periodic' is selected, while 'Event' is also available. Under 'Periodic Details', the 'Frequency' is set to 'On Demand'. There are input fields for 'Start Time', 'End Time', and 'Check Interval'. Below these, there are fields for 'Keep 0 Days', 'End Date', and 'Last Checked'. A large text area labeled 'Select Statement' contains the SQL query: 'SELECT COLUMN_NAME INTO &OUTPUT1 FROM TABLE_NAME'. To the right of this text area are four buttons: 'Import...', 'Export...', 'Verify', and 'Run'. At the bottom, there are four tabs: 'Actions', 'Action Sets', 'Response Sets', and 'Alert Details'. The 'Response Sets' tab is highlighted with a red border.

Response Processing

Response Sets - [New]

Response Set Name	Description	Enabled	End Date
[New]		<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Response Actions

Response Variables



Response Processing

Variable Name	Description	Type	Max	Length	Default
		Character			



Response Processing

❖ Response Actions

➤ Valid :

--- 當 Response 是有效且正確時，所執行的 Actions

➤ Invalid :

--- 當 Response 是錯誤而無效時，或是系統無法辨認之 Response，所執行的 Actions

➤ None :

--- 過了某一特定時間仍未有 Response 時，或是 Response 錯誤無效且過了某一特定時間，所執行的 Actions



Response Processing

Valid Responses - [New]

Response Name	Text

Actions

Seq	Action	Description	Type	Enabled	End Date
				<input checked="" type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	



Response Processing

Seq	Action	Description	Type	Enabled	End Date
1				<input checked="" type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	



Response Processing

Seq	Action	Description	Type	Enabled	End Date
				<input checked="" type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	



Chapter 4

Check Alert Processes

檢視Alert執行狀態



Check Alert Process

Navigator - Alert Manager, Vision Enterprises

Functions Documents

Request:Schedule

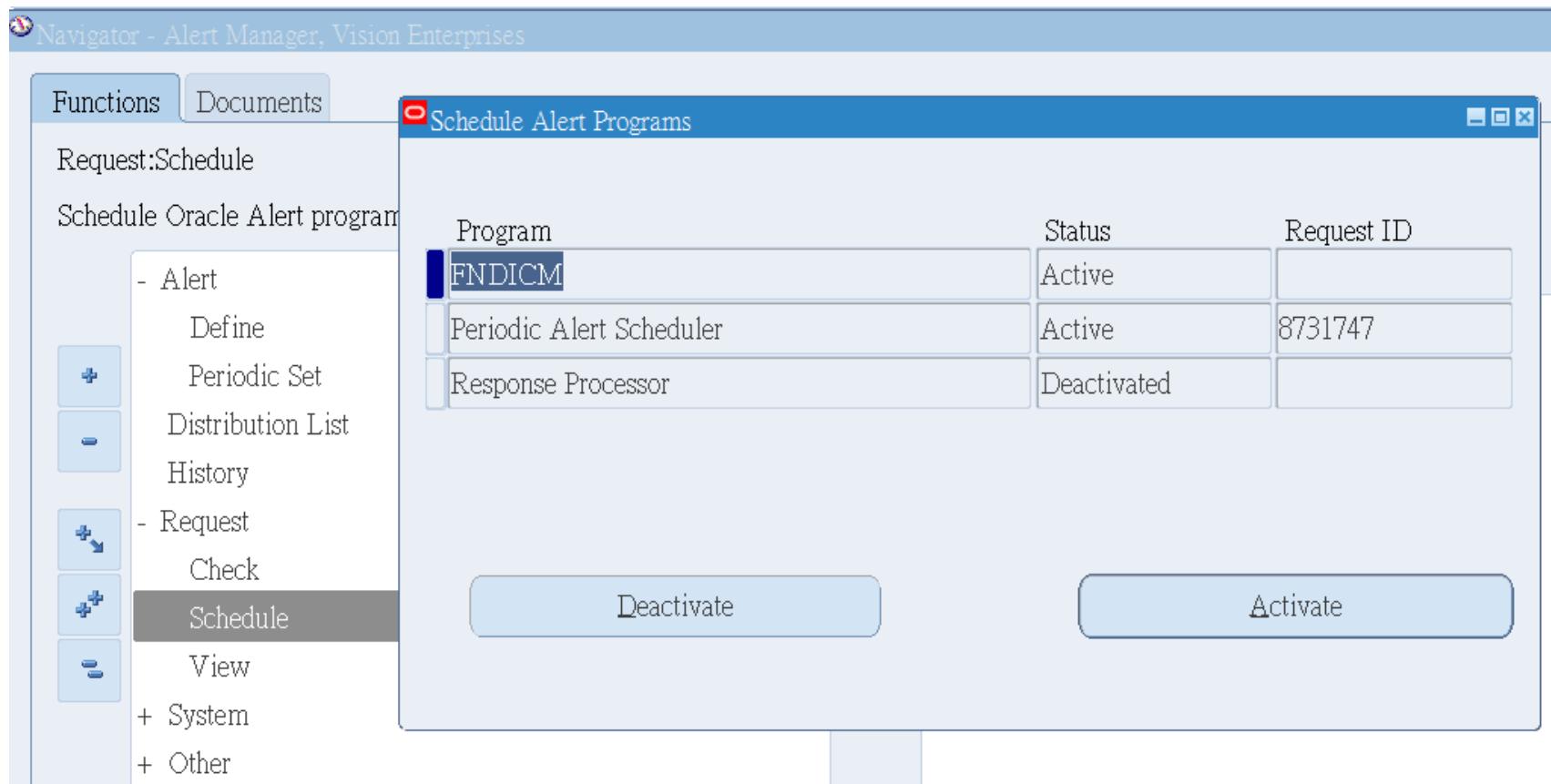
Schedule Oracle Alert programs

- Alert
 - Define
 - Periodic Set
- Distribution List
- History
- Request
 - Check
 - Schedule
- View
- + System
- + Other

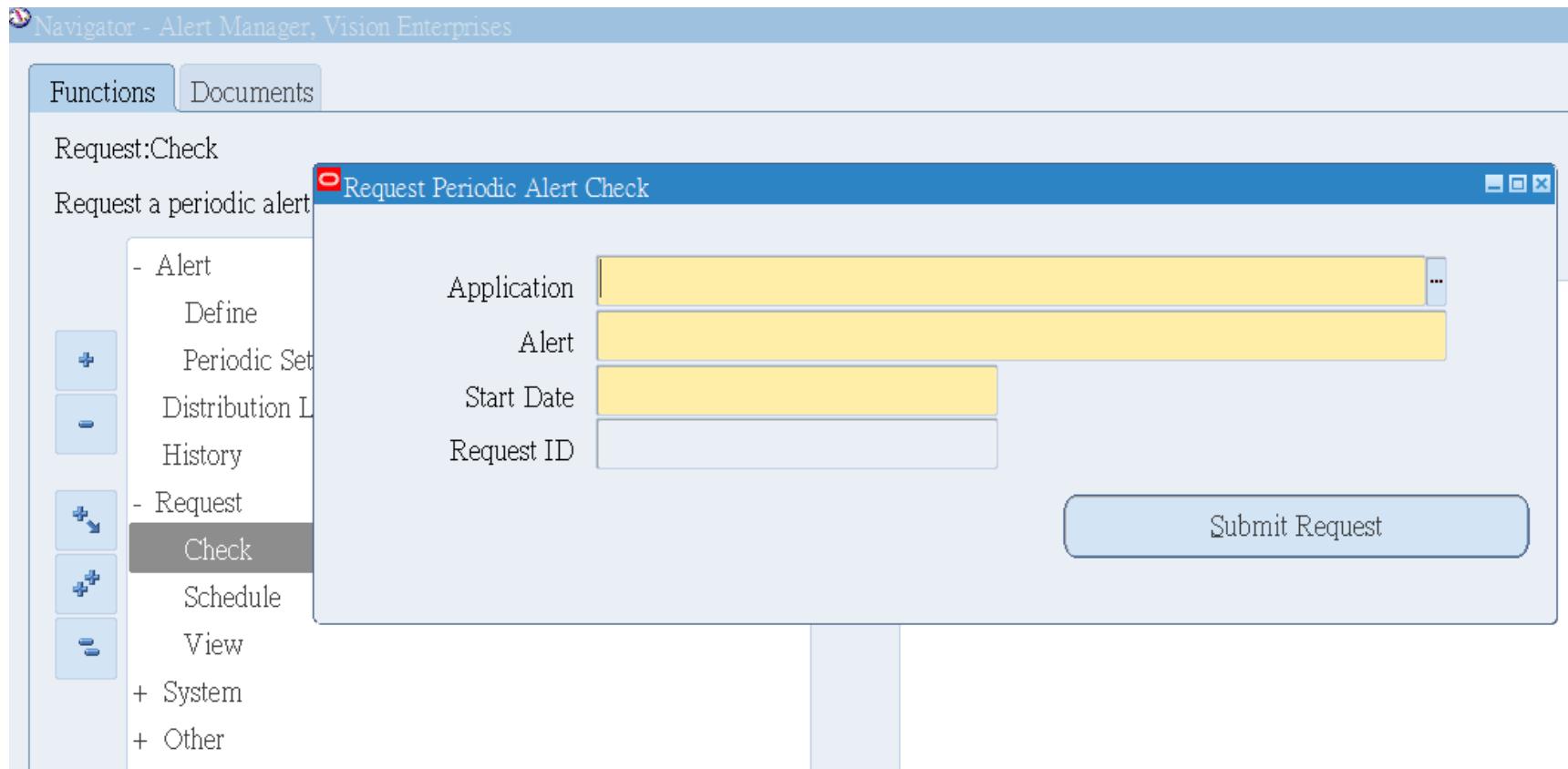
Schedule Alert Programs

Program	Status	Request ID
FNDICM	Active	
Periodic Alert Scheduler	Active	8731747
Response Processor	Deactivated	

Deactivate Activate

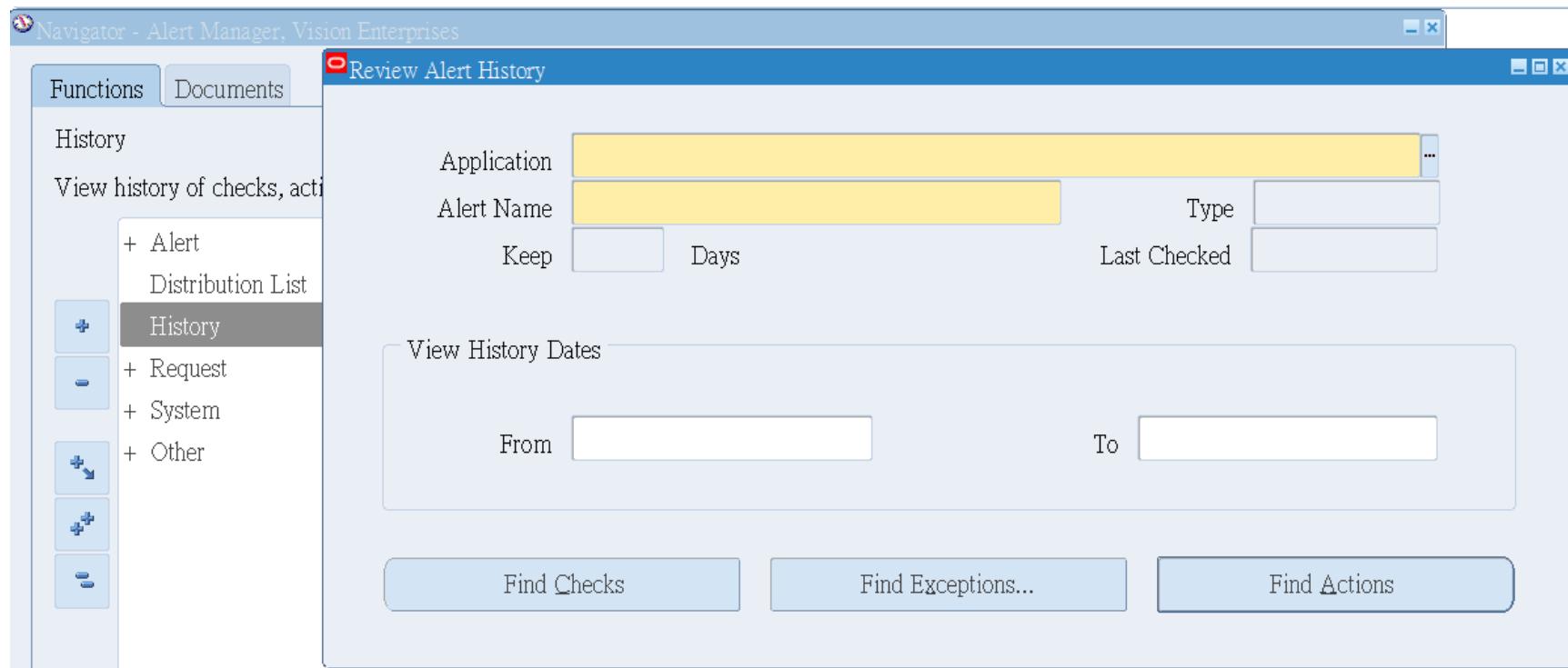


Check Alert Process



Check Alert Process

- *Reviewing Alert History*



Check Alert Process

- *Reviewing Alert History*

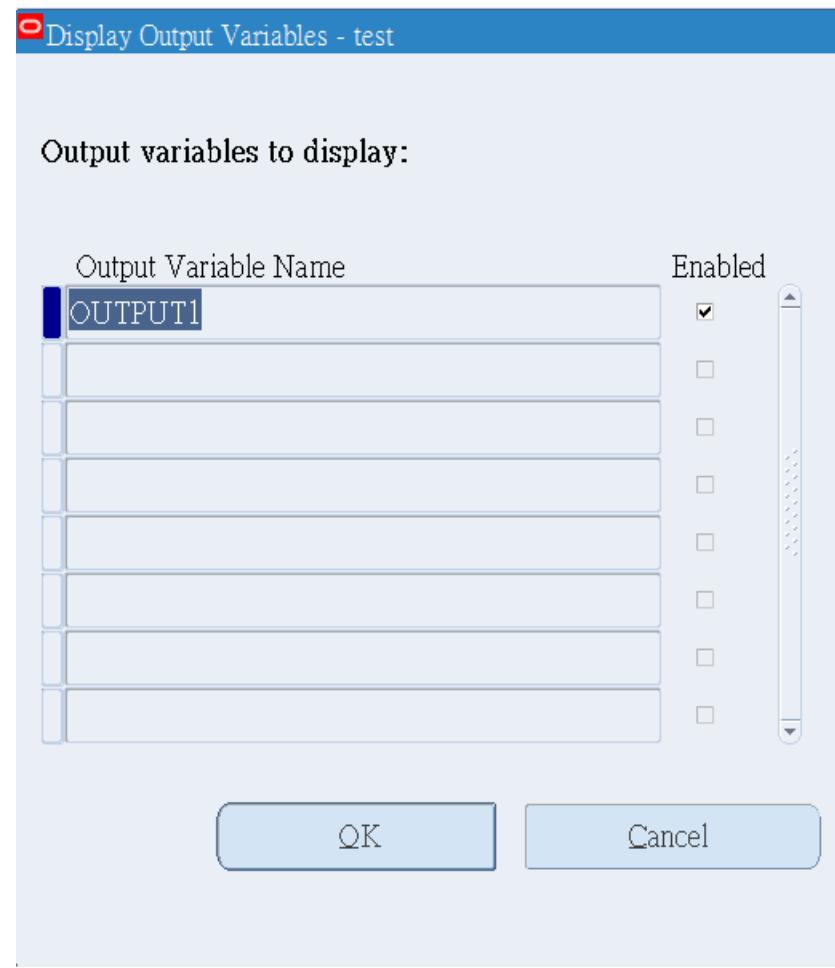
The screenshot shows a software window titled "Review Alert Checks - test". The window contains two tables:

Request					History	Purge Date
Requestor	Date	Time	Request ID	Status		

Action Set Checks					Number of
Action Set Name	Oracle ID	Status	Exceptions	Actions	

Check Alert Process

- *Reviewing Alert History*



Check Alert Process

- *Reviewing Alert History*

The screenshot shows a software interface titled "Review Alert Exceptions - test". The interface is divided into two main sections: "Request" and "Alert Exceptions".

Request: This section contains a table with four columns: "Action Set Name", "Date", "Time", and "Oracle ID". The table has several rows, each representing a request entry. The first row is highlighted with a blue background.

Action Set Name	Date	Time	Oracle ID

Alert Exceptions: This section contains a table with three columns: "Seq", "Variable Name", and "Value". The table has several rows, each representing an alert exception entry. The first row is highlighted with a blue background.

Seq	Variable Name	Value

Check Alert Process

- *Reviewing Alert History*

Review Alert Actions - test

Action Set Name	Date	Time	Oracle ID
[Redacted]			

Request

Action Set Name Date Time Oracle ID

Alert Actions

Action Name	Type	Time	Finished
[Redacted]			

Details

To
Subject
Cc
Bcc
File Name

Response Action Log



Chapter 5

Customization

Alert客製化注意事項



Customization

- ❖ 無法使用 SQL Plus 等工具的觸發
- ❖ 使用者需要有定時 Review 資料習慣
- ❖ 所用到的Tables and Column 必須在該 Application註冊
 - ad_dd.register_table()
 - ad_dd.register_column()
- ❖ 可與Distribution List 搭配使用



Customization

❖ SQL statement

- 內容必須小於64K
- 必須以(;)或(/)做結束



Summary

- ❖ **Defining Periodic Alerts**
- ❖ **Defining Event Alerts**
- ❖ **Defining Response Processing**
- ❖ **Checking Alert History**





習題 – Summary Message Alert

❖ 新增一Summary Message Alert



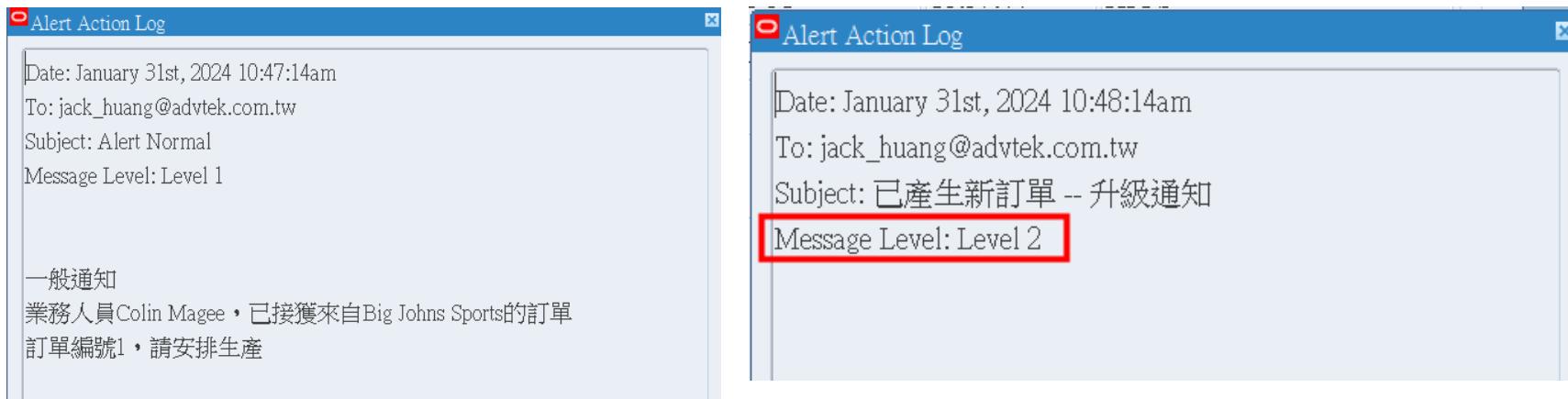
習題 – Concurrent Alert

- ❖ 新增一Alert，當Table DEM_ORDERS被更新時，
呼叫Concurrent Program 「DM0ORD51_2」



習題 - Escalation Alert

- ❖ 新增一 Escalation Alert
- ❖ 使用 DEM_ORDERS_V，其order_id = 1，模擬 Escalation Alert



習題 - Threshold Alert

- ❖ 新增一Threshold Alert
- ❖ 當某一訂單的明細行(DEM_ORDER_LINES)超過5筆，使用Summary來發送mail，未超過5筆使用Detail來發送mail



習題 - Threshold Alert

Review Alert Actions - Jack_Test_Threshold

Action Set Name	Date	Time	Oracle ID
Threshold Group	2024-01-30	17:47:09	APPS
Threshold Group	2024-01-30	17:45:39	APPS
Threshold Group	2024-01-30	17:44:39	APPS
Threshold Group	2024-01-30	17:43:09	APPS
Threshold Group	2024-01-30	17:41:39	APPS

Request

Action Name	Type	Time
Action-Summary	Message	17:45:39

Alert Actions

Details

To: jack_huang@advtek.com.tw

Subject: Threshold Summary Message

Cc:

Bcc:

File Name:

Response Action Log



習題 - Threshold Alert

Review Alert Actions - Jack_Test_Threshold

Action Set Name	Date	Time	Oracle ID
Threshold Group	2024-01-30	17:47:09	APPS
Threshold Group	2024-01-30	17:45:39	APPS
Threshold Group	2024-01-30	17:44:39	APPS
Threshold Group	2024-01-30	17:43:09	APPS
Threshold Group	2024-01-30	17:41:39	APPS

Request

Action Name	Type	Time
Action- Detail	Message	17:47:09

Alert Actions

Details

To: jack_huang@advtek.com.tw

Subject: Threshold Detail Message

Cc:

Bcc:

File Name:

Response Action Log



