

How-to Guide  
SAP NetWeaver '04s



# How To... Display SAP Alerts in Visual Composer

Version 1.00 – March 2006

Applicable Releases:  
SAP NetWeaver '04s SPS07 or greater

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# 1 Business Scenario

You'd like to easily model an interactive analytical application that displays all SAP alerts on your portal, and deploy this application to an iView in the portal. To do this, you use SAP NetWeaver Visual Composer and you add an alert data service into an analytical application. You then deploy this application to Adobe Flash format, and view and interact with the resultant Flash-based iView on the portal.

## 2 Introduction

All SAP and SAP BI systems support a sophisticated alert and notification mechanism. This alert framework collects messages associated with a particular system and sends related alerts to various services and devices. While the alerts can be send to many different devices, they are typically processed in the portal's Universal Worklist (UWL).

In NetWeaver 2004, this alert system was called the Alert Framework. As of NetWeaver 2004s, it is called Information Broadcasting.

### 2.1 Prerequisites

All you need to model this scenario is delivered in SAP NetWeaver 2004s SP Stack 07 or greater, and in this example, we deliver an alert from a BW 3.5 system.

In particular:

- **SAP BI System, with a user on this system**  
You can use alerts in Visual Composer with any type of SAP or SAP BI system that is configured as a Universal Worklist system on the portal. This example uses an SAP BW 3.5 system.
- **Conditions that lead to the broadcast of alerts**  
In this example, a query in the BW system contains exceptions that will lead to the broadcast of alerts.
- **SAP NetWeaver Portal**  
The required KMC addons are standard in the Portal in NetWeaver 2004s.
- **Visual Composer**  
Alert data service functionality was added to Visual Composer in NetWeaver 2004s SP Stack 07.

## 2.2 For More Information

This How-To paper steps you through configuring your system and builds a rudimentary Visual Composer model with an alert data service.

- To learn more about building applications with Visual Composer, see the Visual Composer documentation.
- To learn more about the Universal Worklist, see:
  - [http://help.sap.com/saphelp\\_nw04s/helpdata/en/39/a1bb5c4c0d4ab4a417e87ef35f1efa/frameset.htm](http://help.sap.com/saphelp_nw04s/helpdata/en/39/a1bb5c4c0d4ab4a417e87ef35f1efa/frameset.htm)
- To learn more about Information Broadcasting, see:
  - [http://help.sap.com/saphelp\\_nw04s/helpdata/en/a5/359840dfa5a160e1000000a1550b0/frameset.htm](http://help.sap.com/saphelp_nw04s/helpdata/en/a5/359840dfa5a160e1000000a1550b0/frameset.htm)
- To learn more about working with the Reporting Agent and the UWL:
  - <http://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/com.sapportals.km.docs/documents/a1-8-4/How%20to%20Integrate%20the%20BW%20Reporting%20Agent%20With%20the%20Alert%20Framework.pdf>
- To learn more about triggering alerts for the UWL:
  - <https://www.sdn.sap.com/irj/sdn/weblogs?blog=/pub/wlg/2755>
  - <https://www.sdn.sap.com/irj/sdn/weblogs?blog=/pub/wlg/1880>

## 3 The Step By Step Solution

The subsections below outline the major steps involved:

1. Configure an SAP BI system in the portal
2. Configure a Universal Worklist system
3. Issue alerts
  - Configure the Information Broadcasting system (SAP BI Systems in NetWeaver 2004s and later)
  - Build a scheduling package (SAP BW 3.5 Systems and earlier)
4. Build an alert data service into a model in Visual Composer

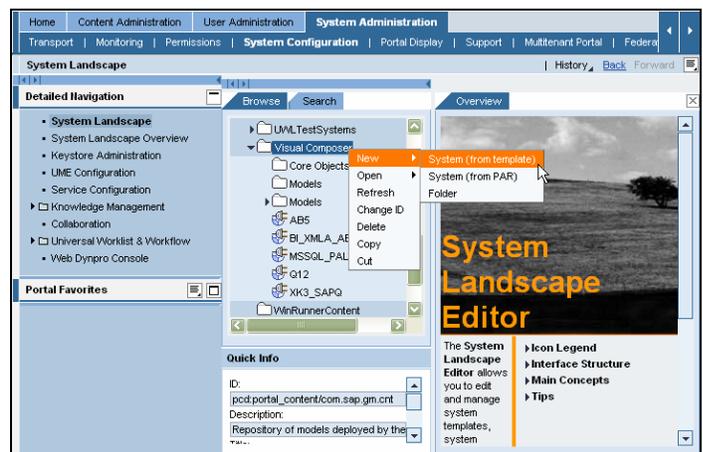
### 3.1 Configure an SAP BI System in the Portal

Visual Composer can access any system available on the portal. Alerts will be broadcast from any SAP or SAP BI system configured as a Universal Worklist system. One type of condition that can trigger an alert is an exception in a query in a BI system, which we use in this example. Therefore, the first step is to create an SAP BI system and configure the user mapping and required roles (in this example, we use an SAP BW 3.5 system).

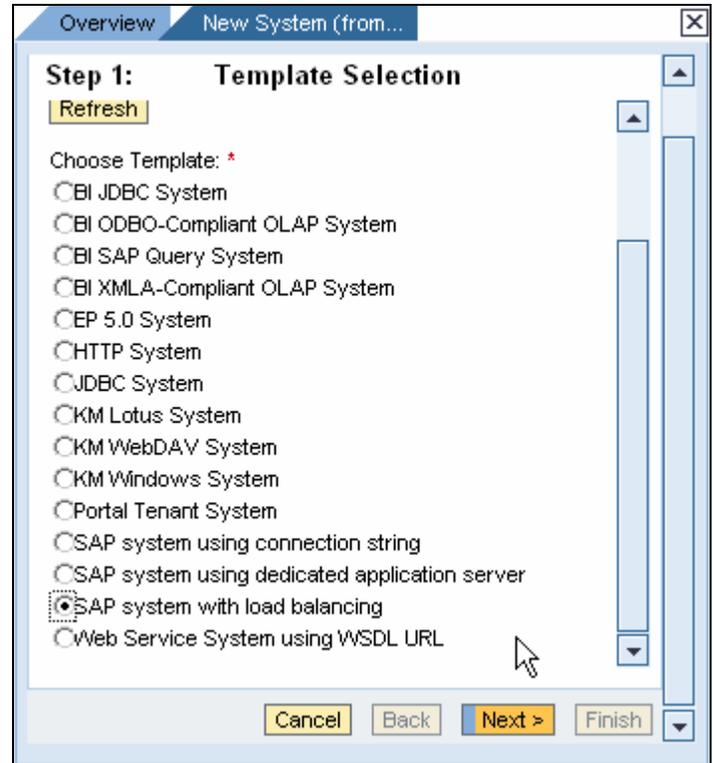
If you have already prepared an SAP or SAP BI system in the portal to use with Visual Composer, skip down to step 16 below to ensure you have assigned the required roles.

To create a new system in the Portal System Landscape:

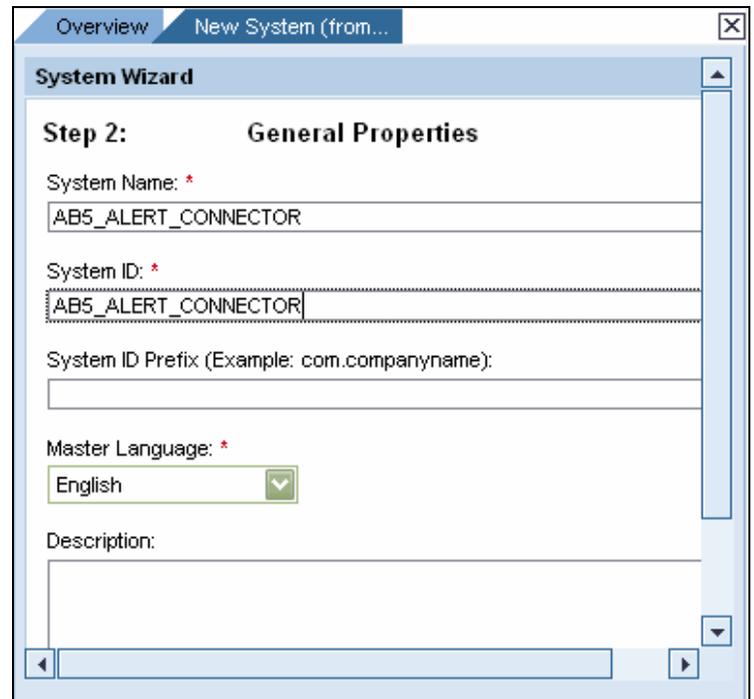
1. Log on to the portal as an administrator and select *System Administration* → *System Configuration* → *System Landscape*.
2. On the *Browse* tab, select a folder or subfolder in the *Portal Content* folder and right-click to access the context menu.
3. Choose *New* → *System (from template)* from the context menu.



- In the System Wizard, on the *Template Selection* screen, select one of the three SAP systems and choose *Next*. In this example, we select *SAP system with load balancing*.



- On the *General Properties* screen, configure the *System Name* and *System ID* fields with values of your choice for your data source, and choose *Next*.
- Choose *Finish* to create your system.



To configure the connection properties:

7. On the <system name> tab, open the system for edit by choosing *Open the object for editing*, and choose *OK*.
8. From the *Property Category* drop-down list, select *Connector*, and configure the connection properties required for your particular data source, and choose *Save* to save the values.

See the System Landscape documentation for information on configuring systems on the portal, at [help.sap.com](http://help.sap.com) --> *Documentation* --> *SAP NetWeaver* --> *SAP NetWeaver 2004s* --> *SAP NetWeaver by Key Capability* --> *People Integration by Key Capability* --> *Portal* --> *Portal Administration Guide* --> *System Administration* --> *System Configuration* --> *System Landscape*

The screenshot shows the 'Property Editor - AB5\_ALERT\_CONNECTOR' window. The 'Property Category' is set to 'Connector'. The following properties are visible:

Property	Value
Group	PUBLIC
Logical System Name	AB5CLNT003
Message Server	.wdf.sap.corp
Remote Host Type	3
SAP Client	003
SAP System ID (SID)	AB5
Server Port	6035

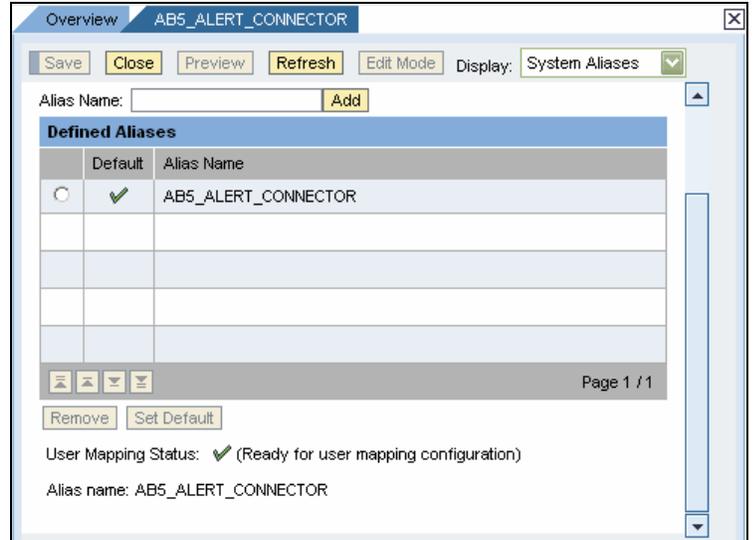
9. From the *Property Category* drop-down list, select *User Management*.
10. From the *User Mapping Type* drop-down list, select *admin,user*, and choose *Save* to save the value.

The screenshot shows the 'Property Editor - AB5\_ALERT\_CONNECTOR' window. The 'Property Category' is set to 'User Management'. The following properties are visible:

Property	Value
Authentication Ticket Type	SAP Logon Ticket
Logon Method	SAPLOGONTICKET
User Mapping Fields	
User Mapping Type	admin,user

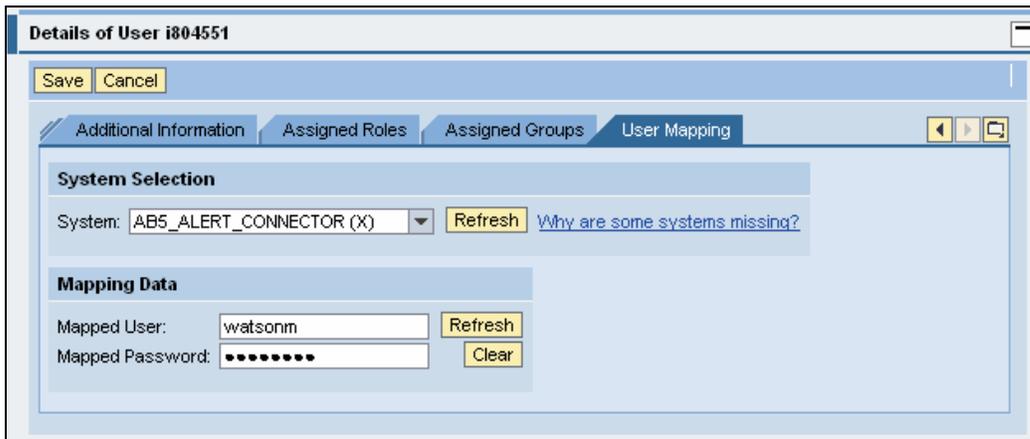
Create an alias for this system. This is how Visual Composer will refer to the system:

11. Using the *Display* drop-down list, select *System Aliases* and add an alias to your system. In this example, we name the alias *AB5\_ALERT\_CONNECTOR*.
12. Choose *Save* to save the value.



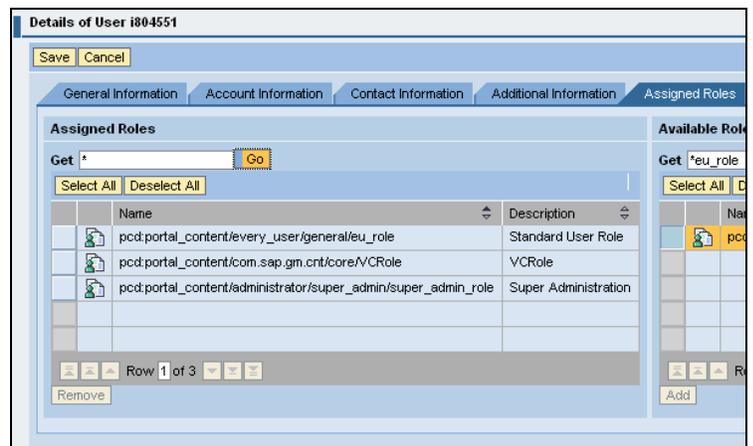
Next, configure user mapping so that your new BI system user and portal user map to each other:

13. From the top-level portal navigation, select *User Administration* → *Identity Management*.
14. *Get* and select your user name, and in the *Details* section, select the *User Mapping* tab.
15. Choose *Modify* and map your portal user to the user of the newly created system, also configuring your user name and password for the system. Choose *Save* to save your values.



Next, assign the required roles to your user:

16. Select the *Assigned Roles* tab, and choose *Modify*.
17. *Get* and assign the following three roles:
  - **Standard User Role**  
Required for the alerting framework. Adds a *Work* that contains the Universal Worklist to the portal.  
You can enter the following



pattern to get this role:  
\*eu\_role

- **VCRole**  
Required for Visual Composer.  
You can enter the following  
pattern to get this role:  
\*VCRole
- **Super Administration**  
You can enter the following  
pattern to get this role:  
\*super\_admin\_role

Choose *Save* to save your values.

Your system is now created and your user is prepared to access the SAP alert system.

## 3.2 Configure a Universal Worklist System

Next, configure your system to be a Universal Worklist system, so that alerts from it will be sent through the alert framework.

18. Still logged in to the portal as an administrator, select *System Administration* → *System Configuration* → *Universal Worklist & Workflow* → *Universal Worklist – Administration*.
19. Choose *New*.
20. In the *System Alias* field, enter the alias for the system created in 3.1 above.
21. From the *Connector Type* dropdown list, select *AlertConnector*.
22. To prevent deltas from being retrieved, remove any value in *Pull Channel Delta Refresh Period (in Seconds)*.
23. Choose *Save*.
24. In the connector list, click *Register* in the *Action* column to register the connector with the UWL service.

The screenshot shows the 'Universal Worklist - Configuration' window. At the top, there are buttons for 'New', 'Edit', and 'Delete'. Below that, there are two tabs: 'Register Item Types for All Systems' and 'Register Item Types for New Systems Only'. The main section is titled 'Create New System Connection'. It contains the following fields:
 

- System Alias:** ABS\_ALERT\_CONNECTOR
- Connector Type:** AlertConnector (selected in a dropdown menu)
- Web Dynpro Launch System:** (empty text box)
- User Roles:** (empty text box)
- System Configuration Groups:** (empty text box)
- Delta Pull Channel Refresh Period (sec):** (empty text box)
- Delta Pull Channel Snapshot Refresh Period (min):** (empty text box)

 At the bottom of the form, there are 'Save' and 'Cancel' buttons. A mouse cursor is pointing at the 'Save' button. Below the form, there is a note: 'Item type retrieval and registration requires a connection to the systems and may take a couple of minutes. Please be patient.'

The screenshot shows the 'Universal Worklist - Configuration' window displaying a table of system connectors. The table has columns for 'System Alias', 'Connector Type', and 'Action'. The 'ABS\_ALERT\_CONNECTOR' row is highlighted, and a mouse cursor is clicking the 'Register' button in the 'Action' column.

System Alias	Connector Type	Action
ABS_ALERT_CONNECTOR	AlertConnector	Register
ActionInbox	ActionInboxConnector	Deactivate
GWA	WebFlowConnector	Re-Register
Q3ACLNT004	AlertConnector	Re-Register
Q3CCLNT303	WebFlowConnector	Re-Register
NWTCCLNT003	WebFlowConnector	Re-Register
ABS_ALERT_CONNECTOR	AlertConnector	Deactivate

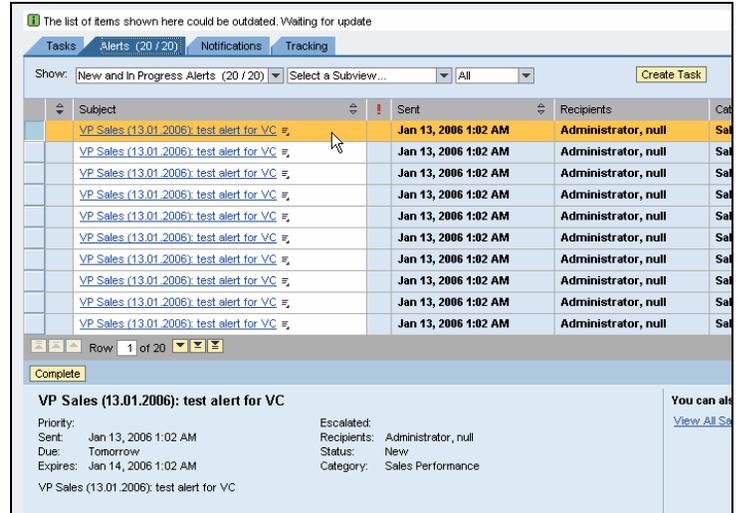
Below the table, there are 'System Configuration Groups: NetWeaverX' and 'Delta Pull Channel Refresh Period (sec): 60'. At the bottom, there are 'New', 'Edit', and 'Delete' buttons, and two tabs: 'Register Item Types for All Systems' and 'Register Item Types for New Systems Only'.

Your system is now configured as an alert connector and capable of delivering alerts into the Universal Worklist.

It may take a few minutes for connector registration to complete and alerts to be retrieved.

To view any alerts that are retrieved:

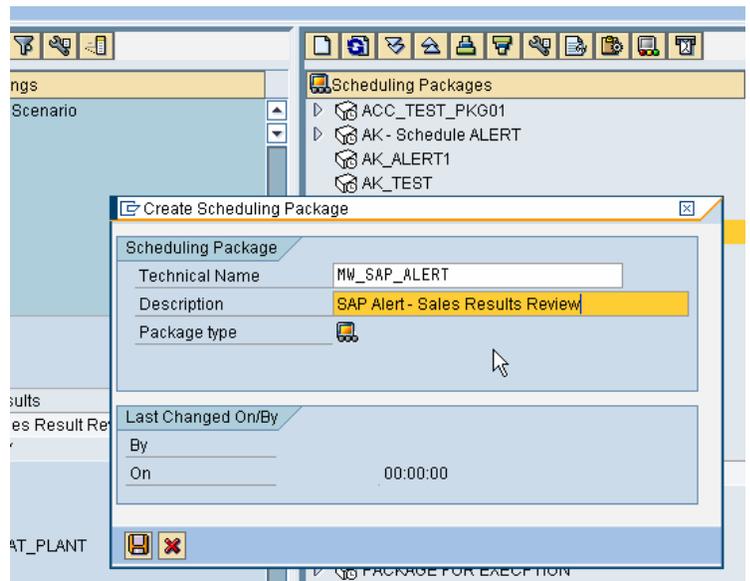
25. Select *Home* → *Work* and select the *Alerts* tab. Active alerts are displayed here.



### 3.3 Issue Alerts

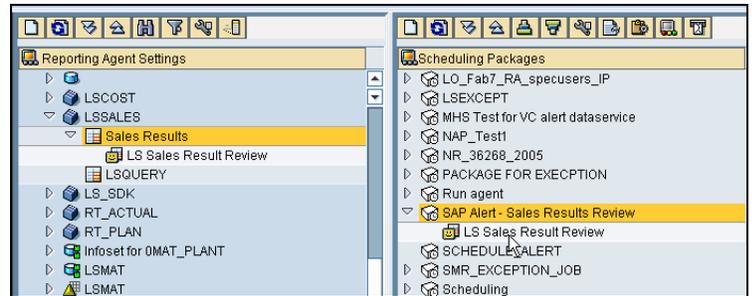
Next, you cause alerts to occur in order to populate your Universal Worklist. In this example, we have defined a query in our BW 3.5 system that contains exceptions. To cause these exceptions to occur and be broadcast to the Universal Worklist, we build a scheduling package in the Reporting Agent. (In SAP BI systems in NetWeaver 2004s or later, you use the Information Broadcasting system).

26. Log on to your BW system and go to Administrator Workbench: Reporting Agent.
27. In *Exceptions*, under *Scheduling Packages*, create a new scheduling package and save it.

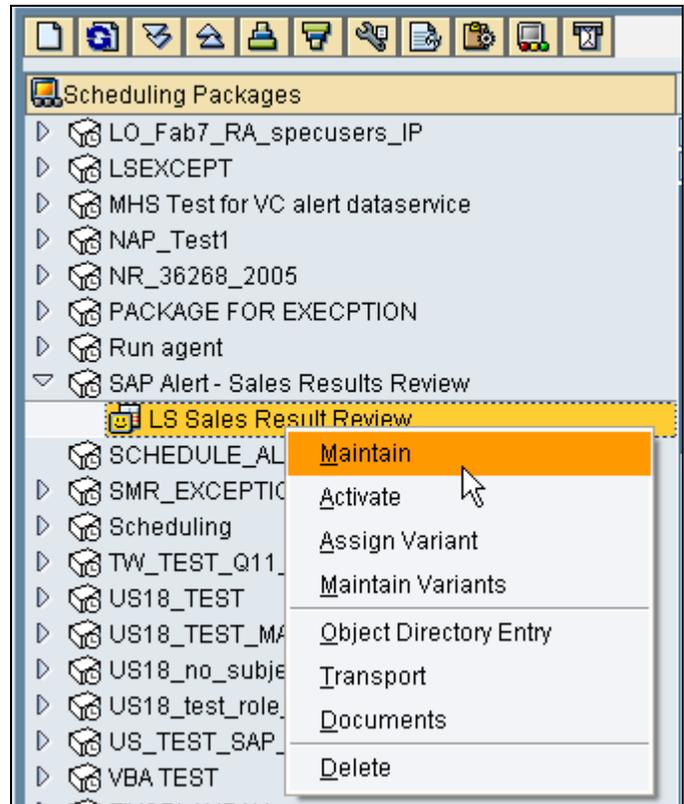


28. Configure it with a report that will generate exceptions.

Make sure you are using a report that has been defined in an alert category in which your user is a recipient.

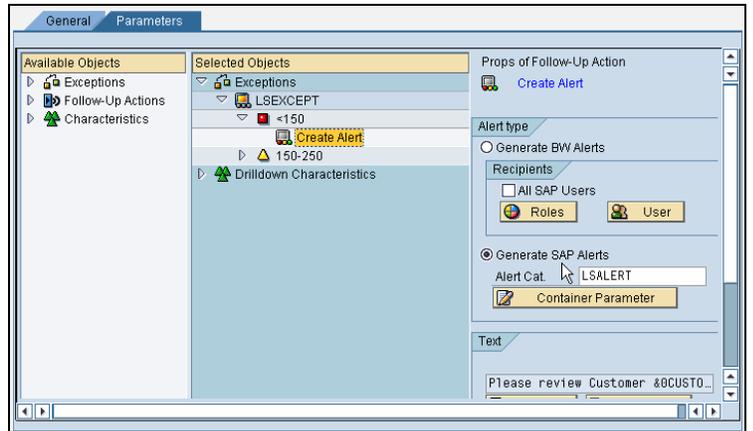


29. Right-click the report under the scheduling package, and from the context menu, select *Maintain*.



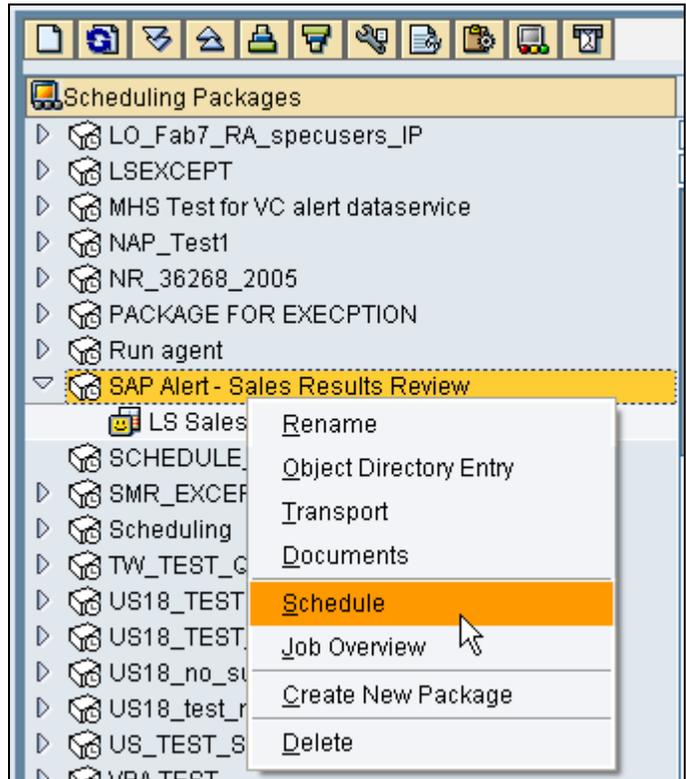
Make sure the report is configured to generate SAP alerts when an exception occurs.

30. On the *Change Reporting Agent Settings* screen, select the *Parameters* tab.
31. In the *Selected Objects* section, expand the Exceptions tree to the *Create Alert* node.
32. Double-click *Create Alert*, and in the *Alert Type* section, select *Generate SAP Alerts*.
33. *Save and Activate* the report.



Return to the Administrator Workbench to schedule the package:

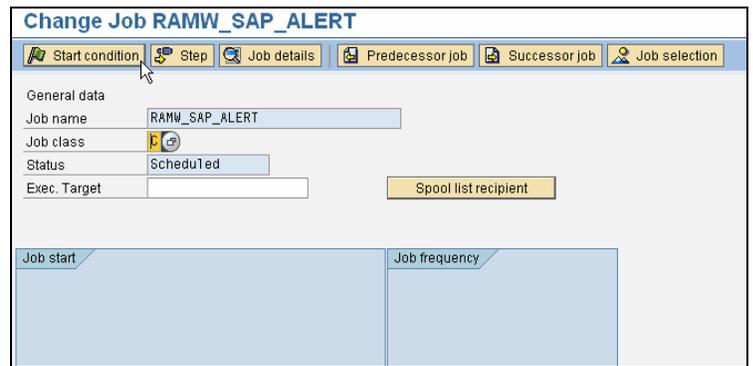
34. Select and right-click the package.
35. From the context menu, select *Schedule*.



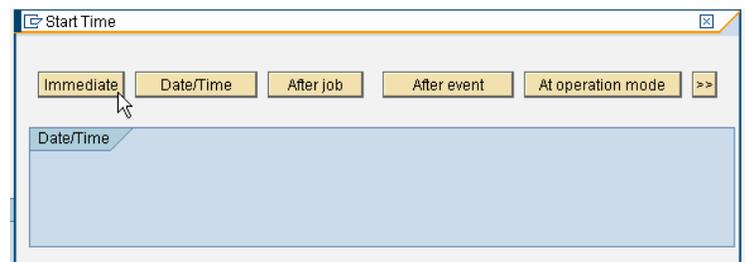
36. On the *Change Job* screen, select *Start condition*.
37. Select *Immediate*, and click *Save*, and *Save* again to return to the Reporting Agent.

The job should now begin to execute, generate exceptions, and send the exceptions to the alert framework.

1)



2)



Now return to the portal and revisit the Universal Worklist to verify that the alerts have been retrieved:

38. Log back in to the portal, select *Home* → *Work*, and select the *Alerts* tab. Active alerts are displayed here.

It may take a few minutes for your alerts to be delivered here. The alerts that appear here will be displayed in Visual Composer in an alert data service.

To learn more about triggering alerts, see the references in *For More Information*.

Now return to the portal and revisit the Universal Worklist to verify that the alerts have been retrieved:

39. Log back in to the portal, select *Home* → *Work*, and select the *Alerts* tab. Active alerts are displayed here.

The alerts that appear here will be displayed in Visual Composer in an alert data service.

The list of items shown here could be outdated. Waiting for update

Subject	Sent	Recipients	Cat
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal
VP Sales (13.01.2006): test alert for VC ¶	Jan 13, 2006 1:02 AM	Administrator, null	Sal

Row 1 of 20

**Complete**

VP Sales (13.01.2006): test alert for VC

Priority:	Escalated:
Sent: Jan 13, 2006 1:02 AM	Recipients: Administrator, null
Due: Tomorrow	Status: New
Expires: Jan 14, 2006 1:02 AM	Category: Sales Performance
VP Sales (13.01.2006): test alert for VC	

You can also [View All Alerts](#)

To learn more about triggering alerts, see the references in For More Information.

### 3.4 Build an Alert Data Service into a Model in Visual Composer

Finally, you add an alert data service to a Visual Composer model and deploy the model to the portal.

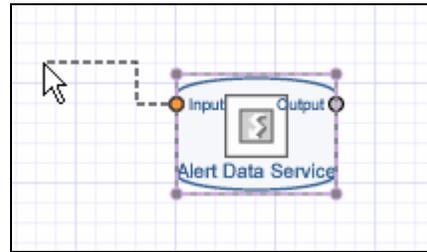
40. Launch Visual Composer in the portal in which you configured your system.
41. Open an existing model in which to integrate your alerts, or create a new model.
42. Navigate into an existing iView or create a new one and navigate into it.
43. From the *Tools* menu, choose *Alert Data Service*.
44. Choose *Generate* to place the alert data service on your storyboard in the iView.



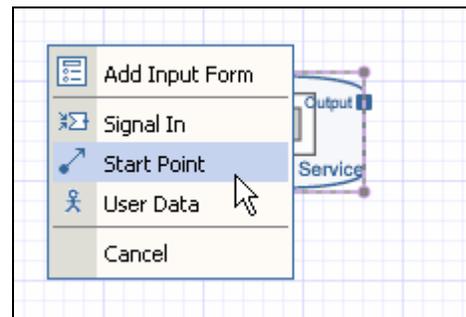
An icon representing the alert data service is created on the storyboard.

45. Drag from the data service's *Input* port and from the context menu, select *Start Point* to create a start point so that the iView automatically triggers the service at runtime.

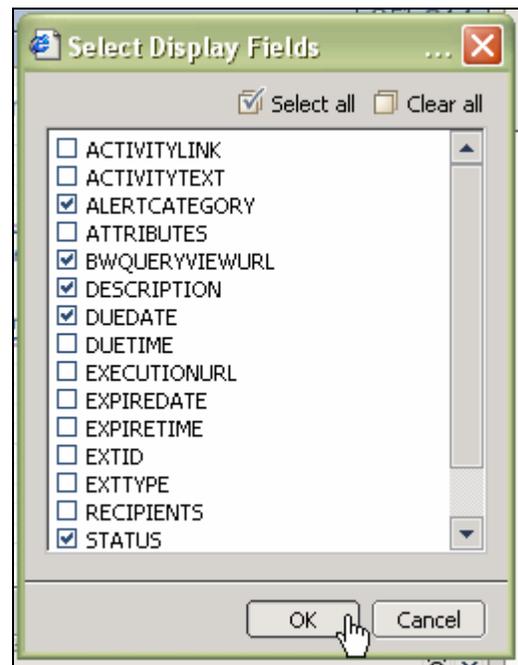
1)



2)

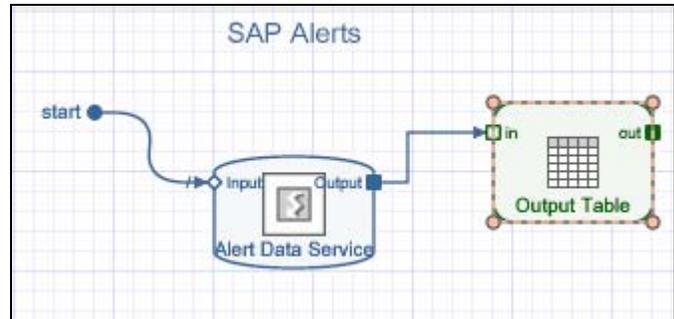


46. Drag from the data service's *Output* port and select *Add Table View* to create a table in which to display the alerts. The *Select Display Fields* dialog box appears.
47. In the *Select Display Fields* dialog box, select the alert attributes you want to see in the table, and click *OK*.



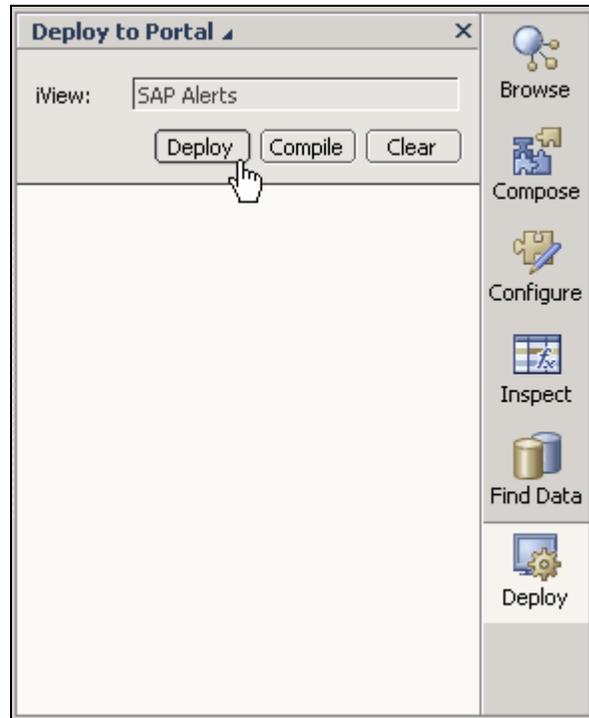
At this point, your model is complete and ready to be deployed to the portal.

48. Save your model.



49. Make sure your compiler is set to Adobe Flash format: From the main menu, select *Tools* → *Options*. Select the *Compiler* tab, and from the *Runtime* dropdown box, select *Flash*.

50. To deploy, go to the *Deploy* task panel, and choose *Deploy*.



51. Once the model is compiled and deployed, click the name of the model under the *Deployed successfully* message to launch your iView in the portal.



Output Grid											
Extid	Subject	Description	Exttype	Alertcategory	Recipients	Executionurl	Duedate	Duetime	Expiredate	Exptime	Status
43C6D27DD80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D287D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D291D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D29BD80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2A5D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2AFD80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2B9D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2C3D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2CDD80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2D7D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2E1D80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2EBD80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New
43C6D2FED80E2	VP Sales (13.01.2	VP Sales (13.01.2	LSALERT	Sales Performanc	USER.PRIVATE_D		Feb 01, 2007	12:00 AM	Feb 01, 2007	12:00 AM	New

If you don't see any alerts in your iView in the portal, verify that the Universal Worklist is retrieving alerts by viewing *Home* → *Work* in the portal.

To learn more about building models with Visual Composer, see the references in the For More Information section.

[www.sap.com/netweaver](http://www.sap.com/netweaver)