



PUBLIC

Employee Central: Managing Alerts and Notifications





Document Details

Name	Objective	Audience
EC: Managing alerts and notifications	Explain the purpose of alerts and notifications and how to manage them effectively.	SAP SuccessFactors Customers: IT and HR professionals.
		SAP SuccessFactors Implementation Partners: Consultants, solution architects, and project managers

Change Log

Version	Date	Description
1.0	20.01.2020	Initial version
1.1	25.05.2020	Template adjustment and reference updated
1.2	30.06.2022	Business rules are updated with delete old pending alert.
1.22	07.09.2022	Updated business rules for the contract end date and work permit expiry date to check that the end date must be greater than the alert interval from today. Added several recommendations 6.10.9, 6.10.10 and KBA.
1.23	12.09.2022	Added 7.3 section – delete pending alerts flag
1.24	28.09.2022	Added 7.11 section – Scenario 8 and 7.12.11. Updated figure 1 with the latest home page.
1.25	03.08.2023	Formatting changes
1.5	27.02.2023	Added Scenario – Temporary worker to permanent employee

Supported Releases

Product	Release - From	Release-Valid till
SAP SuccessFactors Employee Central	1911	

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The recommendations in this document are based on the functionality available up to SAP SuccessFactors release mentioned above. Future functionality can impact the recommendations provided by this document. We strive to keep these recommendations up to date, however, in case you find that recent new functionality has not yet been considered in the latest version of this document, please reach out to your Customer Success Manager / Partner Delivery Manager, or send an email to SAPSuccessFactorsIDPDoc@sap.com.

Implementation Design Principles (IDPs) for SuccessFactors solutions are delivered by SAP for helping customers and partners on how to choose the most appropriate strategy and solution architecture for SuccessFactors implementations. IDPs are compiled taking into consideration the experience of many implementation projects and addressing frequent business requirements as well as real-life implementation challenges. They are continuously reviewed and updated as product functionality evolves. In addition, the reader is advised to read and familiarize with essential and additional product-related documentation which includes Implementation Guides, SAP Notes, SAP Knowledge Base Articles, and additional assets as referenced in this document, see chapter 8.

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1 WHAT'S NEW

OCT 2022

- The delete pending alert explained with a real-life example.
- All relevant scenarios are now updated with the delete pending alert.
- New scenario Alert after Hire date.
- Example of using a link in alerts is added.

Aug 2023

Formatting changes

Feb 2024

• Added scenario on Temporary worker converted to permanent employee.

2 TERMINOLOGY

The following table explains some abbreviations used in this document.

Abbreviation	Description
EC	Employee Central
ERP	SAP Enterprise Resource Planning, often referred to in the document, pertains to SAP HCM on-premise system
MDF	Meta Data Framework
RBP	Role-Based-Permissions
UI	User Interface
IDP	Implementation Design Principle
СММ	Contingent Workforce Management

3 ABSTRACT

Employee Central Alerts are period/time-based triggers based on specific conditions that create a To-Do alert or send an email notification to the user with a configured message. Notifications are pre-defined messages provided to employees/administrators that specify an approaching due date. This triggers a reminder for the users to take appropriate action that is required before the due date (in some cases after a date). Typical use cases for alerts/notifications include end of a probation period, end of the contract, retirement, expiry of work permit. Each of such alerts requires business rules to determine the conditions to send out a reminder. The reminder can be in the form of an email notification, an alert in the "To-Do Take Action tile" or both email and alert.

This IDP showcases typical business scenarios needing alerts and notifications with business rules in an efficient way. The document helps in understanding the Job for alerts. This will also provide recommendations on how to avoid some common mistakes during configuration.

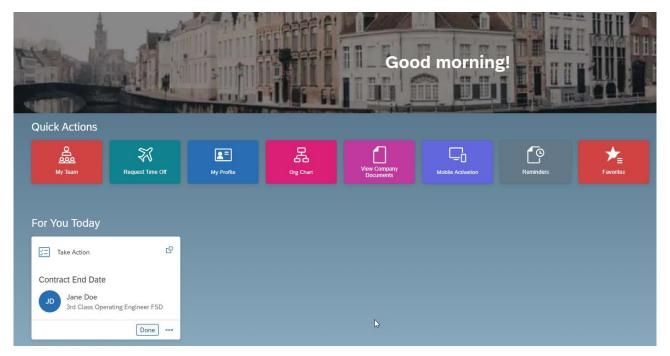
4 INTRODUCTION

Due dates can be configured and set up in different portlets. Alerts are created using business rules assigned to the supported portlet (HRIS element). They are:

Job Information (jobInfo)

- Compensation Information (complnfo)
- o Employment Details (employmentInfo)
- Work Permit Information (workPermitInfo)
- o Global Assignment Details (globalAssignmentInfo)
- Recurring Payment (payComponentRecurring)
- Non-Recurring Payment (payComponentNonRecurring)

Alerts and notifications can also be created on MDF objects such as "Position", "Work Order" or custom objects. Business rules are associated with the "SaveAlert" event type for HRIS elements and "PostSave" rules for MDF Objects. When the conditions in the business rule are met, an alert is generated in the "For You Today" quick action on the Home Page or under "Take Action" under the To-Do section. An email notification can also be configured (to the CC role) to send to the users defined in the workflow.



or



Figure 1

The portlets (objects) that do not support alerts and notifications include:

- National ID (nationalIdCard)
- o Email Information (emailInfo)

- Emergency Contact (emergencyContactPrimary)
- o Social Account Information
- Jobs Relationship Information (jobRelationsInfo)
- Payment Information (paymentInfo)
- Pension Payouts Information (pensionPayoutsInfo)
- Personal information (personalInfo)
- Person Information (personInfo)
- Personal Relationships Information (personRelationshipInfo)
- o Phone Information (phoneInfo).

5 BUSINESS REQUIREMENT

5.1 Functional Requirements

Often users want to get a reminder that due dates are approaching. This reminder informs the HR administrators, managers, or employees to take appropriate business actions before the end date of the events occurs.

Different types of end dates can be set up in different portlets, and notifications can be triggered based on the end dates.

Here are some of the common scenarios where alerts can be useful:

Scenario	Alert on Object	Action Triggered
1	Job Information - Contract End Date	Create an alert and email notifications to two dynamic groups 14 days before Contract End Date.
2	Global Assignment – Planned End Date	Alert a manager 5 days before the global assignment ends for the direct report. The alert helps to prepare the employee to return to the home assignment.
3	Position (MDF Object) – custom date field	Send an alert to a manager and a dynamic group 14 days before the end date of a temporary unapproved position. The position can either be extended or converted to a permanent position.
4	Work Permit Expiry Date	Trigger multiple alerts before the work permit expires. One alert is sent 3 months before and another alert 1 month before the expiry date. Multiple alerts help to ensure legal documents are renewed in time to avoid time gaps in the work permits.
5	Time Off – Return from Leave	A manager receives an alert 2 days before the direct report returns from a paid leave.
6	Time Off – Duration of Leave	An alert is sent when an employee has reached 25 days into a 12-month leave. The alert is used to monitor leaves that have reached a threshold.

7	Work Order End Date	An alert is triggered when the work order ends in 90 days using the Off-Cycle Event Batch.
8	Employment Details	An alert is created when the employee has been hired/rehired for month and 1 week. This allows the manager to check on the employee.

5.2 Technical Requirements

5.2.1 Alert Message

Create the alert message in the transaction Manage Data that will be displayed to the alert receiver. This message is displayed in the email notification and in the alert when the user clicks on the To-Do Take Action tile on Home Page. Alert messages also support translations using the localized fields "alertHeaderLocalized" and "alertDescriptionLocalized" defined on the alert message object.

5.2.1.1 Available Tags for Alert Messages

The below table shows the different tags that can be used for alert messages.

Tag Name	Description	Subject Data Type
[[EFFECTIVE_DATE]]	Effective date when data changes come	EC data
	into effect	MDF person-based data
		MDF object-based data
[[END_DATE]]	Time off end date	Time off
[[EVENT_REASON]]	Event reason for the workflow	EC data
[[OBJECT_NAME]]	Object name	MDF object-based data
[[OBJECT_TYPE]]	Object types such as position, benefits	MDF person-based data
	claims, timesheet	MDF object-based data
[[START_DATE]]	Time off start date	Time off
[[SUBJECT_USER]]	Name of the subject user the alert is for	EC data
		MDF person-based data
		Time off
[[TIME_OFF_STATUS]]	Time off status (pending/pending	Time off
	approval/canceled)	
[[TIME_OFF_TYPE]]	Time off type	Time off
[[VIEW_BLOCK_ON_PROFILE]]	Deep link to block page of People Profile	EC data

5.2.1.2 Modify Length of Alert Message

The default length of the alert message is 255 characters long. You can increase it to a maximum of 4000 characters. **In Configure Object Definition**, go to Alert Message object. Change the field length of field "alertDescription" and field "alertDescriptionLocalized" to 4000.

5.2.1.3 Alert Message in Rich Text Format

Alert Message supports HTML tags so that font size, bolding, italics, and color can be customized.



5.2.2 Business Rule

Build a business rule to define the condition that triggers the alert. Determine the best way to configure the business rule with performance in mind. Use the scenario "Generate Alerts" and select the appropriate base object. Note that in this case, the "Alert object" is already selected as a second parameter.

Use the same base object that matches the HRIS element.

Base Object	HRIS Element
Compensation Information	complnfo
Employee Information	employmentInfo
Global Assignment Details	joblnfo or employmentInfo
Job Information	joblnfo
Non-Recurring Payment	payComponentNonRecurring
Recurring Payment	payComponentRecurring
Work Permit Info	workPermitInfo

If there are different deciding factors in the business rule, using a lookup table may be more efficient. For example, if one country requires the alert to be sent ten days before the due date, another country requires the alert 15 days. Instead of creating multiple conditions in the rule, create a lookup table with the number of days for each corresponding country.

5.2.3 How to Set Up the Workflow

Like a workflow for a transactional approval such as Promotion, an alert workflow is created in **Manage Organization**, **Pay**, **and Job Structures**. To create an alert in the To-Do "Take Action" tile, add approver(s) to the step(s) in the workflow. If an email notification is needed, define it in the CC role. To receive both an alert and an email, configure the approvers in the steps as well as the CC role. The workflow is used only for routing purposes, and no workflow approval occurs. The approvers get an alert in the To-Do Take Action card, and the cc roles get an email notification.

5.2.4 Run - Job in Provisioning

The recurring job "EC Alerts and Notifications" must be set up in Provisioning to run at least once a day in the instance.

Set up a one-time job to run the EC Alerts and Notifications for the first time. Use a reasonable date that is not too far back in the past. Once the alert is created correctly, schedule a recurring job after this to check for data changes since the last successful run.

The job owner of this job "EC Alerts and Notifications" in Provisioning should be the super administrator in the system.

6 SOLUTION OVERVIEW AND CONCEPTS



Figure 2

- Often users can be overwhelmed by the number of alerts and emails. With careful consideration, determine
 the essential alerts that must be required to complement the business processes in the organization. Only
 set up the relevant reminders that are necessary for the appropriate actions. Otherwise, users may end
 up ignoring the many alerts and notifications which may fill up the For You Today "Take Action" or the
 email inbox.
- List and document all the alerts by portlet (object), by type, by country, by the number of days/months, by alert message, by the workflow in a table. In this format, if any two or more rows contain the same information, it indicates that some of the alerts are redundant and can be eliminated.

7 DETAILED SOLUTION

7.1 Basics of Alerts and Notification

It is important to understand the main components of the alerts and notifications:

- Alert Object
 - This object stores:
 - Alert message The message that must be sent for that alert.
 - Workflow This determines all the end-users for whom the notifications must be sent.

- o Effective Date The date on which the alert message is to be sent
- Business Rule
 This is used to select the record used to create the instance of the alert object.
- EC Alerts and Notifications Job

This Job is run every day which executes the business rules that are attached to the portlets as "saveAlert" rules. It is also responsible for sending the alerts to the end-users for records that match the job run date already in the alert object. If the data change of the due date requires approval, the alert is created only after the workflow is completed.

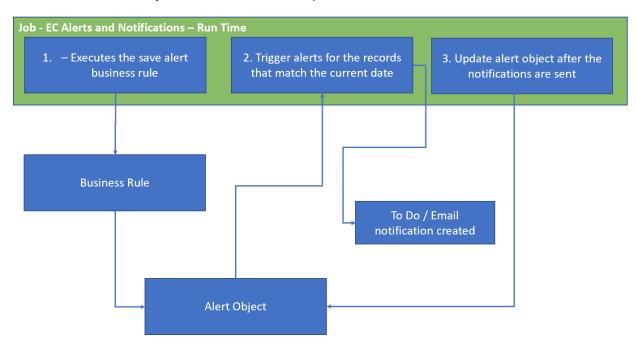


Figure 3

7.1.1 Job – EC Alerts and Notification

The crux of the whole concept of EC Alerts and Notifications depends on the Job for alerts and notifications. Often it is a misnomer that the business rule for alerts is called when the portlet is saved, but this is not always true. The business rules for alerts are executed when the Job is run for the portlets based on HRIS elements like Job Info. For MDF-based alert events, the rules are processed on the "Post Save" event.

There are three major steps of the Job:

1. Execute the business rules for Alerts

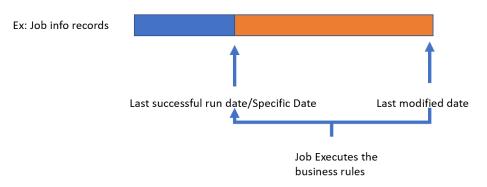


Figure 4

This goes through the portlets that are supported, picks up those records that are between the "last successful run date" and the "last modified date", and the IF condition is evaluated in all the alert business rules. When the condition is met, the Job creates an alert.

- 2. Trigger the alerts/notifications
 - In addition, the Job compares system-date with the alerts that are due. If it is due, it sends out the alerts in the To-Do "Take Action" tile and the email notifications to the appropriate users as defined in the workflow.
- 3. Update the Alert objects for which the notifications have been sent Once the email notifications/To-Do list has been sent, those records should be marked as sent (updates the status of the pending alert to completed) in the alert object. The Job also picks up the MDF alerts in the alert object and creates the notifications for them when the job run date matches an alert effective day.

Recommendations on running the Job.

* Job Name:	EC Alerts and Notifications
* Job Owner:	sfadmin
* Job Type:	EC Alerts and Notifications
Job Parameters:	Modified date since Last successful EC Alert job run date(MM/dd/yyyy): 12/05/2018 Specify a date: (We strongly suggest the option be selected only for running job once!) (MM/dd/yyyy):

Figure 5

- 1. First Time only: When the Job is run for the first time (specify a date) in the system, schedule a one-time job by specifying a reasonable start date. Please note that if the Job is scheduled to date significantly in the past, the Job can take longer to execute.
- 2. Setting after the first run: After the first Job, you can change the date to the Last successful EC Alert job run date. If you choose to run from the Last successful EC Alert job run date, the Job will scan the records that are updated after the last successful run date of the Job.

7.1.2 Reading The Log from The Job

When the Job is set up for alerts and notifications, it is valuable if we have understood the log that is generated from the Job. The Job starts, and the first important field that is read as per the configuration is the Job Run Date – which is either a specific date or the last successful run date.

	Run D	Details Details		
	Extended J	lob Run Details		
		Job successfully completed.	2019-11-22 15:12:22.84	Completed
		ecAlertsAndNotificationsjob Just finish execution:	2019-11-22 15:12:22.824	In Progress
		Total time EC Alert and Notification took to finish = 00 min(s) 01 second(s)		
		Processing of EC Alerts finished for JOB_INFO = 1 EC alerts triggered, 0 To-Dos created, 0 emails sent, No error messages. Total time took EC Alerts to process 00 min(s) 00 second(s)		
		Processing of EC Alerts started for JOB_INFO = 1 alerts checked		In Progress
		CreateECAlert has ERRORI = No active rule slice is found for effective date '2019-11-22' and externalCode 'work_permit_alert'		In Progress
		Creation of EC Alert for WORK_PERMIT_INFO started = 0 records checked		In Progress
		Creation of EC Alert for COMP_INFO completed for following rules = Total time took for EC Alert creation to complete = 00 min(s) 00 second(s)		In Progress
	Run Details	Creation of EC Alert for COMP_INFO started = 0 records checked		In Progress
		Creation of EC Alert for JOB_INFO completed for following rules = For Rule [ContractEndDateAlert]: 4 records match rules, 4 alerts created, No error messages. Total time took for EC Alert creation to complete = 00 min(s) 00 second(s)		In Progress
		Creation of EC Alert for JOB_INFO started = 5 records checked		In Progress
Job Run Date		Creation of EC Alert for ASSIGNMENT_INFO completed for following rules = Total time took for EC Alert creation to complete = 00 min(s) 00 second(s)		In Progress
JOD Rail Date		Creation of EC Alert for ASSIGNMENT_INFO started = 0 records checked	2019-11-22 15:12:21.619	In Progress
		Creation of EC Alert for EMPLOYMENT_INFO completed for following rules = Total time took for EC Alert creation to complete = 00 min(s) 00 second(s)	2019-11-22 15:12:21.599	In Progress
		Creation of EC Alert for EMPLOYMENT_INFO started = 0 records checked	2019-11-22 15:12:21.574	In Progress
	-	EC Alert for All Entities Creation started on Date: Thu Nov 21 00:00:00 EST 2019	2019-11-22 15:12:21.555	In Progress
		ecAlertsAndNotificationsjob is initialized	2019-11-22 15:12:21.532	In Progress
			2019-11-22 15:12:21.45	Started

Figure 6

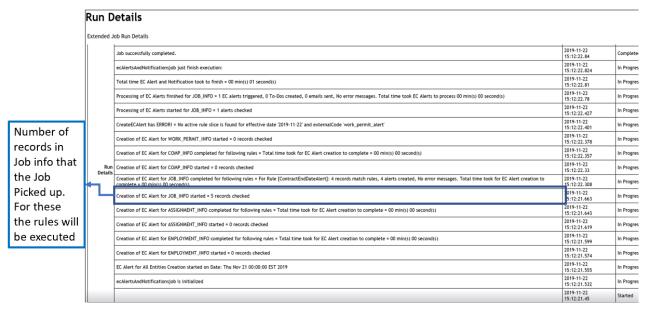


Figure 7

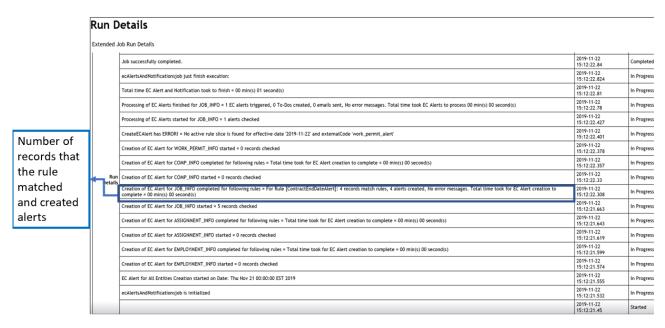


Figure 8

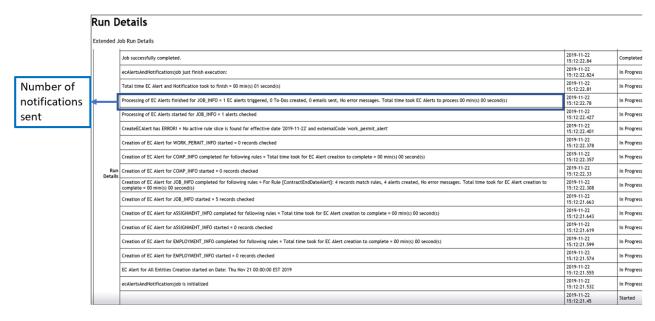


Figure 9

7.2 Impact of Doing Corrections on Existing Alerts

Typical questions on data corrections with respect to alerts are:

- What happens to the existing alerts when a correction is done?
- Would the recipients get two alerts, one for the old date and one for the corrected date?

To answer these questions, let us take a simple scenario to illustrate the behavior with examples.

Scenario: An alert must be sent 30 days before the end of the contract.

Note: The rule that is used for this purpose is explained below in section 7.4.3.

The records in Job Info are like this:

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2019	Data change	17-Jan-2020
88178	Geoff Hill	22- Nov-2019	Transfer	26-Jan-2020

After the alerts job is run, the records in the Alert object would be like this (assume that the Job runs on 21-Nov-2019):

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2019	ContractRuleEnd	18-Dec-2019
Job Info	Geoff Hill	22-Nov-2019	ContractRuleEnd	27-Dec-2019

So now, if you correct the first record, the contract end date is due to 21-Jan-2020. Job info would be like the below table:

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15-Sep-2019	Data change	21-Jan-2020
88178	Geoff Hill	22-Nov-2019	Transfer	26-Jan-2020

Note that this will cause a correction to the existing record in the Alert table and not a new alert record.

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2019	ContractRuleEnd	22-Dec-2019
Job Info	Geoff Hill	22-Nov-2019	ContractRuleEnd	27-Dec-2019

In the above scenario, if there was another record in the Job Info but the contract date was not changed in that time slice.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15-Sep-2019	Data change	21-Jan-2020
88178	Geoff Hill	22-Nov-2019	Transfer	26-Jan-2020
88178	Geoff Hill	29-Nov-2019	Transfer	26-Jan-2020

If the rules are designed in such a way that in the "if condition" that this record will be considered only when the previous value of the contract end date is not equal to the current value of the contract end date, then the alert for the new time slice with the event date 29-Nov-2019 will not be created.

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2019	ContractRuleEnd	22-Dec-2019
Job Info	Geoff Hill	22-Nov-2019	ContractRuleEnd	27-Dec-2019

Scenario 2: An alert must be sent in 30 and 15 days.

For this scenario, 2 rules are required. Let us assume "ContractRuleEnd" sets the alert to 30 days before the contract end date and the 2nd rule "ContractRuleEnd2" sets the alert to 15 days before the alert object. Following represents the Job info records:

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15-Sep-2019	Data change	21-Jan-20
88178	Geoff Hill	22-Nov-2019	Transfer	26-Jan-20

This will create the alert as listed in the table below. Since the object is being written by 2 rules it is creating new records for the new rule.

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2019	ContractRuleEnd	22-Dec-2019
Job Info	Geoff Hill	22-Nov-2019	ContractRuleEnd	27-Dec-2019
Job Info	Geoff Hill	15-Sep-2019	ContractRuleEnd2	6-Jan-2020
Job Info	Geoff Hill	22-Nov-2019	ContractRuleEnd2	11-Jan-2020

7.3 Information About "Delete Old Pending alert flag"

The previous section demonstrated the on what is the effect of correcting an existing alert. This section gives more information on when a new time slice is introduced on the HRIS element like Job information, and the field value that determines the alert is changed in the new time slice and remains unaltered in the previous time slice.

Let us take the example of the contract end date like the previous section.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	15-Sep-2022

Scenario 1: An alert must be sent 1 month before the end of the contract.

After the alerts job is run, the records in the Alert object would be like this (assume that the Job runs on 16-Sep-2021):

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	15-Aug-2022

Now let us add a new time slice in the Job Information and contract change as the event reasons on 1-Jan-2022, and the new contract end date is 20-Oct -2022. The Job Information records would look like the table shown below.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	15-Sep-2022
88178	Geoff Hill	1-Jan-2022	Contract Change	20-Oct-2022

After the alerts job is run, the records in the Alert object would be like below (assume that the Job runs on 2-Jan-2022).

If "Delete Old Pending alert flag" is set to Yes in the Business Rule, then the row highlighted in yellow will be deleted, and only one alert in the second row will be sent.

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	15-Aug-2022 -> Deleted
		1-Jan-2022	Contract Change	20-Sep-2022

If "Delete Old Pending alert flag" is set to No in the Business Rule, then it will send two alerts, one on 15-Aug and the other on 20-Sep-2022.

Scenario 2 - New time slice and correction. An alert must be sent 1 month before the end of the contract.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	15-Sep-2022

After the alerts job is run, the records in the Alert object would be like this (assume that the Job runs on 16-Sep-2021):

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	15-Aug-2022

Now the same record is corrected (no time slice is added, but the new hire record is corrected) on Dec 1st, 2021. The Job runs after this change.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	23-Nov-2022

The alert entry will look like the one below. This will be corrected (irrespective of whether the "Delete Old Pending alert flag" is set to Yes or No).

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	23-Oct-2022

Now let us add a new time slice in the Job Information with contract change as the event reasons on the 1-Jan-2022, and the new contract end date is 1-Dec-2022. The job information records would look like the table shown below.

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	23-Nov-2022
88178	Geoff Hill	1-Jan-2022	Contract Change	01-Dec-2022

If "Delete Old Pending alert flag" is set to Yes in the Business Rule, then the row highlighted in yellow will be deleted, and only one alert that is in the second row will be sent.

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	23-Oct-2022 -> Deleted
		1-Jan-2022	ContractRuleEnd	01-Nov-2022

If "Delete Old Pending alert flag" is set to No in the Business Rule, then it will send 2 alerts one on 23-Oct and the other on 01-Nov-2022.

7.4 Scenario 1 – Alert Dynamic Group for Contract End Date in Job Information

In this example, an alert is triggered 14 days before the end of a Contract and a notification is sent to users in two dynamic groups. Both an alert is created in the To-Do section as well an email notification is sent.

7.4.1 Alert Message

• In Admin Center -> Manage Data, specify the alert message by entering the alert header and text.

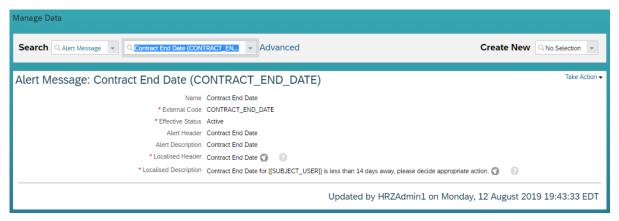


Figure 10

7.4.2 Dynamic Group

• In Manage Workflow Group, create a dynamic group HR_RECRUIT_GROUP which includes a group of recruitment users.

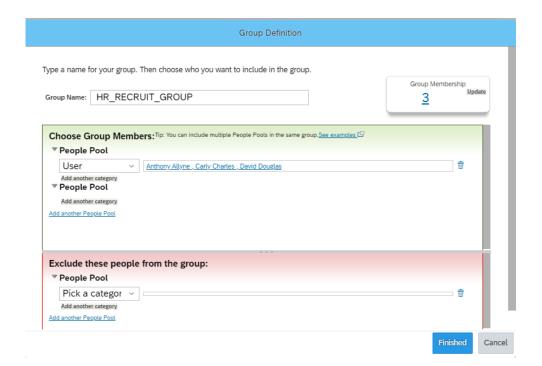


Figure 11

• Create another group called HR_ADMIN_GROUP that includes 4 HR administrators.

Group Definition		×
Type a name for your group. Then choose who you want to include in the group. Group Name: HR_ADMIN_GROUP	Group Membership Update	
Choose Group Members: Tip: You can include multiple People Pools in the same group. See examples. □ ▼ People Pool User Add another category Add another People Pool	चें	
Exclude these people from the group: People Pool Pick a categor Add another category Add another People Pool	<u></u>	
	Finished	Cano

Figure 12

7.4.3 Workflow

• In "Manage Organization, Pay and Job Structures" transaction, set up the workflow. In this example, the alert is sent to the dynamic groups HR_RECRUIT_GROUP and HR_ADMIN_GROUP. They are specified in Step 1 and Step 2as recipients of alerts. To send an email to both groups, they are also defined in the CC Role section. As a result, all three recruitment users and all four HR Administrators will get an alert in the Take Action tile as well as an email notification.

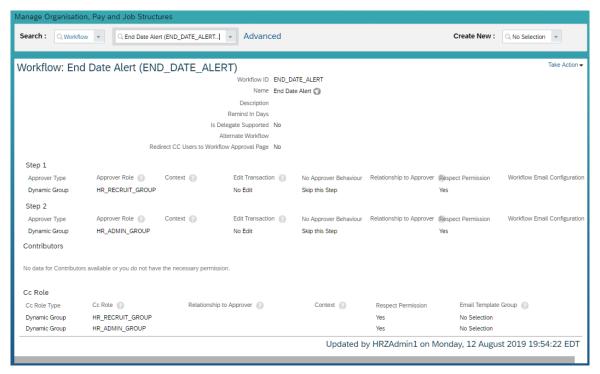


Figure 13

7.4.4 Business Rule

• Go to Configure Business Rules, and assign the workflow and message to the business rule. The condition in this scenario is to create an alert 14 days before the contract ends. The alert is created when the contract end date has been changed for an active employee, and if today's date is more than 14 days before the contract end date. It checks for future records (event date after today) or current records where the event start date was in the past, and the contract end date is at least 14 days away from today, and it fulfills the criteria to trigger the alert. The alert is triggered exactly 14 days before the contract end date.

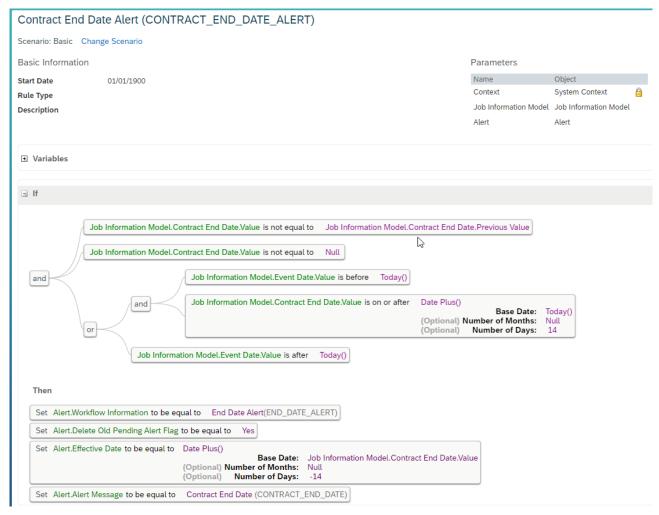
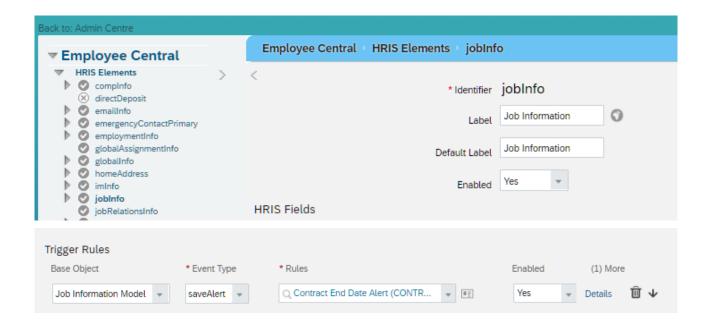


Figure 14

7.4.5 Trigger

• In Manage Business Configuration, under Trigger Rules section, add the business rule created in the previous step to HRIS-Element Job Information (jobInfo) as Event Type saveAlert.



• Note that if the contract end date is extended before it expires, the original alert is deleted. A new alert based on the new contract end date becomes the active alert.

7.5 Scenario 2 – Alert Manager for Global Assignment Planned End Date

In this scenario, a manager receives an alert five days before the direct report plans to end the global assignment.

7.5.1 Alert Message

• In Admin Center -> Manage Data, specify the alert message by entering the alert header and text.

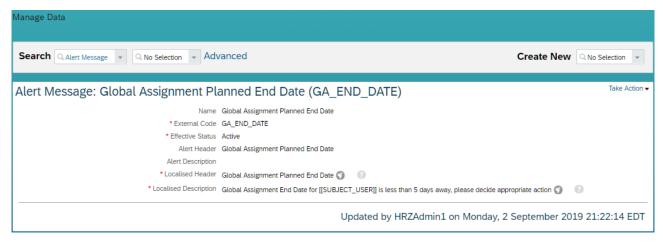


Figure 15

7.5.2 Workflow

• In Admin Center -> Manage Organization, Pay and Job Structures, set up the workflow. In this example, the alert is sent to the manager who is set up in Step 1. No email notification is sent out as no CC role is defined.

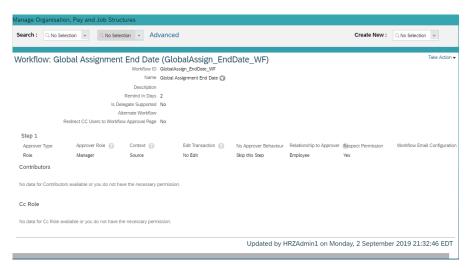


Figure 16

7.5.3 Business Rule

• Go to Configure Business Rules, and assign the workflow and message to the business rule. In this scenario, the manager is given an alert 5 days before the Global Assignment Planned End Date is due. The IF condition checks that the rule is only executed if the event reason is Add Global Assignment, and it has a start date after today to avoid creating alert for historical events.

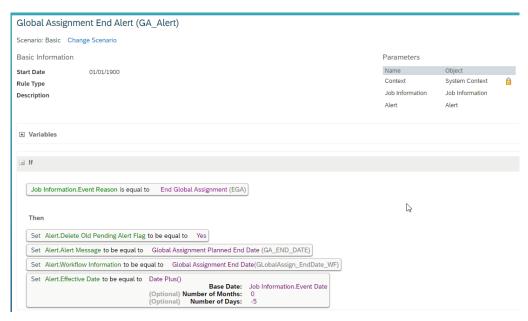


Figure 17

7.5.4 Trigger

• In Manage Business Configuration under Trigger Rules section, add the business rule created in the previous step to HRIS-Element Global Assignment Information (globalAssignmentInfo) as Event Type saveAlert.

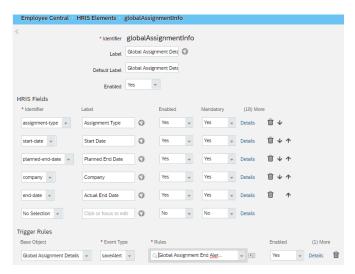


Figure 18

7.6 Scenario 3 - Alert for Position (MDF Object) End Date in 14 days

When a temporary position ends in 14 days, an alert is created in the To-Do section of the employee who is incumbent of the specific position – Corporate Manager of Procurement department. Another person who receives an alert in the To-Do section is the holder of the parent position to this temporary position. In addition, the person who is the incumbent of the parent's parent position gets an email notification.

7.6.1 Alert Message

• In Admin Center -> Manage Data, specify the alert message by entering the alert header and text.



Figure 19

7.6.2 Workflow

• In Admin Center -> Manage Organization, Pay and Job Structures, set up the workflow. In this example, the alert is sent to the Corporate Manager position and the parent position. An email notification is sent to the Parent's Parent position.

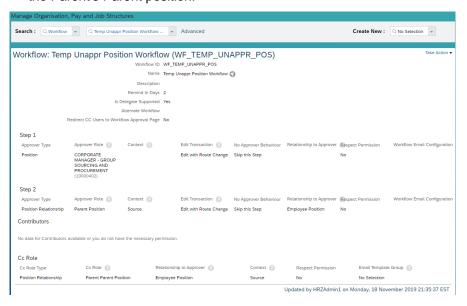


Figure 20

Since the position does not have a subject user, it only has the initiator of the workflow, we could use Position, Dynamic group, and Position relationship.

- Relationship to Approver = "Employee/Employee's position"
 This relationship can only support non-employee dependent types:
 Position and Dynamic Group.
- Relationship to Approver = "Initiator/Initiator's Position"
 This relationship type is supported using these relationship types:
 Position, Dynamic Group, Position Relationship (use the Initiators Position to find the position relationship)

Note: for alerts, the relationship-type positions are not supported.

7.6.3 MDFAlertType

• In Admin Center -> Manage Data, create an MDFAlertType.

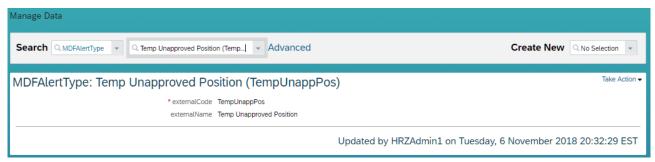


Figure 21

7.6.4 Business Rule

Go to Configure Business Rules, and assign the workflow and message to the business rule. In this
scenario, the manager and HR Administrators are given an alert 14 days before the temporary unapproved
position date ends. The IF condition checks that the rule is only executed if the position is active, temporary,
and unapproved. It avoids creating an alert for a historical record by checking that the end date is in the
future and not in the past (but it does not check if the end date is at least 14 days away).

Tips for MDF Alert Business rule:

Choose Rules for MDF Based Objects to create the business rule

✓ Metadata Framework

- Rules for MDF Based Objects
 You can use this scenario to design rules that can be assigned to MDF objects and their fields.
- Select the object as the base object (e.g., Position)
- Do not add alert as a parameter
- Use Execute Trigger MDF Alert Event in the THEN statement
- Create a unique MDFAlertType for the alert
- If the MDF object has parent/child association, the business rule is built on the parent object as the base object, and the rule is triggered on the parent object.

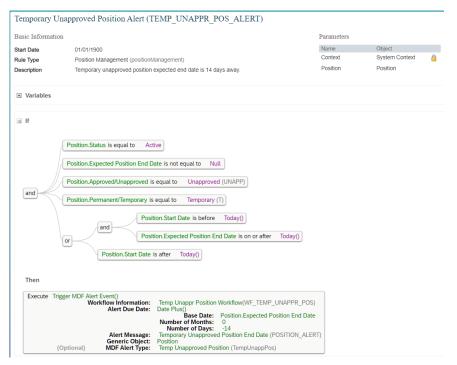


Figure 22

7.6.5 Trigger

 In Configure Object Definition -> Position, add the Business Rule created in the previous step under the Post Save Rules.

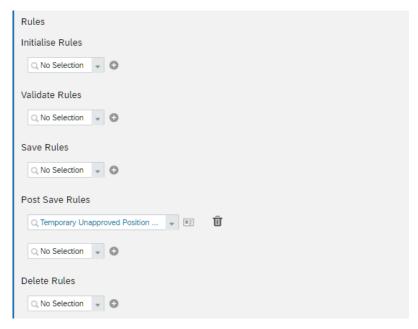


Figure 23

If the alert triggers "Today" - The Alert will be triggered when a user edits/creates an MDF Object, so the 'Initiator' is the user who makes the MDF Change.

If the alert triggers on a 'Future Date' - The Alert will be triggered via the scheduled Job. The 'Initiator' is the 'Scheduled Job Owner'.

7.7 Scenario 4 – Multiple Alerts for Driver's Permit Expired in Three Months and 1 Month

Two alerts are triggered in this example. An alert and email are sent to the employee when his/her driver's permit will be due in three months. The second alert and email are sent when the permit expires in a month.

7.7.1 Alert Message

• In Admin Center -> Manage Data, specify an alert message for 1 month and another message for 3 months alert.



Figure 24

7.7.2 Workflow

In Manage Organization, Pay and Job Structures, create a workflow for the employee.

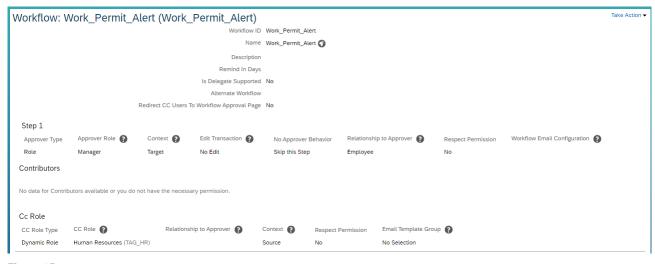


Figure 25

7.7.3 Business Rule

- Go to Configure Business Rules, and create two business rules: one rule to trigger an alert 3 months before the driver's permit expires and another rule to trigger the 1-month alert. Multiple rules are required since only one alert can be set in each rule.
- In this scenario, the employee is given an alert 3 months before the driver's permit expires. The IF condition checks that the rule is only triggered if the document type is Driver's Permit, and the expiration date is 3 three months in the future. The alert is not created if the work permit was issued before today and the expiration date is less than three months away from today.

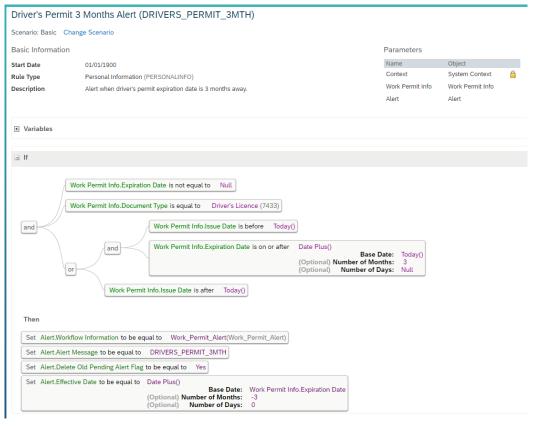


Figure 26

• Configure business rules to trigger an alert 1 month before the driver's permit expires. The IF condition checks that the rule is only triggered if the document type is Driver's Permit, and the expiration date is at least 1 month in the future. If the expiration date is less than 1 month from today, the alert is not created.

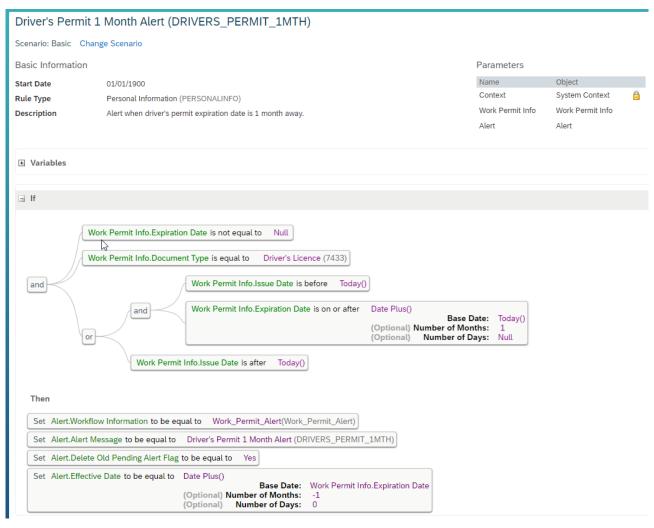


Figure 27

7.7.4 Trigger

• In Manage Business Configuration under Trigger Rules section, add the two business rules created in the previous step to HRIS-Element Work Permit Information (workPermitInfo) as Event Type saveAlert. Two alerts and two email notifications are created. One is sent when the driver's permit is three months away from the expiry date, and the other is sent when the permit is one month away.

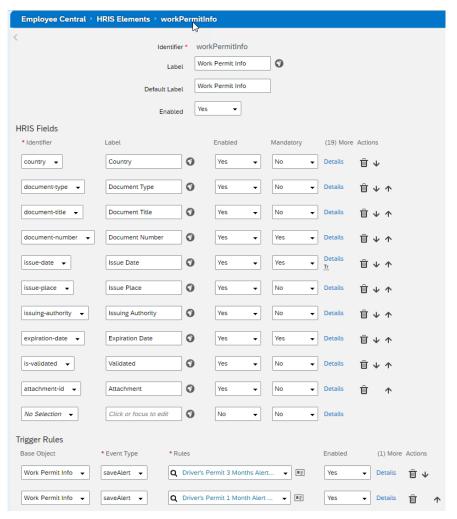


Figure 28

7.8 Scenario 5 – Alert Manager for Return from Leave in Two Days

This example shows the alert that is created for a manager when the direct report is about to return to work from a paid leave in two days.

7.8.1 Alert Message

• In Admin Center -> Manage Data, specify an alert message for return from leave.

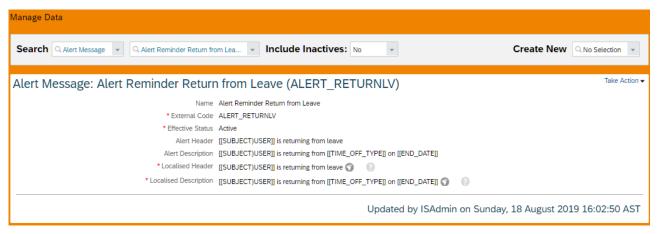


Figure 29

7.8.2 Workflow

In Manage Organization, Pay and Job Structures, create a workflow for the manager.

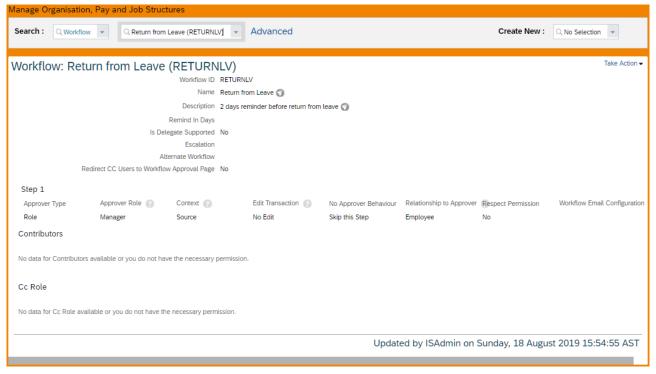


Figure 30

7.8.3 Business Rule

• Go to Configure Business Rules, and create a business rule to trigger an alert days before the employee returns from leave of absence. The rule is triggered only for a specific time type PLALV (paid leave) two days before the end date of the leave.

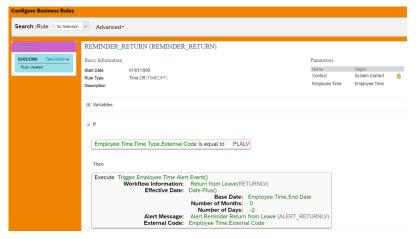


Figure 31

7.8.4 Trigger

In Configure Object Definition -> Employee Time, add the Business Rule created in the previous step under the Post Save Rules. The manager receives an alert 2 days before the employee returns.



Figure 32

7.9 Scenario 6 - Alerts Administrators for 25 Days into a 12-Month Leave Period

When an employee takes a long-term (12 months) leave and has passed 25 days of absence, an alert is created in the To-Do section for the dynamic group HR_ADMIN_WFGROUP and dynamic group HR_MGMT_WFGROUP.

7.9.1 Alert Message

• In Admin Center -> Manage Data, specify an alert message for 25 days.

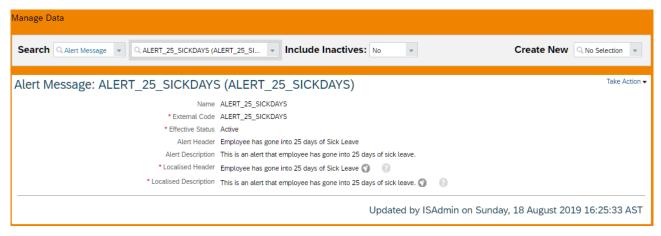


Figure 33

7.9.2 Workflow

• In Manage Organization, Pay and Job Structures, create a workflow for dynamic groups HR_ADMIN_WFGROUP and SENIOR_HR_MGMT_WFGROUP.

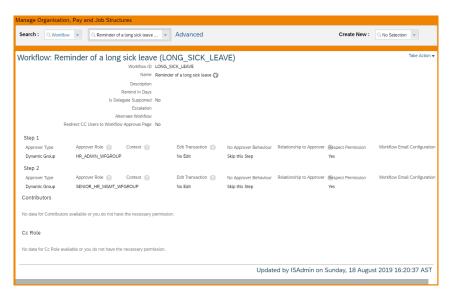


Figure 34

7.9.3 Business Rule

Go to Configure Business Rules, and create a business rule to trigger an alert when the leave has
reached 25 days. The rule is triggered only for specific types of leave - Uncertified Sick Leave for Permanent
employees, Certified Sick Leave for Permanent or Temporary employees. It also verified that it is for a leave
request of more than 12 months.

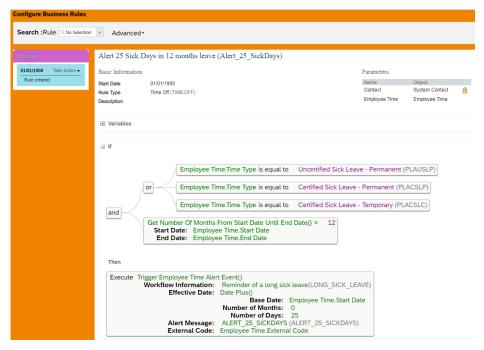


Figure 35

7.9.4 Trigger

• In Configure Object Definition -> Employee Time, add the Business Rule created in the previous step under the Post Save Rules. The HR Administrators and Senior HR Management group will receive an alert once the leave has passed 25 days.



Figure 36

7.10 Scenario 7 – Alert for Work Order End Date in 90 days (Off-Cycle Event Batch and Intelligent Service)

When the intelligent service is turned on to trigger the work order expiry date, by default, the alert or notification is designed to send to the contingent worker/supervisor/work order owner and supervisor. It does not allow you to configure the role/person to receive the alert or notification. It uses a standard notification message as well. In this scenario, an alert is sent when the work order expires in 90 days.

7.10.1 Business Rule

Build business rules to trigger an alert when the work order is going to be expired.

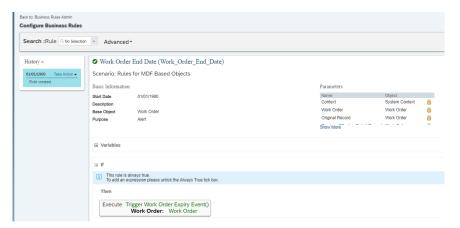


Figure 37

7.10.2 Trigger

 Configure the trigger in the Work Order object. In Manage Data -> Create an Off-Cycle Event Batch for the work order.

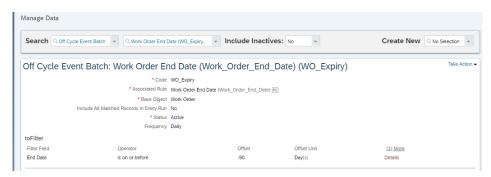
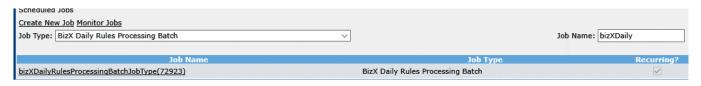


Figure 38

7.10.3 Schedule Job in Provisioning

In Provisioning, schedule the Job BizX Daily Rules Processing Batch to monitor the batches.



Result:

The owner of the work order receives a notification under the bell notification icon.

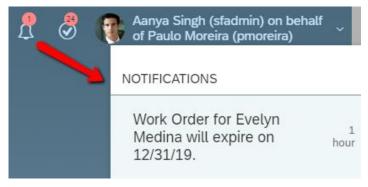


Figure 39

7.11 Scenario 8 - Alert to Check on Employee One Month and One Week After Hiring/Rehiring

In this example, an alert is triggered post-hire/rehire of an employee. In the below example, it is 1 month + 7 days. The manager and the Benefit Team are alerted to follow up with the employee. Alert is created in the To-Do section, as well an email notification is sent.

7.11.1 Alert Message

• In Admin Center -> Manage Data, specify the alert message by entering the alert header and text.

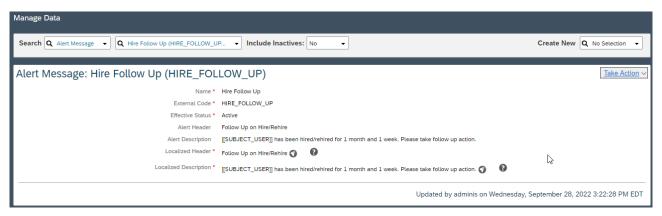


Figure 40

7.11.2 Workflow

• In "Manage Organization, Pay and Job Structures" transaction, set up the workflow. In this example, the alert is sent to the manager and Benefit Team. They are specified in Step 1 and Step 2as recipients of alerts. To send an email to both parties, they are also defined in the CC Role section. As a result, the manager and all users in the Benefit Team get an alert in the Take Action tile, as well as an email notification.

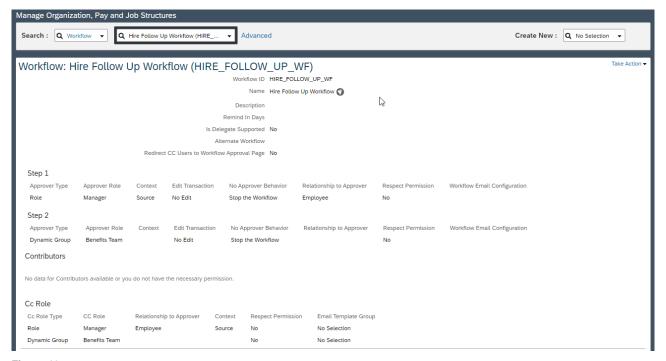


Figure 41

7.11.3 Business Rule

• Go to Configure Business Rules, and assign the workflow and message to the business rule. The condition in this scenario is to create an alert one month and 1 week following the hire/rehire date. The alert is created only for active employees, and the target date is after today. It checks for future records (hire/rehire date after today) or current records where the hire/rehire effective start date was in the past, and the target date has not passed, and it fulfills the criteria to trigger the alert. The alert is triggered when it is 1 month and 1 week has passed after the hire/rehire date.

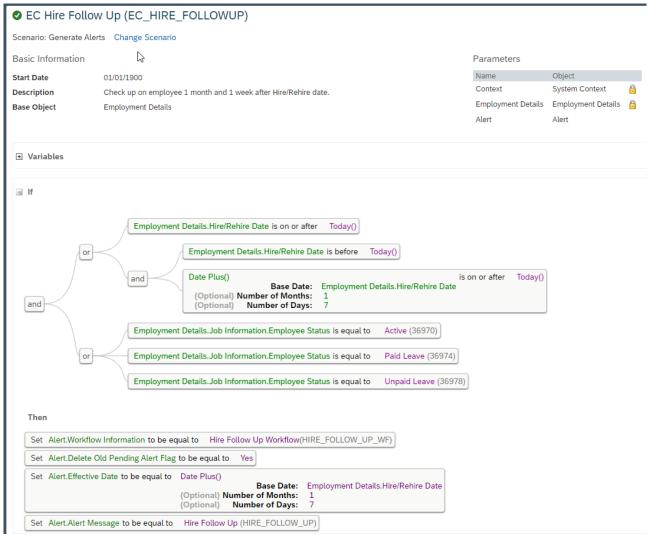


Figure 42

7.11.4 Trigger

• In Manage Business Configuration, under Trigger Rules section, add the business rule created in the previous step to HRIS-Element Employment Details (employmentInfo) as Event Type saveAlert.

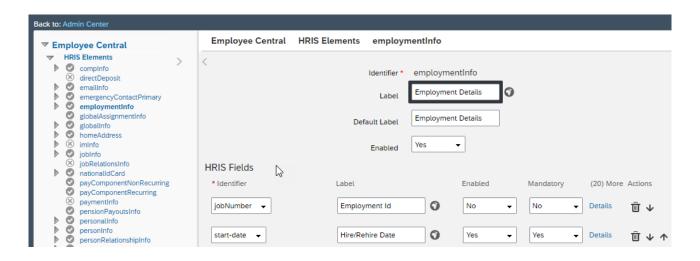




Figure 43

7.12 Scenario 9 - Temporary worker is converted to a permanent Employee

A temporary employee is hired, which means the contract date is specified(not empty) and later (let's say after six months but before the Alert due date, the employee is converted into a regular employee (then the contract date is set to null in Job info.

Alert to be sent one month before the Contract End date

User ID	Name	Event Date	Event Reason	Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire	15-Sep-2022

After the alerts job runs, the records in the Alert object would be like this (assume that the Job runs on 16-Sep-2021):

Entity Type	Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	15-Aug-2022

Let us say on 1st Jan 2022, there is a new record added to Job info, where the employee becomes a permanent employee (Employment type is also changed)

User ID	Name	Event Date	Event Reason		Contract End Date
88178	Geoff Hill	15- Sep-2021	New hire		15-Sep-2022
88178	Geoff Hill	01- Jan-2022	Convert t	to	
			Permanent		
			Employee		

In this case when the below rule is executed it evaluates the if condition as false. Therefore, the old alert is not deleted.



In such a situation, you can add another condition like the one below. Set the alert effective date as 31-Dec-9999.



The "else if - then" ensures the old pending alert is deleted. However, a new entry in the alert object would be created as below.

Entity Ty	/pe Name	Entity Effective Date	Alert Rule Name	Alert Effective Date
Job Info	Geoff Hill	15-Sep-2021	ContractRuleEnd	15-Aug-2022 -> Deleted
		1-Jan-2022	ContractRuleEnd	31-Dec-9999

The alert created for 31-Dec-9999 is also not required and can be manually deleted from the transaction "Manage Alerts and Notification" using the filter on "Alert Effective date."

7.13 Recommended Solution

7.13.1 Multiple countries with different document types and alert days

In the scenario where multiple countries have different time-based alerts, a recommended option is to use a lookup table. For example, the USA requires an alert 3 days before the work permit expires, Australia requires 1 day, and Singapore requires 20 days before the expiry date. The lookup table keeps the business rule simple and easy to maintain. Instead of having multiple IF/THEN conditions for different countries, only one IF/THEN condition is needed for all countries.

7.13.1.1 Create a custom MDF object as the lookup table

In Configure Object Definitions -> Create New, add a table. In this example, it is called Lookup Work
Permit by Country. The table includes the country, the document type, and the number of days to create
the alert.

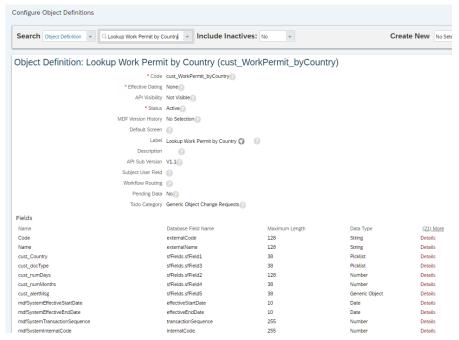


Figure 40

o Details of Cust Country field:



Figure 41

Details of cust_docType field:



Figure 46

o Details of cust_numDays field:

```
Details
                                       Name cust_numDays
                         Database Field Name sfFields.sfField2
                            Maximum Length 128

Data Type Number
                              Hide Old Value No
                            Decimal Precision
                         Include Inactive Users No
                            UI Field Renderer
                                  Transient No
                                   Help Text
                 Private or Sensitive Information No
                          Show Trailing Zeros No
                                Default Value
                                Hide Seconds No
                                   Required No
                                    Visibility Editable
                                      Status Active
                                      Label No. of Days
                               Cascade None
Inactivated By No Selection
                                End Of Period No
Rules
 External Code
 Field Criteria
                                   Destination Field Name
                                                                              Default Destination Value
 Source Field Name
                                                                                                                            Status
```

Figure 47

o Details of cust_numMonths field:



Figure 48

Details of cust_alertMsg field:



Figure 49

o Picklist for permitdoctype:

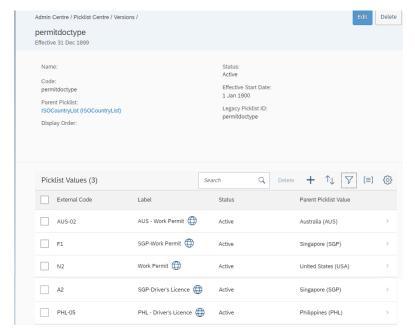


Figure 50

- Once the table definition is created, add the values to the lookup table for each country. In Manage Data
 Lookup Work Permit by Country, add the value for the USA work permit.
 - Australia Work Permit:



Figure 51

o Philippines Driver's License:



Figure 52

o Singapore Driver's License:

Manage Data					
Search \Q Lookup Work Permit by Country \ \Pi \ \Q SGP_D	L (0004] Include Inactives: No				
Lookup Work Permit by Country: SGP_DL (0004)					
* Code	0004				
Name	SGP_DL				
Country	Singapore (SGP)				
Document Type	SGP-Driver's Licence (A2)				
No. of Days	0				
No. of Months	2				
Alert Message	Work Permit Alert 2 Months (Work_Permit_Alert_2m)				

Figure 53

o Singapore Work Permit:

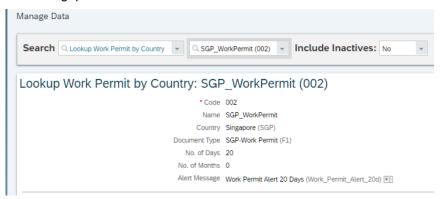


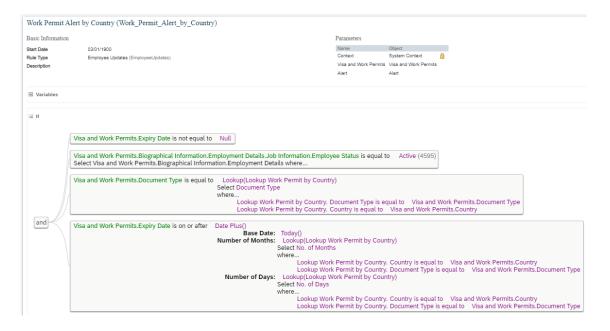
Figure 54

o USA Work Permit:

Manage Data					
Search C Lookup Work Permit by Country	orkPermit (001) Include Inactives: No				
Lookup Work Permit by Country: USA_WorkPermit (001)					
* Code	001				
Name	USA_WorkPermit				
Country	United States (USA)				
Document Type	Work Permit (N2)				
No. of Days	3				
No. of Months	0				
Alert Message	Work Permit Alert 3 Days (Work_Permit_Alert_3d)				

Figure 42

Build a business rule to determine the document type and alert day from the lookup table.
 In Configure Business Rules -> Create New Rule, build the rule "Work Permit Alert by Country".



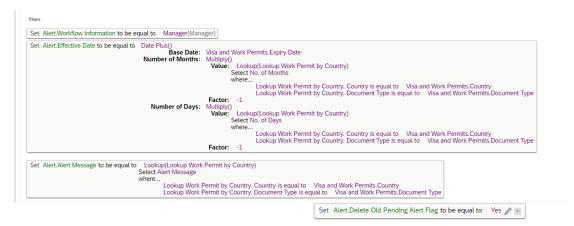


Figure 56

• Set up the trigger in **Manage Business Configuration -> workPermitInfo -> Trigger Rules** section, and add the business rule as saveAlert Event Type.

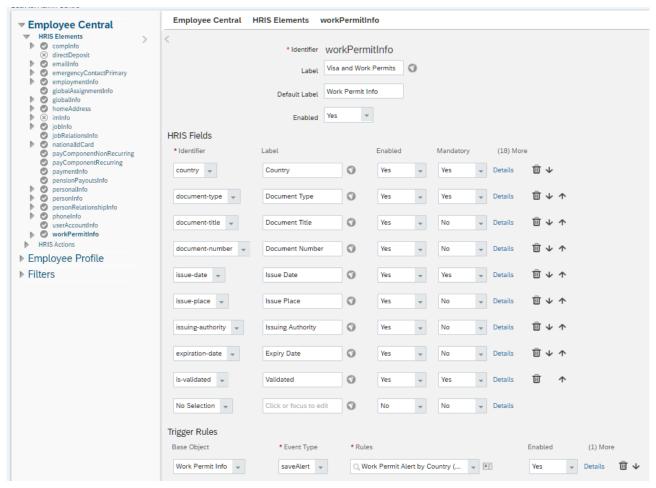


Figure 57

7.13.2 Best way to handle Global Assignment for alerts

- While an employee is an active expatriate on a global assignment, their home employment is dormant.
 However, alerts related to either employment will apply. One such alert is the message indicating the
 upcoming end date of the global assignment. An example of another alert related to home employment
 would be if an employee updates their home address while on the global assignment. If there is an alert
 configured for address changes, this will trigger.
- To be able to configure an EC Alert to notify both the Home and Host manager that the Global Assignment is ending in x number of days, this will require alert rules to be created. Using 2 Alert rules, 2 Alert Message objects and,1 Workflow object. Both rules need to be configured on jobInfo as saveAlert.

7.13.3 How to debug an alert and test

- During testing, if the actual due date in the business rule is many days ahead, reduce it to a shorter number of days. Instead of months or weeks in the future, change it to days to trigger the alert sooner.
- Set up the test data so that an employee has an end date in the future.

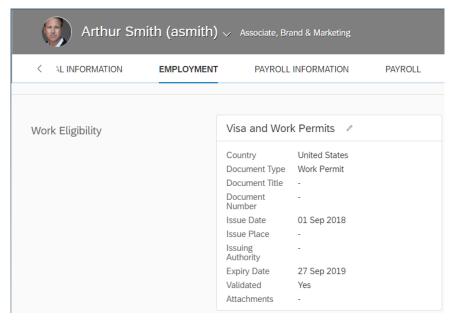


Figure 58

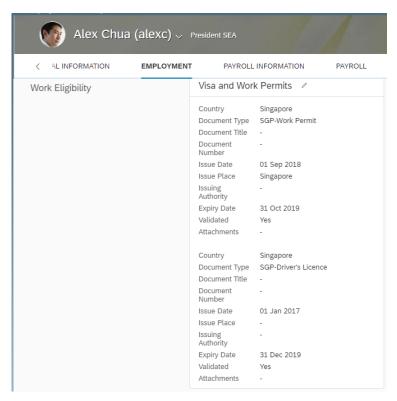


Figure 59

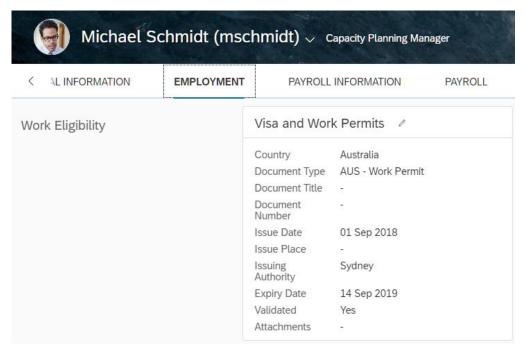


Figure 60



Figure 61

- Set up a one-time "EC Alerts & Notifications" job in Provisioning. Run this Job.
- In Admin Center -> Manage Alerts & Notifications, search for EC Alert on Work Permit. It lists all the alerts that have been created by the Job, indicated by the Alert Creation Date. The Alert Effective Date is when the alert will be created on the To-Do section Take Action tile, and an email notification will be sent to the employees according to the workflow.

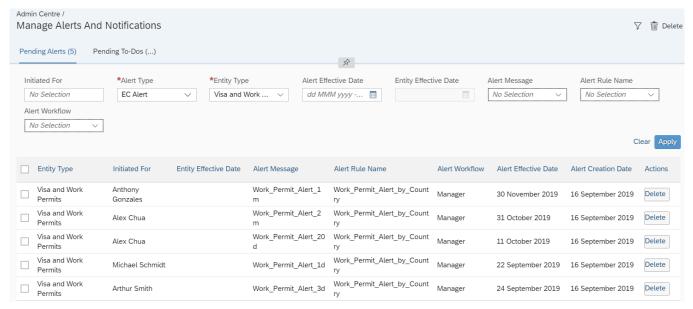


Figure 62

- Change the business rule if the alert is wrong due to incorrect business rule logic. Existing alerts are sent
 based on business rules when the alerts were created. If the business rule is changed, existing alerts must
 be removed. To remove outdated alerts, click on the Delete button next to the Alert in Admin Center ->
 Manage Alerts and Notifications.
- After the business rule is modified, execute the one-time "EC Alerts and Notifications" job in Provisioning.
 Verify the alerts in Admin Center -> Manage Alerts and Notifications. As the Job checks the last modified status of the record, it is important to update the record so that the change in the data triggers the business rule. Repeat this step until the alerts are displayed with the correct Alert Effective Date.
- When the alert date arrives, go to Homepage -> To-Do section -> Take Action tile, and verify the alert
 with the appropriate message exists. In addition, an email notification is received if it is configured in the
 workflow.
- Note that it is not possible to test an alert that is due one day immediately after the one-time job run date. To test an alert with one day lead time, make the expiry date two days ahead of the day when the system job runs. For example, the expiry date of the work permit is due on September 14, and today is September 13. When the one-time Job runs in Provisioning on Sept.13, it does not create an alert because it does not consider today to be one full day ahead of the due date. Instead, set up the end date to be Sept.15. When the Job runs on Sept.13, it creates the alert with an Alert Effective Date of September 14, one full day before the expiry date.

7.13.4 How to make sure there are no duplicates in Alert object

- For each object with alert business rules being set up, check that the rules are not created for the same alert effective date.
- If the same alert message is sent by different business rules on the same date, only 1 To-Do item and 1
 email notification are sent. If the same alert message is sent by different business rules on 2 different dates,
 a To-Do item and an email notification are sent on the first trigger. When the rule on the second date is
 triggered, the first To-Do item is deleted. A new To-Do item is created, and a new email notification is sent.
- Use a standardized naming convention for alert messages and workflows. If the same message or workflow
 is created, this identifies the possibility of duplicated alerts that should be deleted.

• Use a lookup table when there are multiple alerts on the same alert objects. Each row in the table contains unique alert information. This helps to prevent creating duplicate alerts.

7.13.5 How to avoid inactive employees

To avoid creating alerts for inactive employees, set the IF condition in the business rule to check for active
employee status from the Job Information object. Only include an employee with employee status
Active/Suspended/Dormant/Paid Leave/Unpaid Leave.



Figure 63

• If inactive employees are not excluded from the business rule, alerts are created for terminated employees. However, these alerts will not be sent to terminated accounts.

7.13.6 How to avoid alerts created for historical records

As the EC Alerts and Notification job in Provisioning consider all records based on the last modified dates
during the rule evaluation, the IF condition can be used to only include future and current records. This
can be accomplished by using the event start date and end date of the triggering field.



Figure 64

7.13.7 Orphaned alerts

- Alerts can become orphaned due to the following possibilities:
 - Data that triggers the alert has been removed
 - o Tokens or tags in the alert message are incorrect

- o An alert message has been removed
- o An alert message with missing translation for locale
- o An alert message with the missing default language
- Alert is removed from the database
- Alert workflow has been removed
- o SaveAlert rule is removed
- o The rule condition is changed after the rule has been generating alerts
- When the alert is triggered, the orphaned alert appears with an error message.



- If the translation for an alert message is missing, it causes an error "EC Alerts: Alert Notification Email Content Error [[OBJECT_NAME]]".
- If the default language for the alert message is missing, it causes the Job to fail with a "NullPointerException" error. The error is "EC Alerts: EC Alerts and Notifications job fails with "null object loaded from local variable 'conn'".
- If the rule is deleted or changed, existing pending alerts will still be sent and not updated by changing the rule. To prevent duplicate and incorrect alerts from being sent, the Provisioning job must be set with a different Run From date to include records to be scanned again.
 - o If the same record is updated, the existing alert will be deleted and it is replaced with a new alert based on the new rule.
- If a new record is inserted (with a different alert date), the existing alert from the previous record will still be sent.

7.13.8 How to stop alerts

- In some conditions, alerts are not desirable, such as loading contract end dates in the past. There are a couple of options to prevent alerts from being triggered:
 - Configure the business rule contexts so that the business rule is not "run".
 - In **Admin Center -> Manage Business Configuration**, go to the business rule that triggers the alert and click on Details. For the contexts that apply to data loads, such as Imports, Mass Changes, and Off-Cycle Batch Events, change the value to No so that the business rule will not be executed to create the alert.

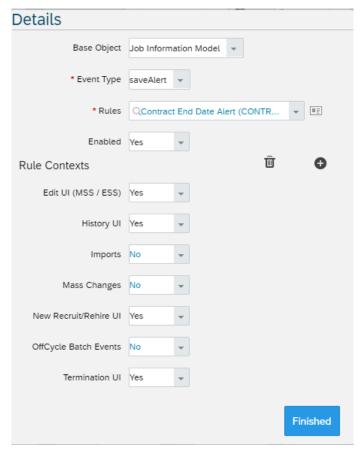


Figure 65

- Stop the jobs in Provisioning so that there is no monitoring of dates.
 - Do not schedule the EC Alerts and Notifications in Provisioning
 - Do not schedule the bizX Daily Rules Processing Batch in Provisioning for Off-Cycle Batch Events

7.13.9 How to avoid receiving multiple alerts

• An employee is likely to have multiple records of an end date (e.g., contract end in Job Information) with the same value. If the condition to create an alert is not specific, multiple records may be included for the alert.

In the business rule, use 'Model' base object to compare if the current value is different than the previous value to create the alert.

7.13.10 What not to do in Business Rule for alerts

7.13.10.1 Do not use "Always True" in IF Condition

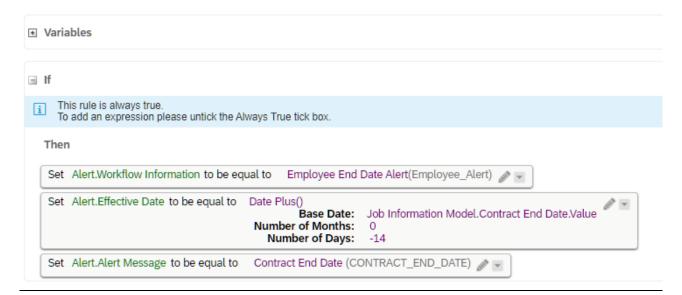


Figure 66

- An alert should be created only for a specific condition to avoid creating alerts for every change. Always set the IF condition in the business rule, and do not use the "Always True" feature.
- "Always True" in the IF Condition will create alerts for ALL records that were modified, even historical records.
- If the alert is for a Termination type of alert, then the "Always True" condition will trigger alerts even if the employees are not terminated.
- If mass creation of incorrect alerts is generated, use Manage Alerts and Notification to delete the alerts created.

7.13.10.2 Do not use "is equal to Date Plus ()" in IF condition

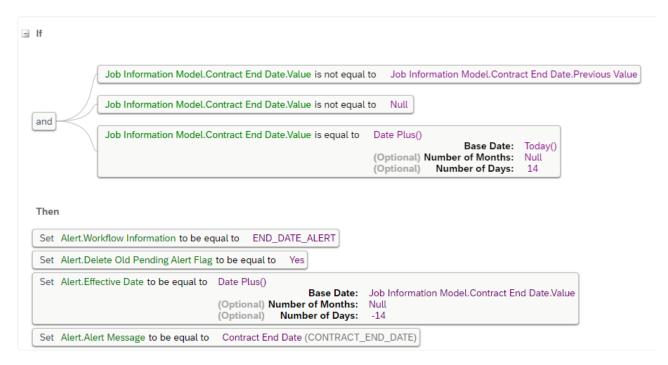


Figure 67

Alert will only get created if data was last modified and the Job ran successfully on Date Plus () date. If the
Job fails on this date, an alert can never be triggered again, even if you change the run date of the Job in
Provisioning. In the example above, if the Job fails, when the Job runs successfully the next time (next
day), it will have passed the date Plus() result (today + 14 days).

7.13.10.3 Do not use ELSEIF and ELSE

The ELSEIF and ELSE statements are not processed by the rule. If multiple alerts are required (e.g., two months and 1 month before due date), then create one rule per alert.

7.13.11 Deep Link to People Profile in Email Notification

- In the Alert email notification, a deep link can be added to connect user directly to the portlet where the data change is.
- A new tag [[VIEW_BLOCK_ON_PROFILE]] can be included in the Alert Description or the Localized Description.

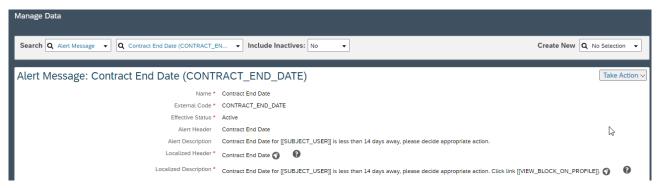


Figure 68

User clicks on the link to go to the People Profile page, where the data change occurs.



Figure 69

8 REFERENCES

SAP Help Portal

- Employee Central Master
- Employee Central Workflow: Implementation and Administration
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