

# Deadline Monitoring -Escalation on Latest end and Email to Recipients



## Applies to:

SAP Workflow. For more information, visit the [ABAP homepage](#).

## Summary

Deadline monitoring defines the time span with in which a job is scheduled to End. If the task is not executed within the specified time, Escalation happens. The particular workitem is terminated and the subsequent step (Mail) is executed.

**Author:** Arun B

**Company:** Applexus Technologies Private Limited

**Created on:** 30 June 2011

## Author Bio



Arun B is working with Applexus Technologies Private Limited as Solution Architect and the key areas of expertise include ABAP, ABAP HR, SAP Business Workflows and RICEF.

## Table of Contents

Introduction .....	3
Step by step process .....	3
Workflow Creation.....	3
Test Workflow .....	17
Related Content.....	20
Disclaimer and Liability Notice.....	21

## Introduction

A major advantage of workflow is the ability to monitor the workflow steps according to a predefined schedule. Following are different deadlines that can be monitored against each workflow step:

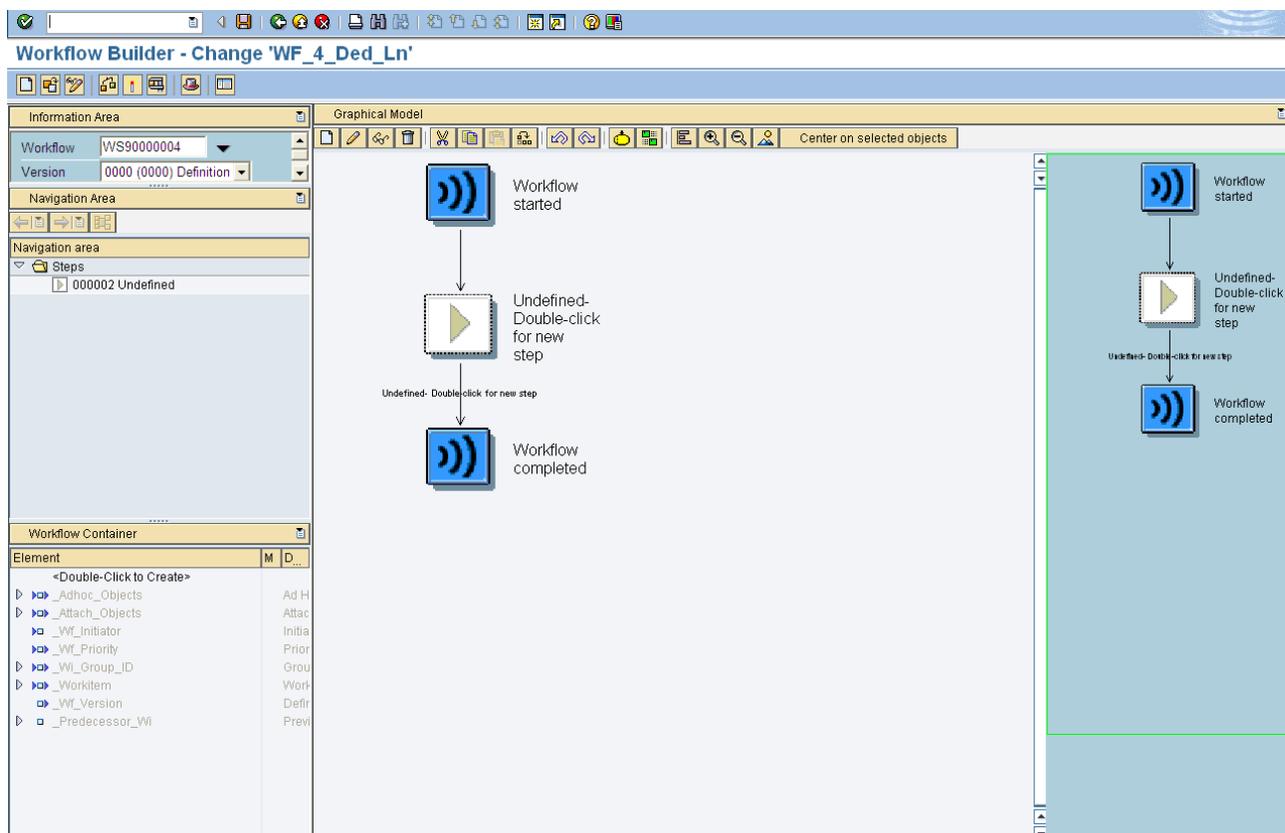
- Requested Start
- Latest Start
- Requested End
- Latest End

This article details the Escalation on Latest End and Email to recipients.

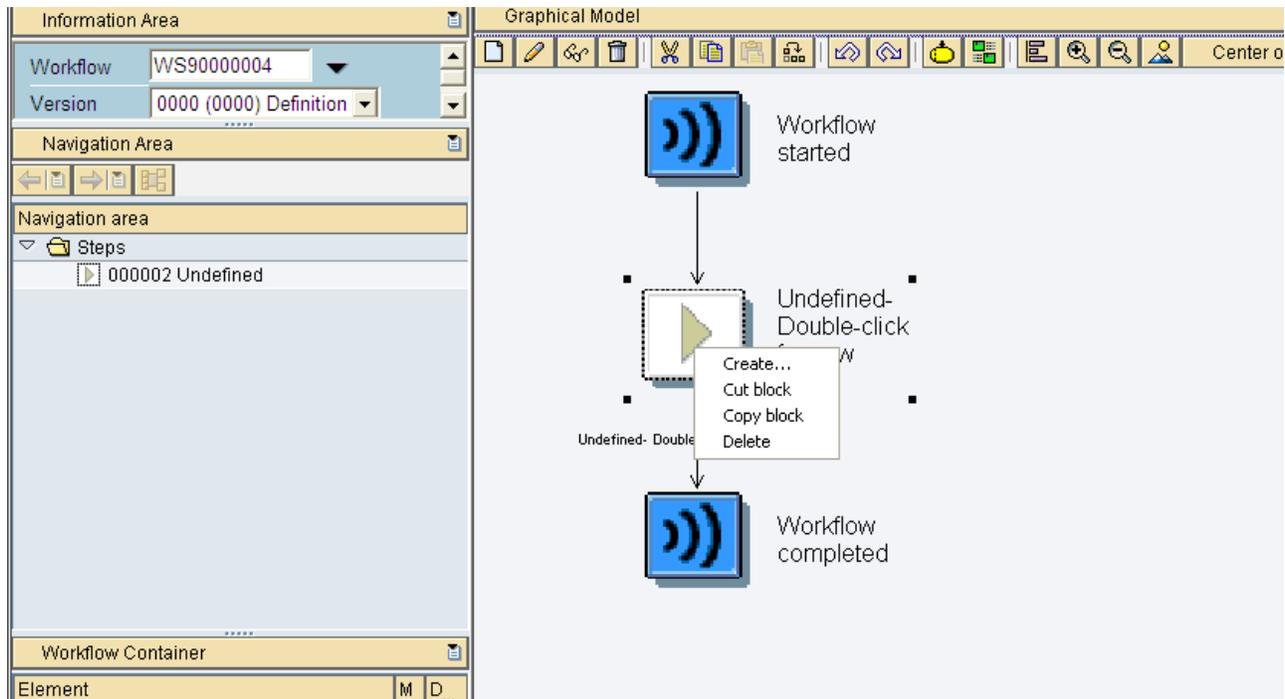
## Step by step process

### Workflow Creation

In SWDD create and save a New Workflow



Create a new User decision.



**Step Selection**

Step Type

- Insert Outbox
- Activity
- Web activity
- Send Mail
- Form
- User Decision**
- Document from Template
- Condition
- Multiple Condition
- Event creator
- Wait
- Container operation
- Process Control
- Loop (Until)
- Fork
- Undefined
- Ad Hoc Anchor
- Block
- Local Workflow



In the control tab generic task for approve request appears.

### Workflow Builder - Change 'WF\_4\_Ded\_Ln'

The screenshot shows the 'Control' tab of a workflow step named 'Approve Request'. The task ID is TS00008267, a generic decision task. The step name is 'Approve Request' and it has a binding that exists. The task properties include Agent Assignment (checked), Task Complete (checked), Background Processing (unchecked), and Confirm End of Processing (unchecked). The category is 'Standard'. A description box contains the following text:

[Task description - click here to go to task...](#)

Choose one of the decision options given. This completes the processing of this step.

Before you make a decision, you can display the attachments and objects which have been attached to the user decision. You can also create your own attachments.

If you choose **Cancel**, the user decision remains in your inbox for processing.

The left sidebar shows the 'Workflow Container' with a tree view of elements including \_Adhoc\_Objects, \_Attach\_Objects, \_Wf\_Initiator, \_Wf\_Priority, \_Wf\_Group\_ID, \_Workitem, \_Wf\_Version, and \_Predecessor\_Wf.

In outcomes Approve, Reject & Processing Obsolete appears. Processing Obsolete outcome is deactivated.

### Workflow Builder - Change 'WF\_4\_Ded\_Ln'

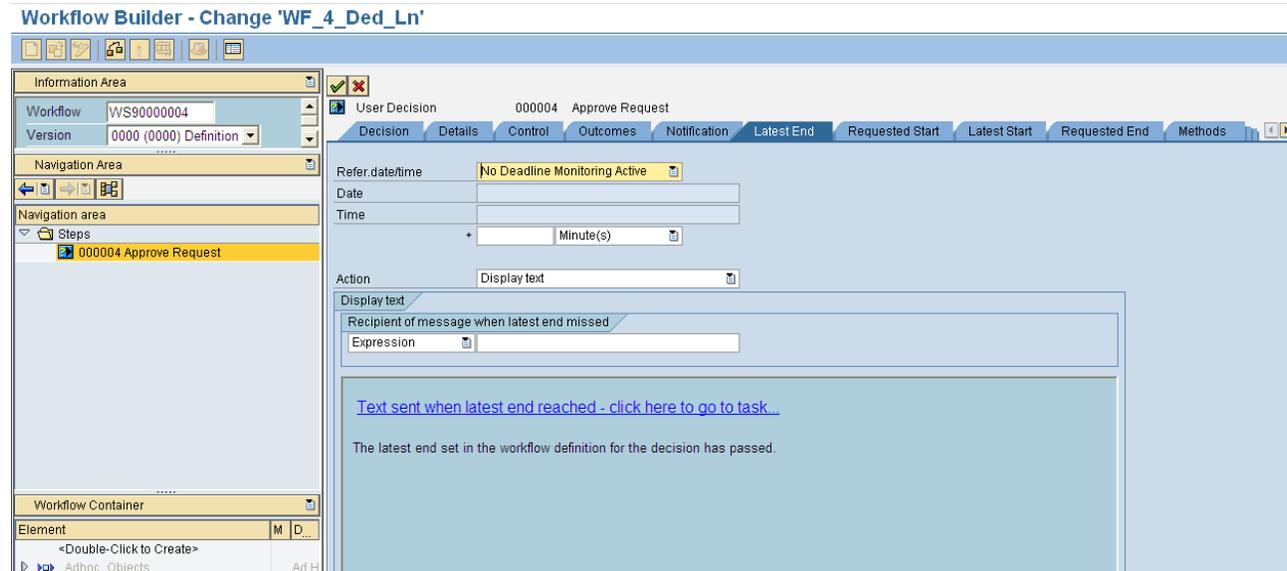
The screenshot shows the 'Outcomes' tab of the 'Approve Request' task. It displays a table of possible outcomes:

Copy	Act/	Not	Outcome	Name
		<input type="checkbox"/>	Processing obsolete	
		<input type="checkbox"/>	Approve	Approve
		<input type="checkbox"/>	Reject	Reject

The 'Processing obsolete' outcome is deactivated, while 'Approve' and 'Reject' are active.

## Select the Latest End Tab of the same User Decision

**Workflow Builder - Change 'WF\_4\_Ded\_Ln'**



Information Area  
Workflow: WS90000004  
Version: 0000 (0000) Definition

Navigation Area  
Steps  
000004 Approve Request

Workflow Container  
Element: <Double-Click to Create> | M | D...  
\_Adhoc\_Objects | Ad H

User Decision: 000004 Approve Request

Decision Details Control Outcomes Notification **Latest End** Requested Start Latest Start Requested End Methods

Refer.date/time: No Deadline Monitoring Active  
Date:   
Time:  +  Minute(s)

Action: Display text

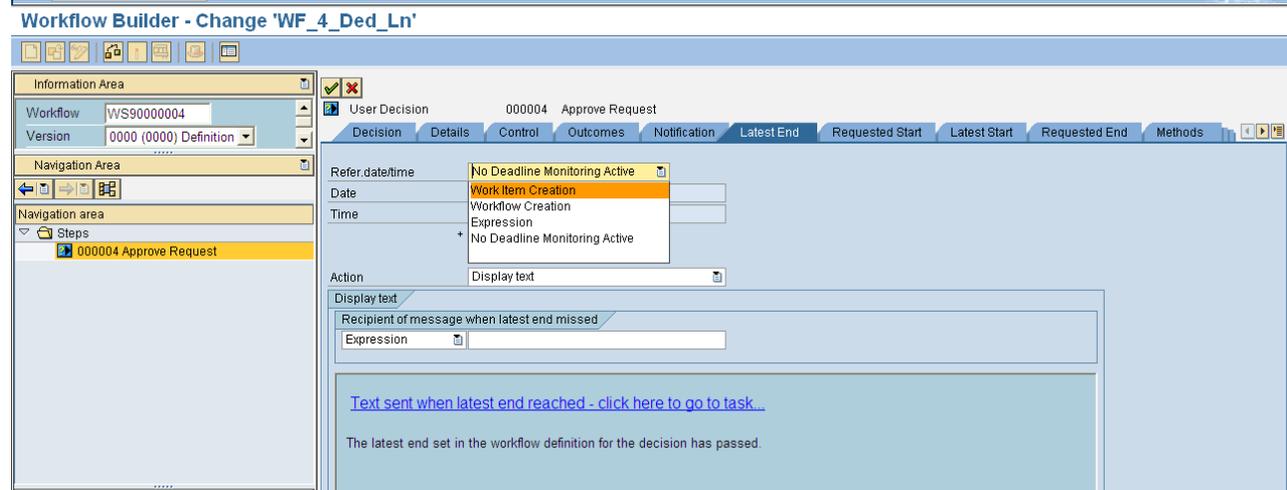
Display text  
Recipient of message when latest end missed  
Expression:

[Text sent when latest end reached - click here to go to task...](#)

The latest end set in the workflow definition for the decision has passed.

## Select Work item creation from the drop down.

**Workflow Builder - Change 'WF\_4\_Ded\_Ln'**



Information Area  
Workflow: WS90000004  
Version: 0000 (0000) Definition

Navigation Area  
Steps  
000004 Approve Request

Workflow Container  
Element: <Double-Click to Create> | M | D...  
\_Adhoc\_Objects | Ad H

User Decision: 000004 Approve Request

Decision Details Control Outcomes Notification **Latest End** Requested Start Latest Start Requested End Methods

Refer.date/time: No Deadline Monitoring Active  
Date:   
Time:  +  Minute(s)

Action: Display text

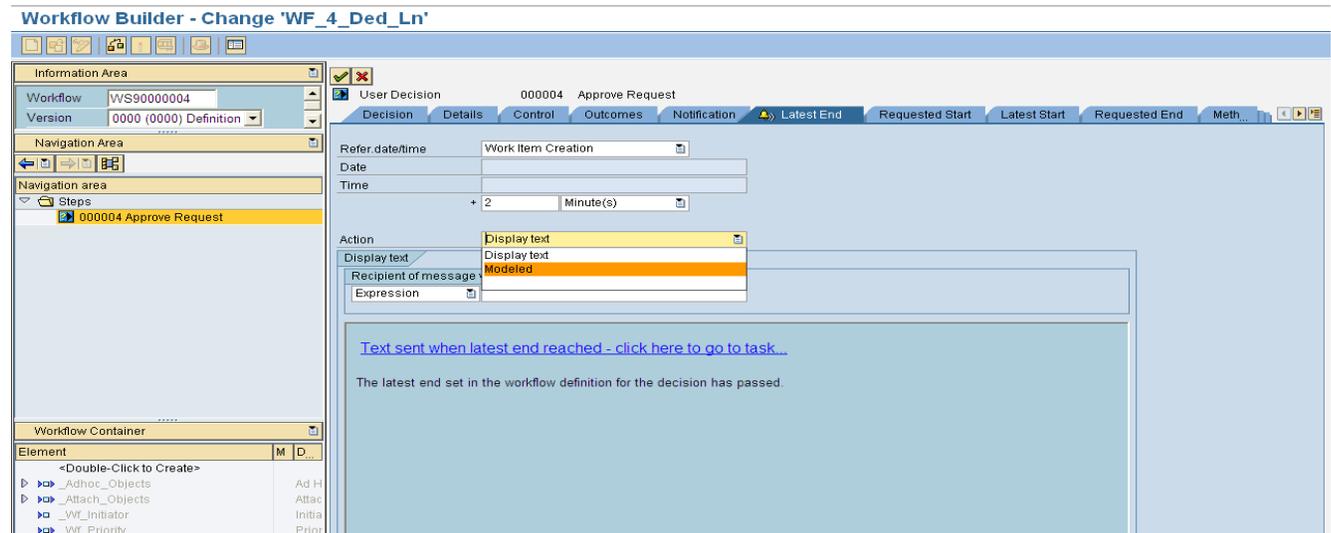
Display text  
Recipient of message when latest end missed  
Expression:

[Text sent when latest end reached - click here to go to task...](#)

The latest end set in the workflow definition for the decision has passed.

## Select Action as Modeled. Provide the Escalation time as 2 minutes.

**Workflow Builder - Change 'WF\_4\_Ded\_Ln'**



Information Area  
Workflow: WS90000004  
Version: 0000 (0000) Definition

Navigation Area  
Steps  
000004 Approve Request

Workflow Container  
Element: <Double-Click to Create> | M | D...  
\_Adhoc\_Objects | Ad H  
\_Attach\_Objects | Attach  
\_WF\_Initiator | Initia  
\_WF\_Priority | Prior

User Decision: 000004 Approve Request

Decision Details Control Outcomes Notification **Latest End** Requested Start Latest Start Requested End Meth...

Refer.date/time: Work Item Creation  
Date:   
Time:  + 2  Minute(s)

Action: Display text  
Display text  
Recipient of message: Modeled  
Expression:

[Text sent when latest end reached - click here to go to task...](#)

The latest end set in the workflow definition for the decision has passed.

Provide the outcome as Escalated.

#### Workflow Builder - Change 'WF\_4\_Ded\_Ln'

The screenshot shows the 'Outcomes' tab for a step named '000004 Approve Request'. The 'Action' is set to 'Modeled'. Under the 'Modeled' section, the 'Outcome' is set to 'Escalated'. Below this, there is a text box with the following content:

Outcome becomes active when deadline passes

Maintain here the name of the outcome that is used by the Workflow runtime system if the deadline monitoring specified above is missed.

Now in Outcomes tab there will be a new Outcome "Escalated".

#### Workflow Builder - Change 'WF\_4\_Ded\_Ln'

The screenshot shows the 'Outcomes' tab for the same step. A table titled 'Possible outcomes of step' is displayed with the following data:

Cpy	Act/	Not	Outcome	Name
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Latest end	Escalated
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Processing obsolete	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Approve	Approve
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reject	Reject

Activate the Processing Obsolete outcome also

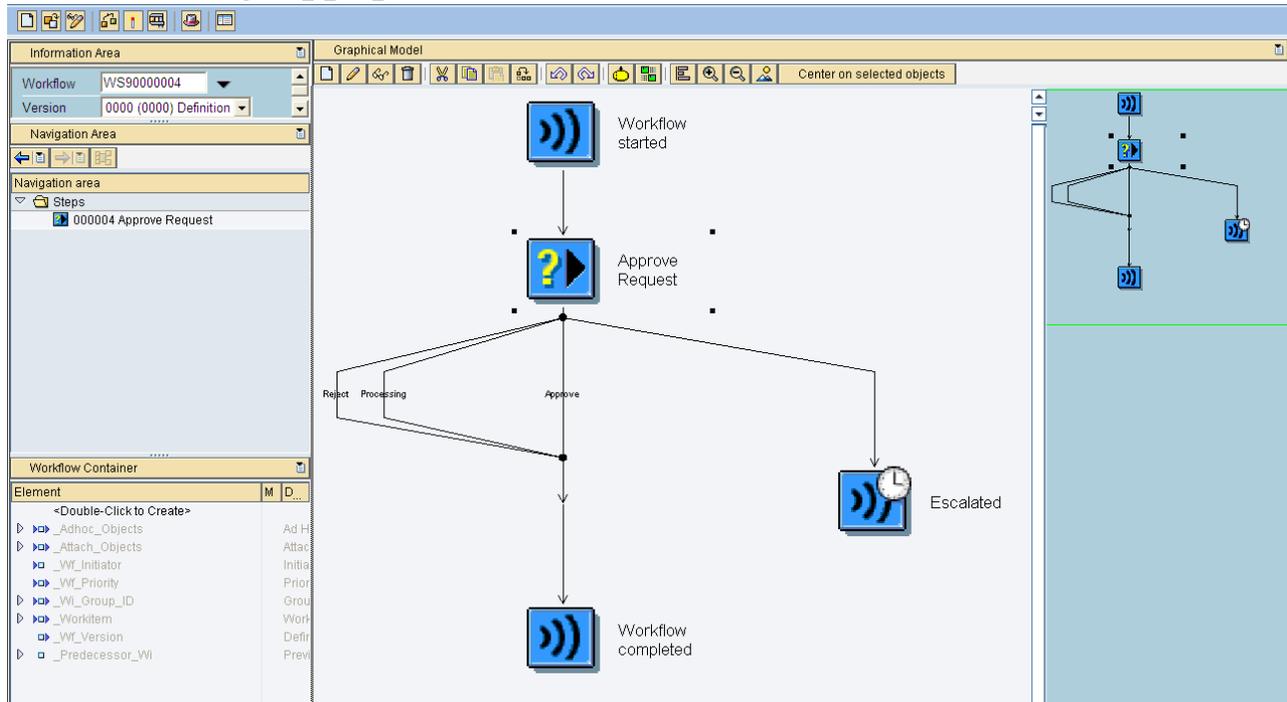
#### Workflow Builder - Change 'WF\_4\_Ded\_Ln'

The screenshot shows the 'Outcomes' tab for the same step. The table 'Possible outcomes of step' now includes 'Processing Obsolete' with its 'Act/' checkbox checked:

Cpy	Act/	Not	Outcome	Name
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Latest end	Escalated
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Processing obsolete	Processing Obsolete
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Approve	Approve
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reject	Reject

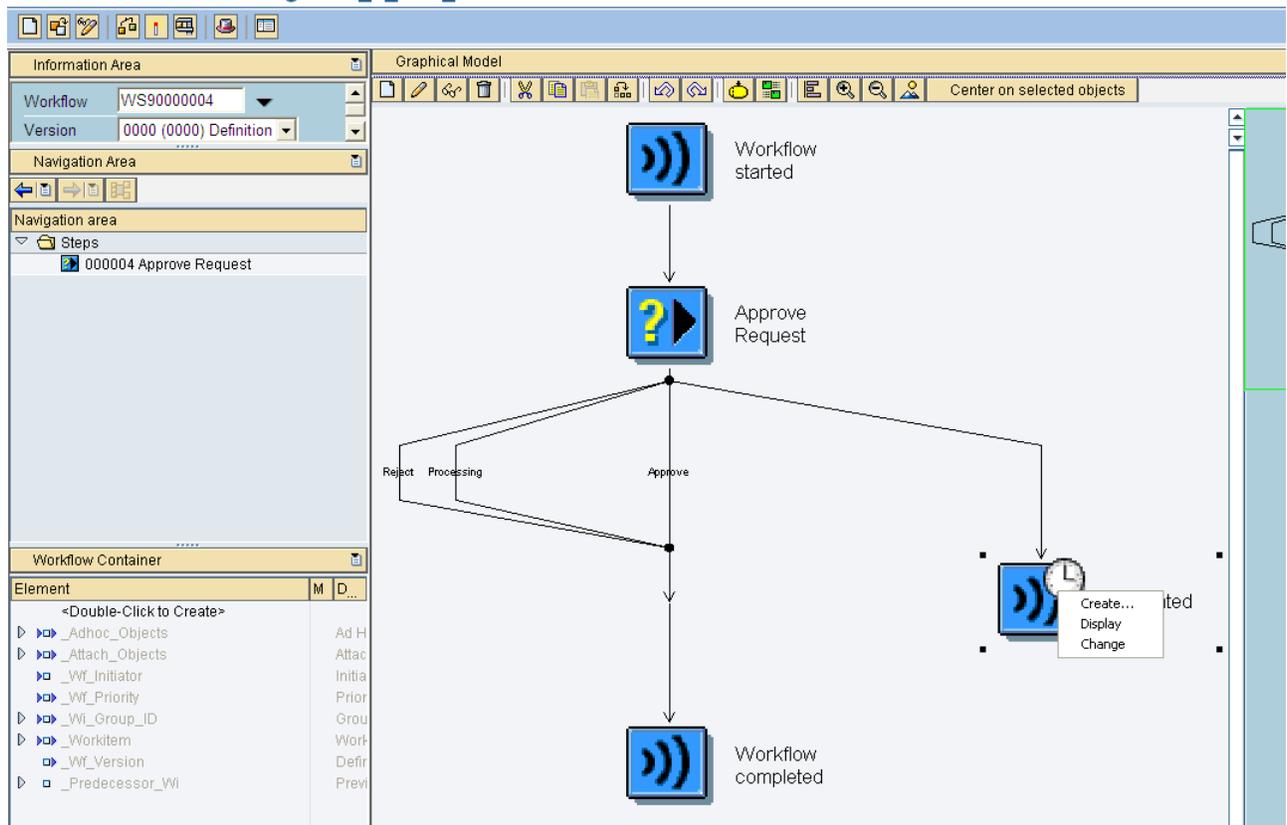
In Template, we can see all the outcomes

Workflow Builder - Change 'WF\_4\_Ded\_Ln'

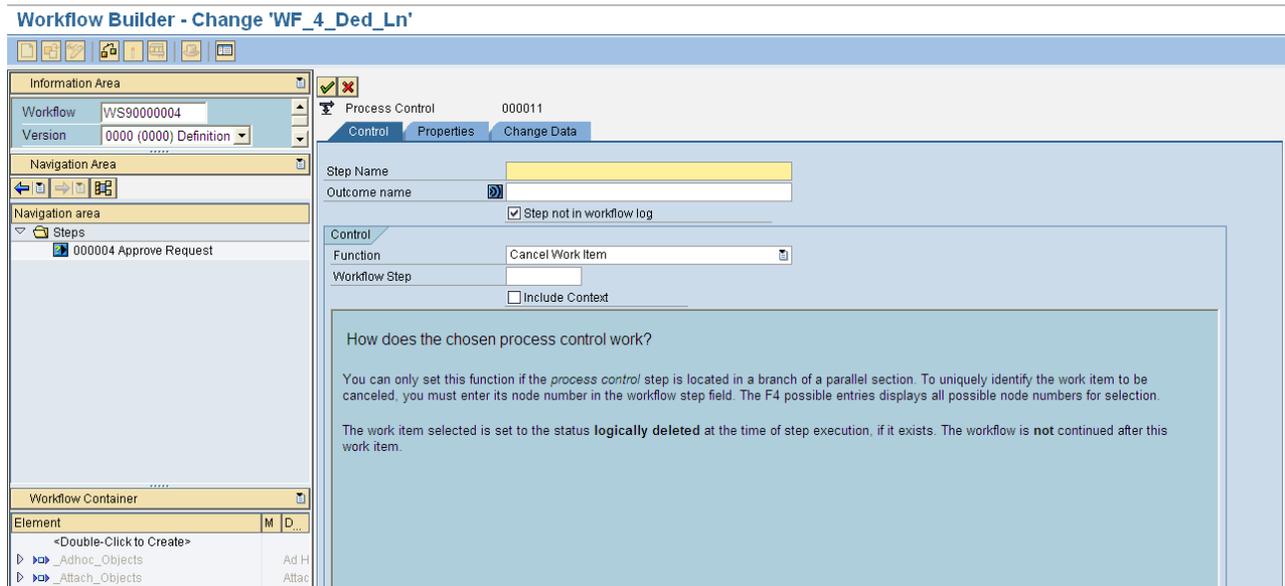
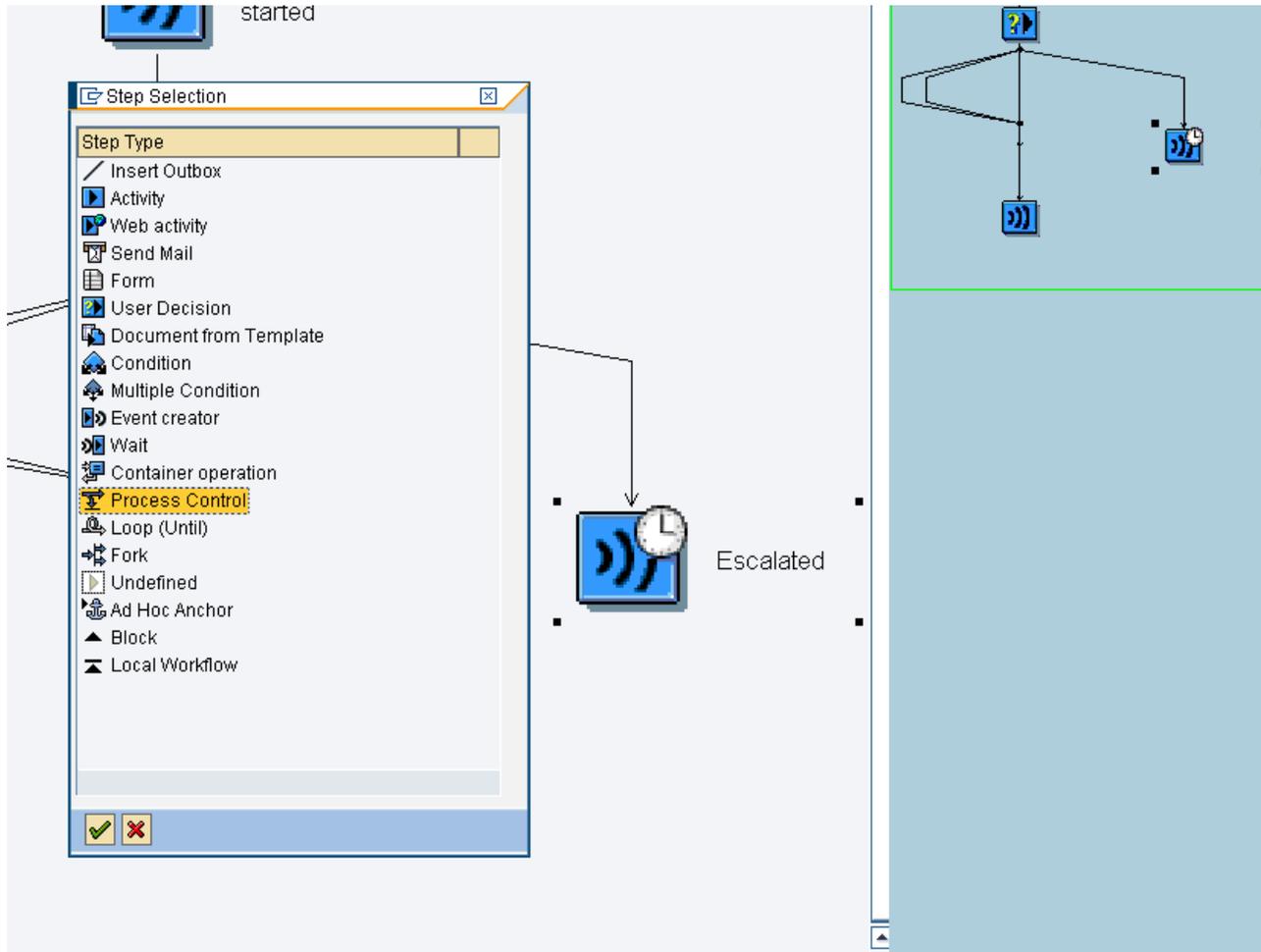


Select Create on Escalated Node

Workflow Builder - Change 'WF\_4\_Ded\_Ln'



Select Process Control



In the control tab enter the following details to handle the latest end to set the work item to obsolete.

Workflow Builder - Change 'WF\_4\_Ded\_Ln'

The screenshot shows the SAP Workflow Builder interface for editing a step. The 'Information Area' at the top left displays 'Workflow: WS90000004' and 'Version: 0000 (0000) Definition'. The 'Navigation Area' shows a tree view with 'Steps' containing '000004 Approve Request'. The 'Workflow Container' table lists various elements like '\_Adhoc\_Objects', '\_Attach\_Objects', etc. The main configuration area is titled 'Change Data' and shows the following details:

- Step Name: Escalation\_On\_Latest\_End
- Outcome name: Reached Latest End
- Step not in workflow log
- Control: Function: Cancel Work Item
- Workflow Step: (empty)
- Include Context

Below the configuration fields is a text box with the following text:

How does the chosen process control work?

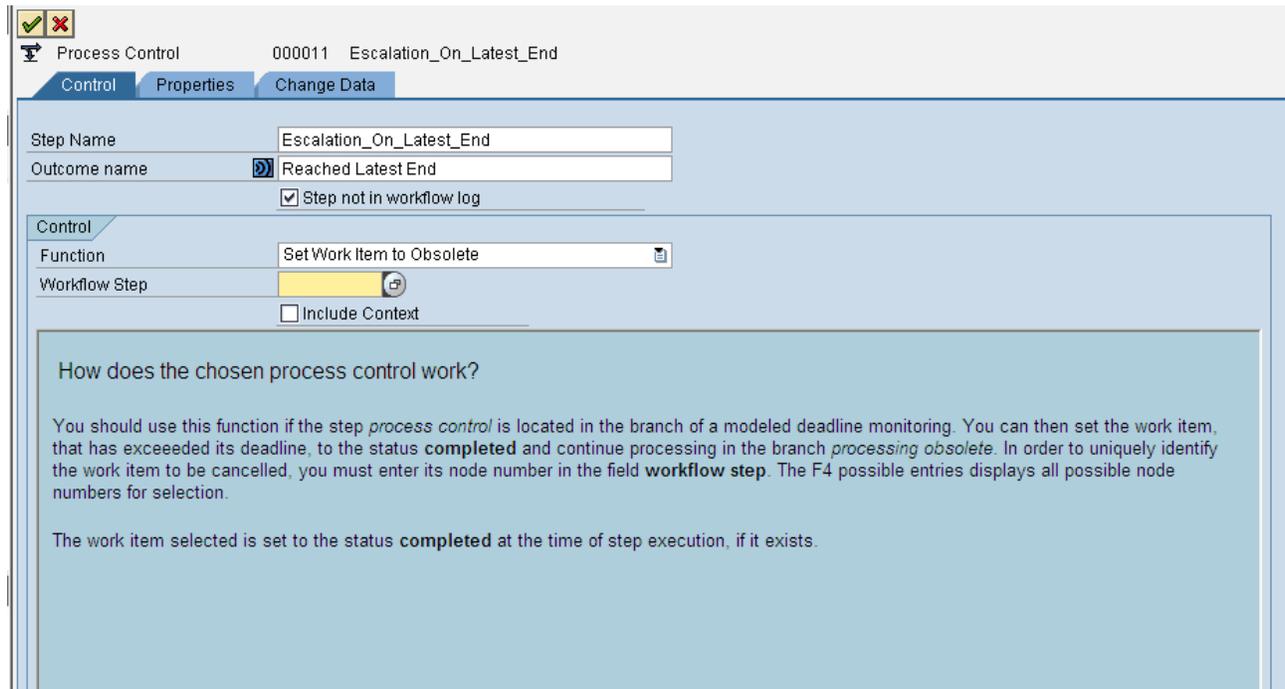
You can only set this function if the process control step is located in a branch of a parallel section. To uniquely identify the work item to be canceled, you must enter its node number in the workflow step field. The F4 possible entries displays all possible node numbers for selection.

The work item selected is set to the status **logically deleted** at the time of step execution, if it exists. The workflow is **not** continued after this work item.

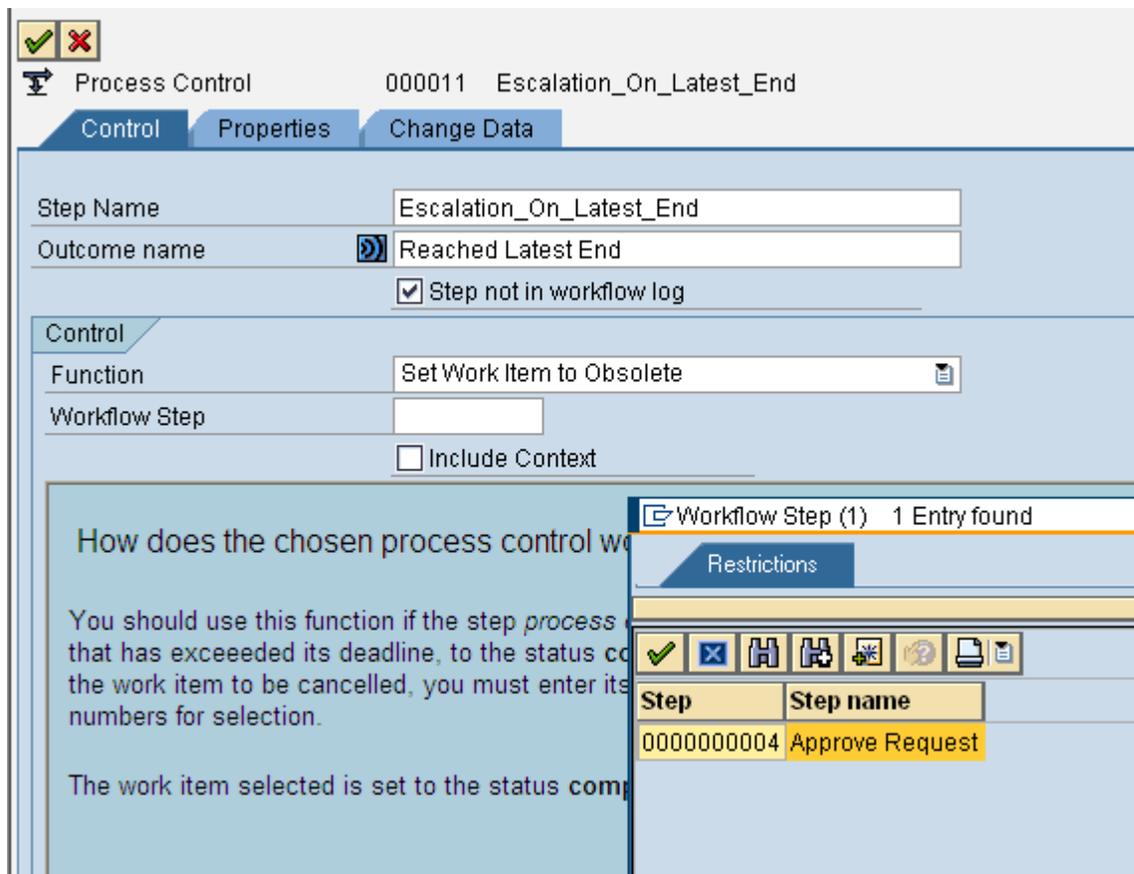
This screenshot is a close-up of the 'Function' dropdown menu from the previous screenshot. The menu is open, showing the following options:

- Cancel Work Item (highlighted)
- Cancel Work Item
- Cancel Workflow
- Set Work Item to Obsolete
- Complete Workflow
- Cancel Workflow (Including all Callers)
- Activate Correlation
- Throw Exception

The background text from the previous screenshot is partially visible, including the question 'How does the chosen process control work?' and the explanatory text about node numbers and logical deletion.



Select the step to be set to Obsolete, from the search help provided



Process Control 000011 Escalation\_On\_Latest\_End

Control Properties Change Data

Step Name: Escalation\_On\_Latest\_End

Outcome name: Reached Latest End

Step not in workflow log

Control

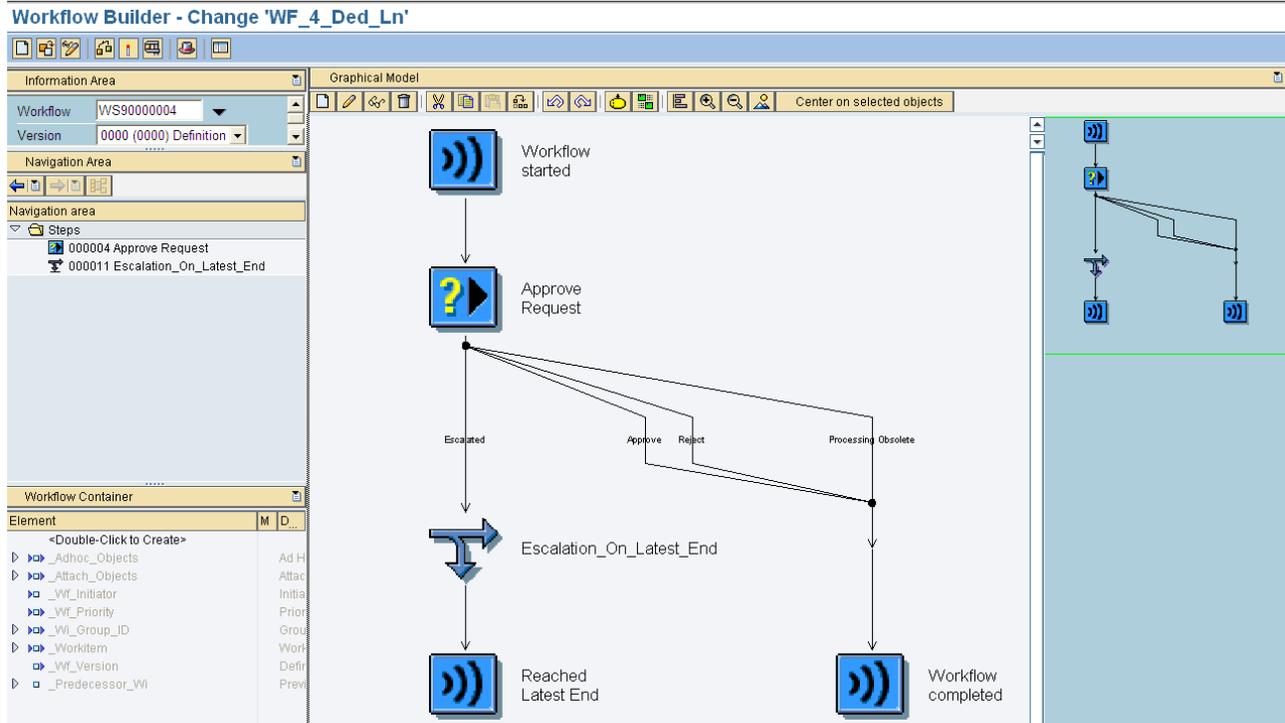
Function: Set Work Item to Obsolete

Workflow Step: 0000000004

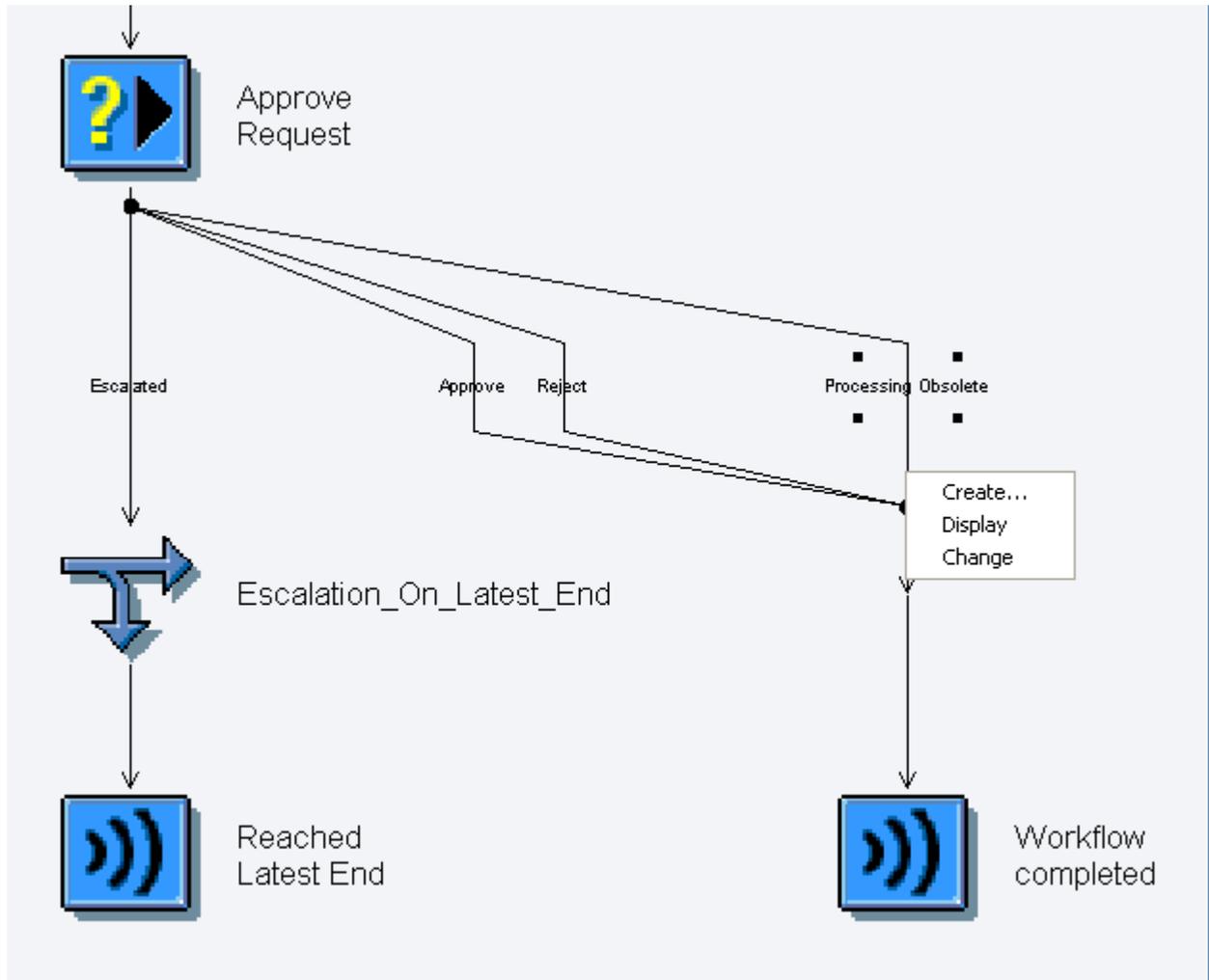
Include Context

How does the chosen process control work?

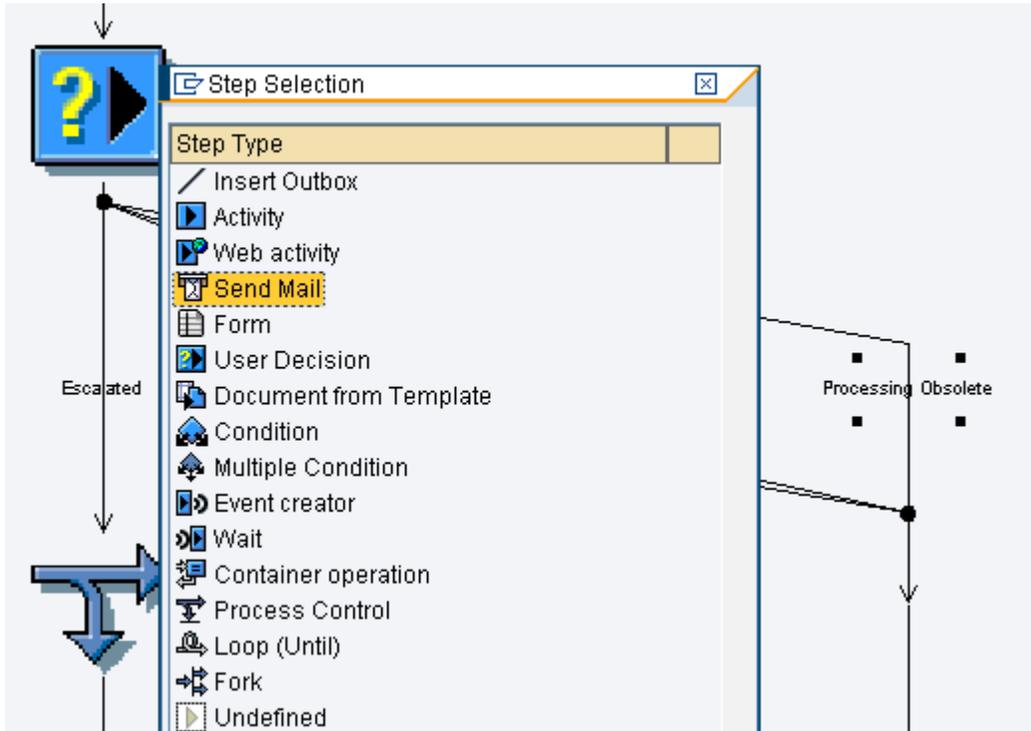
You should use this function if the step process control is located in the branch of a modeled deadline monitoring. You can then set the work item



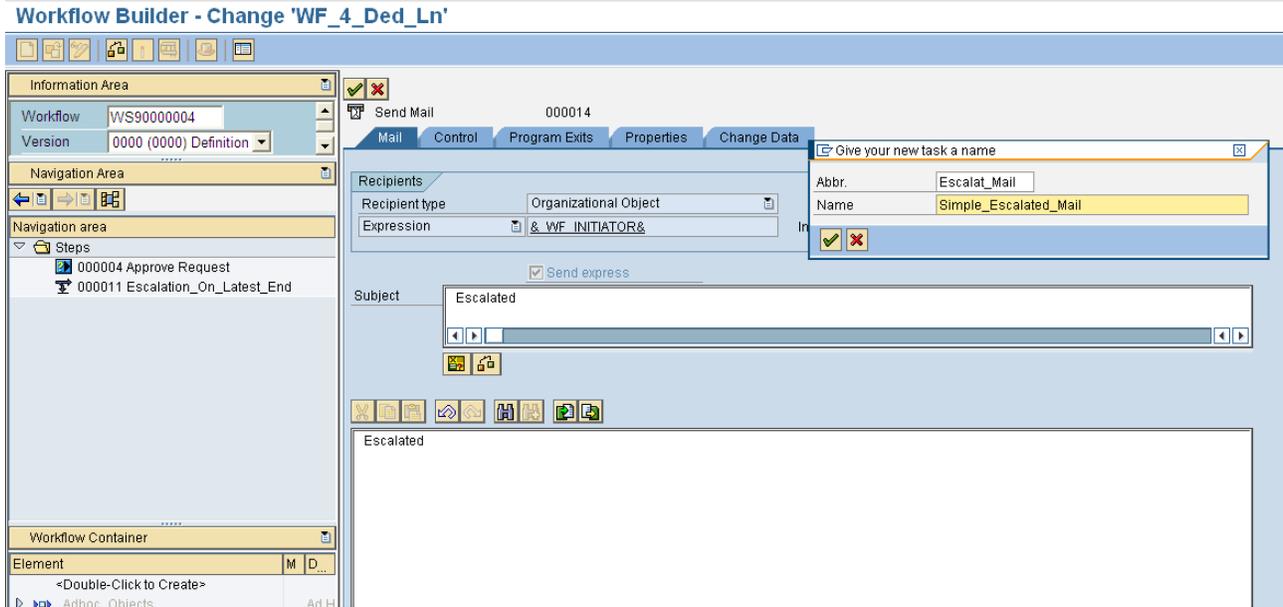
On Processing Obsolete outcome Create

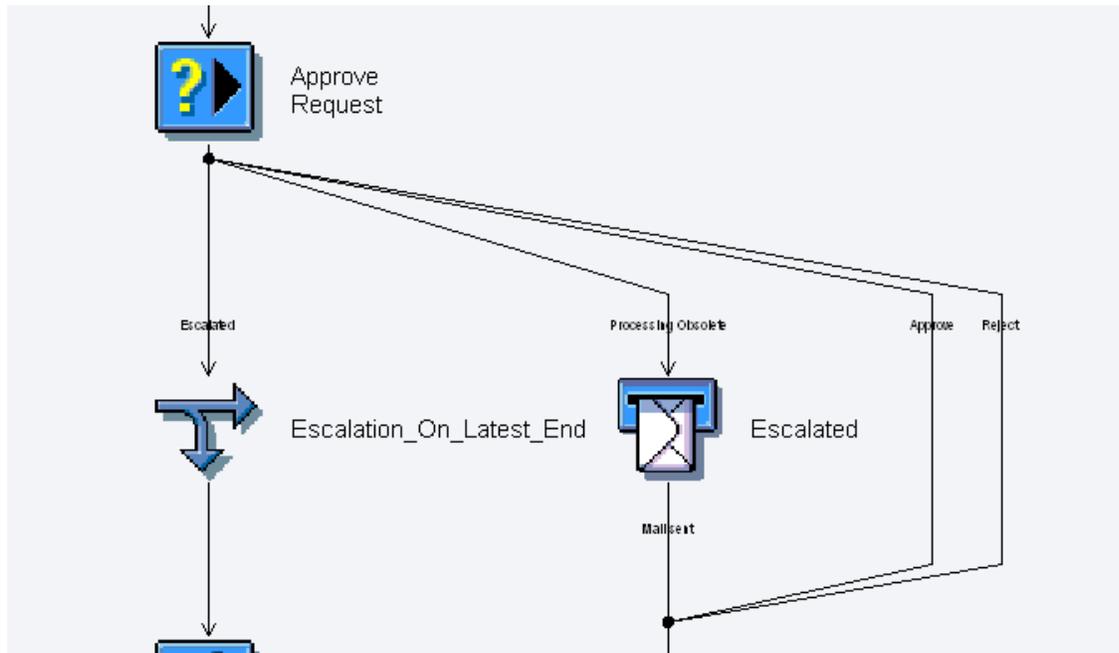


Send mail option is added

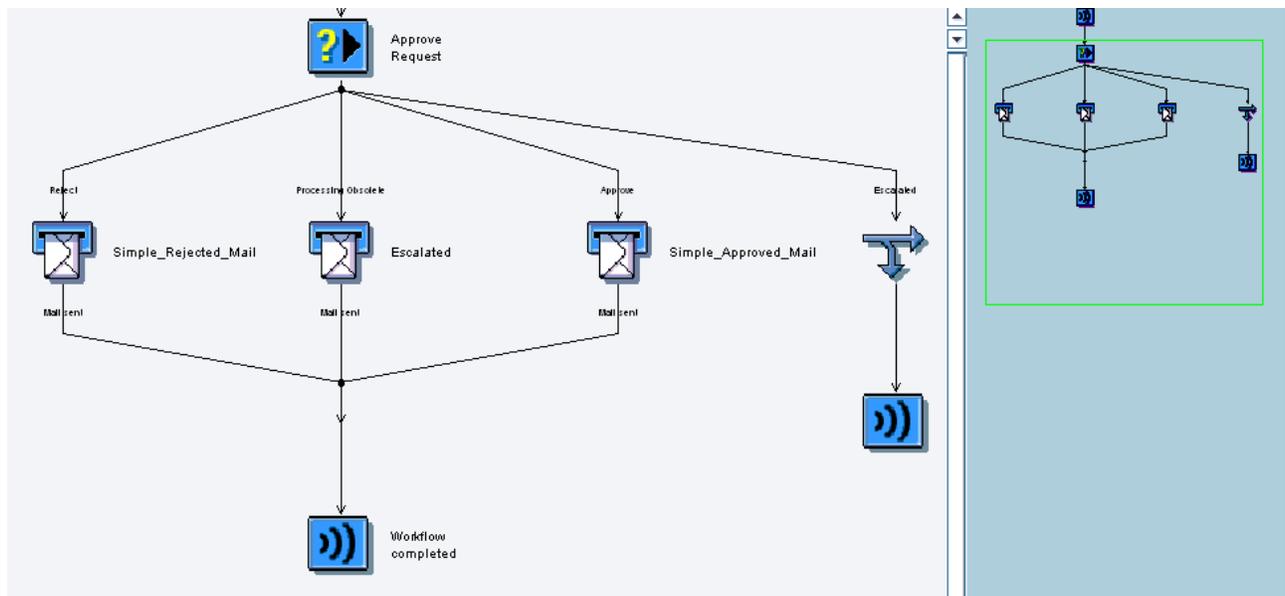


Mail will be send to the workflow initiator.





Similarly, on Approve and Reject, create corresponding send Mails



Activate Workflow

Workflow Builder - Change 'WF\_4\_Ded\_Ln'

Test Workflow

Expression	M	Values
▢ _Wf_Initiator		USOBIZDEV
▢ _Wf_Priority		5
▢ _Wi_Group_ID		< No Instance >

Work flow initiator is set as the recipient for the user decision. So User decision Screen with the Options set in the task appears. Cancel the Workitem, otherwise it will be executed. Now go to Workflow log.

### Workflow Log

View: WF Chronicle | View: Workflow Agents | View: Workflow Objects

Workflow and task	Details	Graphic	Agent	Status	Result	Date	Time
Deadline Monitoring Sample				In Process	Workflow started	23.12.2...	18:17:...
Approve Request				In Process		23.12.2...	18:17:...

In Log, we can see the Latest End Time calculated

### Workflow log (View with technical details)

Hide Details | ActiveX version log

Chronological View

Steps

- Deadline Monitoring Sample
- Approve Request

Details | Step History | Deadlines | Task Description | Container

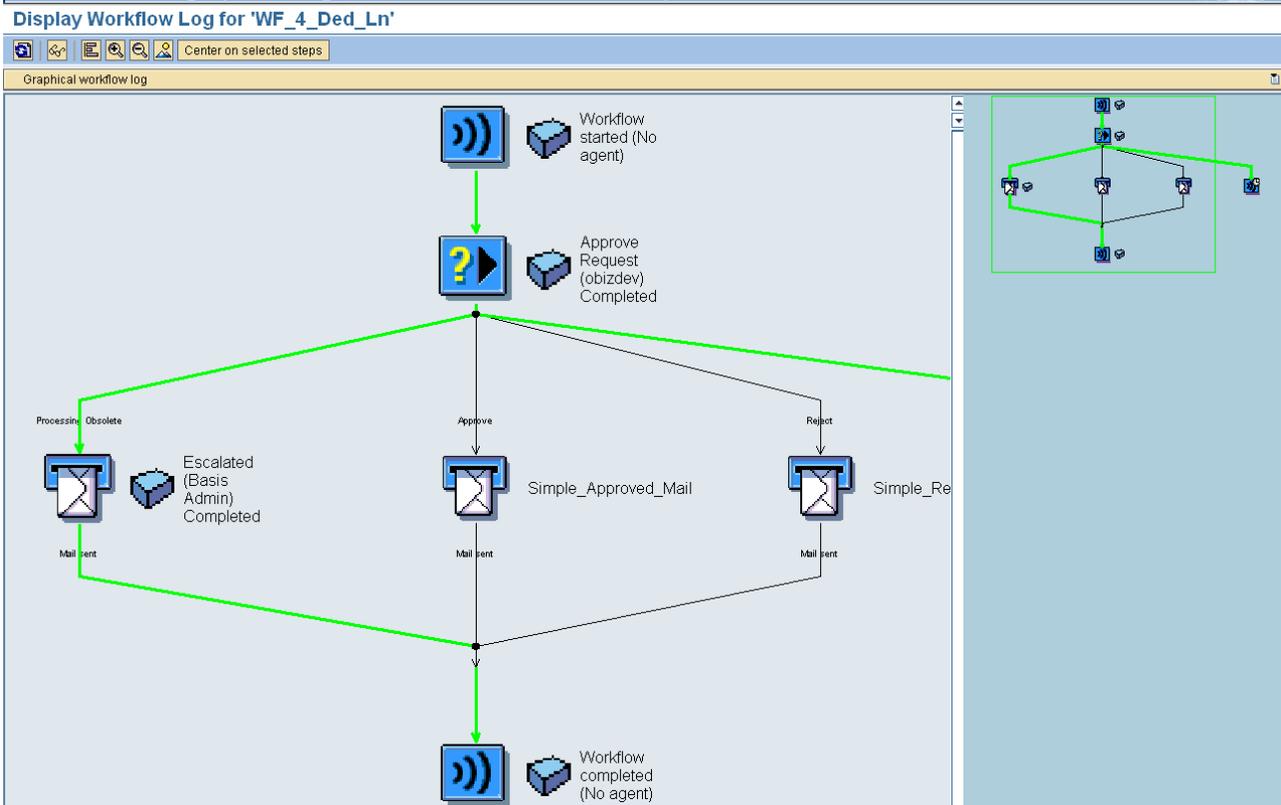
Definition

Expression	Values
WorkitemPriority	5
WorkitemCreator	FLOWITEM_00000038512700000000
WorkitemShortText	Approve Request
DurationInSeconds	4
DesiredStartDate	00.00.0000
DesiredStartTime	00:00:00
LatestStartDate	00.00.0000
LatestStartTime	00:00:00
LatestStartAction	
DesiredEndDate	00.00.0000
DesiredEndTime	00:00:00
DesiredEndAction	
LatestEndDate	23.12.2009
LatestEndTime	13:49:31
LatestEndEscalation	nnnnnnnn

After 2 mins, that is the time we gave for deadline monitoring

Workflow and task	Details	Graphic	Agent	Status	Result	Date	Time
▼ Deadline Monitoring Sample				Completed	Workflow started	23.12.2...	18:17:...
▶ Approve Request				Completed	Processing Obsolete	23.12.2...	18:17:...
▶ Escalated				Completed	Mail sent	23.12.2...	18:22:...

If we check the graphical log, we can see the flow of the process



## **Related Content**

[Modeled Deadline Monitoring or Standard Escalation](#)

[Deadline Monitoring in Workflows in SAP ECC 6.0](#)

[Deadline Monitoring](#)

[Deadline Monitoring in SAP Workflow \(Working with Latest end\)](#)

For more information, visit the [ABAP homepage](#)

## **Disclaimer and Liability Notice**

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.