

JD Edwards EnterpriseOne Tools

Workflow Tools Guide

9.2

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Preface

Welcome to the JD Edwards EnterpriseOne documentation.

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Related Information

For additional information about JD Edwards EnterpriseOne applications, features, content, and training, visit the JD Edwards EnterpriseOne pages on the JD Edwards Resource Library located at:

<http://learnjde.com>

Conventions

The following text conventions are used in this document:

Convention	Meaning
Bold	Boldface type indicates graphical user interface elements associated with an action or terms defined in text or the glossary.
<i>Italics</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
Monospace	Monospace type indicates commands within a paragraph, URLs, code examples, text that appears on a screen, or text that you enter.
> Oracle by Example	Indicates a link to an Oracle by Example (OBE). OBEs provide hands-on, step-by-step instructions, including screen captures that guide you through a process using your own environment. Access to OBEs requires a valid Oracle account.

1 Introduction to JD Edwards EnterpriseOne Workflow

JD Edwards EnterpriseOne Workflow Overview

Oracle's JD Edwards EnterpriseOne Workflow enables you to automate the high-volume, formerly paper-based process into an email-based process flow across a network. Documents, information, and tasks pass from one participant to another for action based on a set of procedural rules. The result is an automated and efficient process with minimal user involvement, which enables you to streamline the existing business processes, increase efficiency, and reduce process time.

Note: JD Edwards EnterpriseOne workflow processes run regardless of the systems bitness. The Workflow Modeler is only available on a 32-bit Development Client. Starting with Release 9.2.6, only 64-bit platform is supported. You can use Workflows, a web-based user interface that is available to launch from the Orchestrator Studio, to manage and configure the workflow processes.

JD Edwards EnterpriseOne Workflow Implementation

This section provides an overview of the steps that are required to implement JD Edwards EnterpriseOne Workflow.

In the planning phase of the implementation, take advantage of all JD Edwards sources of information, including the installation guides and troubleshooting information.

Follow these steps to implement JD Edwards EnterpriseOne Workflow.

- Install JD Edwards EnterpriseOne
See JD Edwards EnterpriseOne installation documentation for your platform.
- Install one or more JD Edwards EnterpriseOne applications.
See JD Edwards EnterpriseOne installation documentation for your application.

2 Understanding Workflow

Why Workflow is Important

In the past, companies benefited greatly from economies of scale, that is, the reduction of production costs that is achieved with increased output. These economies were possible because companies typically manufactured large quantities of standard products for relatively large and stable consumer groups. However, economies of scale are becoming less important in today's marketplace, due in large part to the increasing fragmentation of the consumer base. With so many products available, customers are more discriminating than ever and often expect highly complex services to go with the products that they purchase.

As a result, the definition of productivity as it relates to business success is changing rapidly and radically. Productivity is no longer defined simply as creating more with less. Increasingly, value is linked not only to sheer output but to innovation, or the ability to correctly anticipate and creatively respond to new and changing market opportunities. Today, a keen competitive advantage is enjoyed by those organizations with the flexible business infrastructures and tools in place to quickly develop new products and services and continuously outperform the time to market of their competitors.

The dependence of today's business enterprises on innovation and fast delivery of product cannot be overestimated. With the new emphasis on relentless innovation and the advantages that it breeds, successful companies are constantly searching for ways to reshape their corporate structures and streamline their business processes.

Workflow Management: Streamlining Business

Goods and services must be produced both faster and smarter through teamwork and efficiency. Only those companies with innovative staff, products, services, and short development cycles will prosper.

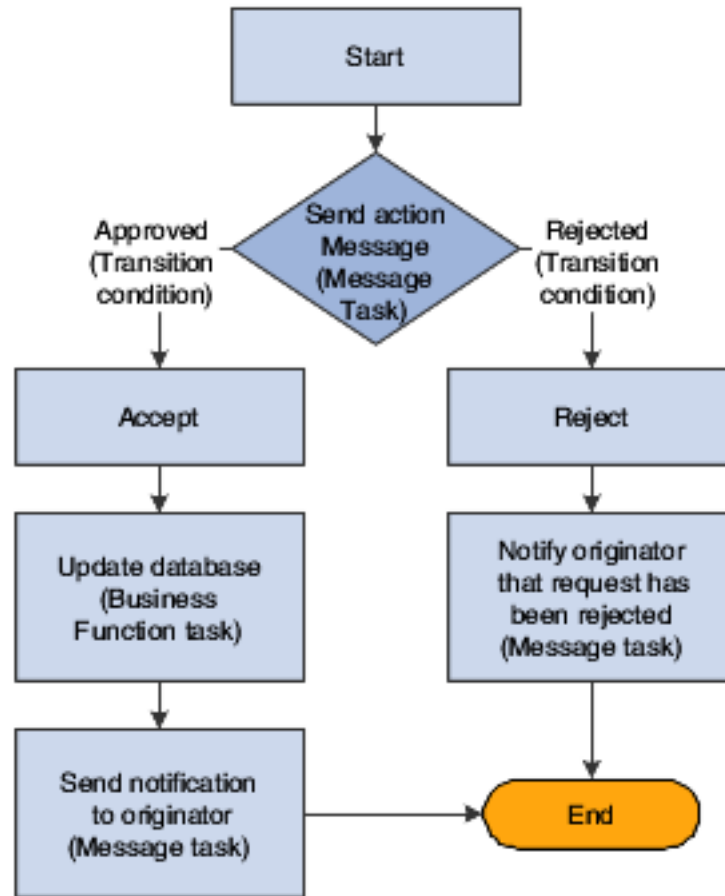
Workflow management, a strategy for automating business processes, is a powerful tool for translating the collaborative vision into real-world business applications with clear and measurable paybacks. The aim of workflow management is to streamline the components of various office systems by eliminating unnecessary tasks (and the costs associated with the performance of those tasks) and automating the remaining tasks in a process.

Workflow management is the effective application of information technologies to internal business processes in order to accelerate the collaborative and creative processes that drive innovation. The goal of workflow software technology is the creation of a single environment for managing the complexities multiple-office automation environments. As software has moved from individualized solutions with dedicated functionality to integrated groupware solutions, workflow has evolved as a metaphor for the efficient coordination of multiple workgroups using multiple technologies.

Most workflow products support two basic functions:

- Tools for mapping business processes, which might be defined sets of routes, roles, and rules for the movement of documents and tasks.
- Implementation of those business processes through linkages with a company's computer network, shared databases, and email systems, so that information can flow through the organization at a controlled and efficient pace.

This flowchart illustrates a basic workflow process for approving an increase to a customer's credit limit:



The Benefits of Workflow

Because organizations are made up of a series of intricately intertwined business cycles, these cycles are a logical place to look first when attempting to streamline. According to the Workflow Management Coalition, almost 90 percent of all time that is used to perform tasks within the business setting is classified as transfer time, whereas 10 percent is used for the actual performance of those tasks. The objective of workflow analysis is to redefine and then reconstruct the components of lengthy business cycles so that the time required to execute a task is minimized and the transfer time between tasks is eliminated entirely.

Other key benefits of workflow management include:

- Improved efficiency through the elimination of many unnecessary task steps.
- Better business process control achieved by standardizing work methods and creating audit trails.
- Improved customer service from predictable processes and responses.
- Flexibility bred from software control over processes, which enables their future redesign in response to changing business needs.

Workflow Enhancement Scenario

This section discusses:

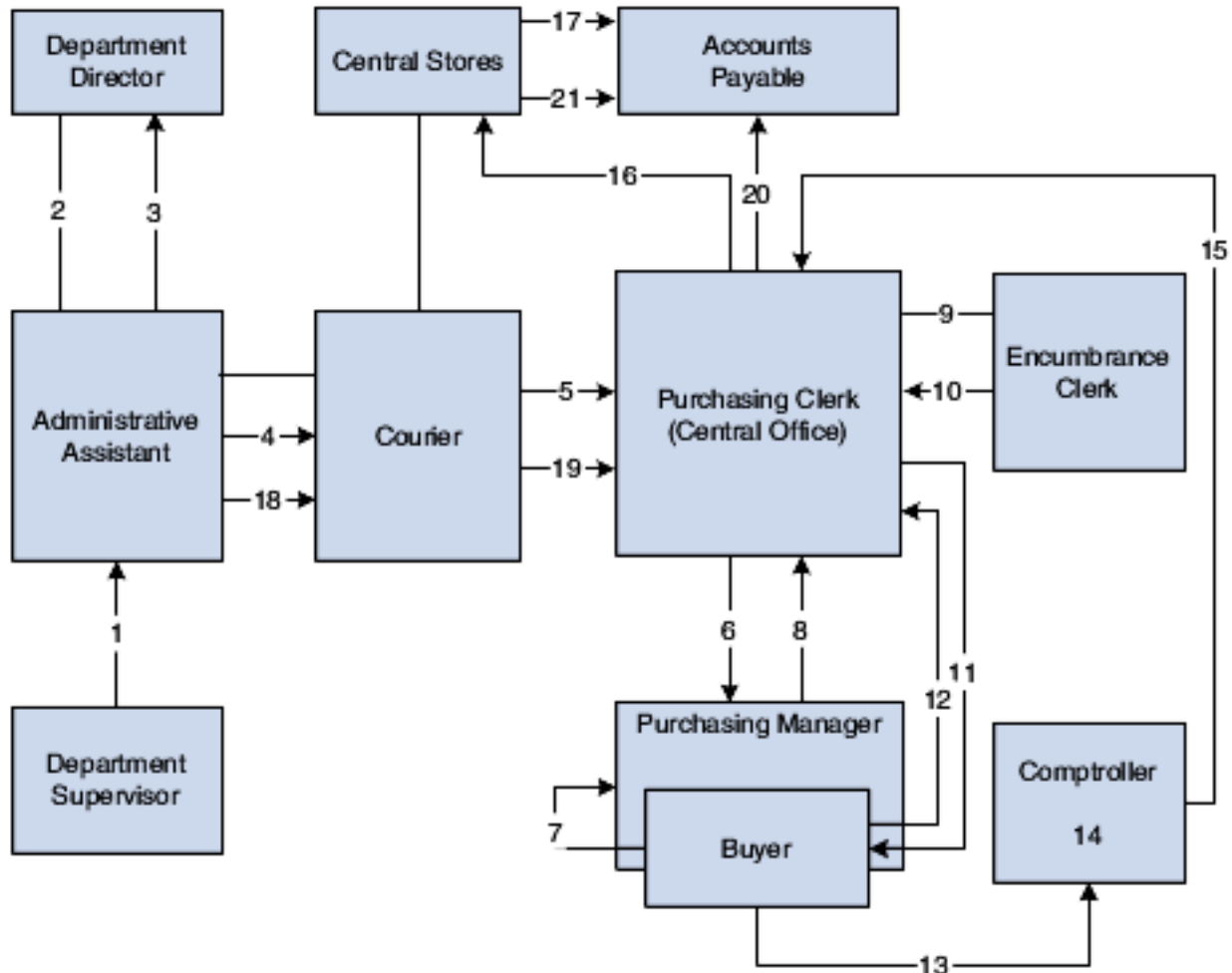
- Conventional workflow.
- Enhanced workflow with JD Edwards EnterpriseOne Workflow Tools.

Conventional Workflow

Information that is critical to a workflow process can be defined and stored in database tables, enabling a computer system to automate the flow of information and tasks. This automation minimizes the reliance on physical meetings to enter redundant data and to physically exchange paper. For example, using an automated workflow process, purchase orders and work orders can be processed to completion without a single printout. The defined workflow information might include order activity rules, workflow steps, and expenditure authorization requests, all of which can be routed automatically using email.

The following scenario demonstrates the savings in labor and time that can be achieved when workflow technology is applied to a typical business process like procurement.

This graphic shows the paper trail of a typical procurement process that is not automated. The step-by-step tasks of this conventional workflow and the total time required to complete the procurement process are explained in the following graphic.



1. The department supervisor at a remote office fills out a requisition form to request goods.
2. The administrative assistant processes the requisition form, looks through two catalogs, and locates the items. The assistant then fills out the paper portion of the requisition and walks it to the department director.
3. The department director reviews the requisition, signs it, and puts it in an Out basket.
4. The administrative assistant retrieves the requisition and places it in a courier pack to the central office.
5. A courier drives to the remote office, picks up the courier pack, and delivers it to the purchasing clerk at the central office.
6. The purchasing clerk reviews the requisition, audits central stores, and sends the requisition to the purchasing manager if the item is in stock, or to the buyer if the item is not in stock.
7. The buyer reviews the document, selects the supplier, calls for a quote, and passes the requisition to the purchasing manager.
8. The purchasing manager reviews, signs, and places the requisition in an Out basket.
9. The purchasing clerk retrieves the requisition and passes it to the encumbrance clerk.
10. The encumbrance clerk reviews the items, assigns account codes, and checks the budget. If funds are available, the requisition is passed back to the purchasing clerk.
11. The purchasing clerk sends the requisition to the comptroller if the item is in central stores, or to the buyer if it is not in stock and must be bought and delivered to central stores.
12. The clerk retrieves the purchase order and delivers it to the comptroller or buyer.
13. The buyer consolidates the requisition into a single purchase order per vendor and places the order in the Out basket for delivery to the comptroller.

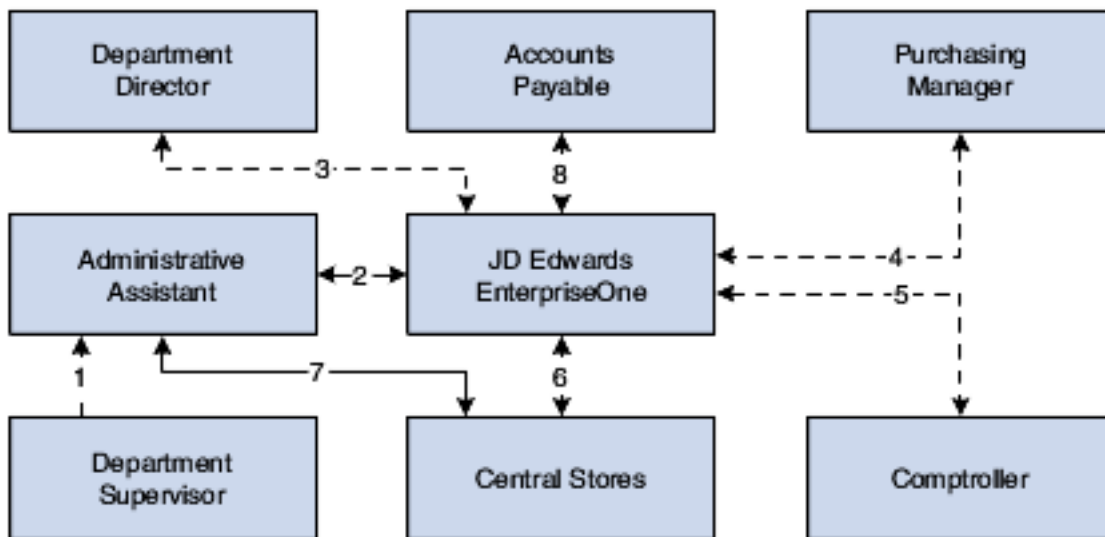
14. The comptroller reviews and signs the purchase order. At this step, the routing can take longer, based on the amount of the request and the level of authorization of the person approving the purchase.
15. The clerk retrieves the document and places it in interoffice mail. Another day passes.
16. Using interoffice mail, a multipart document arrives one day later in the purchasing department. The purchasing clerk tears out the white copy and sends the rest of the multipart form to central stores.
The purchasing clerk logs and files the white copy.
17. The central stores clerk retrieves the item from the shelf, tears out the pink copy, places it in the accounts payable stack, and ships the item and the remaining copies to the remote office.
18. The administrative assistant receives the item, tears out, logs, and files the blue copies, and places the green receiving and yellow accounts payable copy in a courier pack to go back to the central office.
19. A courier retrieves the pack and returns the green and yellow copies to the central office.
20. The purchasing clerk attaches the white original and green receiving copies to each other, puts them in the file, and sends the yellow copy to accounts payable.
21. The accounts payable clerk receives the invoice from central stores, retrieves the open yellow receiver copy from the file, and matches and enters the voucher.

Total time (in minutes) per item if the item is not in stock: 172.5

Total time (in minutes) per item if the item is in stock: 147.5

Enhanced Workflow with JD Edwards EnterpriseOne Workflow

This graphic shows how JD Edwards EnterpriseOne Workflow enhances a conventional workflow by reducing the paper trail, minimizing redundant data and data entry, and reducing errors or the need to redo work.



Using JD Edwards EnterpriseOne Workflow, the organization streamlined its Workflow process as described in the following steps:

1. The department supervisor fills out a requisition form to request goods.
2. The administrative assistant processes the requisition form online. The system checks the budget and automatically routes the request to the next approver based on the JD Edwards EnterpriseOne Workflow table hierarchy and the amount of the item.
3. The department director reviews and approves the requisition online. The system automatically routes the requisition to the appropriate buyer or purchasing manager.

4. The purchasing manager consolidates the requisition with others for the same vendor into a purchase order. The system automatically routes the purchase order to the next approver.
5. The comptroller reviews and approves the purchase order as required.
6. The purchase order is automatically routed to central stores. A clerk takes the pick slip, retrieves the item from the shelf, and ships it for next-day delivery.
7. The administrative assistant receives the item on the next day.
8. The accounts payable clerk receives the invoice online and matches it to the open receipt that is also online. The system automatically creates a voucher.

Total time (in minutes): 27

3 Understanding JD Edwards EnterpriseOne Workflow

JD Edwards EnterpriseOne Workflow

In JD Edwards EnterpriseOne, you can enable any application for JD Edwards EnterpriseOne Workflow. This flexibility and ease of use enables you to use new, innovative business process ideas in the existing system without major system changes.

JD Edwards EnterpriseOne Workflow enables you and your employees to access JD Edwards EnterpriseOne Workflow messages or tasks from several places:

- Work Center.
- Employee Queue Manager.
- Third-party email systems.

Key Concepts

The following list contains definitions of key concepts that are essential in understanding the JD Edwards EnterpriseOne Workflow. Before you create a JD Edwards EnterpriseOne Workflow process, you should familiarize yourself with the following concepts:

JD Edwards EnterpriseOne Workflow system

All of the tools that facilitate the design of a JD Edwards EnterpriseOne Workflow process, as well as the JD Edwards EnterpriseOne workflow engine.

JD Edwards EnterpriseOne Workflow engine

All of the JD Edwards EnterpriseOne mechanisms that move a JD Edwards EnterpriseOne workflow process from one task to another.

Process definition

A template or model of a JD Edwards EnterpriseOne workflow process. The process definition contains all the information about the tasks, transitions, and conditions that make up a JD Edwards EnterpriseOne workflow process. That is, the process definition defines each component of the process and defines each path that the process might follow.

Process instance

An active process in the system. When an event rule activates a JD Edwards EnterpriseOne workflow process, the system creates a process instance. The process instance follows a path that is defined in the process definition. You can have several concurrent process instances of the same process in the system.

Note: If you are familiar with object-oriented programming, a process definition is comparable to a class and the process instance is comparable to an object.

Process version

A specific JD Edwards EnterpriseOne Workflow process definition. The system uses process versions to enable modification of processes without disrupting currently running process instances. Before you modify a process, you should copy the JD Edwards EnterpriseOne workflow process version to a new version number, edit the new version, and then make the new version active. Use this versioning mechanism during JD Edwards EnterpriseOne workflow development to enable process instances that started using the old version to finish using that same version.

JD Edwards EnterpriseOne Workflow Features

JD Edwards EnterpriseOne Workflow enables you to:

- Attach a JD Edwards EnterpriseOne workflow process with event rules to any event within an application, batch process, or named event rule (NER).

You can also attach a JD Edwards EnterpriseOne workflow process through table event rules in Table Design Aid.

- Launch a workflow process from a logic extension. Because logic extension is part of an orchestration, you can also launch a workflow process in the same way you launch orchestrations (Tools Release 9.2.6.4).
- Run conditional processing, which is logic that is contingent upon supplied criteria, such as quantity and dollar amount.

This criteria can be any parameter that is used in the decision-making process that the system can evaluate.

- Create messages that are specific to the process by setting up message templates (text substitution messages) in the data dictionary.

JD Edwards EnterpriseOne Workflow also:

- Integrates seamlessly with JD Edwards EnterpriseOne interactive and batch applications.
- Offers multiple level approvals.
- Offers automatic escalation of messages which have not been acted upon.
- Offers manual escalation of processes in which the administrator can override or bypass certain tasks or users in the JD Edwards EnterpriseOne workflow process.
- Automatically time stamps all tasks within a process for auditing and improvement analysis through the Process Task Monitor (P98860) or JD Edwards EnterpriseOne Workflow Advanced Analysis (P98870).

JD Edwards EnterpriseOne Workflow technology, rules, and principles enable you to work more efficiently and reduce cycle time. The automated process reduces errors and generates less paperwork. Furthermore, JD Edwards EnterpriseOne Workflow helps you develop JD Edwards EnterpriseOne workflow-enabled applications or quickly and smoothly enable existing applications for JD Edwards EnterpriseOne Workflow. You can attach a JD Edwards EnterpriseOne workflow process that sends a message or calls an application to any event within an application. All you have to do is attach a Start Process call to an event within an application to initiate the workflow process. Because this process is defined outside of the application, it offers you unlimited flexibility to incorporate innovative ideas into the JD Edwards EnterpriseOne system.

JD Edwards EnterpriseOne Workflow Monitoring

You can monitor JD Edwards EnterpriseOne workflow processes and tasks in these ways:

- As a JD Edwards EnterpriseOne workflow administrator, from the Process Task Monitor.
This monitor enables an administrator to override authority at the execution of certain tasks or to monitor the JD Edwards EnterpriseOne workflow for potential delays in JD Edwards EnterpriseOne workflow queues.
- As a user, from the Work Center, which displays action or error messages that require user interaction.
For example, when a user receives notification that a document requires her review, the routing and the document appear within the Work Center.

The JD Edwards EnterpriseOne Workflow model is based on the following principles:

- Routes
Routes define the path along which the JD Edwards EnterpriseOne Workflow engine moves work. This work could involve a message, batch process, business function, halt in the system, or form. Routing can be simple, meaning that it is typically sequential; or it can be complex, meaning that it involves joins or splits, parallel routing, or iterative routing (looping).
- Rules
Rules define to whom or where the work should be routed. Rules define the conditions that must be met for the JD Edwards EnterpriseOne Workflow engine to progress from one step to the next. Rules can be contingent on predefined threshold values or can be as simple as moving to the next step in a process.

Components of a JD Edwards EnterpriseOne Workflow Process

This section provides an overview of the components of a JD Edwards EnterpriseOne workflow process, and describes the JD Edwards EnterpriseOne workflow tasks.

Components

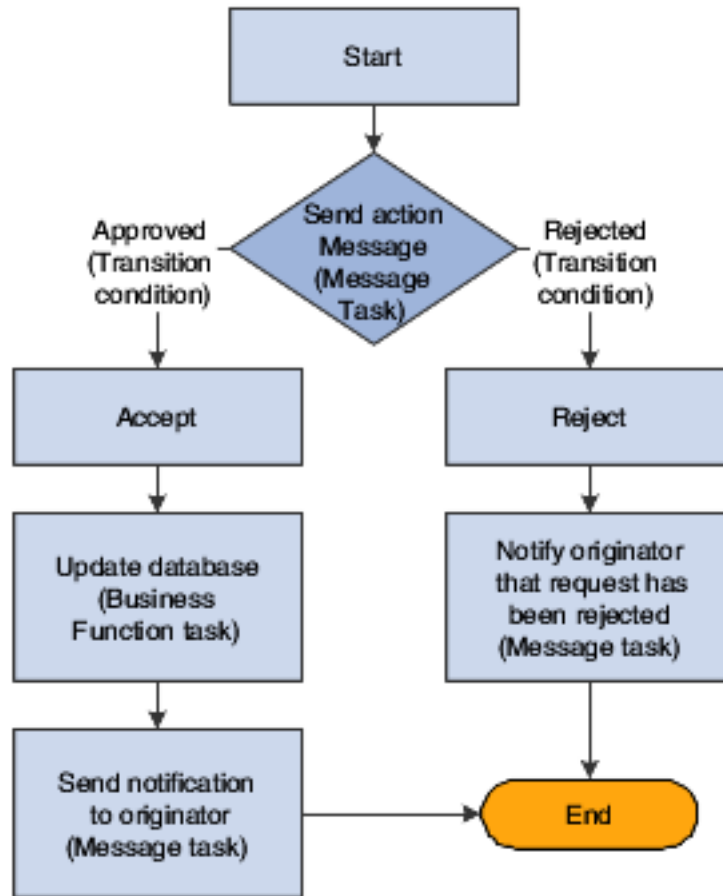
A JD Edwards EnterpriseOne workflow process consists of tasks and transitions. A task represents an action that takes place in a JD Edwards EnterpriseOne workflow process, such as starting the workflow process, sending an approval message, or updating a table in a database. A transition links the workflow tasks together. Transitions can contain transition conditions, which are logical criteria that determine which task will occur next in the workflow process.

The following graphic illustrates a workflow process. Each box represents a task in the process. The Start task begins the process when triggered by an event within an application, such as someone changing a customer's credit limit. Based on that change, the system invokes a message task, which sends a message to a designated user (an approver) to review the change and either approve or reject it.

The lines in the graphic that are labeled Approved and Rejected illustrate transition conditions. If the approver approves the change, a business function updates the database with new information (such as the customer's new credit limit).

The system then sends a message back to the originator, acknowledging that the changes were made. If the approver rejects the change, the system sends a message to the originator informing him or her that the request was rejected. The database remains unchanged if the request is rejected.

This flowchart shows a JD Edwards EnterpriseOne workflow process.



JD Edwards EnterpriseOne Workflow Tasks

Note: Starting with Release 9.2.6, Batch Application and Local Subprocess tasks have been renamed as Report and Local Process, respectively. The functionality of each of the tasks within a workflow process remains the same.

The following tasks can be used in a JD Edwards EnterpriseOne workflow process:

Start

A task that begins a JD Edwards EnterpriseOne workflow process when triggered by an event. This task is automatically included in the process when you create a JD Edwards EnterpriseOne workflow process.

End

A task that completes a JD Edwards EnterpriseOne workflow process. As with Start, this task is automatically included in the process when you create a JD Edwards EnterpriseOne workflow process.

Report

A task that starts a JD Edwards EnterpriseOne batch application.

Business Function

A task that uses a business function for special logic processing, including any business functions that are written in C programming language or named event rules. For example, you can set up a business function task that updates the database if a user approves an active message.

Local Process

A task that starts another JD Edwards EnterpriseOne workflow process, which includes its own set of tasks.

Information Task

A task that sends notifications only. You can attach shortcuts, but recipients will not be able to respond to them. An Information task can include these items:

- A recipient specifying to whom the message will be sent. You can also include a Cc and Bcc email address.
- A shortcut to the Generic JD Edwards EnterpriseOne Workflow Approval forms (P98806) or any other form.
- A message template containing boilerplate text and values that are substituted from data items within key data and additional data structures of the JD Edwards EnterpriseOne workflow process.
- A media object and a media object key. JD Edwards EnterpriseOne software media objects and imaging features enable you to attach useful information to an application, including information that might currently exist as a paper-based document. The media objects feature enables you to attach the information to JD Edwards EnterpriseOne software applications, forms and rows, and Object Librarian objects. The imaging feature within media objects gives you the flexibility to create an efficient method of information storage.

The media object key uniquely defines a record in the generic text database.

Action Task

A task that sends a message that requires a response from the recipient(s) via a web shortcut. An Action task can include these items:

- A recipient specifying to whom the message will be sent. You can also include a Cc and Bcc email address.
- A shortcut to the Generic JD Edwards EnterpriseOne Workflow Approval forms (P98806) or any other form.
- A message template containing boilerplate text and values that are substituted from data items within key data and additional data structures of the JD Edwards EnterpriseOne workflow process.
- A media object and a media object key. JD Edwards EnterpriseOne software media objects and imaging features enable you to attach useful information to an application, including information that might currently exist as a paper-based document. The media objects feature enables you to attach the information to JD Edwards EnterpriseOne software applications, forms and rows, and Object Librarian objects. The imaging feature within media objects gives you the flexibility to create an efficient method of information storage.
- Escalation options enabling the system to forward (escalate) unread messages after a certain period of time to another user. You add escalation to a message so that if the original recipient of the message is not available to respond to the message, another person will receive the message.

Halt

A task that suspends the JD Edwards EnterpriseOne workflow process for a certain period. When a period of time has passed or when an event occurs, the process starts again. The process is permanently halted until some outside event restarts it. You specify the earliest date and time that the task can be restarted within the instance record.

Orchestration (Tools Release 9.2.7)

A task that calls an orchestration from a workflow process. You have an option to either call an orchestration or a notification using the Orchestration task.

Example: A JD Edwards EnterpriseOne Workflow Process

The Accounts Receivable application can detect when a user changes a customer's credit limit. This ability to detect a change enables an approval process to automatically route a message to the appropriate people for their approval or rejection.

In the following example, a user changes a customer's credit limit from 50,000 USD to 60,000 USD. The system displays a message box that notifies the user that the changes have been submitted for approval. The system does not reflect the new credit limit in the customer record until the change is approved.

The approver receives a message in the Credit Management Queue through the Employee Work Center. The message indicates that the change is pending approval.

To approve or reject the change, the approver clicks the message and clicks the Workflow Approval button, which opens a form used to approve or reject the message. This form also enables the approver to add supplemental information about the approval or rejection action for audit purposes.

If the approver rejects the change, the system retains the customer's old credit limit information and sends a message to the originator, informing her or him of the rejection, which completes the JD Edwards EnterpriseOne workflow process.

If the approver approves the change, a business function task initiates a named event rule (NER) that updates the database with the customer's new credit limit.

The process sends a message to the user who originated the credit limit change, indicating that the credit limit change was approved.

Planning for JD Edwards EnterpriseOne Workflow

Workflow management is essentially value-neutral, meaning that it does not substantially improve the efficiency of poorly designed business processes. Therefore, before designing an automated workflow process, your company should first consider some degree of business process reengineering. The aim of workflow management is to streamline business processes by eliminating unnecessary steps and automating the remaining tasks. This planning process is vital for ensuring that the current business processes and management approaches are synchronized with today's volatile, competitive environment, and not a hindrance to flexibility and growth.

4 Setting Up JD Edwards EnterpriseOne Electronic Mail Components

Understanding How to Set Up JD Edwards EnterpriseOne Electronic Mail Components

When you create a JD Edwards EnterpriseOne workflow process to send messages to individuals or to members of a distribution list, you can perform some initial tasks to make sure that the system is set up to properly distribute these messages. For example, if the recipients of a JD Edwards EnterpriseOne workflow message use a third-party email system, you will need to set up JD Edwards EnterpriseOne with external mail access. For users of the JD Edwards EnterpriseOne mail system, the Work Center, you might want to set up custom queues to organize and categorize messages sent by different JD Edwards EnterpriseOne workflow processes.

You can perform these tasks before you begin creating a JD Edwards EnterpriseOne workflow process:

- Set up Work Center queues.
- Set up external mail access.

Setting Up JD Edwards EnterpriseOne Electronic Mail Components

This section provides an overview of JD Edwards EnterpriseOne internal and external email access and discusses how to:

- Set up Work Center queues.
- Set up external mail access.

Note:

- *Understanding Message and JD Edwards EnterpriseOne Workflow System Functions.*

Setting Up JD Edwards EnterpriseOne Electronic Mail Components

This section provides an overview of JD Edwards EnterpriseOne internal and external email access and discusses how to:

- Set up Work Center queues.

- Set up external mail access.

Note:

- *Understanding Message and JD Edwards EnterpriseOne Workflow System Functions.*

Setting Up Work Center Queues

Queues categorize messages within the system and organize them in the Work Center. For example, messages can be categorized into queues for priority mail or submitted jobs. Through a queue, users can approve or reject certain activities in the process flow. You set up a queue in the same way as you set up any user-defined code (UDC).

JD Edwards EnterpriseOne Workflow includes several predefined queues, but you might want to set up a custom queue for messages generated by JD Edwards EnterpriseOne workflow processes that you create. For example, you might want to set up a queue for messages generated by a credit limit approval process. This queue could gather any approval or rejection messages related to credit limits for customers. A user can then open that queue and act on the message contained within it.

To set up a queue:

Access User Defined Codes- From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select JD Edwards EnterpriseOne Workflow User Defined Codes (G0241), and then select Employee Task Queues (P0004A).

1. On Work With User Defined Codes, click Add.
2. On User Defined Codes, complete these fields in an empty row in the detail area and click OK:
 - Codes
Enter a unique number for the queue.
 - Description 1
Enter a description for the queue.
 - Description 2
If necessary, enter additional text that further describes the queue.
 - Special Handling
If special handling is required, enter a code that indicates special processing requirements. The value that you enter in this field is unique for each UDC type.
 - Hard Coded
Enter N in this field.

Note: Only queues with a value of N will appear in the Queue Security application.

Setting Up External Mail Access

JD Edwards EnterpriseOne software provides an integrated mail system that is able to send messages to external email addresses. The system uses the Simple Mail Transfer Protocol (SMTP) to do this.

SMTP is a TCP/IP protocol for sending messages from one computer to another on a network. SMTP is used on the internet to route messages. In JD Edwards EnterpriseOne, the Send Message Extended system function uses SMTP to route messages to external email addresses.

These are the basic steps to set up external mail access:

1. Set up an external email address for the message recipient on the EnterpriseOne Address Book, Email/Internet Revisions form.
2. Make changes to the JDEMAIL section of the JDE.ini file so that JD Edwards EnterpriseOne can communicate with the mail server.
 - o On the workstation, make these changes directly into the jde.ini file.
 - o On Enterprise server, make the changes using Server Manager.
3. Verify the SMTP server setup.
4. Define shortcut links.

Setting up a User in Address Book and Defining the Mail Preference

Sending external messages to users requires you to set up mail preferences correctly for the user receiving a workflow message. You set this user up in the JD Edwards EnterpriseOne Address Book.

To set up mail preferences for a user:

1. In the Fast Path, type G02, and then press Enter.
2. Double-click the Employee Queue Manager menu.

The Employee Queue Manager (P012503) application displays.
3. Search and select the address book number for the employee to whom you want to send external messages.
4. From the Row menu, select Email Preference.

JD Edwards EnterpriseOne uses the protocol, hostname plus domain name (defined in the Server URL field), and port to construct the shortcut URL. If the HTML server service mapping is not set up, JD Edwards EnterpriseOne uses the primary HTML server specified in P9654A.

5. Enter the following information in the corresponding fields:

Field	Value
Electronic Address Type	E
Electronic Address	<user's email address>
Messaging Indicator	1

6. Set up the user profile to include the user's address book number.

Workflow messages and internal mail for that user will be sent to the user's external mail address specified above.

Although you can enter several electronic addresses (internal and external) for each address number, all messages must be sent to the same location of external mail, the Work Center, or both. You cannot set up certain messages (such as workflow messages) to go to external mail and other messages (such as UBE completion messages) to go to the Work Center. However, it is possible to define the preference on a user-by-user basis so some users receive messages in the Work Center and others receive messages in an external mail program.

Updating the JDE.ini file on the Workstation and the Enterprise Server

On the workstation and enterprise server, you must make changes to the JDEMAIL section of the JDE.ini file so that JD Edwards EnterpriseOne can communicate with the mail server. On the workstation, you must make these changes directly to the JDE.ini file. On the enterprise server, you can make these changes directly to the JDE.ini file, or make the changes using Server Manager.

The parameters in the JDEMAIL section of the JDE.ini file are designated as Rules 1 through 7, which are explained below:

- Rule1=90|OPT|MAILSERVER=*smtp_server_name*

The MAILSERVER setting identifies the name of the SMTP server responsible for sending messages. This setting must be equal to the name of the machine on which the SMTP service is running. This server name is the same as it is listed in the TCP/IP host file on the server.

- Rule2=100|DEFAULT|OWMON=*address@your_company.com*

When the Send Message or Send Message Extended system function is initiated, the OWMON parameter is used to determine the From address for the mail message. Set this parameter to an appropriate mail address for your company.

- Rule3=110|DEFAULT|PSFT_SYSTEM=*address@your_company.com*

When the Send Message or Send Message Extended system function is initiated within application or business function event rules, the PSFT_SYSTEM parameter is used to determine the From address for the mail message. Set this parameter to an appropriate mail address for your company.

- Rule4=120|DEFAULT|JDE_SYSTEM=*address@your_company.com*

- Rule5=130|DEFAULT|JD Edwards EnterpriseOne Workflow_SYSTEM=*address@your_company.com*

When the Send Message or Send Message Extended system function is initiated from an activity in a JD Edwards EnterpriseOne workflow process, the JD Edwards EnterpriseOne Workflow_SYSTEM parameter is used to determine the From address for the mail message. Set this parameter to an appropriate mail address as the originator of a JD Edwards EnterpriseOne workflow message for your company.

- Rule6=140|OPT|MERGELOCAL=1

For current installations, the MERGELOCAL parameter setting should be equal to 1.

- Rule7=150|OPT|UPDATELOCAL=0

For current installations, the UPDATELOCAL parameter setting should be equal to 0.

These instructions explain how to change the workstation and enterprise server JDE.ini files to communicate with the mail server.

To update the jde.ini file on the workstation:

1. Locate the [JDEMAIL] section of the jde.ini file.
2. Set the Rule1 value setting to Rule1=90|OPT|MAILSERVER=<your SMTP server name>
3. Set the Rule2, Rule3, and Rule4 value settings to the name of the customer site.

Note: You will change the domain name from oracle.com to the customer site web address.

4. Save and close the jde.ini file.

To update the jde.ini file on the enterprise server using Server Manager:

Each field on the Server Manager screen represents a rule in the jde.ini file. For example, the Mail Server Rule field in Server Manager is the same as the Rule1 field in the jde.ini file. The SAW E-Mail Sender field is the same as Rule2. The Sender E-Mail field is Rule3 and so forth.

Note: You can complete this task either on the web client, or the fat client.

1. Access Server Manager by entering its URL in Windows Explorer.
2. In the Configuration section, click the Workflow menu.
3. On the E-mail Configuration form, complete the fields as follows:

Field	Value
Mail Server Rule	90 OPT MAIL SERVER=internal-mail-router.<your company>.com
SAW E-Mail Sender	100 DEFAULT OWMON=OWMON@<your company>.com
Sender E-Mail	110 DEFAULT PSFT_SYSTEM=PSFT_System@<your company>.com
Rule4	120 DEFAULT JDE_SYSTEM=JDE_System@<your company>.com
Rule5	130 DEFAULT WORKFLOW_SYSTEM=Workflow@<your company>.com
Rule6	140 OPT MERGELOCAL=1
Rule7	135 OPT UPDATELOCAL=1
SMTP Server	mail

4. Click OK

SMTP Settings

Starting with Tools Release 9.2.7, JD Edwards EnterpriseOne provides secured email communication by enabling the TLSv1.2 and SMTP authentication for the email notification framework. To enable SMTP AUTH (SMTP authentication)

and to enable SSL/TLS for secured communication, you must edit the JDEMAIL section of the JDE.ini file. They require a domain reboot to take effect.

- SMTP Port

Enter the SMTP port number on the mail server machine.

- ConnectionType

Enter any one of these connection names as per your requirement:

Connection Name	Description
PLAIN	Encryption is not supported between the client and the SMTP server.
STARTTLS	Informs the mail server to upgrade the non-encrypted connection to an encrypted connection.
SSL/TLS (Secure Sockets Layer/ Transport Layer Security)	A secured connection shall be established/made with the SMTP server by encrypting the communication with the TLS1.2 protocol.

- Certificate File Path

This is an optional parameter. Enter the path of the SMTP server certificate. The system supports the Privacy Enhanced Mail (PEM) format and all the formats that are supported by OpenSSL.

Note: If you leave this field blank, the system will not verify the server certificate.

- Enable SMTP Authentication

Enter True or False. The email is delivered only when the value is True and when authentication is enabled on the SMTP server.

- SMTP Username

Enter the username to authenticate with the SMTP server. This applies only when authentication is enabled on the SMTP server.

- SMTP Password

Enter a password to authenticate with the SMTP server.

- SMTP RD Trust Store

This is an optional field. This parameter is supported only for the XMLP jobs and for the Java-supported formats such as JKS and P12.

- SMTP RD Trust Store Password

This is an optional field. Enter the password to secure your truststore.

Note: SSL certificates are retrieved from a standard Java truststore format. The truststore use the same file formats that the Java virtual machine and WebSphere Application Server use for certificate configuration.

JD Edwards EnterpriseOne Email delivery system has been tested and certified with the SMTP Server for Microsoft Office 365 Exchange.

Consider the following to ensure that the EnterpriseOne email delivery system works with Microsoft Office 365 Exchange:

- The Sender's email address must be valid.
- If the SMTP Username is different than the sender's email ID, you must provide the "Send As" permissions to the sender's email address. Otherwise, the email delivery fails and the system displays the "Send As Denied" error message.
- Multi-factor/2FA authentication should be disabled for the FROM email ID/SMTP Username.
- SMTP Auth should be enabled.

Note: [Click here to view a recording of this feature.](#)

See Clients and Mobile Exchange Online

Verifying the Setup of the SMTP server

To verify the SMTP server setup:

1. Click the Windows Start button, and then click Run.
2. On the Run dialog box, enter cmd.exe in the Open field.
3. Ping the SMTP server.
4. The DOS Command prompt should return with success.
5. Issue the following command from the client workstation and the enterprise server: telnet <smtpHost> 25.

Note: This command tests the connection to the SMTP server. For example: telnet mail.jdedwards.com 25. You should see returned 220 <SMTP server name> ESMTP.

6. If the line returned begins with 220, then the SMTP connection integrity is valid.
7. To test that you have set up the SMTP server correctly, click the following link: <http://support.microsoft.com/kb/q153119/>

The value used for smtpHost in the above telnet test should be the same value for the mail server that was entered in the jde.ini for the Rule1 mail server.

Defining Shortcut Links

When a user submits a workflow process on the enterprise server, JD Edwards EnterpriseOne creates a shortcut URL that is sent in an email to the corresponding user. To distinguish which HTML server name to use for a URL shortcut, JD Edwards EnterpriseOne incorporates a hierarchical process. First, it searches for a Server Map HTML server service mapping in the Work with Service Configurations application (P986110 version ZJDE0003). If a mapping is not found at this location, JD Edwards EnterpriseOne then uses the primary HTML server specified in P9654A.

When a user submits a workflow process on the web development client, JD Edwards EnterpriseOne searches for a System HTML server service mapping in the Work with Service Configurations application (P986110 version ZJDE0003). If the mapping does not exist, JD Edwards EnterpriseOne then uses the HTML server listed in the HTML server Preference section of the jde.ini on the workstation. If there is not a HTML server listed in the HTML server Preference section, then JD Edwards EnterpriseOne will then use the primary HTML server specified in P9654A.

Before you can define a shortcut link, you must ensure that you have set up the appropriate HTML server(s) in P9654A. These HTML servers must have the following components defined:

- Primary HTML Server. The value 0 is non-primary, and the value 1 is primary.

- Server URL.
- HTTP Port.

If the port number is not appropriate for your HTML server, you must delete the server definition and create a new one.

To define a shortcut link:

1. In the Fast Path, type IV, and then press Enter.
2. On the Work with Interactive Versions form, enter P986110 in the Interactive Application field.
3. Click version ZJDE0003, Service Configuration.

This Object Configuration Manager (OCM) version is specific for creating HTML shortcut mappings.

4. From the Row menu, select Run.
5. On the Machine Search and Select form, select the system data source, and then click Select.
6. On the Work with Service Configuration form, click Add.
7. From the visual assists, select the following options:

Field	Value
Environment Name	Select the appropriate environment for the mapping.
Service Name	HTML server
User Role	Select the appropriate user for the mapping.
Server	Enter the HTML server you set up in P9654A.
Port	Enter the port number for the HTML server.

8. Click OK.
9. On the Work with Configuration form, click Cancel.
10. Repeat these steps to define a shortcut link for the server map data source.

Note:

- *Configuring Shortcuts*

5 Creating a JD Edwards EnterpriseOne Workflow Process

Understanding How to Create a JD Edwards EnterpriseOne Workflow Process (Release 9.2.6)

Note: This chapter has been updated in support of Release 9.2.6. The JD Edwards EnterpriseOne Workflow Modeler is available on a 32-bit development client. Starting with Release 9.2.6, only 64-bit platform is supported. You can use Workflows, a web-based user interface that you can launch from the Orchestrator Studio, to manage and configure the workflow processes. However, if you are on a 32-bit environment, you can use both JD Edwards EnterpriseOne Workflow Modeler and Workflows from the Orchestrator Studio for managing your workflow processes.

A JD Edwards EnterpriseOne workflow process is an object in the JD Edwards EnterpriseOne system. You create and manage a workflow process in Object Management Workbench (OMW) similar to any other object. When you create a workflow process, the system automatically adds it to your Default Project folder in OMW.

The following steps outline the high-level processes for creating a JD Edwards EnterpriseOne workflow process:

1. Create key and additional data structures for the workflow process.
2. Create the workflow process by naming it and assigning the appropriate data structures to it.
3. Use Orchestrator Studio Workflows to add and configure each component of the workflow process.
4. Attach the workflow process to the application from which you want the process to start.

Some of the steps of each process can consist of several additional tasks. For example, when you add an Information or Action task to a JD Edwards EnterpriseOne workflow process in Workflows, you might have to create distribution lists, add event rules, and create a message template.

Note:

- See *"Components of a JD Edwards EnterpriseOne Workflow Process."*
- "Working with Objects" in the *JD Edwards EnterpriseOne Tools Object Management Workbench Guide*
- Starting with Tools Release 9.2.7, Web OMW can be used to create workflow process objects. See *"Creating a JD Edwards EnterpriseOne Workflow Object in Object Management Workbench - Web (Release 9.2.7)"* for details.

Prerequisite

Before you begin creating JD Edwards EnterpriseOne workflow processes:

- Understand the concepts of JD Edwards EnterpriseOne development tools. See JD Edwards EnterpriseOne Tools and other topics in the Development Tools guides for more information.
- Define users and distribution lists in Address Book before setting up your JD Edwards EnterpriseOne workflow processes.
See Entering Address Book Records in the *JD Edwards EnterpriseOne Address Book 9.0 Implementation Guide* for information about entering address book profiles for new users.

- If you are going to integrate with a third-party email system, see Setting Up JD Edwards EnterpriseOne Electronic Mail Components.

Creating Key and Additional Data Structures

This section provides an overview about creating key and additional data structures and describes how to create a data structure for key and additional data.

Understanding Key and Additional Data Structures

A JD Edwards EnterpriseOne workflow process requires these two data structures:

- Key
- Additional

A key data structure contains the data items that make an instance of a process unique, similar to how the primary key in a table is the unique index in a table. Key data is the basis of the JD Edwards EnterpriseOne workflow process. You can use multiple data items in the key data structure.

An additional data structure contains all of the other data that the process, and any task within the process, needs to complete the process flow. JD Edwards EnterpriseOne Workflow can use the additional data structure to pass information to tasks within the process and to users. The system also uses additional data to track audit information. The parameters of the key and additional data structures are stored in the Process Instance table (F98860).

Another distinction between the two data structures is that the values in the key data structure do not change during the life of a process instance. The values in the additional data structure can change as the instance is executed.

Note: Do not include the same data items in both the key and additional data structures.

If key and additional data structures do not exist for the new JD Edwards EnterpriseOne workflow process, you can define new ones. You also can use existing key and additional data structures when you create a new workflow process, but this action is not recommended because of the interdependencies it will create.

Naming Conventions for Key and Additional Data Structures

Names of key and additional data structures begin with WF and use this format:

WFxxxxyyyA or WFxxxxyyyB

Where

- WF indicates a key data or additional data structure.
- xxxx specifies the system code.
Use codes 55 through 59 for customer-specific keys and additional data structures.
- yyy represents a sequential number.
- A identifies key data.
- B identifies additional data.

Creating a Data Structure for Key Data or Additional Data in Web OMW (Release 9.2.7)

Access OMW – Web (P98220W).

1. On the Object Management Workbench - Web form, click Add (+).
2. On the Create EnterpriseOne Object form, from the General Object drop-down list, choose Data Structure.
3. Click OK.
4. On the Add Object form, complete these fields:
 - o Object Name Use the data structure naming conventions to name the data structure.
 - o Description
 - o Product Code
 - o Product System Code
 - o Object Use (use 360 for data structures)

5. Click the Regular Data Structure option and then click OK.

The system returns to the Object Management Workbench – Web form.

6. In the Project Objects tab, find the data structure object you created. Click the check box to select it.
7. From the More Row Actions drop-down, choose Design.
8. On Data Structure Revisions, use the right-side grid to search and select data items from the data dictionary to add to your data structure. Select the data dictionary items you want to include in the key data or additional data, and use the Move Left arrow to add them to Structure Members on the left.

You can rename structure member items by clicking the data item and typing a new name.

9. When you are finished choosing data items, click OK. The data structure appears under your project in OMW - Web.
10. Repeat this process to create both the key data structure and the additional data structure.
11. Use the standard EnterpriseOne lifecycle management processes to define, build, and deploy a package with your new data structure objects. (Depending on the governance policies at your company, this is likely a system administrator activity.)

Note: (Tools Release 9.2.8) Depending on the governance policies at your company, you can check in your new data structure objects and use the Promote to Package action in the More Row Actions drop-down to deploy your new data structures directly to the active server package.

After you create the key data and additional data structures and deploy them to the package, you can attach them to the workflow process. See "Creating a JD Edwards EnterpriseOne Workflow Process in OMW."

Creating a Data Structure for Key Data or Additional Data (Releases Prior to 9.2.7)

Access OMW.

1. On the Object Management Workbench form, click the project to which you want to add the data structure.

Note: You should add the data structures to the same project in which you are creating a workflow process. See *"Adding Objects to Projects" in the Object Management Workbench Guide.*

2. Click Add.
3. On the Add EnterpriseOne Object to the Project form, click the Data Structure option under the Object Librarian Objects heading, and then click OK.
4. On the Add Object form, complete these fields:

- o Object Name

Use the data structure naming conventions to name the data structure.

- o Description
- o Product Code
- o Product System Code
- o Object Use

5. Click the Regular Data Structure option and then click OK.

The system displays the Data Structure Design form.

6. On the Data Structure Design form, click the Design Tools tab and then click Data Structure Design.
7. On Data Structure, select the data dictionary items you want to include in the key data or additional data, and drag them to Structure Members on the left.

You can rename structure member items by clicking the data item and typing a new name.

8. When you are finished choosing data items, click OK.

The data structure appears under your project in OMW.

9. Use the standard EnterpriseOne lifecycle management processes to define, build, and deploy a package with your new data structure objects. (Depending on the governance policies at your company, this is likely a system administrator activity.)

Note: After you create the key data and additional data structures, you can attach them to the workflow process. See *"Creating a JD Edwards EnterpriseOne Workflow Process in OMW."*

Prebuilt Data Structures (Release 9.2 Update)

The ESU includes prebuilt data structures that you can use to quickly build a workflow. It enables you to create a workflow process without the need to search for suitable data structures as the prebuilt key and additional data structures have many instances of generic Data Dictionary items.

Below Data Structures are available for you to choose:

- Key Data Structure: **WFOOKEY**
- Additional Data Structure: **WFOOADD**

To see a list of the data items included in each data structure, create a new workflow in Orchestrator Studio Workflows. Then choose WFOOKEY and WFOOADD for the Key Data and Additional Data, respectively.

In addition to prebuilt data structures, Orchestrator Studio Workflows provides a predesigned workflow APPRSAMPLE that uses the above prebuilt key and additional data structures. See *Prebuilt JD Edwards EnterpriseOne Workflow Process (Release 9.2 Update)* for details.

Creating a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows (Release 9.2.6.4)

Starting with Tools Release 9.2.6.4, you can create a JD Edwards EnterpriseOne workflow process in Orchestrator Studio Workflows. Prior to this release, creation of a workflow process was limited to OMW.

Note: If you are on a release prior to 9.2.6.4, you can continue to create your workflow process through OMW. See *“Creating a JD Edwards EnterpriseOne Workflow Process in OMW”* for details.

Access Workflows in Orchestrator Studio.

1. In the Workflows page, click the menu icon on the top-left corner. The system displays the Workflows navigation pane.
2. Click the New button on the top-left corner of the pane. A new workflow opens with default Start and End tasks.
3. Complete the following fields:
 - Name: The workflow process name can have 10 alphanumeric characters in uppercase and without any space.
 - Description: Provide a description that indicates the purpose of the workflow process. This description can have 40 characters.
 - Version: Use the Up and Down arrows to assign a version to your workflow process. By default, the version is 1. You can create multiple versions of the same workflow process but only a single version of a workflow process can be active at a time.
 - Product Code: The product code is a user-defined code (UDC) (98/SY) that specifies the system number for reporting purposes. From the drop-down list, select the product code that you want to assign to your workflow process.
4. You must define the key and additional data structures before you start adding tasks to your workflow process. Click the Search icon in the Key Data field, type the name of the data structure in the Search field and click the Search icon again. Select a data structure for the key data structure from the search result.
5. Click the Search icon in the Additional Data field. Type the name of the data structure in the Search field and click the Search icon. Select a data structure for the additional data structure from the search list.

Note: The system will not allow you to save a new workflow process without defining key and additional data structures.

6. After you select the data structures, add and configure tasks in your workflow process. See *“Adding Tasks to a JD Edwards EnterpriseOne Workflow Process”* for details.
7. Click Save.

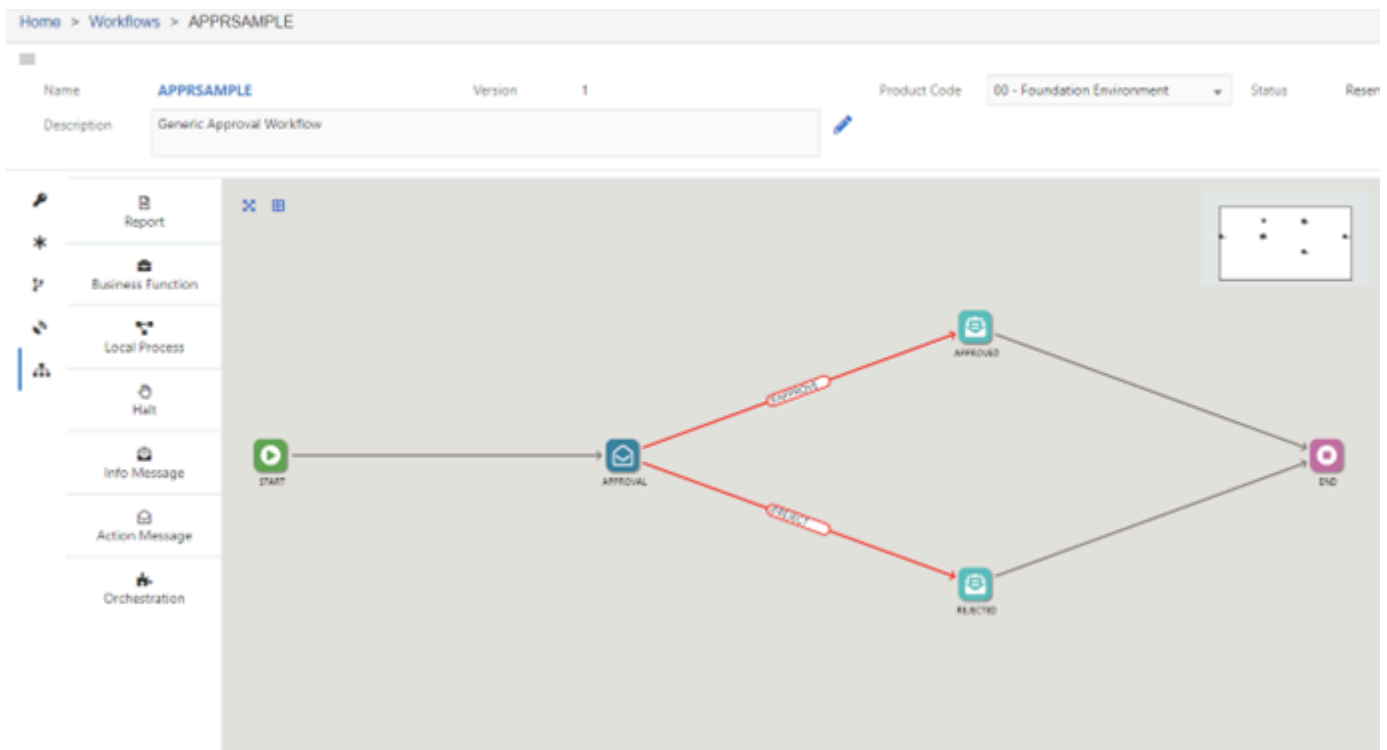
Note: [Click here to view an OBE of this feature.](#)

Prebuilt JD Edwards EnterpriseOne Workflow Process (Release 9.2 Update)

Orchestrator Studio Workflows provides you with a basic, prebuilt workflow process, **APPRSAMPLE**. This is a working example workflow that demonstrates an approval workflow process using the prebuilt key and additional data structures. See “Prebuilt Data Structures (Release 9.2 Update)” for details.

The APPRSAMPLE includes an Action Message and two Info Message tasks. The two Info Message tasks uses the transition conditions of IFAPPROVE and IFREJECT in case of approval or rejection of a request.

You can open APPRSAMPLE workflow and select the **New Workflow** option in Save As to create your own workflow and modify it to suit your requirements.



The system also provides a Workflow Glossary Message, LM0000, with a single parameter for the Message Description and 10 lines of parameters for the Message Glossary. You can use LM0000 to customize your email messages for the Action Message task.

Creating a JD Edwards EnterpriseOne Workflow Object in Object Management Workbench - Web (Release 9.2.7)

Starting with Tools Release 9.2.7, you can create workflow objects using the Object Management Workbench - Web application before working on the workflow using the Orchestrator Studio .

Access Object Management Workbench - Web.

1. In the Object Management Workbench-Web form, select the project in which you want to create a workflow process and click Add.
2. In the Create EnterpriseOne Object form, click Workflow Process from the General Object drop-down list then click OK.
3. On the Add Non-OL Object form, complete the fields.
 - o Process: Define the workflow process object name in uppercase and without any space.
 - o Version: Enter a version number that identifies a version of a JD Edwards EnterpriseOne workflow process. By default, the version is 1.
 - o Description: Provide a description that indicates the purpose of the workflow process.
 - o Product Code: The product code is a user-defined code (UDC) (98/SY) that specifies the system number for reporting purposes. Enter the product code that you want to assign to your workflow process.
4. Define the key and additional data structures to your workflow process. Enter the name of the data structure in the Search field and click the Search icon. Select a data structure for the key data structure from the search result.
5. Enter the Additional Data Structure name of the data structure in the Search field and click the Search icon. Select a data structure for the additional data structure from the search list. Click OK.

Note: After you create the key data and additional data structures in Web OMW, you can add them to the workflow process object.

The Workflow object is added in Project Objects tab. After creating the workflow object, you can design a JD Edwards EnterpriseOne workflow process in Orchestrator Studio Workflows. In the Orchestrator Studio, click Release Reservation from Manage drop-down list. The Unreserved workflow can be transferred in OMW project.

Creating a JD Edwards EnterpriseOne Workflow Process

This section provides an overview of the naming convention for JD Edwards EnterpriseOne workflow processes and describes how to create a workflow process in OMW.

Naming Conventions for JD Edwards EnterpriseOne Workflow Processes

The workflow process name can be as many as 10 characters and should be in this format:

Kxxxxxyyyy

Where:

- K designates a JD Edwards EnterpriseOne workflow process.
- xxxx specifies a system code.
This value is typically two digits, but can be as many as four digits. Use codes 55 through 59 for customer-specific processes.
- yyyyy represents a sequential number.
This value is typically two digits, but can be as many as five digits.

You also must provide a description about the purpose of the JD Edwards EnterpriseOne workflow process. This description can be as many as 40 characters.

Creating a JD Edwards EnterpriseOne Workflow Process in OMW

Before you can design a JD Edwards EnterpriseOne workflow process in Orchestrator Studio Workflows, you must create and add the workflow process as an object in OMW.

Access OMW.

1. On the Object Management Workbench form, select the project in which you want to create a workflow process and click Add.
2. On the Add EnterpriseOne Object to the Project form, click Workflow Process under the Workflow heading and then click OK.
3. On the Add Non-OL Object form, complete the Process field.
 - Process
Name the workflow process using the format Kxxxxyyyyy, where:
K designates a JD Edwards EnterpriseOne workflow process.
xxxx specifies a system code.
This value can be as many as four digits. Use codes 55 through 59 for customer-specific processes.
yyyyy = represents a sequential number.
The process name is the unique identifier for a process. If no value is entered, a next number is assigned. Once assigned, the value cannot be changed.
 - Version
Enter a number from 1 to 99999 that identifies a unique version of a JD Edwards EnterpriseOne workflow process.
 - Description
Provide a description that indicates the purpose of the workflow process. This description can be as many as 40 characters.
 - Product Code
The product code is a user-defined code (UDC) (98/SY) that specifies the system number for reporting and jargon purposes.

4. Select a data structure for the key data by clicking the Search button in the Key Data Structure field.

The key data structure is comprised of one or more data items, that serves as the key data for the workflow process. A process can be keyed by the data items from a workflow task. For example, the primary data structure of a credit limit revisions process would be the address book number of the customer whose credit limit was changed. To identify this key data to the system, you must create a data structure that contains these items and attach it to the process as the primary data structure.

Note: If you want to create a diagram of the workflow process in Orchestrator Studio Workflows before you create these data structures, use existing data structures and then replace them with your own when you are ready to configure each component of the workflow process.

See *"Creating Key and Additional Data Structures."*

5. On the Data Structure Search and Select form, type the name of the data structure in the Object Name field and then click Find.
6. Select the data structure that you want to use for the key data and click Select.
7. On the Add Non-OL Object form, click the Search button in the Additional Data Structure field to select a data structure for the additional data.

Tasks within a JD Edwards EnterpriseOne workflow process often evaluate or use data that is passed from other tasks. To pass data between tasks, you must create a data structure that contains the data items that you want to be evaluated, and then attach that data structure to the process. For example, consider a task within the credit limit revisions process. As the process runs, the task uses the old and new credit limit values to determine to whom to send the approval messages.

8. On the Data Structure Search and Select form, type the name of the data structure in the Object Name field and then click Find.
9. Select the data structure that you want to use for the additional data and click Select.
10. If you want the JD Edwards EnterpriseOne Workflow engine to keep audit records of all instances of the workflow process, click the History Tracking option.

Note: It is recommended that you select the History Tracking option. When a JD Edwards EnterpriseOne workflow process is started, audit records are saved in the instance tables (F98860 and F98865) and can be used for historical analysis. If you do not select this option, the audit records are deleted after the workflow process completes. Periodically, you can purge audit records that you no longer need using the Purge Completed Processes (R98860P) batch application.

11. Click OK.
12. On the Add Non-OL Object form, click OK to save the JD Edwards EnterpriseOne workflow process in OMW.

After you create the workflow process in OMW, you need to design and configure each component of the workflow process.

Designing a JD Edwards Workflow Process in Orchestrator Studio Workflows (Release 9.2.6)

Starting with Release 9.2.6, you can manage your JD Edwards EnterpriseOne workflow processes in Orchestrator Studio Workflows. Workflows is a web-based user interface that enables you to design and modify JD EnterpriseOne workflow processes without depending on the development client. Orchestrator Studio Workflows is built on the old workflow

engine, which enables you to create workflows that are compatible with the legacy workflow process and do not cause any disruptions to the existing workflow processes.

Prerequisite

Before you can access workflow processes in the Orchestrator Studio Workflows page or create a new workflow process, you must run the Batch Application Report, Convert Workflow Specs Stored in F98811 from Xe to B9 (R89811B) locally on the development client. This converts the old workflow specs for the new Workflows. You need to run this report only once.

To run the report:

1. Access JD Edwards Solution Explorer.
2. From the fast path, access BV (Batch Versions).
3. In Batch Versions – [Work With Batch Versions – Available Versions] form, enter `R89811B` in the Batch Application column.
4. There is only one version of the report, XJDE001. Click Version and click Select.
5. Ignore the prompt for Data Selection or Data Sequencing in the Batch Versions – [Version Prompting] form.
6. Click Advanced from the Tools column.
7. In the Batch Versions – [Advanced Version Prompting] form, select Override Location, then click OK.
8. In the Batch Versions – [Version Prompting] form, click Submit.
9. In the Batch Versions – [JD Edwards Data Source] form, enter `LOCAL` in column above Data Source and then click Select.
10. In the Batch Versions – [Report Output Destination] form, select On Screen under Report Destination and click OK.
11. To verify that R89811B has successfully converted the specs, access table F98811.
12. Scroll to column ATERID3 and enter 3 in the row above it. The column ATERID3 should not have any records for 3.
13. Enter 4 in the row above ATERID3 to see the converted records.
14. Close table F98811.

Accessing the Orchestrator Studio

The Orchestrator Studio is a web application that runs in a web browser. Ask your system administrator for the URL to the Orchestrator Studio.

Note: Before users can access the Orchestrator Studio, an administrator must set up security to authorize access to the Orchestrator Studio and determine the actions Orchestrator Studio users can perform. See *Notifications Guide* for more information.

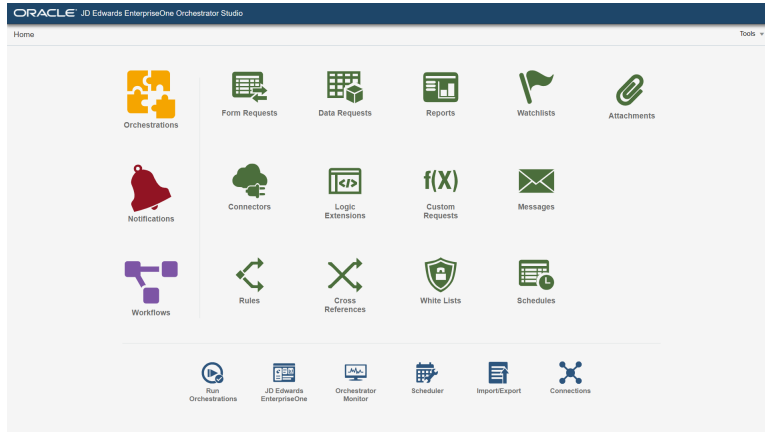
To access the Orchestrator Studio:

1. In a web browser, enter the URL to the Orchestrator Studio 9.2.6 or later:
`http://<ais_server>:<port>/studio`
2. On the Orchestrator Studio Sign In screen, enter your EnterpriseOne User credentials, environment, and role.
Note: It is highly recommended that you use an EnterpriseOne environment used for testing, not a production environment.
3. Click the Sign in button.

Navigating Workflows in the Orchestrator Studio

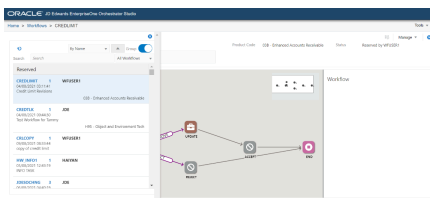
To access Workflows:

1. Log in to the Orchestrator Studio.
2. On the Orchestrator Studio Home page, click the Workflows icon.



Note: Starting with Tools Release 9.2.6.4, Workflows opens with an option to create a new workflow process. You can select your workflow process from the list of workflows or create a new workflow. See *“Creating a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows (Release 9.2.6.4)”* for details.

3. The Workflows page displays a list of available workflows processes. The workflows you create in OMW are also available in the list. Enter the name of your workflows in the search bar to access it.
4. You can arrange the workflows by name, product code, or date.



The Workflows page displays a list of icons for managing the JD Edwards EnterpriseOne workflow process. You can hover over each icon to see the associated function.

The Workflows page displays the following icons:

🔑 Key Data Structure: Helps you to view the key data structure. A key data structure contains the data items that make an instance of a process unique, similar to how the primary key in a table is the unique index in a table. See *“Creating Key and Additional Data Structures”* for details.

*** Additional Data Structure:** Helps you to view the additional data structure. An additional data structure contains all the other data that the process, and any task within the process, needs to complete the process flow. See *“Creating Key and Additional Data Structures”* for details.

🔗 Manage Transition Conditions: Attaches one task to another, indicating flow within the process. You can add a condition to a transition. Transition conditions contain the logic for determining which task is acted upon next in the JD Edwards EnterpriseOne workflow process. See *“Working with Transitions and Transition Conditions”* for details.

Manage Recipient Conditions: Helps you to configure the recipient conditions. A recipient condition contains a statement that the workflow process evaluates to determine whether or not to route messages to a particular recipient. See *"Understanding Recipient Condition"* for details.

Diagram: Provides a workspace to view, design and modify the workflows. Using the workspace, you can design and configure each component of a JD Edwards EnterpriseOne workflow process. See *"Designing a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows"*.

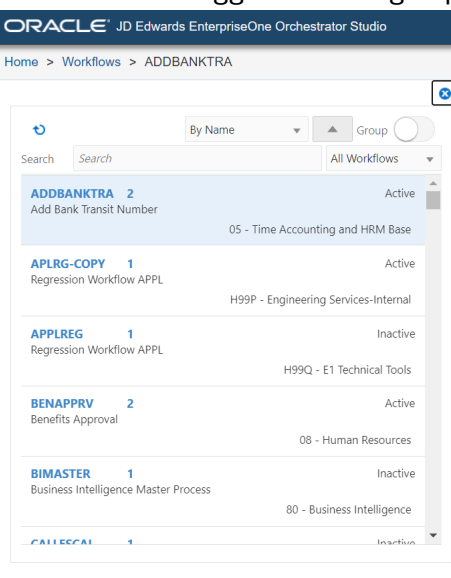
On the top of the Workflows page, you can see workflow name, version, product code and description along with an option to save your workflow process and the status of the workflow. You can reserve, release reservation, validate, activate, deactivate, or restore your JD Edwards EnterpriseOne workflow processes using the options under **Manage**. See *"Understanding How to Manage a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows"* for details.

Opening a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows

Access Workflows from the Orchestrator Studio

Note: You must first create the JD Edwards EnterpriseOne workflow process in the OMW before you can open it in Workflows. See *"Creating a JD Edwards EnterpriseOne Workflow Process in OMW."*

1. In the Workflows page, click the hamburger icon on the top-left corner to see the available workflow processes. You can sort the workflows by name or by product code.
2. Use the search bar to search for the workflow process you have created in the OMW or select an existing workflow from the menu items.
3. You can use the toggle button to group the workflows by the statuses, Reserved, Inactive, and Active.



4. Click Manage and then click Reserve to populate the Workflows toolbar.
5. Use the buttons in the toolbar to add and configure the tasks for the JD Edwards EnterpriseOne workflow process.

Deleting a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows (Release 9.2.6.4)

With Tools Release 9.2.6.4, Orchestrator Studio Workflows enables you to delete a JD Edwards EnterpriseOne workflow process. You must reserve the workflow process before you delete it. To delete a workflow process:

1. Select the workflow process from the list of existing workflows.
2. Click Manage and then click Reserve.
3. Click the Delete icon.
4. The system displays a confirmation dialog box. Click OK.

Understanding How to Design a JD Edwards EnterpriseOne Workflow Process in Orchestrator Studio Workflows

Orchestrator Studio Workflows provides a workspace to design and configure the components of a JD Edwards EnterpriseOne workflow process. The Workflows page contains buttons that represent all the tasks and transitions that make up a JD Edwards workflow process. You can drag the buttons onto the workspace to create a diagram of a JD Edwards EnterpriseOne workflow process. After you add additional tasks and transitions, you can click on any task or transition to configure that component of the process. When you click a task, the task revisions form is displayed and you can use this form to configure the task.

Understanding How to Use the Workflows Toolbar

You can use the Workflows toolbar to add tasks to your JD Edwards EnterpriseOne workflow process.

You must reserve a workflow process for the toolbar to be displayed. Click Manage, and then click Reserve to reserve your workflow process. The workflow process which is in reserved status is not available to other users for modification.

The toolbar provides the following tasks that can be added to a JD Edwards EnterpriseOne workflow process:

Task	Function
Report	Identifies the task as one that runs a batch process or report.
Business Function	Identifies the task as one that runs a business function for special logic processing.
Local Process	Identifies the task as a JD Edwards EnterpriseOne workflow subprocess.
Halt	Identifies the task as one that halts all activity on the line beyond itself until the specified date occurs or the specified amount of time passes.
Info Message	Identifies the task as one that sends a message to a user or users.
Action Message	Identifies the task as one that sends a message to a user or users which requires a certain action.

Task	Function
Orchestration (Tools Release 9.2.7)	Identifies the task as the one that starts an orchestration or notification.

Understanding How to Manage a JD Edwards EnterpriseOne Workflow Process in Workflows

This section provides an overview of the options available to manage your JD Edwards EnterpriseOne workflow processes in Workflows.

The **Manage** section provides you with these options to configure your workflow process

Reserve: Use the Reserve option to reserve, secure, or lock a workflow process in Workflows. You must reserve a workflow process to enable the Workflows toolbar and design your workflow process. To reserve a workflow, click Manage, then click Reserve. You will see a pop-up that says Reserve Successful. While a version of workflow process is reserved, other users cannot make changes to it.

Release Reservation: Use the Release Reservation option to release or unlock a workflow process in Workflows. To release a reserved workflow process, click Manage, then click Release Reservation. The system subsequently displays the message, "Release Reservation Successful." Only after you release a reserved workflow process, it will be available for other users.

Validate: Use the Validate option to validate your JD Edwards EnterpriseOne workflow process. You cannot validate a workflow process if it contains errors. Check the workflow process diagram for any errors and fix them before validating it. An exclamation icon is displayed against each of the tasks within a workflow to indicate errors. To validate a workflow process, click Manage, then click Validate. If your workflow process does not have any validation errors, the system displays the message, "Validate Successful."

Activate: Use the Activate option to activate your JD Edwards EnterpriseOne workflow process. You cannot activate a process if it contains errors. You must validate the workflow process before you activate it. To activate a workflow process, click Manage, then click Activate. The system subsequently displays the message, "Activation Successful."

Deactivate: Use the Deactivate option to deactivate your JD Edwards EnterpriseOne workflow process. If you want to make changes to an active workflow process, you must first deactivate it. To deactivate a workflow process, click Manage, then click Deactivate. The system subsequently displays the message, "Deactivate Successful."

Export File: Use the Export File option to export and save your workflow specifications as a compressed file. If you want to port your workflow process, click Manage and then click Export File. Your workflow process gets saved in a compressed file on your local machine. See "[Understanding How to Export or Import a JD Edwards EnterpriseOne Workflow Process \(Release 9.2.6.4\)](#)" for details.

Restore: Use the Restore option to undo all the changes you made to your JD EnterpriseOne workflow process after you reserved it. To restore your workflow process to its original state, click Manage, then click Restore. You cannot restore a workflow after you have saved the changes made to it.

About: Click About to get the details of the workflow process. The information includes the name, description, version, status, and product code of the workflow process. Click **Guide** to access the *Workflows Tools Guide*.

Understanding How to Export or Import a JD Edwards EnterpriseOne Workflow Process (Release 9.2.6.4)

With Tools Release 9.2.6.4, you can export or import a workflow process in Orchestrator Studio Workflows. The export functionality enables you to save your workflow process with all the specifications in your local machine as a JSON file.

Similarly, you can import a workflow process from another machine in Orchestrator Studio Workflows. You can import multiple files at a time.

To export a workflow process:

1. Access Workflows from the Orchestrator Studio.
2. Open the workflow process you want to export.
3. Click Manage and then click Export File.
4. Select the location in your local machine where you want to save the workflow process.

The workflow process is saved on your local machine in a compressed file. The compressed file is saved with the name of the workflow process followed by an underscore (_) and the version of the workflow process.

To import a workflow process:

1. Access Workflows from the Orchestrator Studio.
2. Click Tools and then click Import/Export.
3. On the Import/Export page, click the Import tab. On the Import tab, click the Upload icon.
4. Locate the compressed file that contains the workflow process you want to import.
5. Select one of the following import options after the file is uploaded. The system displays a message based on the type of import you select.

- o Skip

Message Displayed: Not selected for import

Use this option when you want to select items you want to import to the Orchestrator Studio from a list of items. The system skips the item and subsequently moves to the next item in the queue.

- o New

Message Displayed: Ready to submit new workflow

Use this option when you want to import an existing workflow process to the Orchestrator Studio. The system assigns a workflow version number, which is one higher than the latest version that exists in the system.

- o Overwrite

Message Displayed: Ready to submit workflow override

Use this option when you want to replace an existing workflow process with an imported workflow process.

Adding Tasks to a JD Edwards EnterpriseOne Workflow Process

This section describes how to add a task to a JD Edwards EnterpriseOne workflow process.

Understanding How to Add Tasks

You can use Orchestrator Studio Workflows to add these tasks to the JD Edwards EnterpriseOne workflow process:

- Report
- Business Function
- Local Process
- Halt
- Info Message
- Action Message
- Orchestration (Tools Release 9.2.7)

Understanding the Link and Rule Property

Every task must be joined to a corresponding task with Link and Rule. After adding a task in the workflow process, click the task and drag the arrow to the task you want it to be linked to. You can configure transition conditions between two tasks using Link and Rule. See *"Working with Transitions and Transition Conditions"* for details.

Understanding the Join Property

Every task has a Join property. This property only matters if a task has multiple transitions leading into it. If the Join property is enabled, each transition leading to the task must complete before the task will begin. If the Join property is not enabled, only one transition leading to the task must complete for the task to begin.

Prerequisite

Create a JD Edwards EnterpriseOne workflow process in OMW.

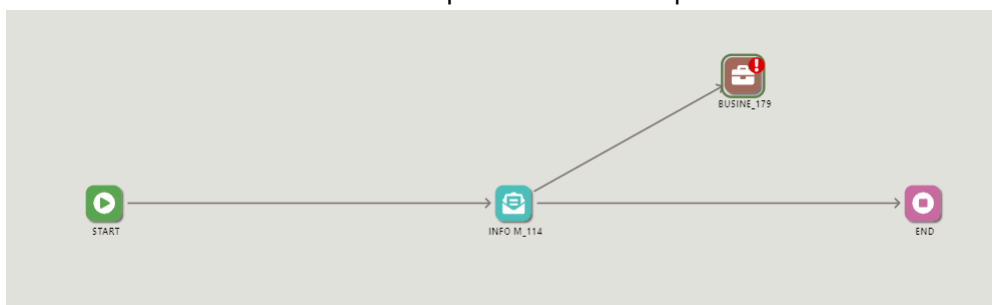
See *Creating a JD Edwards EnterpriseOne Workflow Process*.

Adding a Task

Access the Workflows page from the Orchestrator Studio and select the JD Edwards Enterprise workflow process to which you want to add the task.

1. The tasks toolbar is displayed after you reserve a workflow process. In Orchestrator Studio Workflows, you can use the toolbar to add the following tasks:
 - Report
 - Business Function
 - Local Process
 - Halt
 - Info Message
 - Action Message
 - Orchestration (Tools Release 9.2.7)
2. Drag and drop the task onto the diagram. The task revisions form is displayed in the right-hand side of the Workflows page each time you add or select a task. Each task has a task name, description, and an option to enable the Join property. Enter the name of the task that you are adding to the JD Edwards EnterpriseOne workflow process. The name can contain only 10 alphanumeric characters.
3. In the task revisions form, complete these fields:
 - Task Name
Enter the name of the task that you are adding to the JD Edwards EnterpriseOne workflow process. The name can contain only 10 alphanumeric characters.
 - Description
Enter the description of the task that you are adding to the JD Edwards EnterpriseOne workflow process. The description can contain only 40 alphanumeric characters.
4. If the task has multiple transitions leading into it, turn on the toggle for Join.
5. Connect the task to other tasks by adding transitions and transition conditions. See *"Working with Transitions and Transition Conditions"* for details.
6. Configure the task by adding event rules and mapping data structures to the task.

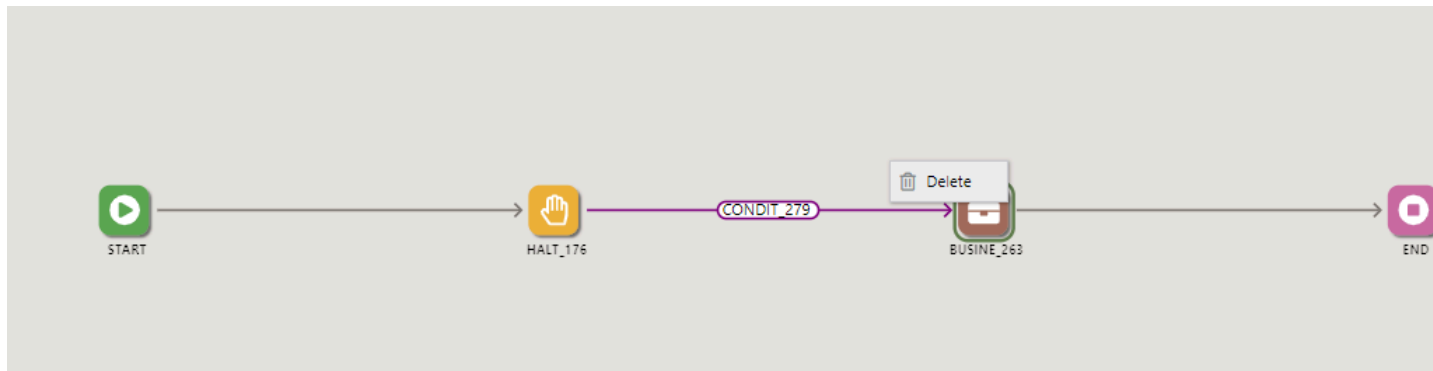
Note: You must ensure that any new task you add falls between the Start and End tasks of the workflow process. If the task is not aligned with a Start and an End task, your workflow process will have validation errors. For example, in the following workflow diagram, you must establish a link between the Business Function task and the End task to complete the workflow process.



Deleting a Task

Access the Workflows page from the Orchestrator Studio and Select the JD Edwards Enterprise workflow process from which you want to delete a task. Except the Start and End tasks, you can delete any existing task from a workflow process. To delete a task:

1. Select the workflow process and reserve it.
2. Right click the task and select Delete from the context menu.



3. Alternatively, click the task you want to delete, then click the Action drop-down list in the task revisions column.
4. Click Delete.



Understanding How to Align Tasks in Orchestrator Studio Workflows (Release 9.2.6.4)

With Tools Release 9.2.6.4, you can align the tasks of your workflow process in the diagram workspace. Prior to this enhancement, you could move and align the tasks in the diagram workspace and the system adjusted the tasks based on the transition of the tasks after you clicked Save. Now, the layout is preserved each time you save your changes to a workflow process.

The alignment options are enabled after you open a workflow process in the diagram workspace. Alternatively, you can click the background of the diagram workspace to enable the alignment options.

You can align your task in Orchestrator Studio Workflows using these options:

- Snap to other task
Use this alignment configuration to align tasks to adjacent tasks in your workflow process. Toggle on the Snap to other task option and drag a task next to the task you want to align it with. The task gets aligned horizontally

or vertically based on the proximity of the tasks. The system displays horizontal or vertical guidelines to show the alignment of the task with respect to other tasks in the diagram workspace.

- Snap to grid line

Use this alignment configuration to align your tasks to grids in the diagram workspace. Toggle on the Snap to grid line option and drag a new or existing task to align it with the grid lines displayed in the background. The system displays faded grid lines and horizontal and vertical guidelines to show the placement of the task in the diagram workspace.

When both Snap to other task and Snap to grid line are toggled on, the system enables you to align tasks based on the grid lines in the diagram workspace as well as align vertically or horizontally with other tasks depending on the proximity of tasks. You can disable the align feature temporarily by pressing the Ctrl key while moving the tasks in the diagram workspace.

You can set up a combination of alignment settings by keeping one or both the Snap to other task and Snap to grid line options toggled on or by keeping both the options toggled off. The alignment setting preference is saved in the system and is loaded automatically each time you log in to Orchestrator Studio Workflows.

Saving a JD Edwards EnterpriseOne Workflow Process

After you have completed adding and configuring tasks in your workflow process, you must save it. To save your workflow process, click Save on the top right of the Workflows page. If your workflow process contains validation errors, the system prompts you to resolve the errors. You can proceed to save your workflow process without resolving the errors. You subsequently see the message, "Save Successful."

Note: If you have saved a workflow process that has validation errors, the system will not allow you to validate it. It is advisable to correct any validation errors before you save your workflow process.

After you save your workflow, any new tasks that you add in your workflow process are not placed in the same location in the diagram. Based on the transition of the tasks, a new task is arranged in the workflow process diagram.

Using Save As Option in Orchestrator Studio Workflows (Release 9.2.6.4)

Starting with Tools Release 9.2.6.4, you can save a workflow process as a new workflow or a new version of an existing workflow process. You can create multiple versions of an existing workflow process or create a new workflow process using the specifications of an existing workflow process.

1. New Version

Use this option to create a new version of an existing workflow process. When you select New Version option in Save As, the system disables the Name, Key Data, and Additional Data fields. By default, the system assigns a version number that is one higher than the workflow process you choose to save. You must ensure that the version is unique as the system will not allow you to save duplicate versions of the same workflow process. If required, you can change the Product Code and Description of the workflow process.

2. New Workflow

Use this option to create a new workflow process with the specifications of an existing workflow process. When you select New Workflow option in Save As, the values for Key Data, Additional Data, Product Code, and Description are automatically populated as defined in the existing workflow. You must enter a new name for the new workflow process. By default, the system assigns 1 as the version value. You can change the version.

Obsolete Tasks in Orchestrator Studio Workflows

Few legacy tasks are no longer available in the Workflows page for you to add and configure. These tasks can be part of existing workflow processes and are displayed in the workflow diagram. They are disabled and you cannot configure the tasks or add the same tasks as new tasks. However, you can configure the Send Message task if it is present in an existing workflow. Other obsolete tasks, if present in the workflow process, are read only.

The tasks that have become obsolete are:

1. Windows Exe
2. Application
3. Send Message

The obsolete tasks are grayed out in the workflow diagram. These tasks have read-only information. You might come across instances where the obsolete tasks contains corrupt or unexpected metadata. When you click such tasks, you see the message, "Corrupt task, delete and readd" in the task revision column.

Note: When you validate a workflow process that has obsolete tasks, the system prompts you to change the obsolete tasks to the valid tasks that correspond to the same respective functions.

Working with Transitions and Transition Conditions

This section provides an overview of transitions and transition conditions and describes how to:

- Add a transition.
- Create a transition condition.
- Attach a transition condition.
- Detach a transition condition.

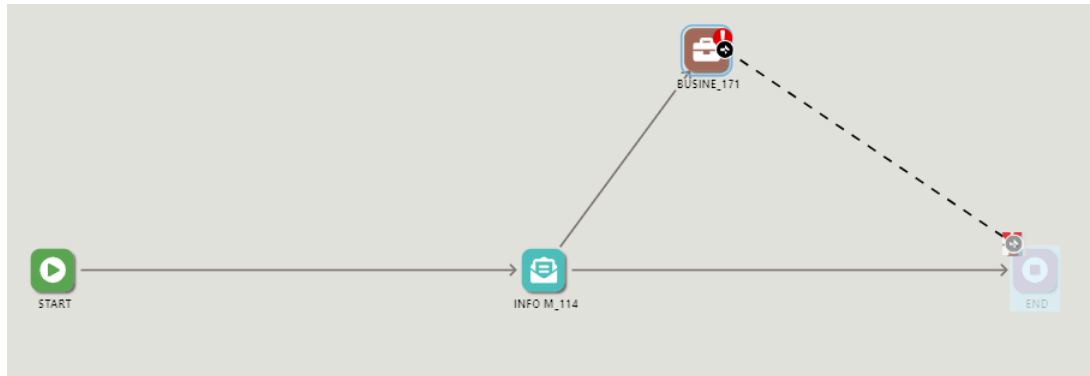
Adding a Transition

Whenever you add a new task to your workflow process, it links itself to the nearest task on the workflow diagram. You still need to connect the task to the subsequent task to maintain the flow of tasks. If transitions are missing between tasks, you get validation errors.

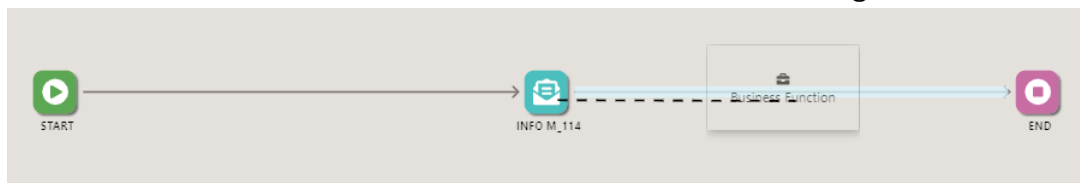
To add a transition to a task:

1. Hover over the new task you added.

- Click and drag the arrow icon to create a link from the new task to the task to which you want to have a transition.



- Alternatively, you can drag and drop a new task in between existing transitions or transition conditions. This action creates a new transition between the added task and the existing tasks.



Creating a Transition Condition

Access the workflow process in the Workflows page and reserve it.

- In the Workflows page, click Manage Transition Condition.
- Click the (+) to create a new condition. Alternatively, right-click the Link and Rule between the tasks where you want to create a transition and then select the Add and Attach Transition Condition.
- Provide the Task Name and the Description of the transition.
- In Edit Condition window, click the Key Data and Additional Data Structure icons to define the values for the condition. Click the Literal icon to configure the literal value of the transition condition.
- Close the Edit Condition window.

See *"Attaching a Transition Condition to a Transition."*

Attaching a Transition Condition to a Transition

Access the workflow process in the Workflows page and reserve it.

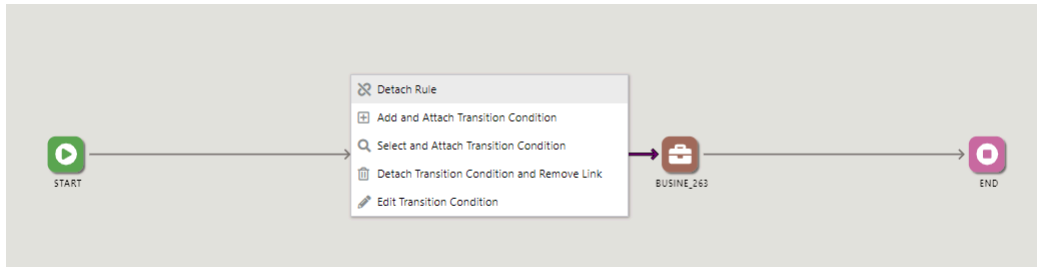
- In the Workflows page, click the Link and Rule between the tasks where you want to add transition conditions. Click the (+) to create a transition condition or search and select a condition from the list of existing transition conditions.
- Alternatively, right-click the Link and Rule where you want to add or select transition conditions, then select Add and Attach Transition Condition from the context menu.
- In the Edit Condition window, configure the transition condition.
- Click the Search icon. The Select Condition window containing the list of transition conditions is displayed. From this list, select the condition that you want to attach to the task.

5. Close the Select Condition window.

Detaching a Transition Condition

Access the workflow process in the Workflows page and reserve it.

1. Right-click the transition condition tasks that you want to remove.
2. Select Detach Rule from the context menu to remove the transition condition.



3. Alternatively, click the Detach Transition Condition icon in the task revision column to remove the transition condition.

Working with Report Tasks

This section provides an overview of Report tasks and describes how to configure a Report task.

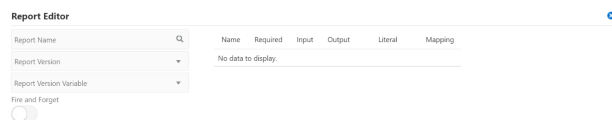
Understanding Report Tasks

A report task starts a JD Edwards EnterpriseOne batch application, such as a report or batch process. For example, you can create a task that runs the General Ledger Post Report (R09801) or the Leadtime Rollup batch process (R30822A).

Configuring a Report Task

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, select the Report task that you added to the diagram, and then click Edit to configure the event rules.
2. In the Report Editor window, search for the Report Name that you want to attach to the task.



3. Select the appropriate values from the Report Version or Report Version Variable drop-down lists. They are mutually exclusive.

4. Switch on the Fire and Forget toggle to run the Report task asynchronously. When you enable this option, the workflow process moves to the subsequent task and does not use any data that is returned from the report.
5. Close the Report Editor window.

Using Business Function Tasks

This section describes how to configure a business function task.

Understanding Business Function Tasks

A business function task attaches a business function for special logic processing, including any business functions written in C programming language or NERs written with event rules.

Prerequisite

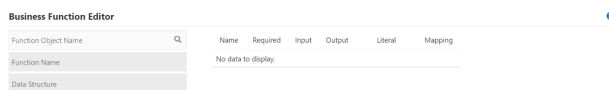
Create a business function or an NER if one does not exist.

See *"Using Business Functions" in the JD Edwards EnterpriseOne Tools APIs and Business Functions Guide*.

Configuring a Business Function Task

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, select the Business Function task that you added to the diagram, and then click Edit to configure the task.
2. In the Business Function Editor window, search and select the Function Object Name that you want to attach to the Business Function task.
3. If the function object has a single function associated with it, the Function Name is automatically populated. If multiple functions are attached to a function object, from the Function Name drop-down list, select the function name to configure the data structure.



Using the credit limit workflow as an example, map BF mnAddressNumber to mnAddressNumber and map BF mnCurrentCreditLimit to mnCurrentCreditLimit.

The only values available to pass to the business function are those from the key data and additional data structures. When you pass these values to the Data Item column of the form, you send the corresponding data items from the JD Edwards EnterpriseOne workflow key and additional data structures to the function.

4. Close the Business Function Editor window.

Using Local Process Tasks

Understanding Local Process Tasks

A local process task starts another process, also referred to as a subprocess. A subprocess has its own set of tasks. When you add a Local Subprocess task, you are attaching an existing JD Edwards EnterpriseOne workflow process to the JD Edwards EnterpriseOne workflow process that you are creating.

Subprocesses are useful when you have groups of tasks common to multiple workflow processes or a subset of tasks that recur within the same workflow process. You can configure a Local Process task so that the subprocess returns values to the parent JD Edwards EnterpriseOne workflow process.

Configuring a Local Process Task

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, click the Local Process task that you added to the diagram, then click Edit.
2. In the Local Process editor window, search and select the workflow you want to attach to the Local Process task.
3. Configure the values for the Key Data and Additional Data structures.

Workflow		Key Data		Additional Data	
K90CG01		WF90CG01A		WF90CG01B	
Key Data Structure			Additional Data Structure		
Name	Required	Input	Output	Literal	Mapping
mnCaseID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	∅	
szWorkFlowType	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	∅	
mnLineNumber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	∅	

4. Close the Local Process Editor window.

Using Halt Tasks

This section provides an overview of the Halt task and describes how to:

- Configure a Halt task.
- Set up JD Edwards EnterpriseOne Workflow Scheduler.

Understanding Halt Tasks

A Halt task stops the JD Edwards EnterpriseOne workflow process and specifies a period of time that must pass before the process can continue.

For example, suppose you have a process for submitting a contract proposal to a client. The client has two weeks to accept the proposal or the contract is voided. After the contract is entered, the system activates a JD Edwards EnterpriseOne workflow process, using a Halt task, that puts the contract on hold for two weeks. At the end of the two weeks, when the JD Edwards EnterpriseOne workflow process resumes, a Business Function task checks the status of the contract. If the contract has been accepted, nothing happens. If the contract has not been accepted, the status is changed to Void and a notification is sent to the client.

When you set up a Halt task, you specify either hours and minutes or the date and time at which you want the process to resume.

If you add Halt tasks to the JD Edwards EnterpriseOne workflow process, you must run the Start Escalation Monitor batch process (R98810) regularly. You can run it manually or set up the JD Edwards EnterpriseOne Workflow Scheduler to run the batch process automatically. If you do not run the Escalation Monitor regularly, the workflow process will remain halted. The Escalation Monitor resumes the process after the date and time are met.

You can run the Escalation Monitor manually from Object Management Workbench. The Start Escalation Monitor button is located on the Workflow Operations tab in Workflow Design.

Configuring a Halt Task

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, select the Halt task you added to the diagram, then click Edit.
2. In the Halt Editor window, complete any one of the following fields to determine when you want the system to move to the next task in the JD Edwards EnterpriseOne workflow process.
 - Date (JDE UTime)
 - or
 - Duration (Minutes)

For example, you might enter 30 minutes in the Duration field. If the Escalation Monitor is run to check for expired activities 30 minutes from when that task within the process is started, the task is set as expired. The halted condition expires and the system moves to the next task.

For Date, you can select only a UTime data type from the drop-down list. If there is no data structure member, the list is not populated.

Note: A Halt task has no event rule definition.

3. Close the Halt Editor window.

Setting Up JD Edwards EnterpriseOne Workflow Scheduler

The JD Edwards EnterpriseOne Workflow Scheduler enables you to escalate expired message and halt instances either automatically or manually. You set the Scheduler to run as frequently or as infrequently as you want, though it is recommended that you execute the JD Edwards EnterpriseOne Workflow Scheduler no more than once an hour. The JD Edwards EnterpriseOne Workflow runtime kernel reads the F98865 table to determine the tasks which have either expired or require escalation.

To change the server settings:

1. Access Server Manager by entering its URL in Windows Explorer.
2. In the Configuration section, click the Workflow menu.
3. In the Workflow section, change these parameters to the appropriate values:

- o Workflow User

This parameter is the name of a valid JD Edwards EnterpriseOne user to be used by the workflow kernel.

- o Workflow Password

This parameter is the password of the specified workflow user. The password will be used by the workflow kernel.

- o Workflow Environment

This parameter is a valid JD Edwards EnterpriseOne environment name for the specified workflow user. The workflow kernel will sign on using the supplied credentials and environment to obtain access to the workflow-related database tables.

- o Workflow Role

This parameter is a valid JD Edwards EnterpriseOne role for the specified workflow user.

- o Max Environments

This parameter defines the maximum number of cached environment handles to maintain, in case system resources need to be conserved. Zero, which is the default, will not cache the environment handles.

- o Enable Admin Activity

If this parameter is set to "True," workflow administrative activity is allowed.

- o Timeout Delay

This parameter defines the number of seconds that the workflow kernel will wait for a response.

- o Cleanup Frequency

This parameter defines the number of seconds that the workflow kernel will wait before performing cleanup processing.

- o Idle Frequency

This parameter defines the number of seconds that the workflow kernel will wait before performing idle processing, including escalations and halts.

- o Interoperability Flag

This parameter enables or disables certain types of workflow functionality including interoperability, scheduling, and escalation. Ensure that this parameter is set to ON.

- o Escalation Frequency

This parameter defines the interval, in seconds, that the workflow kernel will check for tasks that need to be resumed or escalated. If the value is zero, the kernel will never check for expired tasks.

JD Edwards EnterpriseOne Workflow Scheduler runs within the JD Edwards EnterpriseOne Workflow kernel process. If you want the JD Edwards EnterpriseOne Workflow Scheduler to start along with the enterprise server, then you have to set the Auto-Start Process Count to at least 1. This will start the number of JD Edwards EnterpriseOne Workflow kernels which you have specified.

Using Information and Action Tasks

This section provides overviews of Information and Action tasks, describes the contents of a JD Edwards EnterpriseOne workflow message, and describes how to:

- Define JD Edwards EnterpriseOne workflow recipients.
- Define methods for routing messages.
- Configure an information or action task.
- Add escalation rules to an action task.
- Delete escalation rules from an action task.

Understanding Information and Action Tasks

Note: Workflow processes that were designed prior to release 8.94 use Message tasks rather than Action and Information tasks. See *JD Edwards EnterpriseOne Workflow Processes Developed Before Release 8.94* for further details.

Information and Action tasks send JD Edwards EnterpriseOne workflow messages to users in the system. The tasks differ in these ways:

- Information tasks do not require an action from the recipient. Action tasks require the recipient to perform an action, such as to approve or reject a request, and can contain shortcuts to interactive applications.
- Information messages can be sent to a role, a distribution list, or a single recipient. Action messages can be sent to a single recipient or to a distribution list.
- Information tasks do not contain escalation rules. Action tasks can be defined with escalation rules.

A JD Edwards EnterpriseOne workflow process can contain several different Information or Action tasks. For example, a JD Edwards EnterpriseOne workflow process designed for approving credit limit increases can include the following tasks:

- Action task to request a credit limit increase with a shortcut to the Credit Limit Approval form.
- Information task to send notification of the approval of a credit limit increase.
- Information task to send notification of the rejection of a credit limit increase.

Note: You can also use the Send Message Extended system function to send a message directly from an interactive or batch application, instead of using either task.

To create an Information or Action task, you must define the contents and the recipients of the message. You can also add logic that contains conditions for routing messages.

Setting Up Message Templates

A JD Edwards EnterpriseOne workflow process uses message templates to present messages that contain specific information or information that is substituted from data items within the process.

When you add an Information or Action task (a task that sends messages to individuals or to members of a distribution list), you can choose to use a message template. Message templates enable you to send boilerplate text along with information that is substituted from data items used within the process.

You can create a new message template before you begin creating a JD Edwards EnterpriseOne workflow process or set up the template during creation of an Information or Action task.

Use this naming convention when creating message templates:

- LMxxxxyyy
- where LM identifies the message as a JD Edwards EnterpriseOne workflow message
- xxxx = the system code (use system codes 55 through 59 for customer-specific messages)
- yyy = a sequential number

Access OMW.

1. In OMW, highlight the project to which you want to add the message template, and then click Add.
2. On the Add EnterpriseOne Object to the Project form, select Data Item in the Control Table Objects area, and then click OK.
3. On the Data Dictionary Item Type dialog box, click Yes to add a glossary data item.
4. On the Glossary Items form, click the Item Specifications tab, and then complete these fields:
 - Glossary Group
Enter Y to identify the message as a JD Edwards EnterpriseOne workflow message. The system disables the Data Structure Template tab, which is used for creating error messages, not JD Edwards EnterpriseOne workflow messages.
 - Product Code
A UDC (98/SY) that identifies a system. Valid values include:
01: Address Book
03B: Accounts Receivable
04: Accounts Payable
09: General Accounting
11: Multicurrency
Enter a UDC that specifies the product code.
 - Product Code Report
Enter a UDC that specifies the system number for reporting and jargon.
 - Description
Enter a description for the workflow message.
 - Error Level
This field is used to indicate whether the template is an error message, warning message, or information message.
Enter 3 to define the template as an information message.
5. Click the Item Glossary tab and enter the text for the message.

If the message contains values that will be substituted by data items from the key data and additional data, leave a placeholder for them by using an ampersand (&) and the number of the value.

6. Click OK when you have finished setting up the message template.

Understanding the Contents of an Information or Action Task

When you create an Information or Action task, you must define the contents of the message. You can include these items in a JD Edwards EnterpriseOne workflow message:

- Subject line and message text.
You can enter the message text directly into the Information or Action task or you can use a message template. A message template contains text that you enter, along with substituted values that are populated from the JD Edwards EnterpriseOne workflow process key and additional data selections. After you create the message template, you attach it to the event rules in the Information or Action task. Alternatively, you can use a single object from the Available Objects list for the text of the message.
- To line.
You can enter the intended recipients or distribution list in the To line.
- Cc line.
You can enter people or distribution lists in the Cc line so that the people listed there also receive the message.
- Bcc.
You can enter people or distribution lists in the Bcc line so that people listed there also receive the message, but the people listed in the Send To and Cc lines cannot see who is listed on the Bcc line.
- Shortcut to an interactive application such as the Generic JD Edwards EnterpriseOne Workflow Approval Form (P98806).
- Message.
You can specify a message template, based on a DD glossary item, for the body of the message.
- Media Object Name and Media Object Key.
You can attach useful information to an application, including information that might currently exist as a paper-based document. The media objects feature enables you to attach the information to JD Edwards EnterpriseOne software applications, forms and rows, and Object Librarian objects. The imaging feature within media objects gives you the flexibility to create an efficient method of information storage.

Note: You can create a new message template using JD Edwards EnterpriseOne Workflow Messages (P92002).

See *Setting Up Message Templates*.

Prerequisites

If you are routing the message to a distribution list, determine to which distribution list you want to send the message. If necessary, first create the distribution list from Group Revisions (P02150).

See *Setting Up Distribution Lists*.

If you are attaching a message template to a message, determine which message template the message will use. If necessary, first create the message template.

See *Setting Up Message Templates*.

Using JD Edwards EnterpriseOne Workflow Message Recipients

JD Edwards EnterpriseOne Workflow can send messages to roles, to distribution lists that use group processing, to distribution lists that use hierarchical processing, or to single recipients. JD Edwards EnterpriseOne workflow can send messages to these different recipients or groups of recipients regardless of whether the message recipient is specified in the event rules or in the Escalation event rules.

In all cases, the recipient is determined by the combination of two fields: the recipient address (address book number) and structure type. If you specify only the recipient address, the message is sent directly to the address book number, regardless of whether it is a role or a single recipient. If you specify only the structure type, the message is sent to the distribution list using hierarchical processing. If you specify the recipient address and structure type, the message is sent to a distribution list using group processing.

The three possible combinations of recipient address and structure type are detailed below.

Understanding Methods for Routing Messages

You can use these methods to further define how messages are routed:

- You can route messages using Event Rule logic in Business Function tasks or in interactive or batch application event rules.

You can create a business function in OMW and attach it to a Business Function task in the workflow process. The following example shows the event rules for a NER business function to route messages for a credit limit change. The approval message is routed to different recipients, depending on the address book number of the customer. Address book number 3003 represents a customer. Address book number 4803 represents the manager of the approval department. Address book number 7405 represents a distribution list for the accounts receivable department.

If the request for a credit limit change is for customer 3003, send the request for approval message to address book number 4803. If the request is for any other customer, send the request to address book number 7405.

```
If BF mnAddressNumber is equal to "3003"  
  
BF mnSendToAddress = "4803"  
  
Else  
  
BF mnSendToAddress="7405"  
  
End If
```

- Escalation rules

Escalation rules will resend an Action message to a new recipient if the original recipient does not act on the message within a certain time. You set up escalation so that a JD Edwards EnterpriseOne workflow process continues if one of the original recipients of a workflow message does not respond.

Note: *Adding Escalation Rules to an Action Task.*

Configuring an Information or Action Task

Configuring an Information or Action task involves defining event rules that contain parameters that specify the content of the JD Edwards EnterpriseOne workflow message, the recipient of the message, and the conditions for sending messages.

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, click the Information or Action task and then click Edit to configure event rules.

Note: In the Message Editor window, you must enter a value for every data item.

2. In the Message Editor window, select an object from the drop-down list for the To Recipient. You must define the value depending on the object you select. For example, if you select Address Book in To Recipient, you must select a data structure for the Address Book Number.
3. Select an object from the drop-down list for the Cc Recipient. If you do not want to specify a Cc Recipient, select <None>.
4. Select an object from the the drop-down list for the Bcc Recipient. If you do not want to specify a Bcc Recipient, select <None>.
5. Select a Mailbox (or queue) from the drop-down list.

Note: You can use one of the existing queues in the system or create a new queue. If the Information or Action task sends messages to an external messaging system, the JD Edwards EnterpriseOne Workflow engine ignores the value that you specify for the Mailbox.

See *Setting Up Work Center Queues*.

6. To include a subject line in the message, click the Subject row field and then select the corresponding data item that contains the subject text, if applicable. If you want a custom subject, enter the literal value in Subject Literal.

If the message does not require a subject, do not select any data item. You would most likely not make a selection when using a message template (a data dictionary message), which would already contain a subject line.

7. To add static text to the message, click the Text row field and select the corresponding data item that contains the text for the body of the message. If you want custom text, enter the value in the Text Literal field. If you do not need to use the Text data item, do not select any data item.

Note: You can use the Text parameter to add supplemental text to a message template. This text appears above the message template text when the user opens the message.

8. To attach a shortcut to a JD Edwards EnterpriseOne workflow message, click the Search icon in the Shortcut field, and then select the appropriate object from the drop-down list. If you are not attaching a shortcut, leave the field blank.
 - Note:** Attaching a shortcut to a message will suspend the JD Edwards EnterpriseOne Workflow process until the message is acted upon.
9. Select the appropriate form in the Form column. When you select a form to call, Form Interconnect structure is displayed. Use it to configure the data items to pass in the form.
10. Select a value either from the Version drop-down list or from the Version Variable drop-down list.. The system allows selection of either a Version or Version Variable.
11. To attach a message template, click the Message row, and then perform the following steps. If you are not using a message template, leave the field blank.
 - o In the DD Message Search dialog box, enter the name of the message that you want to use as a template and click Find. For example, you might enter LM1235 for the Credit Limit Approval message.
 - o Select the message template that contains the value that you want to substitute into the message. If the message has a valid DD item, the Message Description and Message Glossary are displayed.
12. For the Media Object Name, select an object from the drop-down list. If you are not using a media object, leave the field blank.
13. For the Media Object Key parameter, select an object object from the drop-down list. If you are not using a media object, leave the field blank.
14. Close the Message Editor window.

Understanding Escalation Rules

You set up escalation so that a JD Edwards EnterpriseOne workflow process continues if one of the original recipients of a workflow message does not respond. To add escalation to an Action task, you must add escalation rules, which are conditions that will resend a message to a new recipient if the original recipient does not act on a message within a certain time. You cannot add escalation rules to an Information task.

When you use an escalation rule, you can attach a new message to the original message and then define to whom or to which distribution list the escalated message is sent. You must also activate the Workflow Scheduler to check for Action tasks containing escalation and forward any messages that have not been acted upon by the escalation recipient.

See *Setting Up JD Edwards EnterpriseOne Workflow Scheduler*.

Escalation only works in these instances:

- The original message contains a shortcut.
- The original recipient of the JD Edwards EnterpriseOne workflow message is part of a distribution list.

Note: While the system enables you to set up escalation rules even if the original recipient is a single recipient or a member of a role, the escalation rules will not work properly.

You can set up escalation rules so that an escalated message is sent to one of these types of recipients:

- Distribution List

The escalated message is sent to a distribution list. This requires that the original message be sent to a distribution list, and that the two lists have the same number of groups. This is because the message is escalated to members of the same group number in the next distribution list.

- Original Distribution List

If the original message is sent to a distribution list with multiple groups, then you can also set up the escalation to send the message up to the next group. For example, if the current message is sitting at group 1 while the message is escalated, it will be escalated to group 2. To escalate the message to the next higher group, enter the address book number and the structure type of the original distribution list in the escalation rules.

- Single Recipient

The escalated message is sent to one person only. The escalated message will be sent to the same person for all groups.

Adding Escalation Rules to an Action Task

Note: Workflow processes that were designed prior to Release 8.94 use Message tasks rather than Information and Action tasks. See *"Adding Escalation Rules to a Message Task"* for further details. Access the workflow process in Orchestrator Studio Workflows.

1. Click the Action Message task, then click the (+) next to Escalation in the Form Revision section.
2. In the Edit Escalation Rule window, click the (+) to add escalation.
3. Complete these fields to specify the recipient of the escalated message:
 - o Recipient Condition
Select a recipient condition for the escalation message.
 - o Address Book Number
Enter the Address Book number of the distribution list, role, or single recipient to whom the escalated message will be sent.
 - o Structure Type
Enter the structure type of the distribution list to which the escalated message will be sent. If the recipient is a role or single recipient, leave this field blank.
4. After you add an Escalation to the Action task, fields appear under the Action task in Form Revision section, fields are displayed and enabled to configure the escalation message.
5. Complete the fields To Recipient, Cc Recipient, and Bcc Recipient.
6. Click the Mailbox row and select a mailbox to which you want the escalated message delivered.
For example, you might select the Credit Management queue for a credit limit approval message.
7. To include a subject line in the escalated message, click the Subject field and then select the corresponding data item that contains the subject text, if applicable. You can also enter a literal value in the Subject field.
If the message does not require a subject, leave the field blank.
8. To add static text to the escalated message, click the Text field and select the corresponding data item that contains the text for the body of the message. You can also enter a literal value in the Text field. If you do not need to use the Text data item, leave it blank.

Note: You can use the Text parameter to add supplemental text to a message template. This text will appear above the message template text when the user opens the message.

9. Leave the Shortcut field blank. The escalated message uses the shortcut from the original message.
10. To attach a message template, click the Search icon in the Message field, and then select the appropriate message from the DD Message Search dialog box. Enter the name of the message in the Alias Search field and click Search. For example, you might enter LM1235 for the Credit Limit Approval message.

See *"Setting Up Message Templates."*

If you are not using a message template, leave Message field blank.

ORACLE Select the data item that contains the value that you want to substitute into the message. The Message Description and Message Glossary get updated.

12. Close the Message Editor window.

Deleting Escalation Rules from an Action Task

Access the workflow process in Workflows page and reserve it.

1. Click the Action task to which you added escalation.
2. In the form revision menu, click Remove Escalation to delete escalation rules from the Action task.

Using Orchestration Tasks (Release 9.2.7)

Starting with Tools Release 9.2.7, you can use the Orchestration task to add existing orchestrations or notifications to your JD Edwards EnterpriseOne workflow process. This section describes how to configure the Orchestration task.

Understanding Orchestration Tasks

Orchestration tasks allow you to add the below components of JD Edwards EnterpriseOne Orchestrator:

- **Orchestrations:** An orchestration is the master component that provides a unique name for an orchestration process. The orchestration is where you define the inputs or the expected incoming data for the orchestration. It also includes orchestration steps, which are invocations to the other components that are described in this list. When the Orchestrator invokes an orchestration, it processes the steps that are defined in the orchestration.
- **Notifications:** A notification is a process that can run independent of an orchestration. It enables the system to notify users of business events in real time. The notification can contain boilerplate text and a shortcut to an EnterpriseOne application and can be configured to execute based on information from a Watchlist or an orchestration.

See also:

- "[Creating Orchestrations](#)" in the *JD Edwards EnterpriseOne Tools Orchestrator Guide*.
- "[Creating a Notification](#)" in the *JD Edwards EnterpriseOne Tools Notifications Guide*.

Note: Notifications and Orchestration Message steps that send emails or Work Center messages also use the Workflow Kernel. If you add an Orchestration step to a Workflow that sends a message, you must have at least two Workflow Kernels available for the workflow process to complete. In Server Manager Console for the Enterprise Server, navigate to Configuration > Kernel Definitions, find Workflow Kernel (Type 13) and verify that Maximum Number of Processes is set to 2 or more.

Configuring Orchestration Tasks

Configuring an Orchestration task involves calling either an orchestration or notification from a workflow process.

Access the workflow process in the Workflows page and reserve it.

1. In the Workflows page, click the Orchestration task that you added to the diagram, then click Edit.

2. In the Orchestration Editor window, use the radio button to select Orchestration or Notification. Based on the selection, the Search field gets updated.
3. Click the search icon in the Search field.

A window pops up with a list of existing orchestrations or notifications in the system. Both orchestrations and notifications are divided into five groups, Personal, Pending Approval, Rework, Reserved, and Shared. Group option is toggled on.

You can sort the orchestrations and notifications by Name, Product Code, Date, or Category. The Orchestrations are arranged by date and are sorted by newest to oldest.

4. Populate the Search field to filter orchestrations or notifications based on name, description, or any other displayed attributes and/or use the Category list to show only the objects in the chosen category.
5. Select the orchestration or notification you want to add in your workflow process.

Note: Although orchestrations might be defined with arrays as inputs or outputs, workflows cannot accept arrays as inputs. Therefore, any arrays defined as inputs or outputs are not shown for mapping. For top level inputs and outputs, you can map the key and additional data structures defined in the workflow process and assign literals to the orchestration or notification. For more information, see *“Invoking Orchestrations and Notifications from an EnterpriseOne Interactive or Batch Application”* in *JD Edwards EnterpriseOne Tools Orchestrator Guide*.

6. Toggle on Fire and Forget when you want the orchestration or notification to run asynchronously. The workflow process does not wait for a response and moves on to the subsequent task. Output mappings are removed when Fire and Forget is toggled on.

Understanding Distribution Lists

This section provides an overview of distribution lists and describes:

- Structure types.
- Distribution lists for group processing.
- Additional routing features for distribution lists.
- Distribution lists for hierarchical processing.

Distribution Lists Overview

JD Edwards EnterpriseOne Workflow uses distribution lists to place employees into groups for message routing purposes. You assign users to a distribution list and then define the event rules of an Information or Action task to determine how messages will be sent to the members of that list.

Distribution lists are based on an address book number and a structure type. The address book number serves as the parent node of the distribution list. The members of the distribution list are then organized as children under this parent address book number. How you set up the children is dependent upon the type of processing that you want to use.

JD Edwards EnterpriseOne Workflow uses two different types of processing to route messages to members of a distribution list: group processing and hierarchical processing. Group processing sends messages to the members of a distribution list one group at a time. These groups are defined when you create the distribution list. Hierarchical processing sends messages to the members of a distribution list based on the organizational hierarchy defined in the distribution list.

Structure Types

Structure types are used to identify and categorize distribution lists. Every distribution list is identified by a unique address book number (the parent number for the distribution list) and a structure type. For example, you can set up a structure type of SAL for salary changes, and then set up a distribution list of employees involved in the salary change approval process.

You can use the predefined structure types of WFS, ORG, or EML to identify the distribution list as a JD Edwards EnterpriseOne workflow group, an organizational group, or email. However, you typically add your own structure types by adding to the 01/TS UDC values using the User Defined Codes program (P0004A).

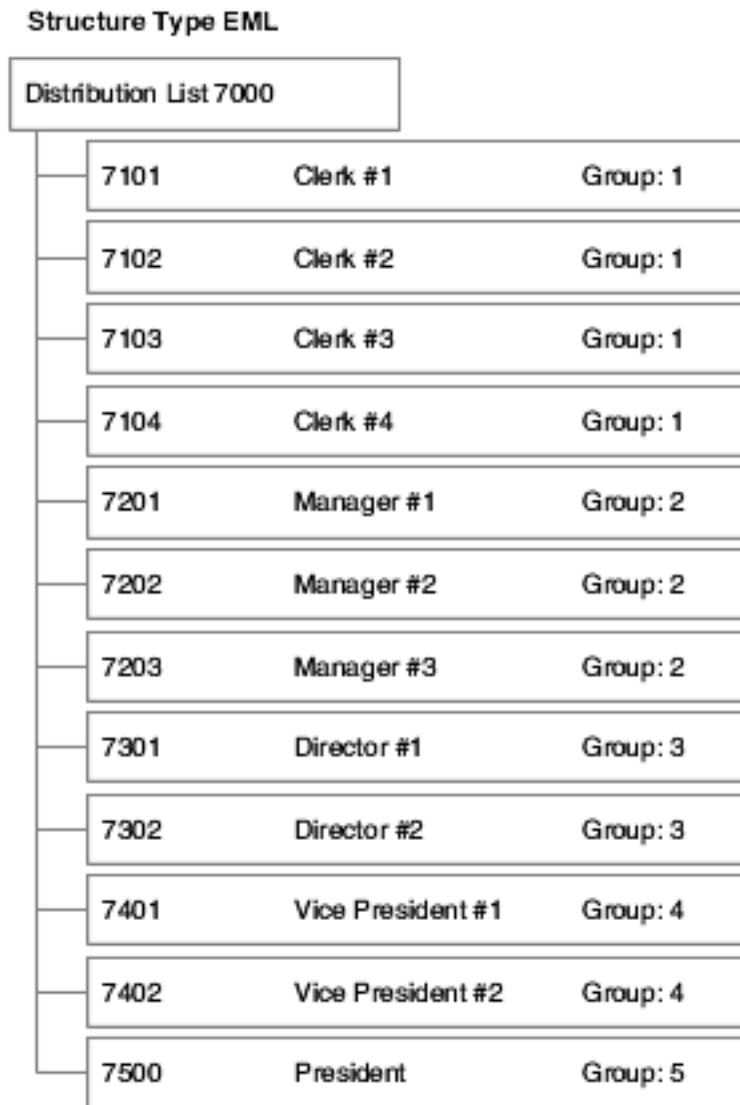
Distribution Lists for Group Processing

When you can create a distribution list for group processing, you assign all the members as the direct children of the distribution list's address book number. You then divide the members of the distribution list into groups. For example, you might organize six members of a distribution list into Group 1, five members into Group 2, and two members into Group 3. When the system sends a message to this distribution list, it first sends the message to Group 1, then it sends the message to Group 2, and finally it sends the message to Group 3.

Note: When you use group processing, do not send a message to the parent address book number of the distribution list. Since this parent address book number is just a placeholder and not a user, the message will never be acted upon and, therefore, the workflow process will not complete.

Example: A Distribution List Used for Group Processing

This example shows a distribution list with its members organized into groups for group processing. A message will be sent to everyone within each group in the distribution list, one group at a time, starting with Group 1.



Additional Routing Features for Distribution Lists

You can further define distribution lists in JD Edwards EnterpriseOne Workflow using these features:

- Threshold values
- Routing options
- Escalation hours and minutes

Threshold Values

JD Edwards EnterpriseOne Workflow uses threshold values in conjunction with distribution lists to determine if a member of the list will be involved in a particular approval process. That is, the threshold value will determine whether a particular member has authority or if the members of the next higher group must also approve the message.

When you set up a distribution list, you can enter a threshold value for each employee on the list. If a particular JD Edwards EnterpriseOne workflow process contains a value that is below a member's threshold value, then the system does not send a message to that member.

For example, if you use the associated data item AG (Amount-Gross) and enter a threshold value of 30,000 USD, the system compares the AG data item of the JD Edwards EnterpriseOne workflow process against the threshold value. If a customer's credit limit amount has been increased, the system sends a notification message regarding the change to those people whose threshold value is less than or equal to the amount in the Amount-Gross field on the Credit Information form.

You can also use groups in conjunction with threshold values. If there are multiple members in a group, they must have the same threshold value. For example, Group 1 could have two members with threshold values of 10,000 USD. Group 2 also has two members who have threshold values of 25,000 USD. If the system sends a message to the distribution list for a credit limit approval of 20,000 USD, the two members within Group 1 with a threshold value of 10,000 USD receive the message.

Routing Options

You can specify conditional routing to control the path of approvals within a distribution list. These routing options are as follows:

Routing Option	Description
First Response	<p>Indicates that if a JD Edwards EnterpriseOne workflow message is sent to the members of a group within a distribution list and all members in that group have the same threshold value, then only one of them must respond. After the first response is received by the JD Edwards EnterpriseOne Workflow system, messages to the other members of that same group are deleted from their queues, and the approval process continues. For example, if Clerk 7101 from Group 1 responds to a message first, then messages are deleted from the other recipient queues for that group.</p> <p>The First Response routing option is normally used when members of a group have the same authority in the approval process.</p> <p>If you do not select this option, all members of the group to which the JD Edwards EnterpriseOne workflow message is sent must respond before the approval process continues.</p>
Higher Level Overrides	<p>Indicates that a member in a higher-level group can approve a change through the Process Task Monitor. All lower-level approvals are marked as Bypassed in the monitor, and messages to other members are deleted from their queues. If you do not select this option, then a member in the higher-level group cannot approve the change before the lower group approves it.</p> <p>For example, if the Vice President (7401) approves a change through the monitor, all the messages that were sent to others within the distribution list below the Vice President are deleted from their queues. If the Vice President is the last person who needs to approve the message, then the message is complete; if not, the message goes to the next highest group member.</p>
Authorization Required	<p>Indicates that if a member in the distribution list initiates a JD Edwards EnterpriseOne workflow transaction (such as a salary increase), it requires authorization from a higher-level member. The higher-level member receives the message regardless of the threshold value of the higher-level member. If you do not select this option, no higher-level person is required to act on the message if it is below the threshold value.</p> <p>For example, if Manager #2 (7202) approves a salary increase for himself, his employee information is not updated with that change unless his supervisor authorizes or approves the JD Edwards EnterpriseOne workflow message.</p>

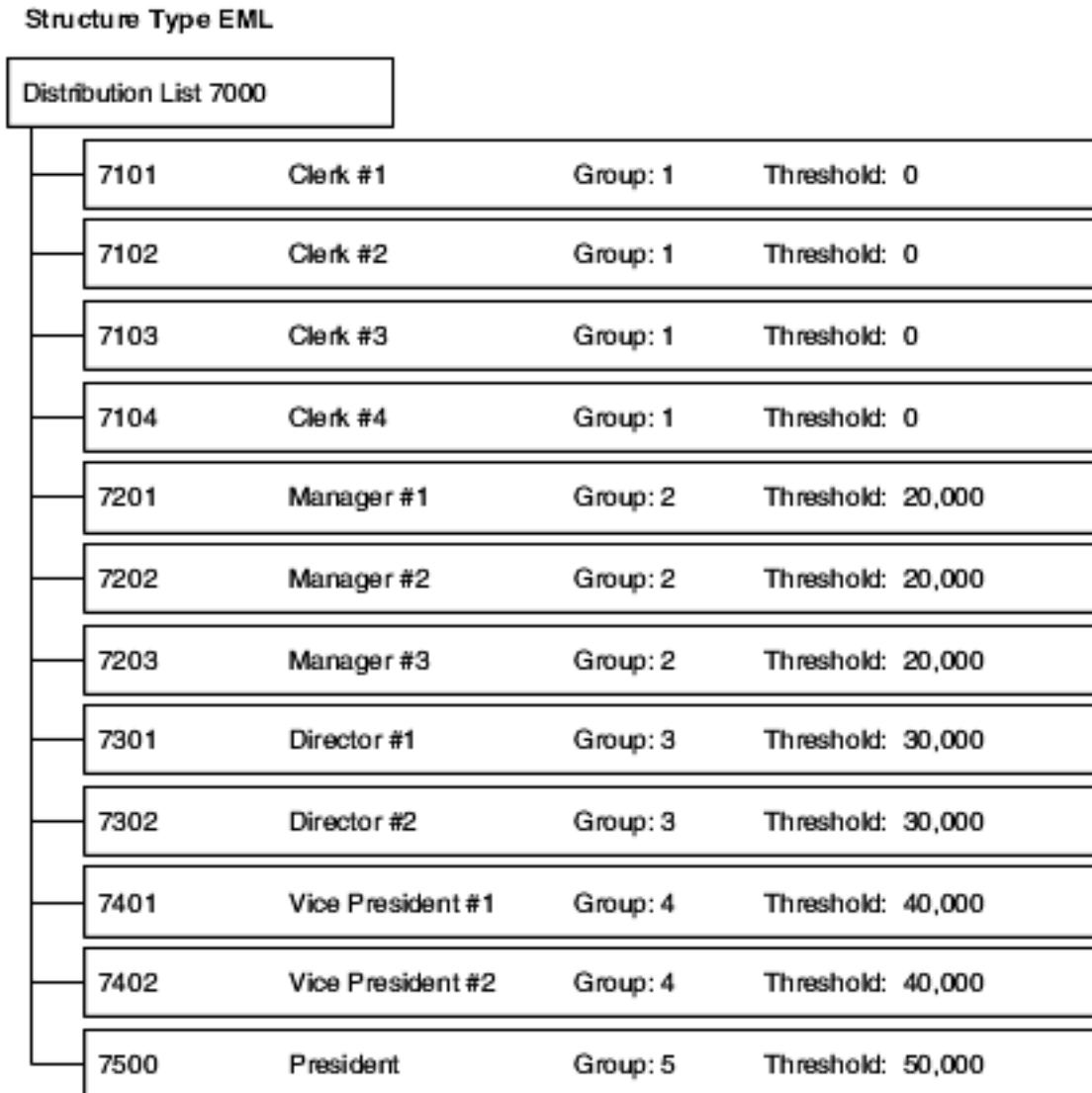
Escalation Hours and Minutes

Along with threshold values and routing options, you can also add escalation hours and minutes for each employee on a distribution list. Escalation hours and minutes specify the amount of time that the recipient has to respond before a message is escalated to another recipient.

If you categorize members of a distribution list into groups, you must add the same escalation hours and minutes for each member within one group. For example, if one member of Group 1 has 8 escalation hours and 30 escalation minutes assigned to him, then all other members of Group 1 must have 8 escalation hours and 30 escalation minutes assigned to them.

Example: Using Additional Routing Features with Group Processing

This example shows a distribution list designed for group processing. All of its members are organized into groups. Notice that each member is assigned a threshold value. The scenarios that follow the illustration describe how messages would be routed based on various criteria.



Scenario 1

A message with a value of 25,000 is first sent to Group 1 (members 7101, 7102, 7103, and 7104) because their threshold values are less than 25,000. If any of these recipients reject the message, the task completes and the message is not sent to the other groups. However, if all of these members approve the message, it is sent to the managers in Group 2 (members 7201, 7202, and 7203) for their approval because they are in the next highest group on the distribution list and have threshold values that are less than 25,000. The members in groups 3, 4, and 5 (members 7301, 7302, 7401, 7402, and 7500) do not receive the message because their threshold values are greater than 25,000.

An exception is if the message originator is a member of the distribution list to which the message is sent. In this case, the message is sent to the first group above the originator's group. For example, a message that is sent by 7202 and has a value of 35,000 is first sent to Group 3 (members 7301 and 7302) because these members are in the group above 7201. Only after both 7301 and 7302 accept the message does the task complete. The system does not need to send the message to the next group (Group 4) because the value in the message does not meet the threshold values assigned to that group. The thresholds for the next group (Group 4) are greater than 35,000.

Scenario 2

Manager #1 (7201) enters a credit limit increase request for 24,000 USD. Since Manager #1 is in Group 2 of the distribution list, the system will start looking at the next group, Group 3. Because this value is under the threshold value for Group 3, no message will be sent. These two exceptions to this scenario exist:

- If Authorization Required is turned on in this distribution list, then the message will be sent to Group 3 even though the credit limit request of 24,000 is smaller than the threshold value of Group 3.
- If the originator is in the highest group, then the system starts looking at the level of the originator since there is no higher level at which to start. For example, if the president enters a credit limit increase request for 24,000, the system starts checking threshold value criteria against Group 5. In this case, no message will be sent because 24,000 is smaller than the threshold value of Group 5.

See [Understanding Methods for Routing Messages](#)

Distribution Lists for Hierarchical Processing

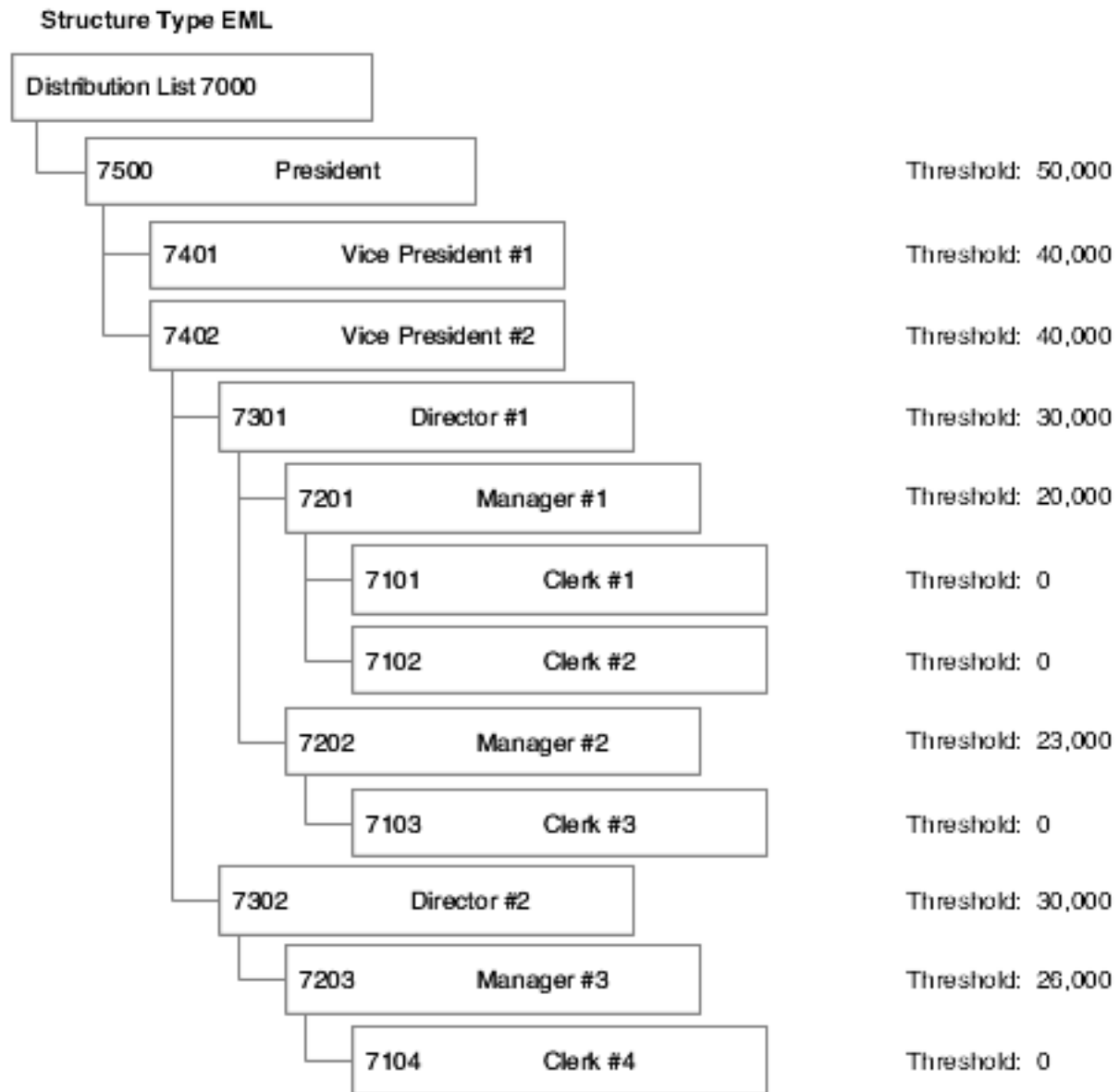
You can arrange distribution lists into a hierarchical or organizational tree structure, such as the president and all vice presidents within the company, with the employees listed under each of the parents. Hierarchical processing sends messages to the parents within the distribution list, one parent at a time, based on the originator's position in the hierarchy. After the first-level parent in the list receives the message, the system then determines whether the members above that parent should receive the message based on threshold value. If no threshold values exist for the members beneath a particular parent, the message is sent to all members beneath that parent.

Note: In a distribution list that uses hierarchical processing, the originator of a message must be a member of the distribution list. The message routing always starts with the parent of the originator. For hierarchical processing, you cannot include an individual in more than one distribution list of the same structure type. This inclusion can result in circular or ambiguous hierarchies that JD Edwards EnterpriseOne Workflow is unable to reconcile.

Example: A Distribution List Used for Hierarchical Processing

In this example, each member of the distribution list has only one direct parent. A message with a value of 45,000 that is sent by 7102 (Clerk #2) is first sent to 7201 (the manager of Clerk #1). If this manager approves the message, then 7301 (Director #1) receives the message. After 7301 approves it, the message is sent to 7402. The task is then complete.

because the parent of 7402 (7500) has a threshold value of 50,000, which is greater than the value of the message, which is 45,000. If any parent within this structure rejects the message, the task completes.



Setting Up Distribution Lists

This section provides an overview of distribution list guidelines and discusses how to:

- Create a distribution list for group processing.
- Create a distribution list for hierarchical processing.
- View distribution lists of which a child is a member.

Distribution List Guidelines

You set up distribution lists to route messages to certain groups of employees. When you create a distribution list, you first add a parent address book number using Address Book (P01012). Next, you use Group Revisions (P02150) to add members to the distribution list as children of the parent address book number. Finally, you attach the distribution list to an Information or Action task. When a JD Edwards EnterpriseOne workflow process invokes an Information or Action task, JD Edwards EnterpriseOne Workflow uses the distribution list that is attached to the Information or Action task to determine to whom the message is sent.

Before you create a distribution list, you must decide whether the distribution list will use group processing or hierarchical processing. Also, if you do not want to use an existing structure type for the distribution list, you must add one to the system using the User Defined Codes (P0004A) program.

For group processing, create a distribution list in which all members are first-level children of the address book number of the distribution list. You can then arrange members into groups.

For hierarchical processing, create a distribution list that reflects the hierarchical structure of the organization. For example, multiple managers might have multiple employees. It is recommended that you set up a new structure type for each distribution list that uses hierarchical processing.

You can use the Work With Distribution Lists form to view all the distribution lists of which a child is a member.

Consider these guidelines when creating distribution lists:

- Do not include an individual in more than one list of the same structure type. A user cannot appear twice in one structure type if the list is used with hierarchical processing.
- Threshold values assigned to members of a group must be higher than the threshold values assigned to members of the next lower group. For example, the members of Group 2 must have higher threshold values than the highest threshold value in Group 1.
- Depending on how you set up distribution lists and threshold values, situations might arise for which an action message is not sent to any member of a distribution list. In these cases, the application developer, JD Edwards EnterpriseOne workflow process designer, or both should take steps to ensure that a process instance completes successfully. Specifically, developers must code for the possibility that an action message is not sent and the approval code field in the additional data structure is not updated.

Use one of these two options to enable a process to complete successfully, even when no action messages are sent:

- Make sure all additional data structure variables used to store action message results (the approve or reject response) are initialized with an appropriate default value. For example, use A for automatic approval and R for automatic rejection.
- Make sure that any conditional rule that evaluates action message response variables after the message task considers values other than A or R. For example, if the approval code variable is not initialized, the field may have a blank value (" ") by default.

See *Distribution List Scenarios*.

See *Understanding Escalation Rules*.

Prerequisites

Before you complete the tasks in this section:

- Set up the address number of the distribution list in Address Book. Assign search type M (Mail Distribution List) to the distribution list when you add the distribution list to the Address Book.
- Make sure that all members that you want to include in the distribution list are entered into the Address Book.
- Set up a structure type using the User Defined Codes (P0004A) program. It is recommended that you set up a new structure type for each distribution list that uses hierarchical processing. Structure types are added to UDC 01/TS.
- Understand the two ways in which distribution lists can be processed and decide which type of processing you want to use (group processing or hierarchical processing). This choice will determine how you will create the distribution list.

Creating a Distribution List for Group Processing

Access the Work With Distribution Lists form.

1. From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select Group Revisions (P02150). Alternatively, you can access this application from OMW by choosing a JD Edwards EnterpriseOne workflow process, clicking Design, and then clicking Group Revisions on the JD Edwards EnterpriseOne Workflow Operations tab.
2. On the Work With Distribution Lists form, complete these fields:
 - Parent Number
Click the Search button and then select the address book number of the distribution list to which you want to add members.
 - Structure Type
Click the Search button and then select a structure type from the list.

Note: Do not leave this field blank. Every distribution list must have a structure type. Blank is the value for the Accounts Receivable structure type.
3. From the Form menu, select Revise Parent.
4. On Address Parent/Child Revisions, complete these fields.
 - Group
Enter a group number for each member. Group numbers must be sequential, starting with one.
 - Address Number
Enter the address book number of the individual that you want to add to the distribution list.
5. If you will be using threshold values, complete these fields:
 - Associated Data Item

You must use a data item that is also included in the additional data structure of the JD Edwards EnterpriseOne workflow process. The system compares the value for this data item against the threshold values of the distribution list members to determine to whom messages are sent.

- o Threshold Value

Enter the threshold value for each member of the distribution list.

Note: If you want to make sure a message is sent, enter at least one threshold value in the distribution list that is lower than or equal to any value that could be entered into the associated data item. Otherwise, if the value in the associated data item is lower than the lowest threshold value in the distribution list, the process does not have anywhere to send the message because all of the possible recipients are out of the specified threshold range.

6. If you are adding escalation to an Action task, complete these fields to assign hours and minutes to each member of the distribution list.

- o Escalation Hours
- o Escalation Minutes

These values determine when a message will be escalated.

Note: Escalation hours and minutes must be the same for all members of a group. For example, if members 7101, 7102, 7103, and 7104 are all members of Group 1, then each of these members must have the same escalation hours and minutes.

7. If you want to specify a period of time during which the members of the distribution list can receive a message, complete these fields:

- o Begin Eff Date
- o End Eff Date

The JD Edwards EnterpriseOne Workflow engine will not send messages to members of the distribution list unless the current date falls between the beginning effective date and the ending effective date that you specify in these fields.

8. Specify the routing options by choosing one or more of these options:

- o First Response
- o Higher Level Override
- o Authorization Required

9. Click OK.

The following table provides additional information about the fields on the Address Parent/Child Revisions form:

Description	Glossary
Parent Number	The address book number of the parent company. The system uses this number to associate a particular address with a parent company or location. Any value that you enter in this field updates the Address Organizational Structure Master table (F0150) for the blank structure type. This address number must exist in the Address Book Master table (F0101) for validation purposes. Examples of address book records that would have a parent number include:

Description	Glossary
	<p>Subsidiaries with parent companies</p> <p>Branches with a home office</p> <p>Job sites with a general contractor</p> <p>--- FORM SPECIFIC ---</p> <p>The Address Book number of the primary level in a hierarchy, or reporting relationship. A parent in one hierarchy can be a child in another hierarchy. A hierarchy can be organized by business unit, employee, or position. For example, you can create a hierarchy that shows the reporting relationships between employees and supervisors.</p>
Structure Type	<p>A UDC (01/TS) that identifies a type of organizational structure that has its own hierarchy in the Address Book system (for example, email).</p> <p>When you create a parent/child relationship for the Accounts Receivable system, the structure type must be blank.</p> <p>--- FORM SPECIFIC ---</p> <p>Identifies the type of distribution list, such as WFS for JD Edwards EnterpriseOne Workflow, ORG for group, and EML for email.</p>
Associated Data Item	<p>The data item used to retrieve the formatting information that the system uses on the Threshold Value.</p>
Threshold Value	<p>A value that is assigned to individuals within a distribution list to determine if the individuals will be included in the approval of a JD Edwards EnterpriseOne workflow task. This value can be any numeric value, such as an amount, quality, or percentage.</p>
First Response	<p>If this option is turned on, only one member of a distribution list must respond to the JD Edwards EnterpriseOne workflow message. When the first response is received by the JD Edwards EnterpriseOne Workflow system, the system cancels the messages that were sent to the other members of the group and marks the task as complete.</p> <p>If this option is turned off, all members of the group to which the JD Edwards EnterpriseOne workflow message was sent must respond before the system marks the task as complete.</p>
Higher Level Override	<p>If this option is turned on and a person in a higher level group manually approves a JD Edwards EnterpriseOne workflow transaction (by a workbench program), then all lower level groups will be marked as bypassed.</p>

Description	Glossary
	<p>If this option is turned off and a person in a higher level group manually approves the transaction, the action is logged and all lower level groups are still required to approve the transaction.</p>
<p>Authorization Required</p>	<p>If this option is turned on and a person in the distribution list enters a JD Edwards EnterpriseOne workflow transaction that goes through the distribution list, the next higher person must be sent the message, even if the threshold has not been reached for the higher person.</p> <p>If this option is turned off, no higher person is required to see the message as long as it is below the threshold.</p>

Creating a Distribution List for Hierarchical Processing

Access the Work With Distribution Lists form.

1. From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select Group Revisions (P02150). Alternatively, you can access this application from OMW by choosing a JD Edwards EnterpriseOne workflow process, clicking Design, and then clicking Group Revisions on the JD Edwards EnterpriseOne Workflow Operations tab.
2. On the Work With Distribution Lists form, complete these fields:

- o Parent Number

Click the Search button and then select the address book number of the distribution list to which you want to add members.

- o Structure Type

Click the Search button and then select a structure type from the list.

Note: Do not leave this field blank. Every distribution list must have a structure type. Blank is the value for the Accounts Receivable structure type.

3. From the Form menu, select Revise Parent.
4. On Address Parent/Child Revisions, complete these fields:

- o Group

Hierarchical processing ignores values in the Group field. However, it is recommended that you assign each member to group 1.

- o Address Number

Enter the address book number of the individual that you want to add to the distribution list.

5. If you are using threshold values, complete these fields:

- o Associated Data Item

You must use a data item that is also included in the additional data structure of the JD Edwards EnterpriseOne workflow process. The system compares the value for this data item against the threshold values of the distribution list members to determine to whom messages are sent.

- o Threshold Value

Enter the threshold value for each member in the distribution list.

Note: If you want to make sure a message is sent, enter at least one threshold value in the distribution list that is lower than or equal to any value that could be entered into the associated data item. Otherwise, if the value in the associated data item is lower than the lowest threshold value in the distribution list, the process does not have anywhere to send the message because all of the possible recipients are out of the specified threshold range.

6. If you are adding escalation to an Action task, complete these fields to assign hours and minutes to each member of the distribution list.

- o Escalation Hours
- o Escalation Minutes

These values determine when a message will be escalated.

Note: Escalation hours and minutes must be the same for all members of a group. For example, if members 7101, 7102, 7103, and 7104 are all members of group 1, then each of these members must have the same escalation hours and minutes.

7. If you want to specify a period of time during which the members of the distribution list can receive a message, complete these fields:

- o Begin Eff Date
- o End Eff Date

The JD Edwards EnterpriseOne Workflow engine will not send messages to the members of the distribution list unless the current date falls between the beginning effective date and the ending effective date that you specify in these fields.

8. Specify the routing options by choosing one or more of these options:

- o First Response
- o Higher Level Override
- o Authorization Required

9. Click OK.

10. To add a level beneath the member that you just added (for example, if you added a vice president and you want to add directors beneath the vice president), do the following:

11. Return to the Work With Distribution Lists form and select the vice president you just added in the tree.

You might need to click Find to refresh the display.

- Click Add, and then enter the directors.

Each time you add another level to the distribution list, you select the parent address book number and then click Add to add children under that parent. You can also enter the parent's address book number and the structure type, click Find, and then select Revise parent from the Form menu.

Viewing the Distribution Lists of which a Child is a Member

Individuals can be members of more than one distribution list, but should not be included in more than one list of the same structure type. Follow these steps to view the distribution lists of which a child is a member.

Access the Work With Distribution Lists form.

- From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select Group Revisions (P02150). Alternatively, you can access this application from OMW by choosing a JD Edwards EnterpriseOne workflow process, clicking Design, and then clicking Group Revisions on the JD Edwards EnterpriseOne Workflow Operations tab.
- On Work With Distribution Lists, complete these fields:
 - Parent Number
 - Enter the address book number of the child for which you want to view all distribution lists.
 - Structure Type
- Select the Parents option, and then click Find.

The system displays the name of each distribution list of which the child is a member. In the following example, the CUST 2 is a member of the CUST 3 distribution list, which is a member of the CUST 4 distribution list, which is a member of the CUST 5 distribution list.

Work With Distribution Lists

✓ 🔍 + ✕ ⚙️ Form ⚙️ Tools

Parent Number CUST 2 TSR Parents

Structure Type Buying Structure

Records 1 - 3

Distribution Lists	
<input type="radio"/>	▶ CUST 3 TSR (62661)
<input checked="" type="radio"/>	▶ CUST 4 TSR (73183)
<input type="radio"/>	▶ CUST 5 TSR (121661)

Modifying Existing JD Edwards EnterpriseOne Workflow Processes

This section provides an overview of working with existing JD Edwards EnterpriseOne workflow processes and describes how to:

- Modify the properties of a JD Edwards EnterpriseOne workflow process.
- Change the properties of a task.
- Change the properties of a Transition Condition.
- Delete tasks and transitions.
- Detach transition conditions.
- Delete transition conditions.
- Replace a task.

Working with Existing JD Edwards EnterpriseOne Workflow Processes

Note: See "[Understanding JD Edwards EnterpriseOne Workflow Processes Developed Before Release 8.94](#)" for further details about working with workflow processes that were developed prior to 8.94.

As your business processes change, you can change your JD Edwards EnterpriseOne workflow processes accordingly. Orchestrator Studio Workflows displays diagrams of the existing JD Edwards EnterpriseOne workflow processes and enables you to modify them through the Orchestrator Studio Workflows interface. You also can display workflow processes that are shipped with JD Edwards EnterpriseOne software. You can customize existing JD Edwards EnterpriseOne workflow processes to meet the needs of your business processes, rather than changing your business processes to conform to the software.

Occasionally, when you attempt to open an existing JD Edwards EnterpriseOne workflow process, the system might detect that another instance of the workflow process is running. The system will not enable you to edit a workflow process with an active instance, although you can view a read-only version of the workflow process. In most cases, you should copy the workflow process version to a new version number, edit the new version, and then make the new version active. Doing so acts as a versioning mechanism during your workflow development, enabling process instances that started using the old version to finish using that same version.

The system will open a read-only version of the workflow process if any of these conditions are true:

- The version of the JD Edwards EnterpriseOne workflow process is running, or historical instance records for that version exist.

Editing a workflow process version introduces the possibility of invalidating historical data, which would prevent process instances from completing properly or prevent the accurate analysis of historical data. Therefore, you must run the Purge Completed Processes batch program (R98860P) before editing a process version. All active instances must be terminated before running this program to enable the historical data to be completely purged.

- The version of the JD Edwards EnterpriseOne workflow process you are trying to edit is active.

In Object Management Workbench, you must change the workflow status to inactive before you can edit it.

- Someone else is editing the current JD Edwards EnterpriseOne Workflow process.
If any version of the workflow process is open for editing on another workstation, the system will not enable you to edit the process.
- The system crashed while the workflow process in question was open for editing.
In case of a system crash, the system enables you to open the workflow process on which you were working in read-only mode, in a mode that preserves the data but does not preserve the formatting, or as it was in its previously saved version.

Modifying the Properties of a JD Edwards EnterpriseOne Workflow Process

Access OMW.

1. On the Object Management Workbench form, select the JD Edwards EnterpriseOne workflow process and then click the Design button in the center-column toolbar.
2. On the JD Edwards EnterpriseOne Workflow Design form, click the Summary tab.
3. On the Summary tab, you can modify this information:
 - Description
 - Product Code
 - History Tracking
4. If you want to use a different data structure for key data or additional data, click the Data tab and then click the Search button in either of these fields:
 - Key Data
 - Additional Data
5. Click the Category tab and complete the appropriate fields if you want to include any customizable data in the properties.
 - Category Code 1
 - Category Code 2
 - Category Code 3

Note: You must first customize the category codes with descriptions and values using the User Defined Codes (P0004A) program.

6. If you want to include an attachment, click the Attachment tab. In the left panel, right-click, select New, and then select one of these types of attachments:
 - Text
 - Image
 - OLE
 - Shortcut

- o URL/File

Note: Any attachment that you include does not transfer when moving the JD Edwards EnterpriseOne workflow process from one environment to another.

7. Click OK.

Changing the Properties of a Task

Access the workflow process in Workflows page and reserve it.

1. In the workflow diagram, click a task.
2. In task revisions, you can change these items:
 - o Task Name
 - o Description
 - o Join (Toggle On/Off)
3. Click Edit to configure the data structures for the task.

Changing the Properties of a Transition Condition

Access the workflow process in Workflows page and reserve it.

1. Click Manage Transition Conditions icon to see the list of transition conditions.
2. Click Edit for the transition condition you want to change properties.
3. In Edit Condition window you can change the data structures and system literals.
4. Close the Edit Condition window.

Deleting Tasks and Transitions

When you delete a task from a JD Edwards EnterpriseOne workflow process, any transitions that are attached to the task are deleted as well. Therefore, if you want to delete only the task, you should first move all transitions attached to the task to another location in the workflow diagram.

When you delete a transition that was defined with a transition condition, the transition condition still exists in the system. You must delete transition conditions separately.

Access the workflow process in Workflows page and reserve it.

1. In the workflow diagram, right-click the task that you want to delete.
2. Click Delete.
3. Alternatively, select the task you want to delete, then click Action in the Tasks Revisions and click Delete.

Note: You cannot delete Start and End tasks.

Detaching Transition Conditions

When you detach a transition condition, you remove it from the transition, but it is still available for use in other transitions. When you delete a transition condition, the system removes it from the system and it no longer appears in the list of available transition conditions in the Transition Condition Search and Select form.

Access the workflow process in Workflows page and reserve it.

1. Right-click the transition from which you want to detach the transition condition.
2. From the menu, select Detach Rule.

The system removes the transition condition from the transition, but the transition condition is still available for use in other transitions.

Deleting Transition Conditions

Access the workflow process in Workflows page and reserve it.

1. Click Manage Transition Conditions icon to see the list of transition conditions.
2. Use the “x” symbol to delete a specific transition condition. The system deletes the transition condition.

Replacing a Task

In the workflow diagram, if you want to change the type of task that you are using in your process, you must first add a new task from the tasks toolbar. Move the transition lines from the task that you are replacing to your new task. You then can delete the old task.

6 Working with JD Edwards EnterpriseOne Workflow Process Versions

Understanding JD Edwards EnterpriseOne Workflow Process Versions

After you use Workflows in the Orchestrator Studio to create tasks within a workflow process and you add transition conditions and distribution lists, you must validate the workflow process version. When validating a version, the system verifies that the version contains the start and end points. It also verifies that all the tasks that need event rules contain event rules, and that transitions exist among all the tasks.

You must make a version of a JD Edwards EnterpriseOne workflow process active in the system before you can attach it to an application. Additionally, only one version of a workflow process can be active at a time. This active version is the one that will be used if a process is started. However, once a process is started it will continue running with the version it started with, regardless of the status of that version.

You must validate a workflow process version before you can activate it in the system. You cannot activate a process that contains errors.

Note: Once a JD Edwards EnterpriseOne workflow process is made active in the system, or, if there are running instances of that workflow, you cannot modify it.

Validating a JD Edwards EnterpriseOne Workflow Process Version

Access the workflow process in Orchestrator Studio workflows.

1. Select the JD Edwards EnterpriseOne workflow process version that you want to validate.
2. Click Manage and then click Validate.
3. If the version contains no errors, the system displays the message "Validate Successful."
4. If the version contains errors, a dialog box appears with a list of errors. Resolve all the errors and then click Validate.

Attaching a JD Edwards EnterpriseOne Workflow Process Version to an Application

This section provides an overview of activating and attaching a JD Edwards EnterpriseOne workflow process version and describes how to:

- Attach the Start Process system function to an application.
- Attach the Pending Approval form to an application.

Understanding How to Activate a JD Edwards EnterpriseOne Workflow Process Version

Only one version of a JD Edwards EnterpriseOne workflow process can be active at a time. This active version is the one that will be used if a workflow process is started. However, once a process is started it will continue running with the version it started with, regardless of the status of that version.

Note: Once a JD Edwards EnterpriseOne workflow process is made active in the system, you cannot modify it. See [Working with Existing JD Edwards EnterpriseOne Workflow Processes](#) for information on how to modify existing JD Edwards EnterpriseOne Workflow processes.

You cannot activate a process if it contains errors. Therefore, you must validate the workflow process before you activate it.

Activating or Deactivating a JD Edwards EnterpriseOne Workflow Process Version

Access Workflows in the Orchestrator Studio.

1. Select the JD Edwards EnterpriseOne Workflow process version in Workflows.
2. Click Validate to check for any errors in the workflow process.
3. After validation is successful, click Manage and then click Activate to activate your workflow process. The system subsequently displays the message, "Activate Successful."
4. If you want to deactivate a workflow process, click Manage and then click Deactivate. The system subsequently displays the message, "Deactivate Successful."

Understanding How to Attach a JD Edwards EnterpriseOne Workflow Process to an Application

After you create, validate, and activate a JD Edwards EnterpriseOne workflow process, you attach it to an event within an application using Event Rules in Form Design Aid (FDA). You only need to define the system function Start Process in an application to attach a JD Edwards EnterpriseOne workflow process. The Start Process system function invokes the tasks within the process.

You can also attach workflow processes in Event Rules within Report Design Aid (RDA), Table Design Aid (TDA), or through named event rules (NER).

The following tasks explain how to attach the process called CREDLIMIT to an application and how to call a *pending approval* message that appears within the application when a user makes a change to a customer's credit limit. The example used is specific to the Credit Limit Revisions process; the way in which you attach your processes varies.

Note:

- *JD Edwards EnterpriseOne Workflow System Functions.*
- *"Event Rules Fundamentals" in the JD Edwards EnterpriseOne Tools Event Rules Guide .*

Prerequisite

Understand how to attach event rules to applications.

See *"Event Rules Fundamentals" in the JD Edwards EnterpriseOne Tools Event Rules Guide .*

Attaching the Start Process System Function to an Application

Access OMW.

1. Find and check out the application to which you want to attach the JD Edwards EnterpriseOne workflow process.
2. Click the Design button in the center column.
3. On the Interactive Application Design form, click the Design Tools tab.
4. Click Start Form Design Aid.
5. Find the form to which you want to attach the Start Process system function.
6. Open the event rules for the form, position the cursor where you want to start the workflow process, and click the System Function button.
7. On System Functions, click the Function Selection tab, double-click the Workflow folder, and then select Start Process.
8. Click the Parameter Mapping tab and double-click Choose Process.
9. On the Process Search and Select form, find the process that you want to attach to the application and click OK.

The JD Edwards EnterpriseOne Workflow engine dynamically selects the active version of the process attached in Event Rules.

10. On the System Functions form, select the Key Data Structure data item, and double-click the Define Mapping object.
11. On the Data Structure Mapping form, map the Key Data Structure to the corresponding object in the Available Objects list.
12. Repeat steps 10 and 11 to map the Additional Data Structure, and then click OK.

Attaching the Pending Approval Form to an Application

You can attach a form interconnection event rule that calls a message form. For example, you might want the system to call a form that notifies a user that the requested changes will be made after others approve them.

To attach a form interconnection:

1. On Event Rules, click the Form Interconnect button.
2. On the Work With Applications form, find and select the application that you want to use.

3. On Work With Forms, select the form that you want to use.
4. On Form Interconnections, map the appropriate parameters, if applicable.

In the Credit Limit Revisions example, the form that is called when a user makes a change to a customer's credit limit is for informational purposes only; you do not need to pass any values to this form.

Launching a JD Edwards EnterpriseOne Workflow Process from a Logic Extension (Release 9.2.6.4)

Starting with Tools Release 9.2.6.4, you can launch a workflow process from a logic extension. Since logic extension is a component of an orchestration, you can launch a workflow process in the same way that you launch orchestrations, including:

- From an EnterpriseOne page
- From a form extension
- From Orchestrator Scheduler
- As a REST API

See *“Creating Logic Extensions (Release 9.2.6)”* in the *JD Edwards EnterpriseOne Tools Orchestrator Guide* for details.

7 Understanding Synchronous and Asynchronous Processing

Synchronous and Asynchronous Processing

JD Edwards EnterpriseOne Workflow can execute a workflow process either synchronously or asynchronously. Asynchronous processing enables various workflow processes to run at the same time. By starting a JD Edwards EnterpriseOne workflow process asynchronously, you are simply running the workflow in the background of the calling application.

Although asynchronous workflow processes might process faster, synchronous processing is sometimes preferred. If a calling application depends on information from the workflow process, you should run the process synchronously to ensure that the calling application gets the information it needs from the process before the workflow finishes and the application closes.

A JD Edwards EnterpriseOne workflow process runs asynchronously by default, with these exceptions:

- When it is run from a batch application.
- When the workflow process is specifically designed to run synchronously.

In the first case, the system forces the workflow to run synchronously. In the second case, the designer specifically selects for the workflow to run synchronously.

System Functions for Synchronous and Asynchronous Processing

You can use the system functions *Start Process* and *Complete Activity* for asynchronous processing. You can use the system functions *Start Process In Line* and *Complete Activity In Line* for synchronous processing.

If an application depends on a JD Edwards EnterpriseOne workflow process to complete before continuing with subsequent event rule logic, then you must use *Start Process In Line*.

The *Start Process* and *Complete Activity* system functions run asynchronously in interactive applications, named event rules (NER), and table event rules (TER).

The *Start Process In Line* and *Complete Activity In Line* system functions run synchronously in interactive applications, named event rules (NER), and table event rules (TER).

Workflow processes in batch applications and subprocess tasks within a JD Edwards EnterpriseOne workflow always run synchronously, so only the *Start Process In Line* and *Complete Activity In Line* system functions are available in Report Design Aid and subprocess task definition. All event rules for existing batch applications that call *Start Process* and *Complete Activity* continue to be displayed as they are, but the workflow processes run synchronously.

Several system functions for JD Edwards EnterpriseOne workflow processing are available. Refer to the online APIs for more information about specific system functions.

Transaction Processing

If a named event rule that is included in a transaction calls any JD Edwards EnterpriseOne workflow system function, regardless of whether the workflow processes are synchronous or asynchronous, the workflow process is not included in the transaction. Therefore, the JD Edwards EnterpriseOne workflow process is permanently written to the tables even if the transaction rolls back.

8 Understanding Message and JD Edwards EnterpriseOne Workflow System Functions

Understanding Message and JD Edwards EnterpriseOne Workflow System Functions

This chapter describes the available Message and JD Edwards EnterpriseOne Workflow system functions and a description of each. Refer to the system function documentation in the online API guide for more information about these system functions.

Note: JD Edwards EnterpriseOne Workflow Admin system functions are intended only for use by workflow administrative applications developed and maintained by JD Edwards. Therefore, they are not listed here.

Message System Functions

Message system functions include the following:

Message System Function	Description
Delete Message	Removes a message that was created using Send Message or Send Message Extended.
Forward Message	Automatically forwards a message using a system function.
Send Message	Deprecated.
Send Message Extended	Sends a message through the JD Edwards EnterpriseOne mail system.
Template Substitution	Enables the user to fill the message template with the substitution values and then receive the completed message template back in a text string. The output string can be displayed on the screen or printed on a report as generic text.

JD Edwards EnterpriseOne Workflow System Functions

JD Edwards EnterpriseOne Workflow system functions include the following:

JD Edwards EnterpriseOne Workflow System Function	Description
Complete Activity	Completes a task instance and resumes the JD Edwards EnterpriseOne workflow process.
Complete Activity In Line	Completes a task instance and resumes the JD Edwards EnterpriseOne workflow process in line.
Get Activity Instance For Key	Retrieves the active JD Edwards EnterpriseOne workflow task instance information for a given key.
Get Process Instance Attributes	Retrieves the key and attribute data structures for a given process instance.
Get Process Instance For Key	Retrieves the JD Edwards EnterpriseOne workflow process instance for a given key.
Start Composer Process	Obsolete.
Start Process	Starts a JD Edwards EnterpriseOne workflow process.
Start Process In Line	Starts a JD Edwards EnterpriseOne workflow process in line for synchronous processing.
Update Process Instance Attributes	Updates the attributes for a given process instance.
Update Process Instance Attribute Single	Updates a single process attribute for a given process instance.

9 Configuring Shortcuts

Understanding How to Configure Shortcuts

While working in JD Edwards EnterpriseOne, users can email other users a shortcut to an application or a form. More often, shortcuts are sent to recipients automatically as part of a JD Edwards EnterpriseOne workflow process. For example, a workflow process might automatically send a manager a shortcut to an approval application after a user enters a sales order. The recipient (in this example, the manager) double-clicks the shortcut to access the corresponding application.

If more than one server is dedicated to JD Edwards EnterpriseOne workflow tasks, you can configure to which server a shortcut is routed. When you configure the shortcut to access a server other than the default server, your changes are stored in the F986101 Object Configuration Master table. For multiple environments using different port numbers with the same HTML server, first create one record for each HTML/port combination in the Deployment Locations Application (P9654A). Then create the Environment/Service Configuration record for each user who would send shortcuts, specifying the HTML server and port. The user could be *public or individual users or roles. These mappings need to be defined for both System and Server map data sources, including "J" environments.

Shortcuts on the Enterprise Server

If a workflow process runs on the enterprise server, the system will first look for the HTML service mapping in the F986101 table. The F986110 table determines which HTML server to use for the shortcut URL, based on the environment and user. The system uses the information in F986101 to locate the HTML server parameters defined in the Deployment Locations Application (P9654A). These parameters include the protocol, hostname and domain name (defined in the Server URL field), and the port to use when constructing the shortcut URL. If the HTML service mapping is not set up, the system will use the primary HTML server specified on the Work With Locations and Machines form in P9654A. The HTML server Preference section of the enterprise server jde.ini file is not used.

Shortcuts on the Microsoft Windows Client

If a workflow process runs on a Microsoft Windows client, the system will first look for the HTML service mapping in the F986101 table. If the mapping does not exist, it will look at the HTML server listed in the workstation jde.ini file. If no preference is specified, the system will use the primary HTML server specified on the Work With Locations and Machines form in the Deployment Locations Application (P9654A).

You might want to run a workflow process on the Microsoft Windows client if a user is developing a JD Edwards EnterpriseOne workflow process. The workflow process contains a shortcut to a new application that resides only on the user's workstation. The user wants to test the new application before making it available to everyone, so she wants the shortcut to access the new application located on her workstation. By default, the shortcut sent by the workflow process routes users to an HTML server, not to the user's workstation. You can configure JD Edwards EnterpriseOne to route shortcuts to the user's workstation by creating a record for the workstation in the Deployment Locations Application and the Environment/Service Configuration application.

Configuring a Shortcut

Access Environment/Service Configuration (P986110).

Note: Before creating a record in P986110, verify that there is a record in the Deployment Locations Application (P9654A) for the HTML/port combination that you plan to configure for shortcuts. If the record does not exist, create one before proceeding with the shortcut configuration. See *Defining Shortcut Links* for further details.

1. Use the EnterpriseOne menus to navigate to the Environment Management (GH9053) menu. Double-click Environment/Service Configuration (P986110). You cannot use the Fast Path to navigate to this application.
2. On the Work with Service Configuration form, verify that there is a record for the HTML server where you want the shortcut to point to.
3. If a record does not exist, click Add.
4. On the Service Configuration Revisions form, complete these fields:
 - o Environment Name
The environment on which the user sending the shortcut is logged in.
 - o Service Name
 - o User/Role
The user who is sending the shortcut.
 - o Server
The logical server name of the web server on which the user sending the shortcut is logged in. You must enter a logical web server name rather than the physical server name.
 - o Port Number
The port number associated with the logical server.

Note: During an initial installation, the HTML server is set up with port 80. If your company does not use port 80 for the HTML server, you must delete the HTML server record and add it again with the correct port number.

5. Click OK.
6. Select the record in the grid.
7. From the Row menu, click Change Status to activate the service.

See Also: Deployment Server Installation in the *JD Edwards EnterpriseOne Application Installation Guide*.

10 Understanding Distribution List Scenarios

Distribution List Scenarios

There are several scenarios that illustrate how JD Edwards EnterpriseOne Workflow processes use group processing or hierarchical processing to send messages to distribution lists. These scenarios follow the same Credit Limit example that is used throughout this guide. Each scenario includes the setup used for a specific JD Edwards EnterpriseOne Workflow process and the results that occur when that setup is used.

Prerequisite

You should understand how to create an Information or Action task and how to attach a distribution list to an Information and Action task. You should also understand the difference between group processing and hierarchical processing.

For more information, see these topics:

- [Creating a JD Edwards EnterpriseOne Workflow Process.](#)
- [Understanding Information and Action Tasks.](#)
- [Distribution Lists Overview.](#)

Group Processing Scenarios

This section discusses examples that illustrate how a JD Edwards EnterpriseOne workflow process uses group processing to route messages to members of a distribution list.

Scenario 1: Group Processing

This scenario illustrates how group processing sends messages to members of a distribution list.

Setup

The following information illustrates a typical distribution list setup for the Credit Limit example.

A/B #	Description	Group #	Threshold Value
7101	Clerk #1	1	5000
7102	Clerk #2	1	5000
7201	Manager #1	2	10000

A/B #	Description	Group #	Threshold Value
7202	Manager #2	2	10000
7301	Director #1	3	20000
7302	Director #2	3	20000
7401	VP #1	4	30000
7402	VP #2	4	30000
7501	President	5	31000

Results

The following results illustrate which members will receive a message. The value passed is the amount in the message. The address book numbers to the right are the result.

Note: When the originator of the request is part of the distribution list, and the group next to the originator's group has a threshold value higher than the requested limit, the message will be delivered to the group of the originator.

Value Passed									
4500	Not sent to list	-	-	-	-	-	-	-	-
9500	7101	7102	-	-	-	-	-	-	-
14500	7101	7102	7201	7202	-	-	-	-	-
19500	7101	7102	7201	7202	-	-	-	-	-
24500	7101	7102	7201	7202	7301	7302	-	-	-
29500	7101	7102	7201	7202	7301	7302	-	-	-
30500	7101	7102	7201	7202	7301	7302	7401	7402	-
31500	7101	7102	7201	7202	7301	7302	7401	7402	7501

Group Processing Scenarios

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Scenario 1: Group Processing

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Setup

The following information illustrates a typical distribution list setup for the Credit Limit example.

A/B #	Description	Group #	Threshold Value
7101	Clerk #1	1	5000
7102	Clerk #2	1	5000
7201	Manager #1	2	10000
7202	Manager #2	2	10000
7301	Director #1	3	20000
7302	Director #2	3	20000
7401	VP #1	4	30000
7402	VP #2	4	30000
7501	President	5	31000

Results

The following results illustrate which members will receive a message. The value passed is the amount in the message. The address book numbers to the right are the result.

Note: When the originator of the request is part of the distribution list, and the group next to the originator's group has a threshold value higher than the requested limit, the message will be delivered to the group of the originator.

Value Passed									
4500	Not sent to list	-	-	-	-	-	-	-	-
9500	7101	7102	-	-	-	-	-	-	-
14500	7101	7102	7201	7202	-	-	-	-	-
19500	7101	7102	7201	7202	-	-	-	-	-
24500	7101	7102	7201	7202	7301	7302	-	-	-
29500	7101	7102	7201	7202	7301	7302	-	-	-
30500	7101	7102	7201	7202	7301	7302	7401	7402	-
31500	7101	7102	7201	7202	7301	7302	7401	7402	7501

Scenario 2: Group Processing

This scenario uses the same setup as Scenario 1 except that all threshold values are 0.

Setup

There are five groups, some with multiple members. but the threshold value is 0 for all members of the distribution list.

A/B #	Description	Group #	Threshold Value
7101	Clerk #1	1	0
7102	Clerk #2	1	0
7201	Manager #1	2	0
7202	Manager #2	2	0
7301	Director #1	3	0
7302	Director #2	3	0
7401	VP #1	4	0

A/B #	Description	Group #	Threshold Value
7402	VP #2	4	0
7501	President	5	0

Results

No matter what value is passed, the process goes through the entire distribution structure. Every address book number gets a message.

Scenario 3: Group Processing

In this scenario of group processing, all members are in the same group and have the same threshold values.

Setup

Each group level in the distribution list is set to 1. A threshold value of 100 is used for each person.

Group	Name	Threshold Value
1	Tom	100
1	Barb	100
1	Tim	100
1	Dan	100

Results

Every address book number is given a message if the amount sent is greater than the threshold.

Note: When the originator of the request is part of the distribution list, the message will be delivered to the group of the originator.

Data Value	Sent to All #s in Group
90	Did Not Send
110	Yes

Scenario 4: Group Processing with Higher Level Overrides

This scenario shows how group processing routes messages to a distribution list with threshold values and higher level overrides.

Setup

There are five groups and each group has a threshold level. Group numbers 2 through 5 have a threshold value higher than the previous group. The value passed in is 31500.

A/B #	Description	Group #	Threshold Value
7101	Clerk #1	1	5000
7102	Clerk #2	1	5000
7201	Manager #1	2	10000
7202	Manager #2	2	10000
7301	Director #1	3	20000
7302	Director #2	3	20000
7401	VP 1	4	30000
7402	VP 2	4	30000
7501	President	5	31000

Results

After Group #1 approves the message, all address book numbers above Group #1 show up in Process Task Monitor in an awaiting status except for Manager #1 and Manager #2, which show an unopened status.

At this point, a user in a higher group can override the workflow process to continue to the next task. For example, in this scenario, if you log on to the JD Edwards EnterpriseOne system as President and do a higher level override on Clerk #1, all users display as bypassed, and the process ends as expected.

Scenario 5: Group Processing with First Response

This scenario uses the same setup as Scenario 1. It uses group processing and the originator of the process is not included in the distribution list. This scenario shows what would happen if the First Response option was checked during the distribution list setup.

Setup

There are five groups, some with multiple members. Each group has a threshold level. Group numbers 2 through 5 have a threshold value higher than the previous group. The value passed is the amount in the message.

A/B #	Description	Group #	Threshold Value
7101	Clerk #1	1	5000
7102	Clerk #2	1	5000
7201	Manager #1	2	10000
7202	Manager #2	2	10000
7301	Director #1	3	20000
7302	Director #2	3	20000
7401	VP #1	4	30000
7402	VP #2	4	30000
7501	President	5	31000

Results

At a specific group level, the first individual to respond dictates how the process continues. For example, the response might tell the process to end the task or to move on to the next higher group level in the distribution list.

Note: The First Response option is not necessary when using hierarchical processing of distribution lists. In hierarchical processing, if you have a situation where a clerk has two managers directly above him or her, both managers receive the message. The first manager to respond dictates how the process proceeds.

Hierarchical Processing Scenarios

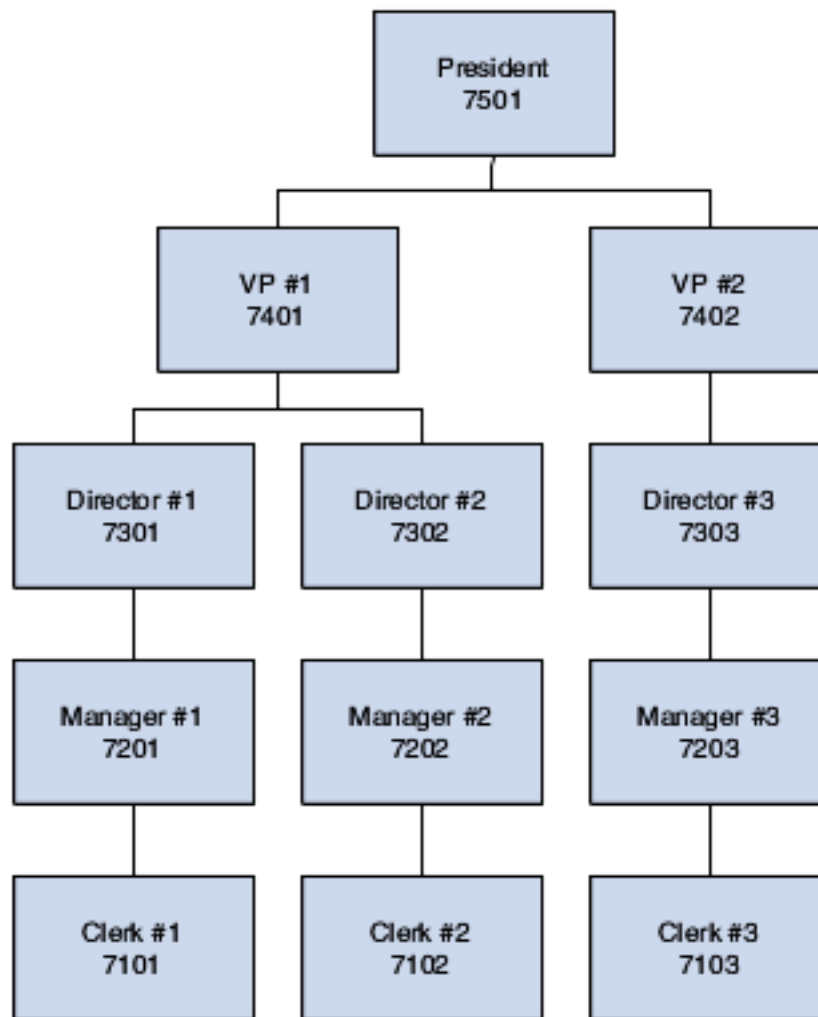
This section discusses hierarchical processing scenarios.

Scenario 6: Hierarchical Processing

This scenario illustrates how hierarchical processing of a distribution list sends messages to members of a distribution list with threshold values. The originator is in the distribution list. If the originator is not in the distribution list, the JD Edwards EnterpriseOne workflow process ends in error.

Setup

The message originator is 7101.



Results

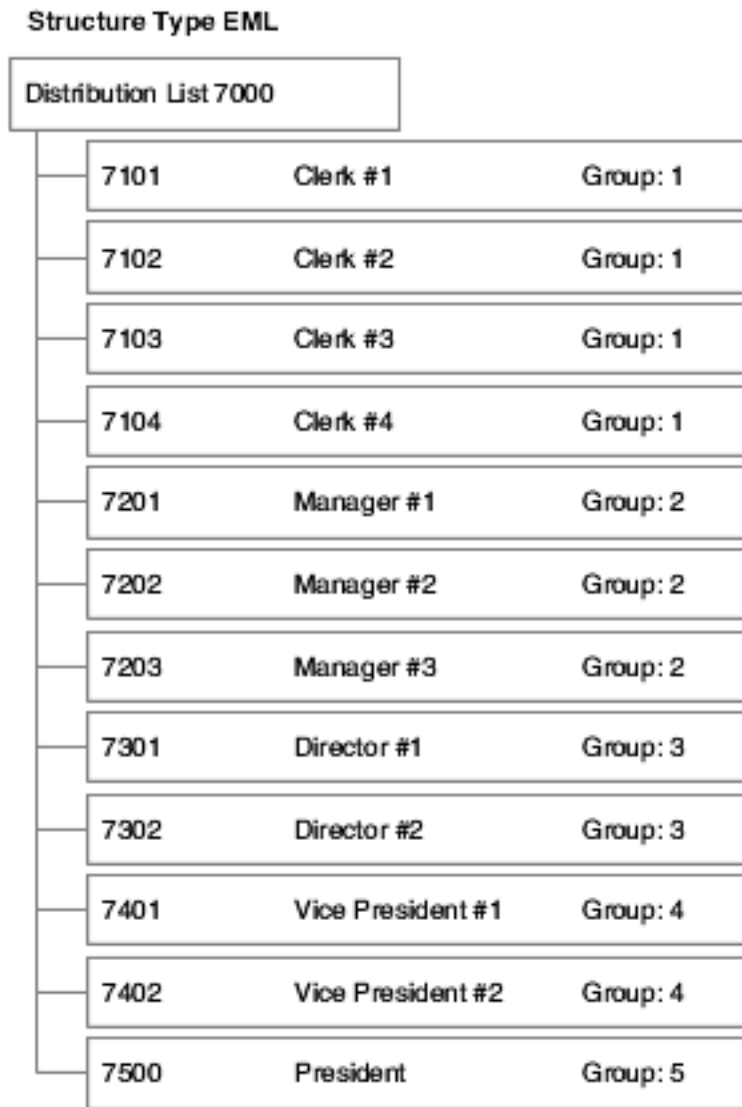
If the value passed is lower than the originator's threshold or the originator's manager's threshold, the JD Edwards EnterpriseOne Workflow will not send the message. To prevent this situation, set a default value for the messages that are not sent. For the Credit Limit scenario, you would probably accept the value passed amount because it is not a significant amount.

Scenario 7: Hierarchical Processing

This scenario illustrates how hierarchical processing routes messages to a distribution list with threshold values all set to 0. The originator is in the distribution list.

Setup

The originator is Clerk #1.



Results

Since there are no threshold values, the JD Edwards EnterpriseOne workflow process sends a message to all of the members.

Value Passed				
4500	7201	7301	7401	7501
9500	7201	7301	7401	7501
14500	7201	7301	7401	7501
19500	7201	7301	7401	7501

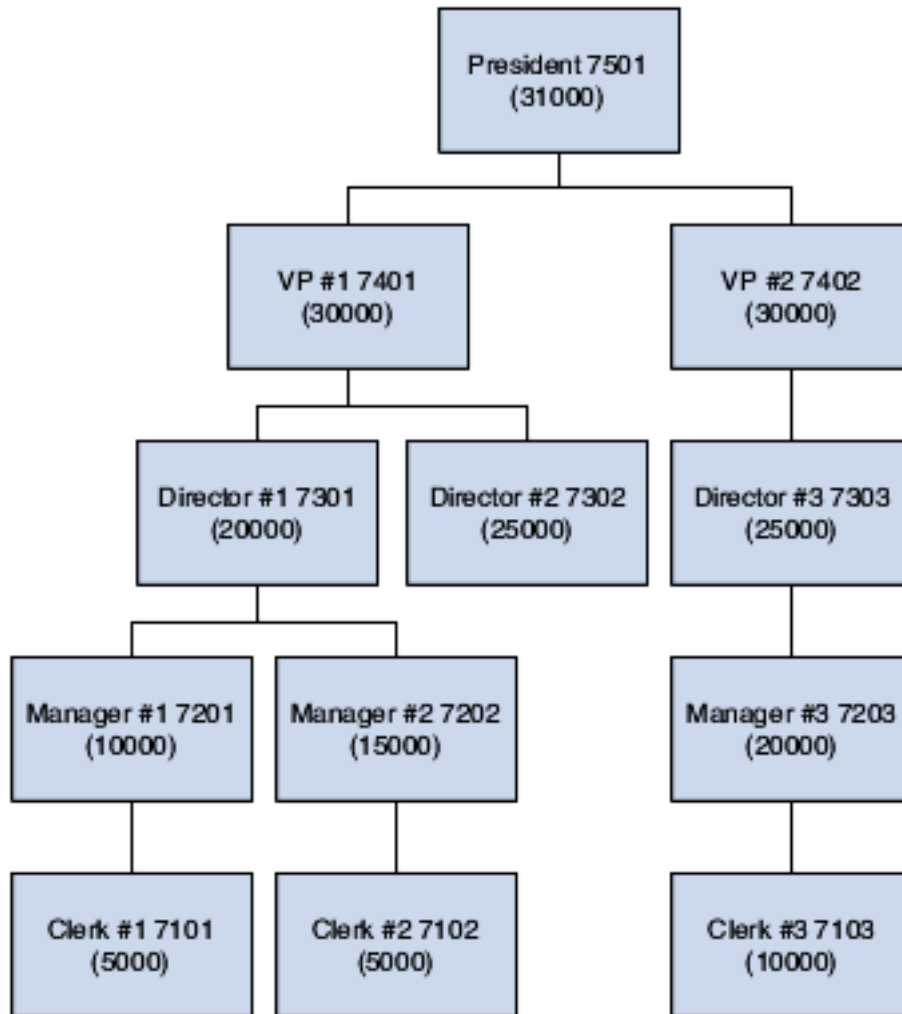
Value Passed				
24500	7201	7301	7401	7501
29500	7201	7301	7401	7501
30500	7201	7301	7401	7501
31500	7201	7301	7401	7501

Scenario 8: Hierarchical Processing with Higher Level Overrides

This scenario demonstrates higher level overrides in a distribution list with threshold values. The originator is in the distribution list.

Setup

Threshold values are in parentheses. The originator is Clerk #1. The value passed in by the JD Edwards EnterpriseOne workflow is 31500.



Results

When the message is first sent, all address book numbers show up in the Process Task Monitor in an awaiting status except for Manager #1, which shows in an unopened status.

At this point, a user of higher group number can override the JD Edwards EnterpriseOne Workflow process to continue to the next task. For example, in this scenario, if you sign into the JD Edwards EnterpriseOne system as President and do a higher level override on Manager #1, all users display as bypassed, and the process ends as expected.

11 Delegating Workflow

Workflow Delegation Overview

Workflow delegation enables workflow administrators and workflow users to reassign action and information tasks to other users. You can reassign active tasks to a delegate or specify a range of dates in which tasks will be forwarded to a delegate. A workflow administrator can set up workflow delegation for any workflow user. Workflow users can set up workflow delegation if the following conditions have been met:

- The workflow user is the original recipient of the workflow task.
- A workflow administrator has created a predefined delegate list for the workflow process. See *Predefined Delegate Lists* for more information.

Workflow delegation does not replace the use of workflow escalation rules, in which event rules attached to a workflow action task automatically forward unopened tasks after a specified period of time. Workflow delegation adds flexibility to JD Edwards EnterpriseOne workflow because it provides a way to temporarily reassign workflow tasks without having to revise the underlying escalation rules of a workflow process. For example, a workflow user can reassign active tasks to another user due to an increase in workload, or a system administrator can reassign workflow tasks to another user if the original workflow recipient is unexpectedly absent.

The workflow engine prevents recursive workflow delegation from occurring. If an active workflow delegation record has been defined to reassign a workflow process to a delegate, then the delegate cannot create another workflow delegation record to reroute the workflow process back to the original recipient during the same period of time.

The workflow engine sends delegated workflow tasks to both Microsoft Windows client and Web client users. The applications used to configure and activate workflow delegation are available on Microsoft Windows clients and Web clients.

Predefined Delegate Lists

Workflow users delegate workflow by creating and activating workflow delegation records. When creating a workflow delegation record, a workflow user has to select a delegate that is a member of a predefined delegate list. A predefined delegate list, which should only be created by a workflow administrator, contains the following information:

- The name of the workflow process to be forwarded.
- The original workflow recipient's address book number.
- The address book number of the delegate to whom the workflow process task will be forwarded.

An administrator can set up multiple predefined delegate lists for a workflow user.

Requiring users to select a delegate from a predefined delegate list ensures that delegates have the proper level of authority or job responsibility to view and act upon the information in a workflow.

Workflow Delegation Security

Workflow delegation applications are used by both workflow users and workflow administrators. However, some of the tasks that you can perform with the applications, such as setting up predefined delegate lists, should be performed only

by a workflow administrator. Therefore, a system administrator should set up security records to restrict workflow users from performing the tasks that workflow administrators can perform.

Workflow Delegation Monitoring

Workflow administrators and workflow users can monitor the status of workflow tasks through the Process Task Monitor (P98860). Workflow administrators can view the status of all workflow tasks and reassign workflow tasks that have not been acted upon to another user. Workflow users can view the status of all workflow tasks, but can reassign only their own workflow tasks.

Configuring Workflow Delegation (Administrators Only)

This section discusses how to:

- Configure workflow delegation security.
- Set workflow delegation processing options.
- Create a predefined delegate list.
- Create workflow delegation records for workflow.

Configuring Workflow Delegation Security

Oracle recommends that you configure workflow delegation security so that only workflow administrators can perform the following tasks:

- Create predefined delegation lists.
- Create delegation records for any workflow user.
- Activate or disable other workflow users' delegation records.
- Monitor and reassign workflow delegation records for any workflow user.

You must use the Security Workbench application (P00950), the application used for securing all JD Edwards EnterpriseOne objects, to configure workflow delegation security.

The following tables list the security records that you should create to secure workflow delegation objects for each type of user - *PUBLIC, WFADMIN, and WFUSER, where WFADMIN and WFUSER represent the workflow administrator and the workflow user respectively.

See *"Using Security Workbench" in the JD Edwards EnterpriseOne Tools Security Administration Guide* for information on how to create the following types of security records.

Application Security

Use application security to create the security records in this table.

User	Object	Security Settings
*Public	P988661	Run = N Install = N
*Public	P988662	Run = N Install = N
*Public	P988663	Run = N Install = N
WFADMIN	P988661	Run = Y Install = Y
WFADMIN	P988662	Run = Y Install = Y
WFADMIN	P988663	Run = Y Install = Y
WFUSER	P988662, version ZJDE0002	Run = Y Install = Y
WFUSER	P988663	Run = Y Install = Y
WFUSER	W988661D	Run = Y Install = Y

Processing Option Security

Use processing option security to create the security records in this table.

User	Object	Security Settings
*Public	P988662	Change = N Prompt for Values = N Prompt for Versions = N

User	Object	Security Settings
*Public	P988663	Change = N Prompt for Values = N Prompt for Versions = N
WFADMIN	P988662	Change = Y Prompt for Values = Y Prompt for Versions = Y
WFADMIN	P988663	Change = Y Prompt for Values = Y Prompt for Versions = Y

Hyper Exit Security

Use hyper exit security to create the security records in this table.

User	Objects	Security Settings
*Public	"Reassign" menu in P988660, form W98860B.	Run = N
*Public	"Admin Reassign" menu in P988660, form W98860B.	Run = N
WFADMIN	"Reassign" menu in P988660, form W98860B.	Run = Y
WFADMIN	"Admin Reassign" menu in P988660, form W98860B.	Run = Y
WFUSER	"Reassign" menu in P988660, form W98860B.	Run = Y

Setting Workflow Delegation Processing Options

If the security records for the workflow delegation applications are set up properly, only system administrators and workflow administrators should have access to the processing options for workflow delegation.

The following table describes the valid values for the workflow delegation processing options:

Processing Option	Valid Values
1. Enter the Workflow Delegation Application as Admin	Blank = No Leave the field blank if you want to see the application interface for workflow users. 1 = Yes

Processing Option	Valid Values
	Enter 1 if you want to see the application interface for administrators.
2. Validate the Address Book Number against the Delegation List.	<p>Blank = No</p> <p>Leave the field blank if you do not want the address book number of the delegate validated against the predefined delegation list - this is for workflow administrators only.</p> <p>1 = Yes</p> <p>Enter 1 if you want the address book number of the delegate validated against the predefined delegation list - this value should be 1 for regular workflow users.</p>

Creating a Predefined Delegate List

A workflow administrator uses the P988661 application to create a predefined delegate list, which contains this information:

- The name of the workflow process to be delegated.
- The original workflow recipient's address book number.
- The address book number of the delegate.

To create a predefined delegate list

Enter P988661 in the Fast Path and press Enter.

1. On Work with Workflow Predefined Lists, click the Add button.
2. On Predefined Delegate List Revisions, in the Process Name field, enter the workflow process to be delegated and click the Find button. Alternatively, you can click the Edit Row icon in a new row in the grid and enter the workflow process name directly in the grid.

Note: You can enter *ALL in the Process Name field to create a predefined delegate list record for all of the user's workflow processes. The workflow process name appears in a new row in the grid.

3. Associate the workflow user and workflow delegate to the workflow process by completing these cells in the row:
 - Workflow User

If you want to give all users who are assigned to the workflow process the ability to delegate the workflow process, enter 0 in this cell.
 - Workflow Delegate
4. To add additional records, click the Next Row icon at the end of the row.
5. Click the OK button to save the new records.

The new records appear in the Work with Workflow Predefined Lists form.

6. If you want to delete a record, on Work with Workflow Predefined Lists, select the row and click the Delete button.

Creating Workflow Delegation Records for Workflow Users

This section describes how workflow administrators can use the Workflow Delegation application (P988662) to create workflow delegation records for workflow users. Workflow users can also use this application to create workflow delegation records. When the proper security is applied to P98862, the application displays the following option only to workflow administrators:

Address Book. When selected, this option enables workflow administrators to select a delegate from the address book, therefore not requiring a predefined delegate list to determine the delegate.

To create a workflow delegation record for a workflow user

Access the Workflow Delegation application (P988662): Enter P988662 in the Fast Path and press Enter.

1. On Work with Workflow Delegations, click the Add button.
2. On Workflow Delegation Revisions, in the Workflow User field, enter the address book number of the workflow user (the original recipient of the workflow task).
3. In the Process field, enter the name of the workflow process to be delegated. Click the All Processes checkbox if you want all of the workflow user's workflow processes to be forwarded.
4. To select a predefined delegation list:
 - a. Select the Predefined List option and then click the Search button next to the Workflow Delegate field.
 - b. On Delegate Search & Select, select the record that contains the workflow delegate and then click the Select button.
5. To select a delegate from the Address Book:
 - a. Select the Address Book option and then click the Search button next to the Workflow Delegate
 - b. On Address Book Search & Select, select the address book user record and then click Select.
6. Complete the following fields to specify a range of dates for the workflow delegation:
 - o Delegate Effective Date
 - o Delegate Expiration Date
7. If the workflow process contains an information task that should be forwarded, click the Delegate Informational Message checkbox.
8. To activate the delegation record, select the Active checkbox.

Regardless of whether or not you activate the record, the workflow user can activate or disable it, select a different predefined delegate list if one exists, and modify the effective end date as needed.
9. Click the OK button.

Delegating Workflow Processes

This section provides an overview and discusses how to:

- Create a workflow delegation record.
- Activate or disable a workflow delegation record.
- Modify a workflow delegation record.

- Delete a workflow delegation record.

Creating a Workflow Delegation Record

You can create a workflow delegation record to reassign a workflow process to another user. You can activate and disable the workflow delegation record whenever necessary. A workflow delegation record includes:

- **Effective date range.** A range of dates when the workflow delegation record, when activated, forwards a workflow process to a delegate.
- **Workflow delegate.** A predefined delegate list is used to determine the workflow delegate. A predefined delegate list, which should only be created by a workflow administrator, contains an approved delegate for the workflow process that you want to forward.

Make sure that a predefined delegate list exists for the workflow process that you want to forward. You can determine if there is a predefined delegate list for the workflow process when you create the workflow delegation record. The following task contains instructions on how to select a predefined delegate list for a workflow delegation record.

To create a workflow delegation record

Access the Workflow Delegations application (P988662): Enter P988662 in the Fast Path and press Enter.

1. On Work with Workflow Delegations, click Add.
2. On Workflow Delegation Revisions, in the Process field, enter the workflow process name or search for the workflow process that you want to delegate.
3. Click the Search button next to the Workflow Delegate field.

The Delegate Search & Select form appears displaying the predefined delegate lists for the workflow process that you want to delegate. If the grid does not contain any predefined delegate lists, contact your workflow administrator.

4. On Delegate Search & Select, select the predefined delegate list that contains the workflow delegate to whom you want to forward the process.
5. Click the Select button.
6. On Workflow Delegation Revisions, click the calendar button next to each of the following fields to specify a date range for the workflow delegation:
 - Delegate Effective Date
 - Delegate Expiration Date
7. If the workflow process contains an information task that you want forwarded, click the Delegate Informational Message checkbox.
8. If you want to activate the delegation record, make sure the Active checkbox is selected.

You do not have to activate the workflow delegation record here. You can use the Work with Workflow Delegations form to activate and disable the workflow delegation record.

9. Click the OK button.

Activating or Disabling a Workflow Delegation Record

Workflow delegation records can be activated or disabled as needed.

To activate or disable a workflow delegation record

Access the Workflow Delegations application (P988662): Enter P988662 in the Fast Path and press Enter.

1. On Work with Workflow Delegations, click the Find button to display your workflow delegation records.
To search for the workflow delegation record by the workflow process name, enter the name of the workflow process in the Process Name field and click the Find button.
2. To activate or disable a workflow delegation, select the row that contains the workflow delegation record and then from the Row menu, select Change Status.

The value in the Status column changes to either NA for "not active" or AV for "active."

Modifying a Workflow Delegation Record

When you modify a workflow delegation record, you can select a different predefined delegate list to use as the workflow delegate, as well as modify the expiration date.

To modify a workflow delegation record

Access the Workflow Delegations application (P988662): Enter P988662 in the Fast Path and press Enter.

1. On Work with Workflow Delegations, click the Find button to display your workflow delegation records.
2. Select the row that contains the workflow delegation record and then click the Select button.
3. On Workflow Delegation Revisions, you can modify the following fields:
 - o Workflow Delegate. Click the search button next to this field to view and select a predefined delegate list.
 - o Delegate Expiration Date.
4. Click the Active checkbox if you want to activate the workflow delegation.
5. Click the "Delegate Informational Message" checkbox if you want all information tasks in the workflow process to be forwarded as well. If you do not select this checkbox, then only action tasks will be forwarded.

Deleting a Workflow Delegation Record

To delete a workflow delegation record:

Access the Workflow Delegations application (P988662): Enter P988662 in the Fast Path and press Enter.

1. On Work with Workflow Delegations, click the Find button to display your workflow delegation records.
2. Select the record that you want to delete and then click the Delete button.

Monitoring and Reassigning Active Workflow Tasks

This section provides an overview and discusses how to:

- Monitor and reassign active workflow tasks (workflow administrators).
- Monitor and reassign active workflow tasks (workflow users).

Overview

Both workflow administrators and workflow users can use the Process Task Monitor (P98860) to check the status of workflow tasks. P98860 provides a workflow delegation audit trail and displays the current status of a workflow task.

If a workflow task has not been acted upon, you can select the record and then select a menu that takes you to the Workflow Active Task Reassignment application (P988663), the application used to reassign active tasks to another delegate.

This table lists the information that P98860 displays for each workflow delegation record:

Column	Description
Delegated Resource	The name of workflow delegate.
Original Resource	The name of the original workflow recipient or the user who forwarded the workflow task.
Status	The statuses are: <ul style="list-style-type: none"> • Active • Awaiting • Approved • Completed
Task Type	The task types are: <ul style="list-style-type: none"> • Action • Message Assignment

Monitoring and Reassigning Active Workflow Tasks (Workflow Administrators)

Workflow administrators can monitor all workflow tasks in the system and reassign a workflow task to a different delegate if necessary.

To monitor active workflow tasks

Access P98860 using any of these methods:

- Enter P98860 in the Fast Path and press Enter.
- From the JD Edwards EnterpriseOne menus: EnterpriseOne Life Cycle Tools | Workflow Management (G020) | Workflow Advanced & Technical Operations | Process Task Monitor

- From the Work with Workflow Delegations form, select a delegation record and then from the Row menu, select Process Task Monitor.
1. In the Process Task Monitor, complete any of the following fields and then click Find:
 - Process
 - Status
 - Start Date From and Thru
 - Resource
 2. Expand the node of the workflow process to view the status of the workflow process task.

To reassign active workflow tasks

Access P98860.

1. In P98860, click the node of the workflow task that you want to reassign.
2. From the Row menu, click Admin Reassign.
The Task Reassignment form appears.
3. To select a predefined delegation list:
 - a. Select the Predefined List option and then click the Search button next to the Workflow Delegate field.
 - b. On Delegate Search & Select, select the record that contains the workflow delegate and then click the Select button.
4. To select a delegate from the Address Book:
 - a. Select the Address Book option and then click the Search button next to the Workflow Delegate field.
 - b. On Address Book Search & Select, select the address book user record and then click Select.
5. Click OK.

Monitoring and Reassigning Active Workflow Tasks (Workflow Users)

Workflow users can monitor all workflow tasks, but can reassign only their own workflow tasks to authorized delegates.

To monitor active workflow tasks

Access P98860 using any of these methods:

- Enter P98860 in the Fast Path and press Enter.
 - From the JD Edwards EnterpriseOne menus: Workflow Management (G020) | Workflow Advanced & Technical Operations | Workflow Delegation Operations | Process Task Monitor
 - From the Work with Workflow Delegations form, select a delegation record and then from the Row menu, select Process Task Monitor.
1. In the Process Task Monitor, complete any of the following fields and then click Find:
 - Process
 - Status
 - Start Date From and Thru

- o Resource

2. Expand the node of the workflow process to view the status of the workflow process task.

To reassign active workflow tasks

1. In P98860, click the folder that represents the workflow task that you want to reassign.
2. From the Row menu, click Reassign. The Task Reassignment form appears.
3. To select a predefined delegation list, click in the Workflow Delegate field and then click the search button.
4. On Delegate Search & Select, select the record that contains the workflow delegate and then click the Select button.
5. Click OK.

Workflow Monitor (Release 9.2.8)

Starting with Tools Release 9.2.8, you can use the Workflow Monitor application to check the status of your JD Edwards EnterpriseOne Workflow Process. The EnterpriseOne Workflow Monitor (P98860X) application provides you an enterprise-wide view of all your workflow processes. Using the Workflow Monitor you can monitor the statuses, instances, participants, and issues in your workflow processes. This application also provides visual metrics of the workflow processes and identifies the action items that need to be corrected in case of unexpected errors.

Note: With Tools Release 9.2.8.2, the version for Workflow Monitor application has been updated. The updated version, ZJDE0002, of the application has a new Resource field. The Resource field enables you to list workflow processes that a particular resource initiated or the workflow processes that have tasks assigned to that resource. The default version of Workflow Monitor application, ZJDE0001, functions as My Workflow Monitor application. See *My Workflow Monitor (Release 9.2.8.2)* for details.

Accessing the Workflow Monitor

You can access the Workflow Monitor from EnterpriseOne or from the Orchestrator Studio.

In EnterpriseOne, click the Navigator, and click EnterpriseOne Menus. From the EnterpriseOne Life Cycle Tools, select Workflow Management, Workflow Advanced & Technical Operations and then select Workflow Monitor (P98860X).

If you want to access the Workflow Monitor from the Orchestrator Studio, click Tools and then click the Workflow Monitor icon. Alternatively, you can click the Workflow Monitor icon on the Orchestrator Studio home page. Use your EnterpriseOne credentials to sign in.

Understanding How to Use the Workflow Monitor

You can use Workflow Monitor to monitor the state of your workflow processes. The Workflow Monitor lists all the workflows in your enterprise and provides you a detailed view of each of the tasks in each workflow process. You can also review the resource (or employee) assigned to that task, the start and end time of each task, and the time and date that a task expired.

The Workflow Monitor also provides workflow administrators the ability to suspend, resume, or terminate any JD Edwards EnterpriseOne workflow process instance.

Note: Starting with Tools Release 9.2.8.2, you can filter the workflow processes in which tasks are assigned to a specific resource (or employee). See Resource (Release 9.2.8.2) for details.

The Workflow Monitor opens with a summary view of workflow processes.

Below fields are available for you to filter your workflow processes:

- Process

Enter the name of a workflow process you want to check. This is not a literal field. A partial match of characters will list the workflows.

- Originator

Enter the Address Book number for the originator of the workflow process.

- Resource (Release 9.2.8.2)

Enter the Address Book number for the resource (employee) to which a task or tasks within a workflow process are assigned. You have the following options available to filter your workflow processes:

- Include processes that match either the originator filter or the resource filter.
- Only include processes that match both the originator filter and the resource filter.

- Start Date Range

Select the date range from the drop-down list for which you want to view the workflow processes. You have the below options:.

- Custom: Allows you to define a date range
- Today
- Past Week
- Past Month
- Past Year

Further, you can use the selections to filter the workflow processes as per the below statuses:

- All
Lists all workflow processes
- Active
Lists all active workflow processes
- Completed
Lists all completed workflow processes
- Suspended
Lists all suspended workflow processes
- Terminated
Lists all terminated workflow processes
- Error
Lists all workflow processes that ended with an error
- Awaiting
Lists all workflow processes that are awaiting a user action

Task Status Filter (Release 9.2.8.3)

Starting with Tools Release 9.2.8.3, Workflow Monitor provides an option for the users to filter the tasks and assignment tasks based on the status of the tasks. You can use these filters to restrict the set of displayed workflow instances based on the statuses of the tasks and assignment tasks within the workflow instances. When you apply filters, a **Clear** button appears next to the Task Status Filter drop-down. You can click the **Clear** button to remove the task status filters.

The Workflow Monitor displays the workflow processes in rows with the following details:

- Process
Name of the workflow process followed by the version
- Active
Number of active workflow processes
- Completed
Number of completed workflow processes
- Suspended
Number of suspended workflow processes
- Terminated
Number of terminated workflow processes
- Error
Number of workflow processes ending in error
- Awaiting

Number of workflow processes awaiting user action

- Total

Total number of workflow process instances

To refresh the workflow processes list icon, remove the filters and tab out. Alternatively, you can remove the filters and click the Refresh icon at the top-right corner.

You can expand the node of the listed workflow process to view the details. The available tabs are Instances and Metrics.

Instances

By default, the workflow process details open in the Instances tab. With information of on the Average Run and the Longest Run. The Instances tab provides you the details for Key Data, Originator, Status, Start Time, End Time, and Duration. The workflow process instances are arranged from newest to oldest.

You can expand the node further to view the details for each workflow task. The system displays a bar chart with a timeline for each workflow task. You can hover over the bar chart to view more information about a particular task. The tasks with error are displayed with an error tag.

Below the bar chart and the timeline for the tasks, you get a detailed view of Task, Resource, Start Time, End Time, Duration, and the Task Type.

Under Resource, you can view to whom a specific task is assigned and its the task status is listed under the Status column. The Task Type defines the nature of the task, for example, Message Assignment.

You have the following options available based on your access levels and the task types:

- Override

If you designed your workflow process to enable higher -level overrides, you can override the message approval process for messages that have not been answered by a lower -level recipient.

The Override option is enabled if all of these conditions are met:

- You exist in the address book.
- You are a member of a higher -level group than the recipient for whom the message was intended.
- The message is unopened.
- The message has an active shortcut.

- Reassign

Workflow users can monitor all workflow tasks but can reassign only their own workflow tasks to authorized delegates. In the Workflow Monitor, click the node of the workflow task that you want to reassign. Click the node of the active workflow instance to open the detailed view of the instance. Click the Reassign icon. The Task Reassignment form appears. Follow the steps in To reassign active workflow tasks.

- Admin Reassign

Using the Workflow Monitor, workflow administrators can monitor all workflow tasks in the system and reassign a workflow task to a different delegate if necessary. click the node of the workflow task that you want to

reassign. Click the node of the active workflow instance to open the detailed view of the instance. Click the Admin Reassign icon. The Task Reassignment form appears.

- Attachments

Attachments allows enable you to review attachments associated with a task The Attachment icon is visible only when the workflow task has an attachment.

Process Diagram (Release 9.2.8.3)

Starting with Tools Release 9.2.8.3, the system provides a view of the complete workflow process. Expand the Process Diagram node to view the workflow process. The steps are shaded to indicate whether or not they have been executed in this particular workflow instance. Status badges show the status of each task, including information such as completed, failed, and running. The tasks that are not executed within a particular workflow instance are faded out.

You can view the Process Diagram in the Summary tab as well.

Note: Based on your screen resolution, you must click and drag the diagram workspace to view the complete workflow process.

Gantt Chart (Release 9.2.8.3)

The system displays a Gantt chart with a timeline for each workflow task. You can hover over the chart to view more information about a particular task. The tasks with errors are displayed with an error tag.

You can also get a detailed view of Task, Resource, Status, Start Time, End Time, Duration, and the Task Type.

Metrics

The Metrics tab provides you a view of the average running time of the workflow process and average time per task. The Average Running Time bar chart has each status denoted with a specific color. You can hover over the bar chart of view the average time for each status.

Similarly, the Average Time Per Task bar chart has each task of the workflow process denoted with a specific color. You can hover over the bar chart of view the average time taken for each task to complete.

Summary (Release 9.2.8.3)

With Tools Release 9.2.8.3, the Metrics tab is renamed as Summary. The Summary tab provides you a view of the average running time of the workflow process and average time per task. The Average Running Time bar chart has each status denoted with a specific color. You can hover over the bar chart of view the average time for each status.

Similarly, the Average Time Per Task bar chart has each task of the workflow process denoted with a specific color. You can hover over the bar chart of view the average time taken for each task to complete.

The functionality of the Process Diagram is the same as described in the Instances. See *Instances* for details.

Terminating, Suspending, or Resuming Workflow Process Instance

The Workflow Monitor also enables workflow administrators to Terminate, Suspend, and Resume JD Edwards EnterpriseOne workflow process instance. You can terminate an instance of a workflow process if it contains errors or if the process cannot continue, such as when an employee has not yet answered his or her messages because of vacation

or termination. Terminating the process in error allows the subsequent requests to begin processing. You might want to suspend an instance of a process if you want other processes to finish before a certain process. You can also resume a suspended instance of a workflow process.

To terminate an active or suspended workflow process:

1. Search for the active workflow instance you want to terminate.
2. Expand the node to view the instance details.
3. Click the Terminate icon on the right.

To suspend an active workflow process:

1. Search for the active workflow process you want to suspend.
2. Expand the node to view the instance details.
3. Click the Suspend icon on the right.

To resume a suspended workflow process:

1. Search for the suspended workflow process.
2. Expand the node to view the instance details.
3. Click the Resume icon on the right.

Action Security

You can use Security Workbench Hyper Exit security to secure the ability to Override, Reassign, Admin Reassign or to view attachments for workflow tasks. Similarly, you can use Hyper Exit security to secure the ability to Terminate, Suspend, and Resume workflow instances. In Security Workbench, set Hyper Exit security for the Process Task Monitor (P98860) application. The security you set for Process Task Monitor will also apply to Workflow Monitor (P98860X). For example, if you secure a user or a role from being able to terminate a workflow process in the Process Task Monitor, then those users also cannot terminate workflow processes in Workflow Monitor.

My Workflow Monitor (Release 9.2.8.2)

Starting with Tools Release 9.2.8.2, you can use the My Workflow Monitor application to view only those workflow processes that are assigned to you. My Workflow Monitor lists down the workflow processes that you initiated or the workflow processes that have tasks assigned to you.

To access My Workflow Monitor in EnterpriseOne, click the Navigator, and click EnterpriseOne Menus. From the **EnterpriseOne Life Cycle Tools**, select **Workflow Management** and then select **My Workflow Monitor (P98860X|ZDEJ001)**.

For the My Workflow Monitor application, the Originator and Resource fields are read-only and are updated based on your Address Book number.

The functionality of Process, Start Date Range fields, and available filters is the same as in the Workflow Monitor application. See *Understanding How to Use the Workflow Monitor* for details.

The functionality of Task Status Filter, Process Diagram, and Gantt Chart is the same as described in the Workflow Monitor application. See *Instances* for details.

12 Administrative Tasks

Understanding Administrative Tasks

JD Edwards EnterpriseOne workflow allows you to complete administrative tasks such as monitoring an individual employee's queues or all the queues for each group within your organization. You can also analyze processes for improvement analysis, activate the Escalation Monitor, and transfer process data to another data environment. You can monitor Accounts Receivable queues and Purchasing queues using the JD Edwards EnterpriseOne Workflow Management Setup menu (G0241). If necessary, you can add menu items that access other queues. For example, you can add a menu item to JD Edwards EnterpriseOne Workflow Management Setup that invokes Shop Floor Control queues.

Monitoring Process Tasks

This section provides an overview of process task monitor and describes how to:

- Review a process status.
- Terminate, suspend, or resume a process instance.
- Review attachments to a task.
- Override the message approval process.

Understanding Process Task Monitor

You use the Process Task Monitor to monitor the process flow in the JD Edwards EnterpriseOne Workflow system and to retrieve audit data for process improvement analysis. The Process Task Monitor lists all of the tasks that apply to the process and the status of each task; for example, whether the task is complete or active. You can also review the resource (or employee) assigned to that task, the start and end time of each task, and the time and date that a task expired. Furthermore, you can review what was attached to messages when acted upon. If you designed your workflow process to enable higher-level overrides, you can override the message approval process for messages that have not been answered by a lower-level recipient. The Process Task Monitor also provides workflow administrators the ability to suspend, terminate, or resume any JD Edwards EnterpriseOne workflow process instance.

The Process Task Monitor also shows back-to-back processes (that is, processes that contain the same process keys). Back-to-back processes can be in the queue until the first one is completed. For example, several credit limit change requests can be waiting to be accepted or rejected for the same primary key. These requests show a status of Awaiting until the first one is accepted or rejected.

Review a Process Status

You review a process status to see if tasks have been acted upon and to retrieve audit data.

Terminate, Suspend, or Resume an Instance of a Process

You might want to terminate an instance of a process if it contains errors or if the process cannot continue, such as when an employee has not yet answered his or her messages because of vacation or termination. In this case,

subsequent requests for the same process queue behind the original request. Terminating the process in error allows the subsequent requests to begin processing. You might want to suspend an instance of a process if you want other processes to finish before a certain process. You can also restart a suspended instance of a process.

Review Attachments to a Task

You can review attachments associated with a task. For example, if a recipient approves a message, and then adds additional text to that message and sends it, you can view that message text through an attachment from the Process Task Monitor.

Overriding the Message Approval Process

You might want to override the message approval process if a message has not been answered by a recipient in a lower level. For example, if a clerk has not approved or rejected a message and the manager wants the message to be approved to move it to the next level, the manager can override the approval process in the Process Task Monitor and approve or reject the message. The manager can only override the message approval process for messages sent to a distribution list that includes higher-level overrides. The Overrides option is enabled if all of these conditions are met:

- You exist in the address book.
- You are a member of a higher-level group than the recipient for whom the message was intended.
- The message is unopened.
- The message has an active shortcut.

Reviewing a Process Status

To review a process status:

1. On JD Edwards EnterpriseOne Workflow Advanced & Technical Operations (G0231), click Process Task Monitor.
2. On Process Task Monitor, in the Process field, enter the name of the process that you want to monitor.
3. Complete the Status, Start Date, From, and Thru fields.
These fields are optional.
4. Click Find to display the status of the process.

Terminating, Suspending, or Resuming an Instance of a Process

To terminate, suspend, or resume an instance of a process.

1. From JD Edwards EnterpriseOne Workflow Advanced & Technical Operations (G0231), click Process Task Monitor.
2. On Process Task Monitor, find the process with which you want to work.
3. Select either Terminate, Suspend, or Resume from the Row menu.

Reviewing Attachments to a Task

To review attachments to a task From JD Edwards EnterpriseOne Workflow Advanced & Technical Operations (G0231):

1. Click Process Task Monitor.
2. Find the process with which you want to work.

3. Select the row for which you want to view attachments.
4. From the Row menu, select Attachments.

If a task does not contain attachments, the Attachments option on the row menu is not enabled.

Overriding the Message Approval Process

To override the message approval process

1. From JD Edwards EnterpriseOne Workflow Advanced & Technical Operations (G0231), click Process Task Monitor.
2. On Process Task Monitor, find the process and task with which you want to work.
3. Select the row for which you want to override message approval.
4. Select Override from the Row menu.
The system displays the Higher Level Override form.
5. Accept or reject the message.
The system returns to Process Task Monitor.
6. Click OK.

Changing Queue Security

This section provides an overview of queue security and describes how to:

- Specify the queues that a user can view.
- Change Public Security.

Understanding Queue Security

You can change the security status for a user or group of users for a message queue. You can either give a user authority to monitor queues within a group or give public security to queues for all groups. You can add security by user, group, or role. For example, you might want to set up security for a manager so that she or he can monitor all messages within a group for certain queues. Or you might set up security by group only so that users within a group have authority to monitor messages within a group for certain queues. When you add security by group or role, the system applies that security to all members of that group or role. You can also give only a few people within a group access to certain queues by entering the user address book number and the group to define which queues a user in a particular group can access. Using the Employee Queue Manager (P012501) to view mail ignores security and all messages can be viewed.

Specify the Queues that a User Can View

When you set up a new user in a group, you must specify which queues that user can view within that group.

Change Public Security

When you assign the Public Security option, all users have access to queues that you specify. For example, if you select the Public Security option and give authority to the Collection Management queue, all users in the system are able to view all messages in that queue.

Specifying the Queues that a User Can View

To specify the queues that a user can view:

1. From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select Queue Security.
2. On the Work With JD Edwards EnterpriseOne Workflow Message Security form, click Add.

In this illustration, Dominique Abbott has access to the Electronic Workbench, Collection Management, Credit Management, Delinquency Notice Approval, and Delinquency Fee Approval queues for group 1001. She can monitor all messages within these queues for group 1001.

3. On the JD Edwards EnterpriseOne Workflow Message Security Revisions form, complete the User and Group/Role fields.
4. Specify the queues that a user can view by completing the Authority Y/N field and clicking OK.

Changing Public Security

To change public security:

1. From JD Edwards EnterpriseOne Workflow Management Setup (G0241), select Queue Security.
2. On the Work With JD Edwards EnterpriseOne Workflow Message Security form, click Add.
3. On JD Edwards EnterpriseOne Workflow Message Security Revisions, select the Public Security option.

When you select this option, the system protects the User and Group/Role fields because you are specifying that you want to give authority for specific queues to all users in the system.

4. Complete the Authority Y/N field and click OK.

Activating the Escalation Monitor

This section provides an overview of the Escalation Monitor and discusses how to activate the Escalation Monitor.

Understanding the Escalation Monitor

The Escalation Monitor, or Check for Expired Tasks program (R98810), checks for any Action task instances that have escalation rules associated with them. When the monitor finds Action tasks with escalation, it forwards those messages which have not been acted upon after a specified period of time to the next user. It also resumes Halt tasks after the specified delay.

Although you can start the Escalation Monitor manually, it is recommended that you use the Workflow Scheduler to automatically start the monitor at predefined intervals. The JD Edwards EnterpriseOne Workflow runtime kernel reads the F98865 table to determine the tasks which have either expired or require escalation.

See *"Setting Up JD Edwards EnterpriseOne Workflow Scheduler."*

During workflow development, you can use the Start Escalation Monitor option in Object Management Workbench (OMW) to test escalation rules.

Manually Starting the Escalation Monitor

To start the Escalation Monitor:

1. From Object Management (GH902), click Object Management Workbench.
2. In OMW, select a workflow process and then click the Design button in the center column.
3. On the Workflow Design form, click the Workflow Operations tab.
4. On Workflow Operations, click the Start Escalation Monitor button.
The number of processes that were escalated displays at the bottom of the form.

Setting Up Workflow Delegation

Workflow delegation enables workflow administrators and workflow users to reassign action and information tasks to other users. You can specify a delegate for these tasks or specify a range of dates during which tasks will be forwarded to a delegate.

Workflow administrators create predefined delegation lists from which users can select delegates. Additionally, there are other delegation tasks that only a workflow administrator should perform. A system administrator can set up security records to restrict workflow users from performing administrative tasks.

See *Configuring Workflow Delegation (Administrators Only)*.

Analyzing JD Edwards EnterpriseOne Workflow Processes

This section discusses analyzing JD Edwards EnterpriseOne workflow processes and describes how to analyze a JD Edwards EnterpriseOne workflow process.

Understanding How to Analyze a JD Edwards EnterpriseOne Workflow Process

You analyze JD Edwards EnterpriseOne workflow processes using the Advanced Analysis application. Through Advanced Analysis, you can see how long it takes for a process to run and where processes might be queued. This analysis can help you make your processes more efficient and less time consuming. You can view an analysis using actual or average duration in days or hours, depending on your needs. You can export the data displayed in the Advanced Analysis form to a spreadsheet, or create graphs and charts of the information.

You can use several combinations of process, task, version, and instance to analyze process data. Following are some possible combinations:

Process, version, instance, actuals

The actual duration for each instance of the process and version from the Process Instance table (F98860).

Process, version, instance, task, actuals

The actual duration for each task within each instance from the Task Instance table (F98865).

Process

The average duration for all versions of a process.

Process, version, averages

The average duration of the instances for that version. The instances are averaged together, regardless of the instance keys.

Process, version, instance, averages

The average duration for instances, if instances with the same key exist.

Process, version, instance, task, averages

The average duration for each task within the instance, if instances with the same key exist.

Process, instance, task, averages

The average of tasks for like instance keys across versions.

Process, version, task, averages

The average duration for each task across instances. The tasks are averaged together, regardless of whether the instances to which they belong have the same key.

Process, task, averages

The average of task duration across versions.

Process by user

The average duration for all versions of the process for which that the user is responsible.

Process, version, by user

The average duration of the instances for that version for which the user is responsible. The instances are averaged together, regardless of the instance keys.

Process, version, by user

The average duration of the instances for that version for which the user is responsible. The instances are averaged together, regardless of the instance keys.

Process, version, instance, task, by user

The average duration of each task within instances that contain the same key for each responsible user.

Process, instance, task, by user

The average of tasks for like instances keys across versions for each responsible user.

Process, version, task, by user

The average duration for each task across instances for which the user was responsible. The tasks are averaged together, regardless of whether the instances to which they belong have the same key.

Process, task, by user

The average of task duration for each responsible user.

Analyzing a Process

To analyze a process:

1. From the Workflow Advanced & Technical Operations menu (G0231), click Advanced Analysis.

2. On the Workflow Advanced Analysis form, click Find to query all processes, or complete the Process ID field and click Find to query a process.
3. Complete the Version, Start Date From, and Thru fields. These fields are optional.
4. To analyze a process by day or by hour, click the Search button in the Duration UOM field to select the appropriate unit of measure field.
5. Select the Actual or Averages option.

If you select Actuals, the system automatically includes the process, version, and instance in the analysis. You can select whether to include task in the analysis.

If you select Average, the system automatically includes the process in the analysis, and you can then select whether to view averages based on version, instance, or task.

6. If you want to analyze the Actuals for a process and you want to include tasks in the analysis, select Task.
7. If you want to analyze the averages for a process, select one or more of the following options: Version, Instance, Task.
8. If you want to view the user responsible for a process, select User.
9. Click Find.
10. To remove a row of data, select Remove Row from the Row menu.
11. To export data, right-click in the detail area and then select one of these options:
 - o Microsoft Excel
 - o Microsoft Word
 - o Lotus 1–2–3
 - o Lotus WordPro

Printing Process Instance Reports

This section discusses analyzing JD Edwards EnterpriseOne workflow processes and describes how to analyze a JD Edwards EnterpriseOne workflow process.

Understanding Printing Process Instance Reports

You can print process instance reports to review information about JD Edwards EnterpriseOne workflow process tasks on paper rather than online or to archive process task information on paper for future reference.

Printing Process Instance Reports

To print process instance reports:

1. From the Workflow Advanced & Technical Operations menu (G0231), highlight Process Task Print.
2. Right-click Process Task Print and select Prompt For and then click Version from the popup menu.
3. Select a version in the detail area and click Select.
4. On Version Prompting, select Data Selection or Data Sequencing, if necessary, and click the Submit button.
5. On Report Output Destination, select the appropriate output option for the report and then click OK.

Purging JD Edwards EnterpriseOne Workflow Data Files

This section discusses the purge process and describes how to purge JD Edwards EnterpriseOne workflow processes and tasks.

Understanding the Purge Process

When a JD Edwards EnterpriseOne workflow process runs, the system creates entries in the following tables:

- Process Instance (F98860)
- Task Instance (F98865)
- PPAT Message Control File (F01131)
- PPAT Message Detail File (F01133)
- JDEM Multi Level Message (F01131M)
- Message Attachment Tag File (F01131T)
- Media Objects Storage (F00165)

Note: PPAT is an acronym for People, Places, and Things.

If you choose to have your workflow process retain these records for historical purposes, the files may become very large and occupy storage resources. The presence of large amounts of data in the tables will also hinder performance of the JD Edwards EnterpriseOne Workflow engine. You should purge workflow data files periodically to minimize the amount of data in the tables and recover disk space. You can purge completed tasks or completed processes. Purging completed tasks deletes Action and Information tasks and Work Center messages associated with these tasks, whereas purging completed workflow processes deletes process instances.

It is recommended that you purge completed processes regularly to minimize the amount of data in the tables. This process only purges records that do not affect active processes in the system and purges F98860 and F98865 records that possess a status of complete, terminated, or error.

Purging Completed JD Edwards EnterpriseOne Workflow Tasks

To purge completed JD Edwards EnterpriseOne workflow tasks:

1. From the Workflow Advanced & Technical Operations menu (G0231), select Data File Purges, and then select Purge Completed Tasks (R01131P).
2. On the Work With Batch Versions – Available Versions form, select a version from the detail area.

3. From the Row menu, select Processing Options.

The R01131P processing options determine which Work Center messages will be purged.

If the first processing option is left blank, only the messages in the Deleted queue in the Work Center will be purged and the date range entered in the second processing option will be ignored. However, if the first processing option is set to 1, all the workflow messages in all the queues will be purged based on the date range.

CAUTION: If the first processing option is set to 1, all the workflow messages within the specified date range will be purged, including the workflow messages which are unopened. If an unopened workflow message with a shortcut falls within the date range entered in the processing options, the shortcut will be deleted along with the message. With the message and shortcut deleted, the message cannot be acted upon.

4. Enter the required processing option values, and click OK.
5. On the Work With Batch Versions – Available Versions form, click Select.
6. On Version Prompting, click Submit.

Note: The default condition for this batch process deletes all messages in the Deleted queue. You should not use Data Selection or Data Sequencing to modify the batch process.

7. On Report Output Destination, select the print destination and click OK.

Note: Purge Completed Tasks removes records from the F01131, F01133, F01131M, F01131T, and F00165 tables.

Purging Completed JD Edwards EnterpriseOne Workflow Process Instances

To purge completed JD Edwards EnterpriseOne workflow process instances:

1. From the Workflow Advanced & Technical Operations menu (G0231), select Data File Purges and then Purge Completed Processes (R98860P).
2. On the Work With Batch Versions - Available Versions form, select a version from the detail area and click Select.
3. On the Version Prompting form, select the Data Selection option if you want to purge the data for a specific workflow process.
4. On the Version Prompting form, click Submit.
By default, the batch process uses the following condition to delete the records that possess a status of complete, terminated, or error: Where BC Process Status (F98860) is equal to "03,05,06"
5. On Report Output Destination, select the appropriate output option and then click OK.

Note: Purge Completed Processes (R98860P) removes records from the F98860 and F98865 tables that do not affect active processes.

Transferring JD Edwards EnterpriseOne Workflow Processes

This section discusses transferring a JD Edwards EnterpriseOne workflow process.

Understanding JD Edwards EnterpriseOne Workflow Process Transfers

You must be careful when promoting JD Edwards EnterpriseOne workflow processes through the development cycle. JD Edwards EnterpriseOne workflow processes are transferred by Object Management Workbench (OMW) much like any other non-OMW object. However, a key difference is that instances of the modified process version may already be running in the target environment. Because of the wide range of changes that can be made while editing a workflow process version, it cannot be guaranteed that the old instances will be able to complete under the new definition.

For example, if you delete a task from the JD Edwards EnterpriseOne workflow definition and an instance in the target environment is currently executing the task, the instance will not be able to determine what to do next once the task is completed. In a similar manner, all the historical data used for analysis can become invalid if the process is changed dramatically before it is transferred.

To keep this type of problem from occurring, it is recommended that you never modify a workflow process version that has been promoted and used in the target environment. Instead, make a copy of that version; edit, test and promote it; and then deactivate the current version and activate the new version. OMW helps enforce this by not allowing you to transfer a workflow process version into an environment if any historical instances of that particular version exist in the target environment.

The same types of problems can occur if you are using a particular process version and you receive and deploy an update to that version. This problem can be avoided if you do not use delivered versions of JD Edwards EnterpriseOne workflow processes. Instead, always make a copy of the JD Edwards version and activate your copy.

In OMW, workflow data transfer is accomplished with object transfer activity rules. Consequently, you must add workflow processes which need to be transferred from one environment to another to an OMW project.

Your system administrator usually sets up object transfer activity rules. These rules dictate the source and target locations for transferring objects and, in the case of workflow processes, these values correspond to data source names. The rules are executed when a project is advanced from one status to another. The same transfer rules apply regardless of the logon environment.

13 Appendix A - JD Edwards EnterpriseOne Workflow Processes Developed Before Release 8.94

Understanding JD Edwards Workflow Processes Developed Before Release 8.94

JD Edwards EnterpriseOne workflow processes that were developed prior to release 8.94 used the Send Message system function to send workflow email messages to users, groups, and so on. To send messages, these processes use Message tasks within the workflow process, rather than the Action or Information tasks that were implemented in 8.94. Action and Information tasks use the Send Message Extended system function, which was introduced in 8.94 to provide additional messaging capabilities. With the introduction of the Send Message Extended system function, the Send Message system function became a deprecated feature.

Many of the delivered JD Edwards EnterpriseOne workflow processes still use Message tasks, which are based on the Send Message system function. Because of the differences between the Send Message and Send Message Extended system functions, Message tasks and recipients are configured differently than the Action and Information task which became standard in 8.94.

The following information describes some of the messaging features of workflow processes developed prior to release 8.94. Although the Send Message system function and Message tasks are deprecated features, you are still able to modify some of the message distribution options. Before modifying a delivered workflow process, it is recommended that you create a new version of the process to modify. In this way, your modifications will not be overwritten during an upgrade.

Note: Although it is still possible to modify some of the recipient and distribution options for Message tasks, Oracle recommends that you replace the deprecated Message tasks with Action or Information tasks.

Workflow Message Recipients

An integral part of creating a Message task involves determining to whom a message is sent. To define the recipient parameters, you need data items in either the key or additional data structure to hold the values that you pass into the JD Edwards EnterpriseOne workflow process. You can assign literal values or map parameters that originate in an application, business function, or other object. The Start Process system function allows you to map a literal value, a variable, or a value from a form's data structure or business view to the data items in the JD Edwards EnterpriseOne workflow data structures. You can configure the event rules of a Message task to route messages to these types of recipients:

- Members of a role

JD Edwards EnterpriseOne software uses roles to define tasks and menus for different groups of users. Roles are created and maintained by a system administrator. If a role exists that contains the members that you want

to include as the recipients of a JD Edwards EnterpriseOne workflow message, you can attach the role to the event rules of a Message task.

- Members of a distribution list

JD Edwards EnterpriseOne Workflow uses distribution lists to group users into categories for message routing purposes. You can further define how messages are routed to members of a distribution list by assigning routing criteria such as threshold values, escalation, and other conditional routing options.

See *Understanding Distribution Lists*.

See *Setting Up Distribution Lists*.

- Single recipient

For JD Edwards EnterpriseOne workflow processes that are designed to send a message to a single user, you select the <AB number> parameter and assign it a value from one of the JD Edwards EnterpriseOne workflow data structures.

Note: If you use the address book number of a single user, you will have to revise the event rules of the JD Edwards EnterpriseOne workflow process every time a new person is responsible for handling the messages sent by the JD Edwards EnterpriseOne workflow process. It is recommended that you enter a role for the recipient, even if the role contains only one member.

You use a combination of Address Book number and structure type to specify the recipient of Message task.

Using JD Edwards EnterpriseOne Workflow Message Recipients

JD Edwards EnterpriseOne Workflow can send messages to roles, to distribution lists that use group processing, to distribution lists that use hierarchical processing, or to single recipients. JD Edwards EnterpriseOne workflow can send messages to these different recipients or groups of recipients regardless of whether the message recipient is specified in the event rules or in the Escalation event rules.

In all cases, the recipient is determined by the combination of two fields: the recipient address (address book number) and structure type. If you specify only the recipient address, the message is sent directly to the address book number, regardless of whether it is a role or a single recipient. If you specify only the structure type, the message is sent to the distribution list using hierarchical processing. If you specify the recipient address and structure type, the message is sent to a distribution list using group processing.

The three possible combinations of recipient address and structure type are detailed below.

Recipient Address Only

When you enter only a recipient address, JD Edwards EnterpriseOne Workflow sends the message directly to the address book number that you entered.

If you specify the recipient in the Message task event rules, make sure that you specify the structure type as Single Recipient; do not leave it blank. Blank is the Accounts Receivable structure type; therefore, specifying blank for the Structure Type field in the Message task event rules will result in the message being sent to the Accounts Receivable distribution list using group processing.

Note: If the address number is the parent number of a distribution list (for example, 7000 - the Accounting Group), the message is sent to only that address book number. Therefore, no members of that distribution list receive the message. You must fill in the structure type if you want to send to a distribution list.

Structure Type Only

When you enter a structure type but no recipient address, JD Edwards EnterpriseOne Workflow sends the message to a distribution list using hierarchical processing. Specifically, JD Edwards EnterpriseOne Workflow finds the address number for the person who originated the initial request, and then finds that person in the specified structure type. Next, it finds the parent of the originator and sends the message to that parent.

For example, suppose the message is to be sent to structure type WFS. The originator (for example, 7101 - Clerk #1) must be a member of structure type WFS. The system looks up Clerk#1 in structure type WFS and finds the parent. In this scenario, the message is sent to the manager of 7101, which is 7201 (Manager #1). If 7201 approves the message, the system then sends it to 7301. If 7301 approves the message, it then sends it to 7402 (Vice President #2), and so on up the distribution list (unless threshold values are used and the threshold value for one of the members is reached). The message is never sent to a level below or lateral to 7101, such as 7102 (Clerk #2) or 7202 (Manager #2).

See *Hierarchical Processing Scenarios*.

Recipient Address and Structure Type

When you specify both a recipient address and a structure type, JD Edwards EnterpriseOne Workflow sends the message to a distribution list using group processing. Specifically, JD Edwards EnterpriseOne Workflow determines to whom the message is sent based on the specified address book number; finds its direct children in the particular structure type and the groups to which they belong; and then sends the message to Group 1, and then to Group 2, and so on. The recipient address and structure type combination that you enter must be a valid combination in the Address Book Parent/Child table (F0150) for this process to work.

For example, suppose you enter Address Book number 7000 (Accounting Group) from the distribution list and structure type EML. If an approval message is sent to this group specifying that a customer's credit limit needs to be raised to 40,000 USD, the system first finds the employees within Group 1 of the Accounting Group distribution list and routes the message to them for approval. Routing continues for all groups in the list as long as the threshold values of the members of that list are less than or equal to 40,000 USD.

See *Creating a Distribution List for Group Processing*.

Configuring a Message Task

Configuring a Message task involves defining event rules. The event rules contain parameters that specify the content of the JD Edwards EnterpriseOne workflow message, the recipient of the message, and the conditions for sending messages.

Access the workflow process in JD Edwards EnterpriseOne Workflow Modeler.

1. In JD Edwards EnterpriseOne Workflow Modeler, right-click the Message task and then select Event Rules from the pop-up menu.

Note: You must insert a value for every data item in the Parameters area.

2. On the System Functions form, complete a combination of these fields to specify the recipient:

o Recipient

Enter the address book number of the distribution list, role, or single recipient to whom the message will be sent. Leave this field blank to send to a distribution list using hierarchical processing.

Note: If you are specifying a single recipient, it is recommended that you use a role instead of an individual's address book number, even if the role contains only one member. If you use a single user's address book number, you will have to revise the event rules of the JD Edwards EnterpriseOne workflow process every time a new person is responsible for handling the messages sent by the JD Edwards EnterpriseOne workflow process.

o Structure Type

Enter the structure type of the distribution list to which the message will be sent. If the recipient is a role or single recipient, leave this field blank.

3. Specify the mailbox to which you want the message delivered in the Work Center.

For example, you might select the Credit Management queue for a credit limit approval message.

4. Highlight the Mailbox row.

5. In the Available Objects area, select a mailbox (or queue).

Note: You can use one of the existing queues in the system or create a new queue. If the Message task sends messages to an external messaging system, the JD Edwards EnterpriseOne Workflow engine will ignore the value that you specify for the Mailbox.

See *Setting Up Work Center Queues*.

6. To include a subject line in the message, highlight the Subject row and then select the corresponding data item that contains the subject text, if applicable. You can also enter a subject as a literal value.

If the message does not require a subject, select <Blank>. You would most likely select <Blank> when using a message template (a data dictionary message), which would already contain a subject line.

7. To add static text to the message, highlight the Text row and select the corresponding data item that contains the text for the body of the message. You can also enter the text as a literal value. If you do not need to use the Text data item, select <Blank>.

Note: You can use the Text parameter to add supplemental text to a message template. This text will appear above the message template text when the user opens the message.

8. To attach a shortcut to a JD Edwards EnterpriseOne workflow message, highlight the Active row, and then perform the following steps. If you are not attaching a shortcut, select <None> from the Available Objects area.

Note: Attaching a shortcut to a message will suspend the JD Edwards EnterpriseOne workflow process until the message is acted upon.

9. In the Available Objects area, double-click <Define Active Message>.

10. On the Work With Applications form, in the Query by Example row, enter the application that you want the shortcut to launch, and then click Find.

For example, if you want to use the Generic JD Edwards EnterpriseOne Workflow Approval Form, enter P98805 and click Find.

11. On Work With Forms, double-click the row containing the form that you want to use.

12. On Form Interconnections, map the data structures to the appropriate available objects.
See *"Creating a Modal Form Interconnection" in the JD Edwards EnterpriseOne Tools Form Design Aid Guide* .
13. Click OK.
The system returns to the System Functions form.
14. To attach a message template, highlight the Message row, and then perform the following steps. If you are not using a message template, select <None> from the Available Objects area.
15. In the Available Objects area, double-click <Define Message>.
16. On Text Substitution, enter the name of the message that you want to use in the Dictionary Item field and click Find.
For example, you might enter LM1235 for the Credit Limit Approval message.
17. From the Available Objects list, select each data item that contains the value that you want to substitute into the message and click OK.
18. For the Message Key parameter, select <None> from the available objects.
The JD Edwards EnterpriseOne Workflow engine no longer uses this parameter, but it needs to be mapped.
19. After you have finished mapping all of the parameters for the Message task, click OK.

Understanding Escalation Rules

You set up escalation so that a JD Edwards EnterpriseOne workflow process continues if one of the original recipients of a workflow message does not respond. To add escalation to an Action task, you must add escalation rules, which are conditions that will resend a message to a new recipient if the original recipient does not act on a message within a certain time. You cannot add escalation rules to an Information task.

When you use an escalation rule, you can attach a new message to the original message and then define to whom or to which distribution list the escalated message is sent. You must also activate the Workflow Scheduler to check for Message tasks containing escalation and forward any messages that have not been acted upon by the escalation recipient.

For information about setting up the Workflow Scheduler, see the *JD Edwards EnterpriseOne Server Manger Guide on My Oracle Support*.

Escalation only works in these instances:

- The original message contains a shortcut.
 - The original recipient of the JD Edwards EnterpriseOne workflow message is part of a distribution list.
- Note:** While the system enables you to set up escalation rules even if the original recipient is a single recipient or a member of a role, the escalation rules will not work properly.

You can set up escalation rules so that an escalated message is sent to one of these types of recipients:

- Distribution List
The escalated message is sent to a distribution list. This requires that the original message be sent to a distribution list, and that the two lists have the same number of groups. This is because the message is escalated to members of the same group number in the next distribution list.
- Original Distribution List

If the original message is sent to a distribution list with multiple groups, then you can also set up the escalation to send the message up to the next group. For example, if the current message is sitting at group 1 while the message is escalated, it will be escalated to group 2. To escalate the message to the next higher group, enter the address book number and the structure type of the original distribution list in the escalation rules.

- Single Recipient

The escalated message is sent to one person only. The escalated message will be sent to the same person for all groups.

Note: Escalating messages to a single user is not recommended. If you use a single user's address book number, you will have to revise the JD Edwards EnterpriseOne workflow process's event rules every time a new person is responsible for handling the escalated message sent by the workflow process. You cannot send a message that contains a shortcut to an external email address. Since escalated messages contain shortcuts, you cannot use an external email address as the recipient of an escalated message.

Adding Escalation Rules to a Message Task

Access the workflow process in JD Edwards EnterpriseOne Workflow Modeler.

1. Right-click the Message task, select Escalation, and then select Add and Attach.
2. On Escalation Rules, complete these fields:

- Escalation Rule

Type a unique name for the escalation rule.

- Description

3. At this time, do not complete any of the fields in the grid and click OK to continue.

The system returns you to the workflow diagram in JD Edwards EnterpriseOne Workflow Modeler.

4. Right-click the Message task, select Escalation, and then select Event Rules.
5. On System Functions, complete a combination of these fields to specify the recipient of the escalated message:

- Address Book Number

Enter the address book number of the distribution list, role, or single recipient to whom the escalated message will be sent.

- Structure Type

Enter the structure type of the distribution list to which the escalated message will be sent. If the recipient is a role or single recipient, leave this field blank.

6. Specify the mailbox to which you want the escalated message delivered in the Work Center.

For example, you might select the Credit Management queue for a credit limit approval message.

7. Highlight the Mailbox row.

8. In the Available Objects area, select a mailbox (or queue).

Note: You can use one of the existing queues in the system or create a new queue.

See *Setting Up Work Center Queues*.

9. To include a subject line in the escalated message, highlight the Subject row and then select the corresponding data item that contains the subject text, if applicable. You can also enter a subject as a literal value.

If the message does not require a subject, select <Blank>. You would most likely select <Blank> when using a message template (a data dictionary message), which would already contain a subject line.
10. To add static text to the escalated message, highlight the Text row and select the corresponding data item that contains the text for the body of the message. You can also enter the text as a literal value. If you do not need to use the Text data item, select <Blank>.

Note: You can use the Text parameter to add supplemental text to a message template. This text will appear above the message template text when the user opens the message.

11. For the Shortcut parameter, select <None> from the Available Objects list.

The escalated message uses the shortcut from the original message.
12. To attach a message template, highlight the Message row, and then perform the following steps. If you are not using a message template, select <None> from the Available Objects area.
13. In the Available Objects area, double-click <Define Message>.
14. On Text Substitution, enter the name of the message that you want to use in the Dictionary Item field and click Find.

For example, you might enter LM1235 for the Credit Limit Approval message.

See *Setting Up Message Templates*.

15. From the Available Objects list, select each data item that contains the value that you want to substitute into the message and click OK.
16. For the Message Key parameter, select <None> from the available objects.

The JD Edwards EnterpriseOne Workflow engine no longer uses this parameter, but it needs to be mapped.

17. After you have finished mapping all of the parameters for the escalated message, click OK.

Roles

In addition to assigning individual users to a distribution list, you can also assign one or more roles to a distribution list using group processing. In JD Edwards EnterpriseOne software, roles are assigned to groups of users that share similar tasks. When sending a JD Edwards EnterpriseOne workflow message to a distribution list that includes a role, all users assigned to that role receive the message. Only one person in the role needs to act on the message in order for it to advance to the next group.

You can only assign a role to a distribution list used for group processing.

Note: For a distribution list using group processing, it is recommended that you use roles rather than individual address book numbers for members of the list. Roles are easier to maintain as people change positions within the enterprise. Do not assign a role to a distribution list for hierarchical processing. If an individual in a role is included in more than one list of the same structure type, this inclusion can result in circular or ambiguous hierarchies that JD Edwards EnterpriseOne Workflow is unable to reconcile.

Understanding Recipient Conditions

A recipient condition contains a statement that JD Edwards EnterpriseOne Workflow evaluates to determine whether or not to route messages to a particular recipient. For example, you might set up a recipient condition named ACCTG that uses customer address book numbers as the criterion to determine where to send messages. You could add logic to the recipient condition to tell the system that if the customer number is equal to a range of 1 through 3001, send messages for those customers to the accounting department distribution list.

When you add a recipient condition in the JD Edwards EnterpriseOne Workflow Modeler, the recipient condition has no effect on the JD Edwards EnterpriseOne Workflow process until you attach it to a recipient rule. You can add a recipient condition to a recipient rule at any time when you are creating a JD Edwards EnterpriseOne Workflow process.

Example: Using Recipient Conditions

You have an accounting department distribution list and a payroll department distribution list, and you want messages to be sent to one or the other based on a rule. You set up a two recipient condition called IFACCTG and IFPAYR. These recipient conditions would use the address book numbers of the customers as the criteria for determining where to send messages. IFACCTG would specify that if the customer number is equal to a range of 1 through 3001, then messages regarding those customers should be sent to the accounting department's distribution list.

Adding a Recipient Condition

Access the workflow process in JD Edwards EnterpriseOne Workflow Modeler.

1. Right-click the background of the JD Edwards EnterpriseOne Workflow Modeler diagram, select Recipient Conditions, and then select Add.
2. On Process Rule Revisions, complete these fields:
 - o Rule
Type a name for the recipient condition. The name can be up to 10 characters in length.
 - o Description
Type a description for the purpose of the recipient condition.
 - o Category Code 1
 - o Category Code 2
 - o Category Code 3

Note: Category codes are optional fields that you can customize to include additional data about the object.

3. Click OK.
4. On Criteria Design, enter the criteria that will make up the recipient condition and click Save.

14 Appendix B - System Functions in JD Edwards EnterpriseOne Workflow

System Functions in JD Edwards EnterpriseOne Workflow

This appendix discusses the Send Message Extended system function that you use for JD Edwards EnterpriseOne Workflow.

Send Message Extended

This system function enables an application to send email messages to users, groups, and so forth. The following table describes the system function parameters:

System Function Parameter	Description
To recipient	Input, optional. The account or accounts to which to send the email.
Cc recipient	Input, optional. The account or accounts to which to send a courtesy copy of the email.
Bcc recipient	Input, optional. The account or accounts to which to send a blind courtesy copy of the email.
Mailbox	Input, required. The mailbox name to which to deliver the email. The mailbox is used only if the mail is delivered to the Work Center. For mail delivered externally (such as SMTP mail), this parameter is ignored. Set the parameter to a specific mailbox or to an applicable object from the object list.
Subject	Input, required. The text to display in the subject line of the email. If the value is <Blank> or <Zero> , and you are basing the email on a DD item using the Message parameter, then the system sets the subject line to the DD item description, if one exists. Set the parameter to an alphanumeric constant, (<Literal> , <Blank> , <Zero>), or an applicable object from the object list.
Text	Input, required. The text to display in the body of the email. Set the parameter to an alphanumeric constant, (<Literal> , <Blank> , <Zero>), or an applicable object from the object list.
Shortcut	Input, required. A link to a JD Edwards EnterpriseOne application. Set the parameter to the application to which to link or to <None> .
Message	Input, optional. The text to display in the body of the email, based on a DD item glossary. The recipient formatting preferences (for dates, times, and numeric values) as well as language preference (should a translation for the DD item be available) are used when composing the text that represents the message. Set the parameter to the DD item you want to use or to <None> .

System Function Parameter	Description
Media Object Name	Input, optional. The name of the media object to include in the email. Set the parameter to an applicable object from the object list, or to <None> .
Media Object Key	Input, optional. The key of the media object to include in the email. Set the parameter to an application object from the object list, or to <None> .

Additional Notes

This system function enables an application to send email messages to users, groups, and so forth.

The Send Message Extended system function supports multiple ways to define the recipient of a message. You can dictate that the message is for a limited group (such as individuals, distribution lists, and so forth), or you can make the recipients dynamic. The delivery method is based on each user's email preferences. You must send the message using at least one of the recipient parameters, although which one you use is immaterial to the system.

When mapping a recipient parameter, these options are available:

- **AB Number**

To send a message to a single user, enter the address book number of a user as the recipient. The mail will be sent to the default contact (contact number 0) for this address book number. Set the parameter to an applicable object from the object list.

Note: JD Edwards EnterpriseOne version 8.10 applications do not employ contacts; therefore, email is sent directly to a user based on the address book number.

- **Contact**

To send a message to an individual in a user's contact list, enter the address book number of a user and then the number of the contact. Set the parameters to an applicable object from the object list.

Note: JD Edwards EnterpriseOne version 8.10 applications do not employ contacts; therefore, this parameter has no effect.

- **Grouped Distribution List**

To send a message to the members of a distribution list, enter the address book number of the list and its structure type. Set the parameters to an applicable object from the object list.

- **Hierarchical Distribution List**

To send a message to the members of a hierarchical distribution list, enter the distribution list structure type, and the address book number of the node to start from in the list. Set the parameters to an applicable object from the object list.

Note: This option is available only from within the JD Edwards EnterpriseOne Workflow Modeler.

- **SMTP Address**

To send a message to a single user, enter the SMTP address of the user as the recipient. Set the parameter to an applicable object from the object list.

- **Define Dynamic Recipient**

This option enables the selection of any kind of recipient at runtime, as opposed to choosing the kind of recipient at design time (AB Number, Contact, Grouped Distribution List, Hierarchy Distribution List, or SMTP Address).

All the parameters must be mapped to objects from the available object list. At runtime, the recipient is chosen dynamically based on the value of the Recipient Type:

- Recipient Type is **'00'**:

This is the equivalent of selecting **<None>**.

- Recipient Type is **'01'**:

This is the equivalent of selecting **<Contact>**. The subfields Address book Number and Contact Number are used to determine the recipient.

- Recipient Type is **'02'**:

This is the equivalent of selecting **<AB Number>**. The subfield Address book Number is used to determine the recipient.

- Recipient Type is **'03'**:

This is the equivalent of selecting **<Grouped Distribution List>**. The subfields Address book Number and Structure Type are used to determine the recipients where Address book Number is the AB number for the distribution list and Structure Type is the organizational structure, based on user-defined code (UDC) 01/TS.

- Recipient Type is **'04'**:

This is the equivalent of selecting **<Hierarchical Distribution List>**. The subfields Address book Number and Structure Type are used to determine the recipients where Structure Type is the structure and list to use and Address book Number is the point in the hierarchy from which to start.

Note: This hierarchical resolution is available only when you send the email to the JD Edwards EnterpriseOne work center.

- Recipient Type is **'05'**:

This is the equivalent of selecting **<SMTP Address>**. The subfield SMTP Address will be used to determine the recipient.

- Other values

Do not use other values, as they are reserved for future use. The list of supported recipient types is defined by UDC 98/SM.

- None

To not specify a recipient (use None when a recipient is optional).

The body of the email can be preset text (Text), or can be based on a DD item (<Message>). In either case, you can include a media object (<Media Object Name> and <Media Object Key>) and/or a link directly to a JD Edwards EnterpriseOne application (<Shortcut>) as well.

Attachments can be sent with the mail, by providing the Media Object Name and Media Object Key parameters.

The system function will retrieve the attachments stored within the Media Object specified, and add the data to the mail sent. Only the Media Object 'RTF Text' and 'URL File' attachment types are supported.

15 Glossary

activity rule

The criteria by which an object progresses from one given point to the next in a flow.

business function

A named set of user-created, reusable business rules and logs that can be called through event rules. Business functions can run a transaction or a subset of a transaction (check inventory, issue work orders, and so on). Business functions also contain the application programming interfaces (APIs) that enable them to be called from a form, a database trigger, or a non-JD Edwards EnterpriseOne application. Business functions can be combined with other business functions, forms, event rules, and other components to make up an application. Business functions can be created through event rules or third-generation languages, such as C. Examples of business functions include Credit Check and Item Availability.

business function event rule

See named event rule (NER).

Employee Work Center

A central location for sending and receiving all JD Edwards EnterpriseOne messages (system and user generated), regardless of the originating application or user. Each user has a mailbox that contains workflow and other messages, including Active Messages.

EnterpriseOne object

A reusable piece of code that is used to build applications. Object types include tables, forms, business functions, data dictionary items, batch processes, business views, event rules, versions, data structures, and media objects.

EnterpriseOne process

A software process that enables JD Edwards EnterpriseOne clients and servers to handle processing requests and run transactions. A client runs one process, and servers can have multiple instances of a process. JD Edwards EnterpriseOne processes can also be dedicated to specific tasks (for example, workflow messages and data replication) to ensure that critical processes don't have to wait if the server is particularly busy.

escalation monitor

A batch process that monitors pending requests or activities and restarts or forwards them to the next step or user after they have been inactive for a specified amount of time.

event rule

A logic statement that instructs the system to perform one or more operations based on an activity that can occur in a specific application, such as entering a form or exiting a field.

jde.ini

A JD Edwards EnterpriseOne file (or member for iSeries) that provides the runtime settings required for JD Edwards EnterpriseOne initialization. Specific versions of the file or member must reside on every machine running JD Edwards EnterpriseOne. This includes workstations and servers.

messaging server

A server that handles messages that are sent for use by other programs using a messaging API. Messaging servers typically employ a middleware program to perform their functions.

named event rule (NER)

Encapsulated, reusable business logic created using event rules, rather than C programming. NERs are also called business function event rules. NERs can be reused in multiple places by multiple programs. This modularity lends itself to streamlining, reusability of code, and less work.

Object Librarian

A repository of all versions, applications, and business functions reusable in building applications. Object Librarian provides check-out and check-in capabilities for developers, and it controls the creation, modification, and use of JD Edwards EnterpriseOne objects. Object Librarian supports multiple environments (such as production and development) and enables objects to be easily moved from one environment to another.

project

In JD Edwards EnterpriseOne, a virtual container for objects being developed in Object Management Workbench.

triggering event

A specific workflow event that requires special action or has defined consequences or resulting actions.

workflow

The automation of a business process, in whole or in part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.

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