

# Oracle Workflow Cartridge

*Oracle® Workflow Cartridge automatically processes and routes information of any type, according to business rules you can easily change, to any person inside or outside your enterprise. Oracle Workflow Cartridge is also embedded in Oracle Applications, an integrated suite of business solutions designed to support continuous process improvement for enterprises competing in time-critical markets.*

## **All Information**

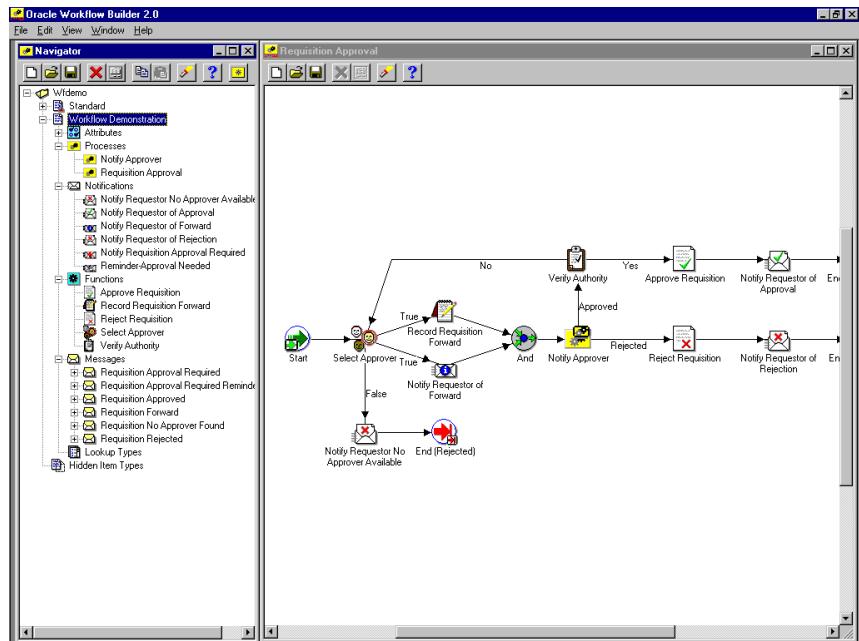
With so much information available, and in so many different forms, how do you get the right information to the right people at the right time? Oracle Workflow lets you provide each person involved in a workflow-enabled business process with all the information they need to make the appropriate response. Oracle Workflow can easily route Oracle transactional data throughout a business process. In addition, Oracle Applications Attachments let you capture information from all media—including spreadsheets, images, audio, and video—and associate it with workflow information in Oracle Applications. Oracle Workflow can route this supporting information to each decision maker in your workflow.

## **All Rules**

The ability to quickly adapt your business processes to a rapidly-changing environment is vital. Oracle Workflow lets you model and maintain your business processes using a graphical workflow builder. Unlike workflow systems that simply route documents from one user to another with some approval steps, Oracle Workflow lets you model and automate sophisticated business processes. You can define processes that loop, branch into parallel flows and then rendezvous, decompose into subflows, and more. With Oracle Workflow, you can use the full power of PL/SQL, the language of the Oracle8 server, to automatically process information according to even the most sophisticated business rules.

## All People

Your business processes include not only Oracle Applications users, but others inside your enterprise and even customers, suppliers, and business partners outside your enterprise. Oracle Workflow extends the reach of business process automation throughout the enterprise and beyond to include any E-mail or Web user. Oracle Workflow lets people receive, analyze, and respond to notifications of items awaiting their attention via Oracle Applications or any standard E-mail system or Web browser.



Oracle Workflow Builder showing a requisition approval process

## Workflow Builder

Oracle Workflow's graphical workflow builder lets you create, view, or modify a business process with simple drag and drop operations. Using the Oracle Workflow Builder, you can create and modify reusable workflow objects, including activities, rules, messages, and roles. At any time you can add, remove, or change workflow activities, or set up new prerequisite relationships among activities. You can easily work with a summary-level model of your workflow, expanding activities within the workflow as needed to greater levels of detail. And, you can operate the graphical Oracle Workflow Builder from a desktop PC or even from a disconnected laptop. Oracle Applications comes complete with a library of predefined workflow activities and workflow templates that you can tailor to your unique requirements or include in any of your own workflows.

## Rule-Based Workflow Engine

A workflow engine embedded in the Oracle8 server monitors workflow states and coordinates the routing of activities for a process. Changes in workflow state, such as the completion of workflow activities, are signaled to the engine via a PL/SQL API.

Based on flexibly-defined workflow rules, the engine determines which activities are eligible to process, and then processes them. Oracle's workflow engine supports sophisticated workflow rules, including looping, branching, parallel flows, and subflows.

#### **Complete Extensibility**

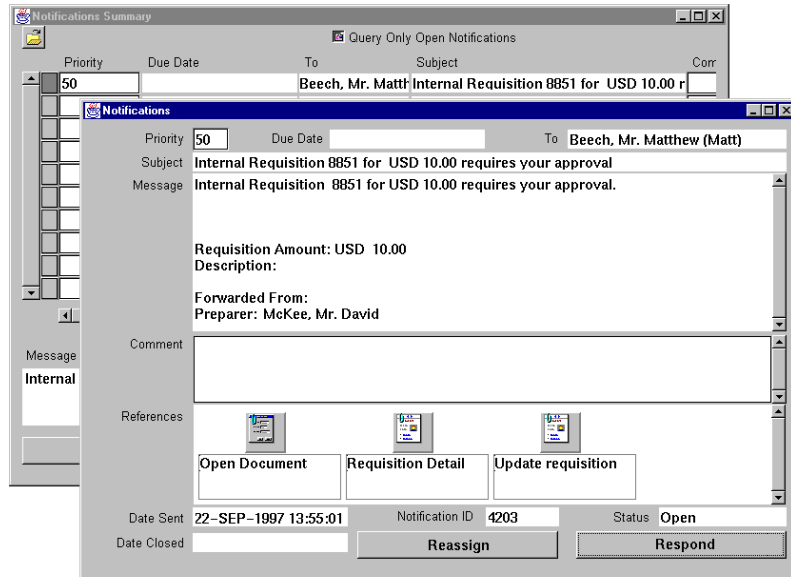
Oracle Workflow lets you define and reference your own activities in your workflows. Without modifying any applications code, you can have your own activity run whenever Oracle Workflow detects that your activity's prerequisites are satisfied. This powerful capability lets you add any number of additional business processing and notification activities to any workflow.

#### **Electronic Notifications**

Oracle Workflow lets you notify users in your workflows to handle activities that cannot be automated, such as approvals for requisitions or sales orders. Electronic notifications can be routed to individual users or to classes of users (roles). Users can also define notification routing rules to automatically reroute notifications in the event of a planned absence. Each notification contains all the supporting information a user needs to make a decision, and lets them choose from a selection of appropriate responses. Oracle Workflow interprets each notification response and then continues to process workflow activities until either another user response is required or the workflow is complete. A notification routed to a role can be acted on by any of the users identified with that role. After any of the role members responds to the notification, the workflow process continues to the next activity. Oracle Workflow users can review, analyze, and respond to their notifications in three ways. Regular users of Oracle Applications can use a common notifications form within Oracle Applications. For those people who do not regularly use Oracle Applications, or who do not have easy access, Oracle Workflow can also send notifications via any standard E-mail system or Web browser.

#### **Personal Inbox**

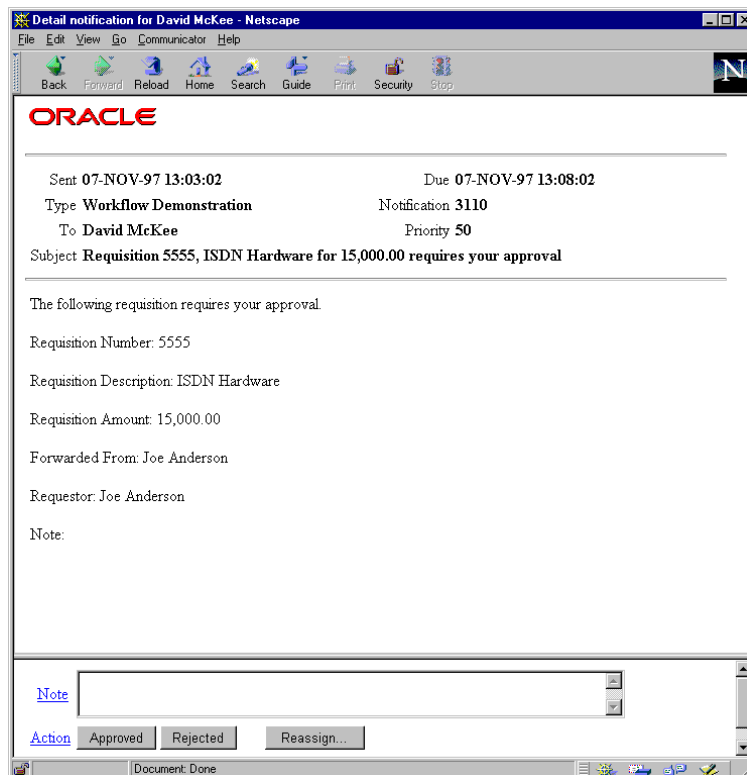
Regular users of Oracle Applications can review, analyze, and respond to outstanding notifications in a common Notifications form, or "Personal Inbox." Users can review supporting information, specify an appropriate response, or forward the notification to another user. The supporting information and appropriate responses are context-sensitive, determined by the nature of the notification.



### Personal Inbox

### E-mail Integration

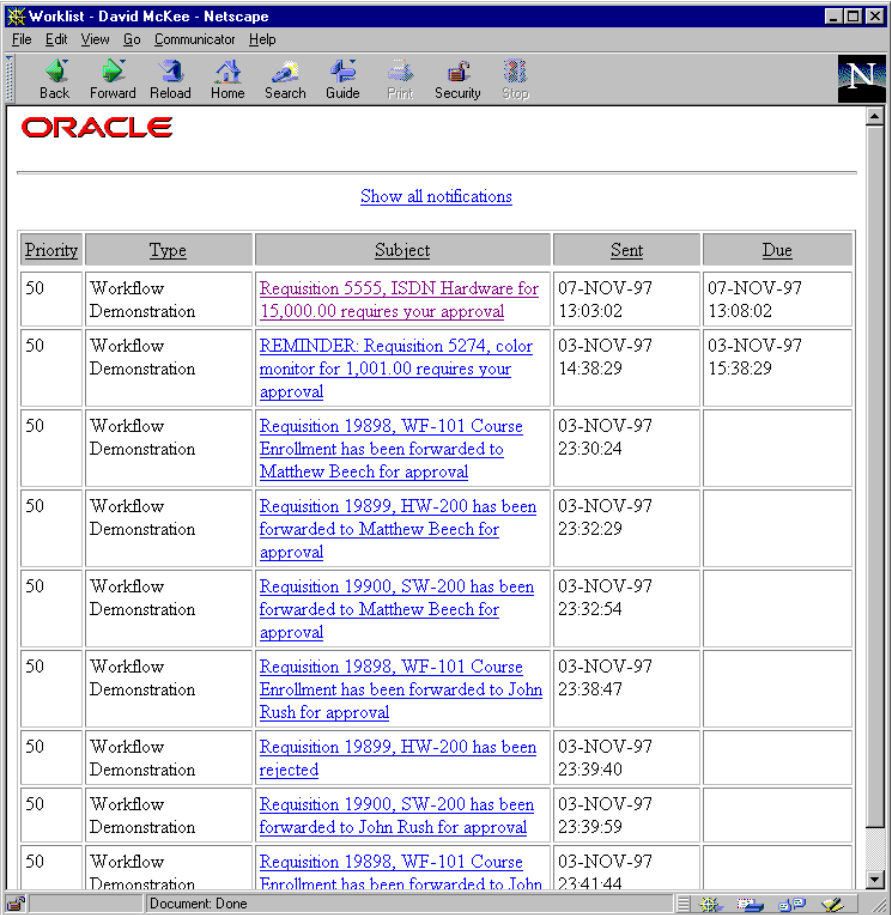
People who do not regularly use Oracle Applications, or who do not have easy access, can review notifications using any E-mail application. An E-mail notification can include an HTML attachment that opens up a standard Web browser from which the user can then review supporting information and respond to the notification.



### HTML attachment to an E-mail notification

## Internet-Enabled Workflow

Any user with access to a Web browser, can also be included in a workflow. Web users can access a pre-configured Web page to see their outstanding notifications, then navigate to additional, dynamically-generated pages to review supporting information or to respond to the notification.



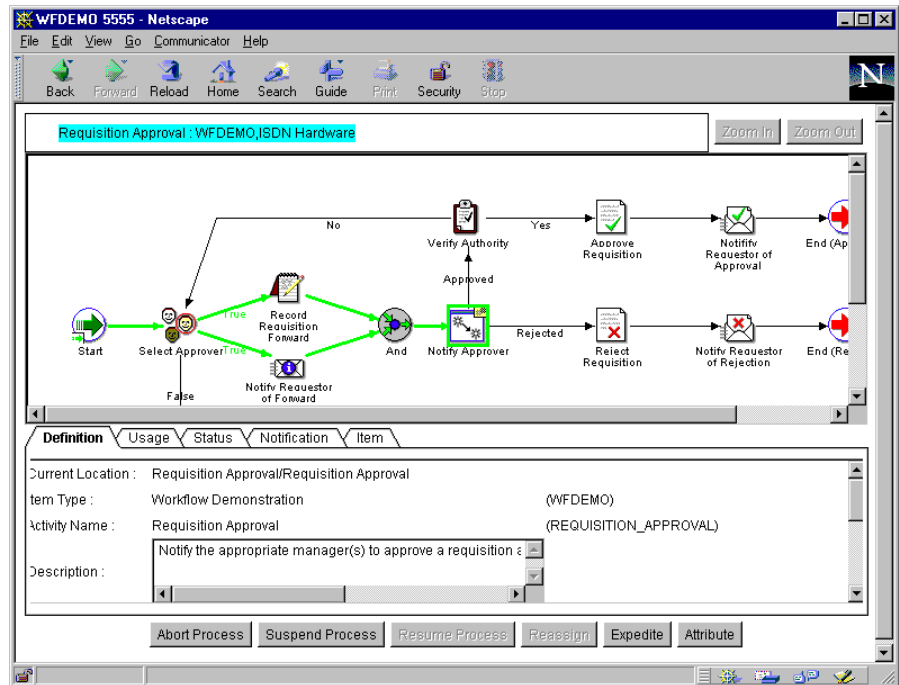
The screenshot shows a Netscape browser window titled "Worklist - David McKee - Netscape". The browser's address bar is empty, and the page content features the Oracle logo at the top. Below the logo is a link labeled "Show all notifications". The main content is a table with five columns: Priority, Type, Subject, Sent, and Due. The table lists ten notifications, all with a priority of 50 and a type of "Workflow Demonstration". The subjects are various requisitions, some requiring approval and others being rejected or forwarded. The "Sent" column shows dates in NOV-97 with times, and the "Due" column shows dates in NOV-97 with times.

Priority	Type	Subject	Sent	Due
50	Workflow Demonstration	<a href="#">Requisition 5555, ISDN Hardware for 15,000.00 requires your approval</a>	07-NOV-97 13:03:02	07-NOV-97 13:08:02
50	Workflow Demonstration	<a href="#">REMINDER: Requisition 5274, color monitor for 1,001.00 requires your approval</a>	03-NOV-97 14:38:29	03-NOV-97 15:38:29
50	Workflow Demonstration	<a href="#">Requisition 19898, WF-101 Course Enrollment has been forwarded to Matthew Beech for approval</a>	03-NOV-97 23:30:24	
50	Workflow Demonstration	<a href="#">Requisition 19899, HW-200 has been forwarded to Matthew Beech for approval</a>	03-NOV-97 23:32:29	
50	Workflow Demonstration	<a href="#">Requisition 19900, SW-200 has been forwarded to Matthew Beech for approval</a>	03-NOV-97 23:32:54	
50	Workflow Demonstration	<a href="#">Requisition 19898, WF-101 Course Enrollment has been forwarded to John Rush for approval</a>	03-NOV-97 23:38:47	
50	Workflow Demonstration	<a href="#">Requisition 19899, HW-200 has been rejected</a>	03-NOV-97 23:39:40	
50	Workflow Demonstration	<a href="#">Requisition 19900, SW-200 has been forwarded to John Rush for approval</a>	03-NOV-97 23:39:59	
50	Workflow Demonstration	<a href="#">Requisition 19898, WF-101 Course Enrollment has been forwarded to John</a>	03-NOV-97 23:41:44	

Web page showing outstanding notifications

## Graphical Monitoring and Performance Analysis

Oracle Workflow provides graphical monitoring and performance analysis tools that can help you understand the performance of your workflows. You can identify bottlenecks and track improvements in moving items such as purchase orders, sales orders, and invoices through your transaction systems. With Oracle Workflow, you have all the information you need to support continuous business process improvement.



#### Workflow Monitor

#### Easy to Workflow Enable Applications

Oracle Workflow is the underlying technology used to workflow-enable Oracle Applications. Oracle Workflow's flexible architecture makes it easy for you to workflow-enable *any* Oracle-based application. Using simple PL/SQL calls, an application can notify Oracle Workflow that predefined activities have completed. And Oracle Workflow can call any application's PL/SQL functions as activities in a workflow process.

#### Hardware and Software Requirements

The Oracle Workflow engine is available on the same server platforms supported by Oracle Applications. The Oracle Workflow Builder requires Windows 95 or Windows NT. The Oracle Applications common notifications form requires an Oracle Applications configuration. The E-mail notifications component requires UNIX Sendmail, or a Windows NT MAPI-compliant E-mail application and a platform that supports one of these E-mail applications; HTML attachment support requires an E-mail application that supports attachments. The Web notifications and monitoring components require Oracle Application Server and a Web browser that supports JavaScript, Frames and Java Development Kit (JDK), Version 1.1.4, and Abstract Windowing Toolkit (AWT).

#### Key Features

##### Graphical Workflow builder

- Enter, edit, view business process definitions

- Fully graphical, drag and drop
- Pop-up property sheets
- User-definable activity icons
- User-configurable screen layout

- Reusable workflow activity and process definitions
- Support for subprocesses
- Move process definitions between database and flat files
- Version and effective date support for process definitions
- Supports preconfigured activities delivered with Oracle Applications
- Add custom activities
- Multilingual support
- Operate from desktop PC or disconnected laptop PC

#### **Workflow Engine**

- Server-based engine implements process definitions at runtime
- Embedded in Oracle8 server
- Runs PL/SQL functions as activities
- Supports manual and automated activities
- Timeout processing
- Supports complex branching and join conditions, including:
  - *Conditional branching*
  - *Parallel split branching*
  - *AND join*
  - *OR join*
  - *Custom join conditions*
- Looping support resets process to loop point
- Error conditions trigger error-handling workflows
- Support for aborting, suspending, resuming a process
- Delegates costly activities to background engines to optimize for fast response time
- Applications data-independent
- Simple API for signaling changes in application state
- Simple API for applications data support
- Supports references to documents generated by a PL/SQL procedure
- Predefined process templates

- Predefined workflow activities
- Integrates with organizational model of choice
- Native support for users and roles
- Multilingual support

#### **Electronic Notifications**

- Issues notifications and processes responses from users
- Notifications via Oracle Applications inbox, E-mail, or Web
- Link from Oracle Applications inbox to Oracle Applications forms
- E-mail notifications with HTML attachments
- Sends notifications to individual users or to roles responsible for activities
- Parameterized, context-sensitive notification text
- E-mail notification formats based on customer-defined templates
- Notifications forwarding
- Due date enforcement
- Automatic notification rerouting
- Displays referenced documents generated by PL/SQL procedures in HTML and E-mail notifications
- Multimedia attachments
- Constant or dynamic notification priority
- Multilingual support

#### **Graphical Monitoring and Performance Analysis**

- Graphical Web-based workflow monitor to display and administer processes and activities
- Standard form and reports to monitor processes and activities
- History tables record item information for completed workflows

- Create custom reports on history table

#### Open and Extensible Architecture

- Uses open APIs for data extract and import
- Can use external non-Oracle data sources, such as legacy systems

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