

Using the Oracle® Business Process Manager Worklist Manager for User Activities

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Using the Oracle Business Process Manager Worklist Manager for User Activities

The topics listed here provide links to task, conceptual and reference information for using the Oracle Java CAPS Business Process Manager (BPM) Worklist Manager. The procedures and conceptual information in these topics help to illustrate a wide range of possibilities when user activities are incorporated into business processes.

- [“User Activity Overview” on page 5](#)
- [“Worklist Manager Overview” on page 6](#)
- [“LDAP and Organizational Roles” on page 6](#)
- [“Implementing a User Activity” on page 6](#)
- [“Using the Worklist Manager” on page 42](#)

User Activity Overview

User activities are unique Business Process activities in that they require human input at specific points in the Business Process. They are the primary component for incorporating *human workflows* into Business Processes. Human workflows make it possible to deploy complex Business Processes that include human interaction with and management of distributed information systems. Task assignment allows you to set up and view tasks depending on your organizational role. With certain management level rights, you can assign a person to receive a task if an activity fails.

User activities are used in conjunction with a Visual Page Designer page flow and the Worklist Manager (WLM). The page flow provides a point of access to the Business Process through a web page where a user can enter the requested data. The Worklist Manager assigns tasks and monitors task assignments and status.

With Visual Page Designer and Business Process Manager, you can develop human workflows that incorporate a customized user interface for each task.

Worklist Manager Overview

The Worklist Manager is a web-based interface that allows you to view, assign, escalate, and execute the tasks generated from user activities. The functions that can be performed in the Worklist Manager are based on user hierarchy. BPM supports the definition of organization hierarchies and user roles for task assignment. Tasks can be escalated and delegated by users from custom worklists and activity processing windows. The Worklist Manager requires an LDAP directory to define users, their roles, and their hierarchy.

LDAP and Organizational Roles

Organizational roles help define processes based on a person's position or title. By entering information about the structure of your organization, you can make processes easier to manage.

Support for LDAP means that you can use repositories of users, hierarchical organizational structures, and roles. An LDAP-based application can be used to populate the Worklist Manager with members of your organization and their organizational roles. You assign rights based on organizational role assignments.

For example, you can permit managers to view their subordinate's activity list (also called a worklist) and to reassign tasks in that list. As a manager, when you log into your worklist, you see your tasks and the tasks of your direct reports.

Note – For information about setting up your organization's information in LDAP, see the user documentation provided with your LDAP server.

Implementing a User Activity

This section provides an overview of how to configure the user activity and other components required to implement a user activity. Each step below is described in detail in the following sections. Perform the following steps to create a Business Process containing a user activity.

1. [“Creating the Worklist Manager Database” on page 7](#)
2. [“Configuring Security” on page 8](#)
3. [“Creating a Web Service Definition” on page 13](#)
4. [“Creating the Business Processes” on page 13](#)
5. [“Defining Task Assignment Conditions” on page 17](#)
6. [“Configuring the WorkList Manager” on page 26](#)

Creating the Worklist Manager Database

The Worklist Manager database stores task assignment data, such as the type, priority, and status of the task, as well as who a task is currently assigned to. Before beginning this task, be sure you have database instance created where you can install the Worklist Manager tables.

▼ To Create the Worklist Manager Database

- 1 In the NetBeans Projects window, expand CAPS Components Library, expand Business Process Manager, and then expand WorkListViewer.

Note there is a second WorkListViewer node under WorkListViewer.

- 2 Right-click the second instance of WorkListViewer, point to Version Control, and then click Check Out.
- 3 On the dialog box, click Check Out.
- 4 Expand the second instance of WorkListViewer.
- 5 Right-click Database Scripts, and then click Properties.

The Database Script Properties dialog box appears.

FIGURE 1 Worklist Manager Database Properties



- 6 Configure the database properties to connect to your database, and then click OK.

See [Figure 1](#) for more information about the values for these properties.

Note – The user whose login information you enter must have DBA privileges to create the new Worklist Manager user.

- 7 For Oracle databases only:
 - a. Under Database Scripts, right-click Oracle Install Script, and then click Open.

- b. **Modify the location of the tablespace datafile to the location where you want the file to reside.**
 - c. **In the NetBeans toolbar, click Save.**
- 8 In the Projects window, right-click the install script file appropriate for your database, and then click Run.**

Property	Description
Database Type	The database vendor and version you are using.
JDBC URL	The URL to connect with the database. Enter one of the following: <ul style="list-style-type: none"> ▪ For Oracle: jdbc:SeeBeyond:oracle://host:port;SID=SID ▪ For Sybase: jdbc:SeeBeyond:sybase://host:port ▪ For SQL Server: jdbc:SeeBeyond:sqlserver://host:port;DatabaseName=dbname ▪ For DB2: jdbc:SeeBeyond:db2://host:port;DatabaseName=SID;collectionId=JDBCPKG;packageName=J where <host> is the machine on which the database resides, <port> is the port number on which the database is listening, and <SID> and <dbname> are the name of the database.
User	The login ID of a database administrator. This user must be able to create users and assign permissions, as well as create and drop tables.
Password	The password for the administrator user.

Configuring Security

The Worklist Manager and task assignment window both require a connection to an LDAP directory for user information and authentication. You can optionally configure SSL on the LDAP server to encrypt information.

Configuring the LDAP Server

If you are already using an LDAP server, you can use your existing directory structure. The primary requirement for the Worklist Manager is a mechanism that clearly defines a user hierarchy so managers and supervisors can view the tasks of their subordinates and users can escalate tasks to their supervisors.

Oracle Internet Directory

The Worklist Manager can adapt to your existing Oracle Internet Directory structure. You need to define the reporting structure if this has not been done already. Worklist Manager uses two attributes, typically *manager* and *directReports*, that define the reporting hierarchy. You can create custom attributes that indicate a user's supervisors and subordinates. You can create groups and roles to which Worklist Manager users belong, but this is not required. You need to create an administrator user that the Worklist Manager will use as the security principal.

For more information about configuring the Worklist Manager for Oracle Internet Directory, see [“Configuring an Oracle Internet Directory Connection”](#) on page 33.

OpenLDAP

The Worklist Manager can adapt to your existing OpenLDAP directory structure. You may need to assign each user an attribute that defines their reporting structure, if this has not been done already. You can use the default attribute, *Manager*, or you can create a new manager attribute. Each user should have an entry similar to **Manager: cn=GSmythe**, as shown in the sample directory structure in the following figure.

FIGURE 2 Sample OpenLDAP Directory Structure

Name	Value
objectClass	top
objectClass	person
objectClass	organizationalPerson
objectClass	inetOrgPerson
cn	CPina
userPassword	pass
title	Mr.
givenName	Carlo
sn	Pina
o	Sun Microsystems
ou	Executives
businessCategory	CEO
manager	cn=GSmythe
structuralObjectClass	inetOrgPerson

Worklist Manager login credentials for each user are defined by the value of the Naming Attribute used in the distinguished name for each user (typically the *cn* attribute) and the value of the *userpassword* attribute. For OpenLDAP, the Worklist Manager uses an anonymous bind to access the directory server.

You can create custom groups and roles to which Worklist Manager users belong, but this is not required. For information about configuring the Worklist Manager for OpenLDAP, see [“Configuring an OpenLDAP Connection”](#) on page 31.

Oracle Directory Server Enterprise Edition

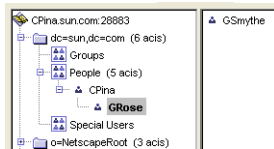
The Worklist Manager can adapt to your existing Oracle Directory Server Enterprise Edition (previously Sun Java System Directory Server) structure. You need to define the reporting structure if this has not been done already. There are a variety of ways to define the reporting

structure. The server provides a default attribute, *manager*, that you can use to define the upward reporting structure, but you must also use an attribute that defines subordinates. You can also create custom attributes that indicate a user’s managers and subordinates, or define hierarchies in the *entrydn* attribute of the user. For example, if user “gsmythe” reports to “grose” who in turn reports to “cpina”, the entrydn attribute for “gsmythe” would be similar to:

```
uid=gsmythe,uid=grose,uid=cpina,ou=people,dc=sun,dc=com
```

Using the above entrydn, the directory structure would look similar to the following figure.

FIGURE 3 Sample Oracle Directory Server Enterprise Edition Structure



You can create custom groups and roles to which Worklist Manager users belong, but this is not required.

Note – To enable task escalation and re-assignment on the Worklist Manager, you need to use the manager attribute to define a user’s supervisor and you need to define the reporting structure in each user’s entrydn attribute as described above. In the manager attribute, be sure to enter the full entrydn value for the supervisor.

When you define the LDAP directory structure, note the Naming Attribute used in the distinguished name for each user. This is typically the *uid* attribute or the *cn* attribute. This value is specified in the Worklist Manager External System properties in the Environment. Worklist Manager login credentials for each user are defined by the value of the Naming Attribute and the value of the *userpassword* attribute. You need to create an administrator user that the Worklist Manager will use as the security principal.

For more information about configuring the Worklist Manager for the Oracle Directory Server Enterprise Edition, see [“Configuring an Oracle Directory Server Enterprise Edition Connection”](#) on page 36.

Microsoft Active Directory

The Worklist Manager can adapt to your existing Active Directory structure. You need to define the reporting structure if this has not been done already. Active Directory provides two default attributes, *manager* and *directReports*, that define the reporting hierarchy. You can also create custom attributes that indicate a user’s supervisors and subordinates. You can create groups and roles to which Worklist Manager users belong, but this is not required.

In Active Directory, a user's login ID is defined by the *sAMAccountName* attribute. This attribute is specified in the Worklist Manager External System properties in the Environment. Worklist Manager login credentials for each user are defined by the value of the *sAMAccountName* attribute and the value of the *userPassword* attribute. You need to create an administrator user that the Worklist Manager will use as the security principal.

For more information about configuring the Worklist Manager for Microsoft Active Directory, see [“Configuring a Microsoft Active Directory Connection” on page 39](#).

Configuring Secure Sockets Layer

By default, communications between the Repository and the LDAP server are unencrypted. You can configure the LDAP server and Worklist Manager to use Secure Sockets Layer (SSL).

▼ To Encrypt Communications Between the Repository and the LDAP Server

For more information about using SSL with the Repository, see [Configuring Oracle Java CAPS for SSL Support](#).

1 Configure SSL on the LDAP server.

Ensure that the LDAP server is configured to use the Secure Sockets Layer (SSL). For detailed instructions, see the documentation provided with the LDAP server.

2 Export the LDAP server certificate to a file.

3 Import the LDAP server certificate to the Repository's list of trusted certificates.

The following steps use the `keytool` program. This program is included with the Repository (as well as the Java SDK).

4 From a command prompt, navigate to `SDK_Home\bin`, where `SDK_Home` is the location of the Java EE Software Development Kit (SDK).

5 Run the following command:

```
keytool -import -trustcacerts -alias alias -file certificate_filename -keystore cacerts_filename
```

- For the `-alias` option, assign any value.
- For the `-file` option, specify the fully qualified name of the LDAP server certificate. For example:

```
C:\ldap\mycertificate.cer
```

- For the `-keystore` option, specify the fully qualified name of the `cacerts` file, `JavaCAPS_Home\appserver\domains\Domain_Name\config\cacerts.jks`. For example:

- 6 When prompted, enter the keystore password. The default password is `changeit`.
- 7 When prompted whether to trust this certificate, enter `yes`.
The following message appears:
Certificate was added to keystore
- 8 In the `Realm` element of the `server.xml` file, modify the URL of the LDAP server as follows:

- a. Set the protocol to `ldaps`.
- b. Set the port number to the port number that the LDAP server listens on for SSL requests. Typically, this number is `636`.

For example:

```
<Realm className="org.apache.catalina.realm.JNDIRealm"
connectionURL="ldaps://myldapserver:636">
```

LDAP and UNIX Java CAPS Environments

If the application server to which Java CAPS application are deployed is running on a UNIX system, you must configure the LDAP Provider URL to connect to the LDAP server. The following is common for a Java CAPS environment.

- Application Server running on UNIX
- Java CAPS Repository running on Windows
- LDAP running on UNIX

In this environment, the LDAP provider URL in the Worklist Manager properties must be set to an exact URL.

▼ To Set an LDAP Provider URL

- 1 On the NetBeans Services window right-click the Worklist Manager External System under the CAPS environment, and then click Properties.
- 2 In the Configuration list, expand `WLMConnector External System Configuration`, and then, depending on the LDAP server you are using, click `Open Ldap Parameters` or `Sun Java System Directory Server/ADS/OID`.
- 3 In the LDAP Provider URL property, enter the exact URL to the LDAP server.

The URL for the LDAP server is `ldap://host:port`

where *host* is the name of the machine on which the LDAP server resides, and *port* is the port number on which the LDAP directory is listening. You can access the port number through the LDAP directory browser or administration tool you are using.

- 4 Click OK to save the changes.

Creating a Web Service Definition

Web Service Definitions, embodied as Web Service Definition Language (WSDL) files, can be used to invoke and operate web services on the internet and to access and invoke remote applications and databases. WSDL files are used when you are building a web service, and expose the business process as a web service.

Creating the Business Processes

Once you have created the Worklist Manager database and have the LDAP directory structure in place, you can create the main business process that contains the user activity and the sub-process that defines the user activity logic.

Creating the Sub-Process

The sub-process defines the flow of data through the user activity, and defines the access point for users to enter the required information.

▼ To Create the Sub-Process

- 1 Create the Visual Page Designer page flows that define the user activity.
- 2 Create a business process, and add the modeling elements including the Visual Page Designer page flows.
- 3 Link the modeling elements together.
- 4 Create the business rules for the links to define the mapping of data.
- 5 When you are done configuring the modeling elements, click Save on the NetBeans toolbar.

Creating a Partner

When creating a business process that will be used as a sub-process, you need to create a partner to associate with the receive and reply activities.

▼ **To Create a New Partner**

- 1 In the Projects window, right-click the sub-process, and then click Properties.
- 2 On the Business Process Properties window, click the Partners tab.
- 3 Click New, and enter a name for the partner.
- 4 Click OK.

Associating the Partner with Activities

Once you create a partner for the sub-process, you need to associate it with the implement or receive activity and the reply activity of the sub-process. This allows you to connect the components in the Connectivity Map.

▼ **To Associate the Partner With Activities**

- 1 In the business process, select the receive or implement activity.
- 2 On the Business Process Designer toolbar, click the Show Property Sheet icon.
- 3 In the Partner property, select the partner you created above.
- 4 Repeat for the reply activity.

Creating the Main Business Process

The main business process includes the user activity, and invokes the sub-process created in the previous step.

▼ **To Create the Main Business Process**

- 1 Create a business process, and add the modeling elements including a user activity.
- 2 Link the modeling elements together.
- 3 In the Projects window, expand the sub-process, and then drag the operation of the sub-process onto the user activity in the business process.
This node is named Operation by default, but you can customize the name in the WSD object.
- 4 Create the business rules for the links to define the mapping of data.

- 5 Define task assignment for the user activity, as described in [“Defining Task Assignment” on page 16](#).
- 6 When you are done configuring the modeling elements, click Save on the NetBeans toolbar.

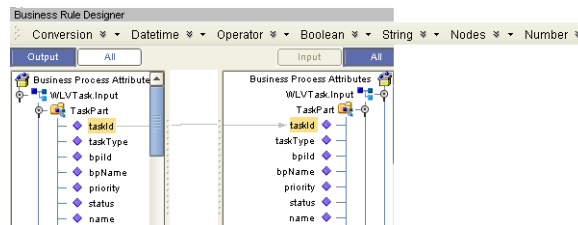
Configuring User Activities Inside While Loops

When creating a business process that includes a user activity inside a while loop, you must take a few extra steps. The following procedure provides the steps for configuring a user activity inside a while loop.

▼ To Configure a User Activity Inside a While Loop

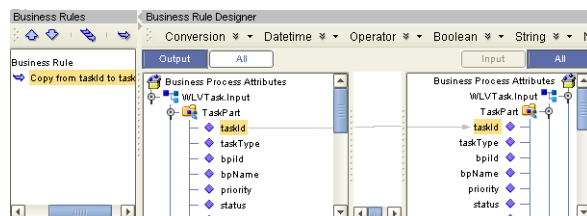
- 1 Create and configure a user activity as usual.
- 2 Add a business rule to the link leaving the user activity.
- 3 Open the Business Rule Designer and expand the WLVTask.Input node.
- 4 Copy a business process attribute from the Output panel to the All panel, as shown in [Figure 4](#). This creates an output container.

FIGURE 4 Copy Business Process Attribute



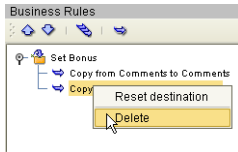
- 5 Open the Business Rules panel and click Show Single Mapping, as shown in [Figure 5](#).

FIGURE 5 Business Rules Editor



- 6 Right-click the Copy rule and click Reset Destination, as shown in Figure 6.

FIGURE 6 Reset Destination



- 7 On the NetBeans toolbar, click Save.

Defining Task Assignment

After the business processes are created and configured, you need to connect to the LDAP server and configure the user activity. To configure a user activity, you create expressions that define which users are assigned to a task under specific conditions. You can optionally define automatic task escalation and email notifications for user activities. The task assignment panel also provides a Visual Page Designer page mapper so you can expose values generated by the user activity to the page flow.

Note – One default expression is defined in the expression list, which cannot be deleted. This expression is used when no conditions defined for any other expression evaluate to true. At a minimum, you must configure the default expression by assigning a user to the expression; otherwise, business process validation will find a fatal error and you will be unable to deploy.

Creating a Task Assignment Expression

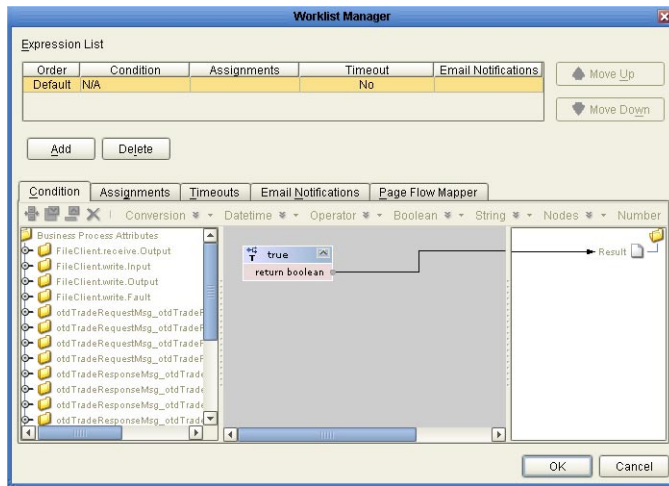
The flow of a specific task is defined by an expression. You can define multiple expressions for each user activity, each defining the conditions under which a task is assigned, the users to whom it is assigned, and what happens once the task is assigned.

▼ To Create a Task Assignment Expression

- 1 In the main business process, right-click the user activity to which you want to assign LDAP users, and then click Edit Task Assignment Panel.

The Worklist Manager window appears, as shown in Figure 7.

FIGURE 7 Worklist Manager Window: Expression List



- 2 In the upper section of the window, click Add.
A new expression appears in the expressions list.
- 3 If necessary, use the Move Up and Move Down buttons to place the expression in the correct order.
- 4 Configure the expression as described in the following sections.

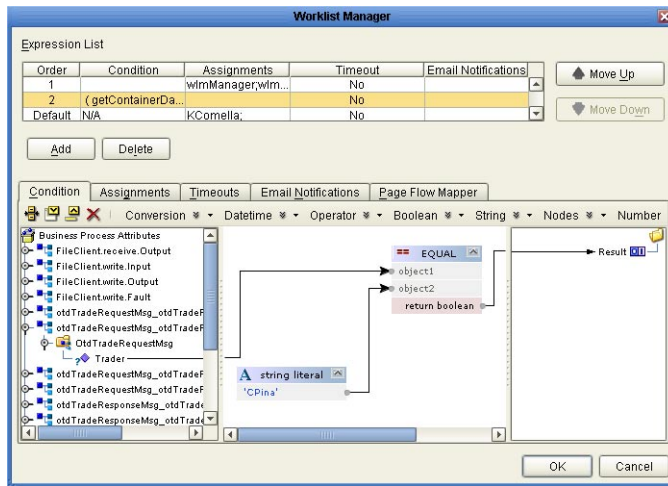
Defining Task Assignment Conditions

Conditions define how an activity is evaluated for user completion. The Conditions tab of the Worklist Manager window includes a Method Palette, similar to that of the Business Rule Designer. This step is required for all but the default expression.

▼ To Define Task Assignment Conditions

- 1 On the Worklist Manager window, click the Condition tab.
The Condition page appears, as shown in [Figure 8](#).
- 2 Define the conditions under which a task will be assigned.
[Figure 8](#) illustrates an example of using methods on the Condition page.

FIGURE 8 Worklist Manager Window: Condition Tab



- 3 Once the conditions are defined, continue to “Assigning Users to the Activity” on page 18.

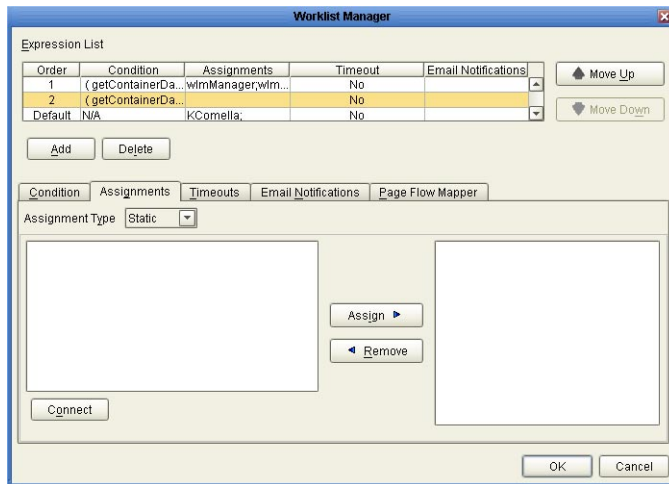
Assigning Users to the Activity

In this step, you can create either static or dynamic assignments for the user activity. With static assignments, you specify the users to whom tasks will be assigned when the conditions you defined on the Condition page have been met. To do this, you must connect to a running LDAP server. With dynamic assignments, you specify a field in the incoming data that contains the name of the user to whom that task is assigned. You do not need to connect to the LDAP server to create this assignment. This step is required for all expressions. If a user activity includes an expression with no users assigned, the business process will fail validation.

▼ To assign users to an activity

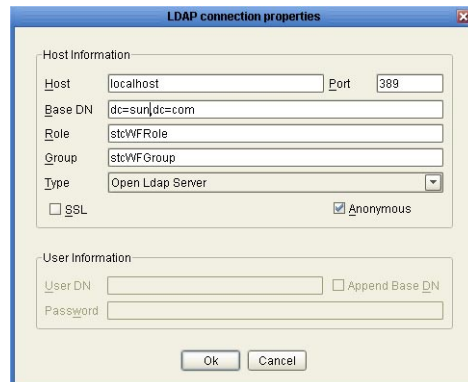
- 1 On the Worklist Manager window, click the Assignments tab.
The Assignments page appears, as shown in [Figure 9](#).

FIGURE 9 Worklist Manager Window: Static Assignments



- 2 To create static assignments, do the following:
 - a. On the Assignments page, make sure the Assignment Type is Static, and then click Connect. The LDAP connection properties dialog box appears.

FIGURE 10 LDAP connection properties Dialog Box



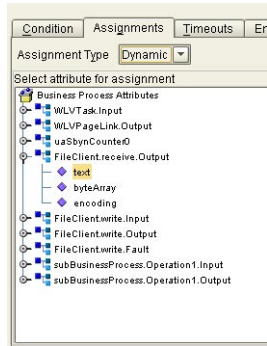
- b. Enter the values described in the table following these instructions, and then click OK. The left panel of the Assignments page is populated with the roles, groups, and users defined in your LDAP directory.
 - c. From the list in the left panel, select the roles, groups, or users you want to include for this task assignment, and then click Assign.

3 To create dynamic assignments, do the following:

a. In the Assignment Type field, select Dynamic.

The Assignments page changes to display attributes, as shown in [Figure 11](#).

FIGURE 11 Worklist Manager Window: Dynamic Assignments



b. In the attributes list, expand the list and select the field that will contain the name of the user to whom a task will be assigned.

4 Continue to “Defining Task Escalation” on page 21, or click OK if you are done defining the expression.

Field	Description
Host	The name of the computer on which the LDAP server resides.
Port	The port number on which the LDAP server listens for requests.
Base DN	The root Distinguished Name of the users directory; for example, dc=oracle,dc=com .
User Filter	The name of the object class to filter for Worklist Manager users. This is in the form (objectclass=*), where * is the name of the class.
Role (or Role Filter)	The name of the role to which Worklist Manager users are assigned, if any. If you are specifying a filter (for Oracle Internet Directory or Oracle Virtual Directory), this is in the format of a filter, as described above. This field is not required.
Group (or Group Filter)	The name of the group to which Worklist Manager users are assigned, if any. If you are specifying a filter (for Oracle Internet Directory or Oracle Virtual Directory), this is in the format of a filter, as described above. This field is not required.
Type	The type of LDAP server you are using.

Field	Description
SSL	An indicator of whether to encrypt data shared between the LDAP server and the Repository. Select this option if SSL is configured.
Anonymous	An indicator of whether to create an anonymous bind to the LDAP server or to use specific login credentials. If you deselect this check box, the fields below become enabled.
User DN	The distinguished name of the user to use to connect to the directory server.
Append Base DN	An indicator of whether to append the value of Base DN to the User DN for authentication.
Password	The password associated with the User DN above.

Defining Task Escalation

The Worklist Manager provides the ability to automatically escalate tasks based on either a duration of time or a deadline. When escalation is based on duration, the task can be escalated repeatedly. When it is based on a deadline, the task is only escalated once.

For duration-based escalation, the timer starts when a task is added and when a user checks in, reassigns, or escalates a task. If the specified duration passes without the timer stopping, the task is escalated to all unique managers of the assignee. The timer stops when a task is checked out or completed and when the task has been escalated as high as it can go.

For deadline-based escalation, the timer starts when a task is inserted. The task is only escalated if the timer does not stop prior to the deadline. The timer stops when a task is checked out, completed, or manually escalated. The timer also stops when the deadline is reached and the task is escalated.

Defining task escalation is optional.

Note – You can use a dialog box to format the deadline and duration for you. For information purposes only, the following formats are used:

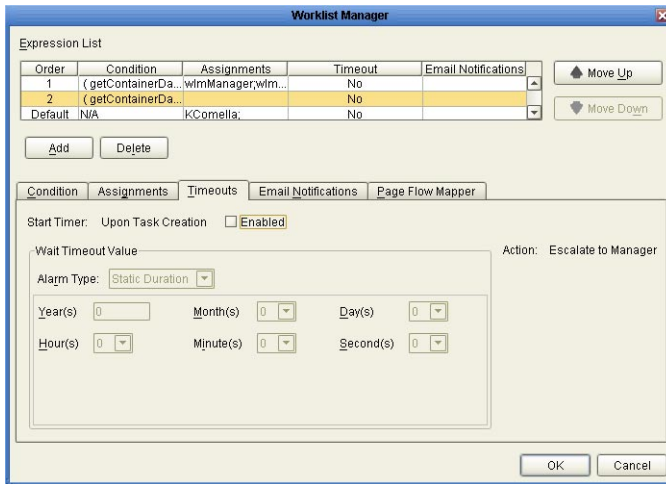
- **Deadlines:** YYYY-MM-DDTHHmmSS-*GMT_diff*, where *GMT_diff* represents the difference from Greenwich Mean Time. For example, 2011-03-31T12:00:00-8:0 indicates March 31, 2011 at noon Pacific Standard Time.
 - **Durations:** PxYxMxDTxHxMxS, where x represents the number of units, Y is years, the first M is months, D is days, H is hours, the second M is minutes, and S is seconds. For example, P0Y0M0DT1H30M0S indicates an hour and one-half duration.
-

▼ To Define Task Escalation

1 On the Worklist Manager window, click the Timeouts tab.

The Timeouts page appears, as shown in [Figure 12](#).

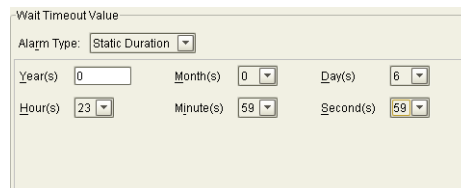
FIGURE 12 Worklist Manager Window: Timeouts Tab



- 2 Click the Enabled checkbox.
- 3 To set a duration for escalation, do the following:
 - a. In the Alarm Type field, select Static Duration.
 - b. Enter the duration in the fields provided.

[Figure 13](#) specifies that the task must be completed in just under one week before it is escalated.

FIGURE 13 Static Duration Fields



- 4 To set a deadline for the escalation, do the following:
 - a. In the Alarm Type field, select Static Deadline.
 - b. Enter the deadline in the fields provided.

Figure 14 specifies that the task must be completed before midnight on the last day of February, 2007.

FIGURE 14 Static Deadline Fields

The screenshot shows a dialog box titled "Wait Timeout Value". It contains the following fields:

- Alarm Type: Static Deadline (dropdown)
- Year: 2007 (text input)
- Month: 2 (dropdown)
- Day: 28 (dropdown)
- Hour: 23 (dropdown)
- Minute: 59 (dropdown)
- Second: 59 (dropdown)
- Time Zone: (GMT-08:00) Pacific Time (US & Canada) Tijuana (dropdown)

- 5 Continue to “Exposing User Activity Values to Visual Page Designer Pages” on page 23, or click OK if you are done defining the expression.

Exposing User Activity Values to Visual Page Designer Pages

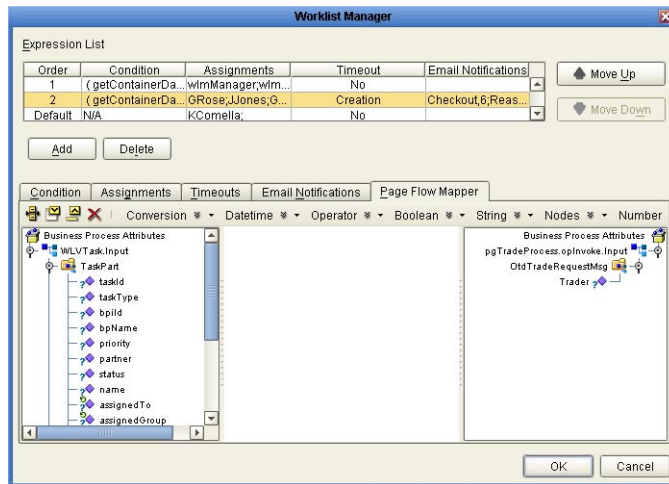
Using the Page Flow Mapper, you can expose values generated by the user activity to the associated Visual Page Designer pages. For example, if you map the assignedTo field, pages can be built that display the name of the task assignee.

The mapper has a Method Palette from which you can select methods to manipulate the data in the mapping. Exposing user activities to Visual Page Designer pages is optional.

▼ To Expose User Activity Values to Visual Page Designer Pages

- 1 On the Worklist Manager window, click the Page Flow Mapper tab.
The Page Flow Mapper page appears, as shown in Figure 15.

FIGURE 15 Worklist Manager Window: Page Flow Mapper



- 2 In the mapper, map any user activity fields in the left panel to nodes in the right panel.
- 3 Continue to **“Define Email Notifications for Tasks”** on page 24, or click OK if you are done defining the expression.

Define Email Notifications for Tasks

You can specify that certain users receive email notifications during different stages of task completion. For example, you might want to notify both the assignee and their managers when they are assigned a task. You can define email notifications for all types of task activities, including assignment, reassignment, escalation, check-ins, checkouts, and completion. This task is optional.

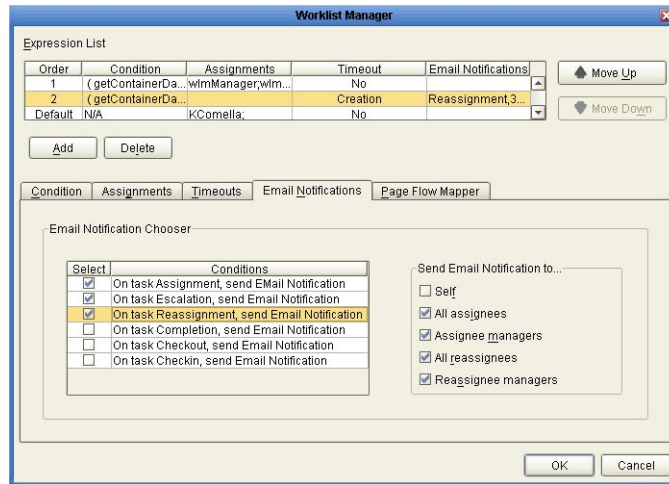
To define email notifications, complete the following tasks:

- Make sure that the LDAP entry for each user assigned to user activity tasks includes an attribute that defines their email address.
- Define email notification for tasks as described below (under **“Define Email Notifications for Tasks”** on page 24).
- Configure the Worklist Manager External System in the Environment:
 - Define the email properties (described under **“Defining email Notification Properties”** on page 30).
 - When configuring the LDAP connection properties, specify the name of the LDAP directory attribute that contains each user’s email address (this is described in **“Configuring the WorkList Manager”** on page 26 under the topic appropriate to the LDAP directory you are using).

▼ To Define email Notification for Tasks

- 1 On the Worklist Manager window, click the Email Notifications tab. The Email Notifications page appears, as shown in [Figure 15](#).

FIGURE 16 Worklist Manager Window: Email Notifications Tab



- 2 For each action for which you want to generate email notifications, do the following:
 - a. In the Conditions list, select the checkbox next to the action.
 - b. In the Send Email Notifications To list, select the users to whom the notifications should be sent.
- 3 Click OK.
- 4 In the NetBeans Services window, configure the Worklist Manager External System properties by doing the following:
- 5 Specify the email server connection properties, as described in [“Defining email Notification Properties” on page 30](#).
- 6 In the properties for the LDAP server, enter the name of the LDAP user attribute that contains the email address (for example, “mail”).

For more information about this property, see the topics under [“Configuring the WorkList Manager” on page 26](#) appropriate for the type of LDAP directory you are using.

Configuring the WorkList Manager

When you create the Environment for a user activity business process, you need to create and configure a Worklist Manager External System. The properties you configure for the external system define the Worklist Manager database connectivity, LDAP server and directory information, and custom labels for flex attributes. Perform the following steps to configure the Worklist Manager.

- [“Creating the Worklist Manager External System” on page 26](#)
- [“Defining WLM Configuration Properties” on page 26](#)
- [“Customizing Flex Attribute Labels” on page 28](#)
- [“Defining email Notification Properties” on page 30](#)

In addition, you must perform one of the following tasks:

- [“Configuring an Oracle Internet Directory Connection” on page 33](#)
- [“Configuring an OpenLDAP Connection” on page 31](#)
- [“Configuring an Oracle Directory Server Enterprise Edition Connection” on page 36](#)
- [“Configuring a Microsoft Active Directory Connection” on page 39](#)

Creating the Worklist Manager External System

The Worklist Manager External System is created in a Java CAPS Environment from the Services window in NetBeans.

▼ To Create the Worklist Manager External System

- 1 In the NetBeans Services window, expand CAPS Environments.
- 2 If necessary, right-click the user activity Environment and use Version Control to check it out.
- 3 Right-click the Environment for the user activity Project, point to New, and then click Work List Manager.
- 4 Enter a name for the Worklist Manager External System, and then click OK.
- 5 Right-click the new external system in the Environment tree, and then click Properties. The Properties window appears.
- 6 Configure the Worklist Manager, as described in the following sections.

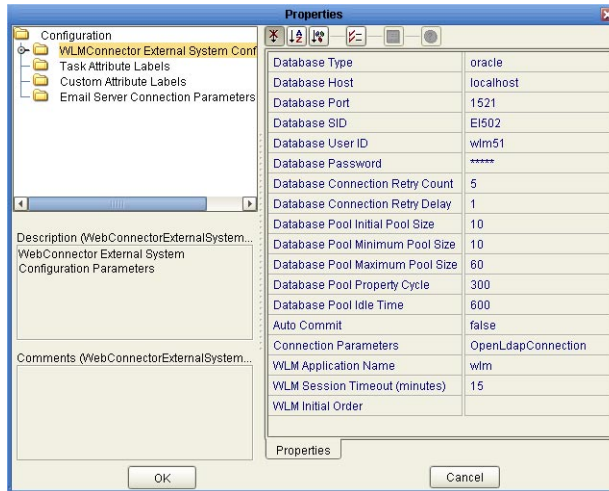
Defining WLM Configuration Properties

The configuration properties of the Worklist Manager define information about the Worklist Manager database and application.

▼ To Define Configuration Properties

- 1 On the Worklist Manager Properties window, click WLMConnector External System Configuration (shown in Figure 17).

FIGURE 17 Worklist Manager External System Configuration



- 2 Enter values for the properties described in the following table and click OK.

Property	Description
Database Type	The type of database you are using. Select from oracle , sybase , sqlserver , or db2 .
Database Host	The name of the database server.
Database Port	The port number on which the database is listening.
Database SID	The SID name of the database.
Database User ID	The login ID of the WLM user for the database. This should be the same user as was created by the WLM database installation scripts.
Database Password	The password for the WLM user.
Database Connection Retry Count	The number of times the driver will try to connect to the database after an unsuccessful attempt.
Database Connection Retry Delay	The number of seconds the driver waits before retrying to connect to the database server.
Database Initial Pool Size	The number of physical connections with which the database will be initialized.

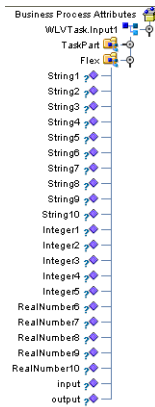
Property	Description
Database Pool Minimum Pool Size	The minimum number of physical connections in the database pool.
Database Pool Maximum Pool Size	The maximum number of physical connections in the database pool.
Database Pool Property Cycle	The frequency in seconds that the database pool manager should check the pool.
Database Pool Idle Time	The length of time a physical connection can be inactive.
Auto Commit	An indicator of whether to enable the auto-commit feature of the database.
Connection Parameters	The type of LDAP directory you are using. Select from Oracle Internet Directory, Sun Java System Directory Server (for Oracle Directory Server Enterprise Edition), ActiveDirectoryConnection, or OpenLdapConnection.
WLM Application Name	The name of the Worklist Manager application that is generated when you deploy the Project. This name is part of the URL used to log into the Worklist Manager and should be unique for each user activity business process. You can deploy multiple business process with user activities to the same Environment, but each WLM application must have a unique name. In that case, the Environment must include multiple Worklist Manager External Systems.
WLM Session Timeout (minutes)	The number of minutes the Worklist Manager can remain idle before timing out.
WLM Initial Order	The order of the fields on the Worklist Manager. When you click the ellipses next to this property, the Ordering Sequence dialog box appears, where you can select the fields to display on the Worklist Manager, and the order in which they appear.

Customizing Flex Attribute Labels

Flex attributes are customizable attributes that aid in task assignment. The attributes appear in the Business Rule Designer (as shown in [Figure 18](#)) as well as in columns of the Worklist Manager.

You can map values to these attributes in the Business Rule Designer so the values appear in the Worklist Manager. You can also label the attributes to make them easy to identify in the Worklist Manager.

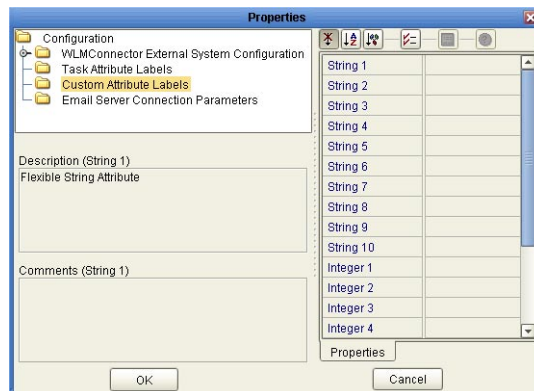
FIGURE 18 Flex Attributes in the Business Rule Designer



▼ To Customize Flex Attribute Labels

- 1 From the NetBeans Services window, right-click the Worklist Manager External System.
- 2 Click Properties.
The Properties dialog box appears.
- 3 Click Custom Attribute Labels, as shown in [Figure 19](#).

FIGURE 19 Flex Attributes



- 4 Define labels for as many attributes as necessary.
- 5 Click OK.

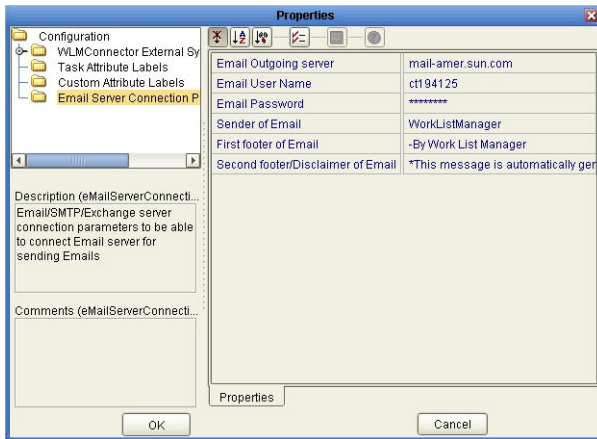
Defining email Notification Properties

If you defined email notifications on the Worklist Manager window for a user activity (see “[Define Email Notifications for Tasks](#)” on page 24), you need to define the connection properties for the email server in the Worklist Manager External System properties. You also need to modify the LDAP properties for the directory server you are using by specifying the name of the attribute that contains the users’ email addresses.

▼ To Define email Notification Properties

- 1 On the Worklist Manager Properties window, click Email Server Connection Parameters (shown in [Figure 17](#)).

FIGURE 20 Email Server Connection Properties



- 2 Enter values for the properties described in the following table.
- 3 Click OK.

Property	Description
Email Outgoing server	The name of the email server on which the Worklist Manager email notifications are sent.
Email User Name	The login ID for the email account used by the Worklist Manager.
Email Password	The password for the email account.

Property	Description
Sender of Email	The name that should appear in the email as the sender. This property is used to create a URL, so it cannot contain any spaces.
First footer of Email	A footer for the email notifications.
Second footer/Disclaimer of Email	A second footer or disclaimer for the email notifications.

Configuring an OpenLDAP Connection

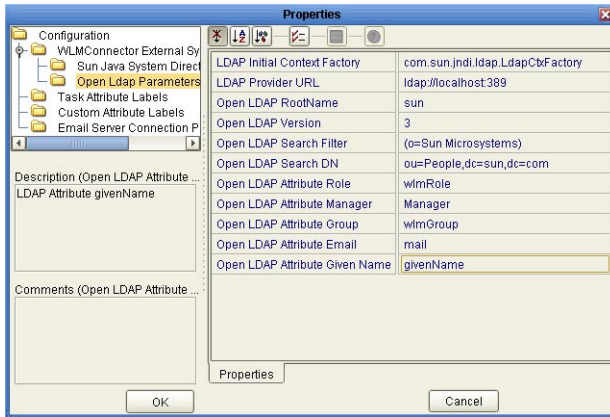
To use OpenLDAP with the Worklist Manager, you must specify certain information about the LDAP directory structure so the Worklist Manager knows where to find the user information defined in the directory. You can use your existing directory structure as long as there is a mechanism for defining a user reporting hierarchy.

The Worklist Manager uses an anonymous bind with OpenLDAP, so you do not need to specify credentials for the security principal.

▼ To Configure an OpenLDAP Connection

- 1 From the NetBeans Services window, expand CAPS Environments and expand the Environment for the WLM Project.
- 2 Right-click the Worklist Manager External System, and then click Properties.
- 3 On the Properties window, verify that the Connection Parameters property is set to OpenLdapConnection.
- 4 Expand WLMConnector External System Configuration, and then click Open Ldap Parameters. The OpenLDAP properties appear, as shown in [Figure 21](#).

FIGURE 21 OpenLDAP Configuration Properties



5 Enter values for the properties in the following table.

Note – Modify these values to suit your existing directory structure and attributes.

6 Click OK.

Property	Description
LDAP Initial Context Factory	The fully qualified name of the factory class that creates the initial context. The initial context is the starting point for JNDI naming operations.
LDAP Provider URL	The URL of the LDAP server. The format of the URL is <code>ldap://host:port</code> , where <i>host</i> is the name of the computer hosting the LDAP server, and <i>port</i> is the port number on which the LDAP server is listening for requests.
Open LDAP RootName	The name of the root node in the LDAP directory. For example, if the root node is <code>dc=oracle,dc=com</code> , the value for this property would be oracle .
Open LDAP Version	The version of OpenLDAP you are running.
Open LDAP Search Filter	A search filter used by the Worklist Manager to search for users. The Worklist Manager will only find those users described by the filter. For example, to use an organization name as the search filter where all Worklist Managers are assigned to the oracle organization, the value for this property would be (o=oracle) .

Property	Description
Open LDAP Search DN	The DN of the root entry of the portion of the LDAP directory where the Worklist Manager will start the search for users. For example, if users are all defined in an organizational unit named People , the value for this property would be similar to ou=People,dc=oracle,dc=com .
Open LDAP Attribute Role	The name of the role attribute in the LDAP directory to which Worklist Manager users belong. Only enter a value for this property if you have defined a role to which all Worklist Manager users are assigned.
Open LDAP Attribute Manager	The name of the attribute that specifies reporting hierarchy in the LDAP directory. This is the attribute assigned to a user that specifies who they report to. You can use <i>Manager</i> , the predefined attribute for OpenLDAP, or you can create a custom attribute. The Worklist Manager uses this entry to create the list of users to whom a supervisor can reassign tasks, and to specify the supervisor when a task is escalated.
Open LDAP Group	The name of the group attribute in the LDAP directory to which Worklist Manager users belong. Only enter a value for this property if you have defined a group to which all Worklist Manager users are assigned.
Open LDAP Email	The name of the attribute that contains a user's email addresses. This is used in email notification.
Open LDAP Attribute Given Name	The name of the attribute that contains a user's first name. This is used in email notification.

Configuring an Oracle Internet Directory Connection

To use the Oracle Internet Directory with the Worklist Manager, you must specify certain information about the LDAP directory structure so the Worklist Manager knows where to find the user information defined in the directory. You can use your existing directory structure as long as there is a mechanism for defining a user reporting hierarchy.

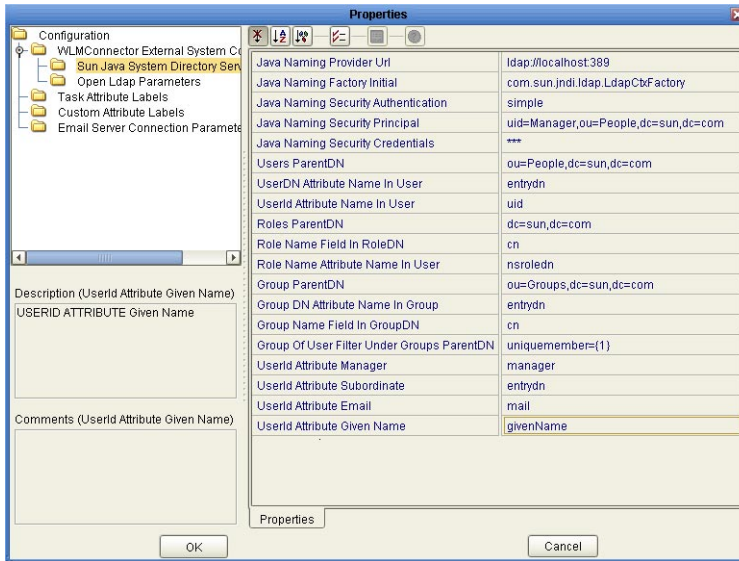
▼ To Configure an Oracle Internet Directory Connection

- 1 From the NetBeans Services window, expand CAPS Environments and expand the Environment for the WLM Project.
- 2 Right-click the Worklist Manager External System, and then click Properties.
- 3 On the Properties window, verify that the Connection Parameters property is set to Oracle Internet Directory.

4 Expand WLMConnector External System Configuration, and then click Sun Java System Directory Server/ADS/OID.

The LDAP properties appear, as shown in Figure 21.

FIGURE 22 Oracle Internet Directory Configuration Properties



5 Enter the property values for the properties described in the table at the end of this procedure.

Note – Depending on how your LDAP directory is set up, not all of these fields are required. The default configuration is not necessarily illustrative of an actual implementation.

6 Click OK.

Property	Description
Java Naming Provider URL	The URL of the LDAP server. The format of the URL is <code>ldap://host:port</code> , where <i>host</i> is the name of the computer hosting the LDAP server, and <i>port</i> is the port number on which the LDAP server is listening for requests.
Java Naming Factory Initial	The fully qualified name of the factory class that creates the initial context. The initial context is the starting point for JNDI naming operations.

Property	Description
Java Naming Security Authentication	The security level to use in JNDI naming operations. Enter one of the following values: <ul style="list-style-type: none"> ■ none: Authentication is not required. Use this for anonymous access. ■ simple: Authentication requires a user name and password. You must enter the security principal and credentials below.
Java Naming Security Principal	The DN of the security principal used for connecting to the LDAP server.
Java Naming Security Credentials	The password of the naming security principal.
Users ParentDN	The parent DN of the user entries. This property specifies the root entry of the Users portion of the LDAP directory; for example, cn=People,dc=oracle,dc=com .
UserDN Attribute Name In User	The name of the attribute in a user entry where the user's DN is defined.
UserId Attribute Name In User	The name of the naming attribute in each user entry.
Roles Parent DN	The parent DN of the role entries. This property specifies the root entry of the Roles portion of the LDAP directory; for example, dc=oracle,dc=com .
Role Name Field In RoleDN	The name of the attribute in a role entry that specifies the name of the role.
Role Name Attribute Name In User	The name of the attribute in a user entry that specifies the DN of the roles to which a user is assigned.
Group ParentDN	The parent DN of the group entries. This property specifies the root entry of the Groups portion of the LDAP directory; for example cn=Groups,dc=oracle,dc=com .
Group DN Attribute Name In Group	The name of the attribute in a group entry that specifies the distinguished name of the group.
Group Name Field In Group DN	The name of the attribute in a group entry that specifies the name of the group.
Group Of User Filter Under Groups ParentDN	The LDAP search filter used to retrieve all of a user's groups. This property follows the syntax supported by the <code>java.text.MessageFormat</code> class with {1} marking where the user's DN should be inserted. For example, <code>uniquemember={1}</code> .
UserId Attribute Manager	The name of the attribute in a user entry that specifies the person the user reports to. The default value is <i>manager</i> . You can also use the <i>entrydn</i> for this purpose, or you can create custom attributes to define an upward reporting structure. <p>Note – To enable task escalation and re-assignment, this value must be <i>manager</i> and each user entry in the LDAP directory must include a manager attribute that specifies the supervisor by their entry DN.</p>

Property	Description
UserId Attribute Subordinate	The name of the attribute in a user entry that specifies the people who report to the user. The default value is <i>directReports</i> . You can use a default attribute for this purpose or you can create custom attributes to define the downward reporting structure. Note – To enable task escalation and re-assignment, this value must be <code>entrydn</code> and the reporting structure for each user must be defined in their <code>entrydn</code> attribute in the LDAP directory.
UserId Attribute Email	The name of the attribute in a user entry that specifies an email address. The default value is <i>mail</i> . This is used for email notifications (as defined in the Worklist Manager window for a user activity in the business process).
UserId Attribute Given Name	The name of the attribute in a user entry that specifies a user's first name. The default value is <i>givenName</i> . This is used during email notification.

Configuring an Oracle Directory Server Enterprise Edition Connection

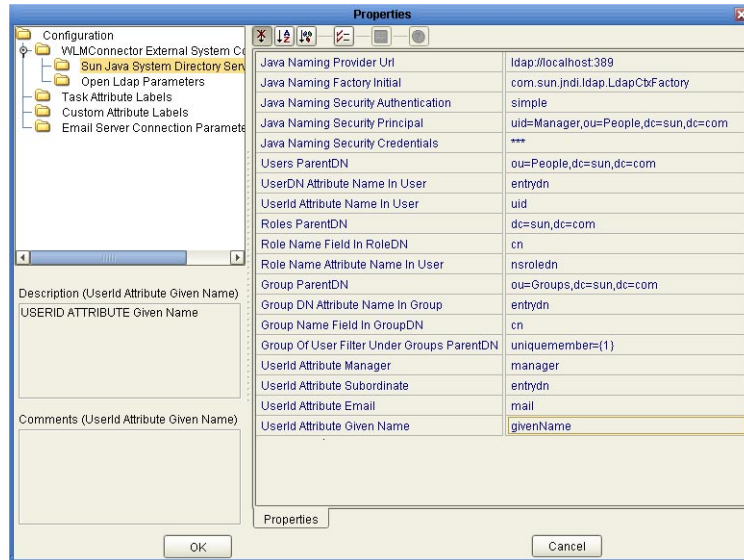
To use the Oracle Directory Server Enterprise Edition (previously Sun Java System Directory Server) with the Worklist Manager, you must specify certain information about the LDAP directory structure so the Worklist Manager knows where to find the user information defined in the directory. You can use your existing directory structure as long as there is a mechanism for defining a user reporting hierarchy.

▼ To Configure an Oracle Directory Server Connection

- 1 From the NetBeans Services window, expand CAPS Environments and expand the Environment for the WLM Project.
- 2 Right-click the Worklist Manager External System, and then click Properties.
- 3 On the Properties window, verify that the Connection Parameters property is set to Sun Java System Directory Server.
- 4 Expand WLMConnector External System Configuration, and then click Sun Java System Directory Server/ADS/OID.

The LDAP properties appear, as shown in [Figure 21](#).

FIGURE 23 Oracle Directory Server Enterprise Edition Configuration Properties



- 5 Enter the property values for the properties described in the table at the end of this procedure.

Note – Depending on how your LDAP directory is set up, not all of these fields are required. The default configuration is not necessarily illustrative of an actual implementation.

- 6 Click OK.

Property	Description
Java Naming Provider URL	The URL of the LDAP server. The format of the URL is <code>ldap://host:port</code> , where <i>host</i> is the name of the computer hosting the LDAP server, and <i>port</i> is the port number on which the LDAP server is listening for requests.
Java Naming Factory Initial	The fully qualified name of the factory class that creates the initial context. The initial context is the starting point for JNDI naming operations.
Java Naming Security Authentication	The security level to use in JNDI naming operations. Enter one of the following values: <ul style="list-style-type: none"> ■ none: Authentication is not required. Use this for anonymous access. ■ simple: Authentication requires a user name and password. You must enter the security principal and credentials below.
Java Naming Security Principal	The DN of the security principal used for connecting to the LDAP server.

Property	Description
Java Naming Security Credentials	The password of the naming security principal.
Users ParentDN	The parent DN of the user entries. This property specifies the root entry of the Users portion of the LDAP directory; for example, ou=People,dc=oracle,dc=com .
UserDN Attribute Name In User	The name of the attribute in a user entry where the user's DN is defined. The default value is <i>entrydn</i> , which is the default name for the Oracle Directory Server Enterprise Edition attribute.
UserId Attribute Name In User	The name of the naming attribute in each user entry. The default name for this attribute in the Oracle Directory Server Enterprise Edition is <i>uid</i> , but can also be cn .
Roles Parent DN	The parent DN of the role entries. This property specifies the root entry of the Roles portion of the LDAP directory; for example, dc=oracle,dc=com .
Role Name Field In RoleDN	The name of the attribute in a role entry that specifies the name of the role. The default name for this attribute in the Oracle Directory Server Enterprise Edition is cn .
Role Name Attribute Name In User	The name of the attribute in a user entry that specifies the DNs of the roles to which a user is assigned. The default value is <i>nsroledn</i> , which is the default attribute name in the Oracle Directory Server Enterprise Edition.
Group ParentDN	The parent DN of the group entries. This property specifies the root entry of the Groups portion of the LDAP directory; for example ou=Groups,dc=oracle,dc=com .
Group DN Attribute Name In Group	The name of the attribute in a group entry that specifies the name of the group. The default value is <i>entrydn</i> , which is the default name for the Oracle Directory Server Enterprise Edition attribute.
Group Name Field In Group DN	The name of the attribute in a group entry that specifies the name of the group. The default name for this attribute in the Oracle Directory Server Enterprise Edition is cn .
Group Of User Filter Under Groups ParentDN	The LDAP search filter used to retrieve all of a user's groups. This property follows the syntax supported by the <code>java.text.MessageFormat</code> class with {1} marking where the user's DN should be inserted. For example, <code>uniquemember={1}</code> .

Property	Description
UserId Attribute Manager	<p>The name of the attribute in a user entry that specifies the person the user reports to. The default value is <i>manager</i>, which is the attribute the Oracle Directory Server Enterprise Edition provides for this purpose. You can also use the <i>entrydn</i> for this purpose, or you can create custom attributes to define an upward reporting structure.</p> <p>Note – To enable task escalation and re-assignment, this value must be <i>manager</i> and each user entry in the LDAP directory must include a <i>manager</i> attribute that specifies the supervisor by their <i>entrydn</i>.</p>
UserId Attribute Subordinate	<p>The name of the attribute in a user entry that specifies the people who report to the user. The default value is <i>directReports</i>, which is not used in the Oracle Directory Server Enterprise Edition. You can use a default attribute, such as <i>secretary</i> or <i>entrydn</i>, or you can create custom attributes to define the downward reporting structure.</p> <p>Note – To enable task escalation and re-assignment, this value must be <i>entrydn</i> and the reporting structure for each user must be defined in their <i>entrydn</i> attribute in the LDAP directory.</p>
UserId Attribute Email	<p>The name of the attribute in a user entry that specifies an email address. The default value is <i>mail</i>, which is the attribute the Oracle Directory Server Enterprise Edition provides for this purpose. This is used for email notifications (as defined in the Worklist Manager window for a user activity in the business process).</p>
UserId Attribute Given Name	<p>The name of the attribute in a user entry that specifies a user's first name. The default value is <i>givenName</i>, which is the attribute the Oracle Directory Server Enterprise Edition provides for this purpose. This is used during email notification.</p>

Configuring a Microsoft Active Directory Connection

To use Microsoft Active Directory with the Worklist Manager, you must specify certain information about the LDAP directory structure so the Worklist Manager knows where to find the user information defined in the directory. You can use your existing directory structure as long as there is a mechanism for defining a user reporting hierarchy.

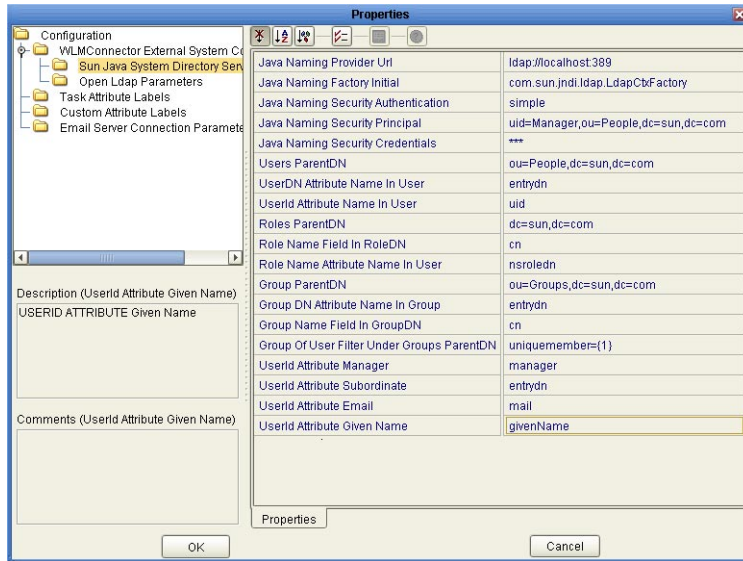
▼ To Configure a Microsoft Active Directory Connection

- 1 From the NetBeans Services window, expand CAPS Environments and expand the Environment for the WLM Project.
- 2 Right-click the Worklist Manager External System, and then click Properties.
- 3 On the Properties window, verify that the Connection Parameters property is set to `ActiveDirectoryConnection`.

4 Expand WLMConnector External System Configuration, and then click Sun Java System Directory Server/ADS/OID.

The LDAP properties appear, as shown in Figure 21.

FIGURE 24 Microsoft Active Directory Configuration Properties



5 Enter the property values for the properties described in the table following this procedure.

Note – Depending on how your LDAP directory is set up, not all of these fields are required. The default configuration is not necessarily illustrative of an actual implementation.

6 Click OK to close the Properties dialog box.

Property	Description
Java Naming Provider URL	The URL of the LDAP server. The format of the URL is <code>ldap://host:port</code> , where <i>host</i> is the name of the computer hosting the LDAP server, and <i>port</i> is the port number on which the LDAP server is listening for requests.
Java Naming Factory Initial	The fully qualified name of the factory class that creates the initial context. The initial context is the starting point for JNDI naming operations.

Property	Description
Java Naming Security Authentication	The security level to use in JNDI naming operations. Enter one of the following values: <ul style="list-style-type: none"> ■ none: Authentication is not required. Use this for anonymous access. ■ simple: Authentication requires a user name and password. You must enter the security principal and credentials below.
Java Naming Security Principal	The DN of the security principal used for connecting to the LDAP server.
Java Naming Security Credentials	The password of the naming security principal.
Users ParentDN	The parent DN of the user entries. This property specifies the root entry of the Users portion of the LDAP directory; for example, cn=Users,dc=oracle,dc=com .
UserDN Attribute Name In User	The name of the attribute in a user entry where the user's DN is defined. If you are using the default schema for Active Directory, enter <i>distinguishedName</i> for this property.
UserId Attribute Name In User	The name of the attribute in a user entry that defines the user's login ID. The default name for this attribute in Active Directory is <i>sAMAccountName</i> .
Roles ParentDN	The parent DN of the role entries. This property specifies the root entry of the Roles portion of the LDAP directory; for example, ou=orclRoles,dc=oracle,dc=com .
Role Name Field In RoleDN	The name of the attribute in a role entry that specifies the name of the role. The default name for this attribute in Active Directory is <i>cn</i> .
Role Name Attribute Name In User	The name of the attribute in a user entry that specifies the roles to which a user is assigned. The default value, <i>nsroledn</i> , does not apply to Active Directory. The default attribute used by Active Directory is <i>memberOf</i> .
Group ParentDN	The parent DN of the group entries. This property specifies the root entry of the Groups portion of the LDAP directory; for example ou=orclGroup,dc=oracle,dc=com .
Group DN Attribute Name In Group	The name of the attribute in a group entry that specifies the DN of the group. If you are using the default schema for Active Directory, enter <i>distinguishedName</i> for this property.
Group Name Field In Group DN	The name of the attribute in a group entry that specifies the name of the group. The default name for this attribute in Active Directory is <i>cn</i> .
Group Of User Filter Under Groups ParentDN	The LDAP search filter used to retrieve all of a user's groups. This property follows the syntax supported by the <code>java.text.MessageFormat</code> class with {1} marking where the user's DN should be inserted. For example (for Active Directory only), <code>(&(member={1}))(objectclass=group)</code> .

Property	Description
UserId Attribute Manager	The name of the attribute in a user entry that specifies the person a user reports to. The default value is <i>manager</i> , which is the attribute that Active Directory provides for this purpose. You can also create custom attributes to define a reporting structure.
UserId Attribute Subordinate	The name of the attribute in a user entry that specifies the people who report to the user. The default value is <i>directReports</i> , which is the attribute that Active Directory provides for this purpose. In Active Directory, <i>directReports</i> is linked referentially to <i>manager</i> , above.
UserId Attribute Email	The name of the user attribute that specifies an email address. The default value is <i>mail</i> , which is the attribute that Active Directory provides for this purpose. This is used for email notifications (as defined in the Worklist Manager window for a user activity in the business process).
UserId Attribute Given Name	The name of the user attribute that specifies a user's first name. The default value is <i>givenName</i> , which is the attribute that Active Directory provides for this purpose. This is used during email notification.

Using the Worklist Manager

The web-based Worklist Manager allows you to view and manage your list of tasks. The list contains your own tasks, as well as the tasks of any subordinates assigned to you. You can manage your tasks and the tasks of your subordinates, or you can escalate a task assigned to you.

Managing Tasks

From the Worklist Manager, you can manage your tasks and the tasks of your reports. The checkout and checkin features provide version control, and are necessary to ensure that more than one person is not working on the same task. You must check out a task before you can make any changes.

▼ To Manage Tasks

- 1 **Open a web browser and access the Worklist Manager by entering the following URL:**

`http://hostname:port/wlm_application_name`

where

- *hostname* is the system on which the Repository is running.
- *port* is the port number to access the Repository. This is the HTTP property (the default value is 18001).

- *wlm_application_name* is the configurable name of the Worklist Manager application. This property is defined in the WLMConnector External System Configuration settings of the Worklist Manager External System properties.

2 Enter your login information, and then click Login.

The Worklist Manager appears, as shown in [Figure 25](#).

FIGURE 25 Worklist Manager Task List

Task Type	Task Type Priority	Assigned To	Current Owner	Status	Start Date*
User Activity	Medium	KComella	--	Pending	2007-02-09 18:57:38.0
User Activity	Medium	GRose	--	Pending	2007-02-09 15:00:54.0
User Activity	Medium	GRose	GRose	Pending	2007-02-09 12:24:32.0
User Activity	Medium	kcomella	KComella	Pending	2007-02-09 11:34:51.0
User Activity	Medium	KComella	KComella	Pending	2007-02-09 11:23:37.0
User Activity	Medium	KComella	--	Pending	2007-02-09 10:52:52.0
User Activity	Medium	grose	GRose	Pending	2007-02-09 10:52:52.0
User Activity	Medium	KComella	--	Completed	2007-02-07 17:31:08.0
User Activity	Medium	KComella	--	Pending	2007-02-07 17:21:29.0
User Activity	Medium	kcomella	KComella	Pending	2007-02-07 16:55:39.0

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Buttons: Checkout, Checkin, Escalate, History, Reassign selected task to: GRose, Reassign, Execute, Cor

3 To complete a task, do the following:

- Select the task from the list.
- Click **Checkout**.
- Click **Execute**.

The task to be completed appears.

- Complete the task.
- Click **Complete**.

Note – Clicking Complete commits any changes you have made to the Worklist Manager. If you do not click Complete, any changes made to a task are lost.

- 4 To escalate one of your tasks to your manager, do the following:
 - a. Select the task from the list.
 - b. Click Escalate.
- 5 To reassign a task to one of your reports:
 - a. Select the task from the list.
 - b. In the drop-down list next to the Reassign button, select the name of the user to whom you want to assign the task.
 - c. Click Reassign.

Viewing Task Histories

The Worklist Manager provides a complete history of changes made to each task. You can view the changes from the Worklist Manager.

▼ To View Task Histories

- 1 On the Worklist Manager, select a task from the list to view its history.
- 2 Click History.

The Task History page appears, as shown in [Figure 26](#).

FIGURE 26 Worklist Manager History Page



Order	Changed By	Action	Assigned To	Date
1	system	Created	[CPina, KComella, GRose]	2006-12-20 13:25:41.0
2	CPina	Checked Out	[CPina, KComella, GRose]	2007-01-23 13:49:29.0
3	CPina	Escalated	[KComella]	2007-01-23 13:49:36.0
4	KComella	Checked Out	[KComella]	2007-01-23 13:50:33.0

- 3 When you are done viewing the history, click Close.

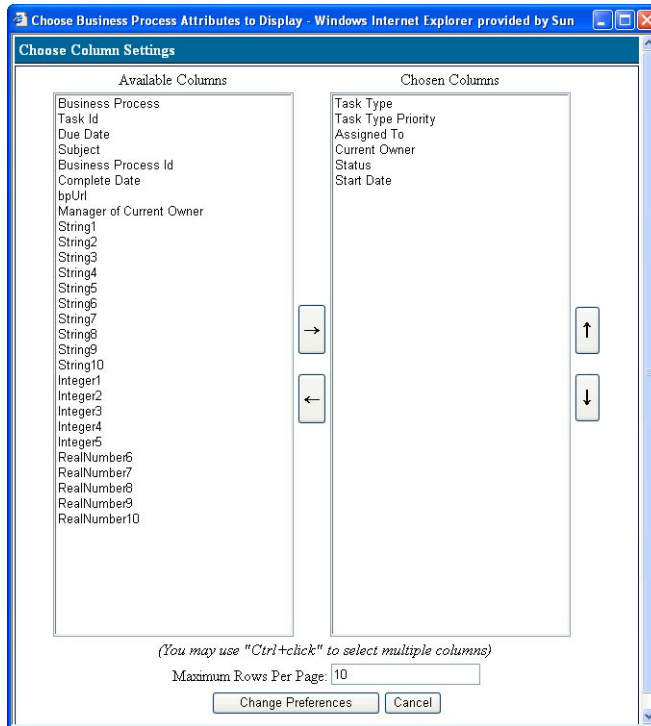
Configuring Task Assignment Fields

You can specify the columns that appears on the main page of the Worklist Manager, and you can specify the order in which they appear. Columns include standard Worklist Manager fields along with any flex attributes you defined.

▼ To Configure Task Assignment Fields

- 1 On the Worklist Manager toolbar, click Set Preferences.
The Choose Column Settings page appears, as shown in [Figure 27](#).

FIGURE 27 Worklist Manager: Choose Column Settings



- 2 Select the columns from the Available Columns list that you want to display on the Worklist Manager main page.
- 3 Click the right arrow button.
- 4 To change the order of columns, select a column and click the up or down arrow button until it is in the position you want.
- 5 To remove a column from the main page, select the columns to remove from the Chosen Columns list, and then click the left arrow button.
- 6 When you are done changing the columns, click Change Preferences.

Viewing Flex Attributes

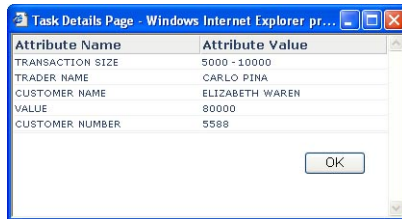
If you mapped values to any of the flex attributes in the user activity, you can view the values for those attributes in the Worklist Manager.

▼ To View Flex Attributes

- 1 On the Worklist Manager toolbar, click Get Details.

The Task Details page appears.

FIGURE 28 Task Details Page



- 2 When you are done viewing the attribute details, click OK.

