
Tutorial for Building Mobile Applications for Windows CE

You can implement Mobile applications with Oracle Database Lite for WinCE. Oracle Database Lite supports various application models for the Windows Mobile/Pocket PC device, such as ODBC, JDBC, and ADO.NET. When developing your own WinCE application, you can use Visual Studio 2005.

This chapter uses a tutorial to demonstrate how to create, deploy, administer, and use a Windows CE application. The tutorial shows a Visual Basic.NET (Visual Studio.NET) application that uses the Oracle Database Lite ADO.NET interface for Windows Mobile.

The following sections detail the development process:

- [Section 20.1, "Overview of the WinCE Sample Application"](#)
- [Section 20.2, "Develop the Application"](#)
- [Section 20.3, "Create Publication for Application"](#)
- [Section 20.4, "Package and Publish the Application"](#)
- [Section 20.5, "Administer the Application"](#)
- [Section 20.6, "Run the Application on the Windows Mobile/Pocket PC Device"](#)

20.1 Overview of the WinCE Sample Application

The sample WinCE application details typical activities of delivery personnel in the Transportation and Logistics industry, which includes package pick-up and delivery.

1. Before he leaves the dispatch center, the delivery person collects the complete delivery package list and the package delivery destination information for the day on his device.
2. As he delivers and picks-up packages, the delivery person updates the package pick-up and delivery status on his client device.
3. When he returns to the dispatch center, he synchronizes his updated information with the central server running in the dispatch center over any wireless network.

20.1.1 Before You Start

Before starting the Mobile application development process, you must ensure that the development computer and the client device meet the requirements specified below.

- [Section 20.1.1.1, "Application Development Computer Requirements"](#)

- [Section 20.1.1.2, "Client Device Requirements"](#)

20.1.1.1 Application Development Computer Requirements

[Table 20–1](#) lists the configuration and installation requirements for the Mobile application development computer.

Table 20–1 Application Development Computer Requirements

Requirement	Description
Windows NT/2000/XP User Login	The login user on the Windows NT/2000 development computer must have "Administrator" privileges.
Installed Java Components	Java Development Kit 1.4.2 or higher.
Installed Oracle Database Lite 10g Components	Oracle Database 9.2 or higher. The Mobile Server (Oracle Database Lite CD-ROM). The Mobile Development Kit (Oracle Database Lite CD-ROM).
Installed Windows Mobile/Pocket PC Components	Microsoft Active Sync 3.8 or higher.

20.1.1.2 Client Device Requirements

You must connect the client device to the desktop and install the Oracle Database Lite client for Pocket PC on the device. For more information on how to install the Mobile Client on the device, see [Section 20.6.1, "Install the Oracle Database Lite Mobile client for Pocket PC"](#).

20.2 Develop the Application

This section explains how to develop and test the WinCE Transport application using the Mobile Development Kit. The WinCE Transport application is written in Visual Basic.NET (Visual Studio.NET).

To develop and test the WinCE Transport application, perform the following tasks.

1. [Section 20.2.1, "Create Database Objects in the Oracle Server"](#)
2. [Section 20.2.2, "Write the Application Code"](#)
3. [Section 20.2.3, "Compile the Application"](#)

20.2.1 Create Database Objects in the Oracle Server

During deployment, the Mobile Server automatically creates the Oracle Database Lite database in the client device along with the requisite tables and data. To publish the application, users must create the database objects used by the application in the back-end Oracle database.

20.2.1.1 The WinCE Transport Application Database Objects

The WinCE Transport application uses the following database objects:

- Packages Table
- Routes Table
- Trucks Table

Table 20–2 lists the columns for the Packages table for storing information about the package.

Table 20–2 Packages Table

Column	Description
DID	Package ID
DDSC	Package Description
DWT	Package Weight
DSTR	Destination Street
DCTY	Destination City
DST	Destination State
DRTNR	Route Number
DRTNM	Route Name
DESN	Signature
DSTS	Package Status
TID	Truck Number
PRTY	Priority
PTNO	Point Number
TIND	Delivery 'D', or Pick-up 'P'

Table 20–3 lists the columns for the Routes table for storing information about a route.

Table 20–3 Routes Table

Column	Description
ROUTE_NO	Route Number (Primary Key)
ROUTE_NM	Route Name
EST_TIME	Estimated Time

Table 20–4 lists columns for the Trucks table for storing information about the availability status and destination information for a truck.

Table 20–4 Trucks Table

Column	Description
TRUCK_NO	Truck Number (Primary Key)
TRUCK_STATUS	Status of the Truck
ALERT_ADDRESS	Mobile or Pager address to send alert to (Portal User Interface)
DRIVER_ID	ID of the Truck Driver

To Create Database Objects

In order to execute the Transport demo, you must set up the schema and the database objects. We have provided a SQL script that will create the `master` schema and the database objects in the back-end. However, if the `master` schema is already created, then remove the statements that create this schema from the `create.sql` script.

Note: Ensure that the CLASSPATH includes `classes12.jar` or `classes12.zip`.

Execute the `create.sql` script, as follows:

```
> cd ORACLE_HOME\Mobile\Sdk\samples\ado.net\wince\Transport\sql
> msql system/<sys_pwd>@jdbc:oracle:thin:@<host>:<port>:
    <oracle_sid> @create.sql
```

Note: While entering the above command to create database objects, you must include a mandatory space between "`<oracle_sid>`" and "`@create.sql`".

Where:

- `<sys_pwd>` is the system password. This is required if you are creating the master schema. However, if you have eliminated the statements that create the schema, you can use `master/master` for username/password.
- `<host>:<port>` refers to the name and listening port of the machine where the back-end Oracle database is installed.

20.2.2 Write the Application Code

The WinCE Transport application, located in `cd ORACLE_HOME\Mobile\Sdk\samples\ado.net\wince\Transport`, uses Visual Basic.NET (Visual Studio.NET), which is available with the sample application. The following sections describe the Transport application code:

- [Section 20.2.2.1, "Transport Module \(Transport.vb\)"](#)
- [Section 20.2.2.2, "Main Form \(frmMain.vb\)"](#)
- [Section 20.2.2.3, "View Packages \(frmView.vb\)"](#)
- [Section 20.2.2.4, "Create Package \(frmNew.vb\)"](#)

20.2.2.1 Transport Module (Transport.vb)

To open a database connection, you must declare a connection object, which—in this tutorial—is called `conn`. The scope of the connection object is project level. The `Connect` sub-routine in the `transport.vb` module establishes a connection to the local Oracle Lite database with the DSN `transport`; the `Disconnect` sub-routine releases the connection.

Within the `Connect` sub-routine, the DSN is initialized as follows:

```
Dim dsn As String = "dsn=transport;uid=system;pwd=" & pwd
conn = New Oracle.DataAccess.Lite.OracleConnection(dsn)
conn.Open()
```

The DSN username and password are `system` and the user password; thus, only the user can connect since the user password is used.

20.2.2.2 Main Form (frmMain.vb)

The `frmMain.vb` file implements the main form of the Transport Tutorial application. This form connects to Oracle Database Lite on Load time and invokes the `Create Package` and `View Packages` forms, using the appropriate command buttons.

If the synchronization button is pushed, notice that the following is executed:

```
Disconnect ()
OracleEngine.Synchronize(True)
Connect(UserName, Password)
```

In order to retrieve information from the database, the connection was established at the start of the application. Since you can only have a single connection to the back-end database—and the `OracleEngine.Synchronization` method creates a connection to the database as part of its functionality—the original connection is disconnected before the synchronization is invoked. Once synchronization is complete, the original connection is re-established. See [Section 13.1.6.2, "Using the OracleEngine to Synchronize"](#) for more information on this class.

20.2.2.3 View Packages (frmView.vb)

This form displays existing packages from the database. It also allows the user to modify and save existing packages. This form demonstrates the usage of the `OracleDataAdapter` and `DataSet` classes.

Note: The `OracleDataAdapter` is the same as the Microsoft ADO.Net `DataAdapter` class. For more information on `DataAdapter` and `DataSet` classes, see the Microsoft ADO.Net documentation.

When this form is loaded, it creates an instance of the `OracleDataAdapter` object and sets the appropriate `OracleCommand` objects namely, `Select`, `Update`, and `Delete`. These `OracleCommand` objects are created by the `transport.vb` module during the main form loading process. Once an `OracleAdapter` object has been created successfully, this form creates a `Dataset` object and populates it with data from Oracle Database Lite, using the `OracleDataAdapter` object that was created.

Note: For more information on the `OracleCommand` class, see [Section 13.1.3, "Create Commands With the OracleCommand Class"](#).

```
dba = New OracleDataAdapter
dba.SelectCommand = cmdSel
dba.DeleteCommand = cmdDel
dba.UpdateCommand = cmdUpd

' Fill dataset
'
dset = New DataSet
dba.Fill(dset)
```

Once the `Dataset` is filled with Oracle Database Lite data, this form populates the UI controls using data from the `DataSet` object.

```
Dim table As DataTable = dset.Tables(0)
Dim rows As DataRowCollection = table.Rows
Dim row As DataRow = rows.Item(index)
```

```
Me.packDesc.Text = row.Item(1).ToString()  
Me.packWeight.Text = row.Item(2).ToString()  
Me.packStreet.Text = row.Item(3).ToString()  
Me.packCity.Text = row.Item(4).ToString()  
Me.packState.Text = row.Item(5).ToString()  
Me.packRoute.Text = row.Item(7).ToString()
```

When users make changes to the package data, this form uses the `OracleAdapter Update` method to save the changes to Oracle Database Lite.

```
Dim row As DataRow = table.Rows(index)  
row.BeginEdit()  
row(6) = Me.packPriority.SelectedItem.ToString()  
row(8) = Me.packStatus.SelectedItem.ToString()  
row.EndEdit()  
dba.Update(table)
```

20.2.2.4 Create Package (frmNew.vb)

This form allows users to create a new package entry in Oracle Database Lite. During the Load duration, this form creates a unique Package ID and populates the drop down list controls with truck numbers and route names.

When the user saves this form, it uses the `OracleCommand` and `OracleParameter` classes to save user changes in Oracle Database Lite.

Note: For more information on the `OracleCommand` class, see [Section 13.1.3, "Create Commands With the OracleCommand Class"](#).

```
cmd = GetConnection().CreateCommand()  
rts = Me.packRoute.SelectedItem.ToString()  
  
' Obtain route number  
'  
cmd.CommandText = "SELECT ROUTE_NO FROM ROUTES where ROUTE_NM='" & rts & "'"<br>res = cmd.ExecuteReader()  
While res.Read() = True  
    rtn = res.GetString(0)  
End While  
res.Close()  
  
cmd.CommandText = "INSERT INTO PACKAGES (  
    (DID, DDSC, DWT, DSTR, DCTY, DST, DRTNR, DRTNM, DSTS, TID, PRTY, PTNO, TIND) values  
    (?, ?, ?, ?, ?, ?, ?, 'NEW', ?, ?, '1', 'P') "  
  
' Set DID  
'  
par = cmd.CreateParameter()  
par.DbType = DbType.String  
par.Direction = ParameterDirection.Input  
par.Value = id  
cmd.Parameters.Add(par)  
  
' Set DDSC  
'  
par = cmd.CreateParameter()  
par.DbType = DbType.String  
par.Direction = ParameterDirection.Input
```

```

par.Value = Me.packDesc.Text
cmd.Parameters.Add(par)
...
cmd.ExecuteNonQuery()
cmd.Dispose()

```

20.2.3 Compile the Application

To install the application on the device, you must create a CAB file. The CAB file is uploaded into the Mobile Server Repository during the application's publish phase. You can create a CAB file using the Visual Basic.NET (Visual Studio.NET).

20.2.3.1 Create CAB Files

To create the CAB file for this demo, perform the following:

1. Start the Visual Studio.NET and click on **File->Select Open**
2. Browse for the `Transport.sln` file, which is located in the `ORACLE_HOME\Mobile\SDK\samples\ado.net\wince\Transport` directory. Ignore the warning message, "The .NET assembly 'Oracle.DataAccess.Lite_wce.dll' could not be found."
3. Right click on **References**.
4. Select **Add Reference**.
5. Click **Browse** and choose `Oracle.DataAccess.Lite_wce.dll` from the `ORACLE_HOME\Mobile\SDK\ado.net` directory.
6. In the 'Solution Configuration' list box, select **Release** instead of **Debug**.
7. Click **Build->Build CAB File**, which will build the CAB file for you.

20.2.3.2 Install the Application from the CAB File

You can download and install the application on the device after packaging and publishing the application. See [Section 20.4, "Package and Publish the Application"](#) for directions on how to package and publish the application.

20.3 Create Publication for Application

As described fully in [Chapter 5, "Using Mobile Database Workbench to Create Publications"](#), you can use MDW to create your publication. Launch MDW by executing `oramdw` from `$ORACLE_HOME/Mobile/Sdk/bin`. The following sections detail how to use MDW to create a publication for the application in this tutorial.

Note: While creating this publication, use [Chapter 5, "Using Mobile Database Workbench to Create Publications"](#) heavily for a deeper understanding of how to use MDW and the type of information that you must enter.

- [Section 20.3.1, "Create a Project"](#)
- [Section 20.3.2, "Create Publication Items"](#)
- [Section 20.3.3, "Create Publication"](#)

20.3.1 Create a Project

Create a new project for this application by selecting **File->New->Project**. This brings up a wizard where you enter the following information:

Note: For more information, see [Section 5.2, "Create a Project"](#).

1. Define a name and location for the project.
2. Enter the username, password, JDBC driver type, database host, database port and database SID for the Mobile repository.

Provide the Mobile Repository access information. Because you are interacting with the repository to create and manipulate synchronization objects, including the SQL scripts for the publication items, you need access to the Mobile Repository.

3. Specify schema username and password. Enter the user and password of the schema owner for the schema that you are using for the Mobile application. The Mobile application schema contains all database tables, views, synonyms used to build the snapshots for the application.
4. Verify the information that you entered and click **Finish**.

20.3.2 Create Publication Items

For this project, you need to create three publication items for packages, routes, and trucks. Start the new publication item wizard by selecting **File->New->Publication Item**.

Note: For more information, see [Section 5.4, "Create a Publication Item"](#).

20.3.2.1 Create Packages Publication Item

1. Enter the name as `packages` and the type as `Fast`.
2. Select the schema name as `MASTER`, the object type as `Table`, and leave the object filter blank. Click **Search**. When the search ends, select `Packages` from the object list.
3. Click '>>>' to select all of the columns in the `Packages` table.
4. In the Query tab, select **Edit** if you want to edit the query.
5. Click **Run** to test.
6. Verify and click **Finish**.

20.3.2.2 Create Routes Publication Item

1. Enter the name as `routes` and the type as `Fast`.
2. Select the schema name as `MASTER`, the object type as `Table`, and leave the object filter blank. Click **Search**. When the search ends, select `Routes` from the object list.
3. Click '>>>' to select all of the columns in the `Routes` table.
4. In the Query tab, select **Edit** if you want to edit the query.
5. Click **Run** to test.

6. Verify and click **Finish**.

20.3.2.3 Create Trucks Publication Item

1. Enter the name as `trucks` and the type as `Fast`.
2. Select the schema name as `MASTER`, the object type as `Table`, and leave the object filter blank. Click **Search**. When the search ends, select `Trucks` from the object list.
3. Click '>>' to select all of the columns in the `Trucks` table.
4. In the Query tab, select **Edit** if you want to edit the query.
5. Click **Run** to test.
6. Verify and click **Finish**.

20.3.3 Create Publication

When you have completed the creation of the publication items, create the publication within the project by selecting **File->New->Publication**.

1. In the General tab, enter the name as `transport`, which is the DSN for the client-side database.
2. In the Publication Item tab, add the three publication items that you just created with the following configuration:

```
Name: PACKAGES
Updatability: Updatable
Conflict Resolution: Server Wins
DML Callback: BLANK
Grouping Function: BLANK
Priority Condition: BLANK
My Compose: BLANK
Weight: 1
Description: Blank
```

```
Name: ROUTES
Updatability: Read Only
Conflict Resolution: Custom
DML Callback: BLANK
Grouping Function: BLANK
Priority Condition: BLANK
My Compose: BLANK
Weight: 2
Description: Blank
```

```
Name: TRUCKS
Updatability: Read Only
Conflict Resolution: Custom
DML Callback: BLANK
Grouping Function: BLANK
Priority Condition: BLANK
My Compose: BLANK
Weight: 3
Description: Blank
```

3. Save the publication by selecting **File->Save**.

20.4 Package and Publish the Application

The following sections describe how to package the application and prepare it for publishing into the Mobile Server:

1. [Section 20.4.1, "Define the Application Using the Packaging Wizard"](#)
2. [Section 20.4.2, "Publish the Application"](#)

20.4.1 Define the Application Using the Packaging Wizard

Using the Packaging Wizard, you can select and describe the Transport application.

20.4.1.1 Create a New Application

Using the Mobile Server Packaging Wizard, you can publish the WinCE application into the Mobile Server. For more information on how to use the Packaging Wizard, see [Chapter 7, "Using the Packaging Wizard"](#).

You can select and describe the WinCE Transport application by launching the Packaging Wizard in regular mode.

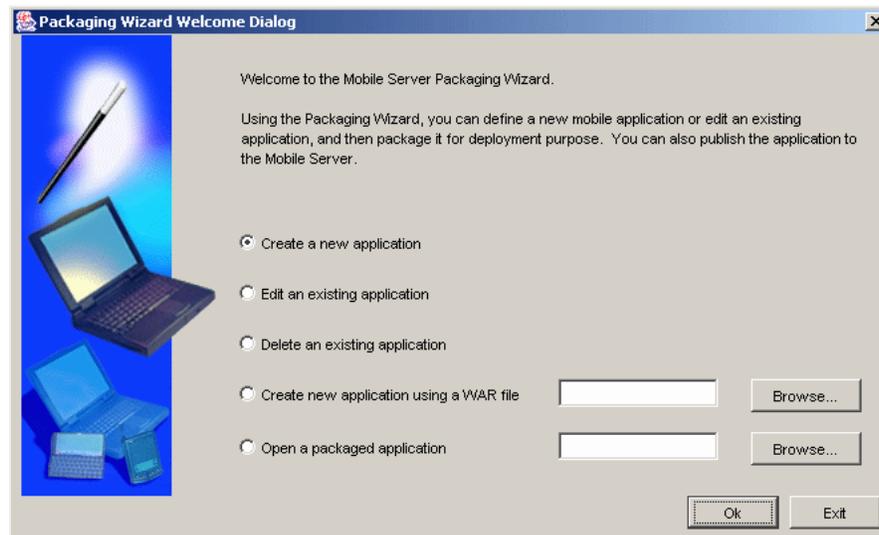
To launch the Packaging Wizard in regular mode, perform the following steps.

1. Using the Command Prompt, enter the following.

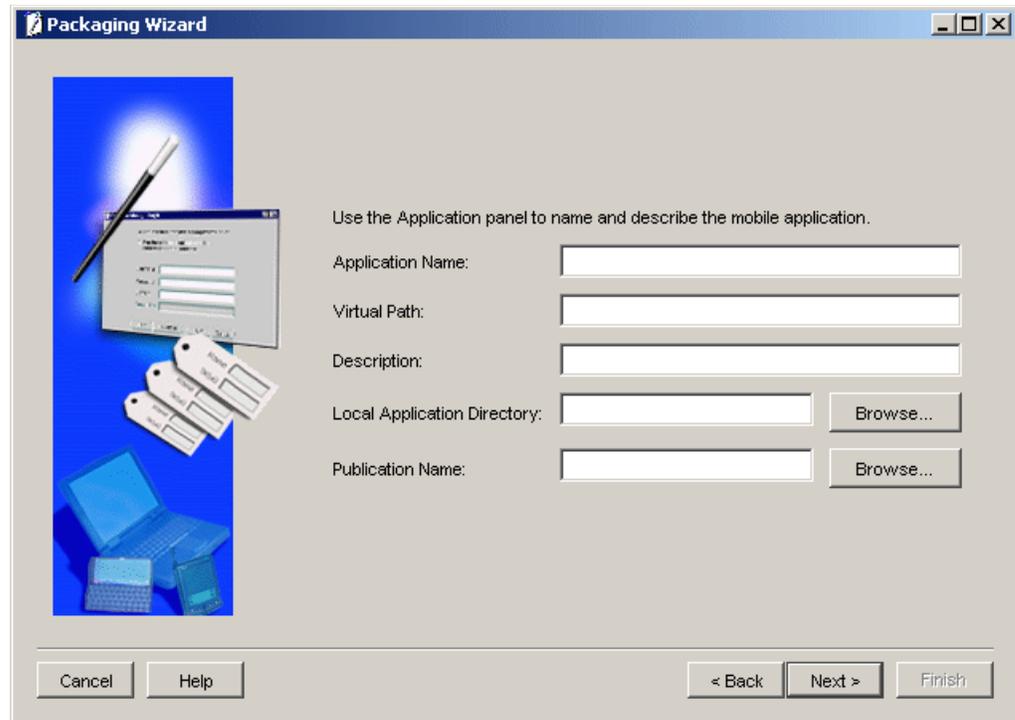
```
cd ORACLE_HOME\Mobile\SDK\bin
wtgpack
```

As [Figure 20–1](#) displays, the Packaging Wizard displays the Welcome panel. Select the **Create a new application** option and click **OK**.

Figure 20–1 Welcome Dialog



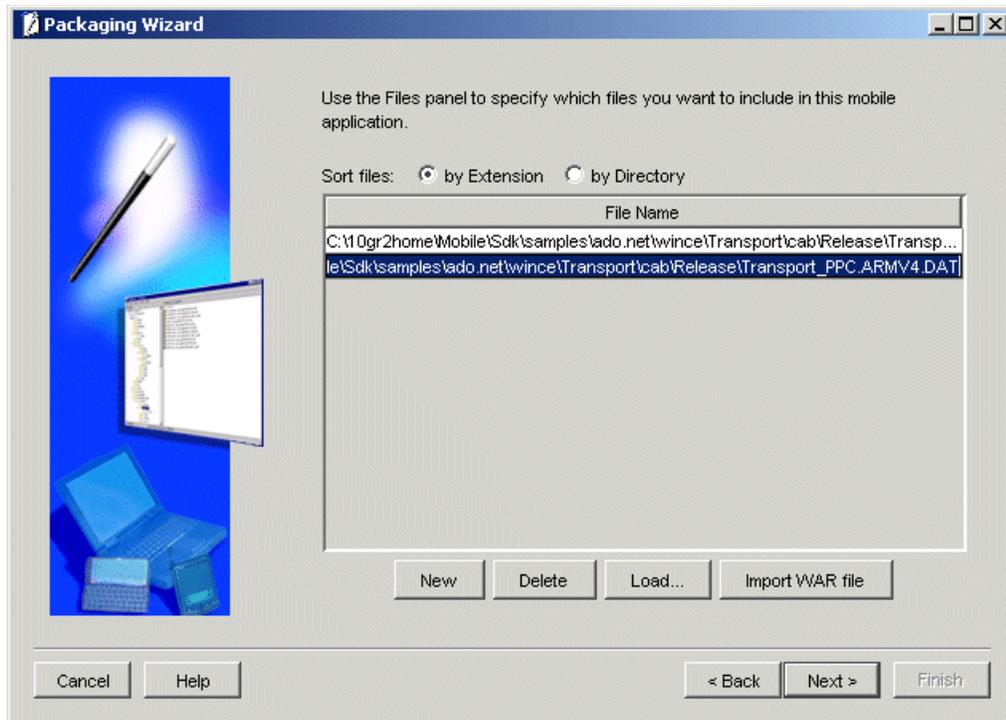
2. The Select Platforms panel appears. Choose **'Oracle Lite PPC50 ARMV4I;US'** from the list displayed and click **Next**.
3. The Application panel appears. As [Table 20–5](#) describes, enter the WinCE Transport application settings. [Figure 20–2](#) displays the Applications panel.

Figure 20–2 Applications Panel**Table 20–5 The WinCE Transport Application Settings**

Field	Value
Application Name	Transport
Virtual Path	/Transport
Description	Transport and Logistics Management
Local Application Directory	<ORACLE_HOME>\Mobile\Sdk\samples\ado.net\wince\Transport\cab\Release
Publication Name	Select Browse to locate the publication that was created by MDW, named transport. This pops up a "Publication Name" screen where you can select the publication and click Add .

4. Click **Next**. As [Figure 20–3](#) displays, the Files panel appears.

Figure 20–3 Files Panel



The Files panel automatically lists all files that reside in the directory, based on the 'Local Application Directory' specified in the previous Application panel. Ensure that you select the correct CAB file.

For example, in this tutorial, you must select the `Transport_PPC.ARMV4.CAB` and `Transport_PPC.ARMV4.DAT`, because your target device is Pocket PC with the ARM chipset. If other `.CAB` and `.DAT` files are in this listing, then use the Delete button in the Files panel to delete these files from the list.

After selecting the appropriate CAB file, you must define the application connection details to the Oracle Lite database.

On the Files panel, click **Next**.

20.4.2 Publish the Application

Using the Application Definition Completed dialog, you can package and publish the WinCE Transport application.

To publish the Transport application, perform the following steps.

1. In the Application Definition Completed dialog, select the **Publish the Current Application** option and click **OK**.
2. The Publish the Application dialog appears. As [Table 20–6](#) describes, enter the specified values.

Table 20–6 Publish the Application Dialog Description

Field	Description	Value
Mobile Server URL	URL or IP Address of the machine where the Mobile Server is running.	<Mobile Server>/webtogo

Table 20–6 (Cont.) Publish the Application Dialog Description

Field	Description	Value
Mobile Server User Name	User name of the Mobile Server user with administrative privileges.	Administrator
Mobile Server Password	Password of the Mobile Server user with administrative privileges.	admin
Repository Directory	Directory name where all files for this application will be stored inside the Mobile Server Repository.	/transport
Public Application	Do not select this check box unless you want to make this application available to all users.	Clear

3. To publish the application in the Mobile Server Repository, click **OK**. A dialog displays the application's publishing status. You must wait until the application is published.
4. To confirm that the application is published successfully, click **OK**.
5. To exit the Packaging Wizard, click **Exit**.

At this stage, you have completed all the development tasks required for packaging or publishing the application.

20.5 Administer the Application

This section describes how to administer the Mobile application published by you into the Mobile Server. To administer the application, perform the following tasks.

1. [Section 20.5.1, "Start the Mobile Server"](#)
2. [Section 20.5.2, "Launch the Mobile Manager"](#)
3. [Section 20.5.3, "Create a New User"](#)
4. [Section 20.5.4, "Set the Application Properties"](#)
5. [Section 20.5.5, "Grant User Access to the Application"](#)

For more information on the Mobile Manager see the *Oracle Database Lite Administration and Deployment Guide*.

20.5.1 Start the Mobile Server

To start the Mobile Server in standalone mode, enter the following command using the Command Prompt.

```
> runmobileserver
```

20.5.2 Launch the Mobile Manager

Using the login user name and password, you can log in to the Mobile Server and launch the Mobile Manager.

To start the Mobile Manager, perform the following steps.

1. Open your Web browser and connect to the Mobile Server by entering the following URL.

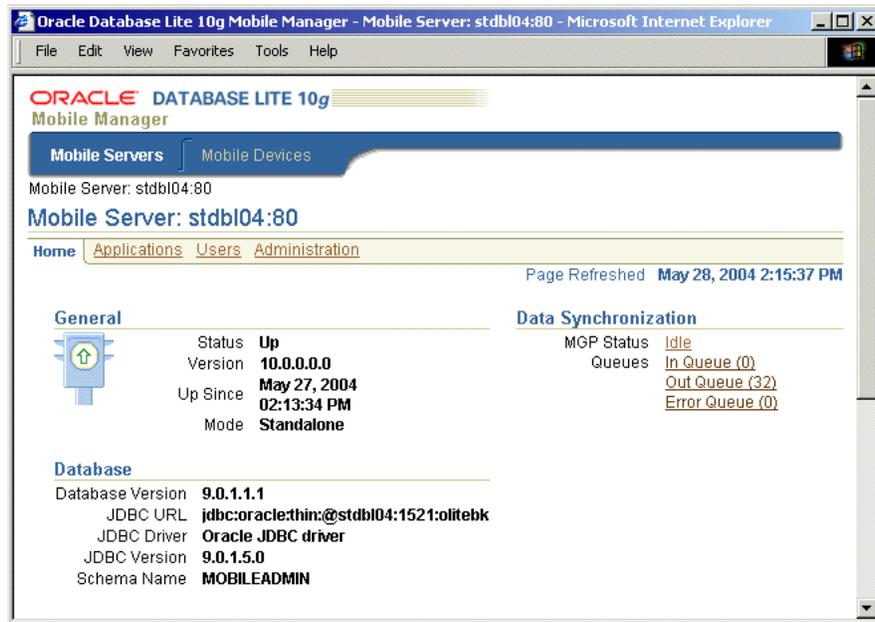
```
http://<mobile_server>/webtogo
```

Note: You must replace the <mobile_server> variable with your Mobile Server's host name.

2. Log in as the Mobile Server administrator using administrator as the User Name and admin as the Password.
3. To launch the Mobile Manager, click the Mobile Manager link in the workspace. The Mobile Server farms page appears. To display your Mobile Server's home page, click your Mobile Server link.

Figure 20-4 displays the Mobile Server home page.

Figure 20-4 Mobile Server Home Page



20.5.3 Create a New User

To create a new Mobile Server user, perform the following steps.

1. In the Mobile Manager, click the **Users** tab.
2. Click **Add User**.
3. Enter data as described in Table 20-7.
4. Click **Save**. The Mobile Manager displays a confirmation message.
5. Click **OK**.

Table 20-7 lists the values that you must enter in the **Add User** page.

Table 20-7 The Add User Page Description

Field	Value
Display Name	bob
User Name	bob

Table 20–7 (Cont.) The Add User Page Description

Field	Value
Password	bobhope
Password Confirm	Re-enter the password for confirmation
System Privilege	Select the "User" option

20.5.4 Set the Application Properties

To set the WinCE Transport Application properties, perform the following steps.

1. In the Mobile Manager, click the **Applications** tab. As [Figure 20–5](#) displays, The **Applications** page appears. You can search the list of available applications by application name.

Figure 20–5 Applications Page

Mobile Server: stdbl04:80

Home Applications Users Administration

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Search

Select	Application Name	Mode	Virtual Path	Platform
<input checked="" type="radio"/>	Branch Office Control Center	<input checked="" type="checkbox"/>	/msadmin	Oracle Lite WEB BC4J;US
<input checked="" type="radio"/>	Mobile Manager	<input checked="" type="checkbox"/>	/admin/console	Oracle Lite WEB;US
<input type="radio"/>	OISetup Application	<input checked="" type="checkbox"/>	/oisetup	Oracle Lite PALM;US
<input type="radio"/>	Palm_FormOrders	<input checked="" type="checkbox"/>	/Palm_FormOrders	Oracle Lite PALM;US
<input type="radio"/>	Sample1	<input checked="" type="checkbox"/>	/sample1	Oracle Lite WEB;US

2. Click **Transport**. The Transport application page appears. It displays an application's properties and database connectivity details.
3. In the **Platform Name**, select **Oracle Lite PPC50 ARMV4I; US**. In the **Database User** field, enter `master` for the master schema. In the **Database Password** field, enter `master`. This is the default password for the master user schema of the Oracle Server Database.
4. Click **Apply**.

20.5.5 Grant User Access to the Application

To grant user access to the Transport application, perform the following steps.

1. In the Transport application page, click the **Access** link. As [Figure 20–6](#) displays, the Access page lists application users and application groups. To grant access to a user or a group of users to the Transport application, select the corresponding boxes.

For example, to provide access to a user named BOB, locate the user name "BOB" in the **Users** list and select the corresponding box.

2. Click **Save**. The user "BOB" is granted access to the Transport application.

[Figure 20–6](#) displays the Access page of the Transport application.

Figure 20–6 Access Page

Application: Branch Office Control Center

Properties Access Data Subsetting Files Add War File

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Groups

Save Reset

Select All | Select None

Select	Group Name	Roles
<input type="checkbox"/>	PUBLIC GROUP	
<input checked="" type="checkbox"/>	BRANCH ADMINISTRATORS	
<input type="checkbox"/>	SAMPLE USERS	

Users

Save Reset

Select All | Select None Previous 1-6 of 6 Next

Select	User Name	Display Name	Roles
<input type="checkbox"/>	ADMINISTRATOR	Administrator	
<input type="checkbox"/>	JOHN	Sample1 User John	
<input type="checkbox"/>	JANE	Sample1 User Jane	
<input type="checkbox"/>	JACK	Sample1 User Jack	
<input type="checkbox"/>	S11U1	S11U1	
<input type="checkbox"/>	BKRAO	BKRAO	

Properties Access Data Subsetting Files Add War File

20.6 Run the Application on the Windows Mobile/Pocket PC Device

The following sections describe how to run the application after creating, testing, deploying, and administering the application:

1. Section 20.6.1, "Install the Oracle Database Lite Mobile client for Pocket PC"
2. Section 20.6.2, "Install and Synchronize the Transport Application and Data"

20.6.1 Install the Oracle Database Lite Mobile client for Pocket PC

To install the Oracle Database Lite Mobile client for Pocket PC, perform the following actions.

1. Open your desktop browser and enter the following URL to connect to the Mobile Server.

```
http://<mobile_server>/webtogo/setup
```

Note: You must replace the <mobile_server> variable with the host name or IP address of your Mobile Server.

A Web page appears displaying links to various Oracle Database Lite Mobile clients with different platforms. You can filter the selection by Language and Platform.

2. Click the hyperlink **Oracle Lite PPC50 ARMV4I;US** to access the setup program for the Pocket PC device with the ARM chipset.

Figure 20–7 displays the Mobile Client Setup page.

Figure 20–7 Mobile Client Setup Page

Mobile Client Search

Language

Platform

Mobile Client
Oracle Lite Branch Office
Oracle Lite Linux WEB
Oracle Lite Linux x86
Oracle Lite PPC2003 XScale
Oracle Lite WEB BC4J
Oracle Lite WEB
Oracle Lite WIN32

- If you are using Netscape as your browser, choose a location on your desktop to save the setup program and click **OK**. Open the Windows Explorer program and locate the "setup.exe". To run the setup program, double-click "setup.exe".
If you are using Internet Explorer, run the "setup" program from your browser window. Once started, the setup program asks you to provide the user name and password to log on to the Mobile Server. Enter **BOB** as the User Name and **bobhope** for the Password. Click **OK**.
- The setup program asks you to provide an install directory. Enter the directory where you want to install the client, such as C:\mobileclient\. Click **OK**. To confirm your install directory, click **Yes**.
- The setup program automatically downloads all the required components to the specified destination on your desktop computer.
- Assume that you have a Pocket PC device attached to your desktop computer and are connected with Microsoft ActiveSync. The installation for your Pocket PC device starts automatically.
- Click **Yes** to confirm installing **Oracle Lite PPC ARM; US** to the default application directory. The application installation starts on the device. Once completed, the **Mobile Client for Pocket PC** is installed on your device under the \ORACE directory.

20.6.2 Install and Synchronize the Transport Application and Data

To install the Transport application and data, perform the following steps.

- On the device, locate and tap the `msync` application icon in the programs group.
- The `msync` dialog appears. To download the Transport application and snapshots for user BOB, enter data as described in [Table 20–8](#).

Table 20–8 Values You Must Enter in the msync Dialog

Name	Value
UserName	bob

Table 20–8 (Cont.) Values You Must Enter in the msync Dialog

Name	Value
Password	bobhope (all lowercase)
Save password box	Select
Server	Machine name or IP address

Figure 20–8 displays the **msync** dialog on the Pocket PC.

Figure 20–8 Running msync on Pocket PC

- To save these values, click **Apply**.
- To synchronize your application and data to the device, click **Sync**. If you receive an error message for invalid username/password, re-enter the clear text password in the login window.

Note: Ensure that the device is connected to the desktop or the network and that the Mobile Server is running.

- Once the synchronization is complete, click **Exit**. The Update window appears.

Note: After the synchronization process is complete, a `transport.odb` file is created under the `\OraCE` directory.

- Click **Install** to install the application. Click **Exit**.
- Using the Start menu on the device, locate the Transport application in the Programs menu.
- To run the Transport application, click the **Transport** icon.