

APPENDIX 1: USING ORACLE FORMS

Overview

Running PRO*Resort

Querying

Forms Navigation

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A1.1 Overview

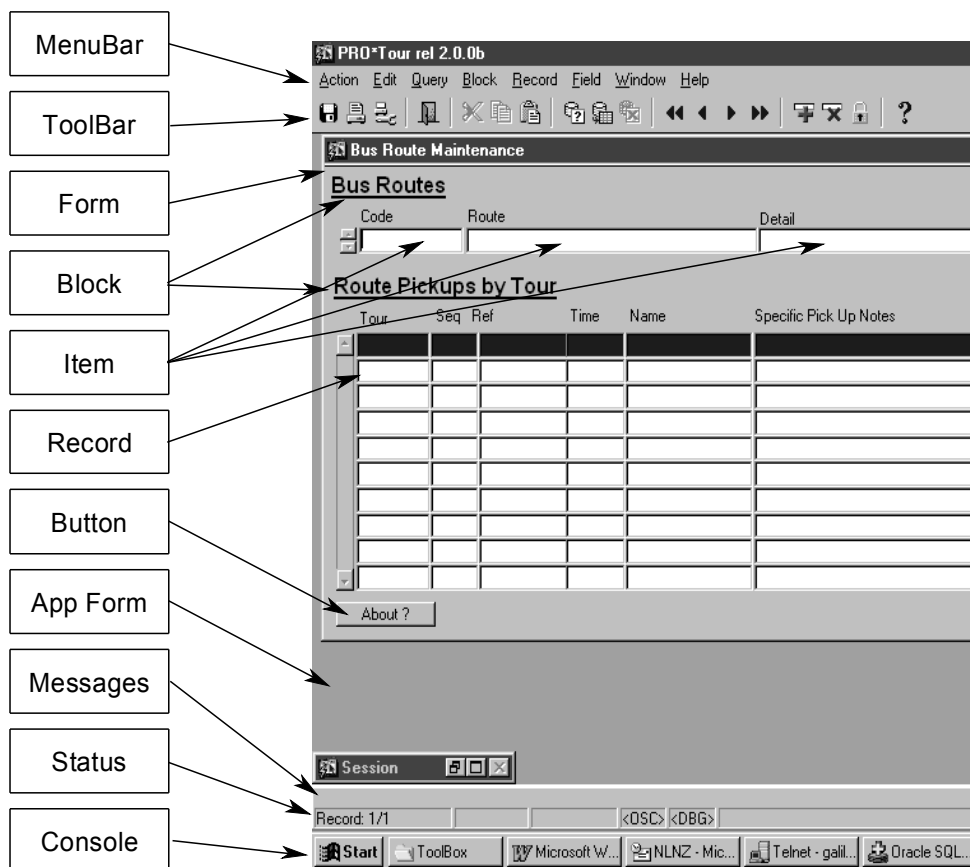
Purpose of this document

To provide end-users with a basic guide to using standard function keys and menus available in applications implemented using Oracle Forms.

This chapter provides an important overview of Oracle Forms and describes the basic elements of a typical Application Form.

A1.1.1 Basic Screen elements

Here is a typical PRO*Resort screen showing the various parts of an Oracle Form.



A1.1.1.1 MenuBar

The MenuBar contains a list of Pull Down Menus. These are used to navigate between the various screens and reports that make up the application.

A1.1.1.2 The Menu Options

Each pull down menu will have within it either further submenus or a list of Menu Options.

By using this section of the screen you can move through the menu options to the screen or report you require.

To select an option from the menu move the cursor and click on that option to take you to that screen.

Alternatively you can use the keyboard to select a Menu and then a menu item by typing ALT + the underlined character in the menu/option name.

A1.1.2 Form Layout

Oracle forms are composed of one or more *Blocks*, which may contain one or more *Records*. Each record is displayed as a set of *Items*. Users can then navigate between *Blocks* on a screen, or between records in a *Block*, or between *Items* within a *Record*.

A1.1.2.1 Block

A *Block* consists a group of related *Items* or *fields* on a form. A *Block* typically represents a database Table.

A1.1.2.2 Record

A single row selected from a database table and displayed as a set of *Items*.

A1.1.2.3 Item

An area within a *Block* on the screen (usually highlighted) that can display a value or accept an input value. An *Item* normally represents a column from a database table.

A1.1.2.4 Button

A button is displayed as a graphical 'push-button' that triggers an action such as starting a search or updating a record.

A1.1.2.5 Messages Line

The message line displays both Oracle Forms messages and application-specific messages, such as hint text and error text.

Hint text either informs you of some course of action or displays information about the currently pointed-to menu option or input field.

Error text consists of an error number and a brief message regarding the error that occurred.

A1.1.2.6 Status Line

Displays the following information from left to right:

Record x/y Shows current record position with the set of records for current query

Enter-Query Indicates that the operator is in Enter Query mode.



For a more detailed description of the various screen elements please refer to the section entitled "Interacting with Screen Items".

A1.1.3 The Work Space

Oracle forms do not work with database table directly. They work with copies of them that are kept in a *Work Space*. This arrangement protects you from making mistakes; you can make a change to the *Work Space* and then discard it. If you discard the changes, the table itself will not be affected.

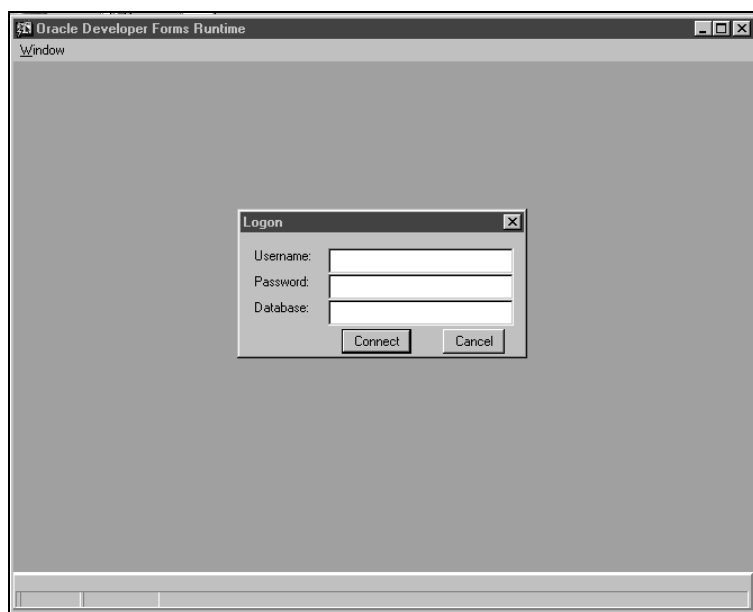
A1.2 Running the Application

This chapter explains the general procedures for running an application, getting help and exiting an application.

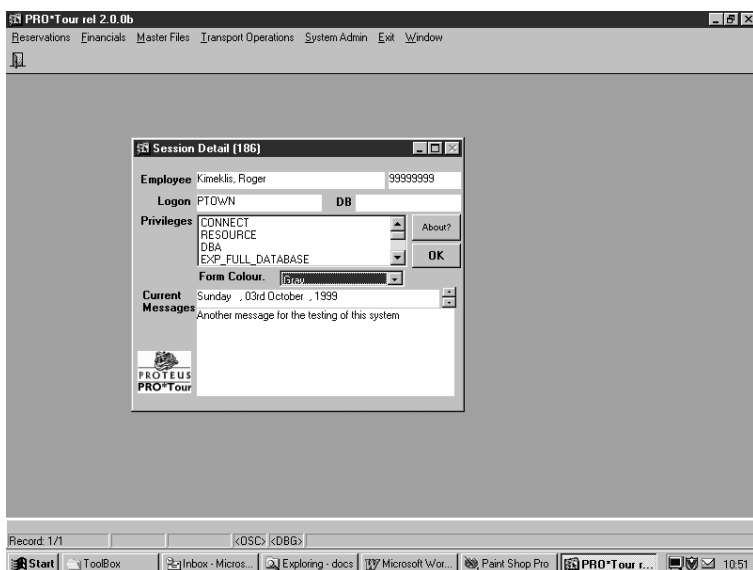
A1.2.1 Starting the Application

Double click on the application icon.

You will be prompted to enter the Oracle username, password and database alias.



The Application Main Menu screen should now be displayed, along with a session details window which displays information about your current session.



A1.2.2 Quitting the Application

You can exit the Oracle Forms application by doing one of the following:

- Selecting *Action->Exit* or *Exit* from the MenuBar
- Pressing the [Cancel/Exit] key.

If there are no changes pending you will be returned to the operating system.

If there were uncommitted changes to the database, you will be prompted to commit any changes before quitting. If you were in an editor or in Enter Query modes (described elsewhere) you must exit the editor or Enter Query mode before you can exit the application.

A1.2.3 Getting Help

You can get help by pressing the [Help] function key (F1) or by selecting Help from the default menu.

The [Help] function key displays a brief help message for the current item. Pressing [Help] twice may display advanced help information if it is available.

A1.3 Executing a Query

This chapter describes using a form to retrieve information from the database. Retrieving information from the database is called 'executing a query'. Read this section to learn when to query the database and how to retrieve all the records available to a particular form.

A1.3.1 When to Query the Database

You will want to query the database whenever you need to view or verify existing data.

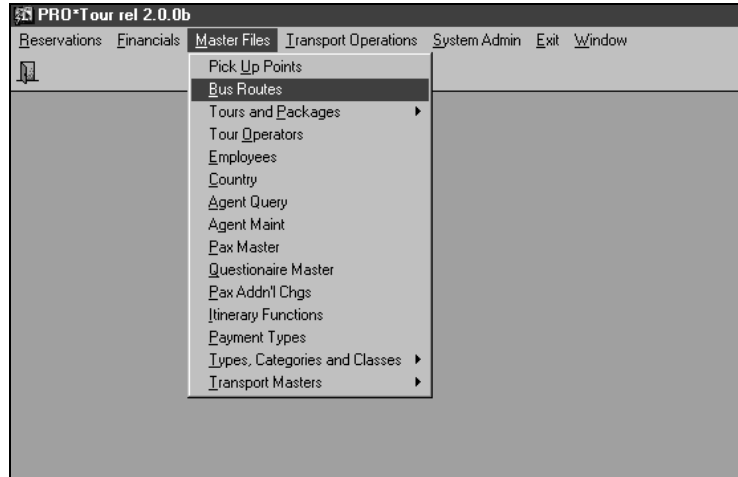
You can enter a query in one of two ways:

1. You can retrieve all the records entered in a block, regardless of the data they contain
2. Or, you can retrieve only those records that fit a certain set of criteria.

A1.3.2 Retrieving All Records

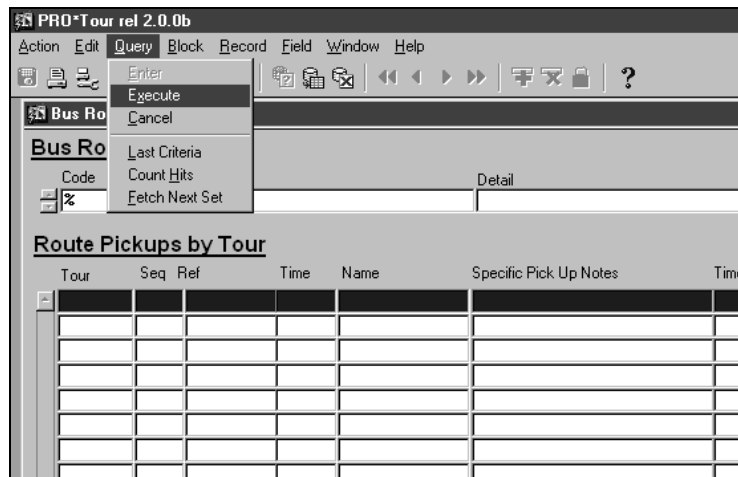
A1.3.2.1 Selecting a table

To retrieve all the records stored in a table, use the application's MenuBar to select the form associated with the table you wish to view.



A1.3.2.2 Executing a query

Next position the cursor in the block associated with the table and press [Execute Query] or select *Query->Execute* from the default MenuBar, or press the appropriate Icon on the ToolBar.



A1.3.2.3 Displaying the results

Although selecting [Execute Query] retrieves all the records stored in a table, Oracle Forms display only one record at a time. This is because the Bus Route block is a single-record block, where only one record can be displayed at a time. The Pickup block, on the other hand, is a multi-record block; it can display up to 10 records at once. You can scroll through all the records retrieved even though only a few are displayed at one time.

A1.3.3 Including Screen Items in Queries

Oracle forms allows you to include check boxes, radio buttons, list items and text items as query criteria.

For example, when you include a check box item as a query criterion, Oracle Forms retrieves any records associated with the check box.



If an item is non-queryable, the operator cannot query or navigate to the item while in Enter Query mode.

A1.3.3.1 Including a check box

Navigate to the check box and then simultaneously press Shift+Click. Shift+Click toggles the check box between query On or Off.

A1.3.3.2 Including Radio Buttons and List Item Values

Navigate to the item and then select the desired radio button or list item values.

To exclude a radio group or text-list style list item, deselect the selected value. To exclude a pop-list style list item, select the "blank" value.

A1.3.3.3 Including a Text Item

Navigate to the text item and then enter you query criteria.



For a full description of using Check Box, Radio Button, List and Text items, see the section entitled "Interacting With Screen Items".

A1.4 Moving Around The Form

As you work with a form, either viewing existing data or entering new records, you will need to move the cursor from one area of the form to another. This section explains how to make the following movements with the cursor:

- Block to block
- Record to record
- Field to field

A1.4.1 Moving from Block to Block

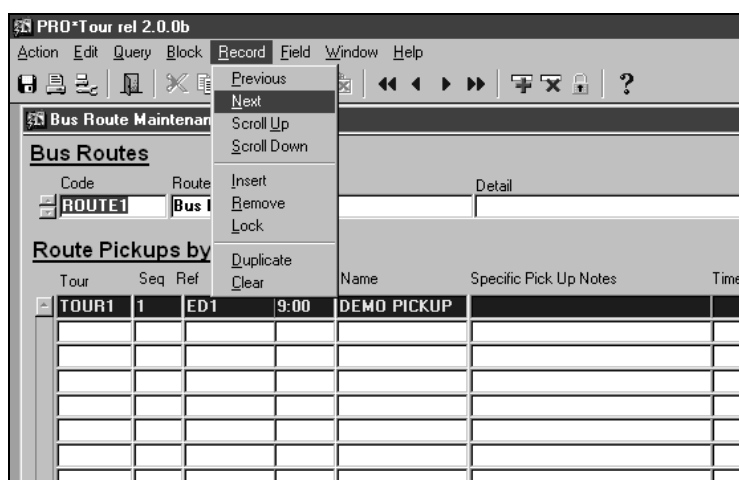
To move the cursor from one block to another, use [Next Block] or [Previous Block]

When you move the cursor block to block, your movement is cyclical. For example, when you get to the last block of the form and press [Next Block] Oracle Forms takes you back to the first block. Similarly, if you press [Previous Block] while positioned on the first block of the form, the cursor moves to the forms' last block.

Tour	Seq	Ref	Time	Name	Specific Pick Up Notes	Time
TOUR1	1	ED1	9:00	DEMO PICKUP		

A1.4.2 Moving from Record to Record

Once you have retrieved records from the database, you can use [Next Record] and [Previous Record] to view them. If the block is a single-record block, only one record is visible at a time. If the block is a multi-record block, then more than one record is visible, in which case the record movement keys simply move the cursor from one record to another.



You can also use [Up] and [Down] to move through the current set of records. The difference being that as the records change, the cursor remains in the current field, whereas with [Next Record] and [Previous Record] the cursor moves to the first field in the block.

A1.4.3 Moving from Field to Field

You can move from one field to another by pressing [Next Field] (Tab) and [Previous Field] (Shift Tab).

The order in which the cursor moves from one field to another is determined by the forms' designer. If a field's value is invalid, Oracle Forms will not allow the cursor to leave the field until you have corrected the value. For example, if a field requires a numerical value between 100 and 9999, the cursor cannot leave the field when the value is, for example, 99 or 10000.

If the designer has given a field the autoskip attribute, the cursor leaves the field after you have entered a character in the last field position. The autoskip feature is used to minimise keystrokes for fields that require a standard number of characters, such as the field for a post-code.

When working in a field, use [Left] to move the cursor one position to the left and use [Right] to move the cursor one position to the right.

A field can be shorter than the corresponding table column. Thus, a field can be shorter than the value it contains. When this occurs you will not see the entire content of the field. However, Oracle Forms allows you to move the value back and forth within a field so you can see the entire value. This is called "horizontal scrolling". Horizontal Scrolling can be achieved by using the [Scroll Left] and [Scroll Right] actions, or by holding the cursor over the beginning (scroll left) or end (scroll right) of the input field with the left-hand mouse button permanently depressed.

A1.5 Interacting with Screen Items

This chapter describes the following User Interface objects and items:

Objects:

- Alert
- Editor
- List Of Values

Items:

- Button
- Check Box
- Image
- List Item
- Radio Group
- Text Item

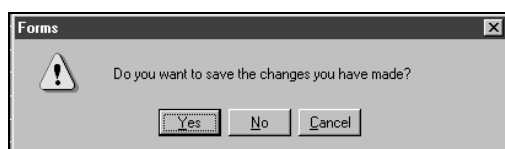
The Objects relate to windows, menus etc, whilst Items tend to relate to a single item within a block, which typically relates to a single column within the underlying database table.

A1.5.1 Alert

An alert is a modal window that displays a predefined message to bring your attention to some condition that has resulted from one of your actions.

When an event occurs that causes an alert to display, you must respond to the alert message by selecting one of the predefined alert buttons.

The alert window appears in the centre of the screen and overlays a portion of the current display. An alert can have up to three buttons. Selecting any alert button dismisses the alert.



Typical combinations are:

Yes, No, Cancel

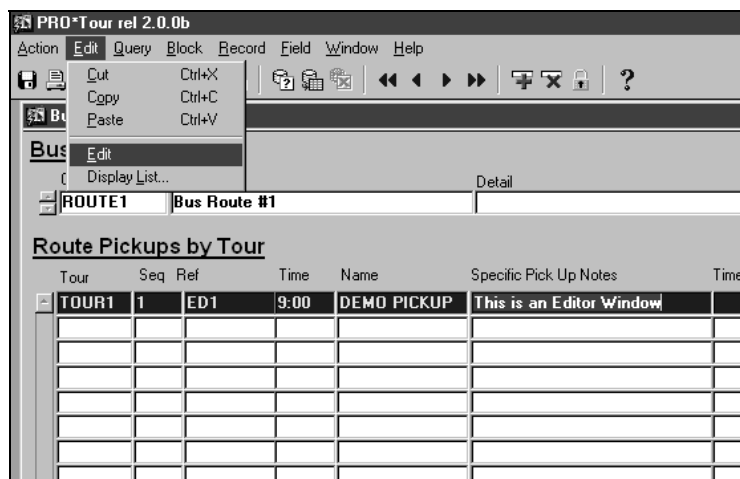
OK, Cancel

OK

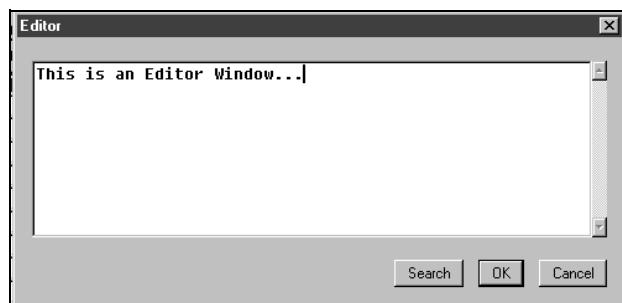
A1.5.2 Editor

An editor is a modal window that provides text editing functions for a specific text item. When the default text editor is invoked, Oracle Forms automatically sizes the window to suit the underlying text field in the database.

To invoke the Editor, place the cursor in a Text Item field, and, select *Edit->Edit* from the Default Menu.



Which displays:



The default text editor uses the following standard keys:

Action to be performed	Action to take
Accept the modifications	Click OK button Or press [Accept]
Cancel the modifications	Click on the Cancel button Or press [Cancel]
Search for a value	Click on the Search button Or press [Search] Enter your search criteria To execute the search click OK or press [Accept]
Cut text	Press [Cut] or select Edit->Cut from the default menu

Paste text	Press [Paste] or select Edit->Paste from the default menu
Move right	Press [Right]
Move left	Press [Left]
Move up	Press [Up]
Move down	Press [Down]
Move to the beginning of the line	Press [Beginning of line]
Move to the end of the line	Press [End of Line]
Move to the first line	Press [First Line]
Move the last line	Press [Last Line]
Delete backwards	Press [Delete Backward]
Delete character	Press [Delete Character]
Delete line	Press [Delete Line]

When an editor is active, the set of keys or menu choices available.

Help is not available until the editor is dismissed.

As in other editors, you can toggle between inserting and replacing characters by pressing the [Insert/Replace] key. The status line shows if characters are being replaced or inserted. When inserting characters, each typed character appears before the cursor. The character currently at the cursor and all following characters are moved to the right.

When replacing characters, each character the operator enters replaces the character at the cursor. The characters after the cursor do not move.

A1.5.3 List of Values

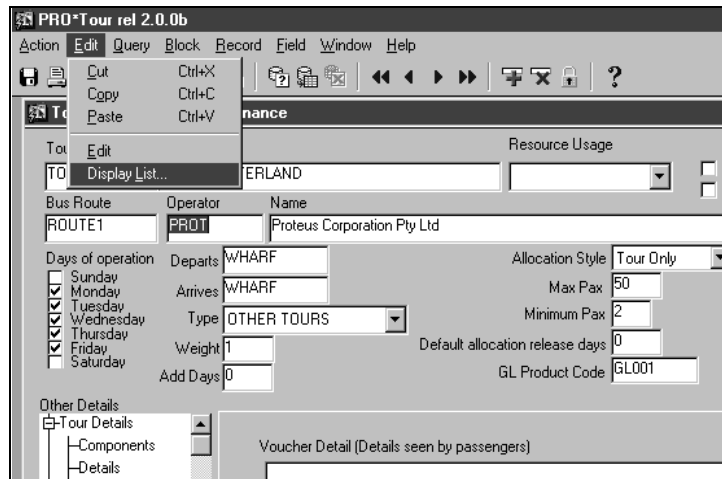
A list of values (LOV) is a scrollable pick list that displays a list of single or multi-column records from which you can select a single distinct value.

An LOV is displayed either in response to the [List of Values] key, or automatically when the cursor enters a particular field in the block.

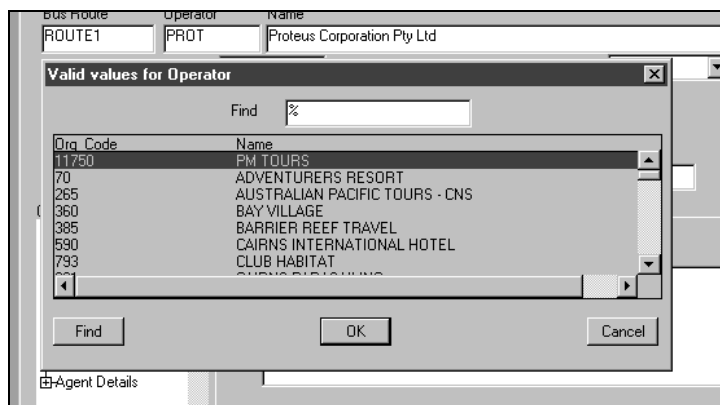
Once displayed, the LOV remains in focus until it is dismissed either by selecting a value and clicking the OK button, or by clicking the Cancel button.

If a field has a List Of Values associated with it, "List Of Values" displays in the Message Line. Selecting *Edit->Display List* from the Default Menu will display the LOV on screen.


A1.5.3.1 Selecting a List Of Values



A1.5.3.2 Displaying from List Of Values



A List of Values uses the following standard keys:

Action to be performed	Action to take
Select a value	Press[Up] and [Down] to scroll through list off values
Choose a value	Double click on the desired value
Choose the highlighted value and dismiss the LOV	Click on the OK button
Dismiss the LOV without choosing a value	Click on Cancel or press [Exit/Cancel]
Search for a specific value (across all columns)	Click on the Find field and then enter your search criteria. To execute your search click on the Find button  <i>“%” can be used as a wildcard when searching for specific values across all columns</i>
Auto-reduce the list of values (first column only)	Type the letters of the word or words you want to search for in the List pane. Oracle Forms auto-reduces the list of values to those values from the first column that match your selection criteria. Note that pressing [backspace] returns you to any previous auto-reduction criteria

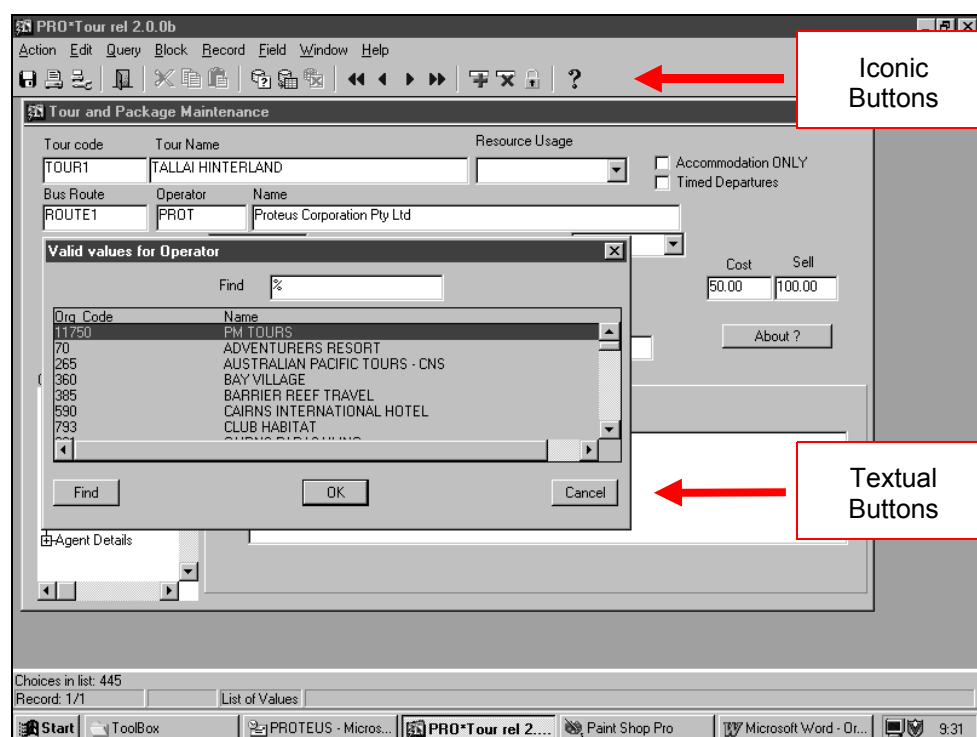
A1.5.4 Button

A button allows you to make a choice or set a switch.

There are two button styles: Iconic and Textual.

Iconic buttons are typically displayed as squares with an image inside that hints at the button's action. Iconic buttons are usually found in Toolbars.

Textual buttons are typically displayed as rectangles with a text label inside that describes the button's action.



Buttons are activated by any of the following methods –

Mouse:

Click on the required button.

Keyboard:

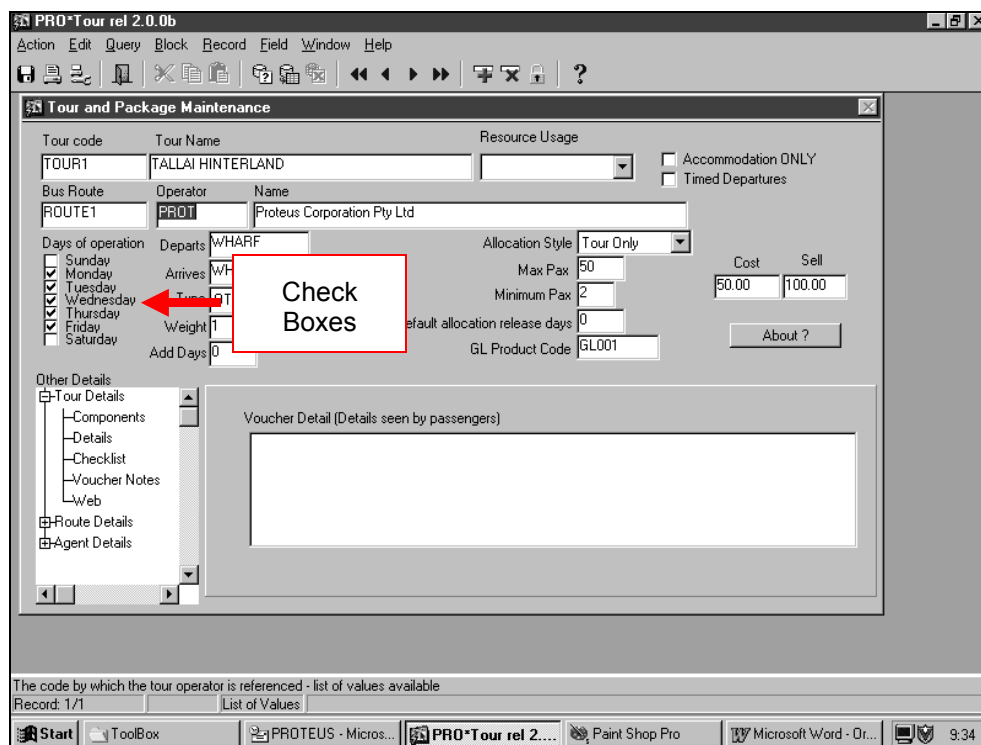
Navigate to the required button (usually with the tab key) and then press [Select] (usually by pressing the space bar) to execute the button.

Default Menu:

Select *Field->Next* or *Field->Previous* to navigate to the required button. Press [Select] to execute the button.

A1.5.5 Check Box

A check box is an interface item that allows the you to indicate an on or off state by checking or unchecking a check box. A check box appears as a small, square box with a text label to the right. When a check box is selected it appears to be checked, usually with an "X" or a tick. When deselected a check box appears unchecked or blank.



The state of a check box is changed by any of the following methods –

Mouse:

Click on the desired check box. Clicking you mouse toggles the check box state between checked and unchecked.

Keyboard:

Navigate to the desired check box and press [Select] to toggle the check box.

Default Menu:

Select *Field->Next* or *Field->Previous* to navigate to the desired check box. Then press [Select] to toggle the check box.

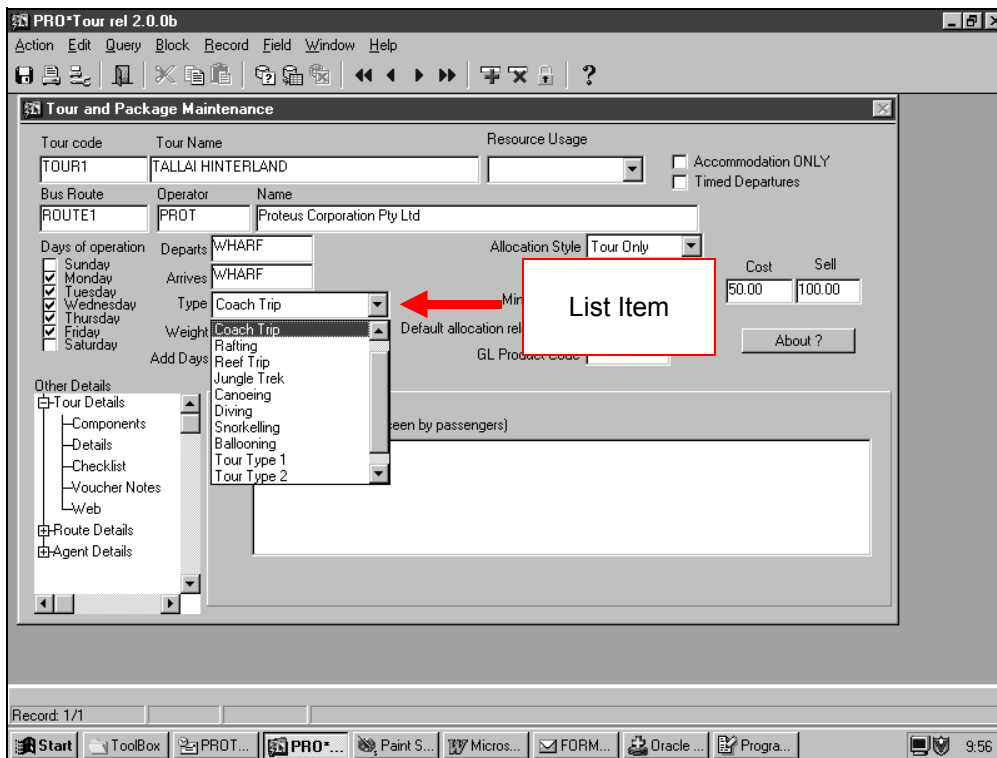
A1.5.6 List Item

A list item is an interface item that displays a predefined list of choices from which a single value can be selected.

List Items have two display styles: Pop-list and Text-list.

A pop-list item initially appears as a single field (similar to a text item field, but with a small square button at the right hand end). When you select the pop-list icon, a list of available choices appears.

A text-list item appears as a list of choices. Only one value can be selected at a time.



List items are accessed by any of the following methods –

Mouse:

To select a value from a pop-list item, click on the pop-list icon to display a list of choices, drag the mouse to scroll up or down to the desired value, and then release the mouse button to make your selection.

Keyboard:

Navigate to the list item (pop-list only) and then press [Select] to display the list of choices. Press [Up] or [Down] to scroll through the choices. Press [Select] to select a value.



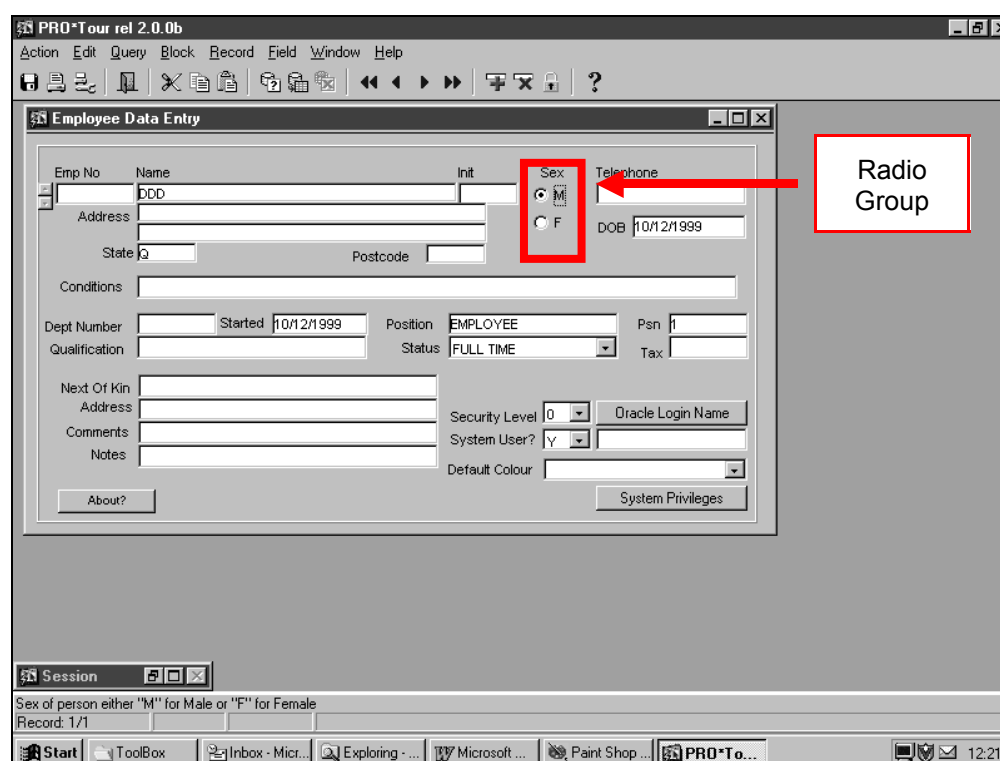
If the default entry in the field is a blank, it will be at the bottom of the list of values. Therefore, [Down] will not display any new entries, but [Up] will.

A1.5.7 Radio Group

A radio group is an interface item that contains a group of mutually exclusive radio buttons.

Like the buttons on a radio, a radio group only allows one selection at a time. Selecting one button from the group automatically deselects all other buttons in the group.

Radio buttons appear as empty circles with text labels to the right of each radio button. When you select a radio button, the circle goes black (or otherwise changes visually) to indicate that it has been selected.



Radio buttons are activated by any of the following methods –

Mouse:

Click on the desired radio button.

Keyboard:

Navigate to the radio button group and then press [Right] or [Left] to toggle between the different radio buttons. To select a radio button, press [Select] (Usually by pressing the space bar).

A1.5.8 Text Item

A text item displays operator enterable text in a field in either single or multi-line form. A text item appears as an empty rectangular box or container.

The screenshot shows the 'Employee Data Entry' form in the PRO*Tour rel 2.0.0b application. The form contains various fields for employee information, including Emp No, Name, Init, Sex, Telephone, Address, State, Postcode, Conditions, Dept Number, Started, Position, Psn, Qualification, Status, Tax, Next Of Kin, Address, Comments, Notes, Security Level, Oracle Login Name, System User?, and Default Colour. A red arrow points to the 'Conditions' field, which is a multi-line text item, and a red box labeled 'Text Item' is placed next to it.

An Oracle Forms editor can be invoked from any text item by selecting *Edit->Edit* from the Default Menu. (See the section labelled “Editor” for details.) Text items are accessed by any of the following methods –

Mouse:

To scroll through a multi-line text field, use the scroll bars if provided.

Keyboard:

To scroll through a multi-line text field, press [Up] or [Down] to scroll up or down one line at a time. To activate an Editor, navigate to the desired text item and then press [Edit].

Default Menu:

To activate an Editor, navigate to the desired text item and then press *Edit->Edit*.



There are several text item properties that can affect how text behaves in an application:

- *If a text item requires a value, you will not be able to navigate out of the item until you have entered a correct value or pressed [Clear Block].*
- *If an item is non-editable, you will not be able to navigate to the item.*
- *Similarly, if an item is non-queryable, you will not be able to navigate to the item when the form is in Query Mode.*

A1.6 Retrieving Selected Records

This chapter describes several ways to retrieve records that meet specific criteria. After reading this chapter you will not only know how to execute simple queries that meet specific criteria, but also complex queries that satisfy several conditions.

The following topics are discussed in this section

- Matching exact values
- Entering variable conditions
- Using the SQL WHERE clause for advanced queries.

A1.6.1 Matching Exact Values

The following are the general steps for retrieving records that match exact values:

1. Press [Next Block] or [Previous Block] until your cursor is positioned in the correct block
2. Press [Enter Query]
3. Type the values you want to match into the appropriate fields
4. Press [Execute Query]
5. Press [Next Record] or [Previous Record] to view the retrieved records.

A1.6.1.1 A query on an exact match

The screenshot shows a window titled "Employee Data Entry". The form contains several input fields and controls. The "Emp No" field is highlighted and contains the value "200". Other fields include "Name", "Init", "Sex" (with radio buttons for "M" and "F"), "Telephone", "Address", "State", "Postcode", "Conditions", "Dept Number", "Started", "Position", "Psn", "Qualification", "Status", "Tax", "Next Of Kin", "Address", "Comments", "Notes", "Security Level", "System User?", "Default Colour", "Oracle Login Name", and "System Privileges". There is also an "About?" button at the bottom left.

In the screen above, the user is searching for an Employee whose Employee Number is 200.

A1.6.1.2 Using Pattern Matches

You can retrieve records using values in two or more fields by moving the cursor to those fields and entering the values. Oracle Forms will only fetch those records that meet the search criteria specified in all fields.

You can also select records where a value fits a certain pattern. To do this, enter a value into field where “_” represents any character and “%” represent any combination of characters (including no characters).

In the above screen shot we are searching for all Employees whose surname begins with “K”.

The following list contains examples of pattern matching:

<i>Pattern</i>	<i>Possible Matches</i>
JON_S	JONES, JONAS, JONOS, JONQS, JON-S
S_AR	SMART, SNARE, SHARE, SHARD, SHARP, SHARK
ENTER%	ENTER, ENTERS, ENTERED, ENTERTAIN
_N%S	BINS, FINES, WINNERS, WINEMAKERS

A1.6.2 Entering Variable Conditions

Sometimes it is not practical to enter the exact values that you want retrieved records to match. For example you might want to retrieve the following:

- All employees with an Employee Number greater than 200
- All the tours with an ID of 10 or more
- All the bookings placed in the month of June

Rather than entering an exact data value, you can enter a relational operator before the data value in one or more fields. The following table shows relational operators and how you can use them.

In this screen shot we are searching for all Employees whose Employee Number is greater than 200.

Operator	Meaning	Examples
=	equal to	= 'SMITH'
!=	not equal to	!= 19.5
>	greater than	>100.00
>=	greater than or equal to	>=2000
<	less than	<'DAVIS'
<=	less than or equal to	<=100.00
BETWEEN	between two values	#BETWEEN 100 AND 110



These operators do not work in time fields.

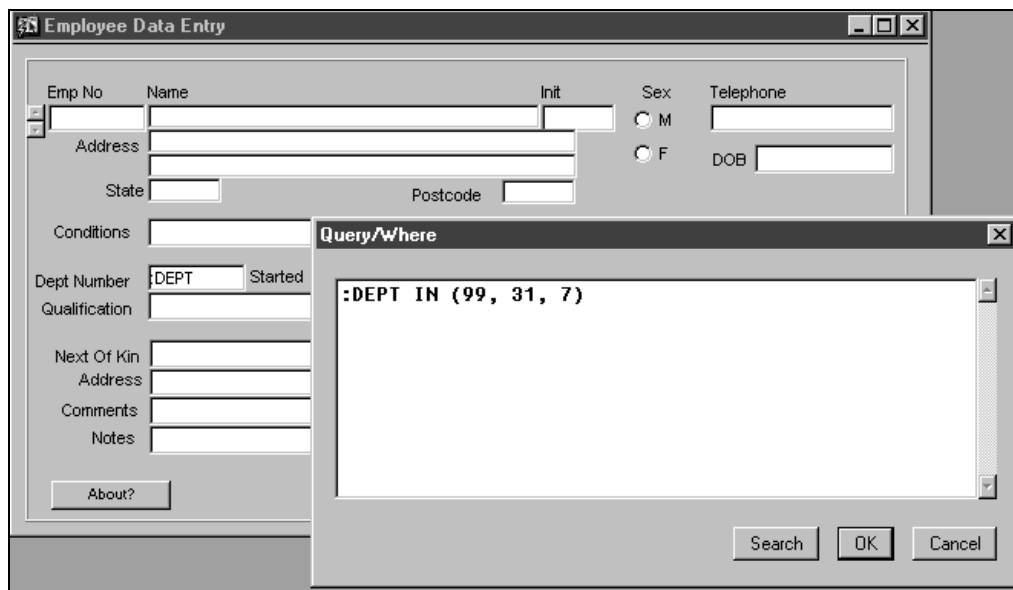


Fields containing character or date values must be enclosed by single quotes. Also, whenever you use a relational operator that is a word (such as BETWEEN) in a field, you must precede the operator with a "#".

A1.6.3 Using the SQL WHERE Clause for Advanced Queries

Although you can execute fairly complex queries by entering data values or relational operators in fields, you may want to execute more advanced queries. You can execute advance queries through an SQL WHERE clause. The WHERE clause allows you to express queries based on conditions other than an exact match.

To use the WHERE clause, you must place a variable in one or more fields. The variable, which serves as a placeholder, is preceded by a colon (:). By placing a variable in a field, you signal that you want to enter a WHERE clause using the value in that field. The first character of the variable name itself is alphabetic, and any following characters are alphabetic, numeric or the special characters “_”, “\$” or “#”.



In this example we have entered “:DEPT” in the Dept Number field, when we execute the query Oracle Forms automatically displays a Query/Where dialog where we can add the SQL WHERE clause to the standard search. In this instance we are searching for all Employees who work for departments 99, 31 or 7.

Summary for entering variable conditions

1. Press [Next Block] until your cursor is positioned in the correct block
2. Press [Enter Query]
3. Instead of placing a value into a field, enter a variable name (such as :ID or :DATE)
4. Press [Execute Query]
5. In the Query/Where dialog box, enter the condition you want the retrieved records to meet
6. Press [Commit/Accept]
7. Press [Next Record] or [Previous Record] to view the retrieved records.

A1.6.4 Using the WHERE Clause In Additional Ways

Here is a table of additional ways you can use WHERE clauses in queries:

Purpose	Examples
<i>To retrieve records that have a value:</i>	
Greater than (>)	:EMPNO > 106
Greater than or equal to (>=)	:EMPNO >= 100
Less than (<)	:DEPT < 305
Less than or equal to (<=)	:DEPT<=100
Equal to (=)	:EMPNO = 106
Not equal to (!=)	:NAME != 'SMITH'
To express a query that can be satisfied by either of two conditions	(:CODE=100860 OR :CODE=100861)
To express a query with two conditions	(:TOURDATE = '14-JUN-1999') AND (:CLIENTID=106)

A1.6.4.1 Using complex search criteria

You can enter queries with search criteria more complex than those described above. For example, you can select records in which ClientID has the following values:

- Is one of several values
- 107 *or* DEPTID is greater than 615 (Entering values into the EMPNO and DEPTID fields would select records in which EMPNO is 107 *and* DEPT is greater than 615)
- 107 *and* DEPTID is greater than 615 *or* Sex = "Male"

The following is the general procedure for using complex search criteria:

- 1) Press [Enter Query]
- 2) For each field involved, enter a variable (a letter or short word works well)
- 3) Press [Execute Query] to display the Query/Where dialogue box
- 4) Enter an expression that describes the search criteria, using placeholders similar to the ones in Step 2

For example:

Search Criteria	Value Entered
Order ID greater than 615 or Client Name is JUST TENNIS	:ID > 615 OR :X = 'JUST TENNIS'
Order ID less than or equal to 615 or Client Name ends with 'TENNIS'	:ID <= 615 OR :X like '%TENNIS'

- 5) Press [Commit/Accept], Oracle Forms analyses the logical expression entered and executes the query.

A1.6.4.2 Reusing Search Criteria

To reuse search criteria of a previous query in the current block, press [Enter Query] twice: press it once to initiate a new query and a second time to redisplay the previous search criteria. You can use the criteria displayed or modify it before pressing [Execute Query].

If you leave placeholders in any field, and then press [Enter Query] twice, Oracle Forms redisplay those placeholders in the field in which you entered them. Then press [Execute Query] to display the last response entered in the Query/Where dialogue box. You may use the response as is by pressing [Next Field], or you may edit, replace, or remove it.

A1.6.4.3 Counting Query Records

If you want to know how many records a search will return before actually executing a query, you need to use [Count Matching Records]. Following is the general procedure for counting the number of records that meet a set of search criteria:

- 1) Press [Enter Query]
- 2) Enter the search criteria
- 3) Press [Count Matching Records]
(or select *Query->Count Hits* from the Default Menu)

Oracle Forms counts the records that meet the search criteria and displays the number on the message line.



Note that [Count Matching Records] was pressed instead of [Execute Query]. Both keys can be used, one after the other, to count and fetch records.

After you press [Count Matching Records], you have the following options:

- Press [Execute Query] to perform the query
- Enter other search criteria
- Press [Exit/Cancel] to exit Enter Query mode without executing a query.

A1.6.4.4 Using the WHERE clause with Multiple Conditions

For situations where you want to enter more sophisticated queries, you can use the SQL language. Oracle Forms support most SELECT clauses, with the exception of the GROUP BY and CONNECT BY clauses.

Using SQL, you can enter a WHERE clause that has several conditions. For example you could:

1. Press [Enter Query], then place the variable :DEPT in the Dept No field and the variable :EMPNO in the Employee No field.
2. Press [Execute Query] and enter the following condition in the Query/Where dialogue:
:DEPT >=1 AND :EMP >300 ORDER BY :EMPNO

This SQL statement will retrieve all the records that have both a Department ID greater than 1 and an Employee No greater than 300. The records will be ordered by Client ID.

A1.7 Modifying Data in the Database

This chapter explains how to use the application's forms to modify data in the database. This is a very important chapter to understand because you will be using Oracle Forms frequently to add new records to the database or to modify existing records. The following topics are covered in this chapter.

- Replacing, inserting and deleting characters
- Creating & deleting records

A1.7.1 Replacing, Inserting, and Deleting Characters

Oracle Forms allows you to enter characters using one of two modes:

1. Insert Mode

When Insert mode is active, each character you enter appears at the cursor. The character currently at the cursor and all following characters are moved to the right.

2. Replace mode

When Replace mode is active, each character you enter replaces the character at the cursor. The characters after the cursor do not move.

You can switch between Insert mode and Replace mode by pressing [Insert/Replace]. Once set, the mode remains active until you change it by pressing this key again. (The status line displays the current mode).

To delete a character, place the cursor on the character and press [Delete Character]. [Delete Character] functions in the same manner whether insert or replace mode is active. (When the cursor is after the last character in a field, [Delete Character] has no effect.)

If you want to delete the character before the cursor, press [Delete Backward].

A1.7.2 Inserting and Deleting a Record

Sometimes you want to retrieve records simply to view the information they contain; other times, you want to change information.

A1.7.2.1 Inserting a record

One way to modify the contents of the database is to create a new record.

In summary the steps are:

1. Use [Next Block] to move your cursor into the correct block
2. Press [Clear Block]
This clears data from the screen (but does not delete it from the database) and makes room for you to enter the details of the new record.
3. Use [Next Field] to tab around each of the fields of the record entering data.
4. Press [Commit/Accept] to save the record to the database.

A1.7.2.2 Deleting a record

Another way to modify the contents of the database is to delete entire records. For example, you may want do one of the following:

- Delete an item from an order
- Cancel an entire order
- Delete a client from the database

In summary, the steps are:

1. Use [Next Block] to position the cursor in the desired block
2. Press [Enter Query]
3. Type in the search criteria and press [Execute Query]
4. Use [Next Record] and [Previous Record] to make sure the cursor is positioned on the record you wish to delete
5. Press [Delete Record] to delete the current record from the work space.
6. Press [Commit/Accept] to have the record actually deleted from the database
Oracle Forms will display the message
“Transaction completed – 1 records processed”

A1.8 Forms Processing

This chapter contains information about the way the application processes Forms data, especially while transactions are being committed to the database. In this chapter you will find descriptions of the following processes:

- Committing a transaction
- Rolling back a transaction
- Using automatic record locking

A1.8.1 Committing a transaction

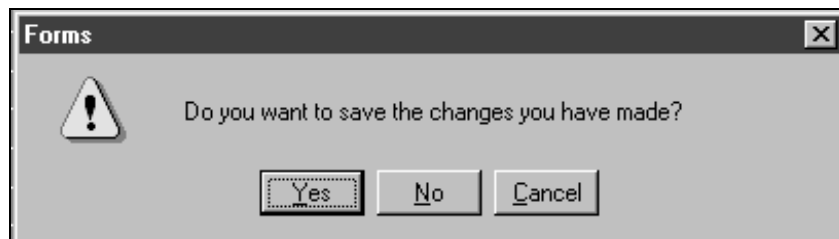
When you use a form, the modifications you make to the database tables are not recorded directly in the database; rather, they are record in the work space. To make you modifications permanent, you must commit the contents of the work space to the database by pressing [Commit/Accept]. After you have pressed this function key, data in the work space is recorded in a table. Note that [Commit/Accept] affects your work in every block of the current form, not just in the current block.

Note that while modifications are held in your work space, other database users can't see them. Therefore, if another user fetches a row after you have modified it, but before you have committed it, that user will see the unmodified version of the row.



A1.8.1.1 The Commit Dialogue

Many operations in Oracle Forms help you protect your modifications before you can proceed. For example, if you have modified the current block but have not committed the modifications, Oracle Forms displays an alert when you press [Enter Query].



Press [Next Field] to reach the response you want and press [Select] to choose it (or click on the appropriate button).

If you responded “Yes”, Oracle Forms commits the pending modifications. If you responded “No”, Oracle Forms discards the modifications for the current block. In either case, Oracle Forms then proceeds with the operation you requested. If, however, you respond “Cancel”, Oracle Forms returns you to where you were in the form without committing any changes.

The following operations will prompt you with the above alert if there are changes to commit:

- [Enter Query]
- [Execute Query]
- [Exit / Cancel]
- [Clear Block]
- [Clear Form / Rollback]
- [Count Matching Records]



A form can be designed to execute a commit at any time, and it may perform the commit without notifying you.

A1.8.1.2 Validity Checking During a Commit

During a commit, a form can check the validity of data in numerous ways. However, these validity checks are concerned only with relationships among fields and records, not blocks.

Validity checks performed during a commit may include:

- Checks for uniqueness. These checks prevent any two rows of a table from having the same value in a given field. For example, this check prevents two records from having the same order number.
- Checks for consistency. For example, a consistency check might ensure that the sum of the detail lines in an order matches the total order value.

If an error is detected, Oracle Forms displays a message informing you of the error. This message may be a standard Oracle Forms message, or it may be a message created by the form’s designer. Next, Oracle Forms moves the cursor to the record and field where the error was detected.

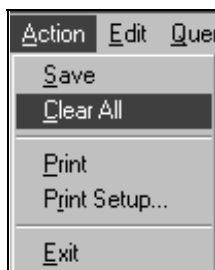


If any record in the work space fails to pass a validity check, the entire commit operation fails; nothing in the work space is committed. You must correct the error and commit again.

A1.8.2 Rolling Back a Transaction

To discard the contents of the work space, you can perform a Rollback by pressing [Clear Form / Rollback]. Once you have committed a transaction to the database, [Clear Form / Rollback] will not discard it.

Note that you can use [Clear Block] to clear the part of the work space that holds records for the current block.



A1.8.3 Using automatic record locking

Oracle Forms provides automatic record locking to prevent two or more users from updating the same records at the same time. When you attempt to update a record, Oracle Forms determines whether the record has been updated or deleted by another user since you executed the query that retrieved the record. If the record has been updated or deleted since you retrieved it, you will have to re-execute the query in order to see and work with the revised record. If the record has not been changed, Oracle Forms will lock the record so that other users cannot make modifications while you are updating it.

Under certain circumstances, you may want to lock a record before automatic locking takes place. (For example, you may want to lock an order while you modify its item lines). If you need to lock a record before automatic locking takes place, press [Lock Record].



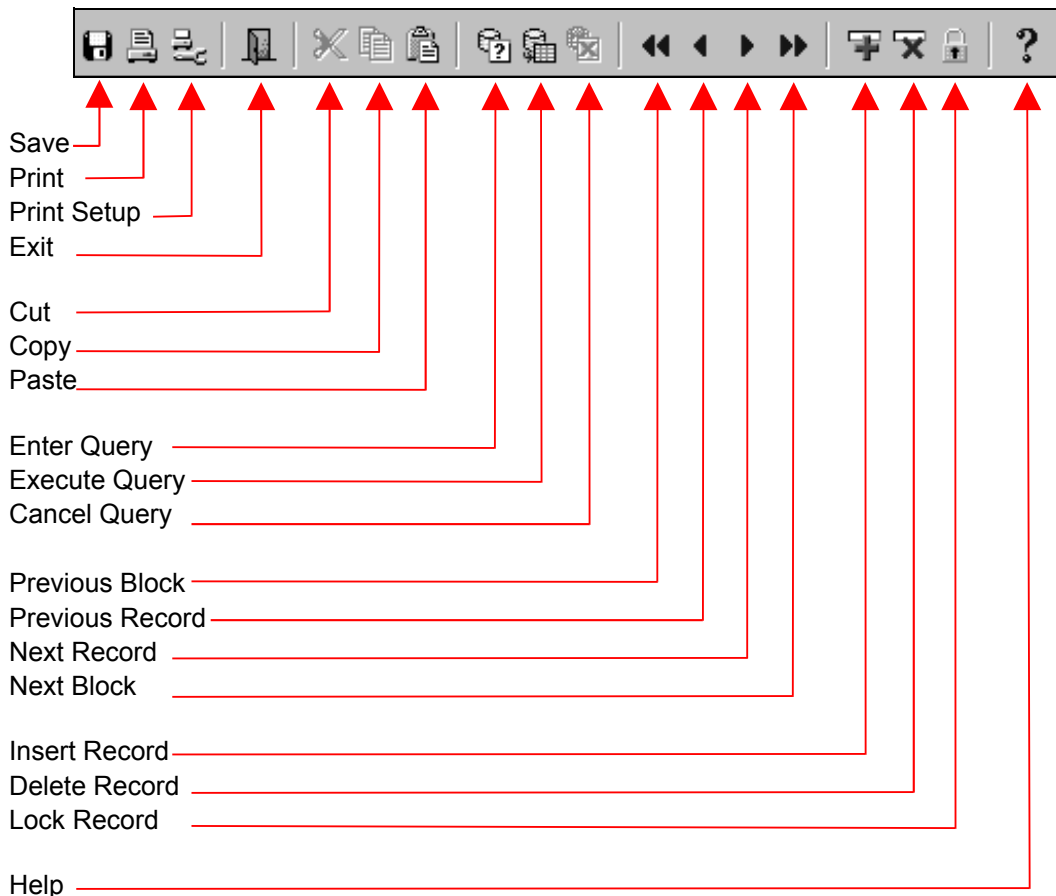
A1.9 Toolbars

This section describes the various toolbars used in this application

- The Default Menu Toolbar
- The Report Parameters Toolbar
- The Report Previewer Toolbar

A1.9.1 The Standard Forms Entry Toolbar

PRO*Resort uses mode-sensitive buttons to provide shortcuts to standard actions. The mode changes automatically depending on the state of the form.



Here are details of each Toolbar button –

Save

Closes the current dialog box if there is one
 OR
 Enters into the database all changes made since the last [Accept] or [Clear Form].

Print

Writes the current screen to a file and asks if you want to print it.

Print Setup

Choose which printer to print to OR
Reconfigure the printer from within the present application.

Exit

Exit the current application.

Cut

Removes an area of text after it has been selected and stores it in the paste buffer.

Copy

Copies area of text that has been selected and stores it in the paste buffer.

Paste

Pastes text in paste buffer into current cursor location.

Enter Query

Clears the current block and allows you to enter query criteria.

In Enter Query mode, the following keys have these functions:

- [Enter Query] displays the query criteria last used.
- [Execute Query] performs the query. If records are retrieved, returns to normal operation; however, if no record are found, remains in Enter Query mode.
- [Exit/Cancel] returns to normal operation without performing the query.
- [Count Matching Records] displays the number of rows that satisfy the current query criteria. Clears the current block and retrieves all the records from the database table referenced by the block. (Only those records that can fit on the screen are displayed.)

When used after [Enter Query], [Execute Query] executes a query with the criteria you have specified.

Execute Query

Clears the current block and retrieves all the records from the database table referenced by the block. (Only those records that can fit on the screen are displayed.)

When used after [Enter Query] [Execute Query] executes a query with the criteria you have specified.

Cancel Query

Abandon the current query, and change the display mode back into 'view' mode.

Previous Block

Move the cursor into the previous block on the current screen.

Previous Record

Move the cursor to the previous record in the current block, or load the previous record from the result set into the current screen.

Next Record

Move the cursor to the next record in the current block, or load the next record from the result set into the current screen.

Next Block

Moves the cursor to the next block in the form that contains at least one enterable field. (The order is established by the form designer.)

Insert Record

Clear the current screen, and use it to enter the details of a new record. Once all the details are complete, press the Save button to store the new record in the database.

Delete Record

Remove the current record from the database.

Lock Record

Locks a record so that another user cannot change the records while you are updating it. [Lock Record] does not allow you to enter or change any data in a field that is protected against entry or update.

Help

Displays a brief help message for the current field. Pressing [Help] twice may display advanced help information if available for that field.

A1.10 Standard Function Keys

As well as having the Toolbar buttons available for frequently used functions, PRO*Resort also provides a rich set of function key strokes for both screen navigation and record manipulation.



Keystrokes shown below relate to *client/server* implementation. Keystrokes are different for *web browser* clients – use **Ctrl+K inside web browser client to view keystroke options.**

Function	Keystroke	Notes
Accept / Commit / Save	F10	Closes the current dialogue box if there is one. OR Enters into the database all changes made since the last [Accept] or [Clear Form].
Block Menu	F5	Displays a list of all the blocks in the current form. From this list, select the required block. Choosing a block from the block menu causes the cursor to move to that block. If a form has many blocks, [Block Menu] will usually move the cursor to a block more quickly than [Next Block] or [Previous Block].
Cancel	ESC	Abort the current operation.
Clear Block	Shift + F5	Clears all records from the current block and creates a new record. [Clear Block] prompts for changes to be committed. [Clear Block] does not remove records from the database; it only removes records from the work space.
Clear Field	Ctrl + u	Clears the contents of the current field beginning at the current cursor position. If the cursor is to the right of all the characters in the field, [Clear Field] clears the field.
Clear Form/Rollback	Shift + F7	Clears all the blocks of the current form, deletes all data in all blocks of the form, and does a rollback. [Clear Form] prompts for changes to be committed. [Clear Form] undoes all inserts, updates and deletes posted to the database. [Clear Form] does not delete records from the database; it only removes records from the work space.
Clear Record	Shift + F4	Removes the current record from the current block, reversing any uncommitted changes made to that record. A cleared record is NOT deleted from the database.
Copy Text	Ctrl + c	Copies area of text that has been selected and stores

Function	Keystroke	Notes
		it in the paste buffer.
Count Matching Records	Shift + F2	<p>Clears the current block and displays on the message line the number of rows that a query would retrieve if executed.</p> <p>In Enter Query mode, the current block does not clear.</p> <p>When used in Enter Query mode, [Count Matching Records] counts the number of records matching the specified search criteria.</p> <p>Note: Pressing [Count Matching Records] after [Execute Query] terminates the query, clears all the records from the work space, and counts all of the records in the table that can be retrieved by the block.</p>
Cut Text	Ctrl + x	Removes an area of text after it has been selected and stores it in the paste buffer.
Debug Mode	Ctrl + ?	Switch on debugging mode.
Delete Backwards	Backspace	Deletes the character to the left of the current cursor position.
Delete Backwards	Delete	Deletes the character to the left of the current cursor position.
Delete Record	Shift + F6	Deletes a retrieved record from the screen and from the database. Records are not permanently deleted until changes are committed to the database.
Display Error	Shift + F1	Display error information and / or advanced help information, if available, for the field where the last error occurred.
Down	DownArrow	<p>Moves the cursor to the same field in the next record.</p> <p>If the next record is a new record, [Down] moves the cursor to the first field of the new record.</p>
Down	Ctrl + I	<p>Moves the cursor to the same field in the next record.</p> <p>If the next record is a new record, [Down] moves the cursor to the first field of the new record.</p>
Duplicate Field/Item	F3	Copies the field value from the same field of the previous record in to the current field.
Duplicate Record	F4	Copies all field values from the previous record in to a new record.
Edit	Ctrl + e	<p>Display a pop-up window in which the operator can edit a field.</p> <p>[Edit] is a toggle switch – pressing it twice dissolves the window. Press [Exit/Cancel] to dissolve the window without accepting its contents.</p>
Enter Query	F7	Clears the current block, allowing entry of query criteria.

Function	Keystroke	Notes
		<p>In Enter Query mode, the following keys have these functions:</p> <ul style="list-style-type: none"> • [Enter Query] displays the query criteria last used. • [Execute Query] performs the query. If records are retrieved, returns to normal operation; however, if no record are found, remains in Enter Query mode. • [Exit/Cancel] returns to normal operation without performing the query. • [Count Matching Records] displays the number of rows that satisfy the current query criteria.
Execute Query	F8	<p>Clears the current block and retrieves all the records from the database table referenced by the block. (Only those records that can fit on the screen are displayed.)</p> <p>When used after [Enter Query], [Execute Query] executes a query with the criteria specified.</p>
Exit/Cancel Query	Ctrl + q	<p>Exits the current form and returns to the system command prompt. [Exit / Cancel] also terminates query processing or interrupts the [List of Values] function.</p> <p>In editor, functions like [Undo] by undoing all changes in that session. [Exit / Cancel] also dissolves the editing window.</p>
Exit	Alt + F4	Exits the application.
Help	F1	Displays a brief help message for the current field. Pressing [Help] twice may display advanced help information if available for that field.
Last Query	F7 + F7	Re-submit the most recent query.
List Of Values	F9	<p>Activates a list of values, if there is one available for this field. Following are the two types of lists of values:</p> <p>Type (1) If a pop-up window appears, the window will display an editable field and list of possible values for the current field. Press [Next Field] to move the cursor to the editable field, enter search criteria, and press [List of Values]. SQL*Forms executes the selection and returns the cursor to the list.</p> <p>Use the cursor keys or [Scroll Up] and [Scroll Down] to navigate through the list. Press [Select] to choose the selection and dissolve the list of values pop-up. Press [Exit / Cancel] to leave the list without making a selection.</p> <p>Type (2) If nothing pops up when [List of values] is pressed, that field will display possible values for the current field. Press [Next Field] to see subsequent values. Press [Exit / Cancel] to select a value.</p>
New Record	F6	Clear the screen, and use it to enter details of a new

Function	Keystroke	Notes
		record
Next Field / Item	Ctrl + Tab	Moves the cursor to the next editable field in the current record. (The order is established by the form designer.)
Next Field / Item	Tab	Moves the cursor to the next editable field in the current record. (The order is established by the form designer.)
Next Primary Key	Shift + F3	Moves the cursor to the next editable field in the current record that has been designated as part of the "primary" key – those fields that uniquely identify a particular row of a database table.
Next Record	Shift + DownArrow	Moves the cursor to the next record in the current block. If no more records are found, [Next Record] creates a new blank record (unless the current record is blank).
Next Record	PageDown	Moves the cursor to the next record in the current block. If no more records are found, [Next Record] creates a new blank record (unless the current record is blank).
Next Set of Records	Ctrl + >	Retrieves the next set of records (a number specified by the designer) into the current block from records that satisfy an active query.
Paste Text	Ctrl + v	Pastes text in paste buffer at current cursor location.
Previous Field / Item	Shift + Ctrl + Tab	Moves the cursor to the previous editable field in the current record. (The order is established by the form designer.)
Previous Field / Item	Shift + Tab	Moves the cursor to the previous editable field in the current record. (The order is established by the form designer.)
Previous Menu	Ctrl + Enter	
Previous Record	Shift + UpArrow	Moves the cursor to the previous record in the current block.
Previous Record	PageUp	Move to the previous record in the result set. This will either scroll the cursor up through a list or refresh the current record in the current block
Print	Shift + F8	Writes the current screen to a file and asks for printing confirmation.
Return	Enter	Transmits and validates data but does not commit the data to the database.
Show Keys	Ctrl + F1	Displays the function key assignments currently in effect.
Up	UpArrow	Moves the cursor to the same field in the previous record.