Creating and Using a List Of Values Object

List Of Values (LOV) objects are useful for providing valid field choices to the user. They are particularly valuable if a field is a foreign key. For example, a user may have to enter a department number without knowing what departments have which numbers. The LOV can be used to inform them of valid values via a *modal* window and even populate a field or form item based on a mouse click. The process is a bit long but the reward is a more useful form.

1. Open a pre-existing form which has a field which needs the LOV. An employee form based on the Emp table contains a foreign key Deptno which refers to the Dept table, for example.

2. From the Object Navigator, click the Create (+) button. A New LOV dialog box should appear.

3. Enter the SQL SELECT statement to get values to appear in your LOV. (An ORDER BY clause can be used to cause data in the LOV window to appear as you would like it.

4. An *LOV object* and a *Record Group object* will be created and will inherit a common generic name. Change the name of each to something meaningful such as Dept.

5. Select the **LOV** in the **Object Navigator** and right click and choose **Property Palette** to open its property sheet. Under **Functional** properties, set the **Title** to useful text. Other properties such as the color and width (for the LOV window) can be set later.

6. Select the **Column Mapping** property and click the **More...** button that appears. A dialog box will be launched to allow you to attach the LOV to something already on your form.

7. In the top window (**Column Names**) you should see a list of columns available to your LOV. Here they would be Deptno and Dname as those were the fields chosen when we entered our SELECT statement in step 3. Select the column you wish to map (several mappings can be made). The **Return Item** box lets us choose the existing form item we want to affect whenever the user picks from the LOV window. Entering **Emp.Deptno** would map the LOV to the Deptno Text Item in the Emp Data Block.

8. Select the object which will use the LOV here the Deptno Text Item. Open the item’s property sheet. Scroll down to the **List Of Values (LOV)** category. Enter the name of the LOV in the **List Of Values** property. (A drop down is available to quickly change the <Null> value available LOV names.

9. Set the **Validate From List** property to **Yes** so the proper value can be selected from the LOV window and placed in the form item.

When the form is run and a query has been executed, the LOV is mapped to the form item and can be invoked by pressing the F9 key whenever the focus is on the mapped item. As the user
clicks to select a value from the LOV window, the corresponding value is automatically placed into the form item. In this example, clicking a department name from the LOV window would cause the correct department number to change in the Deptno Text Item.

**Attaching a Button to Display the LOV**

Pressing the F9 function key may not be the best method to display a LOV, especially if the user is not paying attention to the status line at the bottom of the window. To attach a pushbutton to activate the LOV window following the steps below.

1. From the **Layout Editor** drag a BUTTON object next to the item which uses the LOV here it is the Deptno.TEXT ITEM.

2. From the **Property Palette** find the **Functional** properties. Set the **Label** text to a vertical bar (|). This convention is fairly standard for LOVs in Oracle applications.

3. Resize the button; 13 by 13 is a convenient size.

4. With the button still the selected object, choose the **PL/SQL Editor**. The **WHEN-BUTTON-PRESSED** event can be set to send focus to the LOV text item using the **GO_ITEM** built-in followed by the **LIST_VALUES** built_in which triggers the LOV window. Here the code would be:

```sql
   go_item ( Emp.Deptno );
   list_values;
```