Appendix 1. The Results Page Code

```
<%@LANGUAGE="VBSCRIPT"%>
<!--#include file="Connections/TDSFdemoOLE.asp" -->
<%
Keywords = Request("txtKeywords")         ' The words entered in the text field stored as a Text String in a Variable called
                                          ' Keywords
MatchType = Request("SelMatchType")       ' The selected search type - All Words = AND, Any Words = OR, Exact Phrase = EXACT
                                          ' stored as a Text String in a Variable called MatchType
If Keywords <> "" Then  ' If there is something in the Keywords
      SearchFields = "CombinedFields"     ' The Database table column in which we are going to look for matches to our Keywords
                                          ' stored as a Text String in a Variable called SearchFields
      Keywords = Replace(Keywords, "'","''")    ' Replace any single quotes with 2 quotes, to stop the search failing, but
                                                ' allowing exact search to find matches with words with apostrophes.
      If (MatchType <> "EXACT") Then      ' If Searchtype is not EXACT
            Keywords = Replace(Keywords, ","," ")     ' Replace any commas, colons, semicolons, dashes, undersores, forward
            Keywords = Replace(Keywords, ":"," ")     ' slashes or back slashes in the text entered in the Keywords text
            Keywords = Replace(Keywords, ";"," ")     ' field with a space.
            Keywords = Replace(Keywords, "-"," ")
            Keywords = Replace(Keywords, "_"," ")
            Keywords = Replace(Keywords, "/"," ")
            Keywords = Replace(Keywords, "\"," ")
            WhereKeywordsString = " WHERE " & SearchFields & " LIKE '%" ' The SQL SELECT statement WHERE clause stored as a Text
                                                                        ' String in a Variable called WhereKeywordsString
            SearchArray = Split(Keywords," ")   ' Split the Keywords that are now separated by spaces and store them in an array
            For i = 0 to Ubound(SearchArray)    ' Repeat the following for each word in the array
                  If i > 0 Then
                        WhereKeywordsString = WhereKeywordsString & " " & MatchType & " " & SearchFields & " LIKE '%" &
SearchArray(i) & "%'" ' Builds the SQL statement substituting AND / OR as defined by MatchType
                  Else
                  WhereKeywordsString = WhereKeywordsString & SearchArray(i) & "%'" ' If there is only one word in the
                                                                                          ' array
                  End If
            Next
      Else
      WhereKeywordsString = " WHERE CombinedFields LIKE '%" & Keywords & "%'" 'If the SearchType selected was EXACT
      End If      ' End If Searchtype is not EXACT
%>
<%
      set rsQryCombinedFields = Server.CreateObject("ADODB.Recordset")  ' The Ultradev genrated code to open the recordset and
      rsQryCombinedFields.ActiveConnection = MM_TDSFdemoOLE_STRING      ' return the rows that contain a match with the Keywords
      rsQryCombinedFields.Source = "SELECT DISTINCT AlbumID  FROM QryCombinedFields" & WhereKeywordsString
      rsQryCombinedFields.CursorType = 0                                ' entered in the textfield
      rsQryCombinedFields.CursorLocation = 2
      rsQryCombinedFields.LockType = 3
      rsQryCombinedFields.Open()
      rsQryCombinedFields_numRows = 0
%>
```

```
<%
      If ((Not rsQryCombinedFields.BOF) Or (Not rsQryCombinedFields.EOF)) Then ' If it is not the Beginning (BOF = Beginning OF
                                                                         ' File)or the End (EOF = End Of File) of the recordset
                                                                         ' which basically means If the recordset is not empty,
                                                                         ' which it would be if the SELECT statement found no
                                                                         ' matches to the Keywords entered.
      AlbumString =(rsQryCombinedFields.Fields.Item("AlbumID").Value) ' Find the value of the first AlbumID in the recordset
                                                                      ' and store it as a value in a Variable called AlbumString
            rsQryCombinedFields.MoveNext()  ' Move to the next record in the recordset, our recordset only contains one column
                                            ' so it will in effect move to the next row.
            While NOT rsQryCombinedFields.EOF ' Check that we are not at the end of the recordset and execute the following
                                              ' block of code, repeat until we get to the recordset.
                  ThisAlbumID =(rsQryCombinedFields.Fields.Item("AlbumID").Value) ' Find the value of AlbumID in the current row
                                                                                  ' of the recordset and store it as a value in
                                                                                  ' a Variable called ThisAlbumID
                  AlbumString = AlbumString & "," & ThisAlbumID  ' Add a comma and the current AlbumID to the string on each
                                                                 ' pass through the loop.
                  rsQryCombinedFields.MoveNext() ' Move to the next record in the recordset
            Wend ' When we get to the end of the recordset stop executing the code in the While loop and continue.
                  rsQryCombinedFields.Close()  'Close the recordset.
      End If  ' End if it is not BOF or EOF

      IF AlbumString <>"" Then 'If we found an AlbumID
            sqlString =" WHERE AlbumID IN (“ & AlbumString & ")" ' redefine the sqlString variable which contains the
                                                                 ' WHERE clause for our SQL SELECT statement.
            Else 'Otherwise
            DontDo = 1  ' Create a variable called DontDo and set its value to 1. If there were words entered in the text field
                        ' and we looked for a text match but couldn't find any
      End If      'End if we found an AlbumID
Else  'If no Keywords were entered in the TextField dont bother executing all the code prior to this but jump straight to this
      ' point.
sqlString = "WHERE AlbumID <>-1"    'Set the value of the variable sqlString to WHERE AlbumID <> -1
End If      'End If there is something in the Keywords
%>
```

```
<%
If DontDo <> 1 Then  ' If the variable we created called DontDo does have a value of 1 then dont bother executing the following
                     ' code. Because if it is 1, it means that text was entered and we looked for matches but couldn't find any,
                     ' therefore it doesn't matter what further search parameters were specified we will not find any results, so
                     ' don't bother looking.
      Format = Request("selFormat")                     ' Create a variable called Format and set its value to the FormatID value
                                                        ' selected from the selFormat List/Menu
      Genre = Request("selGenre")                 ' Create a variable called Genre and set its value to the GenreID value selected
                                                  ' from the selGenre List/Menu
      SortString = (Request("selSortBy")) & (Request("radDirection")) ' Create a variable called SortString and set its value to
                                                                      ' the value selected from the selSortBy List/Menu joined
                                                                      ' together with the value of the radio button selected.

      If Format <> "-1" Then  ' If a specific Format was selected
            AndFormatString = " AND FormatID = " & Format ' Create a variable called AndFormatString and set its value to (AND
                                                          ' FormatID = n) where n is the FormatID value from the selFormat
                                                          ' List/Menu

            Else ' Otherwise
            AndFormatString = ""    ' Make sure the variable AndFormatString is empty
      End If

      If Genre <> "-1" Then   ' If a specific Genre was selected
            AndGenreString = " AND GenreID = " & Genre ' Create a variable called AndGenreString and set its value to (AND
                                                       ' GenreID = n) where n is the GenreID value from the selGenre List/Menu

            Else ' Otherwise
            AndGenreString = ""     ' Make sure the variable AndGenreString is empty
      End If

      sqlString = sqlString & AndFormatString & AndGenreString & SortString ' Take the original search parameter (which is
                                                                            ' either WHERE Albums.AlbumID <> -1 if no text was
                                                                            ' entered in the text field or the WHERE String we
                                                                            ' generated as a result of the search of the
                                                                            ' rsQryCombinedFields recordset) and join all the
                                                                            ' additional search parameters to it

%>
<%
      set rsQryDisplayFields = Server.CreateObject("ADODB.Recordset") ' The ultradev generated code to open the recordset and
      rsQryDisplayFields.ActiveConnection = MM_TDSFdemoOLE_STRING     ' return the results according to our SELECT statement
      rsQryDisplayFields.Source = "SELECT DISTINCT  AlbumID, ArtistName, AlbumTitle, Genre  FROM QryDisplayFields "  & sqlString
      rsQryDisplayFields.CursorType = 0
      rsQryDisplayFields.CursorLocation = 2
      rsQryDisplayFields.LockType = 3
      rsQryDisplayFields.Open()
      rsQryDisplayFields_numRows = 0
%>
```

Now Lets explain the changes.

First, below the first couple of lines:

```
<%@LANGUAGE="VBSCRIPT"%>
<!--#include file="Connections/TDSFdemoOLE.asp" -->
```

We need to insert the following code:

Block 1.

```
<%
Keywords = Request("txtKeywords")          ' The words entered in the text field stored as a Text String in a Variable called
                                           ' Keywords
MatchType = Request("SelMatchType")        ' The selected search type - All Words = AND, Any Words = OR, Exact Phrase = EXACT
                                           ' stored as a Text String in a Variable called MatchType
If Keywords <> "" Then  ' If there is something in the Keywords
 1      SearchFields = "CombinedFields"    ' The Database table column in which we are going to look for matches to our Keywords
                                           ' stored as a Text String in a Variable called SearchFields
      Keywords = Replace(Keywords, "'","''")     ' Replace any single quotes with 2 quotes, to stop the search failing, but
                                                 ' allowing exact search to find matches with words with apostrophes.
      If (MatchType <> "EXACT") Then       ' If Searchtype is not EXECT
            Keywords = Replace(Keywords, ",","  ")     ' Replace any commas, colons, semicolons, dashes, undersores, forward
            Keywords = Replace(Keywords, ":"," ")      ' slashes or back slashes in the text entered in the Keywords text
            Keywords = Replace(Keywords, ";"," ")      ' field with a space.
            Keywords = Replace(Keywords, "-"," ")
            Keywords = Replace(Keywords, "_"," ")
            Keywords = Replace(Keywords, "/"," ")
            Keywords = Replace(Keywords, "\"," ")
      If (MatchType <> "EXACT") Then       ' If Searchtype is not EXECT
            WhereKeywordsString = " WHERE " & SearchFields & " LIKE '%" ' The SQL SELECT statement WHERE clause stored as a Text
                                                                        ' String in a Variable called WhereKeywordsString
            SearchArray = Split(Keywords," ")    ' Split the Keywords that are now separated by spaces and store them in an array
            For i = 0 to Ubound(SearchArray)     ' Repeat the following for each word in the array
                  If i > 0 Then
                        WhereKeywordsString = WhereKeywordsString & " " & MatchType & " " & SearchFields & " LIKE '%" &
SearchArray(i) & "%'" ' Builds the SQL statement substituting AND / OR as defined by MatchType
                  Else
                  WhereKeywordsString = WhereKeywordsString & SearchArray(i) & "%'" ' If there is only one word in the
                                                                                    ' array
                  End If
            Next
      Else
      WhereKeywordsString = " WHERE CombinedFields LIKE '%" & Keywords & "%'" 'If the SearchType selected was EXACT
      End If      ' End If Searchtype is not EXACT
%>
```

Block 1. first checks whether the user has entered anything in the text field of the search page. If they haven't it skips to 2. If there is some text it builds a WHERE clause for the SELECT statement based on the number of words in the text field and the search type specified and stores it in a variable called WhereKeywordsString.

Block 2.

```
<%
      set rsQryCombinedFields = Server.CreateObject("ADODB.Recordset")   ' The Ultradev genrated code to open the recordset and
      rsQryCombinedFields.ActiveConnection = MM_TDSFdemoOLE_STRING       ' return the rows that contain a match with the Keywords
      rsQryCombinedFields.Source = "SELECT DISTINCT AlbumID  FROM QryCombinedFields" & WhereKeywordsString
      rsQryCombinedFields.CursorType = 0                                 ' entered in the textfield
      rsQryCombinedFields.CursorLocation = 2
      rsQryCombinedFields.LockType = 3
      rsQryCombinedFields.Open()
      rsQryCombinedFields_numRows = 0
%>
```

Above is the code that Ultradev created for us when we added the Recordset rsQryCombinedFields to the page. Notice the green text within quotes. This is the SQL select statement that we modified in the SQL window in section 7.20 of the tutorial. In code view we have added **& WhereKeywordsString** to the end, which will add the WHERE clause to the SELECT statement generated by the code in Block 1.

Block 3.

```
<%
      If ((Not rsQryCombinedFields.BOF) Or (Not rsQryCombinedFields.EOF)) Then ' If it is not the Beginning (BOF = Beginning OF
                                                                          ' File)or the End (EOF = End Of File) of the recordset
                                                                          ' which basically means If the recordset is not empty,
                                                                          ' which it would be if the SELECT statement found no
                                                                          ' matches to the Keywords entered.
      AlbumString =(rsQryCombinedFields.Fields.Item("AlbumID").Value) ' Find the value of the first AlbumID in the recordset
                                                                      ' and store it as a value in a Variable called AlbumString
            rsQryCombinedFields.MoveNext()  ' Move to the next record in the recordset, our recordset only contains one column
                                            ' so it will in effect move to the next row.
            While NOT rsQryCombinedFields.EOF ' Check that we are not at the end of the recordset and execute the following
                                              ' block of code, repeat until we get to the recordset.
                  ThisAlbumID =(rsQryCombinedFields.Fields.Item("AlbumID").Value)  ' Find the value of AlbumID in the current row
                                                                                   ' of the recordset and store it as a value in
                                                                                   ' a Variable called ThisAlbumID
                  AlbumString = AlbumString & "," & ThisAlbumID   ' Add a comma and the current AlbumID to the string on each
                                                                  ' pass through the loop.
                  rsQryCombinedFields.MoveNext() ' Move to the next record in the recordset
            Wend ' When we get to the end of the recordset stop executing the code in the While loop and continue.
                  rsQryCombinedFields.Close()  'Close the recordset.
      End If  ' End if it is not BOF or EOF

      IF AlbumString <>"" Then 'If we found an AlbumID
            sqlString =" WHERE AlbumID IN (“ & AlbumString & ")" ' redefine the sqlString variable which contains the
                                                                  ' WHERE clause for our SQL SELECT statement.


            Else 'Otherwise
            DontDo = 1  ' Create a variable called DontDo and set its value to 1. If there were words entered in the text field
                        ' and we looked for a text match but couldn't find any
2
      End If      'End if we found an AlbumID
Else  'If no Keywords were entered in the TextField dont bother executing all the code prior to this but jump straight to this
      ' point.
sqlString = "WHERE AlbumID <>-1"     'Set the value of the variable sqlString to WHERE AlbumID <> -1
End If      'End If there is something in the Keywords
%>
```

Block 3. First checks to see if any records were found that contained the text the user entered in the text field on the search page. If there were any matches Create a new WHERE clause for the SELECT statement in Block 5 and stores it in a variable called **sqlString**. If there weren’t any matches it creates a variable called **DontDo** and set its value to 1

Block 4.

```
<%
If DontDo <> 1 Then ' If the variable we created called DontDo does have a value of 1 then dont bother executing the following
3                   ' code. Because if it is 1, it means that text was entered and we looked for matches but couldn't find any,
                    ' therefore it doesn't matter what further search parameters were specified we will not find any results, so
                    ' don't bother looking.
      Format = Request("selFormat")                   ' Create a variable called Format and set its value to the FormatID value
                                                      ' selected from the selFormat List/Menu
      Genre = Request("selGenre")               ' Create a variable called Genre and set its value to the GenreID value selected
                                                ' from the selGenre List/Menu
      SortString = (Request("selSortBy")) & (Request("radDirection")) ' Create a variable called SortString and set its value to
                                                                      ' the value selected from the selSortBy List/Menu joined
                                                                      ' together with the value of the radio button selected.
      If Format <> "-1" Then  ' If a specific Format was selected
            AndFormatString = " AND FormatID = " & Format ' Create a variable called AndFormatString and set its value to (AND
                                                          ' FormatID = n) where n is the FormatID value from the selFormat
                                                          ' List/Menu
            Else ' Otherwise
            AndFormatString = ""    ' Make sure the variable AndFormatString is empty
      End If

      If Genre <> "-1" Then   ' If a specific Genre was selected
            AndGenreString = " AND GenreID = " & Genre ' Create a variable called AndGenreString and set its value to (AND
                                                       ' GenreID = n) where n is the GenreID value from the selGenre List/Menu
            Else ' Otherwise
            AndGenreString = ""     ' Make sure the variable AndGenreString is empty
      End If

      sqlString = sqlString & AndFormatString & AndGenreString & SortString ' Take the original search parameter (which is
                                                                            ' either WHERE Albums.AlbumID <> -1 if no text was
                                                                            ' entered in the text field or the WHERE String we
                                                                            ' generated as a result of the search of the
                                                                            ' rsQryCombinedFields recordset) and join all the
                                                                            ' aditional search paramaeters to it
%>
```

Block 4. First checks that the value of the DontDo variable is not equal 1, if it is, it skips to 4 at the end of all the code just above HTML tag because we don't want to waste time looking for matching Genres Formats etc. in what will be an empty recordset. If Dont Do is not equal to 1 then we want to check to see if specific Formats and Genres are to be looked for, if they are hold them in the variables AndFormatString and AndGenreString. Finally construct our complete WHERE clause by concatenating all the variables together.

Block 5.

```
<%
      set rsQryDisplayFields = Server.CreateObject("ADODB.Recordset") ' The ultradev generated code to open the recordset and
      rsQryDisplayFields.ActiveConnection = MM_TDSFdemoOLE_STRING      ' return the results according to our SELECT statement
      rsQryDisplayFields.Source = "SELECT DISTINCT  AlbumID, ArtistName, AlbumTitle, Genre  FROM QryDisplayFields "  & sqlString
      rsQryDisplayFields.CursorType = 0
      rsQryDisplayFields.CursorLocation = 2
      rsQryDisplayFields.LockType = 3
      rsQryDisplayFields.Open()
      rsQryDisplayFields_numRows = 0
%>
```

Block 5. is the code Ultrdev generated when we added the second recordset rsQryDisplayFields to the page. However we have modified it a bit.

The following piece of code was removed completely:

```
<%
Dim rsQryDisplayFields__sqlString
rsQryDisplayFields__sqlString = "WHERE AlbumID <> -1"
if (sqlString <> "") then rsQryDisplayFields__sqlString = sqlString
%>
```

The section of code at the end of the SELECT statement was removed and replaced with **& sqlString**

```
... Genre  FROM QryDisplayFields  " + Replace(rsQryDisplayFields__sqlString, "'", "''") + ""
```

The next long section of code after Block 5 all the way to the HTML tag `<html>` is that which Ultradev generated when we added in the Live Data objects and Server Behaviours to provide the recordset navigation links and to Show Regions of the page according to whether or not the recordset rsQryDisplayFields was empty.

There are a couple of modifications within this code:

Within the following section which is just below Block 5. Added the two lines of code in the orange box.

```
<%
      Dim Repeat2__numRows
      Repeat2__numRows = 10
      Dim Repeat2__index
      Repeat2__index = 0
      rsQryDisplayFields_numRows = rsQryDisplayFields_numRows + Repeat2__numRows
%>
```

5 **End If - is at 6 just above HTML Tag**

```
<%
      If Not rsQryDisplayFields.EOF Or Not rsQryDisplayFields.BOF Then 'If the recordset rsQryDisplayFields is not empty
      DoDo = 1 ' Create a variable called DoDO and set its value to 1

            '  *** Recordset Stats, Move To Record, and Go To Record: declare stats variables

            ' set the record count
            rsQryDisplayFields_total = rsQryDisplayFields.RecordCount
```

Right at the end of the VBScript just above the HTML tag there are a further two lines of code to End earlier If statements.

```
            ' set the strings for the move to links
            If (MM_keepMove <> "") Then MM_keepMove = MM_keepMove & "&"
            urlStr = Request.ServerVariables("URL") & "?" & MM_keepMove & MM_moveParam & "="
            MM_moveFirst = urlStr & "0"
            MM_moveLast  = urlStr & "-1"
            MM_moveNext  = urlStr & Cstr(MM_offset + MM_size)
            prev = MM_offset - MM_size
            If (prev < 0) Then prev = 0
            MM_movePrev  = urlStr & Cstr(prev)
```

6

4

```
      End If ' End If recordset rsQryDisplayFields is empty.
End If ' End If DontDo <> 1, if DontDo was equal to 1 then we wouldn't have bothered with all this code.
%>
<html>
```

Next we need to make some changes to the VBScript embedded in the HTML.

The changes, have again, been shown in orange boxes.

7 **End If - is at 8**

```
      <% If DontDo <> 1 Then
             If Not rsQryDisplayFields.EOF Or Not rsQryDisplayFields.BOF Then %>
      <table width="100%" border="1" cellspacing="0" cellpadding="5">
        <tr>
          <td width="30%"><b><font size="-1" face="Arial, Helvetica, sans-serif">Artist or Group Name</font></b></td>
          <td width="50%"><b><font size="-1" face="Arial, Helvetica, sans-serif">Album Name</font></b></td>
          <td width="20%"><b><font size="-1" face="Arial, Helvetica, sans-serif">Genre</font></b></td>
        </tr>
<%
If DontDo <> 1 Then
      While ((Repeat2__numRows <> 0) AND (NOT rsQryDisplayFields.EOF))
%>
        <tr>
          <td width="30%"><font size="-1" face="Arial, Helvetica, sans-
                                    serif"><%=(rsQryDisplayFields.Fields.Item("ArtistName").Value)%></font></td>
          <td width="50%"><font size="-1" face="Arial, Helvetica, sans-serif"><A HREF="originaldetails.asp?<%= MM_keepNone &
                                    MM_joinChar(MM_keepNone) & "AlbumID=" & rsQryDisplayFields.Fields.Item("AlbumID").Value
                                    %>"><%=(rsQryDisplayFields.Fields.Item("AlbumTitle").Value)%></A></font></td>
          <td width="20%"><font size="-1" face="Arial, Helvetica, sans-
                                    serif"><%=(rsQryDisplayFields.Fields.Item("Genre").Value)%></font></td>
        </tr>
        <%
      Repeat2__index=Repeat2__index+1
      Repeat2__numRows=Repeat2__numRows-1
      rsQryDisplayFields.MoveNext()
      Wend
End If
%>
      </table>
```

More changes further down.

```
</table>
      <% End If ' end Not rsQryDisplayFields.EOF Or NOT rsQryDisplayFields.BOF
 8              End If %>
      <% If DontDo = 1 OR DoDo <> 1 Then ' If DontDo was equal to 1 OR DoDo was not equal to 1 then our search found no results
                                          and we need to give the user a nice message rather than just an empty page %>
      <table width="100%" border="0" cellspacing="10" cellpadding="0" class="SearcHeaders">
        <tr>
          <td height="15"><b><font size="-1">Sorry, no albums found.</font></b></td>
        </tr>
      </table>
      <% End If %>
```

Finally, at the very end of the page after the closing HTML tag we have made a couple more changes, the Code in the orange box has been removed completely, and we have added a final If Then condition.

```
 </html>
<%
rsQryCombinedFields.Close()
%>
<%
If DontDo <> 1 Then 'If DontDo is equal to 1 then the recordset was never open and it will cause an error if we try to close it.
rsQryDisplayFields.Close()
End If
%>
```