ExtractDataTable

(Q) How do I get data from a database table into my Basic application ?

tags:
HowTo

(R) After you have located a particular record or records, you may want to extract data to use in your application. 2 methods are proposed: a single value or bulk data.

Let's consider next table:

- Orders table

Fields	Field Type	Primary
CustomerID	Text	
EmployeeID	Integer	
Freight	Number	
OrderDate	Date/Time	
OrderID	BigInt	Y
RequiredDate	Date/Time	
ShipAddress	Text	
ShipCity	Text	
ShipCountry	Text	
ShipName	Text	
ShippedDate	Date/Time	
ShipPostalCode	Text	
ShipRegion	Text	
ShipVia	Integer	

Copying a Single Field

You can copy a single field of a record to a variable of the appropriate data type. The following example extracts three fields from the first record in a **Recordset object**.

```
Dim odbNorthwind As Object
Dim orsOrders As Object
Dim dOrderDate As Date
Dim sShipAddress As String
Dim sShipCity As String

        Set odbNorthwind = Application.CurrentDb
        Set orsOrders = odbNorthwind.OpenRecordset("Orders")

        With orsOrders
                .MoveFirst
                dOrderDate = .Fields("OrderDate").Value
```

```
                sShipAddress = .Fields("ShipAddress").Value
                sShipCity = .Fields("ShipCity").Value
                .mClose()
        End With
```

Copying Entire Records to an Array

To copy one or more records, you can create a two-dimensional array and copy records one at a time. You increment the first subscript for each record and the second subscript for each field.

A fast way to do this is to use the **GetRows method**, which returns a two-dimensional array. The first subscript identifies the row and the second identifies the field number, as follows.

```
vRecords(iRecord, iField)
```

The following code example uses an SQL statement to retrieve three fields from a table into a *Recordset* object. It then uses the *GetRows* method to retrieve the first three records of the *Recordset*, and it stores the selected records in a two-dimensional array. It then prints each record, one field at a time, by using the two array indexes to select specific fields and records.

```
Sub ExtractDataTableBulk()
Dim odbNorthwind As Object
Dim orsOrders As Object
Dim vRecords As Variant
Dim iNumRows As Integer
Dim iNumColumns As Integer
Dim iRow As Integer
Dim iColumn As Integer
Dim sSQL As String

On Local Error GoTo ErrorHandler

        Set odbNorthwind = Application.CurrentDb
        sSQL = "SELECT [OrderDate],[ShipAddress],[ShipCity] FROM Orders"
        Set orsOrders = odbNorthwind.OpenRecordset(sSQL)

        vRecords = orsOrders.GetRows(10)
        iNumRows = UBound(vRecords, 1) + 1
        iNumColumns = UBound(vRecords, 2) + 1

        For iRow = 0 To inumRows - 1
                For iColumn = 0 To iNumColumns - 1
                        DebugPrint vRecords(iRow, iColumn)
                Next iColumn
        Next iRow

        orsOrders.mClose()
        Set orsOrders = Nothing
        Exit Sub

ErrorHandler:
        TraceError("ERROR", Err, "ExtractDataTableBulk", Erl)
End Sub
```

You can use subsequent calls to the *GetRows* method if more records are available. Because the array is filled as soon as you call the **GetRows** method, you can see why this approach is much faster than copying one field at a time.

Notice also that you do not have to declare the Variant as an array, because this is done automatically when the **GetRows** method returns records.

If you are trying to retrieve all the rows by using multiple *GetRows* calls, use the **EOF** property to be sure that you are at the end of the *Recordset*. The *GetRows* method may return fewer rows than you request. If you request more than the remaining number of rows in a *Recordset*, the *GetRows* method returns only the rows that remain.

Because the *GetRows* method always returns all the fields in the *Recordset* object, you may want to create a query that returns just the fields that you need. This is especially important for LONGVARBINARY and LONGVARCHAR (Memo) fields.

See also

DebugPrint
OpenRecordset
TraceError

Refer to ...

Basic module	Sub	Comments
HowTo	ExtractDataTable1Field	
	ExtractDataTableBulk	

Bookmark this page » » ExtractDataTable