

CalculatedField

(Q) How do I simulate a calculated field on a form ? *AOO/LibO* does not support such fields in forms while *MSAccess* does.

tags:
[HowTo](#)

(R)

- Make the calculated field `Enabled = False` in the Control properties sheet.
- Compute its content in the "After record Change" event.

Let's consider next tables:

- 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	

- Order Details table

Fields	Field Type	Primary
Discount	Float	
OrderID	BigInt	Y
ProductID	BigInt	Y
Quantity	Integer	
UnitPrice	Number	

The goal is to have a form linked to the `Orders` table in which a `SumOfDetails` calculated field contains the sum of the orders as found in the `Order Details` child records, computed as:

```
[Order Details].[UnitPrice] * [Order Details].[Quantity] * (1 - [Order Details].[Discount])
```

(1) Solution by computing the field in Basic

Store next code in the "After record Change" event of the form :

```
Sub ComputeOrderTotal(poEvent As Object)
Dim oeEvent As Object, ofForm As Object, ocSum As Object, vOrderId As Variant
    Set oeEvent = Events(poEvent)
    If Not IsNull(oeEvent) Then
        Set ofForm =oeEvent.Source
        vOrderId = ofForm.Controls("OrderID").Value
        If Not IsEmpty(vOrderId) Then
            Set ocSum = ofForm.Controls("SumOfDetails")
            ocSum.Value = DSum("[Order Details].[UnitPrice] * [Order Details].[Quantity]", "[Order Details]", "[Order Details].[OrderID]=" & vOrderId)
        End If
    End If
End Sub
```

(2) Solution with SQL only

This solution is preferable whenever possible.
To have an idea of the functions built in HSQLDB, look at [HSQLQB Built-in functions](#).
Associate the form with next SQL command and the Calculated field with the *TotalOrder* database field :

```
SELECT "Orders"."OrderID", "Orders"."OrderDate", "Orders"."ShipAddress", "Orders"."ShipCity",
SUM( "Order Details"."UnitPrice" * "Order Details"."Quantity" * ( 1 - "Order Details"."Discount" ) ) AS TotalOrder
FROM "Order Details", "Orders" WHERE "Order Details"."OrderID" = "Orders"."OrderID"
GROUP BY "Orders"."OrderID", "Orders"."OrderDate", "Orders"."ShipAddress", "Orders"."ShipCity"
```

See also

- Events Handler
- getObject
- DSum
- Forms
- Controls

Refer to ...

Solution	Basic module	Form	Form event	Control	Control event	Comments
(1)	CalculatedField	Orders_CalculatedField	After Record change			
(2)		Orders_CalculatedFieldGrid				

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