Managing Cursors, Quotes, Subforms, and Missing Data

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Wherein Christopher Weber looks at four problems: handling missing data in reports, customizing the cursor, variable
sized subforms, and managing quotes.

I have a billing report that displays our customer's billing information on the left in a single column, and our company logo on the right. Some customers have single street address lines, while others have two. I need the second address line to shrink for those customers who don't use it and have the city, state, and ZIP move up to replace it. I've set the Can Shrink property of the address2 text box to Yes, but it won't work because of the logo to its right. Is there a way to force the text box to shrink anyway?

I recently ran across this same problem when printing a series of tax forms. At first, one of my developers tried to set the visible property of the second street text box to False and then move the city, state, and ZIP up when needed. After reviewing the proposed solution, I came up with a simpler answer that avoids control names and is a general solution to the problem.

My first attempt was to use the conditional IIf( ) function to insert a carriage return and line feed characters between the addresses inside a single control when both controls weren't Null. The resulting ControlSource property for the single text box displaying address1, address2, and city, state, ZIP looked something like this:

```
=([street1] & Chr(10) & Chr(13)) & _
 IIf(IsNull([street2]),"",[street2] & Chr(10) & _
 Chr(13)) & ([city] & ", " & [state] & "  " & _
 [postalcode])
```

The idea was right, but the results were all wrong. Figure 1 shows a pair of cells produced by using the IIf statement in a query: The carriage return/line feed characters (Chr(10) & Chr(13)) appear as small boxes in the output—not an acceptable answer. I tried using the intrinsic vbCrLf constant, but immediately realized that it couldn't work either because the ControlSource property has no knowledge of the intrinsic VBA constants. However, the ControlSource property does understand VBA functions. So, I wrote a custom function that the control would process that piped in the vbCrLf inside the function:

```
Function Append_vbCrLf(varText As Variant) As Variant
  Append_vbCrLf = varText + vbCrLf
End Function
```

Because the data is coming from a table, the variant parameter varText can never come in as an uninitialized variant whose value is Empty. It will always either have a value or be Null. If Null, the plus operator cascades the Null value and returns Null. Otherwise, vbCrLf is appended to the value in the table.

My ControlSource property to call this routine looks like this:

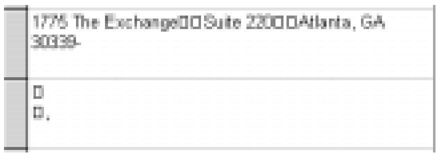
```
=Append_vbCrLf([street1]) & _
 Append_vbCrLf([street2]) & ([city] & ", " _
 & [state] & "  " & [postalcode])
```

You may have noticed that there will still be one last problem. The city and state concatenation in the second row will leave commas when there's no address information in the field. Using the same principle of cascading Nulls, I enhanced the ControlSource settings to handle this:

```
=Append_vbCrLf([street1]) & Append_vbCrLf([street2]) _
 & (([city] + ", ") & ([state] + "  ") & [postalcode])
```

Now all is well and the report doesn't need Can Shrink or Can Grow. You must make sure that the text box to the left of the logo is tall enough to accommodate any address you may run into. If you do, your address will always display correctly (as you can see in Figure 2).

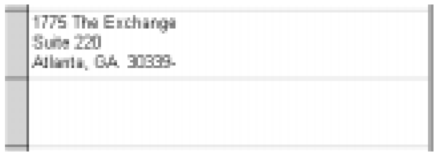
Is there a way to change the cursor for a specific control in



```
1775 The Exchange□□Suite 2200□□Atlanta, GA
30339-

□
□.
```

Figure 1. Results of inserting a new line character into a query.



```
1775 The Exchange
Suite 220
Atlanta, GA 30339-
```

Figure 2. Displaying the address.

Access? We have labels on our form whose click events run a series of custom functions depending upon which label the user chooses. I'd like those labels to signal that they're "hot" by changing the cursor to a finger when the user mouses over the label.

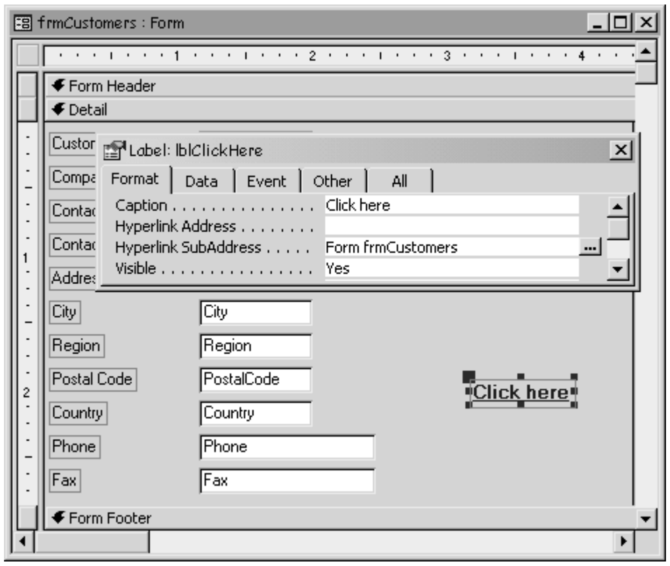
You may be tempted to use the Screen object's MousePointer property to solve this problem. Unfortunately, the finger cursor isn't one of the MousePointer's options. However, the finger cursor is available for labels that have their Hyperlink property(s) set. But, in this instance, you're using a custom function instead of a hyperlink.

Fortunately, the solution is the same for functions as it is for hyperlinks. Well, almost the same. Instead of actually using the hyperlink to go somewhere, just set the link to point to the form that the control is on. In Figure 3, lblClickHere has its Hyperlink SubAddress set to the form it appears on.

Now the finger cursor will appear whenever the cursor floats over the label. You must also set the ControlTip Text to a specific message. Otherwise, the ControlTip for a hyperlink control will default to the target of the hyperlink. In this case, that would be the name of your form. Now you just need to call your custom function in the control's OnClick event and you're set (see Figure 4).

Incidentally, Hyperlink properties (as well as Event properties) are only available for labels not associated with other controls. If you need to use a label to fire an event, you'll first have to "disassociate" the label from its control by cutting it from the form and pasting it back on.

I have a continuous subform that may contain a widely variable number of records. I'd like the user to be able to expand the main form and see more records in the subform.



Label: lblClickHere

Format	Data	Event	Other	All

Caption	Click here
Hyperlink Address	
Hyperlink SubAddress	Form frmCustomers
Visible	Yes

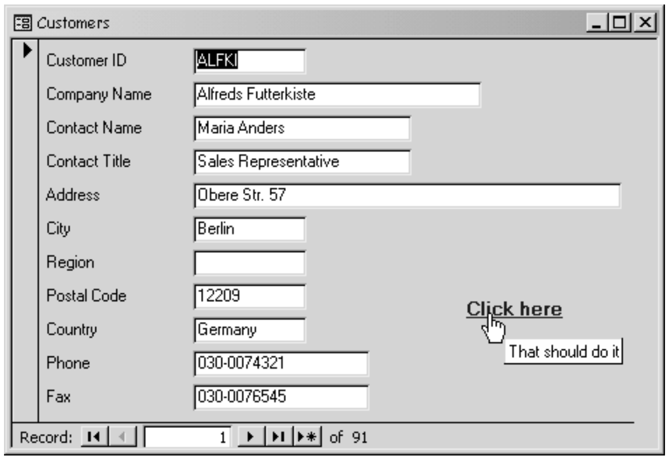
Figure 3. Using a hyperlink control to trigger the finger cursor.

Right now, no matter how the user stretches the form, the subform stays the same size. Is there a Can Grow-like property for subforms that will cause the subform to expand to use the available space on its master form?

I wish there was. I can think of innumerable subforms that I'd use the property on. However, there's no a way to toggle this behavior through the control's properties. I suspect that Access doesn't support this because the problem is more complicated than you might think when forms get complicated, though the answer for simple cases isn't.

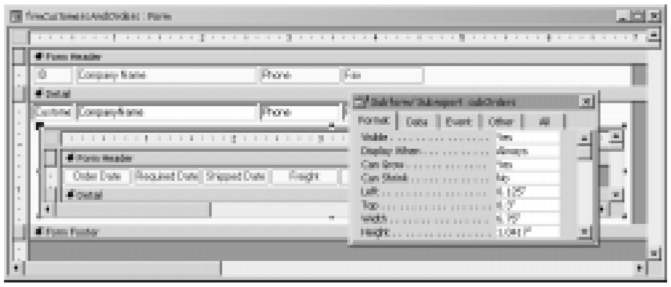
For example, what if there were controls above, below, or to sides of the subform? Should they get moved auto-magically? What if there were two subforms side by side? Should they both take up a proportional amount of the available space? Clearly the Access development team sidestepped this headache.

The simplest case is when you have the subform occupying the entire Detail section. Then, the subform just needs to expand as much as possible (or, perhaps, a bit less than possible to leave some padding around the edges of the subform). For my example, I'm going to include a few controls for Customer information in the Detail section above an Orders subform, as well as padding to the sides and along the bottom. You can see the main form in design view in Figure 5, as well as the property sheet displaying the Left, Top, Width, and



Customer ID	ALFKI
Company Name	Alfreds Futterkiste
Contact Name	Maria Anders
Contact Title	Sales Representative
Address	Obere Str. 57
City	Berlin
Region	
Postal Code	12209
Country	Germany
Phone	030-0074321
Fax	030-0076545

Figure 4. The finger cursor in action.



Visible	Yes
Display When	Always
Can Grow	Yes
Can Shrink	No
Left	0.125"
Top	[illegible]
Width	[illegible]
Height	[illegible]

Figure 5. Design view of a form with an expanding subform.

Height of the subform. I'll use those values to control just how much our subform expands.

Without expansion code, when the user drags the main form to a larger size, the subform retains its saved size (see Figure 6).

The design height of subOrders is 1.0417" while the design height of the Detail section is 1.4167". The difference is the padding at the bottom plus the room at the top for the Customer controls. Likewise, the Width of subOrders is 6.75" while the width of the Form is 7", leaving 0.125" padding to the left and right.

Now I need two lines of code in the forms to define the constants that will be used in my code to set the amount of space around the subform. In the code, you'll see that my inches values are being converted to twips (there are 1,440 twips per inch). My LeftRightPadding value is increased to include space for the subform's scrollbar, which would be half hidden otherwise. I've also added .25" to the TopBottomPadding to allow the subform's horizontal scroll bar and navigation buttons to display.

```
Private Sub Form_Resize()
Const LeftRightPadding = (0.125 + .25) * 1440
Const TopBottomPadding = (0.25 + 0.375) * 1440
```

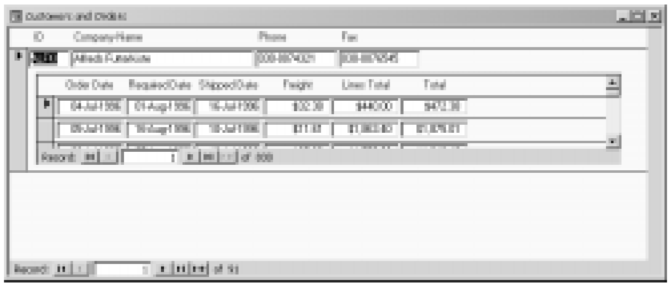
With my constants calculated, I can use them to set the size of my subform by subtracting the padding amounts from the height and width of the detail section:

```
  subOrders.Height = Me.InsideHeight - BottomPadding
  subOrders.Width = Me.InsideWidth - LeftRightPadding

End Sub
```

The result is a far more useable form that allows our user to peruse far more information (see Figure 7).

I have several fields in my table that get used in dynamically generated WHERE clauses for SQL statements. Lately, my users have been getting errors because someone has entered single or double quotes into the field. This causes me problems when I enclose these data values in quotes or double quotes in my code. Is there any easy way to delimit statements that have mixed delimiters already in them? Better yet, can I easily stop the users from entering single or double quotes into the field?



ID	Company Name	Phone	Fax
ALFKI	Alfreds Futterkiste	030-0074321	030-0076545

Order Date	Required Date	Shipped Date	Freight	Lines Total	Total
04-Jul-1996	01-Aug-1996	16-Jul-1996	$32.38	$440.00	$472.38
05-Jul-1996	16-Aug-1996	10-Jul-1996	$11.61	$1,863.40	$1,875.01

Record: 1 of 830

Record: 1 of 91

Figure 6. Typical behavior of a subform on an expanded form.

I don't think there's anything easy about delimiting text values that have single *and* double quotes in them. When I see this sort of thing happening, I first ask whether users are supposed to use these characters. Usually the users aren't supposed to be typing those characters in. To stop users from entering these characters, I set a validation rule on the field that prohibits their inclusion.

To stop double quotes from being included:

```
Not Like "*" & """" & "*"
```

To stop single quotes:

```
Not Like "*" & "'" & "*"
```

To stop both:

```
(Not Like "*" & """" & "*" ) AND _
(Not Like "*" & "'" & "*")
```

To ensure that the field is entered (if the field is required):

```
(Not Like "*" & """" & "*" ) AND _
(Not Like "*" & "'" & "*") AND (Is Not Null)
```

Don't forget to add a proper validation text so that your users will know why their data is being rejected. Figure 8 shows a typical such message. ▲

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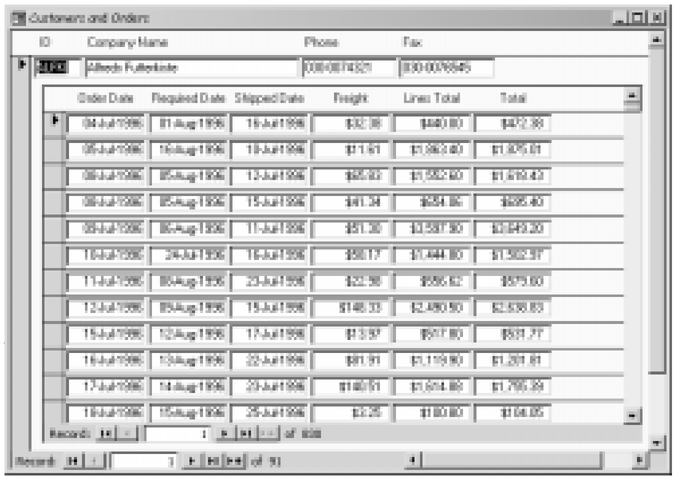
Christopher Weber travels throughout the country teaching Access Development and Programming seminars for The DSW Group in Atlanta, GA. He's been an Access developer since its first release, enjoys working with clients, and heads the DSW Group's Access development and training team (www.access-training.com).



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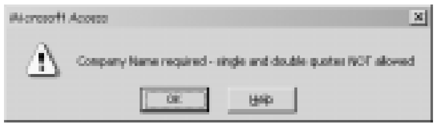
08-Jul-1996	05-Aug-1996	12-Jul-1996	$65.83	$1,552.60	$1,618.43
08-Jul-1996	05-Aug-1996	15-Jul-1996	$41.34	$654.06	$695.40
09-Jul-1996	06-Aug-1996	11-Jul-1996	$51.30	$3,597.90	$3,649.20
10-Jul-1996	24-Jul-1996	16-Jul-1996	$58.17	$1,444.80	$1,502.97
11-Jul-1996	08-Aug-1996	23-Jul-1996	$22.98	$556.62	$579.60
12-Jul-1996	09-Aug-1996	15-Jul-1996	$148.33	$2,490.50	$2,638.83
15-Jul-1996	12-Aug-1996	17-Jul-1996	$13.97	$517.80	$531.77
16-Jul-1996	13-Aug-1996	22-Jul-1996	$81.91	$1,119.90	$1,201.81
17-Jul-1996	14-Aug-1996	23-Jul-1996	$140.51	$1,614.88	$1,755.39
18-Jul-1996	15-Aug-1996	25-Jul-1996	$3.25	$100.80	$104.05

Record: 1 of 830

Record: 1 of 91

Figure 7. The enhanced subform expanding to take advantage of the available space.



Microsoft Access

Company Name required - single and double quotes NOT allowed

OK Help

Figure 8. Validation text message.