Control Arrays

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Control Arrays

• Arrays of text boxes, labels, command buttons (i.e., arrays of controls) are called control arrays.

• At least one element of a control array must be created when the form is designed.

• The remaining elements are created (a) during form design, or (b) with the Load statement when the program is run.
Creating Control Arrays During Form Design

1. Create a control
2. Change its Index property to 0
3. Set all (other) properties that you want copies of the control to inherit
4. Create copies of the control by copying and pasting it: Use Ctrl+C (or Edit→Copy) and Ctrl+V (or Edit→Paste)
Private Sub cmdCompute_Click()
  Dim depNum As Integer, sales As Single
  sales = 0
  For depNum = 0 To 4
    sales = sales + Val(txtSales(depNum).Text)
  Next depNum
  picTotal.Cls
  picTotal.Print "Total sales were "; FormatCurrency(sales)
End Sub

Private Sub Form_Load()
  Dim depNum As Integer
  For depNum = 1 To 5
    Label1(depNum - 1).Caption = "Department" & Str(depNum)
  Next depNum
End Sub
Creating Control Arrays at Run Time

- The standard unit of measurement in VB:
  \[1 \text{ twip} \approx \frac{1}{1440} \text{ in}\]
- Properties of controls where it’s used:
  Left, Top, Width, Height
- Use statements of the form:
  Load controlName(num)
Private Sub cmdCompute_Click()
    Dim monthNum As Integer
    Dim sales As Single
    For monthNum = 1 To 12
        sales = sales + Val(txtInfo(monthNum - 1).Text)
    Next monthNum
    picResult.Cls
    picResult.Print "Total yearly sales were ", FormatCurrency(sales)
End Sub

Private Sub Form_Load()
    Dim i As Integer, monthNames As String
    monthNames = "FebMarAprMayJunJulAugSepOctNovDec"
    For i = 1 To 11
        Load lblMonth(i)
        Load txtInfo(i)
        lblMonth(i).Top = lblMonth(i - 1).Top + txtInfo(0).Height
        txtInfo(i).Top = txtInfo(i - 1).Top + txtInfo(0).Height
        lblMonth(i).Caption = Mid(monthNames, 3 * i - 2, 3)
        lblMonth(i).Visible = True
        txtInfo(i).Visible = True
    Next i
End Sub