Learning VB.Net

Tutorial 13 – Subroutines

Hello everyone… welcome to vb.net tutorials. These are going to be very basic tutorials about using the language to create simple applications, hope you enjoy it. If you have any notes about it, please send them to **notes@mka-soft.com** I will be happy to answer them. Finally if you find these tutorials are useful, it would be nice from you to send a small donation via PayPal to **donation@mka-soft.com**.

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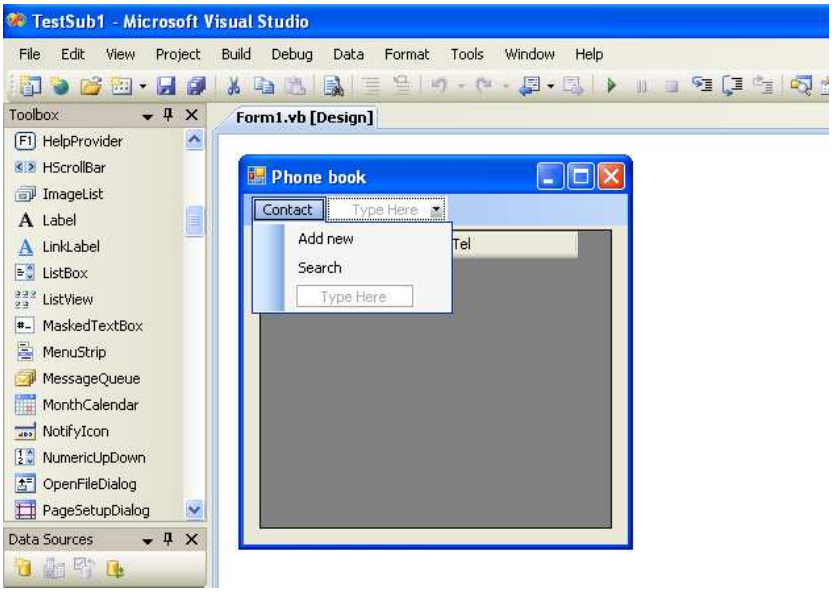
Subroutines

In vb.net you can write other type of coding blocks called subroutines. Subroutines are almost exactly similar to function except they don't return a value. In this tutorial we are going to create a simple application that stores person's name and telephone number and allows you to search the names. If you did not read the tutorial about working with functions, then you won't be able to understand this tutorial.

Open a new project, and then create the interface similar to the below:



You just add a DataGridView control and a menustrip. Set fields for the DataGridView control.

Next go to the code window and write the following:

```
' define the main variables
Dim Names As New Collection
Dim Tels As New Collection
```

These two collections are going to store the names and telephone numbers, next write:

```
' add new person
Sub AddContact(ByVal CName As String, ByVal CTEL As String)
    Names.Add(CName)
    Tels.Add(CTEL)
End Sub
```

This one is a subroutine that will add the name and telephone numbers to the collections. As you can see there is no return value, and the definition is very similar to the functions. The next subroutine is used to view the content of collections in the DataGridView control.

```
    ' display the names in the grid
    Sub ViewContacts(ByVal DGV As DataGridView)
        DGV.Rows.Clear()
        Dim I As Integer
        For I = 1 To Names.Count
            DGV.Rows.Add(Names(I), Tels(I))
        Next
    End Sub
```

Now, we need to add the code for the “Add New” person menu item, go to the user interface, and double click the Add New menu item, and write the code:

```
    ' the handler for the add new contact command
    Private Sub AddNewToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
AddNewToolStripMenuItem.Click
        Dim N As String
        Dim T As String

        N = InputBox("Enter the name of the contact:")
        If N = "" Then
            Exit Sub
        End If

        T = InputBox("Enter the tel number:")
        If T = "" Then
            Exit Sub
        End If

        AddContact(N, T)
        ViewContacts(DataGridView1)
    End Sub
```

If you check the definition of the block:

```
    Private Sub AddNewToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
AddNewToolStripMenuItem.Click
```

you realize that the event handler is actually a subroutine. So we have been using subroutines all the time. Next create a search function and the event handler for the search menu item:

```
    ' the search function
    Function GetTelForName(ByVal Name As String) As String
        Dim I As Integer
        For I = 1 To Names.Count
            If Names(I) = Name Then
                Return Tels(I)
            End If
        Next
        Return ""
    End Function

    Private Sub SearchToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
SearchToolStripMenuItem.Click
        Dim N As String
        Dim T As String
        N = InputBox("Enter the name you are searching for:")
        If N = "" Then
            Exit Sub
        End If

        T = GetTelForName(N)
        If T = "" Then
            MsgBox("Name not found")
        Else
            MsgBox("the tel number is:" & T)
        End If
    End Sub
```

Finally run the application, try to add some names, and perform a search. So this is a quick example about using subroutines. Sorry I did not create a sort program.

So this is all for today. If you need the source file, you can get it from the web site. If you have notes about this tutorial, email me at: **notes@mka-soft.com**.

Thanks.

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