

# How to use the Windows Forms NotifyIcon component in Visual Basic .NET to display an icon for an application in the notification area

This article refers to the following Microsoft .NET Framework Class Library namespaces:

- **System.Drawing**
- **System.Windows.Forms**

## INTRODUCTION

This article describes how to use the Windows Forms **NotifyIcon** component in Microsoft Visual Basic .NET. The **NotifyIcon** component displays an icon for an application in the notification area. This article contains a code sample that demonstrates how to do the following:

- Use the **NotifyIcon** component to display an icon for an application in the notification area in Microsoft Windows XP.
  - Create a shortcut menu.
  - Use the **Click** event to minimize the application in the notification area.
- Important** Windows XP lets you display status or notification information in the notification area. Because the notification area is a shared resource, you should only display information that is global or that must be monitored by the user when the user works with other applications. Do not automatically display an icon in the notification area just to provide convenient access to the application's features or properties. These icons add clutter to a potentially already cluttered area of the screen. You can include an option for users to display an icon in the notification area. However, always configure this option to be off by default.

## Code sample

The following code sample demonstrates how to minimize an application that was developed in Visual Basic .NET and display an icon for the application in the notification area in Windows XP. To do this, follow these steps:

1. Start Visual Basic .NET, and then create a new Windows application. By default, Form1.vb is created.
2. Paste the following code into Form1.vb.

```
Public Class Form1
    Inherits System.Windows.Forms.Form

    #Region " Windows Form Designer generated code "

    Public Sub New()
        MyBase.New()

        'This call is required by the Windows Form Designer.
        InitializeComponent()

        'Add any initialization after the InitializeComponent() call.
        NotifyIcon1.Icon = New Icon("appicon.ico")

    End Sub

    'Form overrides dispose to clean up the component list.
    Protected Overloads Overrides Sub Dispose(ByVal disposing As Boolean)
        If disposing Then
            If Not (components Is Nothing) Then
                components.Dispose()
            End If
        End If
        MyBase.Dispose(disposing)
    End Sub

    'The following is required by the Windows Form Designer.
    Private components As System.ComponentModel.IContainer
```

'Note: The following procedure is required by the Windows Form Designer.

'It can be modified by using the Windows Form Designer.

'Do not modify it by using the code editor.

Friend WithEvents MainMenu1 As System.Windows.Forms.MainMenu

Friend WithEvents NotifyIcon1 As System.Windows.Forms.NotifyIcon

Friend WithEvents mnuMenu As System.Windows.Forms.MenuItem

Friend WithEvents mnuCreatelcon As System.Windows.Forms.MenuItem

Friend WithEvents mnuExit As System.Windows.Forms.MenuItem

Friend WithEvents MenuItem1 As System.Windows.Forms.MenuItem

Friend WithEvents MenuItem2 As System.Windows.Forms.MenuItem

Friend WithEvents MenuItem3 As System.Windows.Forms.MenuItem

Friend WithEvents mnuRemlcon As System.Windows.Forms.MenuItem

Friend WithEvents mnuAbout As System.Windows.Forms.MenuItem

Friend WithEvents btnClickHere As System.Windows.Forms.Button

Friend WithEvents mnuHideForm As System.Windows.Forms.MenuItem

Friend WithEvents ContextMenu1 As System.Windows.Forms.ContextMenu

Friend WithEvents cmnuExit As System.Windows.Forms.MenuItem

<System.Diagnostics.DebuggerStepThrough(> Private Sub InitializeComponent()

Me.components = New System.ComponentModel.Container

Dim resources As System.Resources.ResourceManager = New System.Resources.ResourceManager(GetType(Form1))

Me.MainMenu1 = New System.Windows.Forms.MainMenu

Me.mnuMenu = New System.Windows.Forms.MenuItem

Me.mnuAbout = New System.Windows.Forms.MenuItem

Me.mnuCreatelcon = New System.Windows.Forms.MenuItem

Me.mnuHideForm = New System.Windows.Forms.MenuItem

Me.mnuRemlcon = New System.Windows.Forms.MenuItem

Me.mnuExit = New System.Windows.Forms.MenuItem

Me.NotifyIcon1 = New System.Windows.Forms.NotifyIcon(Me.components)

Me.ContextMenu1 = New System.Windows.Forms.ContextMenu

Me.cmnuExit = New System.Windows.Forms.MenuItem

Me.MenuItem1 = New System.Windows.Forms.MenuItem

```
Me.MenuItem3 = New System.Windows.Forms.MenuItem
Me.btnClickHere = New System.Windows.Forms.Button
Me.SuspendLayout()
'
'MainMenu1
'
Me.MainMenu1.MenuItems.AddRange(New System.Windows.Forms.MenuItem() {Me.mnuMenu})
'
'mnuMenu
'
Me.mnuMenu.Index = 0
Me.mnuMenu.MenuItems.AddRange(New System.Windows.Forms.MenuItem() {Me.mnuAbout, Me.
mnuCreatelcon, Me.mnuHideForm, Me.mnuRemlcon, Me.mnuExit})
Me.mnuMenu.Text = "&Menu"
'
'mnuAbout
'
Me.mnuAbout.Index = 0
Me.mnuAbout.Text = "&About the Notification Area"
'
'mnuCreatelcon
'
Me.mnuCreatelcon.Index = 1
Me.mnuCreatelcon.Text = "&Create Notifylcon"
'
'mnuHideForm
'
Me.mnuHideForm.Index = 2
Me.mnuHideForm.Text = "&Hide Form"
'
'mnuRemlcon
'
Me.mnuRemlcon.Index = 3
```

```
Me.mnuRemIcon.Text = "&Remove Icon"
,

'mnuExit
,

Me.mnuExit.Index = 4
Me.mnuExit.Text = "&Exit"
,

'NotifyIcon1
,

Me.NotifyIcon1.ContextMenu = Me.ContextMenu1
Me.NotifyIcon1.Text = ""
,

'ContextMenu1
,

Me.ContextMenu1.MenuItems.AddRange(New System.Windows.Forms.MenuItem() {Me.cmnuExit})
,

'cmnuExit
,

Me.cmnuExit.Index = 0
Me.cmnuExit.Text = "Exit"
,

'MenuItem1
,

Me.MenuItem1.Index = -1
Me.MenuItem1.Text = "Shrink"
,

'MenuItem3
,

Me.MenuItem3.Index = -1
Me.MenuItem3.Text = "Exit"
,

'btnClickHere
,
```

```
Me.btnClickHere.Location = New System.Drawing.Point(96, 24)
```

```
Me.btnClickHere.Name = "btnClickHere"
```

```
Me.btnClickHere.TabIndex = 0
```

```
Me.btnClickHere.Text = "Click Here"
```

```
,
```

```
'Form1
```

```
,
```

```
Me.AutoScaleBaseSize = New System.Drawing.Size(5, 13)
```

```
Me.ClientSize = New System.Drawing.Size(292, 266)
```

```
Me.Controls.Add(Me.btnClickHere)
```

```
Me.Menu = Me.MainMenu1
```

```
Me.Name = "Form1"
```

```
Me.Text = "Form1"
```

```
Me.ResumeLayout(False)
```

```
End Sub
```

```
#End Region
```

```
Private Sub MenuItem5_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handle  
s mnuAbout.Click
```

```
Dim Caption As String = "Warning"
```

```
MessageBox.Show("The notification area should only be used as a way to provide information to a u  
ser." _
```

```
& " As a best practice, you should not use an icon in the notification area as a shortcut to start an " _
```

```
& "application or remove the application from the taskbar.", Caption, MessageBoxButtons.OK)
```

```
mnuCreatelcon.Enabled = True
```

```
mnuRemlcon.Enabled = True
```

```
mnuExit.Enabled = True
```

End Sub

Private Sub mnuCreatelcon\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles mnuCreatelcon.Click

Me.NotifyIcon1.Visible = True

btnClickHere.Visible = True

Me.NotifyIcon1.Text = "Form1 is running"

End Sub

Private Sub mnuExit\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles mnuExit.Click

Me.Close()

End Sub

Private Sub Form1\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

mnuCreatelcon.Enabled = False

mnuRemIcon.Enabled = False

mnuExit.Enabled = False

btnClickHere.Visible = False

mnuHideForm.Enabled = False

End Sub

Private Sub cmnuRestore\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)

Me.Show()

End Sub

```
Private Sub mnuRemIcon_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles mnuRemIcon.Click
    Me.NotifyIcon1.Visible = False

```

End Sub

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnClickHere.Click
    Dim Caption As String = "Notice"
    MessageBox.Show("Check the NotifyIcon in the notification area", Caption, MessageBoxButtons.OK)
)
    Me.NotifyIcon1.Text = "You clicked the button"
    btnClickHere.Visible = False
    mnuHideForm.Enabled = True

```

End Sub

```
Private Sub mnuHideForm_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles mnuHideForm.Click
    Dim Caption As String = "Notice"
    MessageBox.Show("You can quit by right-clicking NotifyIcon and then by clicking Exit", Caption, MessageBoxButtons.OK)
    Me.Hide()
    Me.NotifyIcon1.Text = "Form1 is running in the background"
End Sub

```

```
Private Sub cmnuExit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles  
cmnuExit.Click  
    Me.Close()  
End Sub  
End Class
```

3. To run the application, press the F5 key.

## Troubleshooting

You must have an .ico file that is named Appicon.ico in the application folder.

## References

For more information about how to use the **NotifyIcon** component, visit the following Microsoft Developer Network (MSDN) Web site:

[http://msdn2.microsoft.com/en-us/library/Aa984250\(VS.71\).aspx](http://msdn2.microsoft.com/en-us/library/Aa984250(VS.71).aspx)

For more information about how to use the **NotifyIcon** class to display an icon for an application in the notification area, visit the following MSDN Web site:

[http://msdn2.microsoft.com/en-us/library/system.windows.forms.notifyicon\(vs.71\).aspx](http://msdn2.microsoft.com/en-us/library/system.windows.forms.notifyicon(vs.71).aspx)