

Forum: [Hack Forums](#)

Thread: [Advanced Curved Rectangle and Pill Functions](#)

Tedd - December 19, 2013, 4:46 pm

The use of it should be pretty self-explanatory, here is a preview:

I'm guessing a lot of you don't know why you would need this..

Well, to make curved buttons like this:

You need to use arcs (well, it's the easiest and only way I know).

However, say you didn't want ALL of the corners to be rounded? This function lets you do just that.

Source:

```
Code Class CornerStyle
```

```
Public TopLeft As Boolean
```

```
Public TopRight As Boolean
```

```
Public BottomLeft As Boolean
```

```
Public BottomRight As Boolean
```

```
End Class
```

```
Public Function AdvRect(ByVal Rectangle As Rectangle, ByVal CornerStyle As CornerStyle,  
ByVal Curve As Integer) As GraphicsPath
```

```
Dim P As GraphicsPath = New GraphicsPath()
```

```
Dim ArcRectangleWidth As Integer = Curve * 2
```

```
If CornerStyle.TopLeft Then
```

```
P.AddArc(New Rectangle(Rectangle.X, Rectangle.Y, ArcRectangleWidth, ArcRectangleWidth),  
-180, 90)
```

```
Else
```

```
P.AddLine(Rectangle.X, Rectangle.Y, Rectangle.X + ArcRectangleWidth, Rectangle.Y)
```

```
End If
```

```
If CornerStyle.TopRight Then
```

```
P.AddArc(New Rectangle(Rectangle.Width - ArcRectangleWidth + Rectangle.X, Rectangle.Y,  
ArcRectangleWidth, ArcRectangleWidth), -90, 90)
```

```
Else
```

```
P.AddLine(Rectangle.X + Rectangle.Width, Rectangle.Y, Rectangle.X + Rectangle.Width,  
Rectangle.Y + ArcRectangleWidth)
```

```
End If
```

```
If CornerStyle.BottomRight Then
```

```
P.AddArc(New Rectangle(Rectangle.Width - ArcRectangleWidth + Rectangle.X,  
Rectangle.Height - ArcRectangleWidth + Rectangle.Y, ArcRectangleWidth, ArcRectangleWidth), 0,  
90)
```

```

Else
    P.AddLine(Rectangle.X + Rectangle.Width, Rectangle.Y + Rectangle.Height, Rectangle.X +
Rectangle.Width - ArcRectangleWidth, Rectangle.Y + Rectangle.Height)
End If

If CornerStyle.BottomLeft Then
    P.AddArc(New Rectangle(Rectangle.X, Rectangle.Height - ArcRectangleWidth + Rectangle.Y,
ArcRectangleWidth, ArcRectangleWidth), 90, 90)
Else
    P.AddLine(Rectangle.X, Rectangle.Y + Rectangle.Height, Rectangle.X, Rectangle.Y +
Rectangle.Height - ArcRectangleWidth)
End If

P.CloseAllFigures()
Return P
End Function

```

Yes, I know I don't need to use a class, but it's a whole lot more easy for me to understand it when I can say ".TopLeft = False", than just using AdvRectangle(New Rectangle(1,2,3,4), 5, False, False, True, False, 5)... So deal with it, or change it yourself.

EDIT:

Here is a new function called "Pill". It's used to create a "Pill" shape, which means a half-circle on the side of the button (as opposed to just a rounded edge).

Code:

```

Code Class PillStyle
    Public Left As Boolean
    Public Right As Boolean
End Class

Public Function Pill(ByVal Rectangle As Rectangle, ByVal PillStyle As PillStyle) As GraphicsPath
    Pill = New GraphicsPath()

    If PillStyle.Left Then
        Pill.AddArc(New Rectangle(Rectangle.X, Rectangle.Y, Rectangle.Height, Rectangle.Height),
-270, 180)
    Else
        Pill.AddLine(Rectangle.X, Rectangle.Y + Rectangle.Height, Rectangle.X, Rectangle.Y)
    End If

    If PillStyle.Right Then
        Pill.AddArc(New Rectangle(Rectangle.X + Rectangle.Width - Rectangle.Height, Rectangle.Y,
Rectangle.Height, Rectangle.Height), -90, 180)
    Else
        Pill.AddLine(Rectangle.X + Rectangle.Width, Rectangle.Y, Rectangle.X + Rectangle.Width,
Rectangle.Y + Rectangle.Height)
    End If

    Pill.CloseAllFigures()

```

```
Return Pill
End Function
```

```
Public Function Pill(ByVal X As Integer, ByVal Y As Integer, ByVal Width As Integer, ByVal
Height As Integer, ByVal PillStyle As PillStyle)
Return Pill(New Rectangle(X, Y, Width, Height), PillStyle)
End Function
```

If you want my complete Design Functions module (which makes GDI a hell of a lot easier) you can get it here:

<http://pastebin.com/JXFrCdMU>

ident - December 19, 2013, 4:56 pm

"Yes, I know I don't need to use a class,"

what do you mean by that?

Tedd - December 19, 2013, 4:58 pm

(Dec 19, 2013 05:56 PM)ident Wrote: [\[CITE\]](#) "Yes, I know I don't need to use a class,"

what do you mean by that?

Instead of requiring the use of the class CornerStyle, I could have just made the function take four boolean variables. The class just seemed a lot easier to understand, at least to me anyway.

webdev77 - December 19, 2013, 4:58 pm

(Dec 19, 2013 05:56 PM)ident Wrote: [\[CITE\]](#) "Yes, I know I don't need to use a class,"

what do you mean by that?

It isn't necessary to encapsulate the function into a class. You can use the function as is.

Hawk HF - December 19, 2013, 8:24 pm

Thanks for this!

Hopefully I won't depend on Aeonhack's themebase forever.

Temploit - December 20, 2013, 1:30 am

Looks neat ^^

(Dec 19, 2013 09:24 PM)Hawk HF Wrote: [\[CITE\]](#) Thanks for this!

Hopefully I won't depend on Aeonhack's themebase forever.It's pretty to switch over actually.

Tedd - December 20, 2013, 9:41 am

(Dec 19, 2013 09:24 PM)Hawk HF Wrote: [\[CITE\]](#) Thanks for this!

Hopefully I won't depend on Aeonhack's themebase forever.

His themebase isn't bad, but using pure GDI and custom made controls just adds a little bit more flexibility.

(Dec 20, 2013 02:30 AM)Temploit Wrote: [\[CITE\]](#) Looks neat ^^

It's pretty to switch over actually.

Yea and it's actually really easy to switch over if you already know the basics of GDI

Nextrum - December 20, 2013, 9:44 am

(Dec 19, 2013 05:46 PM)Tedd Wrote: [\[CITE\]](#) The use of it should be pretty self-explanatory, here is a preview:

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-180, 90)

Else

P.AddLine(Rectangle.X, Rectangle.Y, Rectangle.X + ArcRectangleWidth, Rectangle.Y)

End If

If CornerStyle.TopRight Then

P.AddArc(New Rectangle(Rectangle.Width - ArcRectangleWidth + Rectangle.X, Rectangle.Y,
ArcRectangleWidth, ArcRectangleWidth), -90, 90)

Else

P.AddLine(Rectangle.X + Rectangle.Width, Rectangle.Y, Rectangle.X + Rectangle.Width,
Rectangle.Y + ArcRectangleWidth)

End If

If CornerStyle.BottomRight Then

P.AddArc(New Rectangle(Rectangle.Width - ArcRectangleWidth + Rectangle.X,
Rectangle.Height - ArcRectangleWidth + Rectangle.Y, ArcRectangleWidth, ArcRectangleWidth), 0,
90)

Else

P.AddLine(Rectangle.X + Rectangle.Width, Rectangle.Y + Rectangle.Height, Rectangle.X +
Rectangle.Width - ArcRectangleWidth, Rectangle.Y + Rectangle.Height)

End If

If CornerStyle.BottomLeft Then

P.AddArc(New Rectangle(Rectangle.X, Rectangle.Height - ArcRectangleWidth + Rectangle.Y, ArcRectangleWidth, ArcRectangleWidth), 90, 90)

Else

P.AddLine(Rectangle.X, Rectangle.Y + Rectangle.Height, Rectangle.X, Rectangle.Y + Rectangle.Height - ArcRectangleWidth)

End If

P.CloseAllFigures()

Return P

End Function

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If you want my complete Design Functions module (which makes GDI a hell of a lot easier) you can get it here:

<http://pastebin.com/Fq3FjZQR>

Good share matey, bookmarked for future reference. You should come to the GDI side and have loads of fun. Easy if you have previous experience.

Tedd - December 20, 2013, 9:45 am

(Dec 20, 2013 10:44 AM)Xertz Wrote: [\[CITE\]](#) Good share matey, bookmarked for future reference. You should come to the GDI side and have loads of fun. Easy if you have previous experience.

Oh I have, I just don't release a lot. I am about to start pushing out some new themes though. I've been working more on perfecting custom controls than making new themes though.

AgedPeanuts - December 20, 2013, 9:52 am

(Dec 19, 2013 09:24 PM)Hawk HF Wrote: [\[CITE\]](#) Thanks for this!

Hopefully I won't depend on Aeonhack's themebase forever.

Try playing around with it, start by creating something simple like a button, but instead of inheriting the 'ThemeControl' class use 'Control' instead. Then look at how the 'ThemeControl' handles everything, follow every step it takes, and attempt to mimic that in your control. Soon you will have figured out which steps to take without using the 'ThemeBase'. AS for its VERY useful functions, well just because you don't wanna use the 'ThemeBase' doesn't mean you cant use the functions. Create a static class for every function you find useful inside the 'ThemeBase', and port them over, you will just have to add an extra 'Graphics' parameter to each function though. All-in-all you can't be the best 'Theme Creator' without having the tools/creativity to do so.

Hawk HF - December 20, 2013, 11:30 am

(Dec 20, 2013 10:52 AM)AgedPeanuts Wrote: [\[CITE\]](#) Try playing around with it, start by creating something simple like a button, but instead of inheriting the 'ThemeControl' class use 'Control' instead. Then look at how the 'ThemeControl' handles everything, follow every step it takes, and attempt to mimic that in your control. Soon you will have figured out which steps to take without using the 'ThemeBase'. AS for its VERY useful functions, well just because you don't wanna use the 'ThemeBase' doesn't mean you cant use the functions. Create a static class for every function you find useful inside the 'ThemeBase', and port them over, you will just have to add an extra 'Graphics' parameter to each function though. All-in-all you can't be the best 'Theme Creator' without having the tools/creativity to do so.

I know how to do it, I just never took the time to dig into it.

My next theme, whenever I decide to make it, is going to be 100% GDI.

Banks? - December 20, 2013, 12:34 pm

(Dec 19, 2013 05:58 PM)Tedd Wrote: [\[CITE\]](#) Instead of requiring the use of the class CornerStyle, I could have just made the function take four boolean variables. The class just seemed a lot easier to understand, at least to me anyway.

This is exactly why you should use OOP.

Four booleans is hard to read on first glance - you'd have to look at the method definition to find out exactly what each boolean was for.

This approach is much simpler, easier to understand, and just overall better. You should be using a class in cases such as this.

Madara-Uchiha - December 20, 2013, 1:36 pm

Great share, thanks. HQ User and work! ?

gigajew - December 20, 2013, 2:36 pm

Don't forget to dispose your graphics once you're done with them.

Hawk HF - December 20, 2013, 2:40 pm

(Dec 20, 2013 03:36 PM)gigajew Wrote: [\[CITE\]](#) Don't forget to dispose your graphics once you're done with them.

How come?

Does it improve performance or speed?

serious question.

gigajew - December 20, 2013, 2:43 pm

(Dec 20, 2013 03:40 PM)Hawk HF Wrote: [\[CITE\]](#) How come?

Does it improve performance or speed?

serious question.

"IDisposable is a pattern for freeing unmanaged resources." - Rick Schott

Tedd - December 20, 2013, 3:15 pm

(Dec 20, 2013 02:36 PM)Madara-Uchiha Wrote: [\[CITE\]](#) Great share, thanks. HQ User and work! ?
Thank you!

(Dec 20, 2013 03:43 PM)gigajew Wrote: [\[CITE\]](#) "IDisposable is a pattern for freeing unmanaged resources." - Rick Schott

I've taken your suggestion into consideration. Instead of creating a new GraphicsPath() for each function, I used another method which frees the resource anyway.

Anyway, the thread is updated, and I've added a new "Pill" function as well.

Kseg97 - December 20, 2013, 9:30 pm

Awesome Tedd. Can I use this for my theme?

Tedd - December 20, 2013, 9:42 pm

(Dec 20, 2013 10:30 PM)Kseg97 Wrote: [\[CITE\]](#) Awesome Tedd. Can I use this for my theme?

Yea no problem. Feel free to add credits to support me (;

