

HOWTO: Dynamically Change the Font Size of a Text Annotation Upon Resize

For WinForms projects, DotImage will automatically word wrap the text in a TextAnnotation when it is resized. However, if you want to dynamically changed the font size itself, you can do the following in the AnnotateViewer's AnnotationResized event:

C# Sample:

```
private void annotateViewer1_AnnotationResized(object sender,
AnnotationEventArgs e)
{
    ResizeFont(e.Annotation);
}

private void ResizeFont(AnnotationUI baseAnno)
{
    TextAnnotation tAnno = baseAnno as TextAnnotation;
    if (tAnno != null)
    {
        Size annoSize = tAnno.Size.ToSize();
        System.Drawing.Font annoFont = new Font(tAnno.Font.Name, tAnno.Font.Size);
        SizeF size;
        System.Drawing.Font newFont = AppropriateFont(annotateViewer1.CreateGraphics(),
12f, 72f, annoSize, tAnno.Text, annoFont, out size);
        tAnno.Font = new AnnotationFont(newFont.Name, newFont.Size);
    }
}

public static Font AppropriateFont(Graphics g, float minFontSize, float maxFontSize,
Size layoutSize, string s, Font f, out SizeF extent)
{

```

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```
if (maxFontSize == minFontSize)
{
    f = newFont(f.FontFamily, minFontSize, f.Style);
}

extent = g.MeasureString(s, f);

if (maxFontSize <= minFontSize)
{
    return f;
}

float hRatio = layoutSize.Height / extent.Height;
float wRatio = layoutSize.Width / extent.Width;
float ratio = (hRatio < wRatio) ? hRatio : wRatio;
float newSize = f.Size * ratio;

if (newSize < minFontSize)
{
    newSize = minFontSize;
}

elseif (newSize > maxFontSize)
{
    newSize = maxFontSize;
}

f = newFont(f.FontFamily, newSize, f.Style);
extent = g.MeasureString(s, f);

return f;
```

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```
}
```

VB.Net Sample:

```
PrivateSub annotateViewer1_AnnotationResized(ByVal sender As Object, ByVal e As AnnotationEventArgs)
```

```
    ResizeFont(e.Annotation)
```

```
EndSub
```

```
PrivateSub ResizeFont(ByVal baseAnno As AnnotationUI)
```

```
    Dim tAnno As TextAnnotation = TryCast(baseAnno, TextAnnotation)
```

```
    If tAnno IsNot Nothing Then
```

```
        Dim annoSize As Size = tAnno.Size.ToSize()
```

```
        Dim annoFont As System.Drawing.Font = New Font(tAnno.Font.Name, tAnno.Font.Size)
```

```
        Dim size As SizeF
```

```
        Dim newFont As System.Drawing.Font =
```

```
AppropriateFont(annotateViewer1.CreateGraphics(), 12.0F, 72.0F, annoSize, tAnno.Text, annoFont, size)
```

```
        tAnno.Font = New AnnotationFont(newFont.Name, newFont.Size)
```

```
    EndIf
```

```
EndSub
```

```
PublicSharedFunction AppropriateFont(ByVal g As Graphics, ByVal minFontSize As Single, ByVal maxFontSize As Single, ByVal layoutSize As Size, ByVal s As String, ByVal f As Font, ByRef extent As SizeF) As Font
```

```
    If maxFontSize = minFontSize Then
```

```
        f = New Font(f.FontFamily, minFontSize, f.Style)
```

```
    EndIf
```

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```
extent = g.MeasureString(s, f)
```

```
If maxFontSize <= minFontSize Then
```

```
    Return f
```

```
EndIf
```

```
Dim hRatio AsSingle = layoutSize.Height / extent.Height
```

```
Dim wRatio AsSingle = layoutSize.Width / extent.Width
```

```
Dim ratio AsSingle = If((hRatio < wRatio), hRatio, wRatio)
```

```
Dim newSize AsSingle = f.Size * ratio
```

```
If newSize < minFontSize Then
```

```
    newSize = minFontSize
```

```
ElseIf newSize > maxFontSize Then
```

```
    newSize = maxFontSize
```

```
EndIf
```

```
f = New Font(f.FontFamily, newSize, f.Style)
```

```
extent = g.MeasureString(s, f)
```

```
Return f
```

```
EndFunction
```

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