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

Background

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

C# Sample

```
rivate 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) { if (maxFontSize == minFontSize) { f = new Font(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; } else if (newSize > maxFontSize) { newSize = maxFontSize; } f = new Font(f.FontFamily, newSize, f.Style); extent = g.MeasureString(s, f); return f; }
```

VB.Net Sample

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rivate Sub annotateViewer1_AnnotationResized(ByVal sender As Object, ByVal e As AnnotationEventArgs) ResizeFont(e.Annotation) End Sub Private Sub 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) End If End Sub Public Shared Function 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) End If extent = g.MeasureString(s, f) If maxFontSize <= minFontSize Then Return f End If Dim hRatio As Single = layoutSize.Height / extent.Height Dim wRatio As Single = layoutSize.Width / extent.Width Dim ratio As Single = If((hRatio < wRatio), hRatio, wRatio) Dim newSize As Single = f.Size * ratio If newSize < minFontSize Then newSize = minFontSize ElseIf newSize > maxFontSize Then newSize = maxFontSize End If f = New Font(f.FontFamily, newSize, f.Style) extent = g.MeasureString(s, f) Return f End Function
```

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Last Update

2026-11-04 - TD - (Fixed code fencing and headings)

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