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1 <%@ Page Language="VB" Src="Charting.aspx.vb" Inherits="Web_VB.GeneratorExamples.Charting" %>
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1 Imports System
2 Imports ceTe.DynamicPDF.PageElements
3 Imports ceTe.DynamicPDF
4 Imports ceTe.DynamicPDF.PageElements.Charting
5 Imports ceTe.DynamicPDF.PageElements.Charting.Axes
6 Imports ceTe.DynamicPDF.PageElements.Charting.Series
7
8 Namespace Web_VB.GeneratorExamples
9     Public Class Charting
10         Inherits System.Web.UI.Page
11
12         Private Sub Page_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
13
14             ' Create a PDF Document and Add a Page
15             Dim MyDocument As Document = New Document()
16             MyDocument.Creator = "Charting.aspx"
17             MyDocument.Author = "ceTe Software"
18             MyDocument.Title = "All Types Of Charts"
19             AddCharts(MyDocument)
20
21             'Output the PDF
22             MyDocument.DrawToWeb("MyDocument.pdf")
23         End Sub
24 #Region "Private Methods"
25     Private Sub AddCharts(ByVal MyDocument As Document)
26
27         ' Create a Template and assign it to the document
28         Dim MYDocumentTemplate As Template = New Template()
29         MyDocument.Template = MYDocumentTemplate
30         MYDocumentTemplate.Elements.Add(New ceTe.DynamicPDF.PageElements.PageNumberingLabel("Page %%CP%% of %%TP%%", 100,
31 525, 512, 12, Font.Helvetica, 12, TextAlign.Center))
32
33         ' Create a Page
34         Dim MyPage1 As Page = New Page(PageSize.Letter, PageOrientation.Landscape, 35)
35         Dim MyPage2 As Page = New Page(PageSize.Letter, PageOrientation.Landscape)
36
37         ' Add charts to the page
38         AddAreaChart(MyPage1.Elements, 0, 40)
39         AddPieChart(MyPage1.Elements, 0, 280)
40         AddLineChart(MyPage1.Elements, 250, 40)
41         AddBarChart(MyPage1.Elements, 250, 280)
42         AddColumnChart(MyPage1.Elements, 500, 40)
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42 AddXYScatterChart(MyPage1.Elements, 500, 280)
43 AddMultiTypeSeriesChart(MyPage2.Elements, 20, 50)
44
45 ' Add page to the Document
46 MyDocument.Pages.Add(MyPage2)
47 MyDocument.Pages.Add(MyPage1)
48 End Sub
49 Private Sub AddAreaChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
50     AddCaptionAndRectangle(Elements, "Stacked Area Chart", X, Y, 225, 225)
51
52     ' Create a MyChart
53     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
54
55     ' Create a plot area
56     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
57
58     ' Create header title and add it to the MyChart
59     Dim MyTitle1 As New Title("Website Visitors")
60     MyChart.HeaderTitles.Add(MyTitle1)
61
62     'Create indexed stacked are series elements and add values to it
63     Dim MySeriesElement1 As New IndexedStackedAreaSeriesElement("Website A")
64     MySeriesElement1.Values.Add(New Single() {5, 7, 9, 6})
65     Dim MySeriesElement2 As New IndexedStackedAreaSeriesElement("Website B")
66     MySeriesElement2.Values.Add(New Single() {4, 2, 5, 8})
67     Dim MySeriesElement3 As New IndexedStackedAreaSeriesElement("Website C")
68     MySeriesElement3.Values.Add(New Single() {2, 4, 6, 9})
69
70     ' Add autogradient colors to series
71     Dim MyAutogradient1 As AutoGradient = New AutoGradient(90.0F, CmykColor.Red, CmykColor.IndianRed)
72     MySeriesElement1.Color = MyAutogradient1
73     Dim MyAutogradient2 As AutoGradient = New AutoGradient(90.0F, CmykColor.Green, CmykColor.YellowGreen)
74     MySeriesElement2.Color = MyAutogradient2
75     Dim MyAutogradient3 As AutoGradient = New AutoGradient(120.0F, CmykColor.Blue, CmykColor.LightBlue)
76     MySeriesElement3.Color = MyAutogradient3
77
78     ' Create a Indexed Stacked Area Series
79     Dim MyAreaSeries1 As New IndexedStackedAreaSeries()
80
81     ' Add indexed stacked area series elements to the Indexed Stacked Area Series
82     MyAreaSeries1.Add(MySeriesElement1)
83     MyAreaSeries1.Add(MySeriesElement2)
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84     MyAreaSeries1.Add(MySeriesElement3)
85
86     ' Add series to the plot area
87     MyPlotArea.Series.Add(MyAreaSeries1)
88
89     ' Create a title and add it to the YAxis
90     Dim MyTitle As New Title("Visitors (in millions)")
91     MyAreaSeries1.YAxis.Titles.Add(MyTitle)
92
93     'Adding AxisLabels to the XAxis
94     MyAreaSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q1", 0))
95     MyAreaSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q2", 1))
96     MyAreaSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q3", 2))
97     MyAreaSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q4", 3))
98     MyChart.Legends(0).Visible = False
99     Elements.Add(MyChart)
100 End Sub
101 Private Sub AddLineChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
102     AddCaptionAndRectangle(Elements, "Line Chart", X, Y, 225, 225)
103
104     ' Create a MyChart
105     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
106
107     ' Create a plot area
108     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
109
110     ' Create header title and add it to the MyChart
111     Dim MyTitle1 As New Title("Website Visitors")
112     MyChart.HeaderTitles.Add(MyTitle1)
113
114     ' Create a indexed line series and add values to it
115     Dim MyLineSeries1 As New IndexedLineSeries("Website A")
116     MyLineSeries1.Values.Add(New Single() {5, 7, 9, 6})
117     Dim MyLineSeries2 As New IndexedLineSeries("Website B")
118     MyLineSeries2.Values.Add(New Single() {4, 2, 5, 8})
119     Dim MyLineSeries3 As New IndexedLineSeries("Website C")
120     MyLineSeries3.Values.Add(New Single() {2, 4, 6, 9})
121
122     ' Add indexed line series to the plot area
123     MyPlotArea.Series.Add(MyLineSeries1)
124     MyPlotArea.Series.Add(MyLineSeries2)
125     MyPlotArea.Series.Add(MyLineSeries3)
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126
127     ' Create a title and add it to the yaxis
128     Dim MylTitle As New Title("Visitors (in millions)")
129     MyLineSeries1.YAxis.Titles.Add(MylTitle)
130
131     'Adding AxisLabels to the XAxis
132     MyLineSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q1", 0))
133     MyLineSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q2", 1))
134     MyLineSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q3", 2))
135     MyLineSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q4", 3))
136     MyChart.Legends(0).Visible = False
137     Elements.Add(MyChart)
138 End Sub
139 Private Sub AddPieChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
140     AddCaptionAndRectangle(Elements, "Pie Chart", X, Y, 225, 225)
141
142     ' Create a MyChart
143     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
144
145     ' Add a plot area to the MyChart
146     Dim MyPlotArea As PlotArea = MyChart.PlotAreas.Add(50, 50, 300, 300)
147
148     ' Create the Header title and add it to the MyChart
149     Dim MytTitle As New Title("Website Visitors (in millions)")
150     MyChart.HeaderTitles.Add(MytTitle)
151
152     ' Create a scalar datalabel
153     Dim Myda As ScalarDataLabel = New ScalarDataLabel(True, False, False)
154
155     ' Create autogradient colors
156     Dim MyAutogradient1 As AutoGradient = New AutoGradient(90.0F, CmykColor.Red, CmykColor.IndianRed)
157     Dim MyAutogradient2 As AutoGradient = New AutoGradient(90.0F, CmykColor.Green, CmykColor.YellowGreen)
158     Dim MyAutogradient3 As AutoGradient = New AutoGradient(120.0F, CmykColor.Blue, CmykColor.LightBlue)
159
160     ' Create a pie series
161     Dim MyPieSeries As New PieSeries()
162
163     ' Set scalar datalabel to the pie series
164     MyPieSeries.DataLabel = Myda
165
166     ' Add series to the plot area
167     MyPlotArea.Series.Add(MyPieSeries)
```

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168
169     'Add pie series elements to the pie series
170     MyPieSeries.Elements.Add(27, "Website A")
171     MyPieSeries.Elements.Add(19, "Website B")
172     MyPieSeries.Elements.Add(21, "Website C")
173
174     ' Assign autogradient colors to series elements
175     MyPieSeries.Elements(0).Color = MyAutogradient1
176     MyPieSeries.Elements(1).Color = MyAutogradient2
177     MyPieSeries.Elements(2).Color = MyAutogradient3
178     MyChart.Legends(0).Visible = False
179     Elements.Add(MyChart)
180 End Sub
181 Private Sub AddBarChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
182     AddCaptionAndRectangle(Elements, "Bar Chart", X, Y, 225, 225)
183
184     ' Create a MyChart
185     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
186
187     ' Create a plot area
188     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
189
190     ' Create header title and add it to the MyChart
191     Dim MyTitle1 As New Title("Website Visitors")
192     MyChart.HeaderTitles.Add(MyTitle1)
193
194     ' Create a indexed bar series and add values to it
195     Dim MyBarSeries1 As New IndexedBarSeries("Website A")
196     MyBarSeries1.Values.Add(New Single() {5, 7, 9, 6})
197     Dim MyBarSeries2 As New IndexedBarSeries("Website B")
198     MyBarSeries2.Values.Add(New Single() {4, 2, 5, 8})
199     Dim MyBarSeries3 As New IndexedBarSeries("Website C")
200     MyBarSeries3.Values.Add(New Single() {2, 4, 6, 9})
201
202     Dim MyAutogradient1 As AutoGradient = New AutoGradient(180.0F, CmykColor.Red, CmykColor.IndianRed)
203     MyBarSeries1.Color = MyAutogradient1
204     Dim MyAutogradient2 As AutoGradient = New AutoGradient(180.0F, CmykColor.Green, CmykColor.YellowGreen)
205     MyBarSeries2.Color = MyAutogradient2
206     Dim MyAutogradient3 As AutoGradient = New AutoGradient(180.0F, CmykColor.Blue, CmykColor.LightBlue)
207     MyBarSeries3.Color = MyAutogradient3
208
209     ' Add indexed bar series to the plot area
```

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210 MyPlotArea.Series.Add(MyBarSeries1)
211 MyPlotArea.Series.Add(MyBarSeries2)
212 MyPlotArea.Series.Add(MyBarSeries3)
213
214 ' Create a title and add it to the xaxis
215 Dim MyTitle As New Title("Visitors (in millions)")
216 MyBarSeries1.XAxis.Titles.Add(MyTitle)
217
218 'Adding AxisLabels to the yAxis
219 MyBarSeries1.YAxis.Labels.Add(New IndexedYAxisLabel("Q1", 0))
220 MyBarSeries1.YAxis.Labels.Add(New IndexedYAxisLabel("Q2", 1))
221 MyBarSeries1.YAxis.Labels.Add(New IndexedYAxisLabel("Q3", 2))
222 MyBarSeries1.YAxis.Labels.Add(New IndexedYAxisLabel("Q4", 3))
223 MyChart.Legends(0).Visible = False
224 Elements.Add(MyChart)
225 End Sub
226 Private Sub AddColumnChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
227     AddCaptionAndRectangle(Elements, "100% Stacked Column Chart", X, Y, 225, 225)
228
229     ' Create a MyChart
230     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
231
232     ' Create a plot area
233     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
234
235     ' Create header title and add it to the MyChart
236     Dim MyTitle1 As New Title("Website Visitors")
237     MyChart.HeaderTitles.Add(MyTitle1)
238
239     ' Create a indexed 100% column series elements and add values to it
240     Dim MySeriesElement1 As New Indexed100PercentStackedColumnSeriesElement("Website A")
241     MySeriesElement1.Values.Add(New Single() {5, 7, 9, 6})
242     Dim MySeriesElement2 As New Indexed100PercentStackedColumnSeriesElement("Website B")
243     MySeriesElement2.Values.Add(New Single() {4, 2, 5, 8})
244     Dim MySeriesElement3 As New Indexed100PercentStackedColumnSeriesElement("Website C")
245     MySeriesElement3.Values.Add(New Single() {2, 4, 6, 9})
246
247     ' Create a Indexed 100% Stacked Column Series
248     Dim MyColumnSeries As New Indexed100PercentStackedColumnSeries()
249
250     'Add indexed 100% column series elements to the Indexed 100% Stacked Column Series
251     MyColumnSeries.Add(MySeriesElement1)
```

```
252     MyColumnSeries.Add(MySeriesElement2)
253     MyColumnSeries.Add(MySeriesElement3)
254
255     ' Add series to the plot area
256     MyPlotArea.Series.Add(MyColumnSeries)
257
258     ' Create a title and add it to the yaxis
259     Dim MyITitle As New Title("Visitors (in millions)")
260     MyColumnSeries.YAxis.Titles.Add(MyITitle)
261
262     'Adding AxisLabels to the XAxis
263     MyColumnSeries.XAxis.Labels.Add(New IndexedXAxisLabel("Q1", 0))
264     MyColumnSeries.XAxis.Labels.Add(New IndexedXAxisLabel("Q2", 1))
265     MyColumnSeries.XAxis.Labels.Add(New IndexedXAxisLabel("Q3", 2))
266     MyColumnSeries.XAxis.Labels.Add(New IndexedXAxisLabel("Q4", 3))
267     MyChart.Legends(0).Visible = False
268     Elements.Add(MyChart)
269 End Sub
270 Private Sub AddXYScatterChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
271     AddCaptionAndRectangle(Elements, "XYScatter Chart", X, Y, 225, 225)
272
273     ' Create a chart
274     Dim MyChart As New Chart(X + 10, Y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black)
275
276     ' Add a plot Area to the chart
277     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
278
279     ' Create a Header title and add it to the chart
280     Dim MyTTitle As New Title("Player Height and Weight")
281     MyChart.HeaderTitles.Add(MyTTitle)
282
283     ' Create a xyScatter series and add values to it
284     Dim MyXYScatterSeries1 As New XYScatterSeries("Team A")
285     MyXYScatterSeries1.Values.Add(112, 55)
286     MyXYScatterSeries1.Values.Add(125, 60)
287     MyXYScatterSeries1.Values.Add(138, 68)
288     MyXYScatterSeries1.Values.Add(150, 73)
289     MyXYScatterSeries1.Values.Add(172, 80)
290     Dim MyXYScatterSeries2 As New XYScatterSeries("Team B")
291     MyXYScatterSeries2.Values.Add(110, 54)
292     MyXYScatterSeries2.Values.Add(128, 62)
293     MyXYScatterSeries2.Values.Add(140, 70)
```



```
294 MyXYScatterSeries2.Values.Add(155, 75)
295 MyXYScatterSeries2.Values.Add(170, 80)
296
297 ' Add xyScatter series to the plot Area
298 MyPlotArea.Series.Add(MyXYScatterSeries1)
299 MyPlotArea.Series.Add(MyXYScatterSeries2)
300
301 ' Create axis titles and add it to the axis
302 Dim Mytitle1 As New Title("Height (inches)")
303 Dim Mytitle2 As New Title("Weight (pounds)")
304 MyXYScatterSeries1.YAxis.Titles.Add(Mytitle1)
305 MyXYScatterSeries1.XAxis.Titles.Add(Mytitle2)
306
307 ' Set XAxis min value
308 MyXYScatterSeries1.XAxis.Min = 50
309
310 ' Set YAxis min value
311 MyXYScatterSeries1.YAxis.Min = 100
312 MyChart.Legends(0).Visible = False
313 Elements.Add(MyChart)
314 End Sub
315
316 Private Sub AddMultiTypeSeriesChart(ByVal Elements As Group, ByVal X As Single, ByVal Y As Single)
317     AddCaptionAndRectangle(Elements, "Plot Area With Different Kinds of Series and Multiple Axis ", X, Y, 650, 410)
318
319     ' Create a chart
320     Dim MyChart As New Chart(X + 25, Y + 37, 600, 350)
321
322     ' Create Autogradient color and assign it to chart background color
323     Dim MyAutogradient As AutoGradient = New AutoGradient(90f, CmykColor.LightYellow, CmykColor.LightSkyBlue)
324     MyChart.BackgroundColor = MyAutogradient
325
326     ' Add a plot Area to the chart
327     Dim MyPlotArea As PlotArea = MyChart.PrimaryPlotArea
328
329     ' Create a Header title and add it to the chart
330     Dim MytTitle As New Title("Company Sales and Website Visitors ")
331     MytTitle.Align = Align.Left
332     MyChart.HeaderTitles.Add(MytTitle)
333
334     ' Create a indexed line series and add values to it
335     Dim MyLineSeries1 As New IndexedLineSeries("Website A Visitors")
```

```
336 MyLineSeries1.Values.Add(New Single() {1.5F, 8, 7.5F, 5.5F})
337 MyLineSeries1.Color = RGBColor.DarkBlue
338 Dim MyLineSeries2 As New IndexedLineSeries("Website B Visitors")
339 MyLineSeries2.Values.Add(New Single() {4, 3, 7, 7.5F})
340 MyLineSeries2.Color = RGBColor.LimeGreen
341
342 ' Create markers and assign it to the series
343 Dim MyMarker1 As Marker = Marker.GetTriangle(7)
344 MyLineSeries1.Marker = MyMarker1
345 Dim MyMarker2 As Marker = Marker.GetCircle(7)
346 MyLineSeries2.Marker = MyMarker2
347
348 ' Add indexed line series to the plot area
349 MyPlotArea.Series.Add(MyLineSeries1)
350 MyPlotArea.Series.Add(MyLineSeries2)
351
352 ' Create a NumericYAxis and a title to it
353 Dim MyNumericYaxis1 As NumericYAxis = New NumericYAxis()
354 MyNumericYaxis1.AnchorType = YAxisAnchorType.Right
355 MyNumericYaxis1.Titles.Add(New Title("Sales (in $ millions)"))
356 MyNumericYaxis1.Interval = 1
357
358 ' Create a indexed column series and add values to it
359 Dim MyColumnSeries1 As New IndexedColumnSeries("Company A Sales", MyNumericYaxis1)
360 MyColumnSeries1.Values.Add(New Single() {2, 10, 14, 17})
361 MyColumnSeries1.Color = RGBColor.Blue
362 Dim MyColumnSeries2 As New IndexedColumnSeries("Company B Sales", MyNumericYaxis1)
363 MyColumnSeries2.Values.Add(New Single() {7, 4, 10, 15})
364 MyColumnSeries2.Color = RGBColor.Lime
365
366 ' Create a bar column value position data label
367 Dim MyBarColumnValuePositionDataLabel As BarColumnValuePositionDataLabel = New BarColumnValuePositionDataLabel(True,
True, False)
368 MyColumnSeries1.DataLabel = MyBarColumnValuePositionDataLabel
369 MyBarColumnValuePositionDataLabel.FontSize = 7
370 MyColumnSeries1.DataLabel.Prefix = "("
371 MyColumnSeries1.DataLabel.Suffix = ")"
372 MyColumnSeries2.DataLabel = MyBarColumnValuePositionDataLabel
373
374 ' Add indexed column series to the plot area
375 MyPlotArea.Series.Add(MyColumnSeries1)
376 MyPlotArea.Series.Add(MyColumnSeries2)
```

```
377 Dim MyMinorGridLines As YAxisGridLines = New YAxisGridLines()
378 MyMinorGridLines.LineStyle = LineStyle.Dots
379
380 ' Create Yaxis Grid lines
381 MyPlotArea.YAxes.DefaultNumericAxis.MajorGridLines = New YAxisGridLines()
382 MyPlotArea.YAxes.DefaultNumericAxis.MinorGridLines = MyMinorGridLines
383 MyPlotArea.XAxes.DefaultIndexedAxis.MajorGridLines = New XAxisGridLines()
384 MyPlotArea.YAxes.DefaultNumericAxis.MinorTickMarks = New YAxisTickMarks()
385 MyPlotArea.YAxes.DefaultNumericAxis.MajorTickMarks = New YAxisTickMarks()
386
387 ' Add title to Yaxis
388 MyLineSeries1.YAxis.Titles.Add(New Title("Visitors (in millions)"))
389
390 ' Adding AxisLabels to the XAxis
391 MyColumnSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q1", 0))
392 MyColumnSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q2", 1))
393 MyColumnSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q3", 2))
394 MyColumnSeries1.XAxis.Labels.Add(New IndexedXAxisLabel("Q4", 3))
395 MyChart.Legends(0).BorderStyle = LineStyle.Dots
396 MyChart.Legends(0).BorderColor = RgbColor.Black
397 MyChart.Legends(0).BackgroundColor = CmykColor.Lavender
398 Elements.Add(MyChart)
399 End Sub
400
401 Private Sub AddCaptionAndRectangle(ByVal PageElements As Group, ByVal Caption As String, ByVal X As Single, ByVal Y As
Single, ByVal Width As Single, ByVal Height As Single)
402
403 ' Adds a rectangle and caption to the pageElements
404 Dim MyRectangle As Rectangle = New Rectangle(X, Y + 15, Width, Height - 15)
405 Dim CaptionLabel As Label = New Label(Caption, X, Y, 300, 10, Font.HelveticaBold, 10)
406 PageElements.Add(MyRectangle)
407 PageElements.Add(CaptionLabel)
408 End Sub
409 #End Region
410
411 End Class
412 End Namespace
```