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1 <%@ Page Language="C#" Src="Charting.aspx.cs" Inherits="Web_CSharp.GeneratorExamples.Charting" %>
```

```
1 using System;
2 using ceTe.DynamicPDF;
3 using ceTe.DynamicPDF.PageElements;
4 using ceTe.DynamicPDF.PageElements.Charting;
5 using ceTe.DynamicPDF.PageElements.Charting.Axes;
6 using ceTe.DynamicPDF.PageElements.Charting.Series;
7
8
9 namespace Web_CSharp.GeneratorExamples
10 {
11     public class Charting : System.Web.UI.Page
12     {
13         protected void Page_Load(object sender, EventArgs e)
14         {
15             // Create a Document
16             ceTe.DynamicPDF.Document document = new ceTe.DynamicPDF.Document();
17             document.Creator = "Charting.aspx";
18             document.Author = "ceTe Software";
19             document.Title = "All Types Of Charts";
20             AddCharts(document);
21
22             // Output the PDF
23             document.DrawToWeb("MyDocument.pdf");
24         }
25         private void AddCharts(Document document)
26         {
27             // Create a template and assign it to the document
28             Template documentTemplate = new Template();
29             document.Template = documentTemplate;
30             documentTemplate.Elements.Add(new ceTe.DynamicPDF.PageElements.PageNumberingLabel(
31                 "Page %%CP%% of %%TP%%", 100, 525, 512, 12, Font.Helvetica,
32                 12, TextAlign.Center));
33
34             // Create a Page
35             ceTe.DynamicPDF.Page page1 = new ceTe.DynamicPDF.Page(PageSize.Letter, PageOrientation.Landscape, 35);
36             ceTe.DynamicPDF.Page page2 = new ceTe.DynamicPDF.Page(PageSize.Letter, PageOrientation.Landscape);
37
38             // Adds charts to the Page
39             AddAreaChart(page1.Elements, 0, 40);
40             AddPieChart(page1.Elements, 0, 280);
41             AddLineChart(page1.Elements, 250, 40);
42             AddBarChart(page1.Elements, 250, 280);
43             AddColumnChart(page1.Elements, 500, 40);
44             AddXYScatterChart(page1.Elements, 500, 280);
45             AddMultiTypeSeriesChart(page2.Elements, 20, 50);
46
47             // Add Pages to the document
48             document.Pages.Add(page2);
49             document.Pages.Add(page1);
50         }
51     }
52 }
```

```
51 private void AddAreaChart(Group elements, float x, float y)
52 {
53     AddCaptionAndRectangle(elements, "Stacked Area Chart", x, y, 225, 225);
54
55     // Create a chart
56     Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
57
58     // Create a plot area
59     PlotArea plotArea = chart.PrimaryPlotArea;
60
61     // Create header title and add it to the chart
62     Title title1 = new Title("Website Visitors");
63     chart.HeaderTitles.Add(title1);
64
65     // Create indexed stacked area series elements and add values to it
66     IndexedStackedAreaSeriesElement seriesElement1 = new IndexedStackedAreaSeriesElement("Website A");
67     seriesElement1.Values.Add(new float[] { 5, 7, 9, 6 });
68     IndexedStackedAreaSeriesElement seriesElement2 = new IndexedStackedAreaSeriesElement("Website B");
69     seriesElement2.Values.Add(new float[] { 4, 2, 5, 8 });
70     IndexedStackedAreaSeriesElement seriesElement3 = new IndexedStackedAreaSeriesElement("Website C");
71     seriesElement3.Values.Add(new float[] { 2, 4, 6, 9 });
72
73     // Create autogradient and assign it to series
74     AutoGradient autogradient1 = new AutoGradient(90f, CmykColor.Red, CmykColor.IndianRed);
75     seriesElement1.Color = autogradient1;
76     AutoGradient autogradient2 = new AutoGradient(90f, CmykColor.Green, CmykColor.YellowGreen);
77     seriesElement2.Color = autogradient2;
78     AutoGradient autogradient3 = new AutoGradient(120f, CmykColor.Blue, CmykColor.LightBlue);
79     seriesElement3.Color = autogradient3;
80
81     // Create a Indexed Stacked Area Series
82     IndexedStackedAreaSeries areaSeries = new IndexedStackedAreaSeries();
83
84     // Add indexed stacked area series elements to the Indexed Stacked Area Series
85     areaSeries.Add(seriesElement1);
86     areaSeries.Add(seriesElement2);
87     areaSeries.Add(seriesElement3);
88
89     // Add series to the plot area
90     plotArea.Series.Add(areaSeries);
91
92     // Create a title and add it to the YAxis
93     Title lTitle = new Title("Visitors (in millions)");
94     areaSeries.YAxis.Titles.Add(lTitle);
95
96     //Adding AxisLabels to the XAxis
97     areaSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q1", 0));
98     areaSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q2", 1));
99     areaSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q3", 2));
100    areaSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q4", 3));
```

```
101     chart.Legends[0].Visible = false;
102     elements.Add(chart);
103 }
104 private void AddLineChart(Group elements, float x, float y)
105 {
106     AddCaptionAndRectangle(elements, "Line Chart", x, y, 225, 225);
107
108     // Create a chart
109     Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
110
111     // Create a plot area
112     PlotArea plotArea = chart.PrimaryPlotArea;
113
114     // Create header title and add it to the chart
115     Title title1 = new Title("Website Visitors");
116     chart.HeaderTitles.Add(title1);
117
118     // Create a indexed line series and add values to it
119     IndexedLineSeries lineSeries1 = new IndexedLineSeries("Website A");
120     lineSeries1.Values.Add(new float[] { 5, 7, 9, 6 });
121     IndexedLineSeries lineSeries2 = new IndexedLineSeries("Website B");
122     lineSeries2.Values.Add(new float[] { 4, 2, 5, 8 });
123     IndexedLineSeries lineSeries3 = new IndexedLineSeries("Website C");
124     lineSeries3.Values.Add(new float[] { 2, 4, 6, 9 });
125
126     // Add indexed line series to the plot area
127     plotArea.Series.Add(lineSeries1);
128     plotArea.Series.Add(lineSeries2);
129     plotArea.Series.Add(lineSeries3);
130
131     // Create a title and add it to the yaxis
132     Title lTitle = new Title("Visitors (in millions)");
133     lineSeries1.YAxis.Titles.Add(lTitle);
134
135     //Adding AxisLabels to the XAxis
136     lineSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q1", 0));
137     lineSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q2", 1));
138     lineSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q3", 2));
139     lineSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q4", 3));
140     chart.Legends[0].Visible = false;
141     elements.Add(chart);
142 }
143 private void AddPieChart(Group elements, float x, float y)
144 {
145     AddCaptionAndRectangle(elements, "Pie Chart", x, y, 225, 225);
146
147     // Create a chart
148     Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
149
150     // Add a plot area to the chart
```

```
151     PlotArea plotArea = chart.PlotAreas.Add(50, 50, 300, 300);
152
153     // Create the Header title and add it to the chart
154     Title tTitle = new Title("Website Visitors (in millions)");
155     chart.HeaderTitles.Add(tTitle);
156
157     // Create a scalar datalabel
158     ScalarDataLabel da = new ScalarDataLabel(true, false, false);
159
160     // Create autogradient colors
161     AutoGradient autogradient1 = new AutoGradient(90f, CmykColor.Red, CmykColor.IndianRed);
162     AutoGradient autogradient2 = new AutoGradient(90f, CmykColor.Green, CmykColor.YellowGreen);
163     AutoGradient autogradient3 = new AutoGradient(90f, CmykColor.Blue, CmykColor.LightBlue);
164
165     // Create a pie series
166     PieSeries pieSeries = new PieSeries();
167
168     // Set scalar datalabel to the pie series
169     pieSeries.DataLabel = da;
170
171     // Add series to the plot area
172     plotArea.Series.Add(pieSeries);
173
174     //Add pie series elements to the pie series
175     pieSeries.Elements.Add(27, "Website A");
176     pieSeries.Elements.Add(19, "Website B");
177     pieSeries.Elements.Add(21, "Website C");
178
179     // Assign autogradient colors to series elements
180     pieSeries.Elements[0].Color = autogradient1;
181     pieSeries.Elements[1].Color = autogradient2;
182     pieSeries.Elements[2].Color = autogradient3;
183     chart.Legends[0].Visible = false;
184     elements.Add(chart);
185 }
186 private void AddBarChart(Group elements, float x, float y)
187 {
188     AddCaptionAndRectangle(elements, "Bar Chart", x, y, 225, 225);
189
190     // Create a chart
191     Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
192
193     // Create a plot area
194     PlotArea plotArea = chart.PrimaryPlotArea;
195
196     // Create header title and add it to the chart
197     Title title1 = new Title("Website Visitors");
198     chart.HeaderTitles.Add(title1);
199
200     // Create a indexed bar series and add values to it
```

```
201 IndexedBarSeries barSeries1 = new IndexedBarSeries("Website A");
202 barSeries1.Values.Add(new float[] { 5, 7, 9, 6 });
203 IndexedBarSeries barSeries2 = new IndexedBarSeries("Website B");
204 barSeries2.Values.Add(new float[] { 4, 2, 5, 8 });
205 IndexedBarSeries barSeries3 = new IndexedBarSeries("Website C");
206 barSeries3.Values.Add(new float[] { 2, 4, 6, 9 });
207
208 // Create autogradient and assign it to series
209 AutoGradient autogradient1 = new AutoGradient(180f, CmykColor.Red, CmykColor.IndianRed);
210 barSeries1.Color = autogradient1;
211 AutoGradient autogradient2 = new AutoGradient(180f, CmykColor.Green, CmykColor.YellowGreen);
212 barSeries2.Color = autogradient2;
213 AutoGradient autogradient3 = new AutoGradient(180f, CmykColor.Blue, CmykColor.LightBlue);
214 barSeries3.Color = autogradient3;
215
216 // Add indexed bar series to the plot area
217 plotArea.Series.Add(barSeries1);
218 plotArea.Series.Add(barSeries2);
219 plotArea.Series.Add(barSeries3);
220
221 // Create a title and add it to the xaxis
222 Title lTitle = new Title("Visitors (in millions)");
223 barSeries1.XAxis.Titles.Add(lTitle);
224
225 //Adding AxisLabels to the yAxis
226 barSeries1.YAxis.Labels.Add(new IndexedYAxisLabel("Q1", 0));
227 barSeries1.YAxis.Labels.Add(new IndexedYAxisLabel("Q2", 1));
228 barSeries1.YAxis.Labels.Add(new IndexedYAxisLabel("Q3", 2));
229 barSeries1.YAxis.Labels.Add(new IndexedYAxisLabel("Q4", 3));
230 chart.Legends[0].Visible = false;
231 elements.Add(chart);
232 }
233 private void AddColumnChart(Group elements, float x, float y)
234 {
235     AddCaptionAndRectangle(elements, "100% Stacked Column Chart", x, y, 225, 225);
236
237     // Create a chart
238     Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
239
240     // Create a plot area
241     PlotArea plotArea = chart.PrimaryPlotArea;
242
243     // Create header titles and add it to the chart
244     Title title1 = new Title("Website Visitors");
245     chart.HeaderTitles.Add(title1);
246
247     // Create a indexed 100% column series elements and add values to it
248     Indexed100PercentStackedColumnSeriesElement seriesElement1 = new
Indexed100PercentStackedColumnSeriesElement("Website A");
249     seriesElement1.Values.Add(new float[] { 5, 7, 9, 6 });
```

```
250         Indexed100PercentStackedColumnSeriesElement seriesElement2 = new
251             seriesElement2.Values.Add(new float[] { 4, 2, 5, 8 });
252         Indexed100PercentStackedColumnSeriesElement seriesElement3 = new
Indexed100PercentStackedColumnSeriesElement("Website C");
253         seriesElement3.Values.Add(new float[] { 2, 4, 6, 9 });
254
255         // Create a Indexed 100% Stacked Column Series
256         Indexed100PercentStackedColumnSeries columnSeries = new Indexed100PercentStackedColumnSeries();
257
258         // Add indexed 100% column series elements to the Indexed 100% Stacked Column Series
259         columnSeries.Add(seriesElement1);
260         columnSeries.Add(seriesElement2);
261         columnSeries.Add(seriesElement3);
262
263         // Add series to the plot area
264         plotArea.Series.Add(columnSeries);
265
266         // Create a title and add it to the yaxis
267         Title lTitle = new Title("Visitors (in millions)");
268         columnSeries.YAxis.Titles.Add(lTitle);
269
270         //Adding AxisLabels to the XAxis
271         columnSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q1", 0));
272         columnSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q2", 1));
273         columnSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q3", 2));
274         columnSeries.XAxis.Labels.Add(new IndexedXAxisLabel("Q4", 3));
275         chart.Legends[0].Visible = false;
276         elements.Add(chart);
277     }
278     private void AddXYScatterChart(Group elements, float x, float y)
279     {
280         AddCaptionAndRectangle(elements, "XYScatter Chart", x, y, 225, 225);
281
282         // Create a chart
283         Chart chart = new Chart(x + 10, y + 25, 200, 200, Font.Helvetica, 10, RgbColor.Black);
284
285         // Add a plot Area to the chart
286         PlotArea plotArea = chart.PrimaryPlotArea;
287
288         // Create a Header title and add it to the chart
289         Title tTitle = new Title("Player Height and Weight");
290         chart.HeaderTitles.Add(tTitle);
291
292         // Create a xyScatter series and add values to it
293         XYScatterSeries xyScatterSeries1 = new XYScatterSeries("Team A");
294         xyScatterSeries1.Values.Add(112, 55);
295         xyScatterSeries1.Values.Add(125, 60);
296         xyScatterSeries1.Values.Add(138, 68);
297         xyScatterSeries1.Values.Add(150, 73);
```

```
298     xyScatterSeries1.Values.Add(172, 80);
299     XYScatterSeries xyScatterSeries2 = new XYScatterSeries("Team B");
300     xyScatterSeries2.Values.Add(110, 54);
301     xyScatterSeries2.Values.Add(128, 62);
302     xyScatterSeries2.Values.Add(140, 70);
303     xyScatterSeries2.Values.Add(155, 75);
304     xyScatterSeries2.Values.Add(170, 80);
305
306     // Add xyScatter series to the plot Area
307     plotArea.Series.Add(xyScatterSeries1);
308     plotArea.Series.Add(xyScatterSeries2);
309
310     // Create axis titles and add it to the axis
311     Title title1 = new Title("Height (inches)");
312     Title title2 = new Title("Weight (pounds)");
313     xyScatterSeries1.YAxis.Titles.Add(title1);
314     xyScatterSeries1.XAxis.Titles.Add(title2);
315
316     // Set XAxis min value
317     xyScatterSeries1.XAxis.Min = 50;
318
319     // Set YAxis min value
320     xyScatterSeries1.YAxis.Min = 100;
321     chart.Legends[0].Visible = false;
322     elements.Add(chart);
323 }
324 private void AddMultiTypeSeriesChart(Group elements, float x, float y)
325 {
326     AddCaptionAndRectangle(elements, "Plot Area With Different Kinds of Series and Multiple Axis ", x, y, 650, 410);
327
328     // Create a chart
329     Chart chart = new Chart(x + 25, y + 37, 600, 350);
330
331     // Create a Auto gradient and set it to chart back ground color
332     AutoGradient autogradient = new AutoGradient(90f, CmykColor.LightYellow, CmykColor.LightSkyBlue);
333     chart.BackgroundColor = autogradient;
334
335     // Create a plot area
336     PlotArea plotArea = chart.PrimaryPlotArea;
337
338     // Create header titles and add it to the chart
339     Title title1 = new Title("Company Sales and Website Visitors ");
340     title1.Align = Align.Left;
341     chart.HeaderTitles.Add(title1);
342
343     // Create a indexed line series and add values to it
344     IndexedLineSeries lineSeries1 = new IndexedLineSeries("Website A Visitors");
345     lineSeries1.Values.Add(new float[] { 1.5f, 8, 7.5f, 5.5f });
346     lineSeries1.Color = RgbColor.DarkBlue;
347     IndexedLineSeries lineSeries2 = new IndexedLineSeries("Website B Visitors");
```



```
348     lineSeries2.Color = RgbColor.LimeGreen;
349     lineSeries2.Values.Add(new float[] { 4, 3, 7, 7.5f });
350
351     // Create markers and add it to the series
352     Marker marker1 = Marker.GetTriangle(7);
353     lineSeries1.Marker = marker1;
354     Marker marker2 = Marker.GetCircle(7);
355     lineSeries2.Marker = marker2;
356
357     // Add indexed line series to the plot area
358     plotArea.Series.Add(lineSeries1);
359     plotArea.Series.Add(lineSeries2);
360
361     // Create a NumericYAxis and a title to it
362     NumericYAxis numericyaxis1 = new NumericYAxis();
363     numericyaxis1.AnchorType = YAxisAnchorType.Right;
364     numericyaxis1.Titles.Add(new Title("Sales (in $ millions)"));
365     numericyaxis1.Interval = 1;
366
367     // Create a indexed column series and add values to it
368     IndexedColumnSeries columnSeries1 = new IndexedColumnSeries("Company A Sales", numericyaxis1);
369     columnSeries1.Values.Add(new float[] { 2, 10, 14, 17 });
370     columnSeries1.Color = RgbColor.Blue;
371     IndexedColumnSeries columnSeries2 = new IndexedColumnSeries("Company B Sales", numericyaxis1);
372     columnSeries2.Color = RgbColor.Lime;
373     columnSeries2.Values.Add(new float[] { 7, 4, 10, 15 });
374
375     // Create a bar column value position data label
376     BarColumnValuePositionDataLabel barColumnValuePositionDataLabel = new BarColumnValuePositionDataLabel(true, true,
false);
377     columnSeries1.DataLabel = barColumnValuePositionDataLabel;
378     barColumnValuePositionDataLabel.FontSize = 7;
379     columnSeries1.DataLabel.Prefix = "(";
380     columnSeries1.DataLabel.Suffix = ")";
381     columnSeries2.DataLabel = barColumnValuePositionDataLabel;
382
383     // Add indexed column series to the plot area
384     plotArea.Series.Add(columnSeries1);
385     plotArea.Series.Add(columnSeries2);
386     YAxisGridLines minorGridLines = new YAxisGridLines();
387     minorGridLines.LineStyle = LineStyle.Dots;
388     plotArea.YAxes.DefaultNumericAxis.MajorGridLines = new YAxisGridLines();
389     plotArea.YAxes.DefaultNumericAxis.MinorGridLines = minorGridLines;
390     plotArea.XAxes.DefaultIndexedAxis.MajorGridLines = new XAxisGridLines();
391     plotArea.YAxes.DefaultNumericAxis.MinorTickMarks = new YAxisTickMarks();
392     plotArea.YAxes.DefaultNumericAxis.MajorTickMarks = new YAxisTickMarks();
393
394     // Add title to Yaxis
395     lineSeries1.YAxis.Titles.Add(new Title("Visitors (in millions)"));
396
```

```
397     //Adding AxisLabels to the XAxis
398     columnSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q1", 0));
399     columnSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q2", 1));
400     columnSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q3", 2));
401     columnSeries1.XAxis.Labels.Add(new IndexedXAxisLabel("Q4", 3));
402     chart.Legends[0].BorderStyle = LineStyle.Dots;
403     chart.Legends[0].BorderColor = RgbColor.Black;
404     chart.Legends[0].BackgroundColor = CmykColor.Lavender;
405     elements.Add(chart);
406 }
407 private void AddCaptionAndRectangle(Group pageElements, string caption, float x, float y, float width, float height)
408 {
409     // Adds a rectangle and caption to the pageElements
410     Rectangle rectangle = new Rectangle(x, y + 15, width, height - 15);
411     Label captionLabel = new Label(caption, x, y, 300, 10, Font.HelveticaBold, 10);
412     pageElements.Add(rectangle);
413     pageElements.Add(captionLabel);
414 }
415 }
416 }
```