



Report Writer

User's Guide

User's Guide for Siberix Report Writer 10.0

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Overview

Siberix Report Writer is an advanced reporting solution for .NET Framework 3.5 / 4.0 designed to create industry standard PDF and XPS¹ documents dynamically with API calls or from XML. It provides a variety of methods to format text, insert images, draw geometric figures and paths and allows to create complex layouts.

Top Features

- PDF and XPS publishing
- Easy to use API and XML format
- Multiple sections with individual formatting
- Headers, Footers, Decorations and Watermarks
- Automatic page flow
- Page numbering and Page breaks
- Hyperlinks and Bookmarks
- Grids, Lists, Trees, Groups and Flows
- Site containers to place elements by absolute positions
- Text formatting (Font size and color; Strikeout and Underline; Superscript and Subscript; Alignment; Intervals and Indentations)
- Images and Shapes
- Direct canvas drawing (Lines, Rectangles, Ellipses, Polylines, Polygons, Arcs, Chords and Pies; Path composition; Bezier curves and Splines; Pen styles, widths, colors, caps and joins; SolidColor, LinearGradient, RadialGradient and Texture brushes; Font metrics; Clipping areas; Translation, Rotation, Skew and other transformations)
- Data binding and Callback interface to combine XML and API calls

System Requirements

- PC with an Intel or compatible Pentium 600 MHz or higher processor
- Windows XP, Windows Server 2008, Windows Vista, Windows 7
- .NET Framework 3.5 / 4.0
- Minimum of 256 Mb of RAM (512 and more recommended)
- Memory requirements vary according to the nature of the project

1. To the best of our knowledge, Microsoft doesn't forbid third party companies to develop a product for the XPS document generation. However, according to the XML Paper Specification Patent License we have to provide the following notice for your information:

This product may incorporate intellectual property owned by Microsoft Corporation. The terms and conditions upon which Microsoft is licensing such intellectual property may be found at <http://go.microsoft.com/fwlink/?LinkId=52369>.

Installation

Siberix Report Writer doesn't require any installation. All you need to do is to copy the [Siberix.ReportWriter.dll](#) into your project's folder (desktop applications) or to the "bin" folder (ASPX applications) and make a reference to it.

In some rare cases you may find out that the evaluation watermark is still in place or get unexpected errors while installing or upgrading the product. To eliminate them please use the instructions below. It is preferred to perform all the steps together.

- Check you have the latest [Siberix.ReportWriter.dll](#)
- Remove all inclusions of [Siberix.ReportWriter.dll](#) at the temporary ASP.NET directory (%WINDOWS%\Microsoft.NET\Framework\v{version}\Temporary ASP.NET Files\root)
- Open your project and remove all references to [Siberix.ReportWriter.dll](#) in your project including the main reference path (Right click on the project name in the Solution Explorer / Properties / References Path)
- Save the project
- Add references to [Siberix.ReportWriter.dll](#) in your project
- Save and recompile the project
- Clear your browser's cache
- Restart the Internet Informational Server (IIS)
- Run the project

Graphics

This namespace provides core drawing functionality.

Measuring

The default unit of measure for most of the elements described in this User's Guide is point ([pt](#)). You may find some useful expressions below.

- 1 pt = 1 / 72 inch
- 1 px = 1 / 96 inch - [May vary for particular screen devices and modes](#)
- 1 mm = 1 / 25.4 inch

You can also set any float property using an explicit unit of measure.

- Points ([pt](#))
- Pixels ([px](#))
- Twips ([tw](#))
- Millimeters ([mm](#))

Examples

[XML]

```
<Group Width="300 px" />
```

Colors

Colors are widely used across the report. Every time you create a pen or a brush you need to provide a reference to a color object. Siberix Report Writer allows to specify colors in two different ways: 1. You can create a new color providing Red, Green, Blue and Alpha byte values; 2. You can select a color by its name from a collection of predefined colors. To access the collection of predefined colors use properties of the [Siberix.Graphics.Colors](#) class.

 AliceBlue	 Chocolate	 DarkOrchid	 Fuchsia
 AntiqueWhite	 Coral	 DarkRed	 Gainsboro
 Aqua	 CornflowerBlue	 DarkSalmon	 GhostWhite
 Aquamarine	 Cornsilk	 DarkSeaGreen	 Gold
 Azure	 Crimson	 DarkSlateBlue	 Goldenrod
 Beige	 Cyan	 DarkSlateGray	 Gray
 Bisque	 DarkBlue	 DarkTurquoise	 Green
 Black	 DarkCyan	 DarkViolet	 GreenYellow
 BlanchedAlmond	 DarkGoldenrod	 DeepPink	 Honeydew
 Blue	 DarkGray	 DeepSkyBlue	 HotPink
 BlueViolet	 DarkGreen	 DimGray	 IndianRed
 Brown	 DarkKhaki	 DodgerBlue	 Indigo
 BurlyWood	 DarkMagenta	 Firebrick	 Ivory
 CadetBlue	 DarkOliveGreen	 FloralWhite	 Khaki
 Chartreuse	 DarkOrange	 ForestGreen	 Lavender

	LavenderBlush		Maroon		OrangeRed		SeaShell
	LawnGreen		MediumAquaMarine		Orchid		Sienna
	LemonChiffon		MediumBlue		PaleGoldenrod		Silver
	LightBlue		MediumOrchid		PaleGreen		SkyBlue
	LightCoral		MediumPurple		PaleTurquoise		SlateBlue
	LightCyan		MediumSeaGreen		PaleVioletRed		SlateGray
	LightGoldenrodYellow		MediumSlateBlue		PapayaWhip		Snow
	LightGray		MediumSpringGreen		PeachPuff		SpringGreen
	LightGreen		MediumTurquoise		Peru		SteelBlue
	LightPink		MediumVioletRed		Pink		Tan
	LightSalmon		MidnightBlue		Plum		Teal
	LightSeaGreen		MintCream		PowderBlue		Thistle
	LightSkyBlue		MistyRose		Purple		Tomato
	LightSlateGray		Moccasin		Red		Turquoise
	LightSteelBlue		NavajoWhite		RosyBrown		Violet
	LightYellow		Navy		RoyalBlue		Wheat
	Lime		OldLace		SaddleBrown		White
	LimeGreen		Olive		Salmon		WhiteSmoke
	Linen		OliveDrab		SandyBrown		Yellow
	Magenta		Orange		SeaGreen		YellowGreen

Examples

[CS]

```
Siberix.Graphics.Color color1 = new Siberix.Graphics.Color(255, 0, 0);
Siberix.Graphics.Color color2 = new Siberix.Graphics.Color(50, 255, 0, 0);
Siberix.Graphics.Color color3 = Siberix.Graphics.Colors.Red;
```

[VB]

```
Dim color1 As Siberix.Graphics.Color = New Siberix.Graphics.Color(255, 0, 0)
Dim color2 As Siberix.Graphics.Color = New Siberix.Graphics.Color(50, 255, 0, 0)
Dim color3 As Siberix.Graphics.Color = Siberix.Graphics.Colors.Red
```

[XML]

```
Color="#FFFF0000"
Color="#32FF0000"
Color="Red"
```

Pens

Every time you draw a line or a curve you have to provide a reference to a pen object. Siberix Report Writer allows to set individual pen attributes including Color, Width, Style, Pattern, Cap, Join and MiterLimit.

<Pen

Color="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"


```

Width="Float value > 0"
Style="Solid | Dash | DashDot | DashDotDot | Dot | Custom"
Pattern="[Float value - Dash, Float value - Space ...]"
Cap="Flat | Round | Square"
Join="Miter | Round | Bevel"
MiterLimit="Float value"
/>

```

Predefined collection

You may use a collection of predefined pens to ease the development within your code. To access the collection of predefined pens use properties of the [Siberix.Graphics.Pens](#) class.

Examples

[CS]

```

Siberix.Graphics.Pen pen1 = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red);

Siberix.Graphics.Pen pen2 = new Siberix.Graphics.Pen(new Siberix.Graphics.Color(255, 0, 0), 2,
Siberix.Graphics.DashStyle.DashDot);

Siberix.Graphics.Pen pen3 = Siberix.Graphics.Pens.Red;

```

[VB]

```

Dim pen1 As Siberix.Graphics.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red)

Dim pen2 As Siberix.Graphics.Pen = New Siberix.Graphics.Pen(New Siberix.Graphics.Color(255, 0, 0), 2,
Siberix.Graphics.DashStyle.DashDot)

Dim pen3 As Siberix.Graphics.Pen = Siberix.Graphics.Pens.Red

```

[XML]

```

Pen="Red"

Pen="Red, 2, Dash"

Pen="Red, 2, Dash, Round, Bevel, 5"

Pen.Color="Red"
Pen.Width="2"

<Pen Color="Red" />

<Pen Color="#FFFF0000" Width="2" Style="DashDot" />

```

Brushes

Siberix Report Writer provides several types of brushes including SolidColorBrush, LinearGradientBrush, RadialGradientBrush and TextureBrush to output text or to fill the interiors of graphical shapes and elements.

SolidColorBrush

<Brush

```

Type="SolidColor" - You may omit this attribute for solid color brushes.
Color="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"

```

/>

Predefined collection

You may use a collection of predefined brushes to ease the development within your code. To access the collection of predefined brushes use properties of the [Siberix.Graphics.Brushes](#) class.

Examples

```
[CS]
Siberix.Graphics.SolidColorBrush brush1 = new Siberix.Graphics.SolidColorBrush(Siberix.Graphics.Colors.Red);
Siberix.Graphics.SolidColorBrush brush2 = new Siberix.Graphics.SolidColorBrush(new Siberix.Graphics.Color(255, 0, 0));
Siberix.Graphics.Brush brush3 = Siberix.Graphics.Brushes.Red;

[VB]
Dim brush1 As Siberix.Graphics.SolidColorBrush = New Siberix.Graphics.SolidColorBrush(Siberix.Graphics.Colors.Red)
Dim brush2 As Siberix.Graphics.SolidColorBrush = New Siberix.Graphics.SolidColorBrush(New Siberix.Graphics.Color(255, 0, 0))
Dim brush3 As Siberix.Graphics.Brush = Siberix.Graphics.Brushes.Red

[XML]
Brush="Red"

Brush.Type="SolidColor"
Brush.Color="Red"

<Brush Type="SolidColor" Color="Red" />
```

LinearGradientBrush

```
<Brush
  Type="LinearGradient"
  StartColor="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"
  EndColor="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"
  Angle="Float value"
>
  <Blend> - This element is optional if StartColor and EndColor attributes are present.
    <Entry
      Color="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"
      Offset="Float value in range [0.0 ... 1.0]"
    />
    ...
  </Blend>
</Brush>
```

Examples

```
[CS]
Siberix.Graphics.LinearGradientBrush brush1 = new Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Red,
Siberix.Graphics.Colors.Yellow);

Siberix.Graphics.ColorBlend blend = new Siberix.Graphics.ColorBlend();
blend.Add(Siberix.Graphics.Colors.Red, 0);
blend.Add(Siberix.Graphics.Colors.Yellow, 0.5F);
blend.Add(Siberix.Graphics.Colors.Blue, 1);
```

```
Siberix.Graphics.LinearGradientBrush brush2 = new Siberix.Graphics.LinearGradientBrush(blend, 35);
```

[VB]

```
Dim brush1 As Siberix.Graphics.LinearGradientBrush = New Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Red, Siberix.Graphics.Colors.Yellow)
```

```
Dim blend As Siberix.Graphics.ColorBlend = New Siberix.Graphics.ColorBlend()  
blend.Add(Siberix.Graphics.Colors.Red, 0)  
blend.Add(Siberix.Graphics.Colors.Yellow, 0.5F)  
blend.Add(Siberix.Graphics.Colors.Blue, 1)
```

```
Dim brush2 As Siberix.Graphics.LinearGradientBrush = New Siberix.Graphics.LinearGradientBrush(blend, 35)
```

[XML]

```
Brush="Red Yellow"
```

```
Brush="Red Yellow 45"
```

```
Brush.Type="LinearGradient"  
Brush.StartColor="Red"  
Brush.EndColor="Yellow"  
Brush.Angle="45"
```

```
<Brush Type="LinearGradient" StartColor="Red" EndColor="Yellow" />
```

```
<Brush Type="LinearGradient" StartColor="#FFFF0000" EndColor="#FFFFFF00" Angle="35" />
```

```
<Brush Type="LinearGradient" Angle="45">  
  <Blend>  
    <Entry Color="Red" Offset="0" />  
    <Entry Color="Green" Offset="0.5" />  
    <Entry Color="Yellow" Offset="1" />  
  </Blend>  
</Brush>
```

RadialGradientBrush

<Brush

Type="RadialGradient"

StartColor="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"

EndColor="Color name | #AARRGGBB | #RRGGBB | #ARGB | #RGB"

Angle="Float value"

>

<Center

X="Float value in range [0.0 ... 1.0]"

Y="Float value in range [0.0 ... 1.0]"

/>

<Radius

X="Float value in range [0.0 ... 1.0]"

Y="Float value in range [0.0 ... 1.0]"

/>

<Focus

X="Float value in range [0.0 ... 1.0]"

Y="Float value in range [0.0 ... 1.0]"

/>

<Blend> - This element is optional if StartColor and EndColor attributes are present.

<Entry

```

    Color="Color name | #AARRGGBB"
    Offset="Float value in range [0.0 ... 1.0]"
  />
  ...
</Blend>
</Brush>

```

Examples

[CS]

```

Siberix.Graphics.RadialGradientBrush brush1 = new Siberix.Graphics.RadialGradientBrush(Siberix.Graphics.Colors.Red,
Siberix.Graphics.Colors.Yellow);

Siberix.Graphics.ColorBlend blend = new Siberix.Graphics.ColorBlend();
blend.Add(Siberix.Graphics.Colors.Red, 0);
blend.Add(Siberix.Graphics.Colors.Yellow, 0.5F);
blend.Add(Siberix.Graphics.Colors.Blue, 1);

Siberix.Graphics.Point center = new Siberix.Graphics.Point(0.4F, 0.6F);
Siberix.Graphics.Point radius = new Siberix.Graphics.Point(0.8F, 0.4F);
Siberix.Graphics.Point focus = new Siberix.Graphics.Point(0.7F, 0.2F);

Siberix.Graphics.RadialGradientBrush brush2 = new Siberix.Graphics.RadialGradientBrush(blend, 35, center, radius, focus);

```

[VB]

```

Dim brush1 As Siberix.Graphics.RadialGradientBrush = New Siberix.Graphics.RadialGradientBrush(Siberix.Graphics.Colors.Red,
Siberix.Graphics.Colors.Yellow)

Dim blend As Siberix.Graphics.ColorBlend = New Siberix.Graphics.ColorBlend()
blend.Add(Siberix.Graphics.Colors.Red, 0)
blend.Add(Siberix.Graphics.Colors.Yellow, 0.5F)
blend.Add(Siberix.Graphics.Colors.Blue, 1)

Dim center As Siberix.Graphics.Point = New Siberix.Graphics.Point(0.4F, 0.6F)
Dim radius As Siberix.Graphics.Point = New Siberix.Graphics.Point(0.8F, 0.4F)
Dim focus As Siberix.Graphics.Point = New Siberix.Graphics.Point(0.7F, 0.2F)

Dim brush2 As Siberix.Graphics.RadialGradientBrush = New Siberix.Graphics.RadialGradientBrush(blend, 35, center, radius, focus)

```

[XML]

```

Brush.Type="RadialGradient"
Brush.StartColor="Red"
Brush.EndColor="Yellow"
Brush.Angle="45"
Brush.Center="0.4, 0.6"
Brush.Radius.X="0.4"
Brush.Radius.Y="0.6"

<Brush Type="RadialGradient" StartColor="Red" EndColor="Yellow" />

<Brush Type="RadialGradient" StartColor="#FFFF0000" EndColor="#FFFFFF00" Angle="35" />

<Brush Type="RadialGradient" Angle="45">
  <Center X="0.4" Y="0.6" />
  <Radius X="0.8" Y="0.4" />
  <Focus X="0.7" Y="0.2" />
  <Blend>
    <Entry Color="Red" Offset="0" />
    <Entry Color="Green" Offset="0.5" />
    <Entry Color="Yellow" Offset="1" />
  </Blend>
</Brush>

```

TextureBrush

```

<Brush
  Type="Texture"
  Source="File path or reference to embedded image"
  Angle="Float value"
  Scale="Float value"
>
  <Offset
    X="Float value"
    Y="Float value"
  />
</Brush>

```

Examples

[CS]

```

Siberix.Graphics.Image image = new Siberix.Graphics.Image("image.jpg");
Siberix.Graphics.TextureBrush brush = new Siberix.Graphics.TextureBrush(image);

```

[VB]

```

Dim image As Siberix.Graphics.Image = New Siberix.Graphics.Image("image.jpg")
Dim brush As Siberix.Graphics.TextureBrush = New Siberix.Graphics.TextureBrush(image)

```

[XML]

```

Brush.Type="Texture"
Brush.Source="image.jpg"
Brush.Angle="45"
Brush.Scale="0.5"
Brush.Offset.X="10"

<Brush Type="Texture" Source="image.jpg" Angle="45" Scale="0.5" />

```

Fonts

Siberix Report Writer allows to output text using any valid True Type font. You may use a collection of internal font wrappers or provide a reference to a local TTF font file. Please note that you are only allowed to use fonts that permit document embedding or you have a correspondent license from the creator of the font.

<Font

```

Source="Internal font name, file path or reference to embedded font"
Size="Float value > 0"
Subscript="True | False"
Superscript="True | False" - Has priority over Subscript.

```

/>

Internal font wrappers

You may use a collection of internal font wrappers from the [Siberix.Graphics.Fonts](#) namespace. Please note that wrappers only provide a simplified way of referencing [System](#) available fonts. The other way is to use the [Siberix.Wrappers.GDIPlus.Font](#) class that accepts a [System.Drawing.Font](#) as a parameter of its constructor.

- Arial
- ArialBold
- ArialBoldItalic

- ArialItalic
- CourierNew
- CourierNewBold
- CourierNewBoldItalic
- CourierNewItalic
- Garamond
- GaramondBold
- GaramondItalic
- Impact
- MonotypeCorsiva
- SansSerif
- Symbol
- Tahoma
- TahomaBold
- TimesNewRoman
- TimesNewRomanBold
- TimesNewRomanBoldItalic
- TimesNewRomanItalic
- Verdana
- VerdanaBold
- VerdanaBoldItalic
- VerdanaItalic
- Webdings
- Wingding

Examples

[CS]

```
Siberix.Graphics.Font font = new Siberix.Graphics.Fonts.ArialBold(12);
```

```
Siberix.Graphics.Font font = new Siberix.Graphics.Font("font.ttf", 12);
```

[VB]

```
Dim font As Siberix.Graphics.Font = New Siberix.Graphics.Fonts.ArialBold(12)
```

```
Dim font As Siberix.Graphics.Font = New Siberix.Graphics.Font("font.ttf", 12)
```

[XML]

```
Font="ArialBold, 12, Superscript"
```

```
Font="font.ttf, 12"
```

```
Font.Source="Arial"
```

```
Font.Size="12"
```

```
<Font Source="ArialBold" Size="12" Superscript="True" />
```

Images

You can use any type of raster images (BMP, JPG, GIF, TIFF, PNG, etc.) supported by .NET Framework 3.5 with the Siberix Report Writer. However, we would recommend to use JPG images for photographic pictures and GIF or PNG images to preserve color and alpha transparency.

Examples

[CS]

```
Siberix.Graphics.Image image = new Siberix.Graphics.Image("image.jpg");
```

[VB]

```
Dim image As Siberix.Graphics.Image = New Siberix.Graphics.Image("image.jpg")
```

Metafiles

Siberix Report Writer supports standard metafiles (WMF).

Examples

[CS]

```
Siberix.Graphics.Metafile wmf = new Siberix.Graphics.Metafile("image.wmf");
```

[VB]

```
Dim wmf As Siberix.Graphics.Metafile = New Siberix.Graphics.Metafile("image.wmf")
```

Report

This is the root element in the Siberix Report Writer's Document Object Model (DOM). You start building your reports by creating an instance of the [Siberix.Report.Report](#) class or by defining the `<Report>` XML tag. Then you set info properties, define styles and continue with the creation of the layout of the document. Each report can contain multiple sections.

```
<Report>
  <Info />
  <Preferences />
  <Resources />
  <Styles />
  <Bookmarks />
  <Sections />
</Report>
```

Examples

[CS]

```
Siberix.Report.Report report = new Siberix.Report.Report();

report.Info.Title = "Example";
report.Info.Author = "Siberix Technologies, Canada";
report.Info.Creator = "Siberix Report Writer";
report.Info.Copyright = "© 2003-2012 Siberix Technologies, Canada";

Siberix.Report.Section.ISection section = report.AddSection();
section.Size = Siberix.Report.PageSize.Letter;
section.Orientation = Siberix.Report.Orientation.Landscape;
section.Spacings.All = 35;

Siberix.Report.Text.Style style1 = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Black);

Siberix.Report.Text.IText text = section.AddText();
text.Style = style1;
text.AddContent("Hello PDF");

report.Publish("Document.pdf", Siberix.Report.FileFormat.PDF);
```

[VB]

```
Dim report As Siberix.Report.Report = New Siberix.Report.Report()

report.Info.Title = "Example"
report.Info.Author = "Siberix Technologies, Canada"
report.Info.Creator = "Siberix Report Writer"
report.Info.Copyright = "© 2003-2012 Siberix Technologies, Canada"

Dim section As Siberix.Report.Section.ISection = report.AddSection()
section.Size = Siberix.Report.PageSize.Letter
section.Orientation = Siberix.Report.Orientation.Landscape
section.Spacings.All = 35

Dim style1 As Siberix.Report.Text.Style = New Siberix.Report.Text.Style(New Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Black)

Dim text As Siberix.Report.Text.IText = section.AddText()
text.Style = style1
text.AddContent("Hello PDF")

report.Publish("Document.pdf", Siberix.Report.FileFormat.PDF)
```


[XML]

```
<Report>
  <Info Title="Example" Author="Siberix Technologies, Canada" Creator="Siberix Report Writer" Copyright="© 2003-2012
Siberix Technologies, Canada" />
  <Styles>
    <Style Id="Style1">
      <Font Source="Arial" Size="12" />
      <Brush Color="Black" />
    </Style>
  </Styles>
  <Sections>
    <Section Size="Letter" Orientation="Landscape" Spacings="35">
      <Text Style="Style1">Hello PDF</Text>
    </Section>
  </Sections>
</Report>
```

Info

This element represents a set of properties containing general information about the report including Title, Author, Keywords, etc. This data can be used to organize either original XML reports or output documents.

<Info

```
Title="String value"
Subject="String value"
Author="String value"
Manager="String value"
Company="String value"
Creator="String value"
Copyright="String value"
Category="String value"
Keywords="String value"
Comments="String value"
Created="String representation of Date and Time value"
Modified="String representation of Date and Time value"
```

>

<Property

```
Name="String value"
Value="String value"
```

/>

...

</Info>

Examples

[CS]

```
report.Info.Title = "Example";
report.Info.Author = "Siberix Technologies, Canada";
report.Info.Creator = "Siberix Report Writer";
report.Info.Copyright = "© 2003-2012 Siberix Technologies, Canada";
report.Info.Created = System.DateTime.Now;

report.Info.AddProperty("Name", "John");
report.Info.AddProperty("ID", "203-897-349-8723");
```

[VB]

```
report.Info.Title = "Example"
report.Info.Author = "Siberix Technologies, Canada"
report.Info.Creator = "Siberix Report Writer"
report.Info.Copyright = "© 2003-2012 Siberix Technologies, Canada"
report.Info.Created = System.DateTime.Now

report.Info.AddProperty("Name", "John")
report.Info.AddProperty("ID", "203-897-349-8723")
```

[XML]

```
<Info Title="Example" Author="Siberix Technologies, Canada" Creator="Siberix Report Writer" Copyright="© 2003-2012 Siberix Technologies, Canada" Created="5/20/2010 12:52:25 PM">
  <Property Name="Name" Value="John" />
  <Property Name="ID" Value="203-897-349-8723" />
</Info>
```

Preferences

You can set several groups of PDF and XPS preferences.

<Preferences>

<PDF

ColorSpace="RGB | CMYK | Gray"

/>

<Info

AuthorType="Author | Manager | Company"

ShowCreator="True | False"

/>

<Viewer

HideToolbar="True | False"

HideMenubar="True | False"

HideWindowUI="True | False"

FitWindow="True | False"

CenterWindow="True | False"

DisplayDocTitle="True | False"

/>

<Encryptor>

<Password

Owner="String value"

User="String value"

/>

<Permissions

Add="True | False"

Copy="True | False"

Modify="True | False"

Print="True | False"

/>

</Encryptor>

</PDF>

```

<XPS>
  <Info
    CreatorType="Creator | Author | Manager | Company"
  />
</XPS>
</Preferences>

```

Examples

[CS]

```

report.Preferences.PDF.Info.AuthorType = Siberix.Report.Preferences.PDF.AuthorType.Company;
report.Preferences.PDF.Info.ShowCreator = true;

report.Preferences.PDF.Viewer.HideToolbar = true;
report.Preferences.PDF.Viewer.HideMenubar = true;

report.Preferences.PDF.Encryptor.Password.Owner = "siberix";
report.Preferences.PDF.Encryptor.Password.User = "test";

report.Preferences.PDF.Encryptor.Permissions.Add = false;
report.Preferences.PDF.Encryptor.Permissions.Copy = false;
report.Preferences.PDF.Encryptor.Permissions.Modify = false;

```

[VB]

```

report.Preferences.PDF.Info.AuthorType = Siberix.Report.Preferences.PDF.AuthorType.Company
report.Preferences.PDF.Info.ShowCreator = True

report.Preferences.PDF.Viewer.HideToolbar = True
report.Preferences.PDF.Viewer.HideMenubar = True

report.Preferences.PDF.Encryptor.Password.Owner = "siberix"
report.Preferences.PDF.Encryptor.Password.User = "test"

report.Preferences.PDF.Encryptor.Permissions.Add = False
report.Preferences.PDF.Encryptor.Permissions.Copy = False
report.Preferences.PDF.Encryptor.Permissions.Modify = False

```

[XML]

```

<Preferences>
  <PDF>
    <Info AuthorType="Company" ShowCreator="True" />
    <Viewer HideToolbar="True" HideMenubar="True" />
    <Encryptor>
      <Password Owner="siberix" User="test" />
      <Permissions Add="False" Copy="False" Modify="False" />
    </Encryptor>
  </PDF>
</Preferences>

```

Resources

This element allows to embed True Type fonts and Images inside the body of the XML report file.

```

<Resources>
  <Font
    Id="String value"
  >
    Data - Compressed with Flate compressor and encoded with Base64 encoder.
  </Font>
  <Image

```

```

    Id="String value"
  >
    Data - Encoded with Base64 encoder.
  </Image>
  <Metafile
    Id="String value"
  >
    Data - Compressed with Flate compressor and encoded with Base64 encoder.
  </Metafile>
  ...
</Resources>

```

Examples

[XML]

```

<Resources>
  <Font Id="Font1">SYiMU3l8FFX6N3qWW...</Font>
  <Image Id="Image1">9B4AAQSkZJRgAB...</Image>
  <Metafile Id="Metafile1">AGNI75BG2398HFD...</Metafile>
</Resources>

```

Styles

This element allows to define a collection of text styles. It is required to apply a style for every text element in the report.

```

<Styles>
  <Style
    Id="String value"
    CharSpacing="Float value"
    WordSpacing="Float value"
  />
  <Font />
  <Brush />
  <Highlight />
  <Strikeout />
  <Underline />
</Style>
  ...
</Styles>

```

Examples

[CS]

```

Siberix.Report.Text.Style style1 = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Black);

Siberix.Report.Text.Style style2 = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.ArialBold(14),
Siberix.Graphics.Brushes.Green);

style2.Highlight = Siberix.Graphics.Brushes.Yellow;
style2.Underline = Siberix.Graphics.Pens.Red;
style2.CharSpacing = 2;

```

```
style2.WordSpacing = 10;
```

[VB]

```
Dim style1 As Siberix.Report.Text.Style = New Siberix.Report.Text.Style(New Siberix.Graphics.Fonts.Arial(12),  
Siberix.Graphics.Brushes.Black)  
  
Dim style2 As Siberix.Report.Text.Style = New Siberix.Report.Text.Style(New Siberix.Graphics.Fonts.ArialBold(14),  
Siberix.Graphics.Brushes.Green)  
  
style2.Highlight = Siberix.Graphics.Brushes.Yellow  
style2.Underline = Siberix.Graphics.Pens.Red  
style2.CharSpacing = 2  
style2.WordSpacing = 10
```

[XML]

```
<Styles>  
  <Style Id="Style1">  
    <Font Source="Arial" Size="12" />  
    <Brush Color="Black" />  
  </Style>  
  <Style Id="Style2" CharSpacing="2" WordSpacing="10">  
    <Font Source="ArialBold" Size="14" />  
    <Brush Color="Green" />  
    <Highlight Color="Yellow" />  
    <Underline Color="Red" />  
  </Style>  
</Styles>
```

Bookmarks

This element defines the structure of the bookmark tree.

<Bookmarks>

<Bookmark

Reference="String value"

Caption="String value"

Opened="True | False"

/>

...

</Bookmark>

...

</Bookmarks>

Examples

[CS]

```
Siberix.Report.Bookmarks.IBookmark bookmark1 = report.AddBookmark("Text1", "Caption 1", false);  
Siberix.Report.Bookmarks.IBookmark bookmark2 = bookmark1.AddBookmark("Page: 3, 10, 100", "Caption 1.1", true);  
Siberix.Report.Bookmarks.IBookmark bookmark3 = bookmark2.AddBookmark("Text2", "Caption 1.1.1", true);  
Siberix.Report.Bookmarks.IBookmark bookmark4 = report.AddBookmark("Text3", "Caption 2", true);
```

[VB]

```
Dim bookmark1 As Siberix.Report.Bookmarks.IBookmark = report.AddBookmark("Text1", "Caption 1", false)  
Dim bookmark2 As Siberix.Report.Bookmarks.IBookmark = bookmark1.AddBookmark("Page: 3, 10, 100", "Caption 1.1", true)  
Dim bookmark3 As Siberix.Report.Bookmarks.IBookmark = bookmark2.AddBookmark("Text2", "Caption 1.1.1", true)  
Dim bookmark4 As Siberix.Report.Bookmarks.IBookmark = report.AddBookmark("Text3", "Caption 2", true)
```

[XML]

```

<Bookmarks>
  <Bookmark Reference="Text1" Caption="Caption 1" Opened="False">
    <Bookmark Reference="Page: 3, 10, 100" Caption="Caption 1.1">
      <Bookmark Reference="Text2" Caption="Caption 1.1.1" />
    </Bookmark>
  </Bookmark>
  <Bookmark Reference="Text3" Caption="Caption 2" />
</Bookmarks>

```

Sections

This element allows to define sections of various sizes and formatting inside the report. Each section can have its own collection of headers, footers, watermarks and decorations.

```

<Sections>
  <Section
    Flip="True | False"
    Orientation="Portrait | Landscape"
  >
    <Size
      Width="Float value"
      Height="Float value"
    />
    <Alignment />
    <Borders />
    <Spacings />
    <Paddings />
    <Background />
    <Header
      Height="Float value [%]"
      Repeat="True | False"
    >
      <Label />
      <Line />
      <Polyline />
      <Polygon />
      <Rectangle />
      <Ellipse />
      <Arc />
      <Pie />
      <Path />
      <Text + Attached Properties />
      <Image + Attached Properties />
      <Metafile + Attached Properties />
      <Frame + Attached Properties />
      <Group + Attached Properties />
      <Grid + Attached Properties />
      <Slot + Attached Properties />
      <List + Attached Properties />
    </Header>
  </Section>
</Sections>

```

```

<Tree + Attached Properties />
<Flow + Attached Properties />
<Repeater + Attached Properties />
<Site + Attached Properties />
<Canvas + Attached Properties />
<PageNumber + Attached Properties />
<PageReference + Attached Properties />
...
</Header>
<Footer
  Height="Float value [%]"
  Repeat="True | False"
>
  <Label />
  <Line />
  <Polyline />
  <Polygon />
  <Rectangle />
  <Ellipse />
  <Arc />
  <Pie />
  <Path />
  <Text + Attached Properties />
  <Image + Attached Properties />
  <Metafile + Attached Properties />
  <Frame + Attached Properties />
  <Group + Attached Properties />
  <Grid + Attached Properties />
  <Slot + Attached Properties />
  <List + Attached Properties />
  <Tree + Attached Properties />
  <Flow + Attached Properties />
  <Repeater + Attached Properties />
  <Site + Attached Properties />
  <Canvas + Attached Properties />
  <PageNumber + Attached Properties />
  <PageReference + Attached Properties />
  ...
</Footer>
<Watermark
  Repeat="True | False"
>
  <Label />
  <Line />
  <Polyline />
  <Polygon />
  <Rectangle />

```

```

<Ellipse />
<Arc />
<Pie />
<Path />
<Text + Attached Properties />
<Image + Attached Properties />
<Metafile + Attached Properties />
<Frame + Attached Properties />
<Group + Attached Properties />
<Grid + Attached Properties />
<Slot + Attached Properties />
<List + Attached Properties />
<Tree + Attached Properties />
<Flow + Attached Properties />
<Repeater + Attached Properties />
<Site + Attached Properties />
<Canvas + Attached Properties />
<PageNumber + Attached Properties />
<PageReference + Attached Properties />
...
</Watermark>
<Decoration
  Repeat="True | False"
>
  <Label />
  <Line />
  <Polyline />
  <Polygon />
  <Rectangle />
  <Ellipse />
  <Arc />
  <Pie />
  <Path />
  <Text + Attached Properties />
  <Image + Attached Properties />
  <Metafile + Attached Properties />
  <Frame + Attached Properties />
  <Group + Attached Properties />
  <Grid + Attached Properties />
  <Slot + Attached Properties />
  <List + Attached Properties />
  <Tree + Attached Properties />
  <Flow + Attached Properties />
  <Repeater + Attached Properties />
  <Site + Attached Properties />
  <Canvas + Attached Properties />
  <PageNumber + Attached Properties />

```


<PageReference + Attached Properties />

...

</Decoration>

<Text />

<Image />

<Metafile />

<Frame/>

<Group />

<Grid />

<Slot />

<List />

<Tree />

<Flow />

<Repeater />

<Site />

<Canvas />

<PageNumber />

<PageReference />

<PageBreak />

...

</Section>

...

</Sections>

Examples

[CS]

```
Siberix.Report.Section.ISection section = report.AddSection();
section.Size = Siberix.Report.PageSize.Letter;
section.Orientation = Siberix.Report.Orientation.Landscape;
section.Spacings.All = 20;
section.Paddings.All = 5;
section.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black, 10);

Siberix.Report.Text.Style style1 = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.Arial(18),
Siberix.Graphics.Brushes.Red);

Siberix.Report.Text.Style style2 = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Black);

Siberix.Report.Section.IHeader header = section.AddHeader();
header.Repeat = true;

Siberix.Report.Text.IText text = header.AddText(10, 10);
text.Style = style1;
text.AddContent("Header");

text = section.AddText();
text.Style = style2;
text.AddContent("Content...");
```

[VB]

```
Dim section As Siberix.Report.Section.ISection = report.AddSection()
section.Size = Siberix.Report.PageSize.Letter
section.Orientation = Siberix.Report.Orientation.Landscape
section.Spacings.All = 20
section.Paddings.All = 5
```

```

section.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black, 10)

Dim style1 As Siberix.Report.Text.Style = New Siberix.Report.Text.Style(New Siberix.Graphics.Fonts.Arial(18),
Siberix.Graphics.Brushes.Red)

Dim style2 As Siberix.Report.Text.Style = New Siberix.Report.Text.Style(New Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Black)

Dim header As Siberix.Report.Section.IHeader = section.AddHeader()
header.Repeat = true

Dim text As Siberix.Report.Text.IText = header.AddText(10, 10)
text.Style = style1
text.AddContent("Header")

text = section.AddText()
text.Style = style2
text.AddContent("Content...")

```

[XML]

```

<Report>
  <Styles>
    <Style Id="Style1" Font="Arial, 18" Brush="Red" />
    <Style Id="Style2" Font="Arial, 12" Brush="Black" />
  </Styles>
  <Sections>
    <Section Size="Letter" Orientation="Landscape" Spacings="20" Paddings="5" Borders="Black, 10">
      <Header Repeat="True">
        <Text Left="10" Top="10" Style="Style1">Header</Text>
      </Header>
      <Text Style="Style2">Content...</Text>
    </Section>
  </Sections>
</Report>

```

Common Definitions

Represents various types and attributes that are widely used across the report as a part of element definitions.

Alignment

Controls the alignment of the element's content.

<Alignment

Horizontal="Left | Center | Right"

Vertical="Top | Middle | Bottom"

/>

Examples

[CS]

```

group.Alignment.Horizontal = Siberix.Report.HorizontalAlignment.Left;
group.Alignment.Vertical = Siberix.Report.VerticalAlignment.Top;

```

[VB]

```

group.Alignment.Horizontal = Siberix.Report.HorizontalAlignment.Left
group.Alignment.Vertical = Siberix.Report.VerticalAlignment.Top

```

[XML]

```

Alignment="Right"

Alignment="Right, Bottom"

Alignment.Horizontal="Right"
Alignment.Vertical="Middle"

<Group>
  <Alignment Horizontal="Left" Vertical="Top" />
</Group>

```

Borders

This element defines borders. You can specify style for every individual border and corner.

```

<Borders>
  <All />
  <Horizontal />
  <Vertical />
  <Left />
  <Right />
  <Top />
  <Bottom />
  <Corners>
    <TopLeft +
      Radius="Float value"
    />
    <TopRight +
      Radius="Float value"
    />
    <BottomLeft +
      Radius="Float value"
    />
    <BottomRight +
      Radius="Float value"
    />
  </Corners>
</Borders>

```

Examples

[CS]

```

group1.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
group1.Borders.Top = new Siberix.Report.Border(Siberix.Graphics.Pens.Red);

group2.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Blue, 5);

```

[VB]

```

group1.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
group1.Borders.Top = New Siberix.Report.Border(Siberix.Graphics.Pens.Red)

group2.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Blue, 5)

```

[XML]

```
<Group Borders="Black" Borders.Top="Red" />

<Group Borders="Blue; 10" />

<Group>
  <Borders>
    <Left Color="Black" Width="2" Style="DashDot" />
    <Right Color="Black" Width="2" Style="Dash" />
    <Top Color="Green" Width="2" Style="Dash" />
    <Bottom Color="Green" Width="2" Style="Dot" />
    <Corners>
      <TopLeft Color="Red" Width="2" Style="Solid" Radius="20" />
      <TopRight Color="Red" Width="2" Style="Solid" Radius="10" />
      <BottomLeft Color="Blue" Width="2" Style="Dash" Radius="10" />
      <BottomRight Color="Blue" Width="2" Style="Dash" Radius="10" />
    </Corners>
  </Borders>
</Group>
```

Spacings

Defines spacings of the element.

<Spacings

All="Float value"
Horizontal="Float value"
Vertical="Float value"
Left="Float value"
Right="Float value"
Top="Float value"
Bottom="Float value"

/>

Examples

[CS]

```
text.Spacings.All = 5;

group.Spacings.Horizontal = 5;
group.Spacings.Top = 10;
```

[VB]

```
text.Spacings.All = 5

group.Spacings.Horizontal = 5
group.Spacings.Top = 10
```

[XML]

```
Spacings="5, 5, 10, 15"

<Spacings Horizontal="5" Vertical="10" />

<Spacings Left="5" Right="5" Top="10" Bottom="10" />
```

Horizontal Spacings

Defines horizontal spacings of the element.

```
<Spacings
  All="Float value"
  Left="Float value"
  Right="Float value"
/>
```

Examples

```
[CS]
column.Spacings.Left = 5;

[VB]
column.Spacings.Left = 5

[XML]
<Spacings Left="5" />
```

Vertical Spacings

Defines vertical spacings of the element.

```
<Spacings
  All="Float value"
  Top="Float value"
  Bottom="Float value"
/>
```

Examples

```
[CS]
row.Spacings.Top = 5;

[VB]
row.Spacings.Top = 5

[XML]
<Spacings Top="5" />
```

Paddings

Defines paddings between the borders and the content of the element.

```
<Paddings
  All="Float value"
  Horizontal="Float value"
  Vertical="Float value"
  Left="Float value"
```

```

    Right="Float value"
    Top="Float value"
    Bottom="Float value"
/>

```

Examples

[CS]

```

group.Paddings.Horizontal = 5;
group.Paddings.Top = 10;

```

[VB]

```

group.Paddings.Horizontal = 5
group.Paddings.Top = 10

```

[XML]

```

Paddings="5, 5, 10, 15"

<Paddings Horizontal="5" Vertical="10" />

<Paddings Left="5" Right="5" Top="10" Bottom="10" />

```

Background

Defines the style of the background of the element.

```

<Background
    Drawing="String value"
/>

```

Examples

[CS]

```

group1.Background.Brush = Siberix.Graphics.Brushes.Yellow;

group2.Background.Brush = new Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Red,
Siberix.Graphics.Colors.Yellow);

```

[VB]

```

group1.Background.Brush = Siberix.Graphics.Brushes.Yellow

group2.Background.Brush = New Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Red,
Siberix.Graphics.Colors.Yellow)

```

[XML]

```

<Group Background="Yellow" />

<Group Background="Yellow; Drawing1" />

<Group>
  <Background Type="LinearGradient" StartColor="Red" EndColor="Yellow" />
</Group>

<Group>
  <Background Type="LinearGradient" StartColor="Red" EndColor="Yellow" Drawing="Drawing1"/>
</Group>

```

Attached Properties

When a layout element is placed inside a container like Site or Watermark it is positioned by absolute coordinates. These coordinates and a rotation angle are set by attached properties.

Left="Float value"

Top="Float value"

Angle="Float value"

Data Binding

Allows to bind elements to objects and collections. You may set the **DataContext** directly on the **DataBinding** object, on the element itself or on any upper container including the report element.

<Binding

Source="String value"

Path="String value"

Format="String value"

Formatter="String value"

/>

Examples

```
[CS]
Person person1 = new Person() { Name = "John", Level = 3 };
Person person2 = new Person() { Name = "Alex", Level = 5 };

text.DataContext = new Siberix.Report.Data.DataContext("dc1", person1);
text.Binding = new Siberix.Report.Data.DataBinding("Name");

text.Binding = new Siberix.Report.Data.DataBinding(new Siberix.Report.Data.DataContext("dc2", person2), "Level", "L: {0}");

[VB]
Dim person1 As Person = New Person() With {.Name = "John", .Level = 3}
Dim person2 As Person = New Person() With {.Name = "Alex", .Level = 5}

text.DataContext = New Siberix.Report.Data.DataContext("dc1", person1)
text.Binding = New Siberix.Report.Data.DataBinding("Name")

text.Binding = New Siberix.Report.Data.DataBinding(New Siberix.Report.Data.DataContext("dc2", person2), "Level", "L: {0}")

[XML]
Binding="Name"

<Text DataContext="dc1" Style="Style1" Binding="Name" />

<Text Style="Style1" Binding="Level, 'L: {0}'; dc2" />
```

Text

Represents a text paragraph.

<Text

Id="String value"

DataContext="String value"

```
Style="Style reference"
Link="Reference"
Width="Float value [%]"
Alignment="Left | Center | Right | Justify"
Flow="LTR | RTL"
Indent="Float value"
Interval="Float value"
KeepSolid="True | False"
KeepWithNext="True | False"
```

>

```
<Binding />
<Spacings />
```

Text content ...

```
<DropCap
  Char="String value"
  Style="Style reference"
>
  <Spacings />
</DropCap>
<Leader
  Format="String value"
  Style="Style reference"
/>
<Binder
  Id="String value"
>
  <Binding />
</Binder>
<Spacer
  Id="String value"
  Style="Style reference"
  Link="Reference"
  Width="Float value"
  Height="Float value"
/>
<Image
  Id="String value"
  Source="File path or reference to embedded image"
  Width="Float value"
  Height="Float value"
>
  <Binding />
  <Spacings />
</Image>
<Metafile
```



```

    Id="String value"
    Source="File path or reference to embedded metafile"
    Width="Float value"
>
    <Binding />
    <Spacings />
</Metafile>
<Plot
    Id="String value"
    Drawing="String value"
    Width="Float value"
    Height="Float value"
>
    <Spacings />
</Plot>
<LRM
    Id="String value"
/>
<RLM
    Id="String value"
/>
<LRE
    Id="String value"
/>
<RLE
    Id="String value"
/>
<PDF
    Id="String value"
/>
<LRO
    Id="String value"
/>
<RLO
    Id="String value"
/>
<MergeCode
    Id="String value"
/>
<DateTime
    Format="String value"
/>
<Injector
    Id="String value"
/>
<Block
    Style="Style reference"

```

Link="Reference"

>

Text content ...

<Block />
<Binder />
<Spacer />
<Image />
<Metafile />
<Plot />
<LRM />
<RLM />
<LRE />
<RLE />
<PDF />
<LRO />
<RLO />
<MergeCode />
<DateTime />
<Injector />

...

</Block>

...

</Text>

Examples

[CS]

```
Siberix.Report.Text.IText text = section.AddText();
text.Style = style1;
text.Width = new Siberix.Report.RelativeWidth(50);
text.Indent = 15;
text.Interval = 5;
text.Spacings.All = 5;
text.Alignment = Siberix.Report.TextAlignment.Justify;
text.AddContent("Content...");
text.AddLineBreak();
text.AddContent("More content...", style2);
```

[VB]

```
Dim text As Siberix.Report.Text.IText = section.AddText()
text.Style = style1
text.Width = New Siberix.Report.RelativeWidth(50)
text.Indent = 15
text.Interval = 5
text.Spacings.All = 5
text.Alignment = Siberix.Report.TextAlignment.Justify
text.AddContent("Content...")
text.AddLineBreak()
text.AddContent("More content...", style2)
```

[XML]

```
<Text Style="Style1" Width="50%" Indent="15" Interval="5" Spacings="5" Alignment="Justify">Content...
<Block Style="Style2">More content...</Block></Text>
```

Image

Represents an image element.

```
<Image
  Id="String value"
  DataContext="String value"
  Source="File path or reference to embedded image"
  Width="Float value [%]"
  Height="Float value [%]"
>
  <Binding />
  <Spacings />
</Image>
```

Examples

[CS]

```
Siberix.Graphics.Image img = new Siberix.Graphics.Image("image.jpg");

Siberix.Report.IImage image = section.AddImage(img);
image.Width = new Siberix.Report.DirectWidth(200);
```

[VB]

```
Dim img As Siberix.Graphics.Image = New Siberix.Graphics.Image("image.jpg")

Dim image As Siberix.Report.IImage = section.AddImage(img)
image.Width = New Siberix.Report.DirectWidth(200)
```

[XML]

```
<Image Source="image.jpg" Width="200" />
```

Metafile

Represents a standard WMF image element.

```
<Metafile
  Id="String value"
  DataContext="String value"
  Source="File path or reference to embedded WMF image"
  Width="Float value [%]"
>
  <Binding />
  <Spacings />
</Metafile>
```

Examples

[CS]

```
Siberix.Graphics.Metafile wmf = new Siberix.Graphics.Metafile("image.wmf");

Siberix.Report.IMetafile metafile = section.AddMetafile(wmf);
metafile.Width = new Siberix.Report.DirectWidth(200);
```

[VB]

```
Dim wmf As Siberix.Graphics.Metafile = New Siberix.Graphics.Metafile("image.wmf")  
  
Dim metafile As Siberix.Report.IMetafile = section.AddMetafile(wmf)  
metafile.Width = New Siberix.Report.DirectWidth(200)
```

[XML]

```
<Metafile Source="image.wmf" Width="200" />
```

Frame

Represents a drawing area for custom report extension.

<Frame

```
Id="String value"  
DataContext="String value"  
FactoryId="String value"  
ExtensionId="String value"  
Width="Float value [%]"  
Height="Float value [%]"
```

>

```
<Spacings />  
<Data>...</Data>
```

</Frame>

Examples

[CS]

```
report.RegisterExtensionFactory("Factory1", new ExtensionFactory());  
  
Siberix.Report.IFrame frame = section.AddFrame("Factory1", "Extension1");  
frame.Width = new Siberix.Report.DirectWidth(150);
```

[VB]

```
report.RegisterExtensionFactory("Factory1", New ExtensionFactory())  
  
Dim frame As Siberix.Report.IFrame = section.AddFrame("Factory1", "Extension1")  
frame.Width = New Siberix.Report.DirectWidth(150)
```

[XML]

```
<Frame FactoryId="Factory1" ExtensionId="Extension1" Width="150" />
```

Group

Represents a group element.

<Group

```
Id="String value"  
DataContext="String value"  
Width="Float value [%]"  
Height="Float value [%]"  
KeepSolid="True | False"
```

```
KeepWithNext="True | False"
StretchOnBreak="True | False"
MinHeightOnBreak="Float value"
```

```
>
<Alignment />
<Borders />
<Spacings />
<Paddings />
<Background />
<Text />
<Image />
<Metafile />
<Frame/>
<Group />
<Grid />
<Slot />
<List />
<Tree />
<Flow />
<Repeater />
<Site />
<Canvas />
<PageNumber />
<PageReference />
<PageBreak />
<Injector
  Id="String value"
/>
...
</Group>
```

Examples

[CS]

```
Siberix.Report.IGroup group = section.AddGroup();
group.Height = new Siberix.Report.RelativeHeight(100);
group.Alignment.Vertical = Siberix.Report.VerticalAlignment.Middle;
group.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
group.Paddings.All = 5;
```

```
Siberix.Report.Text.IText text = group.AddText();
text.Style = style1;
text.AddContent("Text paragraph...");
```

[VB]

```
Dim group As Siberix.Report.IGroup = section.AddGroup()
group.Height = New Siberix.Report.RelativeHeight(100)
group.Alignment.Vertical = Siberix.Report.VerticalAlignment.Middle
group.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
group.Paddings.All = 5
```

```
Dim text As Siberix.Report.Text.IText = group.AddText()
text.Style = style1
```

```
text.AddContent("Text paragraph...")
```

[XML]

```
<Group Height="100%" Alignment.Vertical="Middle" Borders="Black" Paddings="5">  
  <Text Style="Style1">Text paragraph...</Text>  
</Group>
```

Grid

Represents a grid element.

<Grid

```
  Id="String value"  
  DataContext="String value"  
  TemplateSelector="String value"  
  Width="Float value [%]"  
  Height="Float value [%]"  
  KeepSolid="True | False"  
  KeepWithNext="True | False"  
  StretchOnBreak="True | False"  
  MinHeightOnBreak="Float value"
```

>

```
  <Binding />  
  <Borders />  
  <Spacings />  
  <Paddings />  
  <Background />
```

<Column

```
  Id="String value"  
  Width="Float value [%]"
```

>

```
  <Spacings />
```

</Column>

...

<Header

```
  Id="String value"  
  DataContext="String value"  
  Repeat="True | False"
```

>

```
  <Row />
```

...

</Header>

<Footer

```
  Id="String value"  
  DataContext="String value"  
  Repeat="True | False"
```

>

```
  <Row />
```

```

...
</Footer>
<RowTemplate
  Id="String value"
  Height="Float value [%]"
  KeepSolid="True | False"
  KeepWithNext="True | False"
>
  <Spacings />
  <Cell />
  ...
</RowTemplate>
<Row
  Id="String value"
  DataContext="String value"
  Height="Float value [%]"
  KeepSolid="True | False"
  KeepWithNext="True | False"
>
  <Spacings />
  <Cell
    Id="String value"
    DataContext="String value"
    ColSpan="Integer value > 0"
    RowSpan="Integer value > 0"
  >
    <Alignment />
    <Borders />
    <Paddings />
    <Background />
    <Text />
    <Image />
    <Metafile />
    <Frame/>
    <Group />
    <Grid />
    <Slot />
    <List />
    <Tree />
    <Flow />
    <Repeater />
    <Site />
    <Canvas />
    <PageNumber />
    <PageReference />
    <PageBreak />
    <Injector

```

```

        Id="String value"
    />
    ...
</Cell>
...
</Row>
<Injector
    Id="String value"
/>
...
</Grid>

```

Examples

[CS]

```

Siberix.Report.Grid.IGrid grid = section.AddGrid();
grid.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
grid.Spacings.All = 5;
grid.Background = new Siberix.Report.Background(new Siberix.Graphics.Color(240, 240, 220));

// Columns
Siberix.Report.Grid.IColumn column = grid.AddColumn();
column.Width = new Siberix.Report.RelativeWidth(30);

column = grid.AddColumn();
column.Width = new Siberix.Report.RelativeWidth(70);

// Header
Siberix.Report.Grid.IHeader header = grid.AddHeader();
header.Repeat = true;

Siberix.Report.Grid.IRow row = header.AddRow();

Siberix.Report.Grid.ICell cell = row.AddCell();
cell.ColSpan = 2;
cell.Alignment.Horizontal = Siberix.Report.HorizontalAlignment.Center;
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;
cell.Background = new Siberix.Report.Background(new Siberix.Graphics.Color(220, 200, 240));

Siberix.Report.Text.IText text = cell.AddText();
text.Style = style1;
text.AddContent("Header");

// Rows
row = grid.AddRow();

cell = row.AddCell();
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;

text = cell.AddText();
text.Style = style2;
text.AddContent("row 1 cell 1");

cell = row.AddCell();
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;

text = cell.AddText();
text.Style = style2;
text.AddContent("row 1 cell 2");

row = grid.AddRow();

```



```

cell = row.AddCell();
cell.ColSpan = 2;
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;

```

```

text = cell.AddText();
text.Style = style2;
text.AddContent("row 2 cell 1");

```

[VB]

```

Dim grid As Siberix.Report.Grid.IGrid = section.AddGrid()
grid.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
grid.Spacings.All = 5
grid.Background = New Siberix.Report.Background(New Siberix.Graphics.Color(240, 240, 220))

```

```

' Columns
Dim column As Siberix.Report.Grid.IColumn = grid.AddColumn()
column.Width = New Siberix.Report.RelativeWidth(30)

```

```

column = grid.AddColumn()
column.Width = New Siberix.Report.RelativeWidth(70)

```

```

' Header
Dim header As Siberix.Report.Grid.IHeader = grid.AddHeader()
header.Repeat = True

```

```

Dim row As Siberix.Report.Grid.IRow = header.AddRow()

```

```

Dim cell As Siberix.Report.Grid.ICell = row.AddCell()
cell.ColSpan = 2
cell.Alignment.Horizontal = Siberix.Report.HorizontalAlignment.Center
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5
cell.Background = New Siberix.Report.Background(New Siberix.Graphics.Color(220, 200, 240))

```

```

Dim text As Siberix.Report.Text.IText = cell.AddText()
text.Style = style1
text.AddContent("Header")

```

```

' Rows
row = grid.AddRow()

```

```

cell = row.AddCell()
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5

```

```

text = cell.AddText()
text.Style = style2
text.AddContent("row 1 cell 1")

```

```

cell = row.AddCell()
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5

```

```

text = cell.AddText()
text.Style = style2
text.AddContent("row 1 cell 2")

```

```

row = grid.AddRow()

```

```

cell = row.AddCell()
cell.ColSpan = 2
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5

```

```

text = cell.AddText()
text.Style = style2
text.AddContent("row 2 cell 1")

```

[XML]

```

<Grid Borders="Black" Spacings="5" Background="#FFF0F0DC">
  <Column Width="30%" />
  <Column Width="70%" />
  <Header Repeat="True">
    <Row>
      <Cell Borders="Black" Paddings="5" Background="#FFDCC8F0" Alignment="Center" ColSpan="2">
        <Text Style="Style1">Header</Text>
      </Cell>
    </Row>
  </Header>
  <Row>
    <Cell Borders="Black" Paddings="5">
      <Text Style="Style2">row 1 cell 1</Text>
    </Cell>
    <Cell Borders="Black" Paddings="5">
      <Text Style="Style2">row 1 cell 2</Text>
    </Cell>
  </Row>
  <Row>
    <Cell Borders="Black" Paddings="5" ColSpan="2">
      <Text Style="Style2">row 2 cell 1</Text>
    </Cell>
  </Row>
</Grid>

```

Slot

Represents a slot element. You may use this element to layout data horizontally similar to a single row in a grid.

<Slot

```

Id="String value"
DataContext="String value"
Width="Float value [%]"
Height="Float value [%]"
KeepSolid="True | False"
KeepWithNext="True | False"
StretchOnBreak="True | False"
MinHeightOnBreak="Float value"

```

>

```

<Borders />
<Spacings />
<Paddings />
<Background />
<Cell

```

```

  Id="String value"
  DataContext="String value"
  Width="Float value [%]"

```

>

```

  <Alignment />
  <Borders />
  <Spacings />
  <Paddings />
  <Background />
  <Text />

```

```

<Image />
<Metafile />
<Frame/>
<Group />
<Grid />
<Slot />
<List />
<Tree />
<Flow />
<Repeater />
<Site />
<Canvas />
<PageNumber />
<PageReference />
<PageBreak />
<Injector
    Id="String value"
/>
...
</Cell>
...
<Injector
    Id="String value"
/>
...
</Slot>

```

Examples

[CS]

```

Siberix.Report.Slot.ISlot slot = section.AddSlot();
slot.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);

Siberix.Report.Slot.ICell cell = slot.AddCell();
cell.Width = new Siberix.Report.RelativeWidth(30);
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;

Siberix.Report.Text.IText text = cell.AddText();
text.Style = style1;
text.AddContent("cell 1");

cell = slot.AddCell();
cell.Width = new Siberix.Report.RelativeWidth(70);
cell.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Black);
cell.Paddings.All = 5;

text = cell.AddText();
text.Style = style2;
text.AddContent("cell 2");

```

[VB]

```

Dim slot As Siberix.Report.Slot.ISlot = section.AddSlot()
slot.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)

Dim cell As Siberix.Report.Slot.ICell = slot.AddCell()

```

```

cell.Width = New Siberix.Report.RelativeWidth(30)
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5

```

```

Dim text As Siberix.Report.Text.IText = cell.AddText()
text.Style = style1
text.AddContent("cell 1")

```

```

cell = slot.AddCell()
cell.Width = New Siberix.Report.RelativeWidth(70)
cell.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Black)
cell.Paddings.All = 5

```

```

text = cell.AddText()
text.Style = style2
text.AddContent("cell 2")

```

[XML]

```

<Slot Borders="Black">
  <Cell Width="30%" Borders="Black" Paddings="5">
    <Text Style="Style1">cell 1</Text>
  </Cell>
  <Cell Width="70%" Borders="Black" Paddings="5">
    <Text Style="Style2">cell 2</Text>
  </Cell>
</Slot>

```

List

Represents a list element.

<List

Id="String value"

DataContext="String value"

Width="Float value [%]"

Indent="Float value"

Interval="Float value"

KeepSolid="True | False"

KeepWithNext="True | False"

>

<Binding />

<Spacings />

<Bullets

Type="Circle | Square | Decimal | SmallLetters | BigLetters | SmallRoman | BigRoman"

Template="String value"

Style="Style reference"

/>

<ItemTemplate

Id="String value"

KeepSolid="True | False"

KeepWithNext="True | False"

>

<Text />

<Image />

<Metafile />

```

<Frame/>
<Group />
<Grid />
<Slot />
<List />
<Tree />
<Flow />
<Repeater />
<Site />
<Canvas />
<PageNumber />
<PageReference />
<PageBreak />
<Injector
    Id="String value"
/>
...
</ItemTemplate>
<Item
    Id="String value"
    KeepSolid="True | False"
    KeepWithNext="True | False"
>
    <Text />
    <Image />
    <Metafile />
    <Frame/>
    <Group />
    <Grid />
    <Slot />
    <List />
    <Tree />
    <Flow />
    <Repeater />
    <Site />
    <Canvas />
    <PageNumber />
    <PageReference />
    <PageBreak />
    <Injector
        Id="String value"
    />
    ...
</Item>
<Injector
    Id="String value"
/>

```

...

</List>

Examples

[CS]

```
Siberix.Report.List.IList list = section.AddList();
list.Spacings.All = 5;
list.Interval = 5;
list.Indent = 50;
list.Bullets.Type = Siberix.Report.BulletType.Decimal;
list.Bullets.Template = "{0}.";
list.Bullets.Style = style1;

Siberix.Report.List.IItem item = list.AddItem();

Siberix.Report.Text.IText text = item.AddText();
text.Style = style2;
text.AddContent("List item 1 ");

item = list.AddItem();

text = item.AddText();
text.Style = style2;
text.AddContent("List item 2 ");

Siberix.Report.List.IList sublist = item.AddList();
sublist.Spacings.Top = 5;
sublist.Interval = 5;
sublist.Bullets.Type = Siberix.Report.BulletType.SmallLetters;
sublist.Bullets.Style = style3;
sublist.Bullets.Template = "{0}";

item = sublist.AddItem();

text = item.AddText();
text.Style = style2;
text.AddContent("Sublist item 1");

item = sublist.AddItem();

text = item.AddText();
text.Style = style2;
text.AddContent("Sublist item 2");
```

[VB]

```
Dim list As Siberix.Report.List.IList = section.AddList()
list.Spacings.All = 5
list.Interval = 5
list.Indent = 50
list.Bullets.Type = Siberix.Report.BulletType.Decimal
list.Bullets.Template = "{0}."
list.Bullets.Style = style1

Dim item As Siberix.Report.List.IItem = list.AddItem()

Dim text As Siberix.Report.Text.IText = item.AddText()
text.Style = style2
text.AddContent("List item 1 ")

item = list.AddItem()

text = item.AddText()
text.Style = style2
text.AddContent("List item 2 ")

Dim sublist As Siberix.Report.List.IList = item.AddList()
sublist.Spacings.Top = 5
sublist.Interval = 5
```

```

sublist.Bullets.Type = Siberix.Report.BulletType.SmallLetters
sublist.Bullets.Style = style3
sublist.Bullets.Template = "{0}"

```

```

item = sublist.AddItem()

```

```

text = item.AddText()
text.Style = style2
text.AddContent("Sublist item 1")

```

```

item = sublist.AddItem()

```

```

text = item.AddText()
text.Style = style2
text.AddContent("Sublist item 2");

```

[XML]

```

<List Spacings="5" Indent="50" Interval="5">
  <Bullets Type="Decimal" Template="{0}." Style="Style1" />
  <Item>
    <Text Style="Style2">List item 1 </Text>
  </Item>
  <Item>
    <Text Style="Style2">List item 2 </Text>
    <List Spacings="0, 0, 5, 0" Indent="20" Interval="5">
      <Bullets Type="SmallLetters" Template="{0}" Style="Style3" />
      <Item>
        <Text Style="Style2">Sublist item 1</Text>
      </Item>
      <Item>
        <Text Style="Style2">Sublist item 2</Text>
      </Item>
    </List>
  </Item>
</List>

```

Tree

Represents a tree element.

<Tree

Id="String value"

DataContext="String value"

Width="Float value [%]"

Indent="Float value"

Interval="Float value"

KeepSolid="True | False"

KeepWithNext="True | False"

>

<Spacings />

<Lines />

<Text />

<Image />

<Metafile />

<Frame/>

<Group />

<Grid />

```

<Slot />
<List />
<Tree />
<Flow />
<Repeater />
<Site />
<Canvas />
<PageNumber />
<PageReference />
<PageBreak />
<Injector
    Id="String value"
/>
<Node
    Id="String value"
    DataContext="String value"
    KeepSolid="True | False"
>
    <Text />
    <Image />
    <Metafile />
    <Frame/>
    <Group />
    <Grid />
    <Slot />
    <List />
    <Tree />
    <Flow />
    <Repeater />
    <Site />
    <Canvas />
    <PageNumber />
    <PageReference />
    <PageBreak />
    <Injector
        Id="String value"
    />
    <Node />
    ...
</Node>
...
</Tree>

```

Examples

[CS]

```

Siberix.Report.Tree.ITree tree = section.AddTree();
tree.Width = new Siberix.Report.RelativeWidth(60);

```



```

tree.Indent = 20;
tree.Interval = 10;
tree.Spacings.All = 20;
tree.Lines.Pen = Siberix.Graphics.Pens.Blue;

Siberix.Report.Text.IText text = tree.AddText();
text.Style = style1;
text.AddContent("Tree");

Siberix.Report.Tree.INode node1 = tree.AddNode();

text = node1.AddText();
text.Style = style1;
text.AddContent("Node 1");

Siberix.Report.Tree.INode node2 = tree.AddNode();

text = node2.AddText();
text.Style = style1;
text.AddContent("Node 2");

Siberix.Report.Tree.INode node3 = node2.AddNode();

text = node3.AddText();
text.Style = style1;
text.AddContent("Node 2.1");

```

[VB]

```

Dim tree As Siberix.Report.Tree.ITree = section.AddTree()
tree.Width = New Siberix.Report.RelativeWidth(60)
tree.Indent = 20
tree.Interval = 10
tree.Spacings.All = 20
tree.Lines.Pen = Siberix.Graphics.Pens.Blue

Dim text As Siberix.Report.Text.IText = tree.AddText()
text.Style = style1
text.AddContent("Tree")

Dim node1 As Siberix.Report.Tree.INode = tree.AddNode()

text = node1.AddText()
text.Style = style1
text.AddContent("Node 1")

Dim node2 As Siberix.Report.Tree.INode = tree.AddNode()

text = node2.AddText()
text.Style = style1
text.AddContent("Node 2")

Dim node3 As Siberix.Report.Tree.INode = node2.AddNode()

text = node3.AddText()
text.Style = style1
text.AddContent("Node 2.1")

```

[XML]

```

<Tree Width="60%" Spacings="20" Indent="20" Interval="10" Lines="Blue">
  <Text Style="Style3">Tree</Text>
  <Node>
    <Text Style="Style3">Node 1</Text>
  </Node>
  <Node>
    <Text Style="Style3">Node 2</Text>
    <Node>
      <Text Style="Style3">Node 2.1</Text>
    </Node>
  </Node>
</Tree>

```

Flow

Represents a flow element. You can use this element to distribute the content by columns.

<Flow

```
Id="String value"
DataContext="String value"
Width="Float value [%]"
Height="Float value [%]"
KeepSolid="True | False"
KeepWithNext="True | False"
```

>

<Spacings />

<Column

```
Width="Float value [%]"
```

>

<Alignment />

<Borders />

<Spacings />

<Paddings />

<Background />

...

</Column>

<Text />

<Image />

<Metafile />

<Frame/>

<Group />

<Grid />

<Slot />

<List />

<Tree />

<Flow />

<Repeater />

<Site />

<Canvas />

<PageNumber />

<PageReference />

<PageBreak />

<ColumnBreak />

<Injector

```
Id="String value"
```

/>

...

</Flow>

Examples

[CS]

```
Siberix.Report.Flow.IFlow flow = section.AddFlow();

Siberix.Report.Flow.IColumn column1 = flow.AddColumn();
column1.Width = new Siberix.Report.RelativeWidth(40);
column1.Paddings.All = 5;
column1.Background.Brush = Siberix.Graphics.Brushes.Wheat;

Siberix.Report.Flow.IColumn column2 = flow.AddColumn();
column2.Width = new Siberix.Report.RelativeWidth(60);
column2.Paddings.All = 5;
column2.Background.Brush = Siberix.Graphics.Brushes.Yellow;

Siberix.Report.Text.IText text = flow.AddText();
text.Style = style1;
text.AddContent("Text paragraph 1");

text = flow.AddText();
text.Style = style1;
text.AddContent("Text paragraph 2");
```

[VB]

```
Dim flow As Siberix.Report.Flow.IFlow = section.AddFlow()

Dim column1 As Siberix.Report.Flow.IColumn = flow.AddColumn()
column1.Width = New Siberix.Report.RelativeWidth(40)
column1.Paddings.All = 5
column1.Background.Brush = Siberix.Graphics.Brushes.Wheat

Dim column2 As Siberix.Report.Flow.IColumn = flow.AddColumn()
column2.Width = New Siberix.Report.RelativeWidth(60)
column2.Paddings.All = 5
column2.Background.Brush = Siberix.Graphics.Brushes.Yellow

Dim text As Siberix.Report.Text.IText = flow.AddText()
text.Style = style1
text.AddContent("Text paragraph 1")

text = flow.AddText()
text.Style = style1
text.AddContent("Text paragraph 2")
```

[XML]

```
<Flow>
  <Column Width="40%" Paddings="5" Background="Wheat" />
  <Column Width="60%" Paddings="5" Background="Yellow" />
  <Text Style="Style1">Text paragraph 1</Text>
  <Text Style="Style1">Text paragraph 2</Text>
</Flow>
```

Repeater

Represents a repeater element.

<Repeater

Id="String value"
DataContext="String value"
Width="Float value [%]"
Interval="Float value"
KeepSolid="True | False"
KeepWithNext="True | False"

```

>
<Binding />
<Spacings />
<ItemTemplate
  Id="String value"
  KeepSolid="True | False"
  KeepWithNext="True | False"
>
  <Text />
  <Image />
  <Metafile />
  <Frame/>
  <Group />
  <Grid />
  <Slot />
  <List />
  <Tree />
  <Flow />
  <Repeater />
  <Site />
  <Canvas />
  <PageNumber />
  <PageReference />
  <PageBreak />
  <Injector
    Id="String value"
  />
  ...
</ItemTemplate>
<Injector
  Id="String value"
/>
...
</List>

```

Examples

[XML]

```

<Repeater Binding="" TemplateSelector="ts1" Width="75%">
  <ItemTemplate>
    <Text Style="Style1" Binding="Id" Binding.Format="Id: {0}" />
    <Text Style="Style1" Binding="Description" Alignment="Justify"/>
  </ItemTemplate>

  <ItemTemplate>
    <Text Style="Style2" Binding="Id, 'Selected Id: {0}'" />
    <Group Background="LightYellow" Borders="Black; 10" Paddings="5">
      <Text Style="Style3" Binding.Path="Description" Binding.Format="{0}" />
    </Group>
  </ItemTemplate>
</Repeater>

```

Site

Represents a site element. Content elements are placed on the site by their absolute coordinates. You can also specify a rotation angle for any element there.

```
<Site
  Id="String value"
  DataContext="String value"
  Width="Float value [%]"
  Height="Float value [%]"
  KeepWithNext="True | False"
>
  <Borders />
  <Spacings />
  <Paddings />
  <Background />
  <Label />
  <Line />
  <Polyline />
  <Polygon />
  <Rectangle />
  <Ellipse />
  <Arc />
  <Pie />
  <Path />
  <Text + Attached Properties />
  <Image + Attached Properties />
  <Metafile + Attached Properties />
  <Frame + Attached Properties />
  <Group + Attached Properties />
  <Grid + Attached Properties />
  <Slot + Attached Properties />
  <List + Attached Properties />
  <Tree + Attached Properties />
  <Flow + Attached Properties />
  <Repeater + Attached Properties />
  <Site + Attached Properties />
  <Canvas + Attached Properties />
  <PageNumber + Attached Properties />
  <PageReference + Attached Properties />
  <Injector
    Id="String value"
  />
  ...
</Site>
```

Examples

[CS]

```
Siberix.Report.ISite site = section.AddSite();
site.Width = new Siberix.Report.RelativeWidth(100);
site.Height = new Siberix.Report.DirectHeight(350);
site.Borders = new Siberix.Report.Borders(Siberix.Graphics.Pens.Blue);
```

```
Siberix.Report.Text.IText text = site.AddText(10, 10);
text.Style = style1;
text.AddContent("Text paragraph...");
```

```
text = site.AddText(10, 50, 45);
text.Style = style1;
text.AddContent("Rotated text paragraph...");
```

[VB]

```
Dim site As Siberix.Report.ISite = section.AddSite()
site.Width = New Siberix.Report.RelativeWidth(100)
site.Height = New Siberix.Report.DirectHeight(350)
site.Borders = New Siberix.Report.Borders(Siberix.Graphics.Pens.Blue)
```

```
Dim text As Siberix.Report.Text.IText = site.AddText(10, 10)
text.Style = style1
text.AddContent("Text paragraph...")
```

```
text = site.AddText(10, 50, 45)
text.Style = style1
text.AddContent("Rotated text paragraph...")
```

[XML]

```
<Site Width="100%" Height="350" Borders="Blue">
  <Text Left="10" Top="10" Style="Style1">Text paragraph...</Text>
  <Text Left="10" Top="50" Angle="45" Style="Style1">Rotated text paragraph...</Text>
</Site>
```

Shapes

Represents a shape factory. It provides a collection of methods to create basic shape elements.

Label

Represents a text label.

<Label

X="Float value"

Y="Float value"

Text="String value"

Angle="Float value"

>

<Brush />

</Label>

Examples

[CS]

```
Siberix.Report.Shapes.ILabel label = site.Shapes.AddLabel();
```

```
label.Font = new Siberix.Graphics.Fonts.Arial(14);
label.Brush = Siberix.Graphics.Brushes.Black;
label.X = 60;
label.Y = 30;
label.Text = "Label...";
label.Angle = 15;
```

[VB]

```
Dim label As Siberix.Report.Shapes.ILabel = site.Shapes.AddLabel()
label.Font = New Siberix.Graphics.Fonts.Arial(14)
label.Brush = Siberix.Graphics.Brushes.Black
label.X = 60
label.Y = 30
label.Text = "Label..."
label.Angle = 15
```

[XML]

```
<Label X="60" Y="30" Text="Label..." Angle="15" Font="Arial, 14" Brush="Black" />
```

Line

Represents a line.

```
<Line
  X1="Float value"
  Y1="Float value"
  X2="Float value"
  Y2="Float value"
>
  <Pen />
</Line>
```

Examples

[CS]

```
Siberix.Report.Shapes.ILine line = site.Shapes.AddLine();
line.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5);
line.X1 = 220;
line.Y1 = 30;
line.X2 = 320;
line.Y2 = 130;
```

[VB]

```
Dim line As Siberix.Report.Shapes.ILine = site.Shapes.AddLine()
line.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5)
line.X1 = 220
line.Y1 = 30
line.X2 = 320
line.Y2 = 130
```

[XML]

```
<Line X1="220" Y1="30" X2="320" Y2="130" Pen="Green, 5" />
```

Polyline

Represents a polyline.

```
<Polyline
  Points="Float value - X, Float value - Y ..."
>
  <Pen />
</Polyline>
```

Examples

[CS]

```
Siberix.Report.Shapes.IPolyline polyline = site.Shapes.AddPolyline();
polyline.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5, Siberix.Graphics.DashStyle.DashDot);

Siberix.Graphics.PointCollection points = new Siberix.Graphics.PointCollection();
points.Add(30, 200);
points.Add(185, 220);
points.Add(150, 350);
points.Add(125, 260);
points.Add(70, 300);

polyline.Points = points;
```

[VB]

```
Dim polyline As Siberix.Report.Shapes.IPolyline = site.Shapes.AddPolyline()
polyline.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5, Siberix.Graphics.DashStyle.DashDot)

Dim points As Siberix.Graphics.PointCollection = New Siberix.Graphics.PointCollection()
points.Add(30, 200)
points.Add(185, 220)
points.Add(150, 350)
points.Add(125, 260)
points.Add(70, 300)

polyline.Points = points
```

[XML]

```
<Polyline Points="30, 200 185, 220 150, 350 125, 260 70, 300" Pen="Green, 5, DashDot" />
```

Polygon

Represents a polygon.

```
<Polygon
  Points="Float value - X, Float value - Y ..."
>
  <Pen />
  <Brush />
</Polygon>
```

Examples

[CS]

```
Siberix.Report.Shapes.IPolygon polygon = site.Shapes.AddPolygon();
polygon.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5, Siberix.Graphics.DashStyle.DashDot);
polygon.Brush = Siberix.Graphics.Brushes.Yellow;

Siberix.Graphics.PointCollection points = new Siberix.Graphics.PointCollection();
points.Add(30, 200);
points.Add(185, 220);
points.Add(150, 350);
```



```
points.Add(125, 260);
points.Add(70, 300);
```

```
polygon.Points = points;
```

[VB]

```
Dim polygon As Siberix.Report.Shapes.IPolygon = site.Shapes.AddPolygon()
polygon.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5, Siberix.Graphics.DashStyle.DashDot)
polygon.Brush = Siberix.Graphics.Brushes.Yellow
```

```
Dim points As Siberix.Graphics.PointCollection = New Siberix.Graphics.PointCollection()
points.Add(30, 200)
points.Add(185, 220)
points.Add(150, 350)
points.Add(125, 260)
points.Add(70, 300)
```

```
polygon.Points = points
```

[XML]

```
<Polygon Points="30, 200 185, 220 150, 350 125, 260 70, 300" Pen="Green, 5, DashDot" Brush="Yellow" />
```

Rectangle

Represents a rectangle.

<Rectangle

X="Float value"

Y="Float value"

Width="Float value"

Height="Float value"

Radius="Float value"

Angle="Float value"

>

<Pen />

<Brush />

</Rectangle>

Examples

[CS]

```
Siberix.Report.Shapes.IRectangle rectangle = site.Shapes.AddRectangle();
rectangle.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3);
rectangle.Brush = Siberix.Graphics.Brushes.Yellow;
rectangle.X = 50;
rectangle.Y = 10;
rectangle.Width = 100;
rectangle.Height = 75;
rectangle.Radius = 5;
rectangle.Angle = 15;
```

[VB]

```
Dim rectangle As Siberix.Report.Shapes.IRectangle = site.Shapes.AddRectangle()
rectangle.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3)
rectangle.Brush = Siberix.Graphics.Brushes.Yellow
rectangle.X = 50
rectangle.Y = 10
rectangle.Width = 100
rectangle.Height = 75
```

```
rectangle.Radius = 5  
rectangle.Angle = 15
```

[XML]

```
<Rectangle X="50" Y="10" Width="100" Height="75" Radius="5" Angle="15" Pen="Red, 3" Brush="Yellow" />
```

Ellipse

Represents an ellipse.

<Ellipse

X="Float value"

Y="Float value"

Width="Float value"

Height="Float value"

Angle="Float value"

>

<Pen />

<Brush />

</Ellipse>

Examples

[CS]

```
Siberix.Report.Shapes.IEllipse ellipse = site.Shapes.AddEllipse();  
ellipse.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3);  
ellipse.Brush = Siberix.Graphics.Brushes.Yellow;  
ellipse.X = 50;  
ellipse.Y = 10;  
ellipse.Width = 100;  
ellipse.Height = 75;  
ellipse.Angle = 15;
```

[VB]

```
Dim ellipse As Siberix.Report.Shapes.IEllipse = site.Shapes.AddEllipse()  
ellipse.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3)  
ellipse.Brush = Siberix.Graphics.Brushes.Yellow  
ellipse.X = 50  
ellipse.Y = 10  
ellipse.Width = 100  
ellipse.Height = 75  
ellipse.Angle = 15
```

[XML]

```
<Ellipse X="50" Y="10" Width="100" Height="75" Angle="15" Pen="Red, 3" Brush="Yellow" />
```

Arc

Represents an arc.

<Arc

X="Float value"

Y="Float value"

Width="Float value"

```

    Height="Float value"
    StartAngle="Float value"
    EndAngle="Float value"
    Angle="Float value"
>
    <Pen />
</Arc>

```

Examples

[CS]

```

Siberix.Report.Shapes.IArc arc = site.Shapes.AddArc();
arc.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3);
arc.X = 50;
arc.Y = 10;
arc.Width = 100;
arc.Height = 75;
arc.StartAngle = 30;
arc.EndAngle = 125;
arc.Angle = 15;

```

[VB]

```

Dim arc As Siberix.Report.Shapes.IArc = site.Shapes.AddArc()
arc.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3)
arc.X = 50
arc.Y = 10
arc.Width = 100
arc.Height = 75
arc.StartAngle = 30
arc.EndAngle = 125
arc.Angle = 15

```

[XML]

```

<Arc X="50" Y="10" Width="100" Height="75" StartAngle="30" EndAngle="125" Angle="15" Pen="Red, 3" />

```

Pie

Represents a pie.

```

<Pie
    X="Float value"
    Y="Float value"
    Width="Float value"
    Height="Float value"
    StartAngle="Float value"
    EndAngle="Float value"
    Angle="Float value"
>
    <Pen />
    <Brush />
</Pie>

```

Examples

[CS]

```
Siberix.Report.Shapes.IPie pie = site.Shapes.AddPie();
pie.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3);
pie.Brush = Siberix.Graphics.Brushes.Yellow;
pie.X = 50;
pie.Y = 10;
pie.Width = 100;
pie.Height = 75;
pie.StartAngle = 30;
pie.EndAngle = 80;
pie.Angle = 15;
```

[VB]

```
Dim pie As Siberix.Report.Shapes.IPie = site.Shapes.AddPie()
pie.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 3)
pie.Brush = Siberix.Graphics.Brushes.Yellow
pie.X = 50
pie.Y = 10
pie.Width = 100
pie.Height = 75
pie.StartAngle = 30
pie.EndAngle = 80
pie.Angle = 15
```

[XML]

```
<Pie X="50" Y="10" Width="100" Height="75" StartAngle="30" EndAngle="80" Angle="15" Pen="Red, 3" Brush="Yellow" />
```

Path

Represents a path.

<Path>

<Pen />

<Brush />

<MoveTo

X="Float value"

Y="Float value"

/>

<LineTo

X="Float value"

Y="Float value"

/>

<CurveTo

X1="Float value"

Y1="Float value"

X2="Float value"

Y2="Float value"

X3="Float value"

Y3="Float value"

/>

<ClosePath />

</Path>

Examples

[CS]

```
Siberix.Report.Shapes.IPath path = site.Shapes.AddPath();
path.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.DarkBlue, 5, Siberix.Graphics.DashStyle.DashDotDot);
path.Brush = Siberix.Graphics.Brushes.Yellow;
path.MoveTo(100, 400);
path.LineTo(300, 500);
path.CurveTo(120, 560, 100, 520, 70, 480);
path.CurveTo(320, 360, 200, 320, 150, 600);
path.ClosePath();
```

[VB]

```
Dim path As Siberix.Report.Shapes.IPath = site.Shapes.AddPath()
path.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.DarkBlue, 5, Siberix.Graphics.DashStyle.DashDotDot)
path.Brush = Siberix.Graphics.Brushes.Yellow
path.MoveTo(100, 400)
path.LineTo(300, 500)
path.CurveTo(120, 560, 100, 520, 70, 480)
path.CurveTo(320, 360, 200, 320, 150, 600)
path.ClosePath()
```

[XML]

```
<Path>
  <Pen Color="DarkBlue" Width="5" Style="DashDotDot" />
  <Brush Type="SolidColor" Color="Yellow" />
  <MoveTo X="100" Y="400" />
  <LineTo X="300" Y="500" />
  <CurveTo X1="120" Y1="560" X2="100" Y2="520" X3="70" Y3="480" />
  <CurveTo X1="320" Y1="360" X2="200" Y2="320" X3="150" Y3="600" />
  <ClosePath />
</Path>
```

Canvas

Represents a canvas element. This element allows to perform format independent graphical output. You can draw lines, rectangles, ellipses, polylines, arcs, pies and other complex curves and shapes, output text strings and images, perform various transformations and clipping.

<Canvas

Id="String value"

DataContext="String value"

Width="Float value [%]"

Height="Float value [%]"

KeepWithNext="True | False"

>

<Spacings />

<ResetFont />

<Brush />

<ResetBrush />

<Pen />

<ResetPen />

<CharSpacing

Value="Float value"

/>

```

<AlternateFill
    Value="True | False"
/>
<SaveClip
    X="Float value"
    Y="Float value"
    Width="Float value"
    Height="Float value"
/>
<RestoreClip />
<SaveState />
<RestoreState />
<Transform
    M11="Float value"
    M12="Float value"
    M21="Float value"
    M22="Float value"
    OffsetX="Float value"
    OffsetY="Float value"
/>
<StartHyperlink
    Reference="String value"
/>
<StartHyperlink
    PageIndex="Integer value"
    X="Float value"
    Y="Float value"
/>
<EndHyperlink />
<HyperlinkArea
    X="Float value"
    Y="Float value"
    Width="Float value"
    Height="Float value"
/>
<String
    Text="String value"
    X="Float value"
    Y="Float value"
/>
<Rectangle
    X="Float value"
    Y="Float value"
    Width="Float value"
    Height="Float value"
    Mode="Fill | Stroke | FillStroke | Clip"
/>

```

```

<RoundRect
  X="Float value"
  Y="Float value"
  Width="Float value"
  Height="Float value"
  EW="Float value"
  EH="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Line
  X1="Float value"
  Y1="Float value"
  X2="Float value"
  Y2="Float value"
/>
<Lines
  Points="Float value - X, Float value - Y ..."
/>
<Polygon
  Points="Float value - X, Float value - Y ..."
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Ellipse
  X="Float value"
  Y="Float value"
  Width="Float value"
  Height="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Arc
  X="Float value"
  Y="Float value"
  Width="Float value"
  Height="Float value"
  StartAngle="Float value"
  EndAngle="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Pie
  X="Float value"
  Y="Float value"
  Width="Float value"
  Height="Float value"
  StartAngle="Float value"
  EndAngle="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>

```

```

<Chord
  X="Float value"
  Y="Float value"
  Width="Float value"
  Height="Float value"
  StartAngle="Float value"
  EndAngle="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Curve
  Points="Float value - X, Float value - Y ..."
  Tension="Float value"
/>
<ClosedCurve
  Points="Float value - X, Float value - Y ..."
  Tension="Float value"
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<Bezier
  X1="Float value"
  Y1="Float value"
  X2="Float value"
  Y2="Float value"
  X3="Float value"
  Y3="Float value"
  X4="Float value"
  Y4="Float value"
/>
<Beziers
  Points="Float value - X, Float value - Y ..."
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<StartShape
  Mode="Fill | Stroke | FillStroke | Clip"
/>
<MoveTo
  X="Float value"
  Y="Float value"
/>
<LineTo
  X="Float value"
  Y="Float value"
/>
<CurveTo
  X1="Float value"
  Y1="Float value"
  X2="Float value"

```



```

        Y2="Float value"
        X3="Float value"
        Y3="Float value"
    />
    <ClosePath />
    <EndShape />
    <Image
        Source="File path or reference to embedded image"
        X="Float value"
        Y="Float value"
        Width="Float value"
        Height="Float value"
    />
    <Injector
        Id="String value"
    />
    ...
</Canvas>

```

Examples

[CS]

```

Siberix.Report.ICanvas canvas = section.AddCanvas();
canvas.Spacings.All = 10;

// Rectangle
canvas.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 5);
canvas.Brush = new Siberix.Graphics.SolidColorBrush(new Siberix.Graphics.Color(255, 240, 240));
canvas.DrawRectangle(50, 50, 150, 100, Siberix.Graphics.PaintMode.FillStroke);

// String
canvas.Font = new Siberix.Graphics.Fonts.TimesNewRomanItalic(18);
canvas.Brush = Siberix.Graphics.Brushes.BlueViolet;
canvas.DrawString(70, 90, "Text string...");

// Line
canvas.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5);
canvas.DrawLine(220, 50, 320, 150);

// Ellipse
canvas.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Blue, 5);
canvas.Brush = new Siberix.Graphics.SolidColorBrush(new Siberix.Graphics.Color(240, 240, 255));
canvas.DrawEllipse(340, 50, 150, 100, Siberix.Graphics.PaintMode.FillStroke);

// Path
canvas.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.DarkBlue, 5, Siberix.Graphics.DashStyle.DashDot);
canvas.Brush = new Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Yellow, Siberix.Graphics.Colors.Green, 45F);
canvas.StartShape(Siberix.Graphics.PaintMode.FillStroke);
canvas.FillRectangle(120, 200, 200, 200);
canvas.DrawEllipse(220, 250, 200, 200);
canvas.EndShape();

// Image
canvas.DrawImage(new Siberix.Graphics.Image("image.jpg"), 400, 200, 150, 100);

```

[VB]

```

Dim canvas As Siberix.Report.ICanvas = section.AddCanvas()
canvas.Spacings.All = 10

' Rectangle

```

```

canvas.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 5)
canvas.Brush = New Siberix.Graphics.SolidColorBrush(New Siberix.Graphics.Color(255, 240, 240))
canvas.DrawRectangle(50, 50, 150, 100, Siberix.Graphics.PaintMode.FillStroke)

' String
canvas.Font = New Siberix.Graphics.Fonts.TimesNewRomanItalic(18)
canvas.Brush = Siberix.Graphics.Brushes.BlueViolet
canvas.DrawString(70, 90, "Text string...")

' Line
canvas.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Green, 5)
canvas.DrawLine(220, 50, 320, 150)

' Ellipse
canvas.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.Blue, 5)
canvas.Brush = New Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Color(240, 240, 255))
canvas.DrawEllipse(340, 50, 150, 100, Siberix.Graphics.PaintMode.FillStroke)

' Path
canvas.Pen = New Siberix.Graphics.Pen(Siberix.Graphics.Colors.DarkBlue, 5, Siberix.Graphics.DashStyle.DashDot)
canvas.Brush = New Siberix.Graphics.LinearGradientBrush(Siberix.Graphics.Colors.Yellow, Siberix.Graphics.Colors.Green, 45F)
canvas.StartShape(Siberix.Graphics.PaintMode.FillStroke)
canvas.FillRectangle(120, 200, 200, 200)
canvas.DrawEllipse(220, 250, 200, 200)
canvas.EndShape()

' Image
canvas.DrawImage(New Siberix.Graphics.Image("image.jpg"), 400, 200, 150, 100)

```

[XML]

```

<Canvas Spacings="10">
  <Pen Color="Red" Width="5" />
  <Brush Type="SolidColor" Color="#FFFFFF0F" />
  <Rectangle X="50" Y="50" Width="150" Height="100" Mode="FillStroke" />
  <Font Source="TimesNewRomanItalic" Size="18" />
  <Brush Type="SolidColor" Color="BlueViolet" />
  <String X="70" Y="90" Text="Text string..." />
  <Pen Color="Green" Width="5" />
  <Line X1="220" Y1="50" X2="320" Y2="150" />
  <Pen Color="Blue" Width="5" />
  <Brush Type="SolidColor" Color="#FFF0F0FF" />
  <Ellipse X="340" Y="50" Width="150" Height="100" Mode="FillStroke" />
  <Pen Color="DarkBlue" Width="5" Style="DashDot" />
  <Brush Type="LinearGradient" Angle="45" StartColor="Yellow" EndColor="Green" />
  <StartShape Mode="FillStroke" />
  <Rectangle X="120" Y="200" Width="200" Height="200" Mode="Fill" />
  <Ellipse X="220" Y="250" Width="200" Height="200" Mode="Stroke" />
  <EndShape />
  <Image Source="image.jpg" X="400" Y="200" Width="150" Height="100" />
</Canvas>

```

PageNumber

Represents a page number element.

<PageNumber

Id="String value"

DataContext="String value"

Style="Style reference"

Template="String value : {0} Current page in the report, {1} Total pages in the report, {2} Current page in the section, {3} Total pages in the section"

Format="Decimal | SmallLetters | BigLetters | SmallRoman | BigRoman"

Alignment="Left | Center | Right"

```

/>
    <Spacings />
</PageNumber>

```

Examples

[CS]

```

Siberix.Report.IPageNumber pn = section.AddPageNumber();
pn.Style = style1;
pn.Template = "Page {0} of {1}";
pn.Alignment = Siberix.Report.NumberAlignment.Center;
pn.Spacings.All = 10;

```

[VB]

```

Dim pn As Siberix.Report.IPageNumber = section.AddPageNumber()
pn.Style = style1
pn.Template = "Page {0} of {1}"
pn.Alignment = Siberix.Report.NumberAlignment.Center
pn.Spacings.All = 10

```

[XML]

```

<PageNumber Style="Style1" Template="Page {0} of {1}" Alignment="Center" Spacings="10" />

```

PageReference

Represents a page reference element. You can use it to output the target page number of some other element.

```

<PageReference
    Id="String value"
    DataContext="String value"
    Style="Style reference"
    Template="String value : {0} Current page in the report, {1} Total pages in the report, {2} Current
page in the section, {3} Total pages in the section"
    Format="Decimal | SmallLetters | BigLetters | SmallRoman | BigRoman"
    Alignment="Left | Center | Right"
/>
    <Spacings />
</PageReference>

```

Examples

[CS]

```

Siberix.Report.IPageReference pr = section.AddPageReference("text1");
pr.Style = style1;
pr.Template = "{0}";
pr.Format = Siberix.Report.NumberFormat.SmallLetters;
pr.Alignment = Siberix.Report.NumberAlignment.Left;

```

[VB]

```

Dim pr As Siberix.Report.IPageReference = section.AddPageReference("text1")
pr.Style = style1
pr.Template = "{0}"
pr.Format = Siberix.Report.NumberFormat.SmallLetters
pr.Alignment = Siberix.Report.NumberAlignment.Left

```

[XML]

```
<PageReference Reference="text1" Style="Style1" Template="{0}" Format="SmallLetters" Alignment="Left" />
```

PageBreak

Represents a page break element.

<PageBreak />

Examples

[CS]

```
section.AddPageBreak();
```

[VB]

```
section.AddPageBreak()
```

[XML]

```
<PageBreak />
```

Callback Interface

Siberix Report Writer exposes several methods to extend XML patterns with API calls.

XML input

```
<?xml version="1.0"?>
<Report>
  <Styles>
    <Style Id="Style1" Font="Arial, 10" Brush="Black" />
  </Styles>
  <Sections>
    <Section Size="Letter" Spacings="20">
      <Text Style="Style1">Company: <MergeCode Id="Company" /></Text>
      <Group Borders="Black" Spacings="5" Paddings="5">
        <Background Color="Green" Drawing="Drawing1" />
        <Injector Id="Group1" />
      </Group>
      <Text Style="ExternalStyle1">External Text Style</Text>
      <Image Source="Image1" Width="200" />
    </Section>
  </Sections>
</Report>
```

Implementation

```
Siberix.Report.Report report = new Siberix.Report.Report();
report.Callback = new Callback();
report.Load("input.xml");
report.Publish("Document.pdf", Siberix.Report.FileFormat.PDF);

[Siberix.Report.ICallback]

public class Callback : Siberix.Report.ICallback
{
  public string ResolvePath(string path)
  {
    return path;
  }

  public string OnMergeCode(string id)
  {
    if (string.IsNullOrEmpty(id))
      return null;

    if (id.Equals("Company"))
      return "Siberix Technologies";

    return "";
  }

  public void OnInjector(string id, Siberix.Report.Text.IText text, Siberix.Report.Text.Style style, Siberix.Report.Text.Hyperlink hyperlink)
  {
  }

  public void OnInjector(string id, Siberix.Report.IElement elemen)
  {
    if (string.IsNullOrEmpty(id))
      return;

    if (element == null)
      return;

    if ((element.Type == Siberix.Report.ElementType.Group) && id.Equals("Group1"))
```

```

    {
        Siberix.Report.IGroup group = (Siberix.Report.IGroup)element;

        group.Background.Brush = Siberix.Graphics.Brushes.LightYellow;

        Siberix.Report.Text.Style style = new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.Arial(12),
Siberix.Graphics.Brushes.Red);

        Siberix.Report.Text.IText text = group.AddText();
        text.Style = style;
        text.AddContent("Group Injector");
    }
}

public Siberix.Report.Text.Style GetStyle(string id)
{
    if (string.IsNullOrEmpty(id))
        return null;

    if (id.Equals("ExternalStyle1"))
        return new Siberix.Report.Text.Style(new Siberix.Graphics.Fonts.ArialBold(30), Siberix.Graphics.Brushes.Red);

    return null;
}

public Stream LoadFont(string path)
{
    return null;
}

public Stream LoadImage(string path)
{
    if (string.IsNullOrEmpty(path))
        return null;

    if (path.Equals("Image1"))
        return GetCompanyLogoAsMemoryStream();

    return null;
}

public Stream LoadMetafile(string path)
{
    return null;
}

public Siberix.Report.IDrawing OnDrawing(string id)
{
    if (string.IsNullOrEmpty(id))
        return null;

    if (id.Equals("Drawing1"))
        return new CustomDrawing();

    return null;
}

public void OnLoadEnd(Report.IElement element)
{
}

public void OnLoadStart(Report.IElement element)
{
}
}

```

[Siberix.Report.IDrawing]

```
public class CustomDrawing : Siberix.Report.IDrawing
{
    public string Id
    {
        get
        {
            return "Drawing1";
        }
    }

    public void OnDraw(Siberix.Graphics.IGraphics graphics, float x, float y, float width, float height)
    {
        graphics.Pen = new Siberix.Graphics.Pen(Siberix.Graphics.Colors.Red, 5);

        graphics.DrawLine(x, y, x + width, y + height);
    }
}
```

Delegates

Siberix Report Writer provides several delegates to combine XML patterns and API calls:

- `string ResolvePathDelegate(string path)`
- `Siberix.Report.Text.Style GetStyleDelegate(string id)`
- `System.IO.Stream LoadFontDelegate(string path)`
- `System.IO.Stream LoadImageDelegate(string path)`
- `System.IO.Stream LoadMetafileDelegate(string path)`
- `Siberix.Report.IDrawing OnDrawingDelegate(string id)`
- `string OnMergeCodeDelegate(string id)`
- `void OnTextInjectorDelegate(string id, Siberix.Report.Text.IText text, Siberix.Report.Text.Style style, Siberix.Report.Text.Hyperlink hyperlink)`
- `void OnInjectorDelegate(string id, Siberix.Report.IElement element)`
- `void OnLoadStartDelegate(Siberix.Report.IElement element)`
- `void OnLoadEndDelegate(Siberix.Report.IElement element)`
- `Siberix.Report.Data.IDataContext GetDataContextDelegate(string id)`
- `Siberix.Report.Data.IValueFormatter GetValueFormatterDelegate(string id)`
- `Siberix.Report.Data.ITemplateSelector GetTemplateSelectorDelegate(string id)`

Examples

```
report.Delegates.GetTemplateSelectorDelegate = delegate(string id)
{
    if (id == ts1.Id)
        return ts1;

    return null;
};
```


ASPX Integration

There are several ways to stream out PDF or XPS documents from ASPX pages.

Content types:

PDF - **application/pdf**

XPS - **application/vnd.ms-xpsdocument**

1. Streaming into the context's response.

[CS]

```
System.Web.HttpContext context = System.Web.HttpContext.Current;
System.Web.HttpResponse response = context.Response;
response.Clear();
response.ContentType = "application/pdf";
report.Publish(response.OutputStream, Siberix.Report.FileFormat.PDF);
response.End();
```

[VB]

```
Dim context As System.Web.HttpContext = System.Web.HttpContext.Current
Dim response As System.Web.HttpResponse = context.Response
response.Clear()
response.ContentType = "application/pdf"
report.Publish(response.OutputStream, Siberix.Report.FileFormat.PDF)
response.End()
```

Note: To stream out a PDF document over the **https** response please use the following lines:

[CS]

```
System.IO.MemoryStream ms = new System.IO.MemoryStream();

report.Publish(ms, Siberix.Report.FileFormat.PDF);

byte[] buffer = ms.ToArray();
int length = buffer.Length;
```

```
System.Web.HttpContext context = System.Web.HttpContext.Current;
System.Web.HttpResponse response = context.Response;
response.Clear();
response.ContentType = "application/pdf";
response.AddHeader("Content-Length", length.ToString());
response.AddHeader("Accept-Ranges", "bytes");
response.AddHeader("Accept-Header", length.ToString());
response.OutputStream.Write(buffer, 0, length);
response.End();
```

[VB]

```
Dim ms As System.IO.MemoryStream = New System.IO.MemoryStream()

report.Publish(ms, Siberix.Report.FileFormat.PDF)
```

```
Dim buffer As Byte() = ms.ToArray()
Dim length As Integer = buffer.Length
```

```
Dim context As System.Web.HttpContext = System.Web.HttpContext.Current
Dim response As System.Web.HttpResponse = context.Response
response.Clear()
response.ContentType = "application/pdf"
response.AddHeader("Content-Length", length.ToString())
response.AddHeader("Accept-Ranges", "bytes")
response.AddHeader("Accept-Header", length.ToString())
response.OutputStream.Write(buffer, 0, length)
response.End()
```

2. Streaming into the "Response" with the "inline" attribute.

[CS]

```
Response.Clear();
Response.ContentType = "application/pdf";
Response.AddHeader("content-disposition", "inline; filename=Document.pdf");
report.Publish(Response.OutputStream, Siberix.Report.FileFormat.PDF);
Response.End();
```

[VB]

```
Response.Clear()
Response.ContentType = "application/pdf"
Response.AddHeader("content-disposition", "inline; filename=Document.pdf")
report.Publish(Response.OutputStream, Siberix.Report.FileFormat.PDF)
Response.End()
```

3. Streaming into the "Response" with the "attachment" attribute.

[CS]

```
Response.Clear();
Response.ContentType = "application/pdf";
Response.AddHeader("content-disposition", "attachment; filename=Document.pdf");
report.Publish(Response.OutputStream, Siberix.Report.FileFormat.PDF);
Response.End();
```

[VB]

```
Response.Clear()
Response.ContentType = "application/pdf"
Response.AddHeader("content-disposition", "attachment; filename=Document.pdf")
report.Publish(Response.OutputStream, Siberix.Report.FileFormat.PDF)
Response.End()
```

4. Saving to the server and redirecting to some HTML page with the link to the generated PDF document.

[CS]

```
System.IO.FileStream stream = new System.IO.FileStream(Server.MapPath("Document.pdf"), System.IO.FileMode.Create,
System.IO.FileAccess.Write);
report.Publish(stream, Siberix.Report.FileFormat.PDF);
stream.Close();
```

```
Response.Redirect("link.html");
or
Response.Clear();
Response.Output.Write("<a href=\"Document.pdf\">PDF</a>");
Response.End();
```

[VB]

```
Dim stream As System.IO.FileStream = New System.IO.FileStream(Server.MapPath("Document.pdf"), System.IO.FileMode.Create,
System.IO.FileAccess.Write)
report.Publish(stream, Siberix.Report.FileFormat.PDF)
stream.Close()
```

```
Response.Redirect("link.html")
or
Response.Clear()
Response.Output.Write("<a href=\"\"Document.pdf\"\">PDF</a>");
Response.End()
```