Shape Layout

Textframes, images and charts share a couple of attributes explained in this document. The generic term 'shape' is used for all of them.

Note that all samples in this document work with all these three types of elements.

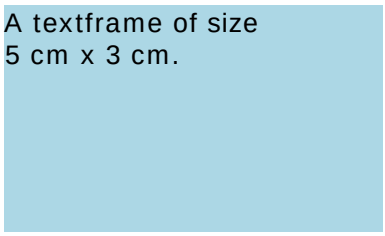
Size

The size of a shape can be specified in a simple manner. In detail, the sizes of some shapes may be given in a different way depending on its kind.

Height and Width

The size of a shape can be specified by the attributes **Height** and **Width**.

```
\textframe
[
  Width = "5cm"
  Height = "3cm"
  …
]
{
  A textframe of size 5 cm x 3 cm.
}
```



Remarks on Shape Sizes

The default size of a textframe is 2.5 cm x 2.5 cm. Its size will not increase automatically with its contents.

The default size of an image is given by its resolution and size in pixels. Note that the actual size of an image is influenced by several different attributes of the image. See 'Images-Layout' for details.

A chart has a zero default size. Because a sensible size strongly depends on the data the chart represents, it's the document designer's duty to define it.

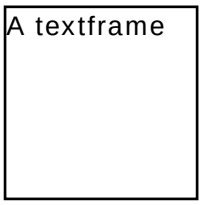
LineFormat and FillFormat

Shapes can be surrounded by a line and their background can be filled with a color.

LineFormat

A shape can be surrounded by a line. See 'Attributes-LineAndFillFormat' for details.

```
\textframe
[
  LineFormat.Width = 1
]
{
  A textframe
}
```



FillFormat

A shape can have a background color. Again, you can consult the 'Attributes-LineAndFillFormat' sample for details

```
\textframe
[
  FillFormat.Color = PeachPuff
]
{
  A textframe with background color "peach puff".
}
```

Left Position

The left position denotes a distance or a position on the page that depends on the attribute **RelativeHorizontal**. It can be meant ...

... as Distance to the Left Page Margin

If **RelativeHorizontal** is set to *Margin*, a numerical value for **Left** denotes the distance to the left page margin. This is the default behavior.

```
\textframe[RelativeHorizontal = Margin Left = "0.5cm" …]
{
  A textframe placed 0.5 cm from the left page margin.
}
```

A textframe placed 0.5 cm from the left page margin.

... as Distance to the Left Page Edge

If **RelativeHorizontal** is set to *Page*, a numerical value for **Left** denotes the distance to the left page edge.

```
\textframe[RelativeHorizontal = Page Left = "0.5cm" …]
{
  A textframe 0.5 cm from the left page edge.
}
```

A textframe 0.5 cm from the left page edge.

... as Position relative to the Page

If **RelativeHorizontal** is set to *Page*, **Left** can be set to either *Left*, *Center* or *Right*, which is meant as position relative to the page.

```
\textframe[RelativeHorizontal = Page Left = Left …]
{
  A textframe at the left page edge.
}
\textframe[RelativeHorizontal = Page Left = Center …]
{
  A textframe horizontally centered on the page.
}
\textframe[RelativeHorizontal = Page Left = Right …]
{
  A textframe at the right page edge.
}
```

A textframe at the left page edge.

A textframe horizontally centered on the page.

A textframe at the right page edge.

… as Position relative to the Page Margin

If **RelativeHorizontal** is set to *Margin*, **Left** can be set to either *Left*, *Center* or *Right*, which is meant as position relative to the page margin.

```
\textframe[RelativeHorizontal = Margin Left = Left …]
{
  A textframe at the left page margin.
}
\textframe[RelativeHorizontal = Margin Left = Center …]
{
  A textframe centered between left and right page margin.
}
\textframe[RelativeHorizontal = Margin Left = Right …]
{
  A textframe at the right page margin.
}
```

A textframe at the left page margin.

A textframe centered between left and right page margin.

A textframe at the right page margin.

Top Position

The top position denotes a distance or a position on the page that depends on the attribute **RelativeVertical**. It can be meant ...

... as Distance to a preceeding Element

If **RelativeVertical** is set to *Paragraph*, a numerical value for **Top** denotes the distance to the preceeding element. This is the default behavior.

```
\paragraph[Format.SpaceAfter = "0cm" …]
{
  A paragraph with a 'SpaceAfter' attribute of value 0 cm.
}
\textframe[RelativeVertical = Paragraph Top = "0.5cm" …]
{
  A textframe with a 'Top' attribute of value 0.5 cm.
}
\paragraph[Format.SpaceAfter = "0.5cm" …]
{
  A paragraph with a 'SpaceAfter' attribute of value 0.5 cm.
}
\textframe[RelativeVertical = Paragraph Top = "0cm" …]
{
  A textframe with a 'Top' attribute of value 0 cm.
}
```

A paragraph with a 'SpaceAfter' attribute of value 0 cm.

A textframe with a 'Top' attribute of value 0.5 cm.

A paragraph with a 'SpaceAfter' attribute of value 0.5 cm.

A textframe with a 'Top' attribute of value 0 cm.

Note that in this case this attribute works like the **SpaceBefore** attribute of a paragraph. So the maximum of a preceeding paragraph's space after and the shape's **Top** attribute will be taken to place the shape.

... as Distance to the Top Page Edge

If **RelativeVertical** is set to *Page*, a numerical value for **Top** denotes the distance to the top page edge.

```
\textframe[RelativeVertical = Page Top = "0.5cm" …]
{
  A textframe 0.5 cm from the top page edge.
}
```

... as Distance to the Top Page Margin

If **RelativeVertical** is set to *Margin*, a numerical value for **Top** denotes the distance to the top page margin.

```
\textframe[RelativeVertical = Margin Top = "0.5cm" …]
{
  A textframe 0.5 cm from the top page margin.
}
```

… as Position relative to the Page

If **RelativeVertical** is set to *Page*, **Top** can be set to either *Top* , *Center* or *Bottom*, which is meant as position relative to the page.

```
\textframe[RelativeVertical = Page Top = Top …]
{
  A textframe at the top page edge.
}
\textframe[RelativeVertical = Page Top = Center …]
{
  A textframe vertically centered on the page.
}
\textframe[RelativeVertical = Page Top = Bottom …]
{
  A textframe at the bottom page edge.
}
```

… as Position relative to the Page Margin

If **RelativeVertical** is set to *Margin*, **Top** can be set to either *Top* , *Center* or *Bottom*, which is meant as position relative to the page margin.

```
\textframe[RelativeVertical = Margin Top = Top …]
{
  A textframe at the top page margin.
}
\textframe[RelativeVertical = Margin Top = Center …]
{
  A textframe centered between top and bottom page margin.
}
\textframe[RelativeVertical = Margin Top = Bottom …]
{
  A textframe at the bottom page margin.
}
```

Wrapformat Distances

You can specify distances to surrounding elements or a relative position.

Left Distance

You can specify the attribute **WrapFormat.DistanceLeft**. In MigraDoc 1.1, it works like the attribute **Left** with a numerical value.

You should actually see this attribute as reserved for future extensions.

It is also thought to serve as left distance to a neighbor if e.g. a shape lies between two columns in a multi column section. Such layout techniques are not yet implemented in MigraDoc 1.1.

Top Distance

You can specify the attribute **WrapFormat.DistanceTop**. In MigraDoc 1.1, it works like the attribute **Top** with a numerical value.

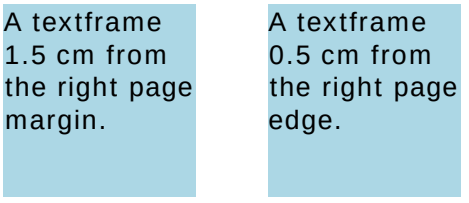
You should actually see this attribute as reserved for future extensions.

It is also thought to serve as top distance e.g to a paragraph flowing around the shape. Such layout techniques are not yet implemented in MigraDoc 1.1.

Right Distance

You can specify an attribute **WrapFormat.DistanceRight**. It is taken into account if a shape is right aligned relatively to the page edge or margin.

```
\textframe
[
  RelativeHorizontal = Page
  Left = Right
  WrapFormat.DistanceRight = "0.5cm"
  …
]
{
  A textframe 0.5 cm from the right page edge.
}
\textframe
[
  RelativeHorizontal = Margin
  Left = Right
  WrapFormat.DistanceRight = "1.5cm"
  …
]
{
  A textframe 1.5 cm from the right page margin.
}
```



This attribute is also thought to serve as right distance e.g to a paragraph flowing around the shape. Such layout techniques are not yet implemented in MigraDoc 1.1.

Bottom Distance

You can specify an attribute **WrapFormat.DistanceBottom**. It is taken into account if a shape is bottom aligned relatively to the page edge or margin.

```
\textframe
[
  RelativeVertical = Page
  Top = Bottom
  WrapFormat.DistanceBottom = "0.5cm"
  …
]
{
  A textframe 0.5 cm from the bottom page edge.
}
\textframe
[
  RelativeVertical = Margin
  WrapFormat.DistanceBottom = "1.5cm"
  …
]
{
  A textframe 1.5 cm from the bottom page margin.
}
```

This attribute can also serve to guarantee a bottom distance to a following element.

```
\textframe
[
  RelativeVertical = Paragraph
  WrapFormat.DistanceBottom = "0.5cm"
  …
]
{
  A textframe with a distance bottom attribute of 0.5 cm.
}
\paragraph[Format.SpaceAfter = "0.3 cm" …]
{
  A paragraph with a space before attribute of 0.3 cm.
}
\textframe
[
  RelativeVertical = Paragraph
  WrapFormat.DistanceBottom = "0.3cm"
  …
]
{
  A textframe with a distance bottom attribute of 0.3 cm.
}
\paragraph[Format.SpaceAfter = "0.5 cm" …]
{
  A paragraph with a space before attribute of 0.5 cm.
}
```

A textframe with a distance bottom attribute of 0.5 cm.

A paragraph with a space before attribute of value 0.3 cm.

A textframe with a distance bottom attribute of 0.3 cm.

A paragraph with a space before attribute 0.5 cm.

Note that in this case this attribute works like the **SpaceAfter** attribute of a paragraph. So the maximum of a succeeding paragraph's space before and the shape's **DistanceBottom** attribute will be taken to place the shape.

This attribute is also thought to serve as bottom distance e.g to a paragraph flowing around the shape. Such layout techniques are not yet implemented in MigraDoc 1.1.

Wrapformat Style

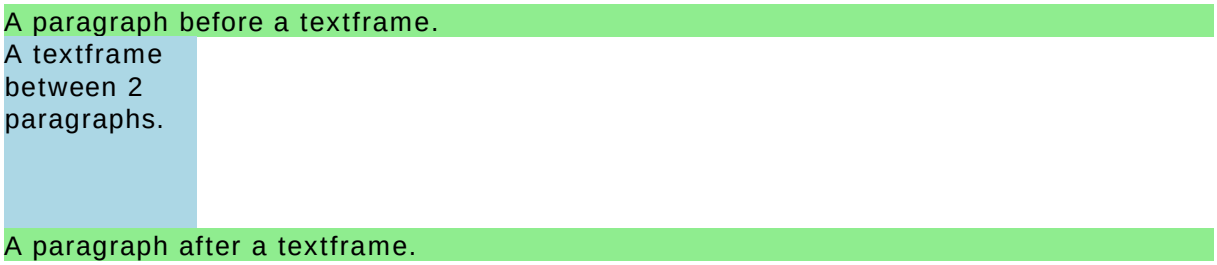
A shape can either be considered or ignored by its surrounding elements.

Top Bottom

You can specify that the size of a shape will be considered by its successor. This is the default behavior.

Note that this will not work if **RelativeVertical** is set to *Page* or *Margin*. In this case, the shape size will always be ignored by its successor. This is a logical behavior, because the neighbors in DDL declaration then are not necessarily the neighbors on the rendered page.

```
\paragraph[…]
{
  A paragraph before a textframe.
}
\textframe[WrapFormat.Style = TopBottom …]
{
  A textframe between 2 paragraphs.
}
\paragraph[…]
{
  A paragraph after a textframe.
}
```



Through

You can specify that the size of a shape will be ignored by its successor. This is especially useful if you would like to place two shapes next to each other.

```
\textframe[WrapFormat.Style = Through Height = "3cm" …]
{
  A textframe the size of which is ignored.
}
\textframe[WrapFormat.Style = TopBottom Left = "3cm" Height = "4cm" …]
{
  A textframe the size of which will be considered.
}
\paragraph[…]
{
  A paragraph afterwards.
}
```