Bidirectional (RTL) text v6.x

Document Directionality - RTL versus LTR
The document has a baseline direction which is **LTR** or **RTL**; this determines:

- text alignment in blocks for which text-align has not been specifically set
- layout of mirrored page-margins, columns, ToC and Indexes, headers / footers

This base/document directionality is **LTR** by default, and can be set by any of the following:

```
$mpdf->SetDirectionality('rtl');
<html dir="rtl"> or <html style="direction: rtl;">
<body dir="rtl"> or <body style="direction: rtl;">
```

Base direction is an inherited CSS property, so will affect all content, unless direction is specified elswhere.

Block-level Directionality
Direction can be set for any HTML block elements e.g. <p><table> etc using:

```
[HTML]
<div style="direction: rtl;">
or
[CSS stylesheet]
div.right { direction: rtl; }
```

Block-level direction *may* affect text alignment, and will also influence text reversal in **RTL** text.

Note that margin/padding are NOT reversed by direction i.e. left-margin will still be left-margin in **RTL** state.

Text alignment
The default value for text-align is "a nameless value which is dependent on direction". However, once text-align is specified, it is respected and inherited by all descendants.

Text Bidirectionality

> **Note:** OpenType layout (OTL) features must be enabled on a font for it to display right-to-left script.

Bi-directional text is supported in mPDF.

1) The following Unicode characters are supported, and can be inserted directly in the text as HTML entities:

LRE	U+202A	LEFT-TO-RIGHT EMBEDDING	&#x202A;
RLE	U+202B	RIGHT-TO-LEFT EMBEDDING	&#x202B;
LRO	U+202D	LEFT-TO-RIGHT OVERRIDE	&#x202D;
RLO	U+202E	RIGHT-TO-LEFT OVERRIDE	&#x202E;
PDF	U+202C	POP DIRECTIONAL FORMATTING	&#x202C;
LRI	U+2066	LEFT-TO-RIGHT ISOLATE	&#x2066;
RLI	U+2067	RIGHT-TO-LEFT ISOLATE	&#x2067;
FSI	U+2068	FIRST STRONG ISOLATE	&#x2068;
PDI	U+2069	POP DIRECTIONAL ISOLATE	&#x2069;
LRM	U+200E	LEFT-TO-RIGHT MARK	&#x200E;
RLM	U+200F	RIGHT-TO-LEFT MARK	&#x200F;

2) The following HTML tags are supported:

- <bdo> (NB the "dir" attribute is mandatory on <bdo>)
- <bdi> (HTML5)

3) The CSS property "unicode-bidi" is supported with the following (CSS3) values: normal | embed | isolate | bidi-override | isolate-override | plaintext.
See http://www.w3.org/TR/css3-writing-modes/#unicode-bidi for more details.
"unicode-bidi" is supported on block level elements as well as in-line elements, but note that:

- the value is not inherited to child blocks
- using "embed" or "isolate" has no effect on block level boxes

- "isolate-override" is equivalent to "bidi-override" on block level boxes

NB dir="auto" is not supported generally, but it is supported for <bdi> (has the same effect as if omitted) to use First Strong Isolate (FSI).

Directionality can now be set on individual table cells <td style="direction:rtl;unicode-bidi:embed;"> or <td dir="rtl">

Equivalent methods
The following are equivalent methods:

EMBED

```
<span dir="rtl">...</span>
&#x202B;...&#x202C;
<span style="direction: rtl; unicode-bidi: embed">...</span>
```

OVERRIDE

```
<bdo dir="rtl">...</bdo>
&#x202E;...&#x202C;
<span dir="rtl" style="unicode-bidi: bidi-override">...</span>
<span style="direction: rtl; unicode-bidi: bidi-override">...</span>
```

ISOLATE

```
<bdi dir="ltr">...</bdi>
&#x2067;...&#x2069;
<span dir="rtl" style="unicode-bidi: isolate">...</span>
<span style="direction: rtl; unicode-bidi: isolate">...</span>
```

First Strong Isolate (FSI)

```
<bdi>...</bdi>
<bdi dir="auto">...</bdi>
&#x2068;...&#x2069;
<span dir="rtl" style="unicode-bidi: plaintext">...</span>
<span style="direction: rtl; unicode-bidi: plaintext">...</span>
```

First strong isolate (FSI)
FSI is useful when including text within a paragraph where the directionality of the text is unknown. For example, if you are printing out a catalogue from a database of book titles and the number of readers, when some book titles are in right-to-left script, you may use this template:

```
<li>Title: {TITLE} - {READERS} readers</li>
```

This would result in the following:

- Title: Alice in Wonderland - 12390 readers
- Title: ????? ???? ??????, ?????-????? ??? ????? ???? - 17890 readers

```
<li>Title: <bdi>{TITLE}</bdi> - {READERS} readers</li>
```

Using BDI will result in the following:

- Title: Alice in Wonderland - 12390 readers
- Title: ????? ???? ??????, ?????-????? ??? ????? ???? ?- 1790 readers?

See Also
- lang - Information on mPDF support for the HTML attribute lang

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