

# pisa

## PDF Gernerator

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## Introduction

XXX TO BE WRITTEN

See README.txt for now

## Command line

XXX TO BE WRITTEN

See README.txt for now

## Python module

XXX TO BE WRITTEN

See "test/simply.py" for now

## Defaults

Some notes on some default values:

- Usually the position (0,0) in PDF files is found in the lower left corner. For pisa it is the upper left corner like it is for HTML.
- The default page size is DIN A4 with portrait orientation.
- The name of the first layout template is "body" (XXX May be changed!)

## Cascading Style Sheets

PML supports a subset of Cascading Style Sheet (CSS). The following styles are supported:

```
color
font-family
font-size
font-weight
font-style
text-decoration
line-height
background-color
display
margin-left
margin-right
margin-top
margin-bottom
padding-left
padding-right
padding-top
padding-bottom
border-top-color
border-top-style
border-top-width
border-bottom-color
border-bottom-style
border-bottom-width
border-left-color
border-left-style
border-left-width
border-right-color
border-right-style
border-right-width
text-align
vertical-align
width
height
zoom
page-break-after
page-break-before
list-style-type
white-space
size
```

Vendor specific:

```
-pdf-page-break
-pdf-frame-border
-pdf-frame-content
```

## Layout Definition

### Pages and Frames

Pages can be layouted by using some special CSS at-keywords and properties. All special properties start with "-pdf-" to mark them as vendor specific as defined by CSS 2.1. Layouts may be defined by page using the @page keyword. Then text flows in one or more frames which can be defined within the @page block by using @frame. Example:

```
@page {  
  @frame {  
    margin: 1cm;  
  }  
}
```

In the example we define an unnamed page template - though it will be used as the default template - having one frame with 1cm margin to the page borders. The first frame of the page may also be defined within the @page block itself. See the equivalent example:

```
@page {  
  margin: 1cm;  
}
```

To define more frames just add some more @frame blocks. You may use the following properties to define the dimensions of the frame:

- margin
- margin-top
- margin-left
- margin-right
- margin-bottom
- top
- left
- right
- bottom
- width
- height

Here is a more complex example:

```
@page lastPage {  
  top: 1cm;  
  left: 2cm;  
  right: 2cm;  
  height: 2cm;  
  @frame middle {  
    margin: 3cm;  
  }  
  @frame footer {  
    bottom: 2cm;  
    margin-left: 1cm;  
    margin-right: 1cm;  
  }  
}
```

```
    height: 1cm;
  }
}
```

## Page size and orientation

A page layout may also define the page size and the orientation of the paper using the "size" property as defined in CSS 3. Here is an example defining page size "DIN A5" with "landscape" orientation (default orientation is "portrait"):

```
@page {
  size: a5 landscape;
  margin: 1cm;
}
```

Here is a list of valid page sizes:

- a0 ... a6
- b0 ... b6
- letter
- legal
- elevenseventeen

## PDF watermark/ background

For the use of PDF backgrounds specify the source file in the "background-image" property, like this:

```
@page {
  background-image: url(bg.pdf);
}
```

## Static frames

Some frames should be static like headers and footers that means they are on every page but do not change content. The only information that may change is the page number. Here is a simple example that show how to make an element named by ID the content of a static frame. In this case it is the ID "footer".

```
<html>
<style>
@page {
  margin: 1cm;
  margin-bottom: 2.5cm;
  @frame footer {
    -pdf-frame-content: footerContent;
    bottom: 2cm;
    margin-left: 1cm;
    margin-right: 1cm;
    height: 1cm;
  }
}
```



```
</style>
<body>
  Some text
  <div id="footerContent">
    This is a footer on page #<pdf:pagenumber>
  </div>
</body>
</html>
```

For better debugging you may want to add this property for each frame definition:  
"-pdf-frame-border: 1;". It will paint a border around the frame.

## Fonts

By default there is just a certain set of fonts available for PDF. Here is the complete list and the alias names pisa supports for them (the names are not case sensitive):

- **Times-Roman:** Times New Roman, Times, Georgia, serif
- **Helvetica:** Arial, Verdana, Geneva, sansserif, sans
- **Courier:** Courier New, monospace, monospaced, mono
- **ZapfDingbats**
- **Symbol**

But you may also embed new font faces by using the `@font-face` keyword in CSS. Here is how:

```
@font-face {  
  font-family: Example, "Example Font";  
  src: url(example.ttf);  
}
```

The "font-family" property defines the names under which the embedded font will be known. "src" defines the place of the fonts source file. This can be a TrueType font or a Postscript font. The file name of the first has to end with ".ttf" the later with one of ".pfb" or ".afm" (the missing file name will be calculated like this: "test" + ".afm" and "test" + ".pfb").

## Custom Tags

### XXX TO BE WRITTEN

#### pdf:pagenumber

Prints current page number. The argument "example" defines the space the page number will require e.g. "00".

#### pdf:template

Defines the boxes resp. frames of a page in which the text flows. If a frame is full the next frame is used for the text. And if the last frame of the page is full a new page is opened and there we start again with the first frame. So the order of the frame definition is important! Frames that always contain the same text like e.g. title the of a book repeated on each page, are called "static".

The template of the first page is called "default" and contains in the standard definition one frame with 1cm margins. This template definition can be overridden to change the layout of the first page.

The attribute "background" defines a PDF file that is set into the background of the current page. If this doesn't work it often helps to re-print the watermark PDF with Ghostscript again. If you use "background" the outlines are lost (q.v. [h1](#)).

Q.v. [frame](#) and [static](#).

An example:

```
<template name="default">
  <frame name="head"
    box="17,3cm 2.8cm 3.3cm 20cm">
  <frame name="address"
    box="2.7cm 5.0cm 8.57cm 4.00cm">
  <frame name="body"
    box="3.5cm 10.5cm 13.9cm 17.5cm">
</template>

<template name="sub">
  <static box="1cm 1cm 13,9cm 1cm">
    The big book, page <pagenumber>.
  </static>
  <frame name="c"
    box="3.5cm 3.5cm 13.9cm 17.5cm">
</template>
```

#### pdf:frame

Q.v. [template](#).

#### pdf:static

Q.v. [template](#).

### **pdf:nexttemplate**

Defines the template to be used on the next page.

### **pdf:nextpage**

Create a new page after this position.

### **pdf:nextframe**

Jump to next unused frame on the same page or to the first on a new page. You may not jump to a named frame.

### **effect**

(XXX)

### **pdf:font**

Embeds PostScript fonts. Files of the formats AFM and PFB are needed. For TrueType fonts you need TTF files. The attribute "print" shows the real name of a PostScript font. Examples:

```
<fontembed ttf="vera.ttf" name="tfont">
<fontembed afm="leerc.afm" pfb="leerc.pfb" name="pfont">
<p><font face="tfont">TrueType, Umlaute: &auuml;&ouuml;&uuml;</font></p>
<p><font face="pfont">PostScript, Umlaute: &auuml;&ouuml;&uuml;</font></p>
```

### **pdf:spacer**

Creates an object of a specific size.

### **pdf:version**

Prints the version number of current PISA.

### **pdf:keeptogether**

Tries to keep the block in the same frame. Example:

```
<keeptogether>
  <h1>Überschrift</h1>
  <p>Text</p>
</keeptogether>
```

### **drawline**

Only useable within <static>. Draws a line. Example:

```
<drawline from="1cm 1cm" to="-1cm -1cm">
```

### **drawlines**

Only useable within <static>. Draws multiple lines. Example:

```
<drawlines coords="1cm 1cm 1cm -1cm -1cm -1cm -1cm 1cm 1cm 1cm">
```

### **drawimg**

Only useable within <static>. Draws an image at a position. May be used for simple backgrounds and watermarks.

### **drawpoint**

Only useable within <static>. Draws a point.

### **drawstring**

Only useable within <static>. Draws text at a certain position.

### **pdf:keepinframe**

Tries to keep block in one frame. This is very usefull for usage in tables, because big table cells may cause errors in ReportLab toolkit. Then you better put a <keepinframe> around data to avoid these exceptions and get all informations of the table shown. Mode can be one of: "error", raise an error in the normal way; "overflow", ignore ie just draw it and report maxWidht, maxHeight; "shrink", shrinkToFit (is the default); "truncate", fit as much as possible. Example:

```
<table><tr><td>
  <keepinframe maxwidth="10cm" maxheight="10cm">
    A lot of ... data
  </keepinframe>
</td></tr></table>
```

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