

# mPDF

## Example 56. New mPDF v5-1 features grayscale

```
<?php

include("../mpdf.php");

$mpdf=new mPDF('');

$mpdf->restrictColorSpace = 1;  // forces to grayscale
//=====================================================
$html = '
<style>
body {
    font-family: sans-serif;
    font-size: 10pt;
}
h4 {
    font-variant: small-caps;
}
h5 {
    margin-bottom: 0;
    color: #110044;
}
p { margin-top: 0; }
dl {
    margin: 0;
}
table {
    border-spacing: 0.5em;
    border: 7px dashed teal;
}
.table1 {
    background-image: -moz-linear-gradient(left, #07cdde 20%, #00f200 );
}
.table1 tr.thisrow1 {
    background-image-resolution: 300dpi;
    background: transparent url(\'bayeux1.jpg\') repeat scroll left top;
}
.table1 tr.thisrow1 td {
    height: 28mm;
}
.table1 tr.thisrow2 {
    background-image: none;
    background: -moz-linear-gradient(left, #c7Fdde 20%, #FF0000 );
    background: -webkit-gradient(linear, left bottom, left top, color-stop(0.29, rgb(90,83,12)),
color-stop(0.65, rgb(117,117,39)), color-stop(0.83, rgb(153,153,67)));
}
.table3 {
    border-collapse: collapse;
    /* background-gradient: linear #07cdde #00f200 1 0 0.5 1; */
    background: -moz-linear-gradient(left, #07cdde 20%, #00f200 );
}
tr.thisrow {
    border: 3px dashed red;
    background: transparent url(\'bayeux1.jpg\') repeat scroll left top;
}
.table3 tr.thisrow {
    border: 3px dashed orange;
    background: transparent url(\'bgrock.jpg\') repeat scroll left top;
}
tfoot tr {
    border: 5px dashed blue;
```

```

/* background-gradient: linear #c7Fdde #FF0000 1 0 0.5 0; */
background: -moz-linear-gradient(left, #c7Fdde 20%, #FF0000 );
}
.gradient {
border:0.1mm solid #220044;
background-color: #f0f2ff;
background: linear-gradient(top, #c7cdde, #f0f2ff);
}
.rounded {
border:0.1mm solid #220044;
background-color: #f0f2ff;
background: linear-gradient(top, #c7cdde, #f0f2ff);
border-radius: 2mm;
background-clip: border-box;
}
div.text {
padding:1em;
margin: 1em 0;
text-align:justify;
}
.code {
font-family: mono;
font-size: 9pt;
background-color: #d5d5d5;
margin: 1em 1cm;
padding: 0 0.3cm;
}
</style>
<body style="background: -moz-repeating-radial-gradient(rgba(255,0,0,0.1), rgba(0,0,255,0.1) 40px,
rgba(255,0,0,0.1) 80px)">

<div style="position:fixed; top: 0; right: 0"></div>

<h1></a>mPDF</h1>
<h2>New features in mPDF Version 5.1</h2>

<div class="rounded text">
<p>This is a copy of Example 54, but all object colours are converted to grayscale using simply:</p>
<p class="code">$mpdf->restrictColorSpace = 1;</p>
</div>

<div class="rounded text">
<ul>
<li>CSS background (images, colours or gradients) on &lt;TR> and &lt;TABLE></li>
<li>CSS border on &lt;TR> (only in border-collapsed mode)</li>
<li>support for Mozilla and CSS3 gradient syntax:
<ul>
<li>-moz-linear-gradient, linear-gradient</li>
<li>-moz-radial-gradient, radial-gradient</li>
<li>-moz-repeating-linear-gradient, linear-repeating-gradient</li>
<li>-moz-repeating-radial-gradient, radial-repeating-gradient</li>
</ul>
</li>
<li>expanded support for gradients (including in SVG images):
<ul>
<li>multiple colour \ 'stops' </li>
<li>opacity (transparency)</li>
<li>angle and/or position can be specified</li>
</ul>
</li>
<li>etc...</li>
</ul>
</div>

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Tables: borders, background
images & gradients</div>

<div class="rounded text">Background images or gradients can be set on whole tables or table rows (as
well as individual table cells)</div>

```

```

<table class="table1">
<tbody><tr><td>Row 1</td><td>This is data</td><td>This is data</td></tr>
<tr class="thisrow1"><td>This row has</td><td>a background-image</td><td>of the bayeux
tapestry</td></tr>
<tr><td><p>Row 3</p></td><td><p>This is long data</p></td><td>This is data</td></tr>
<tr class="thisrow2"><td>This row has</td><td>a gradient set</td><td>which spans all 3 cells</td></tr>
<tr><td>Row 5</td><td>Also data</td><td>Also data</td></tr>
</tbody></table>

```

```

<div class="rounded text">Border can be set on table rows (only when border-collapse is set to
collapse)</div>

```

```

<table class="table3" border="1">
<tbody><tr><td>Row 1</td><td>This is data</td><td>This is data</td></tr>
<tr class="thisrow"><td>Row 2</td><td>This is data<br />This is data<br />This is data<br />This is
data</td><td>Also data</td></tr>
<tr><td><p>Row 3</p></td><td><p>This is long data</p></td><td>This is data</td></tr>
</tbody></table>

```

```

<!-- ===== -->

```

```

<div style="margin-top: 2em; height: 2mm; background-image: -moz-linear-gradient(45deg, red, blue);">
</div>

```

```

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Mozilla and CSS3 gradient
syntax</div>

```

```

<div style="height: 2mm; background-image: -moz-linear-gradient(45deg, red, blue);"> </div>
<h2>Linear gradients</h2>
<h4> Angle set AND points e.g. -moz-linear-gradient(34% 84% 30deg, red, orange, yellow...</h4>
<table style="border-collapse: collapse; repeat scroll left top; border: none;">
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(top right 210deg, red,
orange, yellow, green, blue, indigo, violet);">top right 210 degrees<td>
<td><td></td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(top right 210deg, red,
orange, yellow, green, blue, indigo, violet);"><td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(30% 80% 60deg, red,
orange, yellow, green, blue, indigo, violet);">30% 80% 60 degrees<td>
<td><td></td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(30% 80% 60deg, red,
orange, yellow, green, blue, indigo, violet);"><td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(10px 40px 325deg, red,
orange, yellow, green, blue, indigo, violet);">10px 40px 325 degrees<td>
<td><td></td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(10px 40px 325deg, red,
orange, yellow, green, blue, indigo, violet);"><td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(bottom left 135deg, red,
orange, yellow, green, blue, indigo, violet);">bottom left 135deg<td>
<td><td></td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(bottom left 135deg, red,
orange, yellow, green, blue, indigo, violet);"><td>
</tr>
</table>

```

```

<h4> Points set only e.g. -moz-linear-gradient(bottom left, red, orange, yellow...</h4>

```

```

<table style="border-collapse: collapse; repeat scroll left top; border: none;">
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(bottom right, red,

```

```

orange, yellow, green, blue, indigo, violet);">bottom right</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(bottom right, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(top, red, orange, yellow,
green, blue, indigo, violet);">top</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(top, red, orange, yellow,
green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(10px 40px, red, orange,
yellow, green, blue, indigo, violet);">10px 40px</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(10px 40px, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(30% 10%, red, orange,
yellow, green, blue, indigo, violet);">30% 10%</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(30% 10%, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
</table>

```

<pagebreak />

<h4> Angle set but no points e.g. -moz-linear-gradient(30deg, red, orange, yellow...</h4>

```

<table style="border-collapse: collapse; repeat scroll left top; border: none;">
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(90deg, red, orange,
yellow, green, blue, indigo, violet);">90 degrees&nbsp;</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(90deg, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(120deg, red, orange,
yellow, green, blue, indigo, violet);">120 degrees&nbsp;</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(120deg, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(180deg, red, orange,
yellow, green, blue, indigo, violet);">180 degrees&nbsp;</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(180deg, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
<tr>
<td style="height: 25mm; width: 135mm; background-image: -moz-linear-gradient(210deg, red, orange,
yellow, green, blue, indigo, violet);">210 degrees&nbsp;</td>
<td>&nbsp;</td>
<td style="height: 25mm; width: 10mm; background-image: -moz-linear-gradient(210deg, red, orange,
yellow, green, blue, indigo, violet);">&nbsp;</td>
</tr>
</table>

```

<div class="rounded text">

<p>Linear and radial gradients are not specified in the CSS2 specification. The CSS3 draft specification gives a way of outputting gradients, but currently this is not supported by any browser.</p>

<p>Mozilla (Firefox) has developed its own way of producing gradients, which approximates to the CSS3

draft specification: </p>

- <i>-moz-linear-gradient</i> </li>
- <i>-moz-repeating-linear-gradient</i> </li>
- <i>-moz-radial-gradient</i> and </li>
- <i>-moz-repeating-radial-gradient</i> </li>

<p>WebKit (Safari, Chrome etc.) have a separate way of defining gradients using <i>-webkit-gradient</i></p>

<p>Microsoft (IE) does not support any such method of specifying gradients, but does have a function <i>filter: progid:DXImageTransform.Microsoft.gradient()</i> </p>

<p>When writing HTML for cross-browser compatibility, it is common to see something like this in a stylesheet:</p>

```
<p class="code">
background: #999999; /* for non-css3 browsers */<br />
filter: progid:DXImageTransform.Microsoft.gradient(startColorstr=\'#cccccc\',
endColorstr=\'#000000\'); /* for IE */<br />
background: -webkit-gradient(linear, left top, left bottom, from(#cccccc), to(#000000)); /* for webkit browsers */<br />
background: -moz-linear-gradient(top, #cccccc, #000000); /* for firefox 3.6+ */<br />
</p>
```

<p>mPDF versions <= 5.0 supported a custom style property <i>background-gradient</i> which accepted both linear and radial gradients. These continue to be supported (and both old and new forms can be used together); note the differences:</p>

- <li>mPDF background-gradients are output underneath background-images, and both can be specified; whereas the new CSS3/Mozilla-type gradients are defined as a type of background-image</li>
- <li>CSS3/Mozilla gradients support multiple colour-stops, opacity, repeating-gradients, and a greater number of options for defining the gradient axis (linear gradients) or shape and extent (radial gradients)</li>

</ul>

<p>mPDF will attempt to parse a CSS stylesheet written for cross-browser compatibility:</p>

- <li>parse and support <i>-moz</i> type gradients</li>
- <li>parse and support CSS3 gradient syntax</li>
- <li>ignore <i>-webkit</i> syntax gradients</li>

</ul>

<p>More details can be found at:</p>

- <li>Mozilla linear - <a href="https://developer.mozilla.org/en/CSS/-moz-linear-gradient">https://developer.mozilla.org/en/CSS/-moz-linear-gradient</a></li>
- <li>Mozilla radial - <a href="https://developer.mozilla.org/en/CSS/-moz-radial-gradient">https://developer.mozilla.org/en/CSS/-moz-radial-gradient</a></li>
- <li>Mozilla gradients use - <a href="https://developer.mozilla.org/en/Using\_gradients">https://developer.mozilla.org/en/Using\_gradients</a></li>
- <li>CSS3 linear gradients - <a href="http://dev.w3.org/csswg/css3-images/#linear-gradients">http://dev.w3.org/csswg/css3-images/#linear-gradients</a></li>
- <li>CSS3 radial gradients - <a href="http://dev.w3.org/csswg/css3-images/#radial-gradients">http://dev.w3.org/csswg/css3-images/#radial-gradients</a></li>
- <li>WebKit gradients - <a href="http://webkit.org/blog/175/introducing-css-gradients/">http://webkit.org/blog/175/introducing-css-gradients/</a></li>

</ul>

</div>

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Repeating gradients</div>

```

<p class="code">
background: repeating-linear-gradient(red, blue 20px, red 40px);
<br /> <br />
background: -moz-repeating-linear-gradient(top left -45deg, red, red 10px, rgba(255,255,255,0) 10px,
rgba(255,255,255,0) 20px);
</p>

<div style="float: right; width: 250px; height: 150px; background: -moz-repeating-linear-gradient(top
left -45deg, red, red 10px, rgba(255,255,255,0) 10px, rgba(255,255,255,0) 20px);">&nbsp;</div>

<div style="float: left; width: 250px; height: 150px; background: repeating-linear-gradient(red, blue
20px, red 40px);">&nbsp;</div>
<br style="clear: both;" />
<br />
<br />

<p class="code">
background: repeating-radial-gradient(20px 30px, circle farthest-side, red, yellow, green 10px, yellow
15px, red 20px);
<br /> <br />
background: repeating-radial-gradient(red, blue 20px, red 40px);
</p>
<div style="float: right; width: 250px; height: 150px; background: repeating-radial-gradient(red,
blue 20px, red 40px);">&nbsp;</div>

<div style="float: left; width: 250px; height: 150px; background: repeating-radial-gradient(20px 30px,
circle farthest-side, red, yellow, green 10px, yellow 15px, red 20px);">&nbsp;</div>
<br style="clear: both;" />

<pagebreak />

<h2>Radial gradients</h2>

<div style="float: right; width: 250px; height: 150px; padding: 15px; background: #F56991; color:
#E8F3F8;
border-radius: 155px / 100px;
-moz-border-radius: 155px / 100px;
box-shadow: 10px 10px 25px #CCC;
-moz-box-shadow: 5px 5px 25px #CCC;
background-image: -moz-radial-gradient(70% 30%, ellipse , #ffffff 0%, #F56991 50%, #8A2624
100%);">&nbsp;</div>

<div style="float: left; width: 150px; height: 150px; padding: 15px; background: #F56991; color:
#E8F3F8;
border-radius: 100px;
-moz-border-radius: 100px;
box-shadow: 10px 10px 25px #CCC;
-moz-box-shadow: 5px 5px 25px #CCC;
background-image: -moz-radial-gradient(70% 30%, circle , #ffffff 0%, #E56991 50%, #8A2624
100%);">&nbsp;</div>
<br style="clear: both;" />

<div style="float: right; width: 150px; height: 150px; border: 0.2mm solid black;
background: radial-gradient(bottom left, farthest-side, red, blue 50px, pink);
background-image: -moz-radial-gradient(red, yellow, #1E90FF);
background: -webkit-gradient(linear, left bottom, left top, color-stop(0.48, rgb(107,14,86)),
color-stop(0.74, rgb(140,41,112)), color-stop(0.87, rgb(168,70,146)));">&nbsp;</div>

<div style="float: left; width: 150px; height: 150px; border: 0.2mm solid black; background-image:
-moz-radial-gradient(red 5%, yellow 25%, #1E90FF 50%);">&nbsp;</div>
<br style="clear: both;" />

<div style="float: right; width: 300px; height: 150px; border: 0.2mm solid black; background-image:
-moz-radial-gradient(bottom left, circle, red, yellow, #1E90FF);">&nbsp;</div>

<div style="float: left; width: 300px; height: 150px; border: 0.2mm solid black; background-image:

```

```

-moz-radial-gradient(bottom left, ellipse, red, yellow, #1E90FF);">&nbsp;</div>
<br style="clear: both;" />

<div style="float: right; width: 300px; height: 150px; border: 0.2mm solid black; background-image:
-moz-radial-gradient(ellipse closest-side, red, yellow 10%, #1E90FF 50%, white);">&nbsp;</div>

<div style="float: left; width: 300px; height: 150px; border: 0.2mm solid black; background-image:
-moz-radial-gradient(ellipse farthest-corner, red, yellow 10%, #1E90FF 50%, white);">&nbsp;</div>
<br style="clear: both;" />

<p style="background-image: -moz-radial-gradient(center , red, orange, yellow, green, blue, indigo,
violet);">&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;</p>

<p style="background-image: -moz-radial-gradient(center , circle closest-side, blue 0%, red
100%);">&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;<br />&nbsp;</p>

<pagebreak />

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Gradient Image mask</div>

<div class="rounded text">Gradients (linear or radial) can also be used to produce \'masks\' for
images. The same syntax is used as for background gradients (e.g. -moz-linear-gradient) but is set
using a custom mPDF style: <i>gradient-mask</i>. The rgba() method for defining colours is used:
colours are ignored, but the opacity value is used to mask the image.</div>

<p class="code">&lt;img src="windmill.jpg" style="gradient-mask: -moz-radial-gradient(center, ellipse
closest-side, rgba(255,255,255,1), rgba(255,255,255,1) 30%, rgba(255,255,255,0) 90%,
rgba(255,255,255,0));" /&gt;
<br /><br />&lt;img src="windmill.jpg" style="gradient-mask: -moz-radial-gradient(center, ellipse
closest-side, rgba(255,255,255,1), rgba(255,255,255,1) 70%, rgba(255,255,255,0) 90%,
rgba(255,255,255,0));" /&gt;
<br /><br />&lt;img src="windmill.jpg" style="gradient-mask: -moz-linear-gradient(left, rgba(0,0,0,0)
, rgba(0,0,0,1) 50% , rgba(0,0,0,0) 100%);" /&gt;
</p>





<br />

<pagebreak />

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Image orientation</div>

<div class="rounded text">Images can be rotated using a custom mPDF HTML attribute: rotate. mPDF now
also supports the draft CSS3 property of image-orientation. Rotation can be expressed in degrees,
radians or grad units; it is corrected if necessary to an orthogonal rotation i.e. 90, 180 or 270
degrees. NB This does not work on background-images.</div>
<p class="code">&lt;img src="tiger2.png" style="image-orientation: -90deg" width="100" /&gt;
<br />
&lt;img src="tiger2.png" style="image-orientation: 3.14159rad" width="100" /&gt;
</p>






```

<br />

<br />

<br />

<br />

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Image resolution</div>

<div class="rounded text">Image files (which do not have an output width or height specified) are displayed in mPDF at the default resolution set by the variable \$mpdf->img\_dpi. This can be overridden using the draft CSS3 property \'image-resolution\', which can be applied to <img> or background-images.

<br />

The next 3 image files are identical (300px x 300px) but they have been saved with a different specified resolution: the first at 96dpi, the second at 300dpi.

<br />

NB When used in combination with \'from-image\', a specified resolution is only used if the image does not have an intrinsic resolution. Only JPG, PNG and BMP files store a specified DPI resolution in the file.</div>

<p class="code">  
<br />  
<br /></p>

  
  
  
<br /> <br />

<pagebreak />

<div class="rounded text">Image resolution can also be applied to a background-image. This can be used as an alternative to the custom mPDF style property - \'background-image-resize\'</div>

<p class="code"><div height="300px" width="300px" style="background: #FFCCEE  
url(tiger300px96dpi.png); background-image-resolution: from-image; border: 0.2mm solid black;"></p>  
<div height="300px" width="300px" style="background: #FFCCEE url(tiger300px96dpi.png);  
background-image-resolution: from-image; border: 0.2mm solid black;">Hallo<br />world  
</div>

<br />

<p class="code"><div height="300px" width="300px" style="background-image:  
url(tiger300px300dpi.png); background-image-resolution: from-image; border: 0.2mm solid  
black;"></p>  
<div height="300px" width="300px" style="background-image: url(tiger300px300dpi.png);  
background-image-resolution: from-image; border: 0.2mm solid black;">  
</div>

<br />

<pagebreak />

<div style="font-family: Arial; font-size: 18pt; color: rgb(49,124,209)">Mixed effects</div>

<div style="padding: 15px; background: url(flowers-pattern.jpg) repeat right; border-radius:  
90px;background-color: #00f200 ; ">  
<div style="padding: 15px; background: -moz-linear-gradient(top right, red, orange, yellow, green,  
blue, indigo, violet); border-radius: 75px; ">  
<div style="padding: 15px; background-gradient: linear #07cdde #00f200 0 0 0.5 1; border-radius: 60px;  
>

```
<div style="padding: 15px;background: url(flowers-pattern.jpg) repeat right; border-radius: 45px;
background-image-resolution: 180dpi; ">
<div style="padding: 15px; background: -moz-linear-gradient(left, red, orange, yellow, green, blue,
indigo, violet); border-radius: 30px; ">
<div style="padding: 15px; background: url(alpha3.png) repeat top left; border-radius: 15px;
background-image-resolution: 180dpi; ">
Hallo World
</div>
<div style="padding: 15px; background: url(alpha3.png) repeat top left; border-radius: 15px;
background-image-resolution: 360dpi; ">
Hallo World
</div>
</div>
</div>
</div>
</div>
</div>
</div>

<br />

<div style="background-color:#FF0000 ; width:180px; background-image: -moz-radial-gradient(center,
ellipse closest-side, rgba(255,255,255,1), rgba(255,255,255,1) 70%, rgba(255,255,255,0) 90%,
rgba(255,255,255,0));">

</div>

';

//=====
if ($_REQUEST['html']) { echo $html; exit; }
if ($_REQUEST['source']) {
    $file = __FILE__;
    header("Content-Type: text/plain");
    header("Content-Length: ". filesize($file));
    header("Content-Disposition: attachment; filename='".$file."'");
    readfile($file);
    exit;
}

//=====
$mpdf->WriteHTML($html);

//=====
//=====
// OUTPUT
$mpdf->Output(); exit;

//=====
//=====
//=====
//=====

?>
```