

PDF Styling Customization Guide

Customizing PDF Output

The PDF generator supports multiple ways to customize the appearance and layout of your documentation.

Configuration Files

1. Simple Theme Configuration

Edit: `config/pdf-theme-simple.json`

```
{
  "brand": {
    "name": "Your Project Name",
    "tagline": "Your Project Tagline",
    "logo": " ",
    "website": "https://your-project.com",
    "company": "Your Company",
    "version": "2.0.0"
  },
  "theme": {
    "primary_color": "#2563eb",
    "secondary_color": "#64748b",
    "background_color": "#ffffff",
    "text_color": "#1f2937",
    "border_color": "#e5e7eb",
    "header_font": "Arial, sans-serif",
    "body_font": "Arial, sans-serif",
    "code_font": "'Courier New', monospace"
  },
  "layout": {
    "page_size": "A4",
    "margin_top": "20mm",
    "margin_bottom": "20mm",
    "margin_left": "20mm",
    "margin_right": "20mm",
    "font_size": "12pt",
    "line_height": "1.6"
  }
}
```

2. Advanced Theme Configuration

Edit: `config/pdf-theme.json` (for complex features)

```
{
  "styling": {
    "header_style": "modern|classic|minimal",
    "footer_style": "modern|classic|minimal",
    "toc_style": "numbered|bulleted|minimal",
    "table_style": "striped|bordered|minimal",
    "link_style": "underline|colored|minimal",
    "blockquote_style": "bordered|shaded|minimal"
  },
  "features": {
    "auto_toc": true,
    "page_numbers": true,
    "section_breaks": true,
    "watermark": false,
    "bookmarks": true,
    "links": true
  },
  "custom": {
    "watermark_text": "DRAFT - CONFIDENTIAL",
    "confidential_text": "Company Confidential",
    "draft_mode": false,
    "print_date": true,
    "author_info": true
  }
}
```

CSS Customization Methods

Method 1: Override CSS Classes

Create a custom CSS file and reference it in your theme:

```
/ Custom PDF Styles /
body {
  font-family: 'Georgia', serif;
  font-size: 11pt;
  line-height: 1.8;
  color: #2c3e50;
}
.document-header h1 {
  color: #1a5490;
  font-size: 28pt;
  font-weight: 300;
  text-align: center;
  border-bottom: 3px solid #1a5490;
  padding-bottom: 10px;
}
h1, h2, h3, h4, h5, h6 {
  color: #1a5490;
```

```

    color: #1a5490;
    font-weight: 700;
    border-left: 4px solid #1a5490;
    padding-left: 12px;
    background: linear-gradient(90deg, #f8f9fa 0%, #e9ecef 100%);
}
code {
    font-family: 'Fira Code', 'Consolas', monospace;
    background: #2d3748;
    color: #f8f9fa;
    border: 1px solid #44475a;
    border-radius: 6px;
    padding: 4px 8px;
}
pre {
    background: #2d3748;
    color: #f8f9fa;
    border: 1px solid #44475a;
    border-radius: 8px;
    padding: 16px;
    overflow-x: auto;
}
blockquote {
    border-left: 5px solid #1a5490;
    background: #f8f9fa;
    color: #6c757d;
    font-style: italic;
    padding: 16px 20px;
    margin: 20px 0;
    border-radius: 0 8px 8px 0;
}
table {
    border-collapse: collapse;
    width: 100%;
    margin: 20px 0;
    box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
    border-radius: 8px;
    overflow: hidden;
}
th, td {
    border: 1px solid #dee2e6;
    padding: 12px 16px;
    text-align: left;
}
th {
    background: #1a5490;
    color: white;
    font-weight: 600;
}
tr:nth-child(even) {
    background: #f8f9fa;
}
a {
    color: #1a5490;
    text-decoration: none;
    border-bottom: 2px solid transparent;
    transition: all 0.3s ease;
}
a:hover {
    border-bottom-color: #1a5490;
    color: #0d47a1;
}

```

Method 2: Use CSS Variables

```
:root {
  --primary-color: #2563eb;
  --secondary-color: #64748b;
  --accent-color: #3b82f6;
  --success-color: #10b981;
  --warning-color: #f59e0b;
  --error-color: #ef4444;
  --background-color: #ffffff;
  --text-color: #1f2937;
  --border-color: #e5e7eb;
  --header-font: 'Arial', sans-serif;
  --body-font: 'Georgia', serif;
  --code-font: 'Fira Code', monospace;
  --heading-font: 'Helvetica', sans-serif;
}
body {
  font-family: var(--body-font);
  color: var(--text-color);
  background-color: var(--background-color);
}
h1, h2, h3, h4, h5, h6 {
  font-family: var(--heading-font);
  color: var(--primary-color);
}
code, pre {
  font-family: var(--code-font);
  background: var(--background-color);
  border: 1px solid var(--border-color);
}
```

Theme Presets

Professional Corporate Theme

```
{
  "brand": {
    "name": "Enterprise Documentation",
    "tagline": "Professional Business Solutions",
    "logo": " ",
    "company": "Your Company Name"
  },
  "theme": {
    "primary_color": "#1a365d",
    "secondary_color": "#64748b",
    "background_color": "#ffffff",
    "text_color": "#1f2937",
    "border_color": "#e5e7eb",
    "header_font": "Helvetica, Arial, sans-serif",
    "body_font": "Georgia, serif",
    "code_font": "'Courier New', monospace"
  }
}
```

Modern Tech Theme

```
{
  "brand": {
    "name": "Tech Documentation",
    "tagline": "Modern Development Platform",
    "logo": "🖥️",
    "company": "Tech Corp"
  },
  "theme": {
    "primary_color": "#6366f1",
    "secondary_color": "#9ca3af",
    "background_color": "#f8fafc",
    "text_color": "#1e293b",
    "border_color": "#e2e8f0",
    "header_font": "'Inter', sans-serif",
    "body_font": "'Inter', sans-serif",
    "code_font": "'JetBrains Mono', monospace"
  }
}
```

Minimal Academic Theme

```
{
  "brand": {
    "name": "Academic Documentation",
    "tagline": "Research & Education",
    "logo": "📖",
    "company": "University Name"
  },
  "theme": {
    "primary_color": "#2c3e50",
    "secondary_color": "#6b7280",
    "background_color": "#ffffff",
    "text_color": "#374151",
    "border_color": "#d1d5db",
    "header_font": "Times New Roman, serif",
    "body_font": "Times New Roman, serif",
    "code_font": "'Courier New', monospace"
  }
}
```

Advanced Customization

Custom Headers and Footers

```
// In your custom PDF generator class
private function createCustomHeader($title, $chapter, $section): string
{
    return <<

        {$title}
        Chapter {$chapter}

        {$section}
        Page

    HTML;
}
private function createCustomFooter($company, $copyright, $contact): string
{
    return <<

        {$company}
        {$copyright}

        {$contact}
        Page

    HTML;
}
```

Watermarks and Backgrounds

```
/ Watermark styles /
.watermark {
  position: fixed;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%) rotate(-45deg);
  font-size: 120px;
  color: rgba(0, 0, 0, 0.1);
  font-weight: bold;
  z-index: -1;
  pointer-events: none;
}
.draft-watermark {
  position: fixed;
  top: 20px;
  right: 20px;
  background: #ef4444;
  color: white;
  padding: 8px 16px;
  font-weight: bold;
  border-radius: 4px;
  font-size: 14px;
  z-index: 1000;
}
.confidential-watermark {
  position: fixed;
  top: 20px;
  left: 20px;
  background: #dc2626;
  color: white;
  padding: 8px 16px;
  font-weight: bold;
  border-radius: 4px;
  font-size: 14px;
  z-index: 1000;
}
/ Background patterns /
.background-pattern {
  background-image:
    linear-gradient(45deg, #f8f8fc 25%, transparent 25%),
    linear-gradient(-45deg, #f8f8fc 25%, transparent 25%),
    linear-gradient(45deg, transparent 75%, #f8f8fc 75%),
    linear-gradient(-45deg, transparent 75%, #f8f8fc 75%);
  background-size: 20px 20px;
  background-position: 0 0, 10px 10px, 0 20px, 10px 30px;
}
```

Responsive PDF Considerations

Mobile-Friendly Layouts

```
/ Mobile-specific PDF styles /  
@media screen and (max-width: 768px) {  
  .document {  
    margin: 10px;  
    padding: 15px;  
  }  
  
  .document-header {  
    flex-direction: column;  
    text-align: center;  
    gap: 10px;  
  }  
  
  h1 {  
    font-size: 20pt;  
  }  
  
  h2 {  
    font-size: 16pt;  
  }  
  
  .document-meta {  
    font-size: 8pt;  
  }  
  
  table {  
    font-size: 9pt;  
    margin: 10px 0;  
  }  
  
  code, pre {  
    font-size: 8pt;  
    padding: 8px;  
  }  
}
```

Typography Best Practices

Font Pairing


```

/ Professional font combinations /
.font-combination-1 {
  --header-font: 'Helvetica Neue', Helvetica, Arial, sans-serif;
  --body-font: 'Georgia', Times, serif;
  --code-font: 'Consolas', 'Courier New', monospace;
}
.font-combination-2 {
  --header-font: 'Inter', sans-serif;
  --body-font: 'Inter', sans-serif;
  --code-font: 'JetBrains Mono', 'Fira Code', monospace;
}
.font-combination-3 {
  --header-font: 'Times New Roman', Times, serif;
  --body-font: 'Times New Roman', Times, serif;
  --code-font: 'Courier New', monospace;
}

```

Hierarchy and Spacing

```

/ Clear visual hierarchy /
h1 { font-size: 28pt; font-weight: 300; margin: 0 0 24pt 0; }
h2 { font-size: 22pt; font-weight: 400; margin: 24pt 0 16pt 0; }
h3 { font-size: 18pt; font-weight: 500; margin: 20pt 0 12pt 0; }
h4 { font-size: 16pt; font-weight: 600; margin: 18pt 0 10pt 0; }
h5 { font-size: 14pt; font-weight: 600; margin: 16pt 0 8pt 0; }
h6 { font-size: 12pt; font-weight: 600; margin: 14pt 0 6pt 0; }
p { margin: 12pt 0; line-height: 1.6; orphans: 3; widows: 3; }

```

Testing Your Styles

Preview Before Generation

```

# Generate HTML preview first
composer run docs-pdf-simple --force-html
Open in browser to test
open docs/pdf/index.html
or
xdg-open docs/pdf/index.html

```

Print Testing

```
# Generate test PDF
composer run docs-pdf-simple
Check PDF properties
pdftinfo docs/pdf/your-file.pdf
Test print layout
evince docs/pdf/your-file.pdf
or
okular docs/pdf/your-file.pdf
```

Quick Reference

Common CSS Properties

```
/ Page Layout /
@page {
  size: A4; / A4, Letter, Legal /
  margin: 20mm; / Top, Right, Bottom, Left /
  orientation: portrait; / portrait, landscape /
}
/ Typography /
font-family: 'Font Name', fallback;
font-size: 12pt;
font-weight: 400; / 100-900 /
line-height: 1.6;
letter-spacing: 0.5pt;
/ Colors /
color: #333333; / Text /
background-color: #ffffff; / Background /
border-color: #e5e7eb; / Borders /
/ Spacing /
margin: 20pt 0; / Top/Bottom, Left/Right /
padding: 12pt 16pt; / Top/Right/Bottom/Left /
```

Implementation Tips

1. **Start Simple:** Begin with basic colors and fonts
2. **Test Early:** Generate test PDFs frequently
3. **Iterate:** Make small adjustments and test
4. **Document:** Keep notes on what works best
5. **Version Control:** Track changes to your theme files

Support

For styling issues or questions:

1. Check generated HTML first: docs/pdf/ .html
 2. Test with different PDF engines
 3. Use browser developer tools for CSS debugging
 4. Reference this guide for common patterns
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This guide provides comprehensive customization options for professional PDF documentation styling.*