PDF Styling Customization Guide

Customizing PDF Output

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

Configuration Files

1. Simple Theme Configuration

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

```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)

```json
{
    "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:

```css
/ 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;
}
```

```css
h1, h2, h3, h4, h5, h6 {
    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;
}
```

```css
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

```css
: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

```json
{
    "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

```json
{
    "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

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

{$title}

Chapter {$chapter}

{$section}

Page

HTML;
}

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

{$company}

{$copyright}

{$contact}

Page

HTML;
}
```

Watermarks and Backgrounds

```css
/* 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, #f8fafc 25%, transparent 25%),
        linear-gradient(-45deg, #f8fafc 25%, transparent 25%),
        linear-gradient(45deg, transparent 75%, #f8fafc 75%),
        linear-gradient(-45deg, transparent 75%, #f8fafc 75%);
    background-size: 20px 20px;
    background-position: 0 0, 10px 10px, 0 20px, 10px 30px;
}
```

Responsive PDF Considerations

Mobile-Friendly Layouts

```css
/ 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

```
pdfinfo 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

This guide provides comprehensive customization options for professional PDF documentation styli