# Enhanced PDF Documentation System

## Professional PDF Generation with Branding

The PDF documentation system has been completely overhauled to provide professional, brand
PDFs with comprehensive customization options.

## New Features

### Professional Branding

- **Company Information**: Name, logo, website, copyright
- **Version Control**: Automatic versioning and date stamping
- **Visual Identity**: Custom colors and typography
- **Professional Headers**: Dynamic headers with document info
- **Styled Footers**: Page numbers and company details

### Advanced Theming

- **Color Schemes**: Primary, secondary, accent colors
- **Typography**: Custom fonts for headers, body, code
- **Layout Control**: Margins, page sizes, spacing
- **Style Variants**: Modern, classic, minimal themes
- **Responsive Design**: Optimized for both screen and print

### ◇ Rich Content Features

- **Auto Table of Contents**: Generated from document headings
- **Page Breaks**: Smart section separation
- **Cross-References**: Clickable links and bookmarks
- **Code Highlighting**: GitHub-style syntax highlighting
- **Watermark Support**: Optional text watermarks
- **Draft Mode**: Visual draft indicators

### ⚙ Configuration System

- **JSON Configuration**: `config/pdf-theme.json`
- **CLI Configurator**: Interactive theme setup
- **Composer Integration**: Easy command access
- **Hot Reloading**: Live configuration updates
- **Validation**: Input validation and error handling

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# Usage

## Basic PDF Generation

```
# Generate PDFs with current theme
composer run docs-pdf
```

### Generate with verbose output

```
composer run docs-pdf --verbose
```

## Theme Configuration

```
# Interactive theme configurator
composer run docs-theme-interactive
```

### Quick brand name change

```
composer run docs-theme "My Company"
```

### View current configuration

```
php scripts/configure-pdf-theme.php
```
### Choose option 6 (Show Configuration)

## Custom Generation Options

```
# Force HTML generation (no PDF tools)
php scripts/generate-docs-pdf.php --force-html
```

## Custom time window (last 6 hours)

```
php scripts/generate-docs-pdf.php --age 6
```

## Clean up intermediate files

```
php scripts/generate-docs-pdf.php --cleanup-html
```

## Full verbose output

```
php scripts/generate-docs-pdf.php --verbose
```

## Configuration Structure

### Theme Configuration File ( config/pdf-theme.json )

```json
{
    "brand": {
        "name": "HRM Laravel Base",
        "tagline": "Enterprise ERP System",
        "logo": "          ",
        "website": "https://hrm-laravel-base.example.com",
        "company": "HRM Solutions",
        "version": "2.0.0",
        "copyright": "© 2025 HRM Solutions. All rights reserved."
    },
    "theme": {
        "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": "'Courier New', monospace"
    },
    "layout": {
        "page_size": "A4",
        "margin_top": "20mm",
        "margin_bottom": "20mm",
        "margin_left": "20mm",
        "margin_right": "20mm",
        "font_size": "11pt",
        "line_height": "1.6",
        "header_height": "15mm",
        "footer_height": "15mm"
    },
    "features": {
        "auto_toc": true,
        "page_numbers": true,
        "section_breaks": true,
        "watermark": false,
        "bookmarks": true,
        "links": true
    },
    "custom": {
        "watermark_text": "",
        "confidential_text": "",
        "draft_mode": false,
        "print_date": true,
        "author_info": true
    }
}
```

## Output Examples

## Professional PDF Features

- **Dynamic Headers**: Document title, version, date, page numbers
- **Styled Footers**: Company info, website, copyright
- **Table of Contents**: Auto-generated with page numbers
- **Consistent Branding**: Logo and colors throughout
- **Professional Typography**: Optimized fonts for readability
- **Smart Layouts**: Proper margins and spacing
- **Visual Hierarchy**: Clear heading structure
- **Code Blocks**: Syntax highlighted with proper styling
- **Tables**: Professional bordered tables
- **Links**: Clickable cross-references

## Sample PDF Layout

```
|        HRM Laravel Base            Page 1  |
|  Enterprise ERP System    v2.0.0  2025-11-20     |
|                              |
|                        |
|  ◇ Table of Contents            |
|                        |
|  1. Introduction ............................... 1  |
|  2. Architecture .............................. 3  |
|  3. Features ................................... 5  |
|                        |
|                        |
|  # Introduction          |
|                        |
|  Welcome to the HRM Laravel Base system...     |
|                        |
|  HRM Solutions | https://hrm-laravel-base.example.com  |
```

## ⚒ Customization Guide

## Quick Branding

```
# Change company name
composer run docs-theme "My Company Name"
```

## This updates config/pdf-theme.json:

`>"brand": { "name": "My Company Name", ... }`

## Color Customization

```
# Launch interactive configurator
composer run docs-theme-interactive
```

### Choose option 2 (Theme Colors)

### Follow prompts to customize colors

## Layout Adjustments

```
# Edit configuration directly
nano config/pdf-theme.json
```

### Or use interactive configurator

```
composer run docs-theme-interactive
```

### Choose option 3 (Layout Settings)

## 📊 Benefits Over Previous System
```

## Before (Basic PDFs)

- ✕ No branding or company information
- ✕ Basic black and white styling
- ✕ No headers or footers
- ✕ No table of contents
- ✕ Inconsistent formatting
- ✕ No customization options

## After (Professional PDFs)

-      Full company branding and identity
-      Professional color schemes and typography
-      Dynamic headers with document metadata
-      Auto-generated table of contents
-      Consistent, professional formatting
-      Complete customization control
-      Interactive configuration system

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## Technical Implementation

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### Architecture

- **PdfThemeManager**: Core theme management class
- **Configuration System**: JSON-based with validation
- **CLI Integration**: Composer scripts for easy access
- **Template Engine**: Dynamic HTML generation with themes
- **PDF Processing**: Enhanced pandoc/wkhtmltopdf integration

### Key Classes

- `PdfThemeManager` : Theme configuration and CSS generation
- `ThemeConfigurator` : Interactive CLI configuration
- Enhanced `DocumentationGenerator` : Integrated theme support

### File Structure

```
config/
├── pdf-theme.json          # Main theme configuration
app/Services/
├── PdfThemeManager.php      # Theme management class
scripts/
├── generate-docs-pdf.php    # Enhanced generator
├── configure-pdf-theme.php  # Interactive configurator
```

## Summary

The enhanced PDF documentation system provides:

1. **Professional Branding** - Complete company identity
2. **Advanced Theming** - Customizable colors and styles
3. 🏷 **Rich Features** - TOC, headers, footers, watermarks
4. ⚙ **Easy Configuration** - JSON config + CLI tools
5. 🛠 **Developer Friendly** - Extensible and maintainable
6. **Professional Output** - Print-ready PDFs with proper formatting

**Result**: Documentation that looks like it came from a professional design team, not an auto-generat

*Enhanced PDF System Implementation Complete*
*Professional Branding and Theming Active*
*Ready for Production Documentation*