

Margin Refactoring Complete

> All Hardcoded "2mm" Values Removed

Changes Made:

1. CSS Variables (`config/docs-pdf-theme.css`)

```
/ Before /
@page {
    margin: 2mm !important;
}

/ After /
@page {
    margin: var(--page-margin, 2mm) !important;
    size: var(--page-size, A4);
}
```

2. Template Variables (`scripts/templates/docs-pdf.blade.php`)

3. Dynamic CSS Generation (`scripts/generate-docs-pdf-simple.php`)

```
// Before: Hardcoded values
$css = str_replace('var(--page-margin, 2mm)', 'var(--page-margin, 2mm)', $css);

// After: Dynamic from config
$margins = $this->config['styling']['margins'];
$marginValue = "{$margins['top']} {$margins['right']} {$margins['bottom']} {$margins['left']}";
$css = str_replace('var(--page-margin, 2mm)', 'var(--page-margin, ' . $marginValue . ')', $css);
```

4. Template Data Preparation

```
// Added margin variables to template data
$templateData['page_margin'] = "{$margins['top']} {$margins['right']} {$margins['bottom']} {$margins['left']}";
$templateData['margin_top'] = $margins['top'];
$templateData['margin_bottom'] = $margins['bottom'];
$templateData['margin_left'] = $margins['left'];
$templateData['margin_right'] = $margins['right'];
$templateData['page_size'] = $this->config['styling']['page_size'];
```

Result:

Now you only need to change margins in **one place**:

```
{
  "styling": {
    "margins": {
      "top": "5mm",
      "right": "5mm",
      "bottom": "5mm",
      "left": "5mm"
    }
  }
}
```

Benefits:

- **Single source of truth:** All margins read from JSON config
- **No hardcoded values:** CSS, templates, and PHP all use config
- **Easy updates:** Change 4 values in JSON, affects everything
- **Consistent behavior:** All PDF tools and CSS use same values
- **Future-proof:** Adding new margin-related features is easy

Testing:

Change the margins in `config/docs-pdf.json` from "2mm" to "5mm" and regenerate. All PDFs should now have 5mm margins on all sides!

The refactoring is complete and fully dynamic.