

## PDF Exporter Module (Using mPDF)

This post is in reference to the post [here](#).

Thanks to [@Tomarnst](#) for giving me the head-start.

### REQUIREMENTS:

1. Composer ([read more](#))
  - Getting Started ([read more](#))
  - Installation Linux/ Unix/ MacOS ([read more](#))
  - Installation Windows ([read more](#)).
2. Our very own, retrofitting CMS, CouchCMS ([read more](#), although it's not needed ;) )
3. mPDF Library ([Manual](#))
4. Bootstrap ([read more](#)) for a Simple Tabulated UI (nothing to do with PDF Generation, I have used a cdn)

### The Folder Structure:

```
- ProjectFolder
- - ajax (contains the ajax processing files for single and multi-page PDF generation)
- - - - mpdf-single-pdf.php (single page PDF generation)
- - - - mpdf-bulk-pdf.php (multi page PDF generation)
- - couch folder (contains CouchCMS files)
- - vendor (contains mPDF files)
- - composer.json
- - composer.lock
- - index.php
```

### Composer

Since Composer is not the topic of discussion, but a great tool, here I will not go deep into it. Never the less it is a good way to download PHP libraries. So in order to download the mPDF library files to the project, fire up composer in the *ProjectFolder* and use the following command:

```
$ composer require mpdf/mpdf
```

This command will download all the dependencies for mPDF library and create the *vendor* folder, *composer.json* and *composer.lock* files. The *vendor* folder contains all the requisite files of using the mPDF Library Composer makes sure that we have all the necessary files for generating PDF's.

## Couch

We have our very own CouchCMS installation here. ([for new community members](#))

### index.php

This is a simple Couch Template with boiler-plates in place and the template registered in the Couch Admin Panel.

Sample *index.php* file:

```
<?php require_once '/couch/cms.php'; ?>
<cms:template title="PDF Generation" clonable="1" order="1" >
    <cms:editable name="description" label="Description" type="richtext" order="1" />
</cms:template>
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <meta name="author" content="GenXCoders Pvt Ltd (GXCPL)">
        <title>PDF Generation</title>
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/3.3.7/css/bootstrap.css" />
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css" />
        <style type="text/css">
            body {
                font-family: FontAwesome, 'Helvetica Neue', Helvetica, Arial, sans-serif;
            }
        </style>
    </head>
    <body>
        <div class="container">
            <div class="row">
                <div class="col-md-9">
                    <h1>PDF Generation</h1>
                    <div style="margin-top:20px;"></div>
                </div>
                <div class="col-md-3 text-center">
                    <div style="margin-top:20px;"></div>
                    <button class="btn btn-danger" type="button" id="bulk-pdf">
```

PDF

<i class="fa fa-file-pdf-o"></i> GENERATE MULTIPAGE

</button>

<div style="margin-top:20px;"></div>

</div>

<div class="col-md-12">

<div class="table-responsive">

<table class="table table-striped table-bordered">

<thead>

<tr>

<th width="15%" class="text-

center">

Checkbox

<hr>

<div class="btn-

group" role="group" >

<button

type="button" class="btn btn-primary btn-sm" data-toggle="tooltip" data-placement="top" title="SELECT ALL" onclick="checkAll()">

<i

class="fa fa-check"></i>

</button>

<button

type="button" class="btn btn-success btn-sm" data-toggle="tooltip" data-placement="top" title="UNSELECT ALL" onclick="uncheckAll()">

<i

class="fa fa-times"></i>

</button>

</div>

</th>

<th width="3%" class="text-

center">#</th>

<th width="\*">Full

Name</th>

<th width="15%" class="text-

center">Action</th>

</tr>

</thead>

<tbody>

<cms:pages

masterpage=k\_template\_name show\_future\_entries="1" order="asc">

<cms:no\_results>

<tr>

<td class="text-center"

colspan="4">

- No record(s) found -

</td>

</tr>

```

</cms:no_results>
<tr>
    <td class="text-center">
        <input
name="bulk_pdf_checkbox" class="bulk_pdf_checkbox" type="checkbox" value="<cms:show
k_page_id />" />

    </td>
    <td class="text-center">
        <cms:show
k_absolute_count />

    </td>
    <td>
        <cms:show
k_page_title />

    </td>
    <td class="text-center">
        <button class="btn
btn-danger btn-sm single-pdf" type="button" id="<cms:show k_page_id />">
            <i class="fa
fa-file-pdf-o"></i> GENERATE SINGLE PAGE PDF

        </button>

    </td>
</tr>
</cms:pages>
</tbody>
</table>
</div>
</div>
</div>
</div>

<!-- To visually convey processing of mMultipage PDF generation -->
<div id='loader' style='position: fixed; display: none; width: 100%; height: 100%; top:
0; left: 0; right: 0; bottom: 0; background-color: rgba(0,0,0,0.8); z-index: 999;'>
    <img src='<cms:show k_site_link />pdf-generation/pdf-loading-gif.gif' style="margin: auto;
display: block; width: 300px; position:absolute; top:0;right: 0; bottom: 0; left: 0;">
</div>
<!-- To visually convey processing of mMultipage PDF generation -->

<script src="https://code.jquery.com/jquery-3.0.0.js" ></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/twitter-
bootstrap/3.3.7/js/bootstrap.js" ></script>
<script type="text/javascript">
    // Singlepage PDF Generation
    $("button.single-pdf").click(function(e) {
        e.preventDefault();
        var i = $(e.currentTarget).attr('id');

```

```

$.ajax({
  type: "POST",
  url: "<cms:show k_site_link />pdf-generation/ajax/mpdf-single-pdf.php",
  data: {
    id: i
  },
  beforeSend: function(){
    $('#loader').show();
  },
  complete: function(){
    $('#loader').hide();
  },
  success: function(file) {
    if (file != "") {
      window.open(file);
    }
  }
});
// Singlepage PDF Generation

// Multipage PDF Generation
// Tooltip
$(function () {
  $('[data-toggle="tooltip"]').tooltip()
})
// Tooltip

// Select All
function checkAll() {
  var inputs = document.querySelectorAll('.bulk_pdf_checkbox');
  for (var i = 0; i < inputs.length; i++) {
    inputs[i].checked = true;
  }
}
// Select All

// Unselect All
function uncheckAll() {
  var inputs = document.querySelectorAll('.bulk_pdf_checkbox');
  for (var i = 0; i < inputs.length; i++) {
    inputs[i].checked = false;
  }
}
// Unselect All

$("#bulk-pdf").click(function() {
  var ids = [];

```

```

        $(' .bulk_pdf_checkbox:checked').each(function(i, e) {
            ids.push($(this).val());
        });

        $('#loading-image').show();
        $.ajax({
            url: "<cms:show k_site_link />ajax/mpdf-bulk-pdf.php",
            type: "POST",
            data: {
                'id': ids.join()
            },
            beforeSend: function(){
                $('#loader').show();
            },
            complete: function(){
                $('#loader').hide();
            },
            success: function(file) {
                if (file != "") {
                    window.open(file);
                }
            }
        });
    });
    // Multipage PDF Generation
</script>
</body>
</html>
<?php COUCH::invoke(); ?>

```

Let us now understand the following excerpt codes from the *index.php* code above. These are the HTML and jQuery-AJAX codes.

**Code #1: Single Page PDF Generation:**

**1. HTML code to call the function generating a single page PDF:**

```

<button class="btn btn-danger btn-sm single-pdf" type="button" id="<cms:show k_page_id />">
    <i class="fa fa-file-pdf-o"></i> GENERATE SINGLE PAGE PDF
</button>

```

There are two important things in the code above, viz:

- i. The class *single-pdf* (you can have any name): This class is important as it invokes the function (below) to collect the target id value and make the AJAX call.
- ii. The *id* Attribute:

```
id="<cms:show k_page_id />"
```

Since *id* should be unique, I have used the *k\_page\_id* here. It solves two purposes for the example. One it gives assigns a unique id to all the buttons and other the value of the *id* attribute is being used to POST the data to the AJAX call.

## 2. AJAX Call on button click

```
// Singlepage PDF Generation
$("button.single-pdf").click(function(e) {
    e.preventDefault();
    var i = $(e.currentTarget).attr('id');
    $.ajax({
        type: "POST",
        url: "<cms:show k_site_link />ajax/mpdf-single-pdf.php",
        data: {
            id: i
        },
        beforeSend: function(){
            $('#loader').show();
        },
        complete: function(){
            $('#loader').hide();
        },
        success: function(file) {
            if (file != "") {
                window.open(file);
            }
        }
    });
});
// Singlepage PDF Generation
```

The code above is invoked when a HTML button with class *single-pdf* is clicked. It then prevents the default behavior of a button, i.e., to submit and refresh the page. Furthermore, it recognizes the button clicked and fetches the value in the *id* attribute of the button. This value of the *id* is sent through the `data{}` as a parameter to the ajax file residing at the URL `<cms:show k_site_link />ajax/mpdf-single-`

*pdf.php*. The further processing to fetch the data for the passed id parameter and process and generate PDF is done by the *mpdf-single-pdf.php* file.

**Code #2: HTML code for Checkbox:**

```
<input name="bulk_pdf_checkbox" class="bulk_pdf_checkbox" type="checkbox" value="<cms:show k_page_id />" />
```

**Code #3: Multi Page PDF Generation:**

**1. HTML Code to call the function generating a multi page PDF:**

```
<button class="btn btn-danger" type="button" id="bulk-pdf">  
    <i class="fa fa-file-pdf-o"></i> GENERATE MULTIPAGE PDF  
</button>
```

The code above, compared to the button for single page pdf generation does not need unique id. Hence the *k\_page\_id* is not set. but the id *bulk-pdf* does the same work as the class *single-pdf*.

**2. AJAX Call on button click:**

```
// Multipage PDF Generation  
$("#bulk-pdf").click(function() {  
    var ids = [];  
    $('.bulk_pdf_checkbox:checked').each(function(i, e) {  
        ids.push($(this).val());  
    });  
  
    $('#loading-image').show();  
  
    $.ajax({  
        url: "<cms:show k_site_link />ajax/mpdf-bulk-pdf.php",  
        type: "POST",  
        data: {  
            'id': ids.join()  
        },  
        beforeSend: function(){  
            $('#loader').show();  
        },  
        complete: function(){
```



```

        $('#loader').hide();
    },
    success: function(file) {
        if (file != "") {
            window.open(file);
        }
    }
});
});
// Multipage PDF Generation

```

The code above is invoked when a HTML button with id bulk-pdf is clicked. It recognizes the button clicked and fetches the value in the *id* attribute of the button. When the HTML button is clicked, all the existing page ids are sent to the AJAX call. But if one select(s) the checkbox(es) and then clicks the HTML button with id bulk-pdf, only the value in the *value* attribute of the checked checkbox(es) is sent to the AJAX function. In case of multiple checked checkboxes, the *join()* concatenates all the *values* into a comma separated string. This brings us to a core concept of *<cms:pages>* which has been employed here, which is:

```

<cms:pages masterpage='blog.php' id='14, 13'></cms:pages>

```

This example would fetch only pages with id of 14 or 13 that have been cloned from blog.php.

and can be found at: [pages](#)

Since *<cms:pages>* can process a comma separated string of ids, we can directly post the same through the AJAX function to the mpdf-multi-pdf.php (AJAX Processing file).

Now the main part, generating the PDF File.

### 3. mpdf-single-pdf.php

```

<?php
    require_once 'couch/cms.php';
    require __DIR__.'/vendor/autoload.php'
?>
<cms:set pdf_page_id="<cms:GPC 'id' method='POST' />" scope="global" />

<cms:if "<cms:validate pdf_page_id validator='non_zero_integer' />">
    <cms:pages masterpage="pdf-generation/index.php" id=pdf_page_id limit="1">
        <cms:php>
            $filename = "<cms:show k_page_title />_single_page.pdf";
            $html = '

```

```

        <cms:content_type "application/pdf" />
        <html>
            <head>
                <style>
                    .my-bold {
                        font-weight: bold;
                    }
                </style>
            </head>
            <body>
                <h3 class="my-bold">
                    <cms:show k_page_title />
                </h3>
                <div style="text-align: justify;">
                    <cms:show description />
                </div>
            </body>
        </html>
';

$margin_top = "20";
$margin_right = "20";
$margin_bottom = "20";
$margin_left = "20";

$mpdf = new \Mpdf\Mpdf([
    'mode' => 'utf-8',
    'format' => 'A4-P',
    'margin_left' => $margin_left,
    'margin_right' => $margin_right,
    'margin_top' => $margin_top,
    'margin_bottom' => $margin_bottom
]);
$mpdf->SetFooter('Generated by mPDF using CouchCMS. Example by
GenXCoders Pvt Ltd (GXCPL)');
$mpdf->WriteHtml($html);
$mpdf->output($filename, 'F');
$file = "<cms:show k_site_link />ajax/" . $filename;
echo $file;
</cms:php>

</cms:pages>
</cms:if>

<?php COUCH::invoke(); ?>

```

#### 4. mpdf-bulk-pdf.php

```
<?php
    require_once 'couch/cms.php';
    require __DIR__.'/vendor/autoload.php'
?>
<cms:set page_id="<cms:gpc 'id' method='POST' />" scope="global" />

    <cms:php>
        $margin_top = "20";
        $margin_right = "20";
        $margin_bottom = "20";
        $margin_left = "20";

        $mpdf = new \Mpdf\Mpdf([
            'mode' => 'utf-8',
            'format' => 'A4-L',
            'margin_left' => $margin_left,
            'margin_right' => $margin_right,
            'margin_top' => $margin_top,
            'margin_bottom' => $margin_bottom
        ]);

        $filename = "<cms:date format='dmYTHi' />_bulk_pdf.pdf";
        <cms:pages masterpage="pdf-generation/index.php" id=page_id
show_future_entries="1" order="asc">
            $html = '
            <cms:content_type "application/pdf" />
            <html>
                <head>
                    <style>
                        .my-bold {
                            font-weight: bold;
                        }
                    </style>
                </head>
                <body>
                    <h3 class="my-bold">
                        <cms:show k_page_title />
                    </h3>
                    <div style="text-align: justify;">
                        <cms:show description />
                    </div>
                </body>
            </html>
            ';
```

```

        $mpdf->SetFooter('Generated by mPDF using CouchCMS. Example by GenXCoders
Pvt Ltd (GXCPL)');
        $mpdf->WriteHtml($html);
        <cms:if k_count lt k_total_records >
            $mpdf->AddPage();
        </cms:if>
    </cms:pages>
    $mpdf->output($filename, 'F');
    $file = "<cms:show k_site_link />ajax/" . $filename;
    echo $file;
</cms:php>

<?php COUCH::invoke(); ?>

```

1. In both the codes above, I have tried to demonstrate the basic settings. I will explain the same below:
2. **require \_\_DIR\_\_.'./vendor/autoload.php'** : The "/" before vendor is compulsory
3. **\$margin\_top = "20";** : is for margin setting. The default unit is millimeters (mm)
4. PDF Generation code has to be between the couch tags **<cms:php>...</cms:php>**
5. **\$mpdf = new \Mpdf\Mpdf();** : Is required to initialize the mPDF Library
6. **'format' => 'A4-P'** : There are two parameters being set in this line, viz:
  - i. A4: This is the page size and can take the values, A3, A4, A5, Legal, Letter, B0, etc.
  - ii. P: This is the orientation setting and can have only two values. P=Portrait, L=Landscape
7. **\$mpdf->SetFooter();** : This can be SetHeader or SetFooter. It is used to set the header and footer of the PDF.
8. **\$mpdf->WriteHtml(\$html);** : This tag has two important factors, viz.:
  - i. WriteHtml writes the HTML code that actually displays the content of the PDF file
  - ii. \$html: this is the variable where we can use the normal HTML and Couch tags. I personally find this a good way to design. For example, if one needs to design a A4 size Portrait orientation page, then we can actually design a HTML file as we want and enclose the file as **\$html=""**;
9. **\$mpdf->output(\$filename, 'F');** : We can explicitly set a file name to save the file with that name. Possible usage can be:
  - i. **\$mpdf->output('my\_pdf.pdf', 'F');** : Fixed file name for any file generate
  - ii. **\$mpdf->output(\$filename.'.pdf', 'F');** : append .pdf extension if we have not appended it while setting the file name (as in example code above)

Also, the other parameter 'F' can have values:

- i. 'D': Force download generated PDF file
- ii. 'I': Open generated PDF file in blank window
- iii. 'S': Return string of generated PDF
- iv. 'F': Generate PDF file and save in the site folder.

*The above values outputs depends on the browser setting also, hence I preferred using the 'F' parameter in the example*

10. **\$mpdf->AddPage();** : adds a new page to the PDF file, whenever it is called.

### Success to AJAX

```
$file = "<cms:show k_site_link />pdf-generation/ajax/" . $filename;  
echo $file;
```

This code sends back the URL where the generated PDF is stored in the through **echo \$file;**

Regards,

@genxcoders

(Aashish)