# **Design & Theme**

Your store's theme is like a window dressing that can be changed for a season or promotion. In this section, you will learn about page layouts, how to make simple HTML changes, and apply a new theme to your store.

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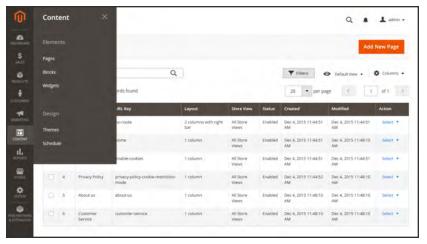


#### **CHAPTER 35:**

# **Design Menu**

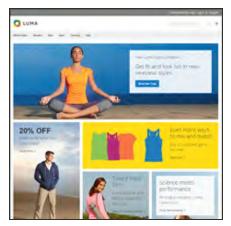
Magento provides a variety of easy-to-use design options that you can use to make simple changes to your store. In addition, you will find many professionally designed themes available on Magento Connect. Like the window dressing of your store, you can change the theme for the season or for a promotion.

More advanced users will appreciate the flexibility of working with Magento's object-oriented environment that assembles pages from separate components. After you understand the basics, you'll appreciate working in such a flexible and fluid environment. To learn more, see the Magento Design's Guide.



Design Menu

## **Menu Options**



### Themes

The theme determines the visual presentation of your store, and consists of a collection of layout files, template files, translation files, and skins.



## Schedule

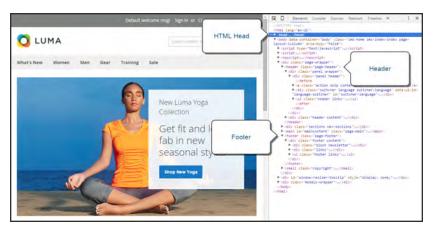
Themes can be activated for a period of time, according to a schedule. Use the schedule to plan theme changes in advance for a season or promotion.



#### **CHAPTER 36:**

# **Page Setup**

The main sections of the page are controlled, in part, by a set of standard HTML tags. Some of these tags can be used determine the selection of fonts, color, size, background colors, and images that are used in each section of the page. Other settings control page elements such as the logo in the header, and the copyright notice in the footer. The Page Setup sections correspond to the underlying structure of the HTML page, and many of the basic properties can be set from the Admin.



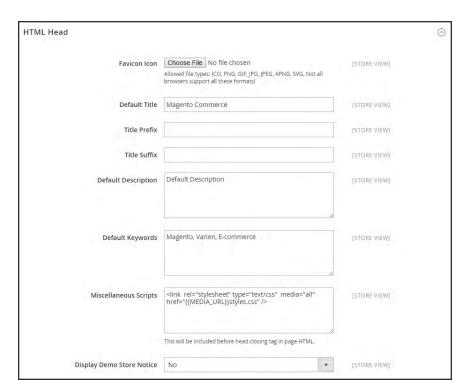
HTML Page Sections

### **HTML** Head

The settings in the HTML Head section correspond to the <head> tag of an HTML page, and can be configured for each store view. In addition to meta data for the page title, description, and keywords, the section includes a link to the favicon, and miscellaneous scripts. Instructions for search engine robots and the display of the store demo notice are also configured in this section.

### To configure the HTML Head:

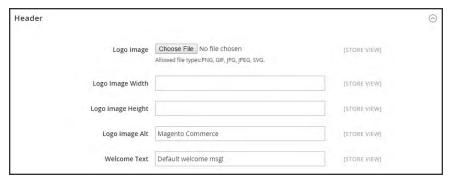
- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left under **General**, choose **Design**.
- 3. If you have multiple stores or views, set the **Store View** in the upper-left corner to the store view where the configuration applies. (When configuring a specific store view, you must clear the Use Default checkbox after each field so new values can be entered.)
- **4.** Expand  $\odot$  the **HTML Head** section.
- 5. Update the fields as needed. (See the Configuration Reference for a description of each field,)
- 6. When complete, tap Save Config.



HTML Head

## Header

The Header section identifies the path to your store logo, and specifies the logo alt text and welcome message.



Header

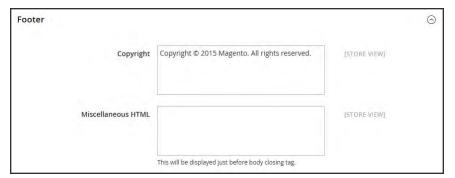
## To configure the header:

- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left, under **General**, choose **Design**.
- **3.** Expand  $\odot$  the **Header** section. Then, make any changes necessary.
- 4. When complete, tap Save Config.

Footer CHAPTER 36: Page Setup

## **Footer**

The Footer configuration section is where you can update the copyright notice that appears at the bottom of the page, and enter miscellaneous scripts that must be positioned before the closing <body> tag..



Footer

## To configure the footer:

- 1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
- 2. In the panel on the left, under **General**, choose **Design**.
- **3.** Expand  $\odot$  the **Footer** section. Then, make any changes necessary.
- 4. When complete, tap Save Config.



#### **CHAPTER 37:**

# **Page Layout**

The layout of each page in your store consists of distinct sections, or containers, that define the header, footer, and content areas of the page. Depending on the layout, each page might have one, two, three columns, or more. You can think of the layout as the "floor plan" of the page.

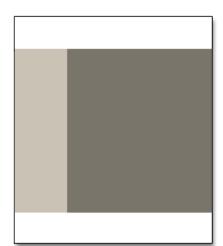
Content blocks float to fill the available space, according to the section of the page layout where they are assigned to appear. You will discover that if you change the layout from a three-column to a two-column layout, the content of the main area expands to fill the available space, and any blocks that are associated with the unused side bar seem to disappear. However, if you restore the three-column layout, the blocks reappear. This fluid approach, or liquid layout, makes it possible to change the page layout without having to rework the content. If you are used to working with individual HTML pages, you will discover that this modular, "building block" approach requires a different way of thinking.

# **Standard Page Layouts**



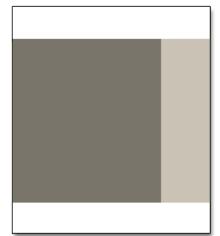
#### 1 Column

The "1 Column" layout can be used to create a dramatic home page with a large image or focal point. It's also a good choice for a landing page, or any other page that has a combination of text, images, and video.



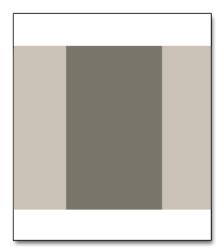
### 2 Columns with Left Bar

The "2 Columns with Left Bar" layout is often used for pages with navigation on the left, such as a catalog or search results pages with layered navigation. It is also an excellent choice for home pages that need additional navigation or blocks of supporting content on the left.



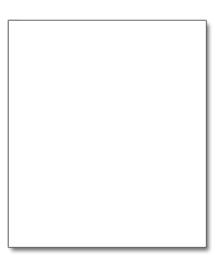
## 2 Columns with Right Bar

With a "2 Columns with Right Bar" layout, the main content area is large enough for an eye-catching image or banner. This layout is also often used for Product pages with blocks of supporting content on the right.



### 3 Columns

The "3 Column" layout has a center column that is wide enough for the main text of the page, with room on each side for additional navigation and blocks of supporting content.



## **Empty**

The "Empty" layout can be used to define custom page layouts. To learn more, see the Magento Designer's Guide.

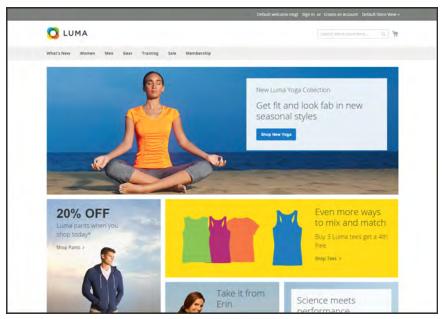
# **Storefront Examples**

The column dimensions are determined by style sheet of the theme. Some themes apply a fixed pixel width to the page layout, while others use percentages to make the page respond to the width of the window or device.

Most desktop themes have a fixed width for the main column, and all activity takes place within this enclosed area. Depending on your screen resolution, there is empty space on each side of the main column.

## 1 Column Layout

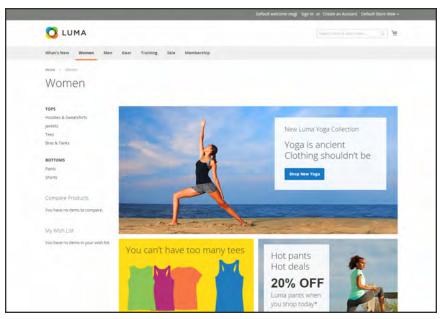
The content area of a "1 Column" layout spans the full-width of the main column. This layout is often used for a home page with a large banner or slider, or pages that require no navigation, such as a login page, splash page, video, or full-page advertisement.



1 Column Layout

## 2 Columns with Left Bar

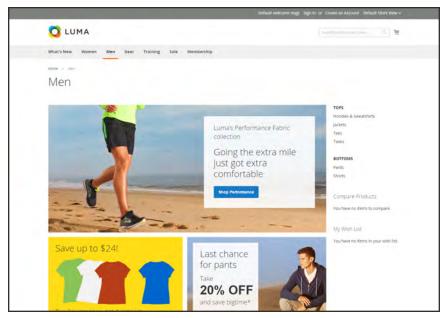
The content area of this layout is divided into two columns. The main content column floats to the right, and the side bar floats to the left.



2 Columns Left Bar

## 2 Columns with Right Bar

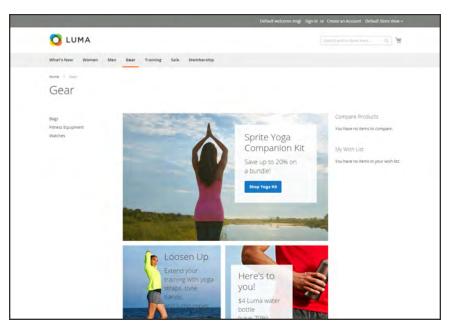
This layout is a mirror image of the other two-column layout. This time, the side bar floats to the right, and the main content column floats to the left.



2 Columns Right Bar

## 3 Columns

A 3-column layout has a main content area with two side columns. The left side bar and main content column are wrapped together, and float as a unit to the left. The other side bar floats to the right.



3 Columns

# **Layout Updates**

Before you begin working with custom layout updates, it is important to understand how the pages of your store are constructed, and the difference between the terms layout and layout update. The term layout<sup>1</sup> refers to the visual and structural composition of the page. However, the term layout update<sup>2</sup> refers to a specific set of XML instructions that determines how the page is constructed.

The XML layout of your Magento Community Edition 2.0 store is a hierarchical structure of blocks. Some elements appear on every page, and others appear only on specific pages. You can see how these structural blocks are referenced by examining the layout update code for your home page. To do so, simply open your home page in edit mode, and choose the Design tab to view the Page Layout section. Depending on the theme, it might contain instructions to remove blocks, unset blocks, and add blocks by referencing specific areas of the page layout.

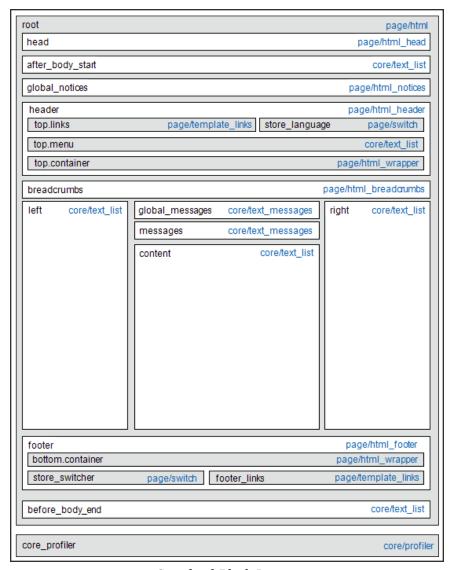
In many cases, the same result can be achieved with the Frontend App tool. To place a block of content as a frontend app, you must identify the page, and the location on the page where you want the block to appear. You can use the Frontend App tool to place a block on most any page in your store, including the home page and all content pages. However, to place a block in the sidebar of a specific page, you must make the change by entering code as a layout update.

<sup>&</sup>lt;sup>1</sup>The visual and structural composition of a page.

<sup>&</sup>lt;sup>2</sup>A specific set of XML instructions that determines how the page is constructed.

# Standard Block Layout

In the following diagram, the block names that can be used to refer to a block in the layout are black, and the block types, or block class paths, are blue.



Standard Block Layout

## **Block Descriptions**

BLOCK TYPE	DESCRIPTION
page/html	There can be only one block of this type per page. The block name is "root," and, it is one of the few root blocks in the layout. You can also create your own block and name it "root," which is the standard name for blocks of this type.
page/html_head	There can be only one block of this type per page. The block name is "head," and it is a child of the root block. This block must not be removed from layout.
page/html_notices	There can be only one block of this type per page. The block name is "global_notices," and it is a child of the root block. If this block is removed from the layout, the global notices will not appear on the page.
page/html_header	There can be only one block of that type per page. The block name is "header," and it is a child of the root block. This block corresponds to the visual header at the top of the page, and contains several standard blocks. This block must not be removed.
page/html_wrapper	Although included in the default layout, this block is deprecated, and only is included to ensure backward compatibility. Do not use blocks of this type.
page/html_breadcrumbs	There can be only one block of this type per page. The name of this block is "breadcrumbs," and it is a child of the header block. This block displays breadcrumbs for the current page.
page/html_footer	There can be only one block of this type per page. The block name is "footer," and it is a child of the root block. The footer block corresponds to the visual footer at the bottom of the page, and contains several standard blocks. This block must not be removed.
page/template_links	There are two blocks of this type in the standard layout. The "top.links" block is a child of the header block, and corresponds to the top navigation menu. The "footer_links" block is a child of the footer block, and corresponds to the bottom navigation menu. It is possible to manipulate the template links, as shown in the examples.

# **Block Descriptions (cont.)**

BLOCK TYPE	DESCRIPTION
page/switch	There are two blocks of this type in a standard layout. The "store_ language" block is a child of the header block, and corresponds to the top language switcher. The "store_switcher" block is a child of the footer block, and corresponds to the bottom store switcher.
core/messages	There are two blocks of this type in a standard layout. The "global_messages" block displays global messages. The "messages" block is used to display all other messages. If you remove these blocks, the customer won't be able to see any messages.
core/text_list	This type of block is widely used throughout Magento, and is used as a placeholder for rendering children blocks.
core/profiler	There is only one instance of this type of block per page. It is used for the internal Magento profiler, and should not be used for any other purpose.

# Layout Update Examples

The following blocks types can be manipulated with custom layout instructions. Each action must be specified using the full syntax of the instruction. In the following examples, a simplified notation is used to refer to each action, which corresponds to the full syntax of the instruction.

#### **Full Syntax**

#### Simplified Syntax

```
?
someActionName($arg1, $arg2, ..., $argN)
```

## page/template\_links

## **Syntax**

ACTION	DESCRIPTION
addLink(\$label, \$url, \$	title, \$prepare
	Adds another link to the end of the list of existing links. Just specify the \$label (link caption), \$url (link URL) and \$title (link tooltip), and you'll see a new link in the corresponding place. The \$prepare parameter must be "true" if you want the URL to be prepared, or converted to the full URL from the shortened URL. For example, the new page becomes BASE_URL/newpage if prepared.
removeLinkByUrl(\$url)	Removes a link from the block by its URL. Note that the URL must be properly specified and exactly match corresponding URL of the link you want to remove.

#### cms/block

### **Syntax**

ACTION	DESCRIPTION	
setBlockId(\$blockId)	Specifies the ID of a CMS block, so its content can be fetched and displayed when the page is rendered.	

#### core/text

A core/text block can be used to enter free form text directly into the template.

### **Syntax**

ACTION	DESCRIPTION
addText(\$textContent)	Specifies text to be rendered as the block's content. After the text is specified, the layout update instructions must continue to be a valid XML statement. If you use HTML tags as part of the text, it is recommended to use: [CDATA[]]

#### page/html\_welcome

This block can be used to duplicate the "Welcome, <usenname>!" message that appears in the header block. When the user is not logged in, the welcome message specified in the configuration appears.

# Layout Update Syntax

Custom layout updates can be applied to product category pages, product pages, and content page to achieve a variety of results, such as:

<br/>
<br/>
Create new block.

<reference> Update existing content.

<action> Assign actions to blocks.

<remove>
Remove blocks.

Any change made to the layout is applied when the associated entity—which can be either a product, category, or CMS page—becomes active in the frontend of the store.

Custom layout update instructions consist of well-formed XML tags, without the <?xml ...> declaration and root tag. As with normal XML, every tag must either be empty or properly closed, as shown in the following examples:

```
<tag attribute="value" />
<tag attribute="value"> ... </tag>
```

### <blook>

Creates a new block within the current context. Layout block nesting defines the ordering of block initialization location of the blocks on the page.

### **Syntax**

NAME	VALUE
type	* block class path  An identifier of the block class path that corresponds to the class of the block. See the list of the available block types below.
name	* block name identifier  A name that can be used to address the block in which this attribute is assigned. If you create a new block with the name that is the same as one of the existing blocks, your newly created block substitutes the previously existing block. See the list of names of existing blocks below.
before	block name   '-' Is used to position the block before a block with the name specified in the value. If "-" value used the block is positioned before all other sibling blocks.
after	block name   '-' Is used to position the block after a block with the name specified in the value. If "-" value used the block is positioned after all other sibling blocks.
template	template filename A template filename used for the specific block type. As you have no way to see the list of template files, use whatever template value is demanded for every block type listed below.
as	block alias  An alias name by which a template calls the block in which this attribute is assigned. Sometimes it's necessary to specify the alias for a specific block type.

#### <reference>

Changes the context for all included instructions to a previously defined block. An empty <reference> tag if of no use, because it affects only the instructions which are children.

#### **Syntax**

NAME		VALUE
name	*	block name
		A name of a block to reference.

#### <action>

Used to access block API, in other words, call block's public methods. It is used to set up the execution of a certain method of the block during the block generation. Action child tags are translated into block method arguments. The list of all available methods depends on the block implementation (e.g. public method of the block class).

#### **Syntax**

NAME		VALUE
method	*	block method name
		A name of the public method of the block class this instruction is
		located in that is called during the block generation.

#### <remove>

Removes an existing block from the layout.

#### **Syntax**

NAME		VALUE
name	*	block name
		The name of the block to be removed

#### <extend>

This instruction performs final modifications to blocks which are already part of the layout. Every attribute in the <block> instruction—except for the block name—is subject for change. In addition, the special attribute parent can be used to change the parent of the block. Simply put the name of the new parent block into the <extend> instruction, and the parent of the block that is referenced will be changed in the layout.

## **Syntax**

NAME		VALUE
name	*	block name The name of any block to be extended.
*		any other  Any other attribute specific for the <block> instruction.</block>
parent		block name The name of the block that should become a new parent for the referenced block.
	*	Indicates a required value

# Controlling Block Order

Sometimes more than one content element is assigned to the same structural block. For example, there might be several block that appear in a sidebar. You can control the order of blocks by including a "before" or "after" positioning property in the code. To place a block either before, or after a specific block, replace the hyphen with the block identifier, as shown in the following examples:

before="-" Places the block at the top of the sidebar, before other blocks.

after="-" Places the block at the bottom of the sidebar, after other blocks.

#### **Code to Position Content Blocks**

# XML Load Sequence

For developers, it is important to understand that blocks and layout updates must be loaded in the correct order, in keeping with the rules of precedence and **load sequence**<sup>1</sup> which determine how the page is rendered. Magento supports the following page layout scenarios:

### **Scenario 1: Default Layout**

The default layout consists of the visual elements that are visible from every page of the store. Whether it is a menu item, or a shopping cart block, each item has a **handle**<sup>2</sup> in the default section of the layout definition.

### **Scenario 2: Changes to Specific Pages**

The second case allows you to create a different layout for a specific page. The XML layout for specific pages is constructed in the same sequence that Magento loads modules, and is determined by the system configuration.

In addition to the instructions in the layout update files which are specific to each module, you can make a custom layout update that applies to a special case in the backend, and is merged each time the special case occurs.

<sup>&</sup>lt;sup>1</sup>The order in which scripts are loaded into memory. To work correctly, some scripts must be loaded before others.

<sup>&</sup>lt;sup>2</sup>In programming, a name used to reference an object.

Notes		

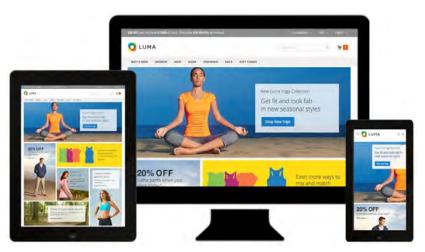


#### **CHAPTER 38:**

## **Themes**

A theme is a collection of files that determines the visual presentation of your store. When you first install Magento Community Edition 2.0, the design elements of the store are based on the "Default" Theme. In addition to the initial default theme that comes with your Magento installation, there is a wide variety of themes that are available "off the shelf" on Magento Connect.

Magento themes include layout files, template files, translation files, and skins. A skin is a collection of supporting CSS, images, and JavaScript files that together, create the visual presentation and interactions that your customers experience when they visit your store. Themes and skins can be modified and customized by a developer or designer who has knowledge of Magento theme design and access to your server. To learn more, see the Frontend Developer Guide.

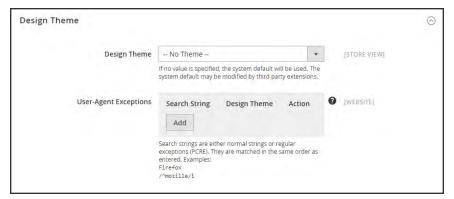


Luma Theme

Using the Default Theme CHAPTER 38: Themes

# **Using the Default Theme**

Magento's default responsive theme renders the display of your storefront for different devices, and incorporates best practices for desktop, table, and mobile devices. To learn more, see the Responsive Theme Developer's Guide.



Design Theme

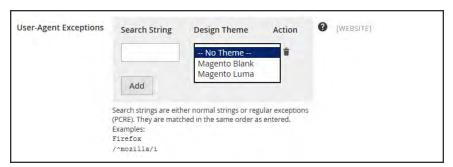
Some themes are designed to be used only with specific devices. When Magento detects a specific browser ID, or user agent, it uses the theme that is configured to be used for the specific browser. The search string can also include Perl-Compatible Regular Expressions (PCRE). To learn more, see: User Agent.

Firefox /^mozilla/i CHAPTER 38: Themes Using the Default Theme

#### To view the default theme:

- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left under **General**, choose **Design**.
- 3. Expand  $\odot$  the **Design Theme** section.
- **4.** Set **Design Theme** to the theme that you want to apply to the store.
- **5.** If the theme is to be used for only a specific device, do the following:
  - a. Under User-Agent Exceptions, tap Add.
  - **b.** In the **Search String** field, enter the browser ID for the specific device.

Search strings are matched in the order they are entered.



User-Agent Exceptions

- **c.** Repeat the process to enter additional devices.
- 6. When complete, tap Save Config.

Installing a New Theme CHAPTER 38: Themes

# Installing a New Theme

When you first install Magento, the design elements of the store are based on the "Default" theme. You can modify the theme, add themes created by others, or create new ones. To learn more, see the Designer's Guide.

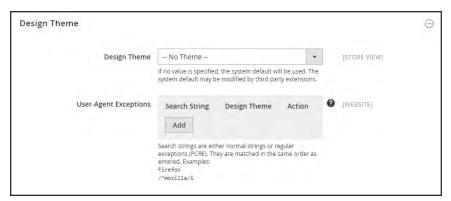
Magento Connect contains a wide selection of extensions that you can install to enhance the appearance of your store. The following example shows how to add a mobile theme from Magento Connect.

### Step 1: Install a New Theme

- 1. On the Admin sidebar, tap **Find Partners & Extensions**.
- 2. Under Magento Marketplace, tap Visit Magento Marketplaces.
- 3. Find the Magento 2 theme that you want to install, and follow the instructions to install the theme on your server.

### **Step 2: Apply the Theme to Your Store**

- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left under **General**, choose **Design**.
- **3.** Expand  $\bigcirc$  the **Themes** section.
- **4.** Set **Design Theme** to the new theme.



Design Theme

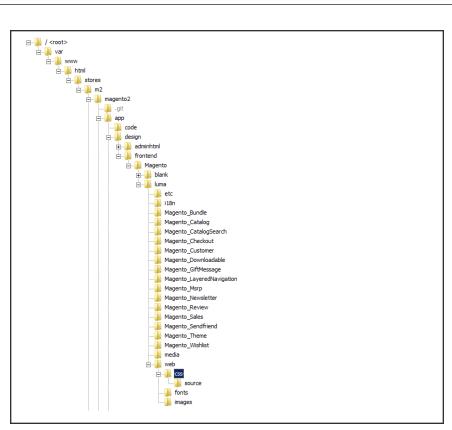
5. When complete, tap Save Config.

CHAPTER 38: Themes Theme Assets

## **Theme Assets**

For a standard installation, the assets associated with a theme are organized in the web folder at the following location below the Magento root.

[magento\_root]/app/design/frontend/Magento/[theme\_name]/web



Theme Assets

FOLDER	DESCRIPTION
CSS	Contains the CSS files that control the visual styling that is associated with the skin.
fonts	Contains any additional fonts that are used by the theme and that are not available by default on most systems.
images	Contains all images used by the theme, including buttons, background images, and so on.

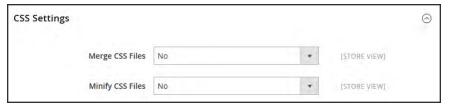
Theme Assets CHAPTER 38: Themes

# Merging CSS Files

As part of an effort to optimize your site and reduce page load time, you can reduce the number of separate CSS files by merging them into a single condensed file. If you open a merged CSS file, you'll find one continuous stream of text, with line breaks removed. Because you can't edit the merged file, it's best to wait until you are out of the development mode, and no longer making frequent changes to the CSS.

### To merge CSS files:

- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left under **Advanced**, choose **Developer**.
- 3. Expand  $\odot$  the CSS Settings section.



CSS Settings

- 4. Set Merge CSS Files to "Yes."
- 5. When complete, tap Save Config.

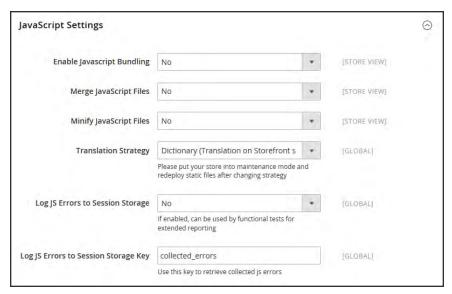
CHAPTER 38: Themes Theme Assets

# Merging JavaScript Files

Multiple JavaScript files can be merged into a single, condensed file to reduce page load time. If you open a merged JavaScript file, you'll find one continuous stream of text, with line breaks removed. If you are finished with the development process, and the code contains no errors, you might consider merging the files.

### To merge JavaScript files:

- 1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
- 2. In the panel on the left under Advanced, choose Developer.
- 3. Expand  $\odot$  the JavaScript Settings section.

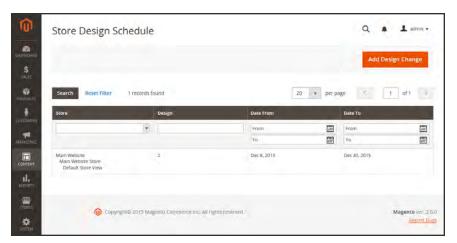


JavaScript Settings

- 4. Set Merge JavaScript Files to "Yes."
- 5. When complete, tap Save Config.

# **Scheduling Design Changes**

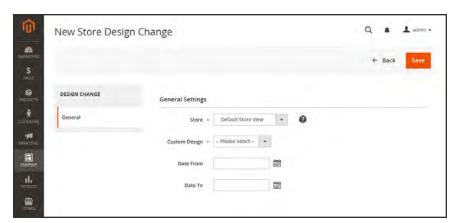
Design changes can be scheduled in advance, so they go into effect on schedule. You can use scheduled design changes for seasonal changes, promotions, or just to add variation.



Store Design Schedule

### To schedule a design change:

- 1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Schedule**.
- 2. Tap Add Design Change. Then under General Settings, do the following:



*New Design Change* 

- **a.** Set **Store** to the view where the change applies.
- **b.** Set **Custom Design** to the theme, or variation of a theme, that is to be used.
- **c.** To define the period when the change is in effect, use the calendar in to choose the values for the **Date From** and **Date To** fields.
- 3. When complete, tap Save.