

# Mura Theme Developer's Training

STEPHEN J. WITHERINGTON, JR.

# Housekeeping

- Hi, I'm Steve

# Housekeeping

- Hi, I'm Steve
- Restrooms

# Housekeeping

- Hi, I'm Steve
- Restrooms
- Breaks & Lunch
  - *Fill out lunch order form!*

# Housekeeping

- Hi, I'm Steve
- Restrooms
- Breaks & Lunch
  - *Fill out lunch order form!*
- Parking Lot (for questions/ideas)

# Prerequisites

- Content Manager's Training
- HTML, CSS, & JS
- jQuery Knowledge is Helpful

# Before we begin ...

- Make sure we can all access <http://localhost:8008>
- Launch your IDE (e.g., Visual Studio Code, Atom, Sublime Text, etc.), and create a new project or open the folder located under:

**`.. /Desktop/mura-training/www/`**

# Mura Theme Developer's Training

- Introduction
- Where to Start
- Creating Layout Templates
- Customizing Mura Output
- Where to Go From Here
- Getting Support

# Introduction

WELCOME TO MURA THEME DEVELOPER'S TRAINING

# Help theme developers integrate their existing designs into Mura.

MY OBJECTIVE

# Where to Start

TURN YOUR COMPUTER ON, AND PULL UP A CHAIR

# Where to Start

- Where Mura is Installed
- Mura Directory Structure
- Managing Multiple Sites
- Site Bundles
- Lab Exercise

# Where Mura is Installed

# Where Mura is Installed

- {context}
  - Where Mura is installed within the webroot

# Where Mura is Installed

- {context}
  - Where Mura is installed within the webroot
  - Typically, just under the webroot
    - C:\inetpub\wwwroot\

# Where Mura is Installed

- {context}
  - Where Mura is installed within the webroot
  - Typically, just under the webroot
    - C:\inetpub\wwwroot\
  - m.globalConfig('context')

# Where Mura is Installed

- {context}
- m.globalConfig('context')
  - C:\inetpub\wwwroot\
    - **Returns** empty string

# Where Mura is Installed

- {context}
- m.globalConfig('context')
  - C:\inetpub\wwwroot\
    - **Returns** empty string
  - C:\inetpub\wwwroot\muraplatform\
    - **Returns** '/muraplatform'

# Where Mura is Installed

- {context}
- m.globalConfig('context')
  - C:\inetpub\wwwroot\
    - **Returns** empty string
  - C:\inetpub\wwwroot\muraplatform\
    - **Returns** '/muraplatform'
  - C:\inetpub\wwwroot\somedirectory\muraplatform\
    - **Returns** '/somedirectory/muraplatform'

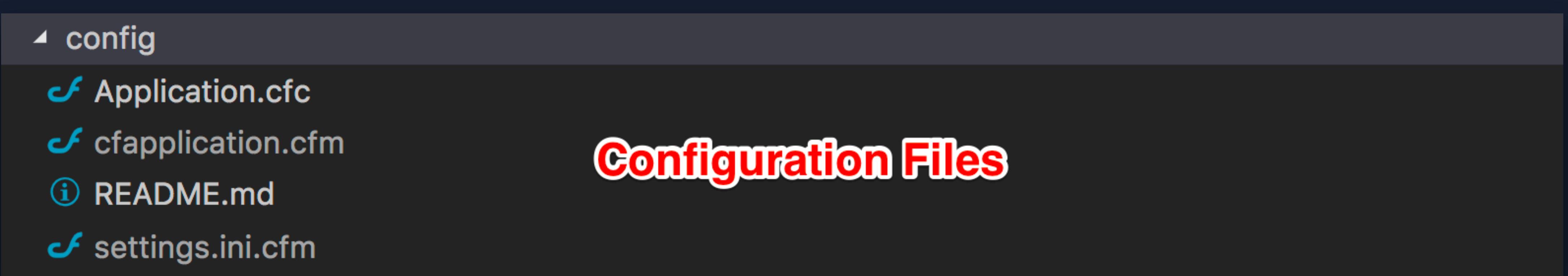
# Mura Directory Structure

# Mura Directory Structure

```
▲ www
  ▷ admin
  ▷ config
  ▷ core
  ▷ modules
  ▷ plugins
  ▷ resource_bundles
  ▷ sites
  ▷ themes
  ◇ .gitignore
  ! .travis.yml
  ↗ Application.cfc
  { } box.json
  ≡ htaccess.txt
  ↗ index.cfm
  ≡ Installation.txt
  ≡ license.txt
  ↖ Mura_CMS_contribution_agreement.pdf
  ⓘ README.md
  ≡ robots.txt
  { } server.json
  ⚙ web.config
  ≡ web.config.txt
```

## Mura Directories & Files

# The “config” Directory



# The “core” Directory

```
▲ core
  ▶ appcfc
  ▶ docker
  ▶ modules
  ▶ mura
  ▶ setup
  ▶ templates
  ▶ tests
  ▶ vendor
  ♦ .gitignore
  ↗ Application.cfc
```

The “core” Directory

# The “sites” Directory

# The “sites” Directory

- {context}/sites/

# The “sites” Directory

- {context}/sites/
  - Multiple sites under one install

# The “sites” Directory

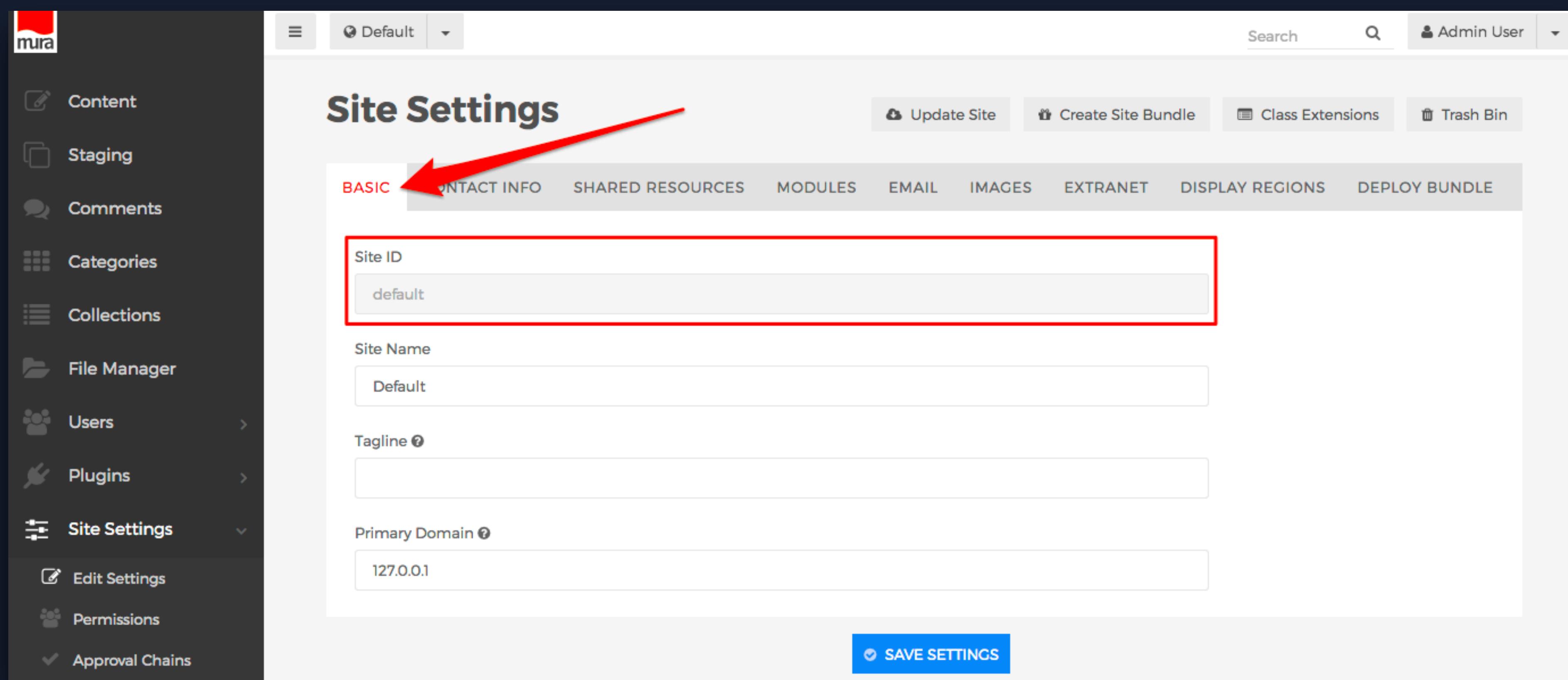
- {context}/sites/
  - Multiple sites under one install
  - Unique domain, assets, groups, users, etc.

# The “sites” Directory

- {context}/sites/{SiteID}/

# The “sites” Directory

- {context}/sites/{SiteID}/

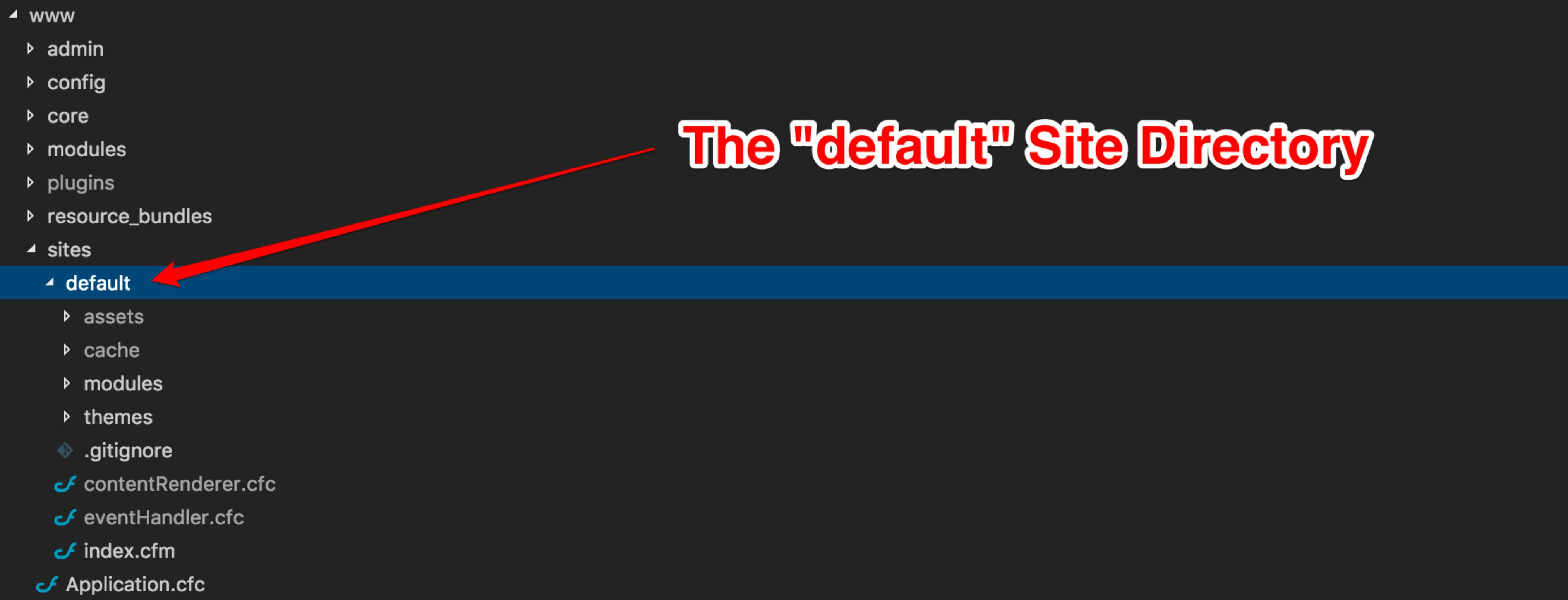


# The “sites” Directory

- {context}/sites/default/

# The “sites” Directory

- {context}/sites/default/



The "default" Site Directory

```
▶ www
  ▶ admin
  ▶ config
  ▶ core
  ▶ modules
  ▶ plugins
  ▶ resource_bundles
  ▶ sites
    ▶ default
      ▶ assets
      ▶ cache
      ▶ modules
      ▶ themes
      ◆ .gitignore
      ◆ contentRenderer.cfc
      ◆ eventHandler.cfc
      ◆ index.cfm
      ◆ Application.cfc
```

# The “themes” Directory

# The “themes” Directory

- Global Themes

# The “themes” Directory

- **Global Themes**
  - `{context}/themes/`

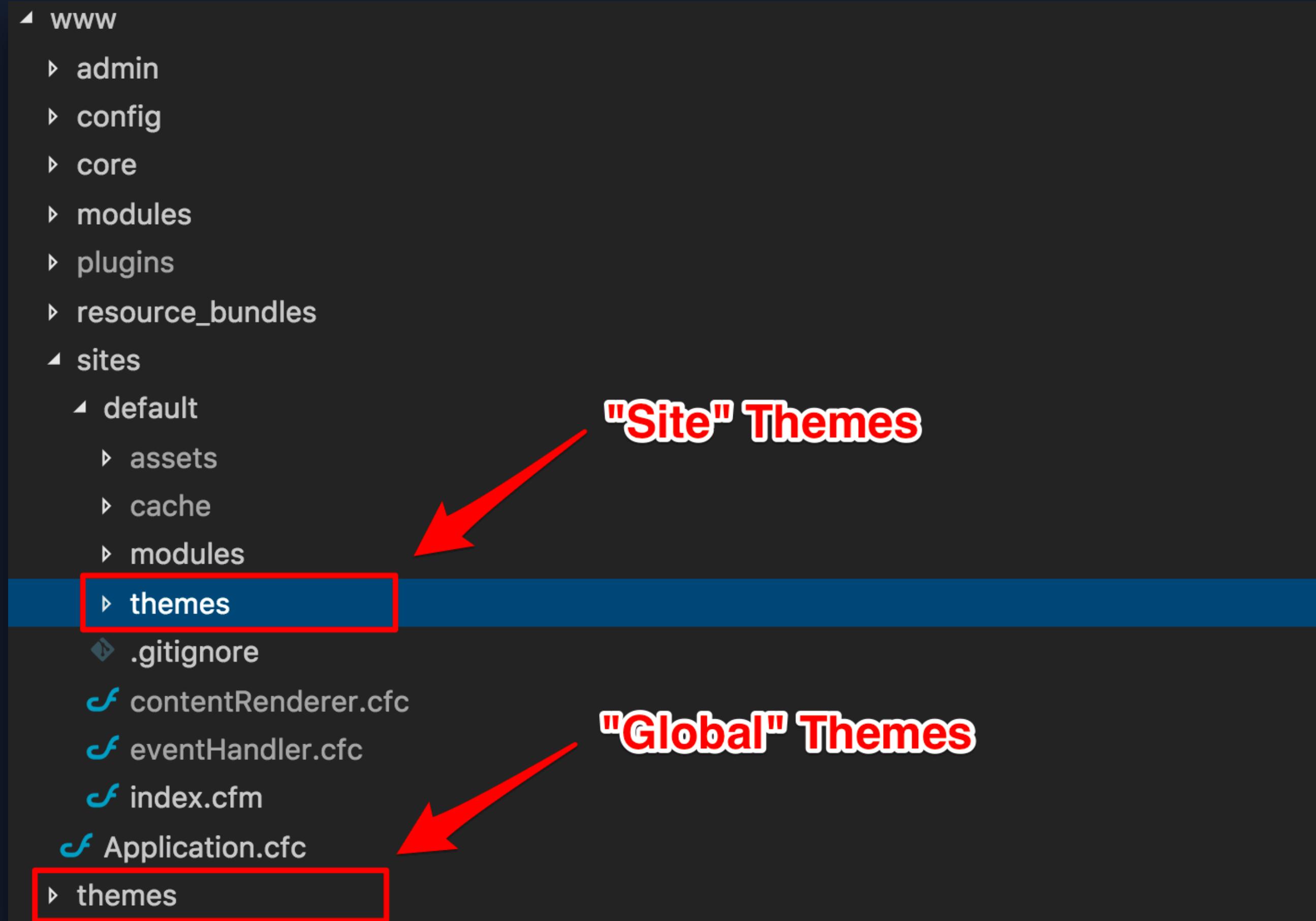
# The “themes” Directory

- **Global Themes**
  - `{context}/themes/`
- **Site Themes**

# The “themes” Directory

- **Global Themes**
  - `{context}/themes/`
- **Site Themes**
  - `{context}/sites/{SiteID}/themes/`

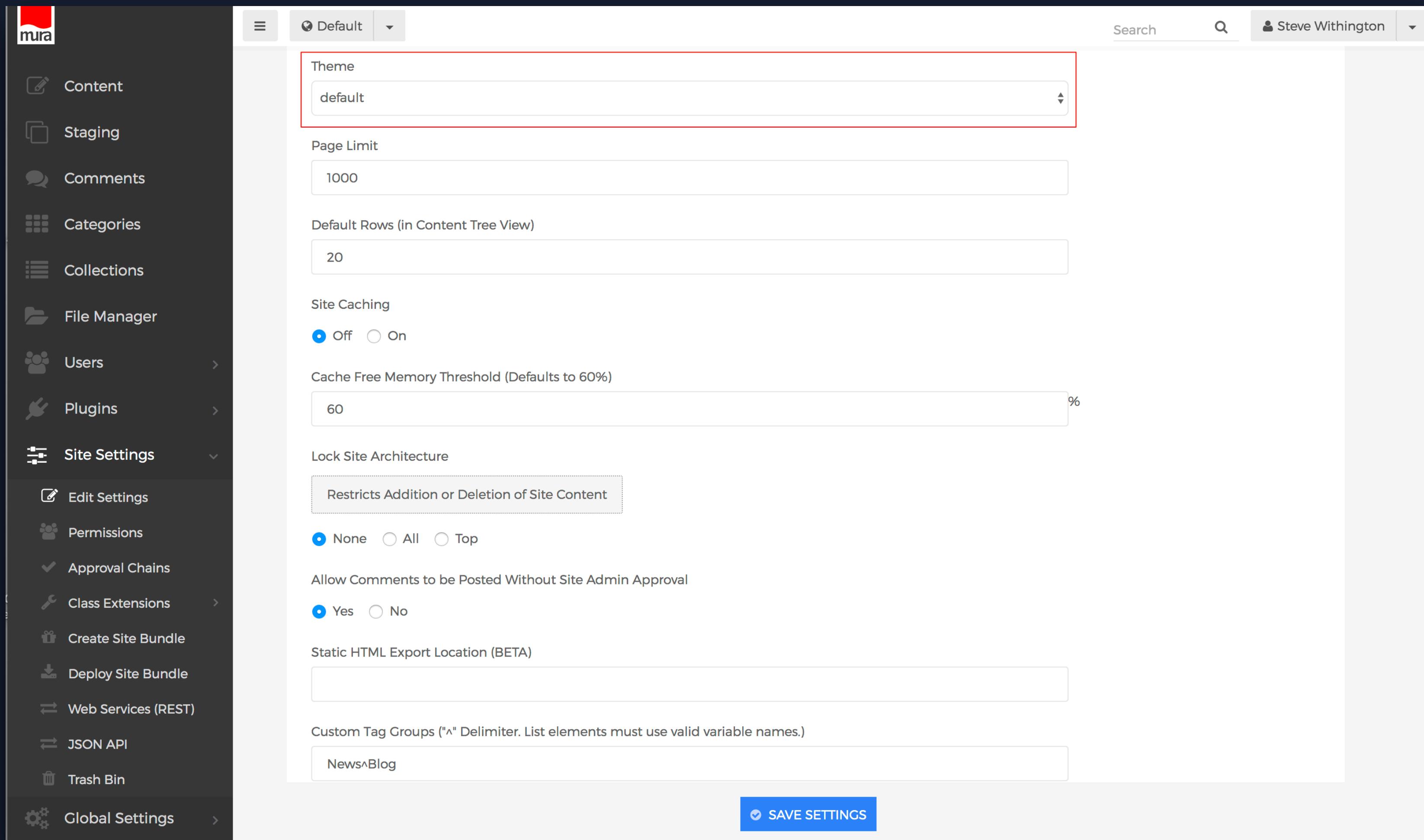
# The “themes” Directory



# The “themes” Directory

- When Mura is first installed, if a theme does not exist under either of these directories, Mura will attempt to download a theme using the “`defaultthemewrl`” setting found in the `{context}/config/settings.ini.cfm` file.

# Select a Theme via Admin UI



The screenshot shows the Mura CMS Admin UI with the 'Site Settings' page open. The 'Theme' section is highlighted with a red box. The 'Theme' dropdown menu is set to 'default'. Other settings shown include 'Page Limit' (1000), 'Default Rows (in Content Tree View)' (20), 'Site Caching' (Off), 'Cache Free Memory Threshold (Defaults to 60%)' (60%), 'Lock Site Architecture' (None), 'Allow Comments to be Posted Without Site Admin Approval' (Yes), 'Static HTML Export Location (BETA)' (empty), and 'Custom Tag Groups' (News^Blog). A 'SAVE SETTINGS' button is at the bottom.

Theme  
default

Page Limit  
1000

Default Rows (in Content Tree View)  
20

Site Caching  
 Off  On

Cache Free Memory Threshold (Defaults to 60%)  
60 %

Lock Site Architecture  
Restricts Addition or Deletion of Site Content

None  All  Top

Allow Comments to be Posted Without Site Admin Approval  
 Yes  No

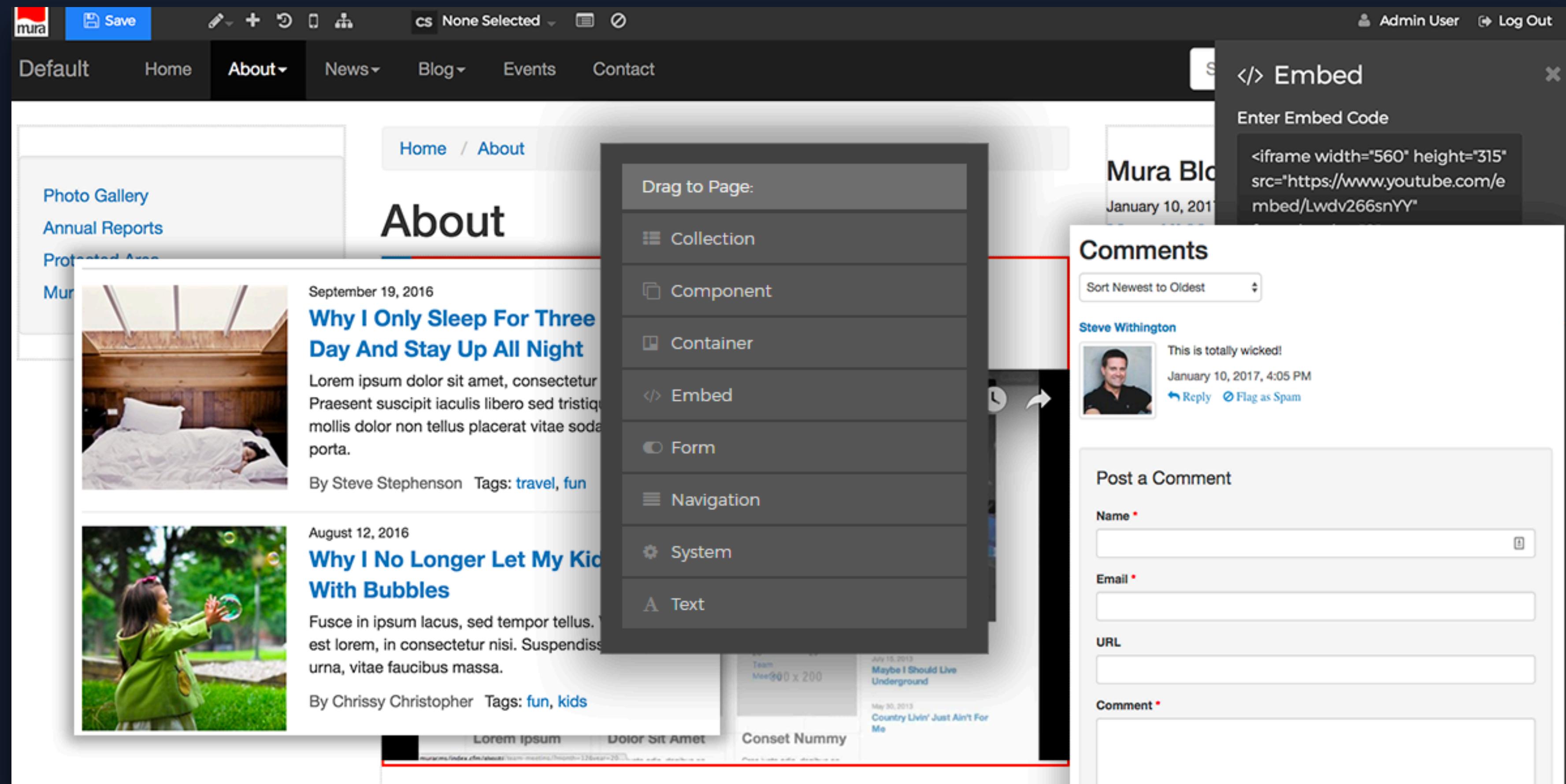
Static HTML Export Location (BETA)

Custom Tag Groups ("^" Delimiter. List elements must use valid variable names.)  
News^Blog

SAVE SETTINGS

# The “modules” Directory

# The “modules” Directory



# The “modules” Directory

- Lookup Hierarchy

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
    - *Covered in Core Developer course*

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
  - Nested “modules” Directory
    - `../{module}/modules/`

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
  - Nested “modules” Directory
  - Theme “modules” Directory
    - {context}/themes/{ThemeName}/modules/
    - {context}/sites/{SiteID}/themes/{ThemeName}/modules/

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
  - Nested “modules” Directory
  - Theme “modules” Directory
  - Site “modules” Directory
    - {context}/sites/{SiteID}/modules/

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
  - Nested “modules” Directory
  - Theme “modules” Directory
  - Site “modules” Directory
  - Global “modules” Directory
    - {context}/modules/

# The “modules” Directory

- Lookup Hierarchy
  - Registered “modules” Directory
  - Nested “modules” Directory
  - Theme “modules” Directory
  - Site “modules” Directory
  - Global “modules” Directory
  - Core “modules” Directory\*
    - {context}/core/modules/v1/core\_assets/modules/

# The “modules” Directory

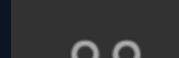
```
  ▲ www
    ▷ admin
    ▷ config
  ▲ core
    ▷ appfc
    ▷ docker
  ▲ modules
    ▲ v1 ←
      ▷ calendar
      ▷ category_summary
      ▷ collection
      ▷ comments
      ▷ component
      ▷ container
      ▷ core_assets
      ▷ datacollection
      ▷ dataresponses
      ▷ deny
      ▷ editprofile
      ▷ embed
      ▷ event_reminder_form
      ▷ favorites
      ▷ feed
      ▷ feedslideshow
      ▷ folder
      ▷ form
      ▷ formbuilder
      ▷ forward_email
      ▷ gallery
      ▷ gotoFirstChild
      ▷ htmlhead
      ▷ login
      ▷ mailing_list
      ▷ mailing_list_master
      ▷ media
```

**The "core" modules**

# “resource\_bundles” Directory

# “resource\_bundles” Directory

- Internationalize various areas of the user interface, making the code locale-independent.



## en\_US.properties x

```

1 #X-Generator: crowdin.com
2 #Created by JInto - www.guh-software.de
3 #Mon Apr 20 09:41:22 PDT 2009
4 calendar.agendaWeek=Agenda Week
5 calendar.agendaDay=Agenda Day
6 calendar.day=Day
7 calendar.week=Week
8 calendar.month=Month
9 calendar.year=Year
10 calendar.today=Today
11 calendar.monthLong=January,February,March,April,May,June,July
12 calendar.monthshort=Jan,Feb,Mar,Apr,May,Jun,Jul,Aug,Sept,Oct,
13 calendar.summary.on.daily=Daily
14 calendar.summary.on.weekly=Every week on {1}
15 calendar.summary.on.week1=Every 1st week of the month on {1}
16 calendar.summary.on.week2=Every 2nd week of the month on {1}
17 calendar.summary.on.week3=Every 3rd week of the month on {1}
18 calendar.summary.on.week4=Every 4th week of the month on {1}
19 calendar.summary.on.weeklast=Every last week of the month on
20 calendar.summary.on.monthly=Every month on {1}
21 calendar.summary.on.yearly=Every year on {1}
22 calendar.summary.timespan=from {1} to {2}
23 calendar.summary.datespan=from {1} to {2}
24 calendar.summary.until=until {1}
25 calendar.weekdayShort=S,M,T,W,T,F,S
26 calendar.weekdaylong=Sunday,Monday,Tuesday,Wednesday,Thursday
27 calendar.loadingevents=Loading events...
28 calendar.firstdayoftheweek=First Day of the Week
29 calendar.close=Close
30 calendar.eventfetcherror=Warning\! An error occurred while fe
31 captcha.error=The ''Security Code'' entered was not correct.
32 captcha.instructions=Please enter the code above
33 captcha.securitycode=Security Code

```

## es\_ES.properties x

```

1 #X-Generator: crowdin.com
2 #Created by JInto - www.guh-software.de
3 #Mon Apr 20 09:41:22 PDT 2009
4 calendar.agendaWeek=Puntos de Agenda
5 calendar.agendaDay=Agenda d\u00eda
6 calendar.day=D\u00eda
7 calendar.week=Semana
8 calendar.month=Mes
9 calendar.year=A\u00f1o
10 calendar.today=Hoy
11 calendar.monthLong=Enero,Febrero,Marzo,Abril,Mayo,Junio,Julio
12 calendar.monthshort=Ene,Feb,Mar,Abr,May,Jun,Jul,Ago,Sept,Oct,I
13 calendar.summary.on.daily=Diaria
14 calendar.summary.on.weekly=Cada semana en {1}
15 calendar.summary.on.week1=Cada semana 1 del mes en {1}
16 calendar.summary.on.week2=Cada semana 2\u00aa del mes {1}
17 calendar.summary.on.week3=Cada semana 3 del mes en {1}
18 calendar.summary.on.week4=Cada semana 4\u00aa del mes {1}
19 calendar.summary.on.weeklast=Cada \u00faltima semana del mes
20 calendar.summary.on.monthly=Cada mes en {1}
21 calendar.summary.on.yearly=Cada a\u00f1o, el {1}
22 calendar.summary.timespan=de {1} a {2}
23 calendar.summary.datespan=de {1} a {2}
24 calendar.summary.until=hasta {1}
25 calendar.weekdayShort=L,M,Mi,J,V,S,D
26 calendar.weekdaylong=Domingo,Lunes,Martes,Mi\u00e9rcoles,Juev
27 calendar.loadingevents=Eventos de carga...
28 calendar.firstdayoftheweek=Primer d\u00eda de la semana
29 calendar.close=Cerrar
30 calendar.eventfetcherror=\u00a1Advertencia\! Se ha producido
31 captcha.error=El ''C\u00f3digo de Seguridad'' que ingres\u00f3
32 captcha.instructions=Por favor ingrese el C\u00f3digo de Segu
33 captcha.securitycode=C\u00f3digo de Seguridad

```

# “resource\_bundles” Directory

- Lookup Hierarchy

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`
  - `.../content_types/{type}_{subtype}/resource_bundles/`

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`
  - `.../content_types/{type}_{subtype}/resource_bundles/`
  - `.../{ThemeName}/resource_bundles/`

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`
  - `.../content_types/{type}_{subtype}/resource_bundles/`
  - `.../{ThemeName}/resource_bundles/`
  - `.../{SiteID}/resource_bundles/`

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`
  - `.../content_types/{type}_{subtype}/resource_bundles/`
  - `.../{ThemeName}/resource_bundles/`
  - `.../{SiteID}/resource_bundles/`
  - `{context}/resource_bundles/`

# “resource\_bundles” Directory

- Lookup Hierarchy
  - `.../{module}/resource_bundles/`
  - `.../content_types/{type}_{subtype}/resource_bundles/`
  - `.../{ThemeName}/resource_bundles/`
  - `.../{SiteID}/resource_bundles/`
  - `{context}/resource_bundles/`
  - `{context}/core/modules/v1/core_assets/resource_bundles/`

# “resource\_bundles” Directory

- **Note:**
  - Admin-area resource bundles are located under  
`{context}/core/mura/resourceBundle/resources/`

# “resource\_bundles” Directory

- **Note:**
  - Admin-area resource bundles are located under `{context}/core/mura/resourceBundle/resources/`
  - However, as of v7.1, many key-value pairs are not able to be overwritten using these techniques at this time.

# “resource\_bundles” Directory

- **Note:**
  - Admin-area resource bundles are located under `{context}/core/mura/resourceBundle/resources/`
  - However, as of v7.1, many key-value pairs are not able to be overwritten using these techniques at this time.
  - Allowing for this option is under consideration for a future version.

# “resource\_bundles” Directory

- Contribute
  - <https://crowdin.com/project/muracms>

# How to Update Mura

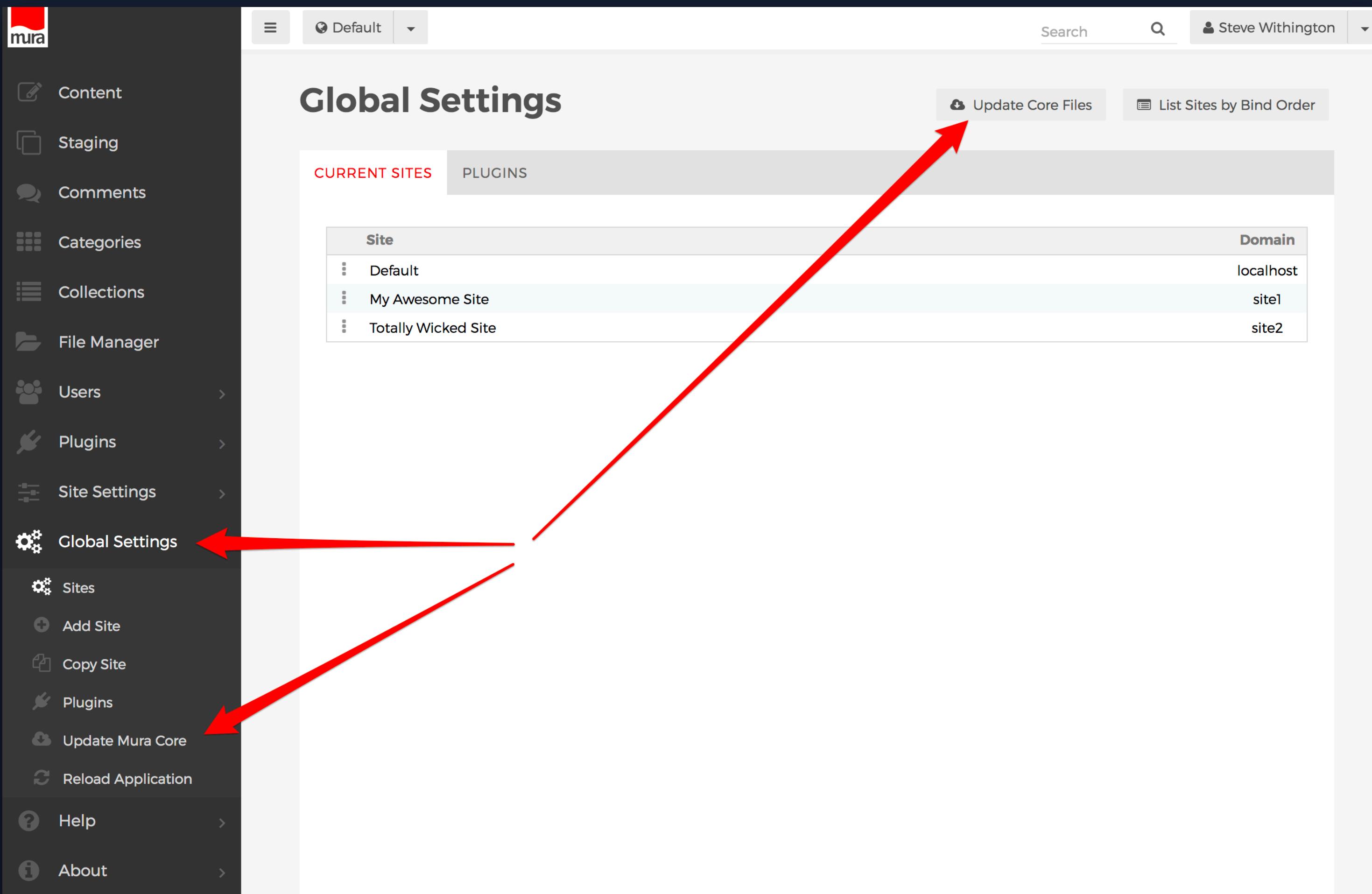
# How to Update Mura

- Back up the database, and your filesystem before attempting to use this feature.

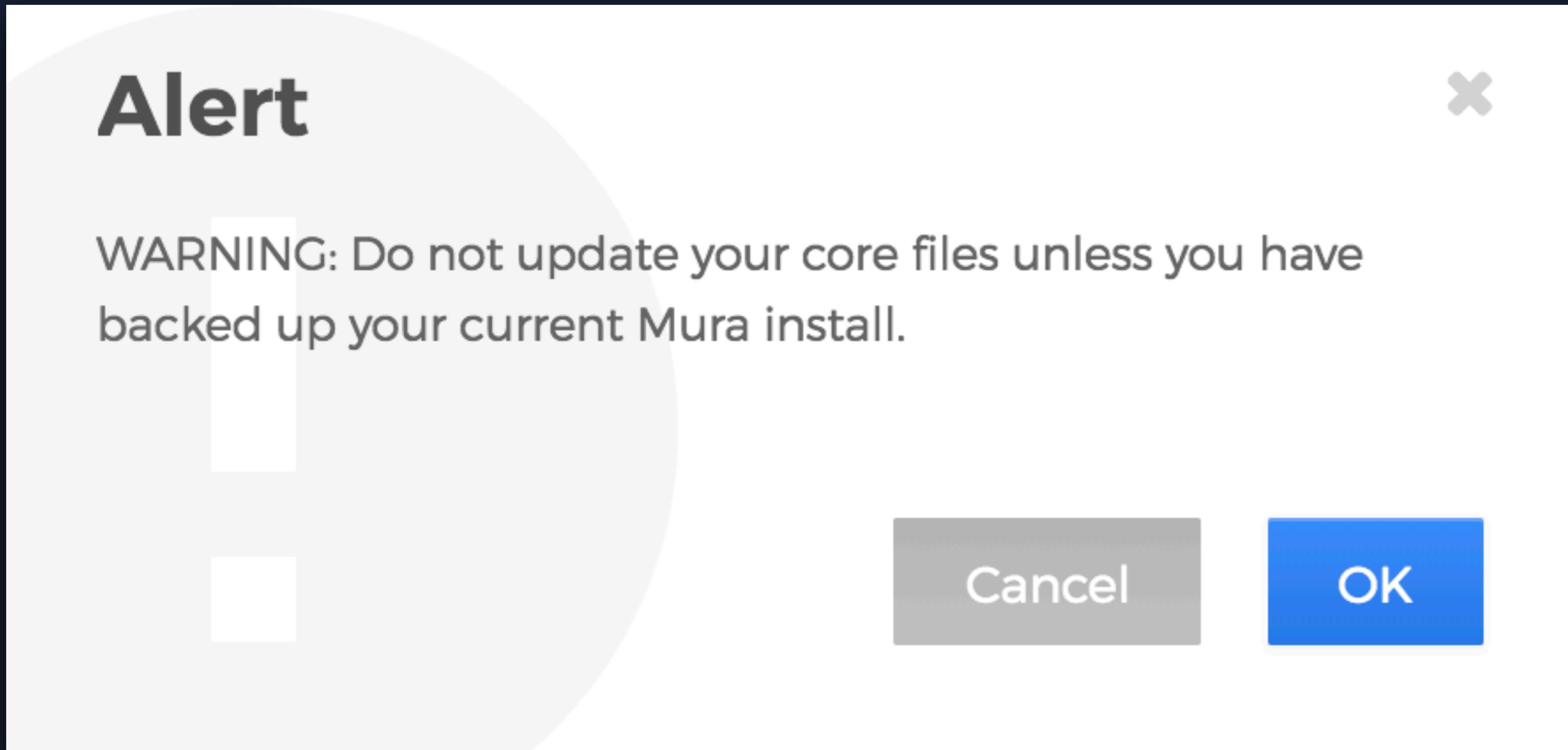
# How to Update Mura

- Back up the database, and your filesystem before attempting to use this feature.
- We also recommend performing this in a development or testing environment first!

# How to Update Mura



# How to Update Mura



# How to Update Mura

- Mura will use the value of the “autoupdateurl” variable entered in the file located at  
`{context}/config/settings.ini.cfm`

# How to Update Mura

The screenshot shows the Mura CMS Global Settings page. On the left is a dark sidebar with various navigation options. The main area is titled "Global Settings" and contains a message box with the text "Your core files have been updated to version 7.1.93." A large red arrow points from the bottom right towards this message box.

- Content
- Staging
- Categories
- Collections
- File Manager
- Users >
- Plugins >
- Site Settings >
- Global Settings >
  - Sites
  - Add Site
  - Copy Site
  - Plugins
  - Update Mura Core
  - Reload Application
- Help >
- About >

Default Search Steve Withington List Sites

Your core files have been updated to version 7.1.93.

# How to Update Mura

The screenshot shows the Mura Global Settings interface. On the left is a dark sidebar with various management options: Content, Staging, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings (selected), Sites, Add Site, Copy Site, Plugins, Update Mura Core (which has a red arrow pointing to it), Reload Application, Help, and About. The main content area is titled "Global Settings" and displays a message: "Your core files have been updated to version 7.1.93." In the top right corner, there is a "List Sites" button, which also has a red arrow pointing to it.

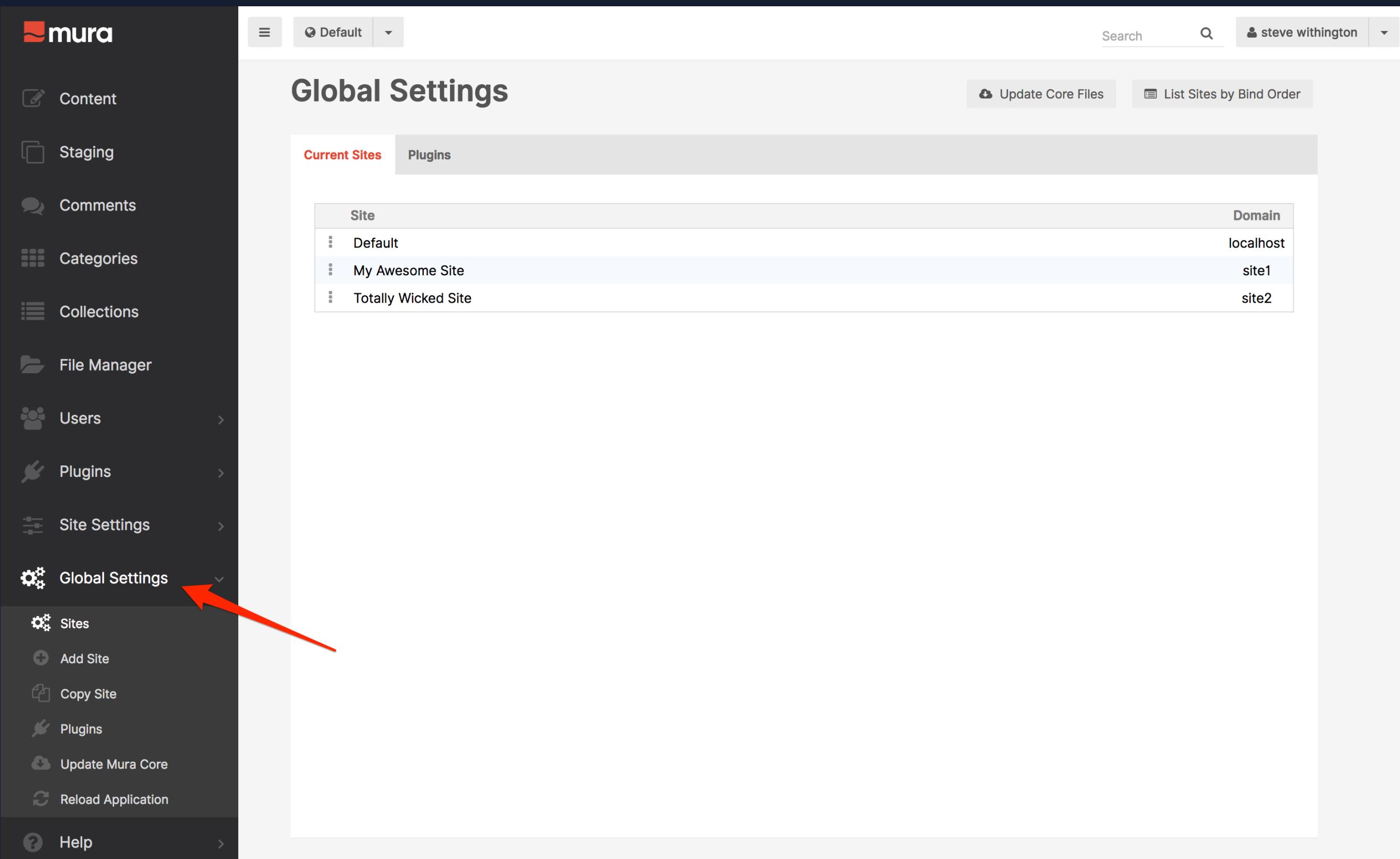
# Managing Multiple Sites

# Managing Multiple Sites

- Mura can host multiple websites under a single installation.

# Managing Multiple Sites

- Global Settings



The screenshot shows the Mura CMS interface for managing multiple sites. On the left, a dark sidebar menu lists various site management options. A red arrow points from the "Global Settings" option in this menu to the corresponding section on the main page. The main page title is "Global Settings". It features a navigation bar with tabs for "Current Sites" (which is selected) and "Plugins". Below this is a table titled "Site" with columns for "Site" and "Domain". The table contains three rows:

Site	Domain
Default	localhost
My Awesome Site	site1
Totally Wicked Site	site2

At the top right of the main area, there are two buttons: "Update Core Files" and "List Sites by Bind Order". The top right corner of the screen also displays the user information "steve withington".

# Managing Multiple Sites

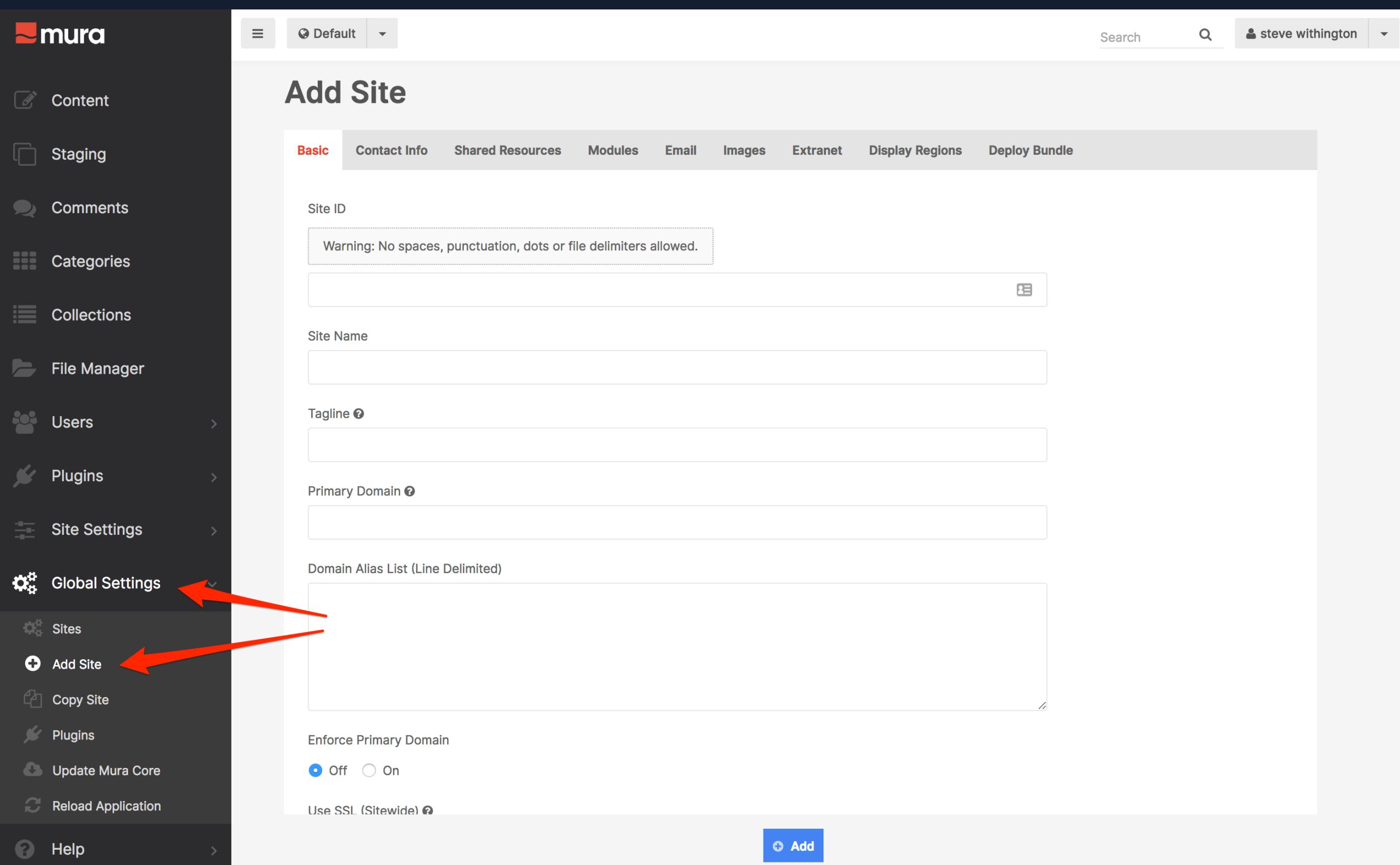
- Global Settings > Sites

The screenshot shows the Mura CMS interface. On the left is a dark sidebar with white icons and text, listing various site management options. Two red arrows point from the 'Global Settings' and 'Sites' menu items in this sidebar to the corresponding sections on the main page. The main page has a light background and features a header with a search bar and user information. Below the header is a title 'Global Settings' with tabs for 'Current Sites' and 'Plugins'. A red box highlights the 'Current Sites' table, which lists three sites: 'Default' (Domain: localhost), 'My Awesome Site' (Domain: site1), and 'Totally Wicked Site' (Domain: site2).

Site	Domain
Default	localhost
My Awesome Site	site1
Totally Wicked Site	site2

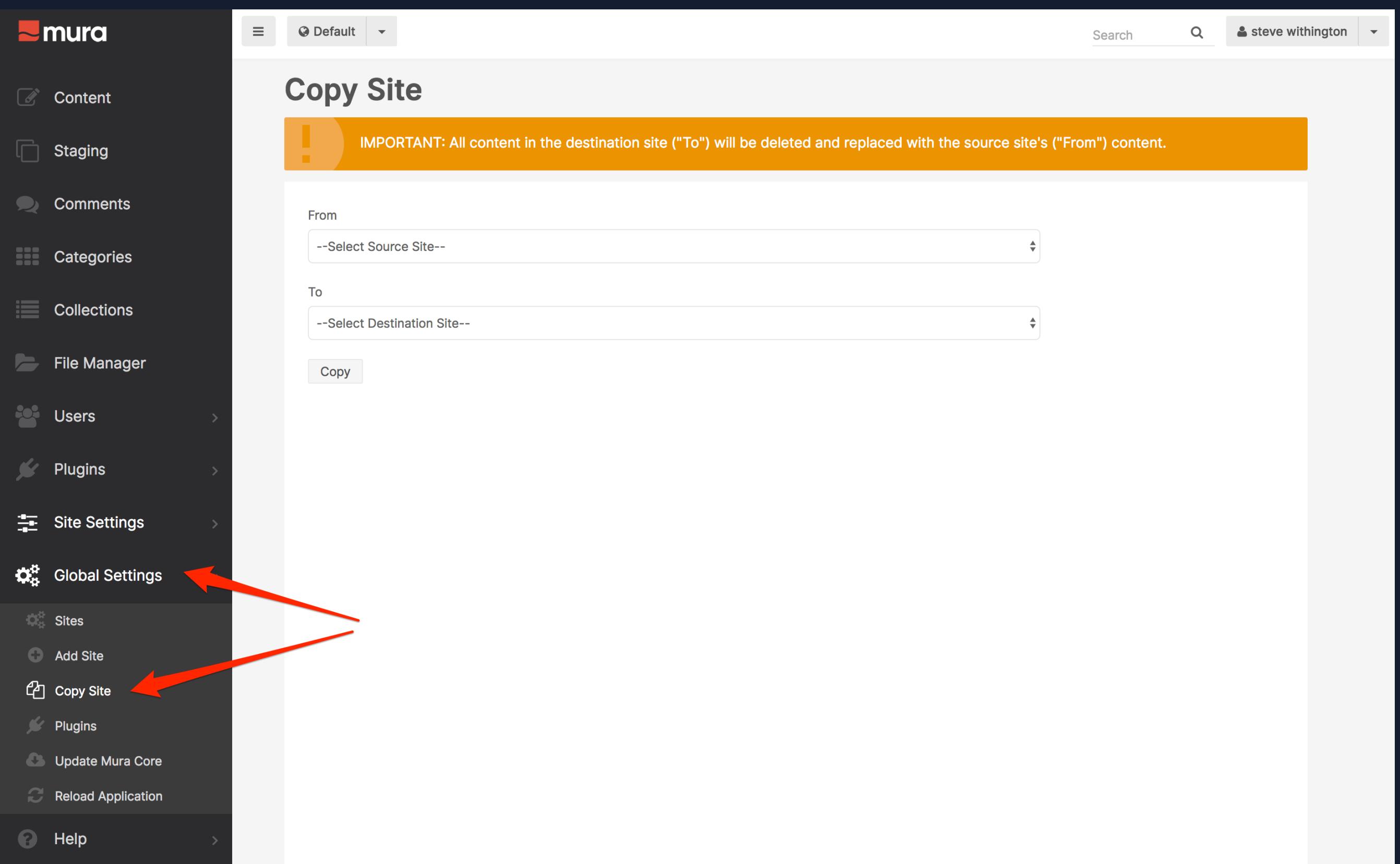
# Managing Multiple Sites

- Global Settings > Add Site



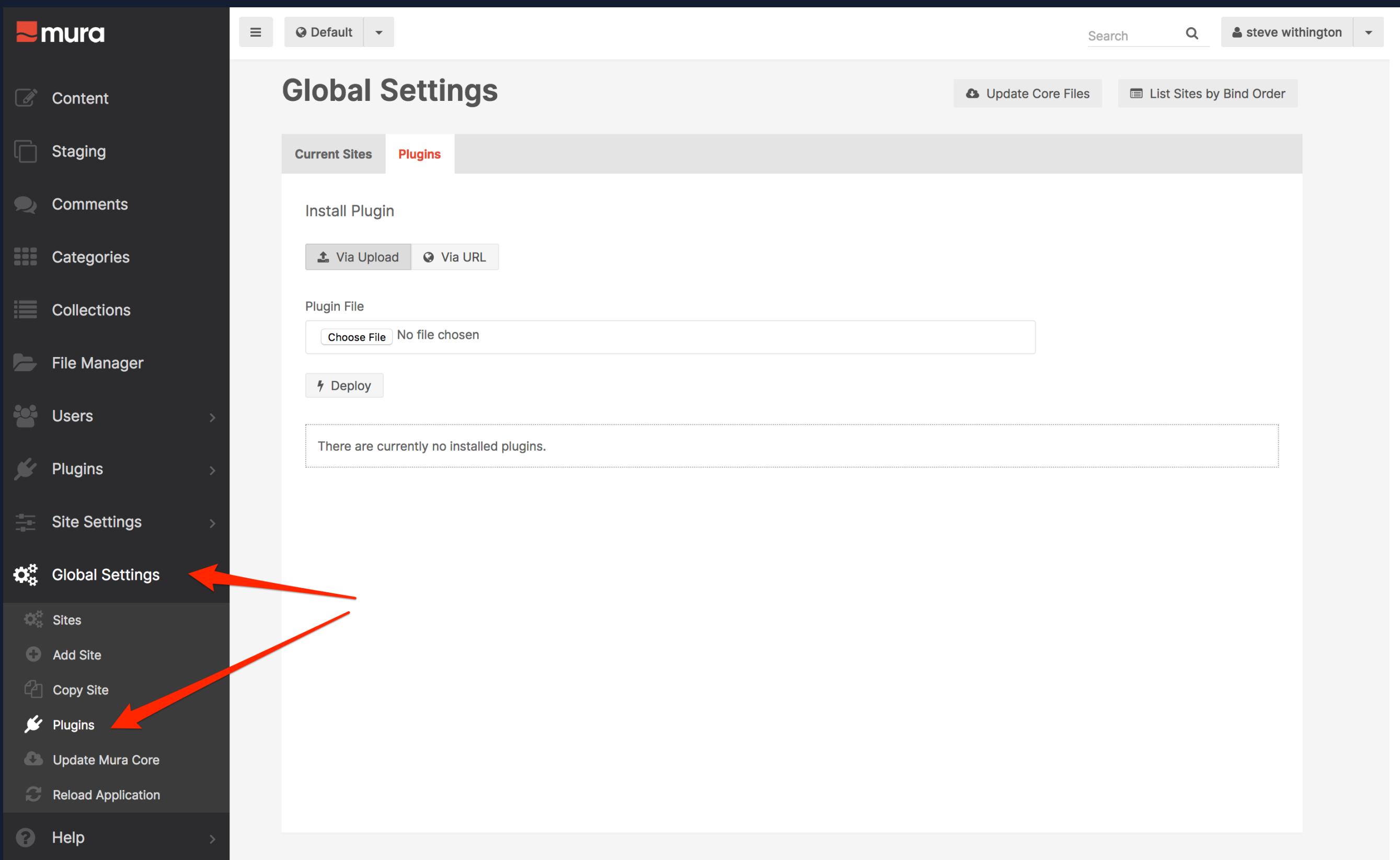
# Managing Multiple Sites

- Global Settings > Copy Site



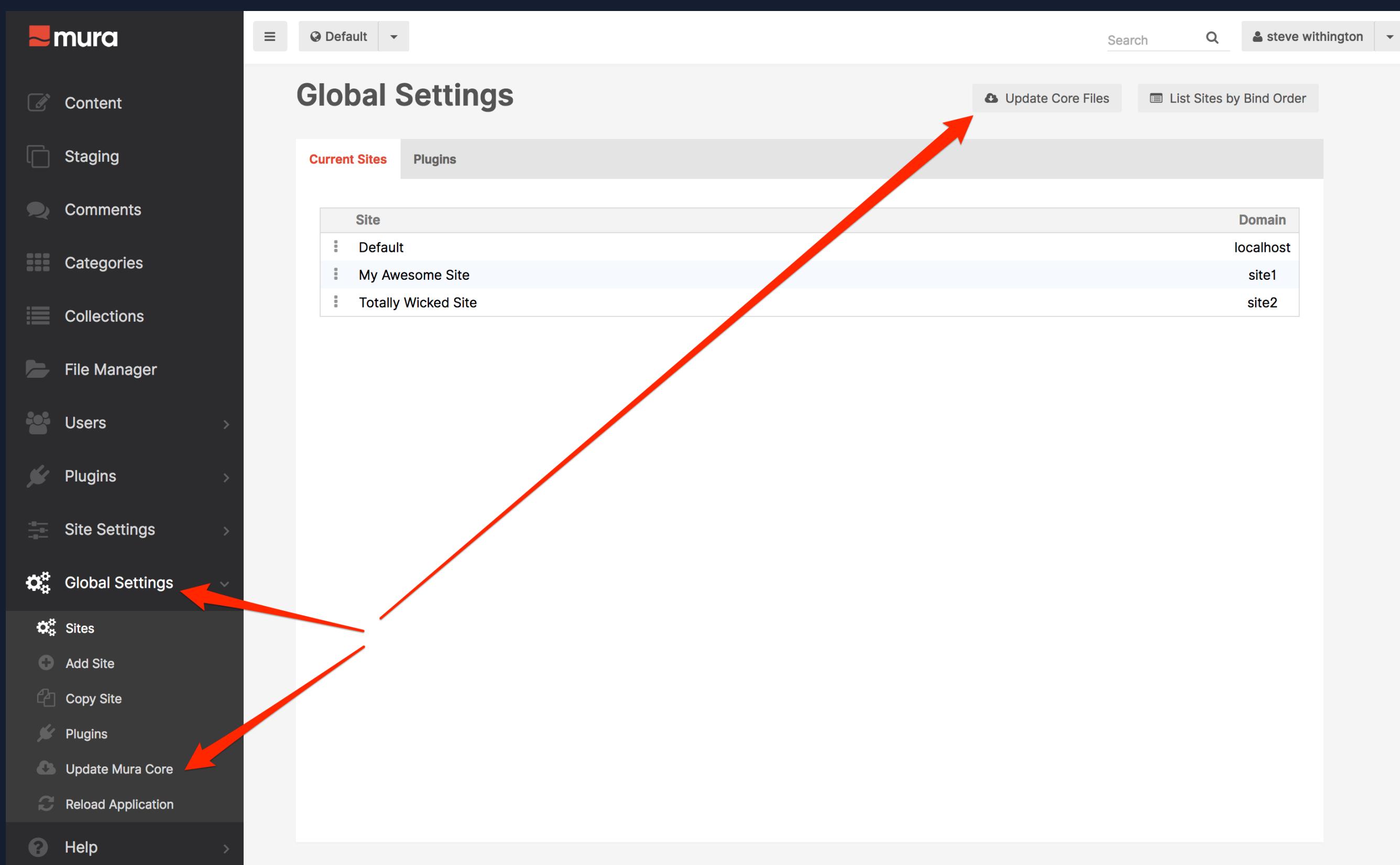
# Managing Multiple Sites

- Global Settings > Plugins



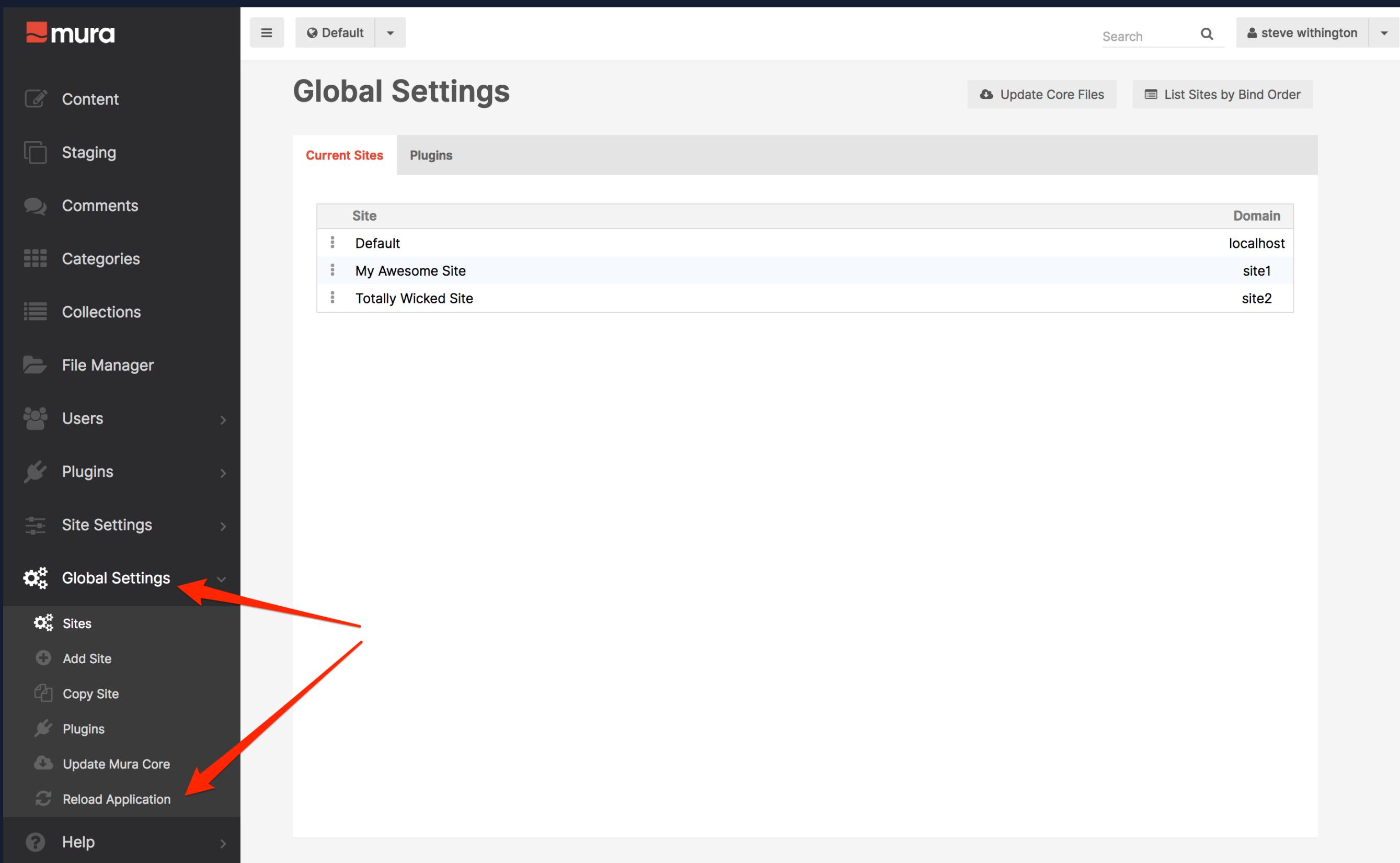
# Managing Multiple Sites

- Global Settings > Update Mura Core



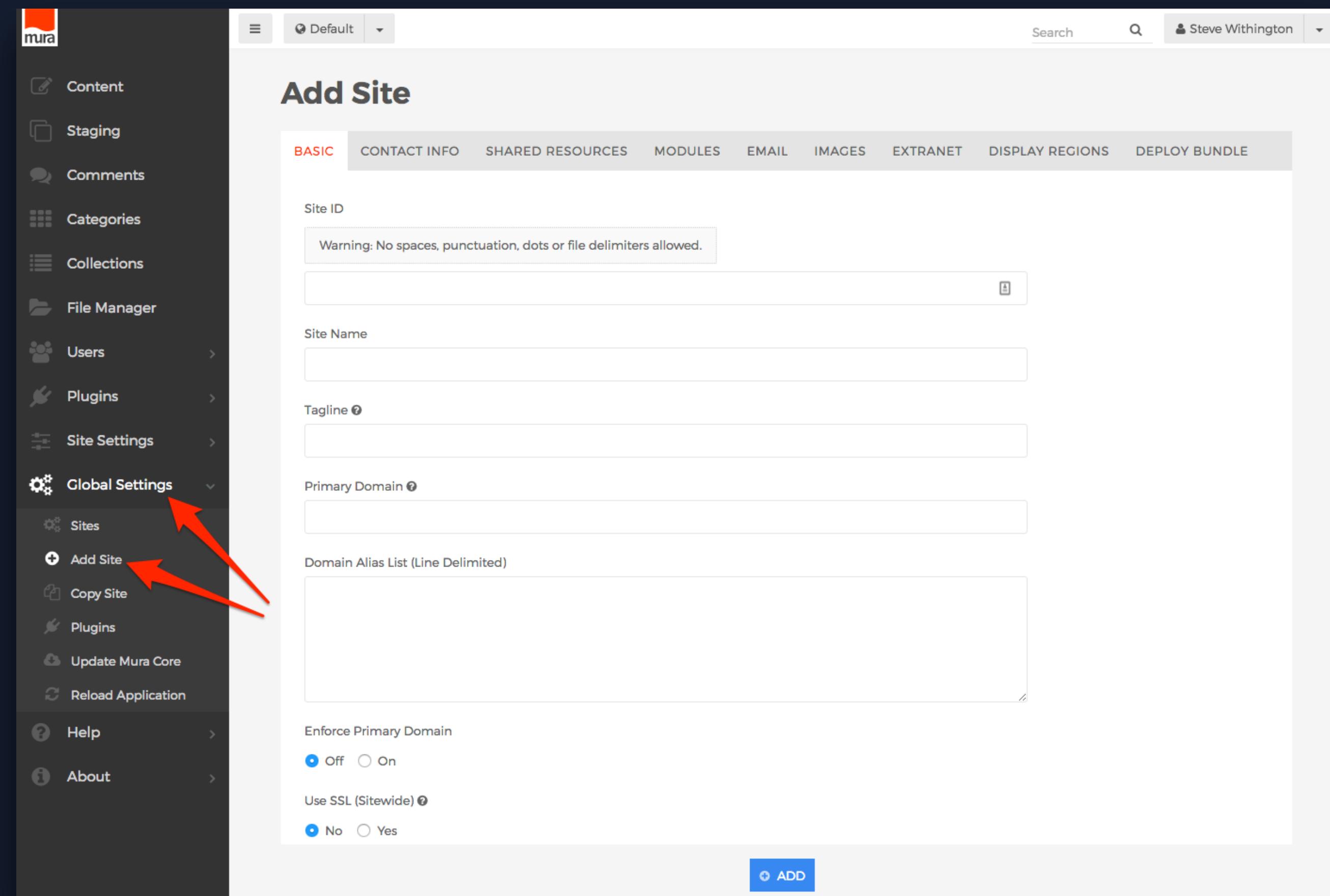
# Managing Multiple Sites

- Global Settings > Reload Application

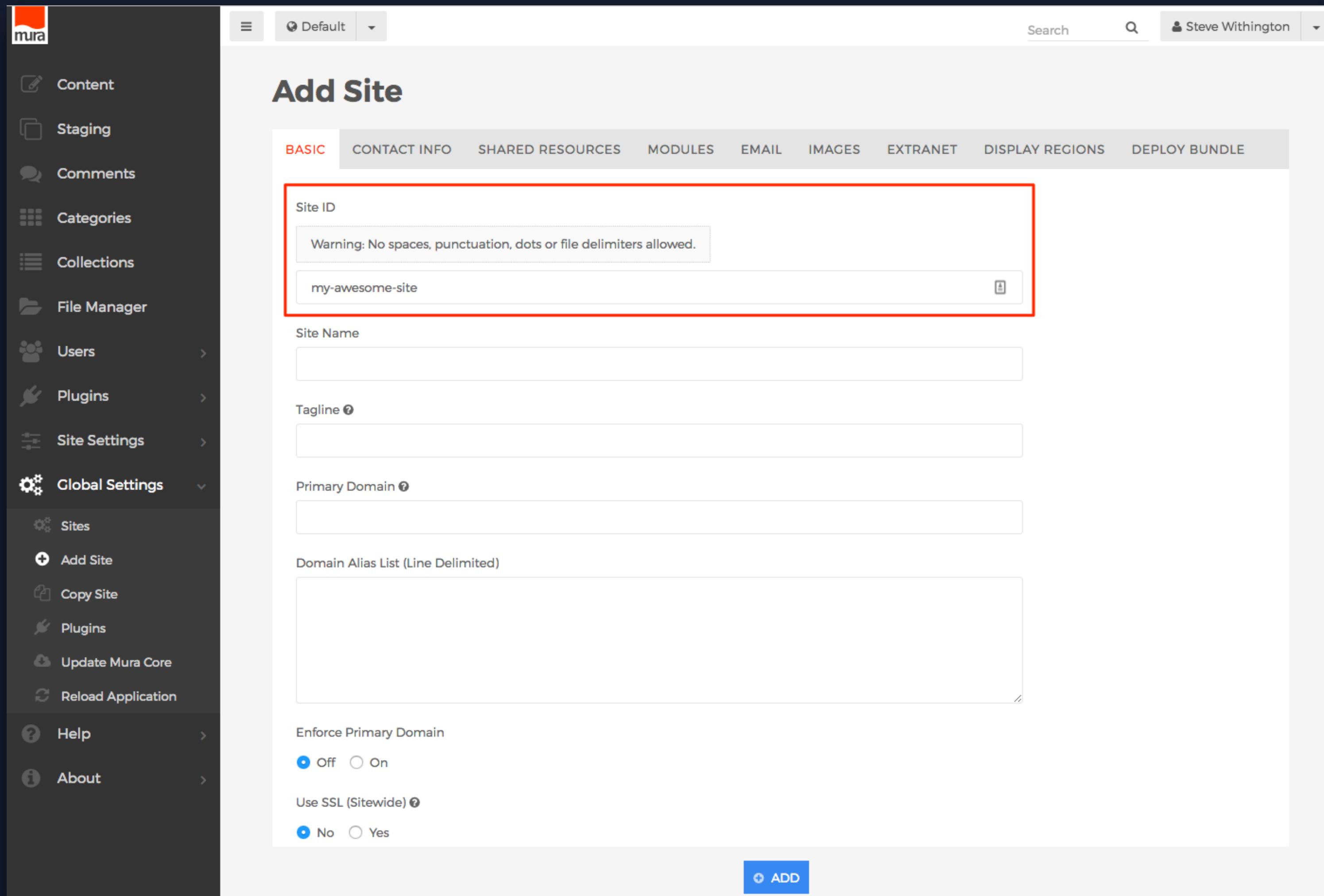


# How to Add a New Site

- Global Settings > Add Site



# How to Add a New Site



The screenshot shows the 'Add Site' form in the Mura CMS interface. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings (with 'Add Site' listed), Copy Site, Plugins, Update Mura Core, Reload Application, Help, and About. The main 'Add Site' page has a tab bar with 'BASIC' selected, followed by CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, DISPLAY REGIONS, and DEPLOY BUNDLE. The 'Site ID' field is highlighted with a red box and contains the value 'my-awesome-site'. A warning message above the field states: 'Warning: No spaces, punctuation, dots or file delimiters allowed.' Below the Site ID field are fields for Site Name, Tagline, Primary Domain, and Domain Alias List (Line Delimited). At the bottom are settings for Enforce Primary Domain (Off is selected), Use SSL (Sitewide) (No is selected), and a blue 'ADD' button.

Site ID  
Warning: No spaces, punctuation, dots or file delimiters allowed.  
my-awesome-site

Site Name

Tagline

Primary Domain

Domain Alias List (Line Delimited)

Enforce Primary Domain  
 Off  On

Use SSL (Sitewide)  
 No  Yes

**ADD**

# How to Add a New Site

The screenshot shows the 'Add Site' interface in the Mura CMS. The left sidebar has a dark theme with white icons and text. The main area is titled 'Add Site' and includes tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, DISPLAY REGIONS, and DEPLOY BUNDLE. The 'BASIC' tab is selected.

**Site ID:** my-awesome-site

**Site Name:** My Awesome Site

**Primary Domain:** myawesomesite.com

**Domain Alias List (Line Delimited):** (empty)

**Enforce Primary Domain:** Off (radio button selected)

**Use SSL (Sitewide):** No (radio button selected)

**ADD** button at the bottom right

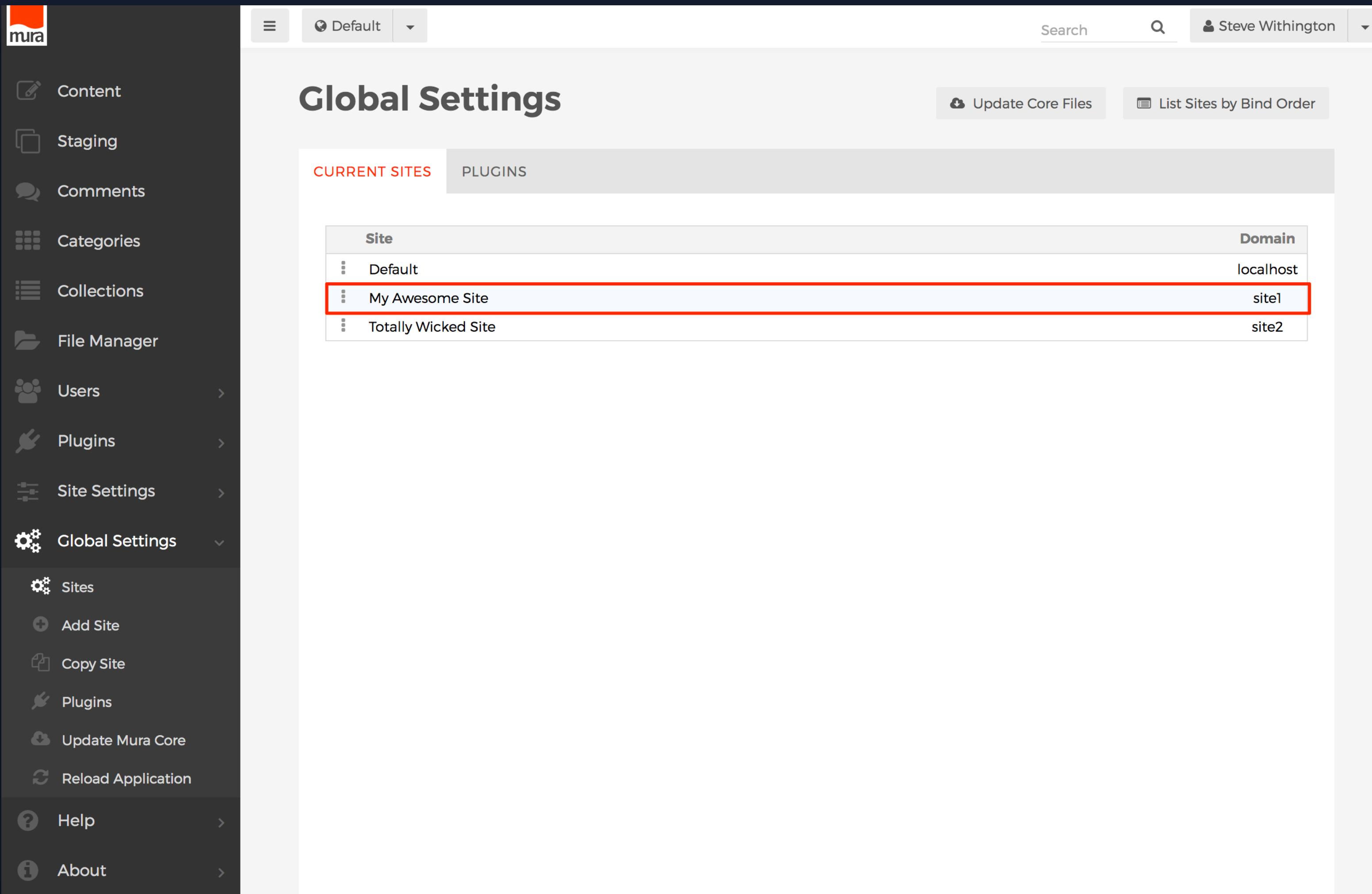
# How to Add a New Site

The screenshot shows the Mura CMS interface for adding a new site. The left sidebar contains navigation links such as Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings (with sub-options like Sites, Add Site, Copy Site, Plugins, Update Mura Core, Reload Application), Help, and About. The main content area is titled "Add Site" and includes tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, DISPLAY REGIONS, and DEPLOY BUNDLE. The BASIC tab is selected. The form fields include:

- Site ID: my-awesome-site (with a note: "Warning: No spaces, punctuation, dots or file delimiters allowed.")
- Site Name: My Awesome Site
- Tagline: (empty field)
- Primary Domain: myawesomesite.com
- Domain Alias List (Line Delimited): (empty text area)
- Enforce Primary Domain: Off (radio button selected)
- Use SSL (Sitewide): No (radio button selected)

A large red arrow points to the blue "ADD" button at the bottom of the form.

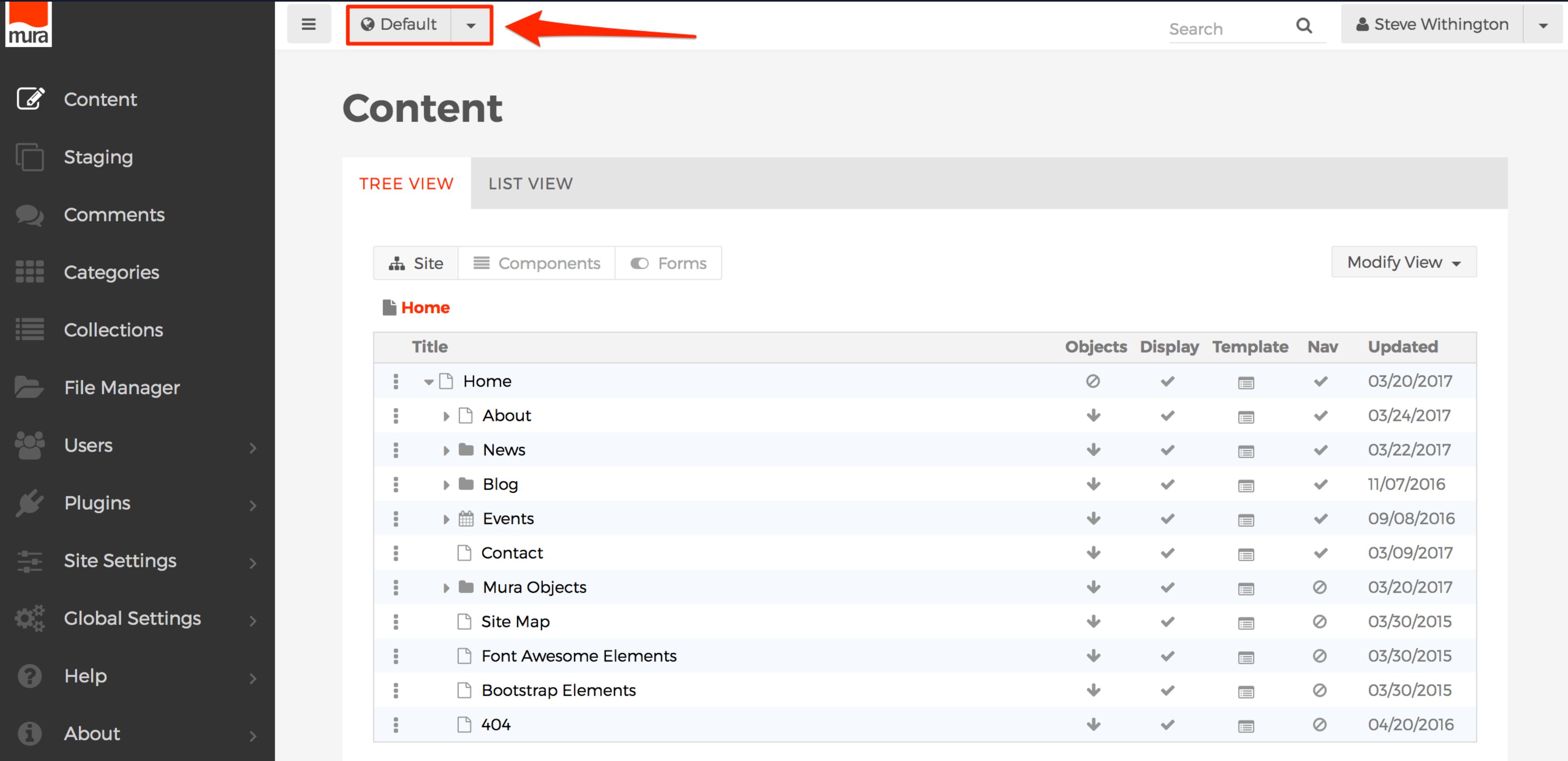
# How to Add a New Site



The screenshot shows the Mura CMS Global Settings interface. On the left is a dark sidebar with various navigation options. The main area is titled "Global Settings" and contains a table of "CURRENT SITES". The table has columns for "Site" and "Domain". Three sites are listed: "Default" (Domain: localhost), "My Awesome Site" (Domain: site1), and "Totally Wicked Site" (Domain: site2). The "My Awesome Site" row is highlighted with a red box.

Site	Domain
Default	localhost
My Awesome Site	site1
Totally Wicked Site	site2

# Switching Between Sites



The screenshot shows the Mura Content Management System (CMS) interface. On the left is a dark sidebar with various navigation options: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Content" and features a "TREE VIEW" tab (which is red) and a "LIST VIEW" tab. Below these are buttons for "Site", "Components", and "Forms". A "Modify View" button is also present. At the top right, there is a search bar, a user profile for "Steve Withington", and a dropdown menu labeled "Default". A red arrow points to the "Default" dropdown, indicating where a user can switch between different sites.

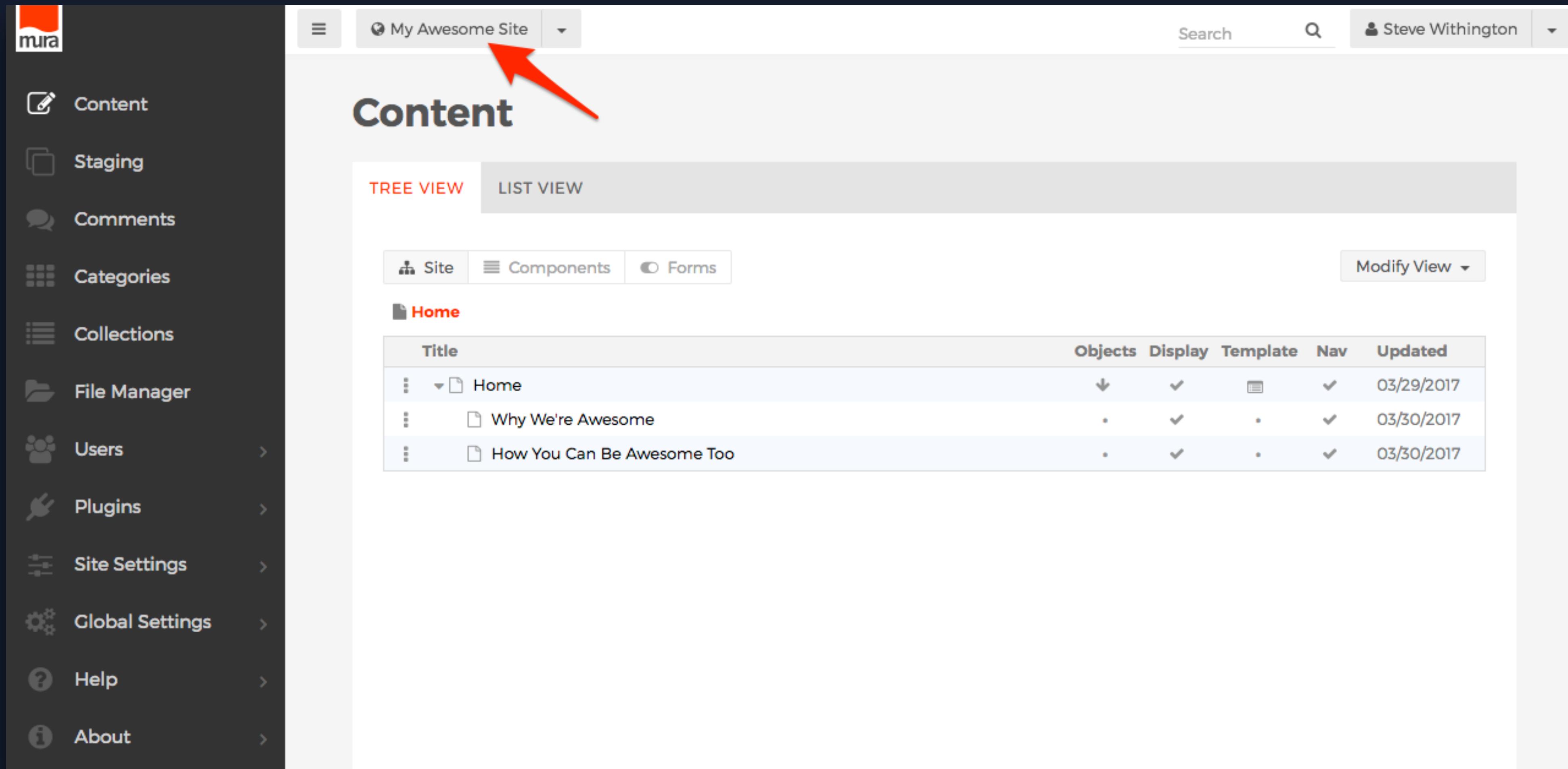
Title	Objects	Display	Template	Nav	Updated
Home	0	✓	☒	✓	03/20/2017
About	↓	✓	☒	✓	03/24/2017
News	↓	✓	☒	✓	03/22/2017
Blog	↓	✓	☒	✓	11/07/2016
Events	↓	✓	☒	✓	09/08/2016
Contact	↓	✓	☒	✓	03/09/2017
Mura Objects	↓	✓	☒	∅	03/20/2017
Site Map	↓	✓	☒	∅	03/30/2015
Font Awesome Elements	↓	✓	☒	∅	03/30/2015
Bootstrap Elements	↓	✓	☒	∅	03/30/2015
404	↓	✓	☒	∅	04/20/2016

# Switching Between Sites

The screenshot shows the Mura CMS interface. On the left is a dark sidebar with various navigation items: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The 'Content' item is currently selected. At the top right, there is a user profile for 'Steve Withington'. In the center, there is a dropdown menu labeled 'Default' with a red arrow pointing to it. A red box highlights this dropdown menu, which lists four sites: Default, My Awesome Site, My Cool Site, and My Local Site. Below the dropdown is a toolbar with tabs for Site, Components, and Forms, and a 'Modify View' button. The main content area is titled 'Home' and displays a table of objects:

Title	Objects	Display	Template	Nav	Updated
Home	0	✓	■	✓	03/20/2017
About	↓	✓	■	✓	03/24/2017
News	↓	✓	■	✓	03/22/2017
Blog	↓	✓	■	✓	11/07/2016
Events	↓	✓	■	✓	09/08/2016
Contact	↓	✓	■	✓	03/09/2017
Mura Objects	↓	✓	■	0	03/20/2017
Site Map	↓	✓	■	0	03/30/2015
Font Awesome Elements	↓	✓	■	0	03/30/2015
Bootstrap Elements	↓	✓	■	0	03/30/2015
404	↓	✓	■	0	04/20/2016

# Switching Between Sites



A screenshot of the Mura Content Management System (CMS) interface. The top navigation bar includes the Mura logo, a menu icon, the site name "My Awesome Site" (with a dropdown arrow), a search bar, and a user profile for "Steve Withington". A red arrow points to the "My Awesome Site" dropdown. The main content area is titled "Content" and shows a list of items under "Home". The list is displayed in "LIST VIEW". There are two tabs at the top of the list view: "TREE VIEW" (which is highlighted in red) and "LIST VIEW". Below the tabs are filters: "Site", "Components", and "Forms". On the right side of the list view is a "Modify View" button. The list itself has columns: Title, Objects, Display, Template, Nav, and Updated. The data in the list is as follows:

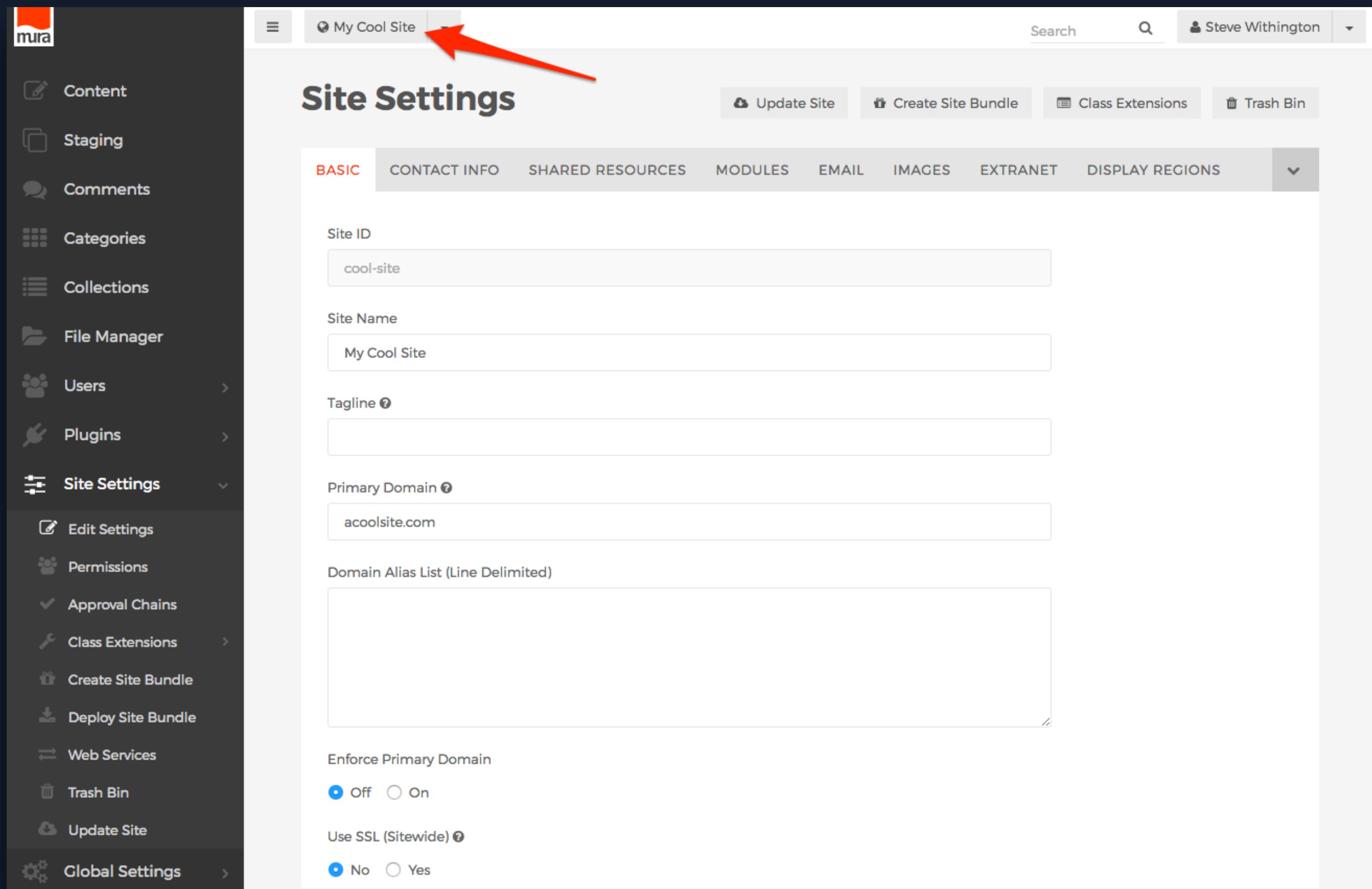
Title	Objects	Display	Template	Nav	Updated
Home	▼	✓	■	✓	03/29/2017
Why We're Awesome	•	✓	•	✓	03/30/2017
How You Can Be Awesome Too	•	✓	•	✓	03/30/2017

# Switching Between Sites

The screenshot shows the Mura CMS Global Settings interface. On the left is a dark sidebar with various navigation items. Two items in the sidebar are highlighted with red arrows pointing to them from below: "Global Settings" and "Sites". The main content area is titled "Global Settings" and contains tabs for "CURRENT SITES" and "PLUGINS". Under "CURRENT SITES", there is a table listing four sites: Default, My Awesome Site, My Cool Site, and My Local Site. Each row shows the site name, domain (e.g., 127.0.0.1 or myawesomesite.com), and version (7.0). There are also buttons for "Update Core Files", "Update Multiple Sites", and "List Sites by Bind Order".

Site	Domain	Version
Default	127.0.0.1	7.0
My Awesome Site	myawesomesite.com	7.0
My Cool Site	acoolsite.com	7.0
My Local Site	127.0.0.1	7.0

# Switching Between Sites



The screenshot shows the Mura CMS interface. On the left is a dark sidebar with various site management options: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (which is currently selected), Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, and Global Settings. The main content area is titled "Site Settings" and has tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, and DISPLAY REGIONS. The BASIC tab is active. It contains fields for Site ID (cool-site), Site Name (My Cool Site), Tagline, Primary Domain (acoolsite.com), and a Domain Alias List (Line Delimited) field which is empty. At the bottom are settings for Enforce Primary Domain (Off is selected) and Use SSL (Sitewide) (No is selected). In the top right corner, there is a search bar, a user profile for Steve Withington, and links for Update Site, Create Site Bundle, Class Extensions, and Trash Bin. A red arrow points to the "My Cool Site" dropdown in the top navigation bar.

# How to Delete a Site

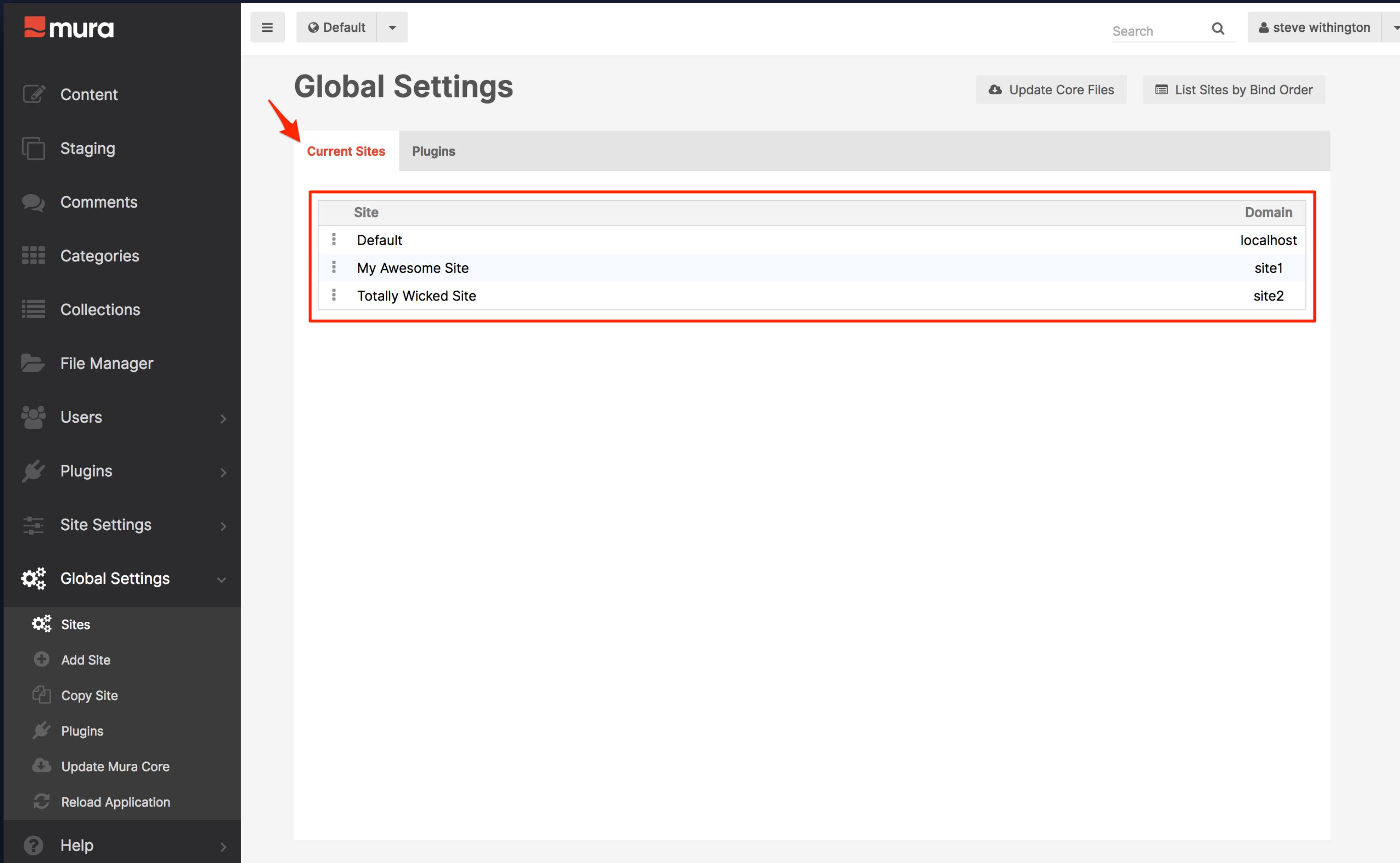
- Global Settings > Sites

The screenshot shows the Mura CMS interface. On the left is a dark sidebar with white icons and text, listing various site management options. Two specific items are highlighted with red arrows pointing to them: 'Global Settings' and 'Sites'. The main content area is titled 'Global Settings' and contains a sub-section titled 'Current Sites'. This section displays a table with three rows of site information:

Site	Domain
Default	localhost
My Awesome Site	site1
Totally Wicked Site	site2

At the top of the main content area, there are two tabs: 'Current Sites' (which is active) and 'Plugins'. There are also two buttons: 'Update Core Files' and 'List Sites by Bind Order'.

# How to Delete a Site



The screenshot shows the Mura CMS Global Settings interface. On the left is a dark sidebar with various navigation options. The main area is titled "Global Settings" and has two tabs: "Current Sites" (which is active and highlighted in red) and "Plugins". Below the tabs is a table listing three sites:

Site	Domain
Default	localhost
My Awesome Site	site1
Totally Wicked Site	site2

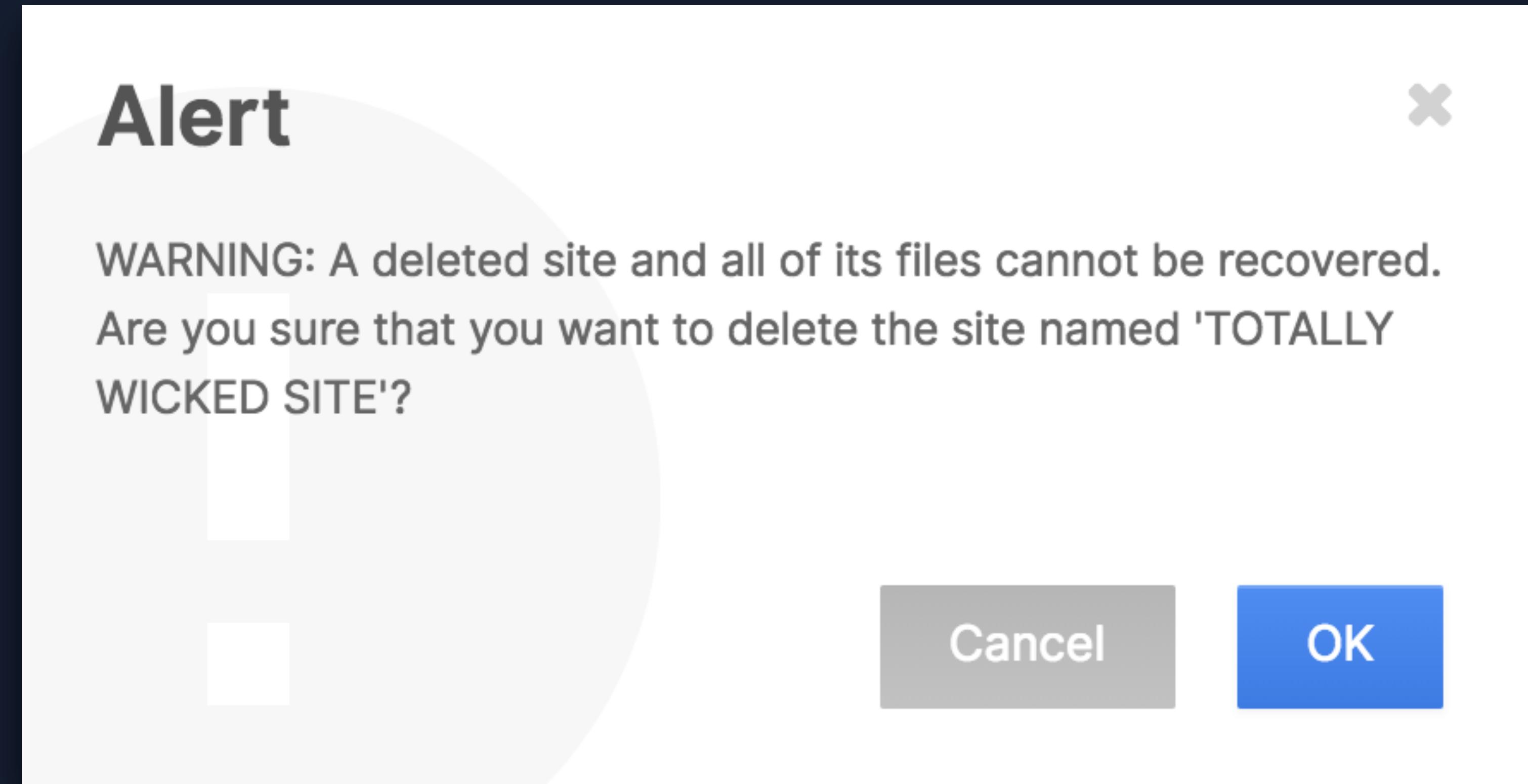
A red arrow points to the "Current Sites" tab, and a red box highlights the entire list of sites in the table.

# How to Delete a Site

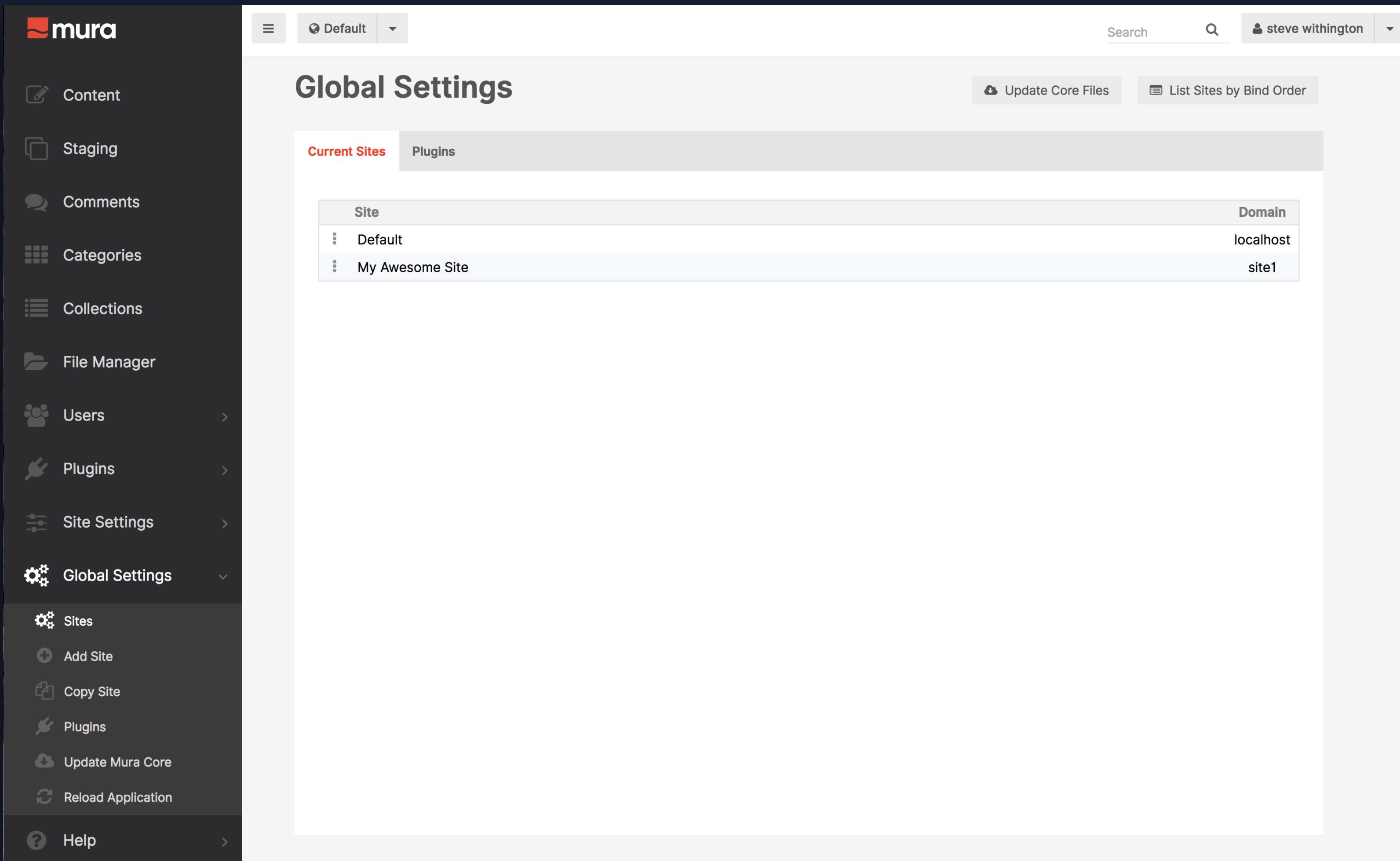
The screenshot shows the Mura CMS Global Settings interface. On the left is a dark sidebar with various management options. The main area is titled "Global Settings" and displays the "Current Sites" tab. A table lists sites with columns for "Site" and "Domain". The table shows three entries: "Default" (Domain: localhost), "My Awesome Site" (Domain: site1), and a third entry partially visible (Domain: site2). For the "My Awesome Site" row, there are "Edit" and "Delete" buttons. A red arrow points to the "Delete" button. At the top right of the main area are buttons for "Update Core Files" and "List Sites by Bind Order". The bottom of the screen shows the URL "localhost:8016/admin/?muraAction=cSettings.list#".

Site	Domain
Default	localhost
My Awesome Site	site1
site2	

# How to Delete a Site



# How to Delete a Site



The screenshot shows the Mura CMS interface with the title "Global Settings". On the left is a dark sidebar menu with various options like Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, and Global Settings. Under Global Settings, there's a "Sites" section with links for Add Site, Copy Site, Plugins, Update Mura Core, and Reload Application. The main content area is titled "Global Settings" and has tabs for "Current Sites" (which is selected) and "Plugins". Below the tabs is a table with two rows:

Site	Domain
Default	localhost
My Awesome Site	site1

At the top right of the main content area, there are buttons for "Update Core Files" and "List Sites by Bind Order". The top navigation bar includes a search bar, a user dropdown for "steve withington", and other standard navigation icons.

# Site Bundles

# Site Bundles

- Site Bundles are a convenient way to create backups and migrate your site(s) from one instance of Mura to another

# Create/Export a Site Bundle

- **Note:** If your bundles are in the 2Gb+ range, we highly encourage you to use more traditional backup and deployment strategies

# Create/Export a Site Bundle

The screenshot shows the Mura CMS interface for creating a site bundle. On the left, a dark sidebar lists various site management options. Two red arrows point from the text in the section header down to the 'Site Settings' and 'Create Site Bundle' items in the sidebar. The main content area is titled 'Create Site Bundle' and contains several configuration sections:

- Include in Site Bundle:** A descriptive box stating: "A Bundle includes a Site's architecture & content, all rendering files (display objects, themes, javascript, etc.) and any of the items you select below." Below this are five checkboxes:
  - Items in Trash Bin
  - Content Version Histories
  - Content Comments and Ratings
  - Form Response Data
  - Site Members & Administrative Users
- Also include selected Plugins:** A message stating: "This site currently has no plugins assigned to it."
- Server Directory (Optional):** A box with instructions: "Set the complete server path to the directory where the bundle .zip file is created. If left blank, the bundle file will immediately download in the browser after creation." It shows the current working directory: "/Users/steve/projects/MuraCMS/admin/temp".
- Select Working Directory:** A text input field.

At the bottom right is a blue button labeled "CREATE BUNDLE" with a checkmark icon.

# Create/Export a Site Bundle

The screenshot shows the Mura CMS interface for creating a site bundle. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (with sub-options like Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, Global Settings, and Help), and a search bar at the top.

The main content area is titled "Create Site Bundle". It includes a descriptive text box about what a bundle is, followed by a list of checkboxes for selecting items to include: Items in Trash Bin, Content Version Histories, Content Comments and Ratings, Form Response Data, and Site Members & Administrative Users. Below this is another section for selected plugins, which states "This site currently has no plugins assigned to it." A "Server Directory (Optional)" section allows setting a server path for the bundle file, with the current working directory listed as "/Users/steve/projects/MuraCMS/admin/temp". A "Select Working Directory" button is provided. At the bottom right is a blue "CREATE BUNDLE" button.

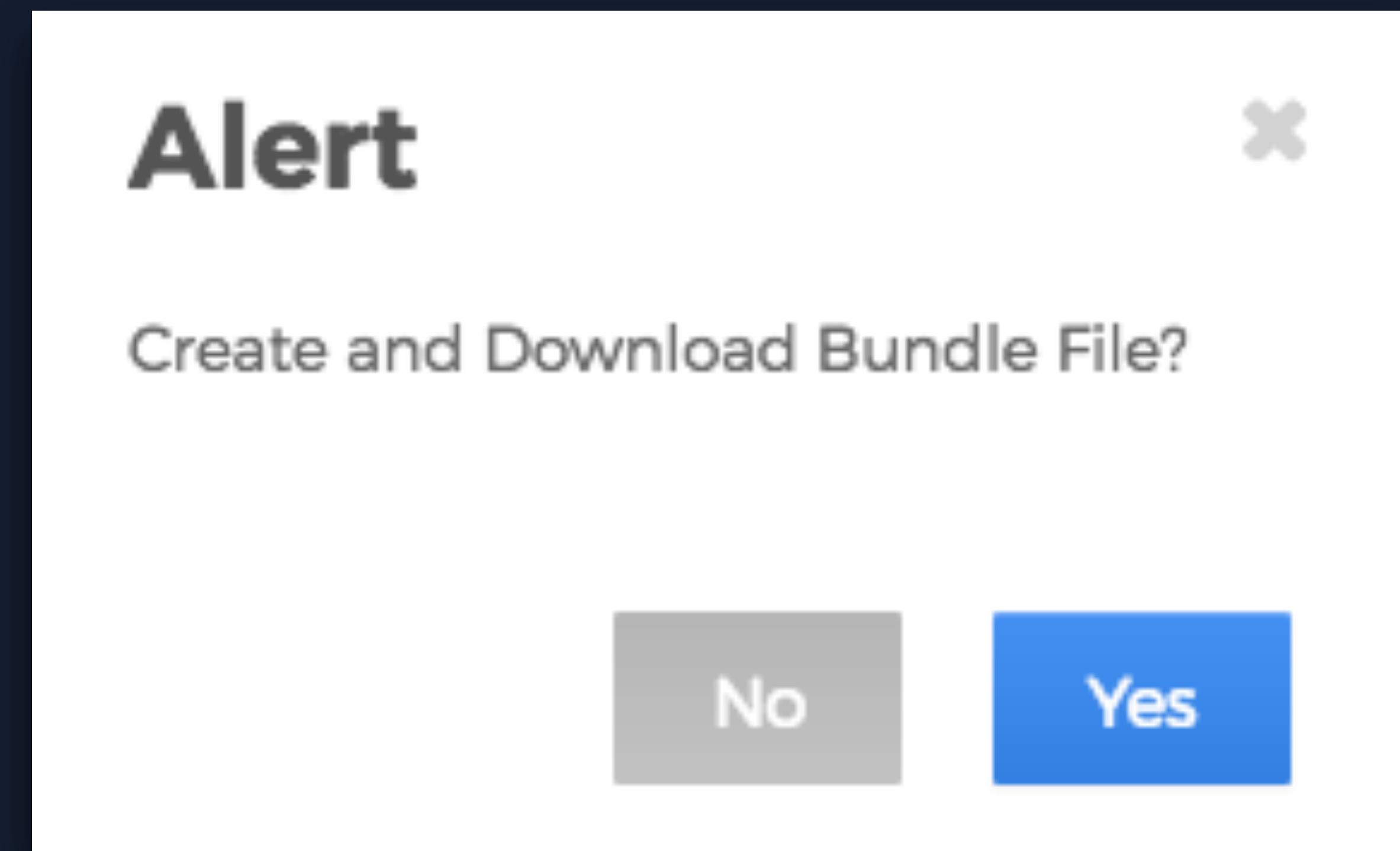
# Create/Export a Site Bundle

The screenshot shows the Mura CMS interface for creating a site bundle. The left sidebar contains navigation links such as Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (with sub-options like Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, Global Settings, and Help), and a blueriver logo at the bottom.

The main content area is titled "Create Site Bundle". It includes a descriptive text box about what a bundle is, a list of items to include (checkboxes for Items in Trash Bin, Content Version Histories, Content Comments and Ratings, Form Response Data, and Site Members & Administrative Users), and a section for selected Plugins (which is currently empty). There is also a "Server Directory (Optional)" section with a current working directory path: /Users/steve/projects/MuraCMS/admin/temp. A "Select Working Directory" input field is provided.

A large red arrow points to the "CREATE BUNDLE" button at the bottom of the form.

# Create/Export a Site Bundle



# Create/Export a Site Bundle

The screenshot shows the Mura CMS administration interface. On the left is a dark sidebar with white icons and text, listing various site management options: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (with sub-options like Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services (REST), JSON API, Trash Bin, Global Settings, and Help), and a question mark icon. The main content area has a light gray background. At the top, there's a navigation bar with a 'Default' dropdown, a search bar containing 'Search' and a magnifying glass icon, and a user profile for 'Steve Withington'. A green success message box is displayed, containing a green checkmark icon and the text: 'The bundle that you have requested has been created and is now available on your server at /app/admin/temp/MuraBundle\_default\_2018\_01\_03\_22\_16.zip'. Below this message, the title 'Bundle Created' is centered in a large, bold, dark font. To the right of the title is a small link 'Back to Site Settings'. At the bottom of the main area, there's a red button labeled 'Download Bundle' and a warning message in a box: 'Important: Leaving large bundle files on server can lead to excessive disk space usage.'

# Deploy/Install a Site Bundle

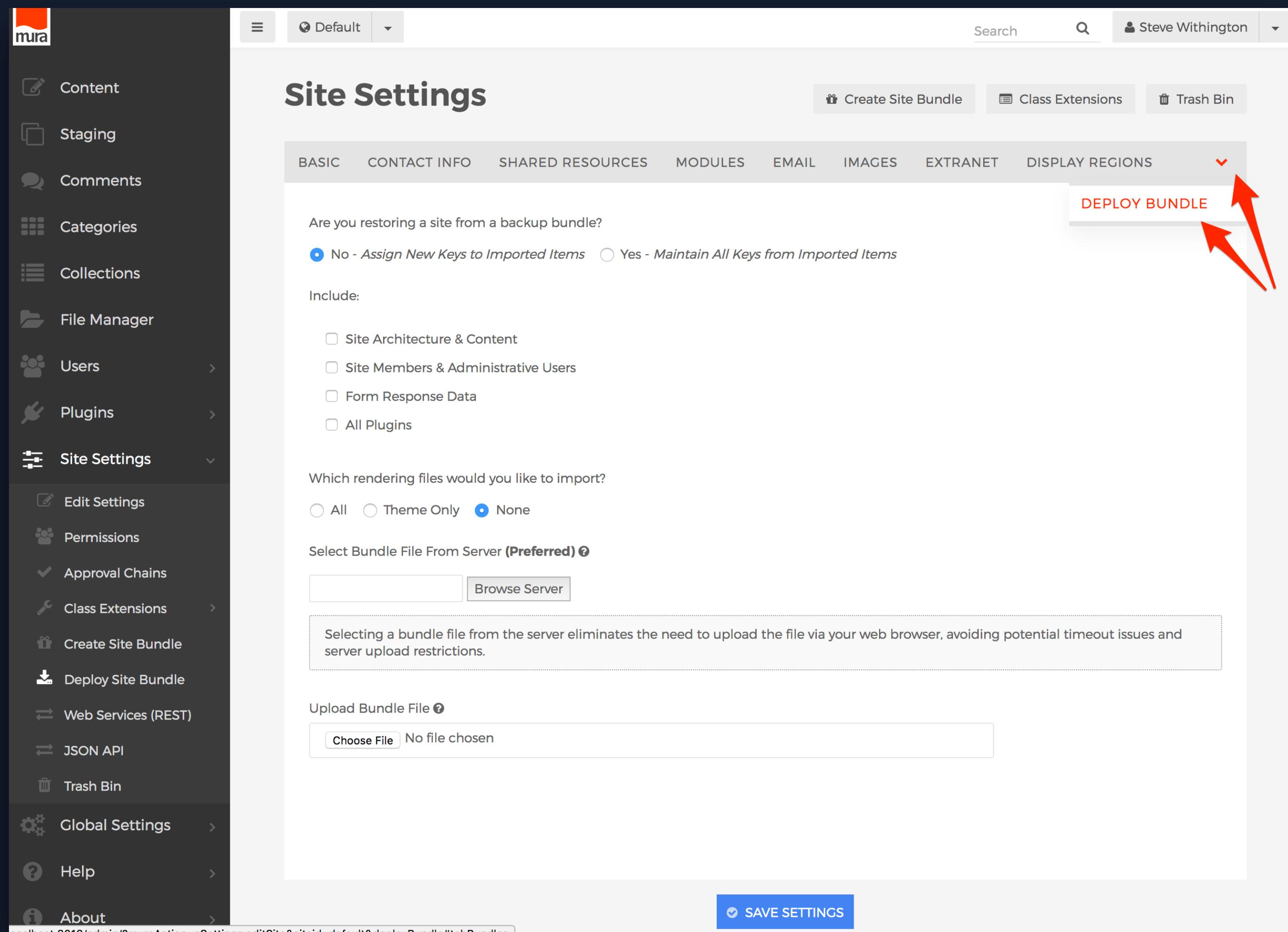
- **Note:** If your bundles are in the 2Gb+ range, we highly encourage you to use more traditional backup and deployment strategies

# Deploy/Install a Site Bundle

The screenshot shows the Mura CMS interface with the following details:

- Left Sidebar:** Contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (selected), Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle (disabled), Deploy Site Bundle (disabled), Web Services (REST), JSON API, Trash Bin, Global Settings, Help, and About.
- Top Bar:** Shows the mura logo, a dropdown menu set to "Default", a search bar, and a user profile for "Steve Withington".
- Page Title:** Site Settings
- Buttons:** Create Site Bundle, Class Extensions, and Trash Bin.
- Tab Bar:** BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, DISPLAY REGIONS.
- Form Fields:**
  - Are you restoring a site from a backup bundle?  
No - Assign New Keys to Imported Items (radio button selected) Yes - Maintain All Keys from Imported Items
  - Include:
    - Site Architecture & Content
    - Site Members & Administrative Users
    - Form Response Data
    - All Plugins
  - Which rendering files would you like to import?  
All (radio button) Theme Only (radio button) None (radio button selected)
  - Select Bundle File From Server (Preferred)  
Browse Server
  - Selecting a bundle file from the server eliminates the need to upload the file via your web browser, avoiding potential timeout issues and server upload restrictions.
  - Upload Bundle File  
Choose File No file chosen
- Buttons:** SAVE SETTINGS

# Deploy/Install a Site Bundle

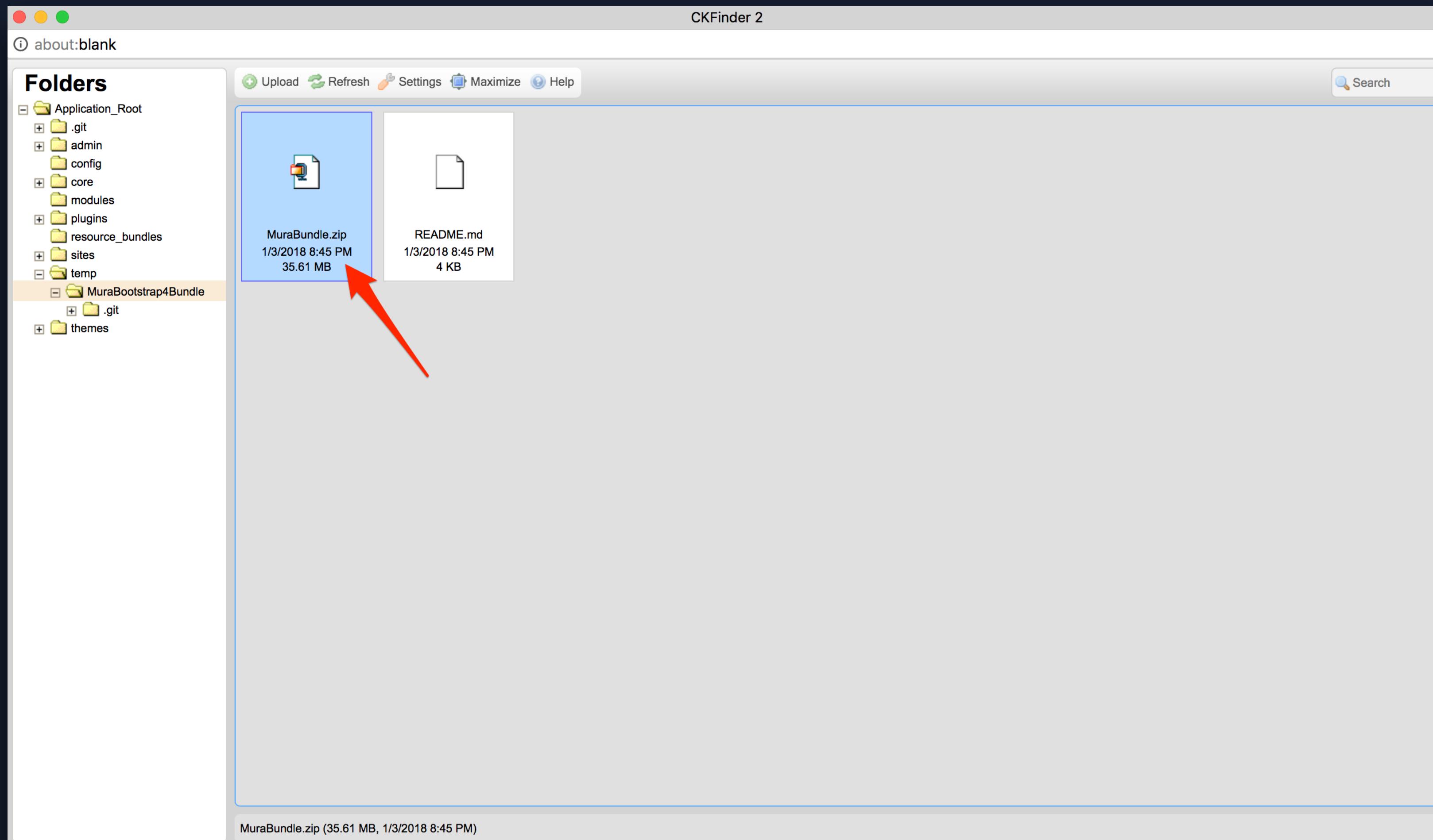


The screenshot shows the Mura CMS Site Settings page. On the left is a dark sidebar with various site management options. The main area is titled "Site Settings" and contains several tabs: BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, and DISPLAY REGIONS. The DISPLAY REGIONS tab is currently active, indicated by a downward arrow icon. A prominent red arrow points to a blue "DEPLOY BUNDLE" button located at the top right of the page. Below the tabs, there are sections for restoring from a backup bundle, selecting items to include (with checkboxes for Site Architecture & Content, Site Members & Administrative Users, Form Response Data, and All Plugins), and choosing rendering files (with options for All, Theme Only, or None). There is also a section for selecting a bundle file from the server, which includes a "Browse Server" button and a note about avoiding timeouts. At the bottom, there is an "Upload Bundle File" section with a "Choose File" button and a message indicating no file has been selected. A large blue "SAVE SETTINGS" button is located at the very bottom right.

# Deploy/Install a Site Bundle

The screenshot shows the Mura CMS interface with the 'Site Settings' page open. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, and Site Settings. Under Site Settings, there are sub-links for Edit Settings, Permissions, Approval Chains (which is checked), Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services (REST), JSON API, and Trash Bin. The main content area is titled 'Site Settings' and includes tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, and DISPLAY REGIONS. The 'BASIC' tab is selected. It features sections for restoring from a backup bundle (with options 'No - Assign New Keys to Imported Items' (selected) and 'Yes - Maintain All Keys from Imported Items'), including items (with checkboxes for Site Architecture & Content, Site Members & Administrative Users, Form Response Data, and All Plugins), selecting rendering files (with options 'All', 'Theme Only', and 'None' (selected)), and selecting a bundle file from the server (with a 'Browse Server' button). A note states: 'Selecting a bundle file from the server eliminates the need to upload the file via your web browser, avoiding potential timeout issues and server upload restrictions.' At the bottom, there is an 'Upload Bundle File' section with a 'Choose File' button (showing 'No file chosen') and a 'SAVE SETTINGS' button.

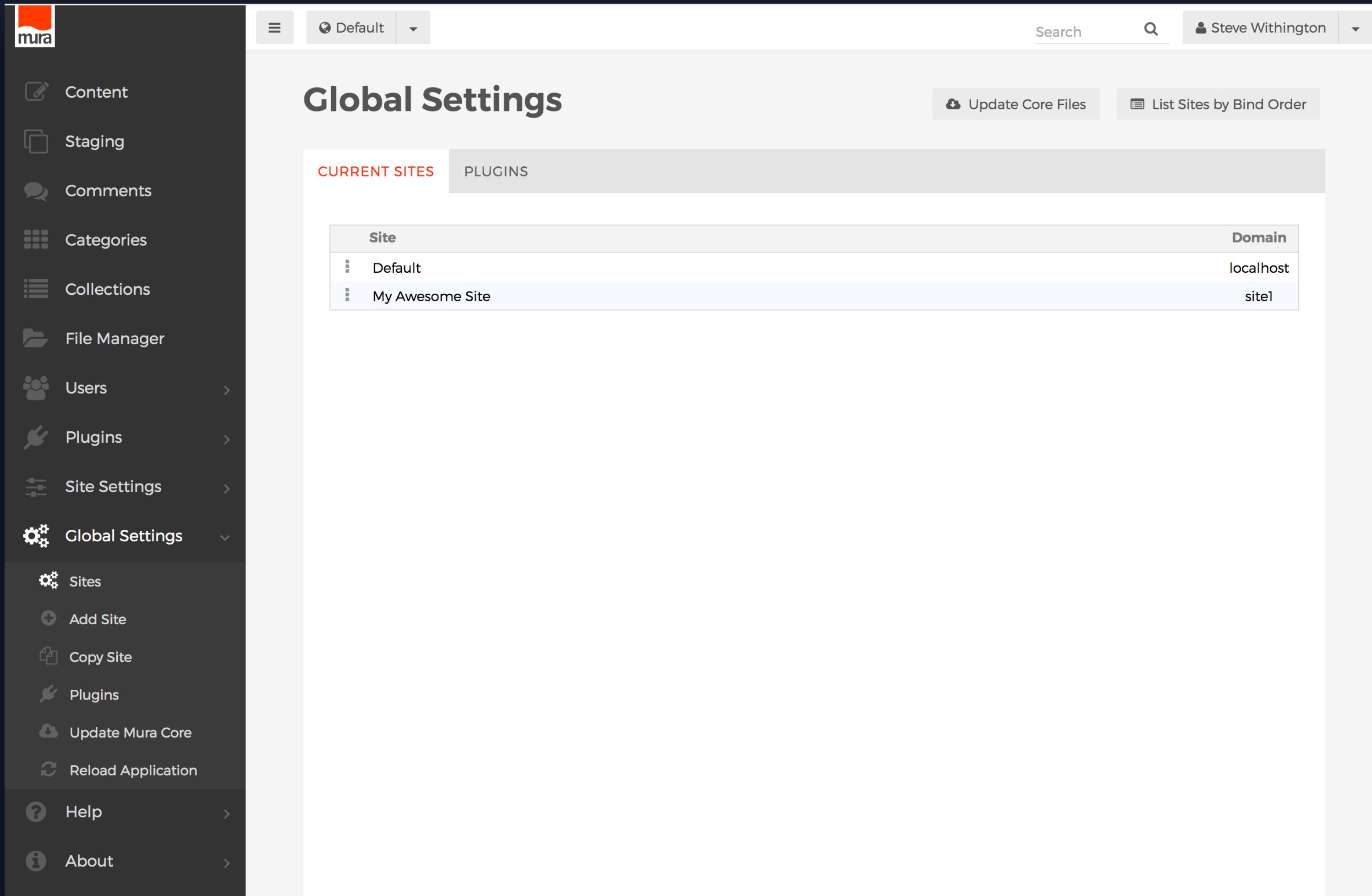
# Deploy/Install a Site Bundle



# Deploy/Install a Site Bundle

The screenshot shows the Mura CMS interface with the 'Site Settings' page open. On the left is a dark sidebar with various navigation options. The main area is titled 'Site Settings' and includes tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, and DISPLAY REGIONS. Under the BASIC tab, there's a section for restoring a site from a backup bundle, with two radio buttons: 'No - Assign New Keys to Imported Items' (selected) and 'Yes - Maintain All Keys from Imported Items'. Below this is an 'Include' section with checkboxes for Site Architecture & Content, Site Members & Administrative Users, Form Response Data, and All Plugins. There's also a section for selecting rendering files, with radio buttons for All, Theme Only, and None (selected). A 'Select Bundle File From Server (Preferred)' section contains a text input field with the value '/app/temp/MuraBootstrap' and a 'Browse Server' button. A note below says 'Selecting a bundle file from the server eliminates the need to upload the file via your web browser, avoiding potential timeout issues and server upload restrictions.' At the bottom is an 'Upload Bundle File' section with a 'Choose File' button and a message 'No file chosen'. The 'SAVE SETTINGS' button at the very bottom is highlighted with a red arrow.

# Deploy/Install a Site Bundle



The screenshot shows the Mura CMS Global Settings interface. On the left is a dark sidebar menu with various options like Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings (which is currently selected), Sites, Add Site, Copy Site, Plugins, Update Mura Core, Reload Application, Help, and About. The main content area is titled "Global Settings" and has tabs for "CURRENT SITES" (which is red) and "PLUGINS". Below these tabs is a table with columns "Site" and "Domain". It lists two sites: "Default" with domain "localhost" and "My Awesome Site" with domain "site1". There are also buttons for "Update Core Files" and "List Sites by Bind Order".

Site	Domain
Default	localhost
My Awesome Site	site1

# Lab Exercise

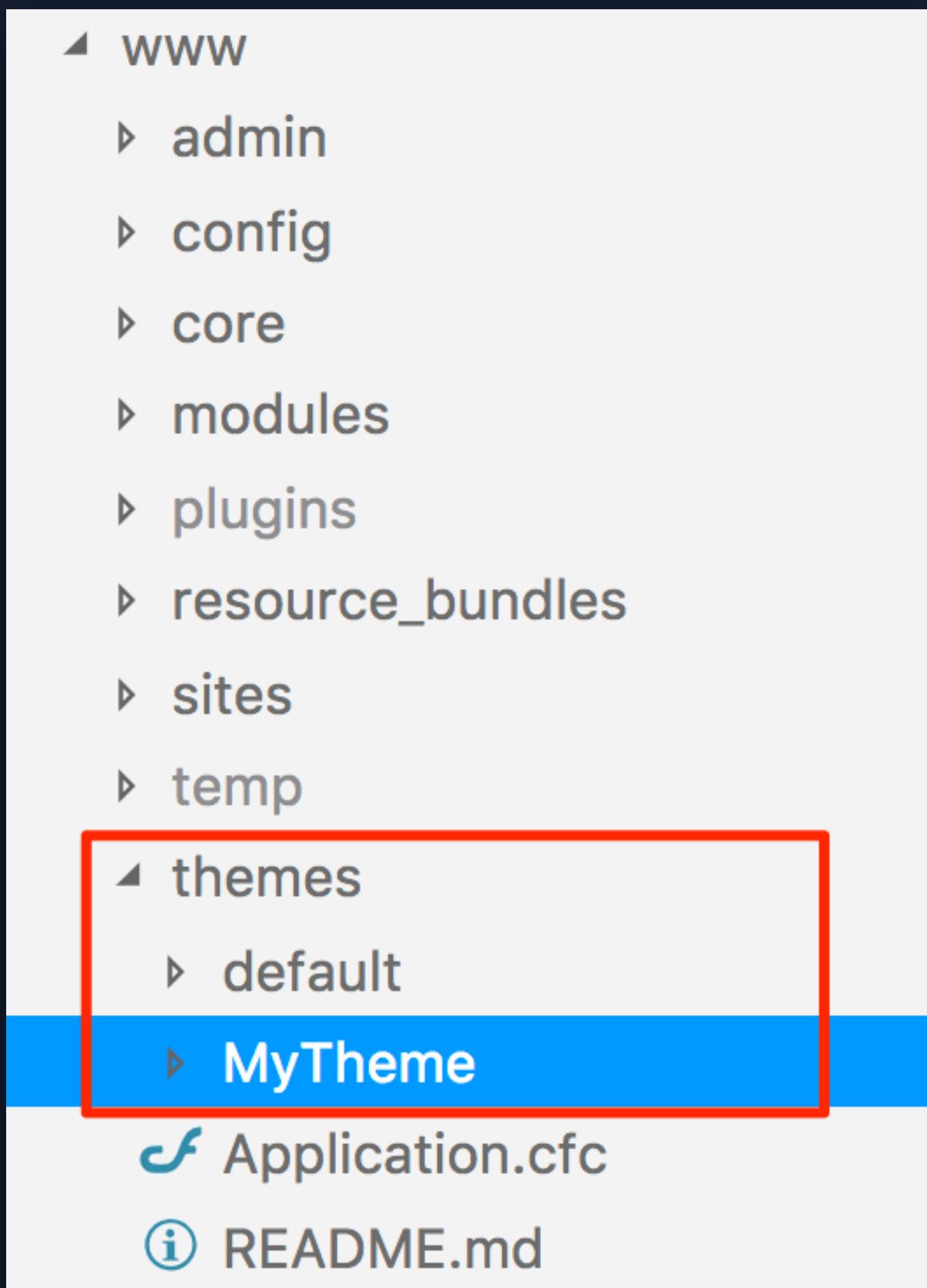
OUR FIRST THEME!

# Lab Exercise

- Create a new theme labeled “MyTheme”
- Assign the theme
- Preview the site
- Review the error
- Fix the error

# Create “MyTheme”

- {context}/themes/MyTheme



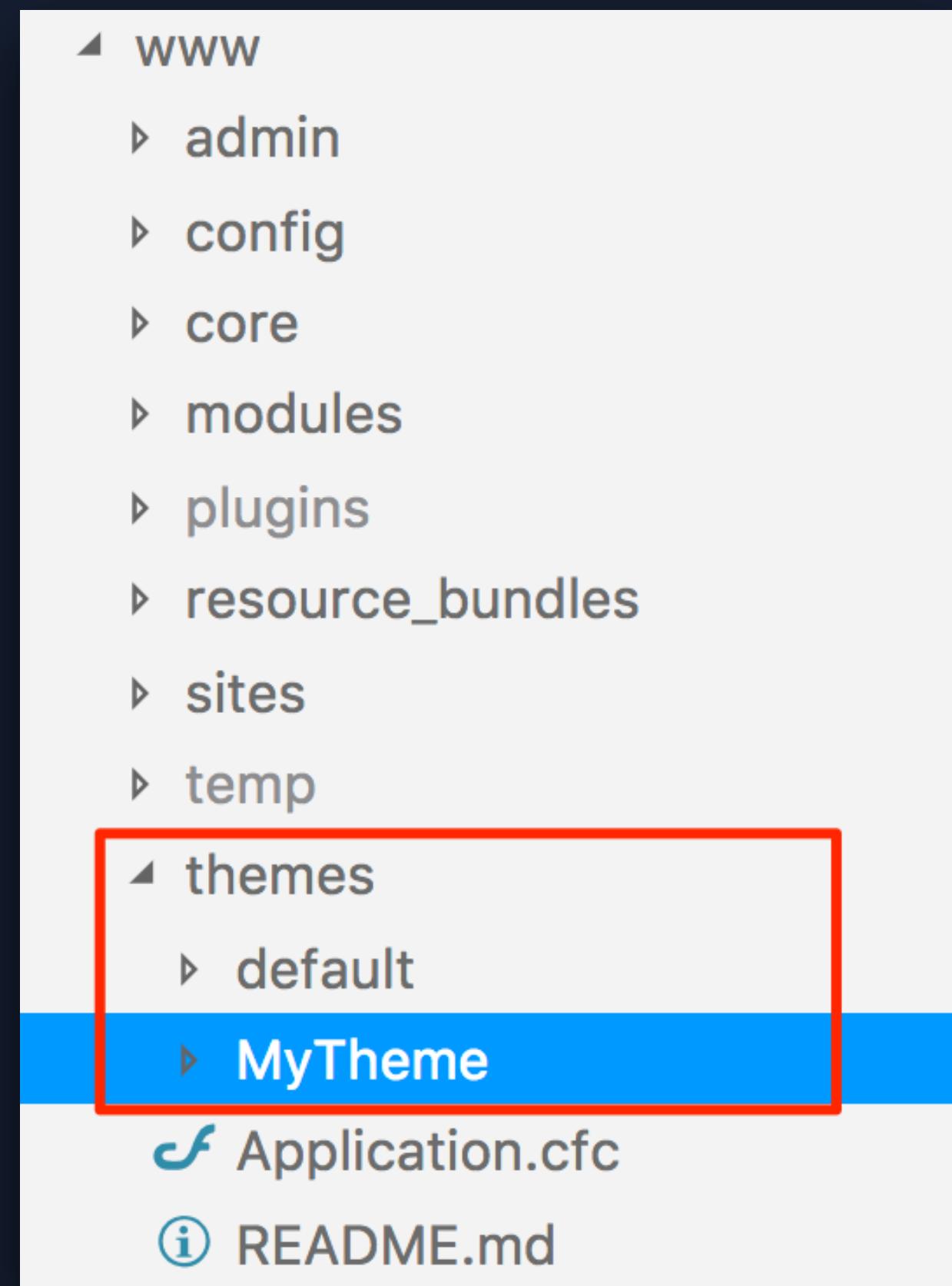
# Assign Theme, Preview Site

- {context}/themes/MyTheme

The 'default.cfm' layout template could not be found. Please verify that **/themes/MyTheme/templates/default.cfm** exists and try again.

# Review the Error

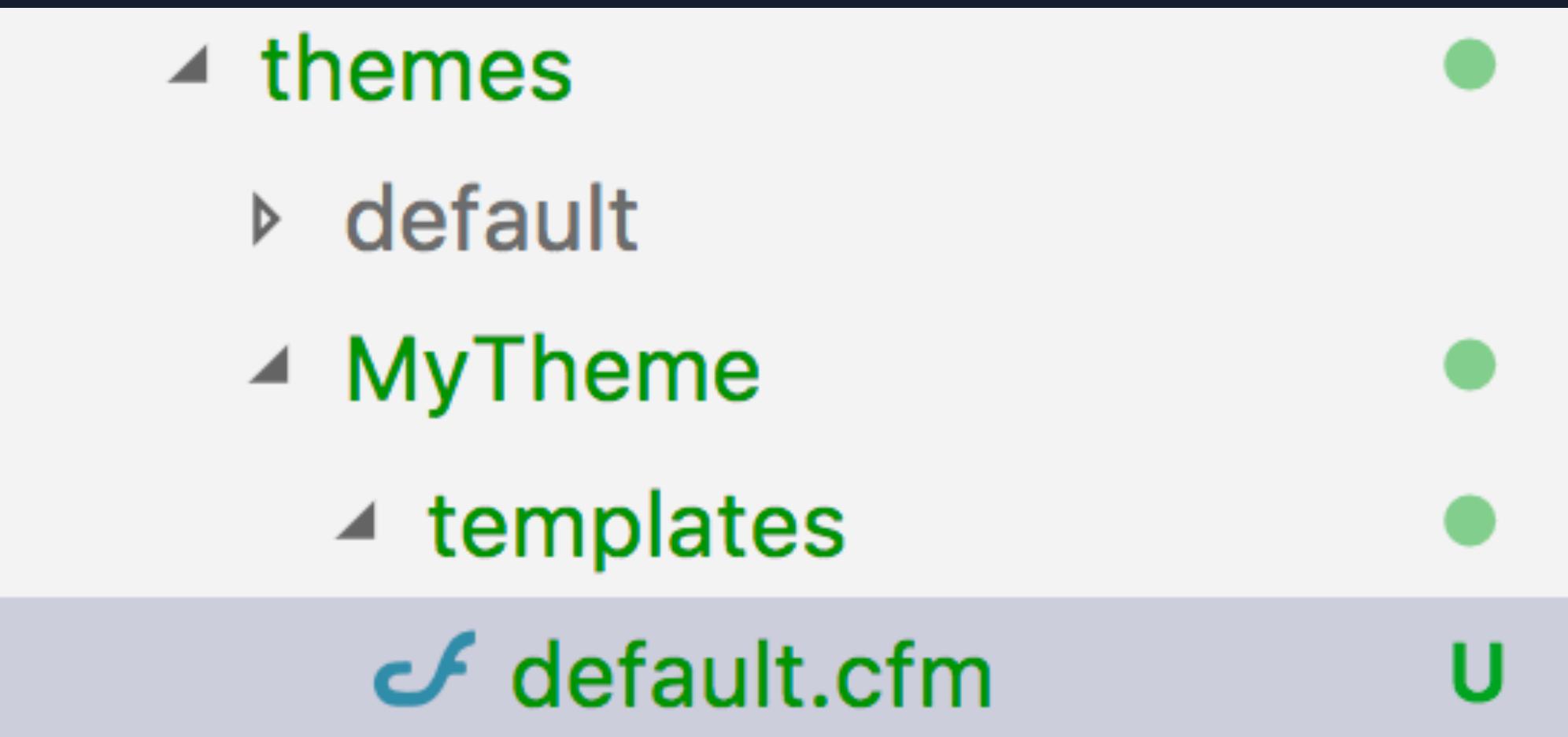
- {context}/themes/MyTheme
  - **/templates/default.cfm**



The 'default.cfm' layout template could not be found. Please verify that **/themes/MyTheme/templates/default.cfm** exists and try again.

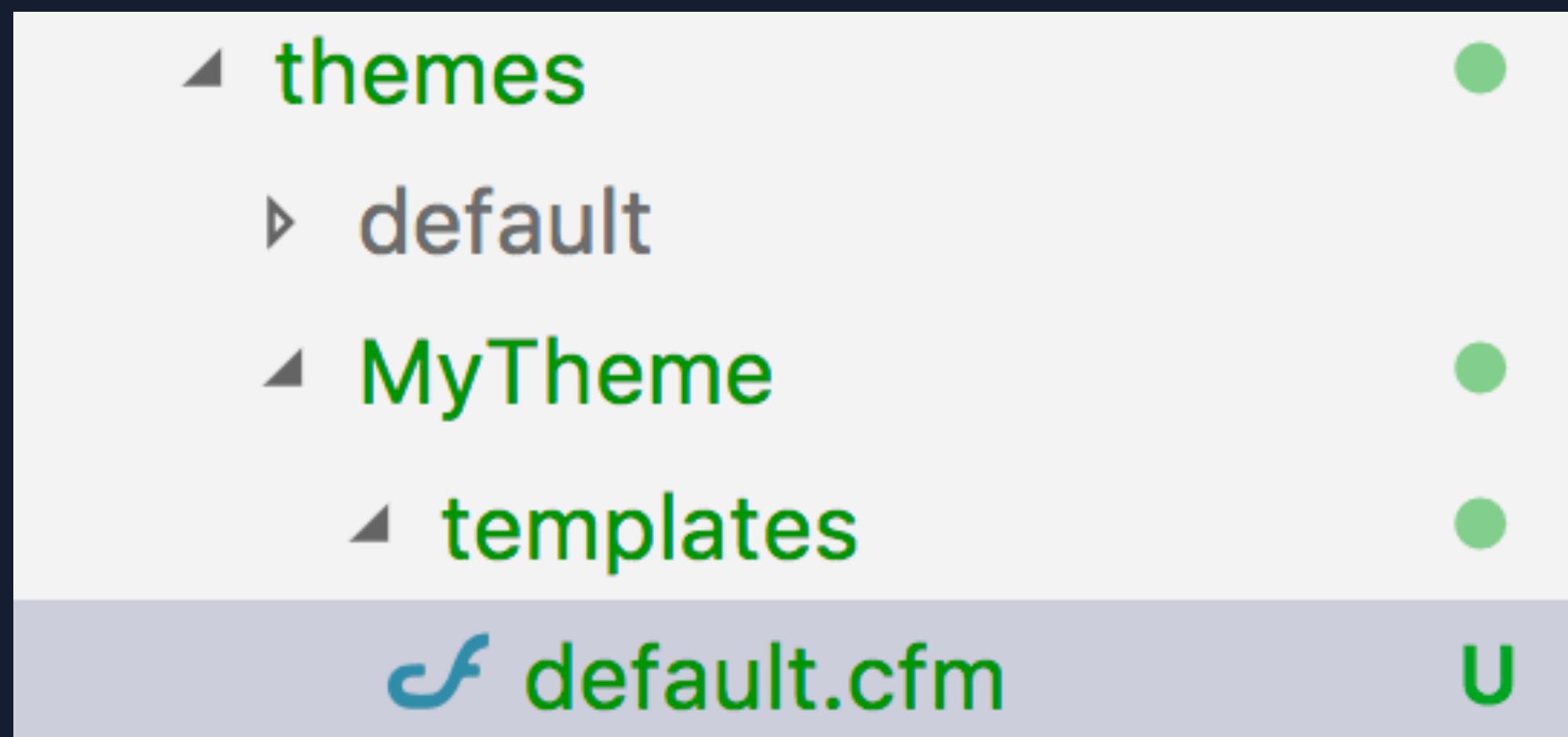
# Fix the Error

- {context}/{SiteID}/includes/themes/MyTheme
  - **/templates/default.cfm**



# Fix the Error

- {context}/{SiteID}/includes/themes/MyTheme
  - **/templates/default.cfm**



```
default.cfm x

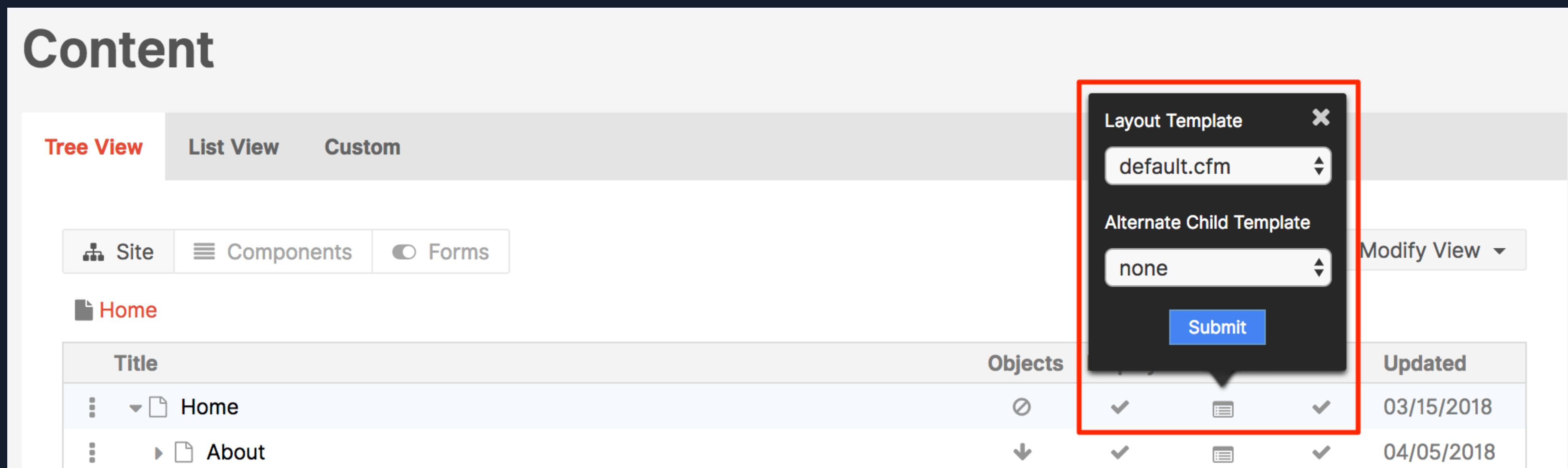
1  <!DOCTYPE html>
2  <html>
3      <head>
4          <title>MyTheme</title>
5      </head>
6      <body>
7          <h1>MyTheme</h1>
8          <p>Hello World!</p>
9      </body>
10 
```

A screenshot of a code editor showing the contents of 'default.cfm'. The code is as follows:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyTheme</title>
    </head>
    <body>
        <h1>MyTheme</h1>
        <p>Hello World!</p>
    </body>
</html>
```

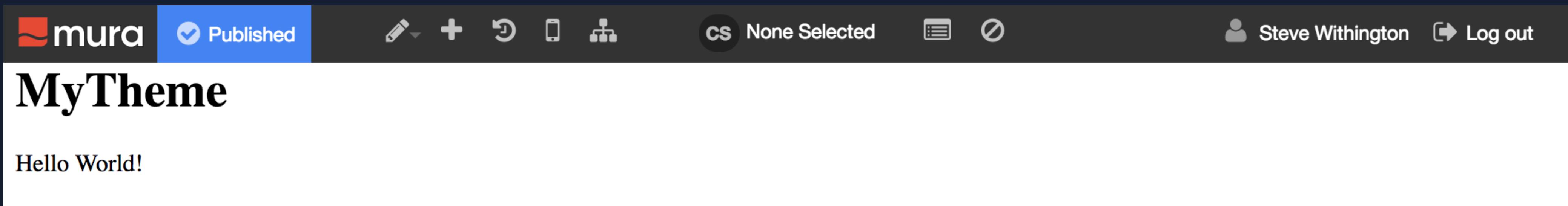
# Note

- {context}/{SiteID}/includes/themes/MyTheme
  - **/templates/default.cfm**



# Error Fixed

- {context}/themes/MyTheme
  - **/templates/default.cfm**
  - As long as the template is properly formatted HTML, the front-end toolbar should appear across the top when you're logged in.



# Summary

- Where Mura is Installed
- Mura Directory Structure
- Managing Multiple Sites
- Site Bundles
- Lab Exercise

# Creating Layout Templates

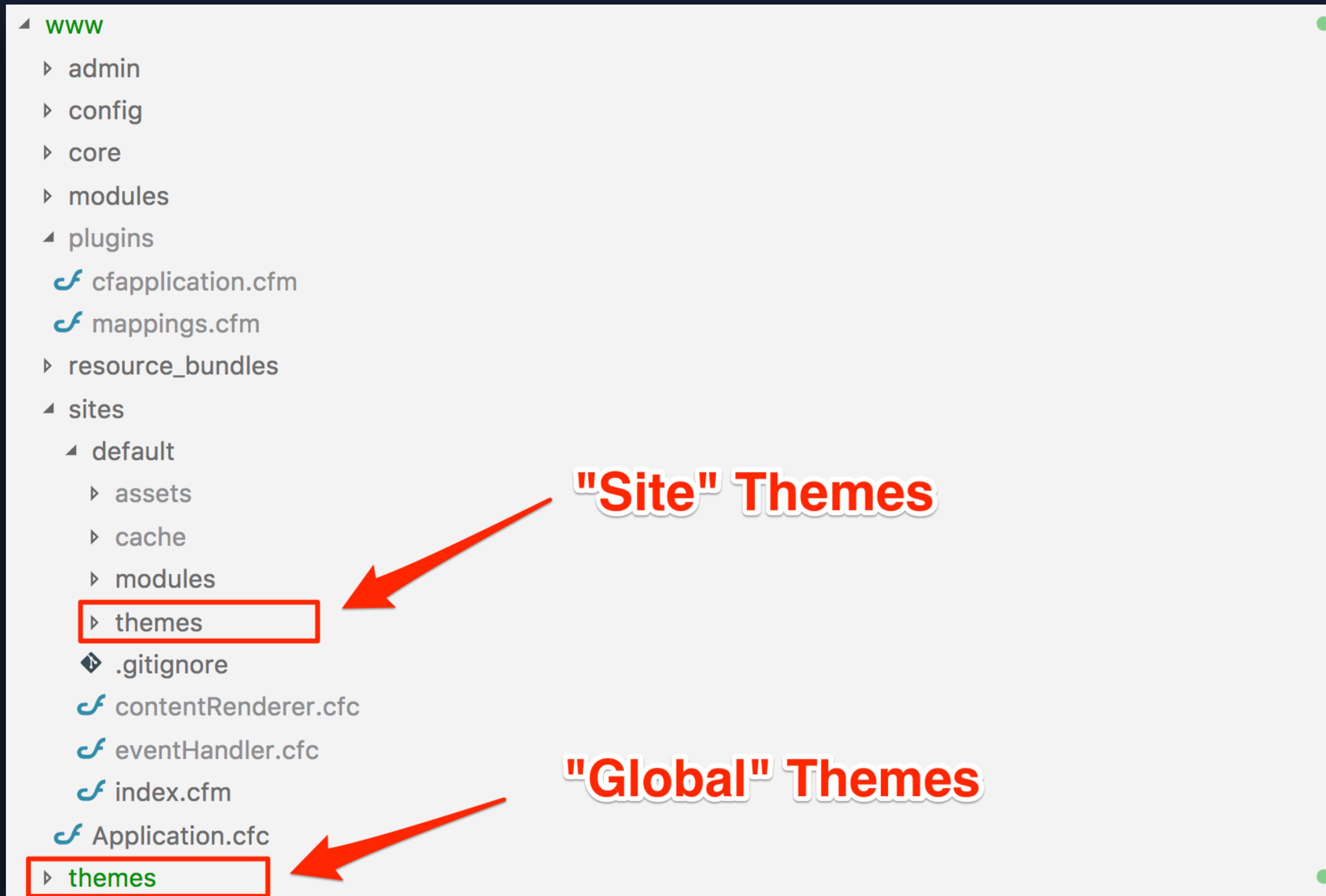
BECAUSE THAT'S WHAT THEME DEVELOPERS DO

# Creating Layouts Templates

- Theme Layout Templates
- Mobile Layouts
- Component Layout Templates
- The Mura [m] Tag
- The Mura Scope
- Template Variables & Helper Methods
- What Can I Use?
- Lab Exercise

# Theme Layout Templates

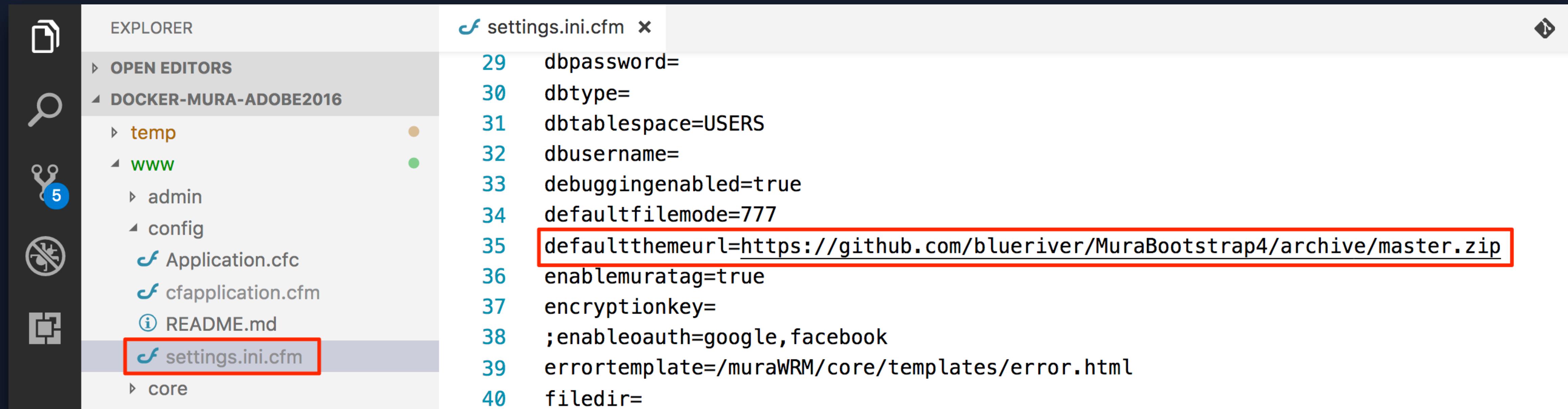
# Theme Layout Templates



"Site" Themes

"Global" Themes

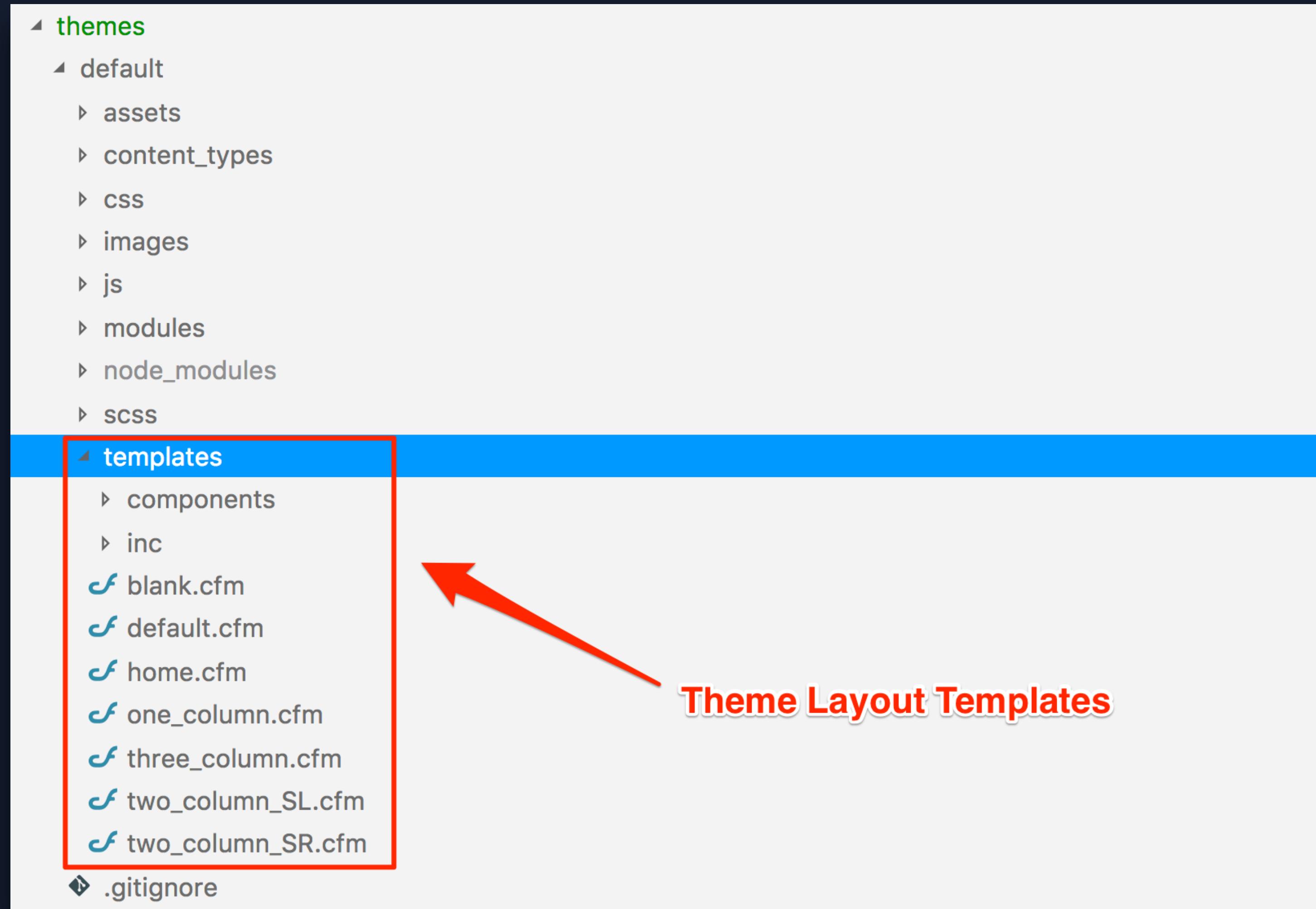
# Theme Layout Templates



The screenshot shows a code editor interface with a dark theme. On the left is a vertical toolbar with icons for file operations, search, and other tools, with a '5' notification badge. The main area has two tabs: 'EXPLORER' on the left and a code editor on the right. The EXPLORER tab shows a tree structure of a project named 'DOCKER-MURA-ADobe2016'. Inside this project are 'temp', 'www' (which contains 'admin' and 'config' folders), and files like 'Application.cfc', 'cfapplication.cfm', 'README.md', and 'settings.ini.cfm'. The 'settings.ini.cfm' file is currently selected and highlighted with a red border. The code editor shows the contents of 'settings.ini.cfm' with line numbers 29 through 40. Line 35, which contains the URL 'defaultthemearl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip', is also highlighted with a red border.

```
settings.ini.cfm
29 dbpassword=
30 dbtype=
31 dbtablespace=USERS
32 dbusername=
33 debuggingenabled=true
34 defaultfilemode=777
35 defaultthemearl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip
36 enablemuratag=true
37 encryptionkey=
38 ;enableoauth=google,facebook
39 errortemplate=/muraWRM/core/templates/error.html
40 filedir=
```

# Theme Layout Templates

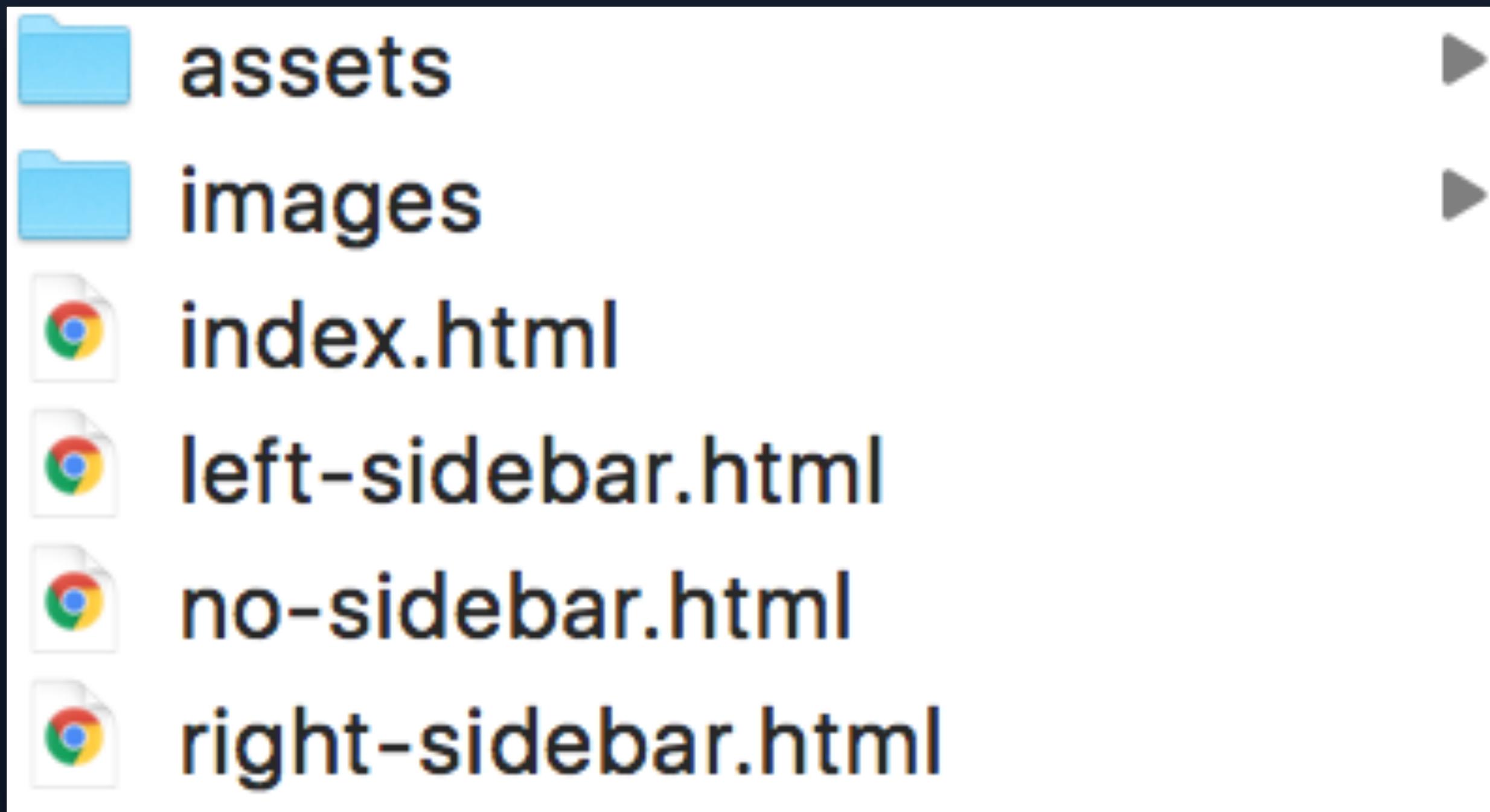


# Theme Layout Templates

- How do I create layouts?

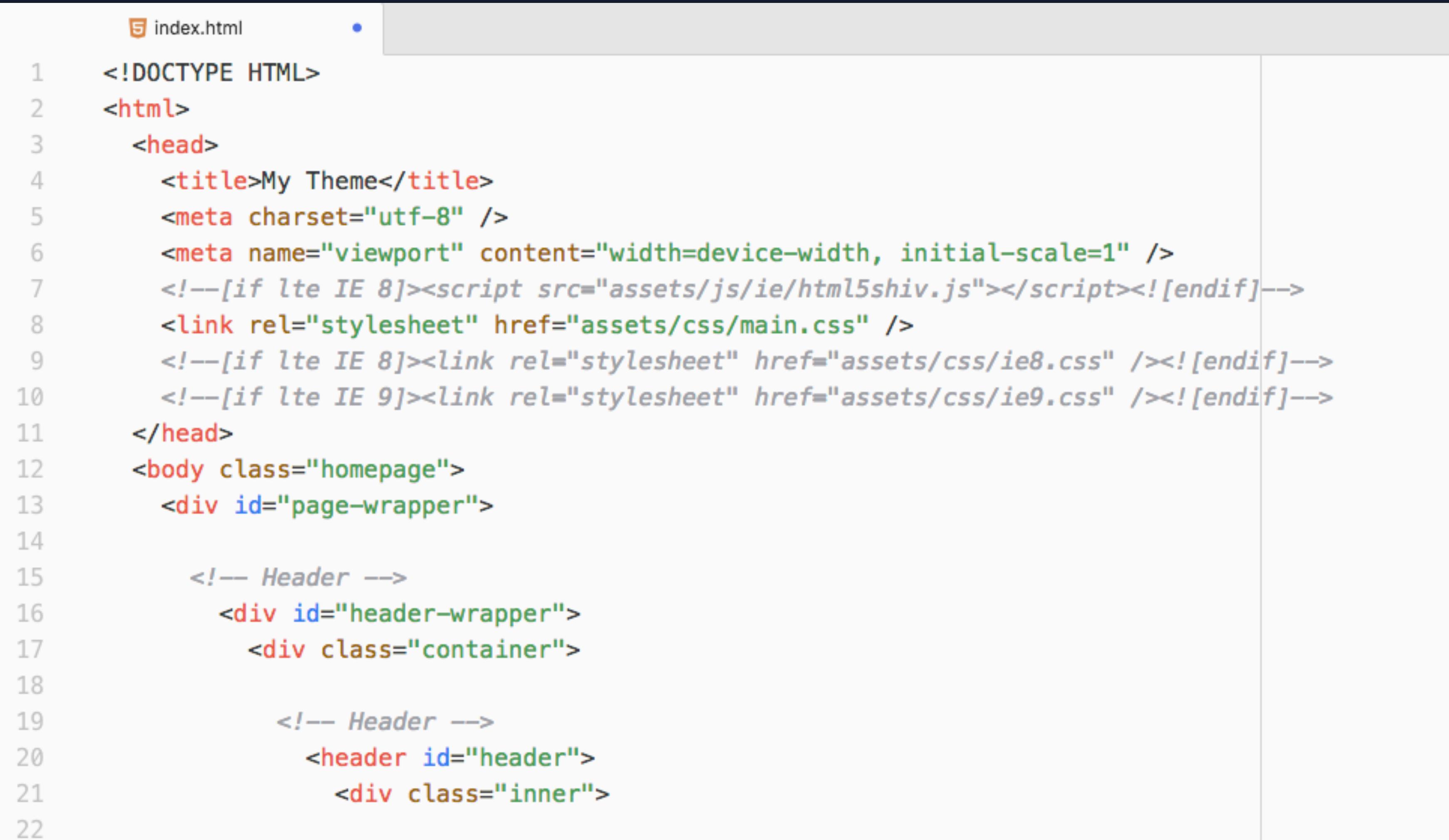
# Theme Layout Templates

- How do I create layouts?



# Theme Layout Templates

- How do I create layouts?

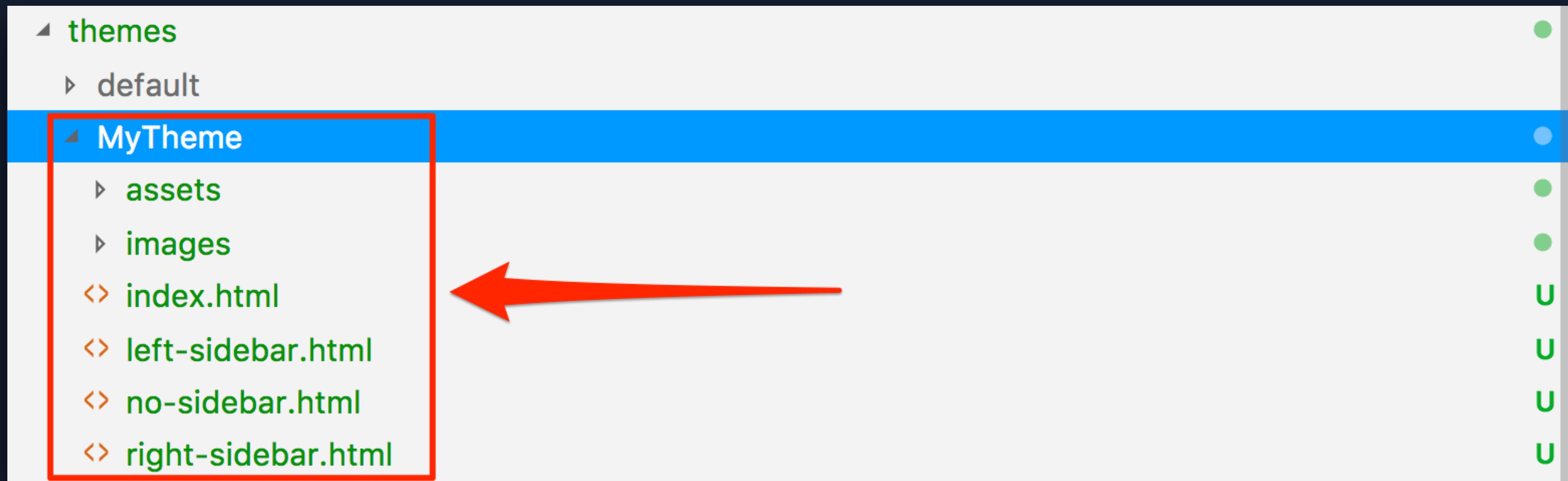


The image shows a screenshot of a code editor with a dark theme. The file being edited is named "index.html". The code is a standard HTML document structure with some conditional comments and CSS classes. The code editor has line numbers on the left and syntax highlighting for HTML tags like <title>, <meta>, <script>, and <link>. It also highlights CSS class names like "homepage", "page-wrapper", "header-wrapper", and "container". The code includes meta tags for title, charset, and viewport, as well as conditional comments for Internet Explorer 8 and 9, and a script tag for HTML5shiv.

```
index.html
1 <!DOCTYPE HTML>
2 <html>
3   <head>
4     <title>My Theme</title>
5     <meta charset="utf-8" />
6     <meta name="viewport" content="width=device-width, initial-scale=1" />
7     <!--[if lte IE 8]><script src="assets/js/ie/html5shiv.js"></script><![endif]-->
8     <link rel="stylesheet" href="assets/css/main.css" />
9     <!--[if lte IE 8]><link rel="stylesheet" href="assets/css/ie8.css" /><![endif]-->
10    <!--[if lte IE 9]><link rel="stylesheet" href="assets/css/ie9.css" /><![endif]-->
11   </head>
12   <body class="homepage">
13     <div id="page-wrapper">
14
15       <!-- Header -->
16       <div id="header-wrapper">
17         <div class="container">
18
19           <!-- Header -->
20           <header id="header">
21             <div class="inner">
```

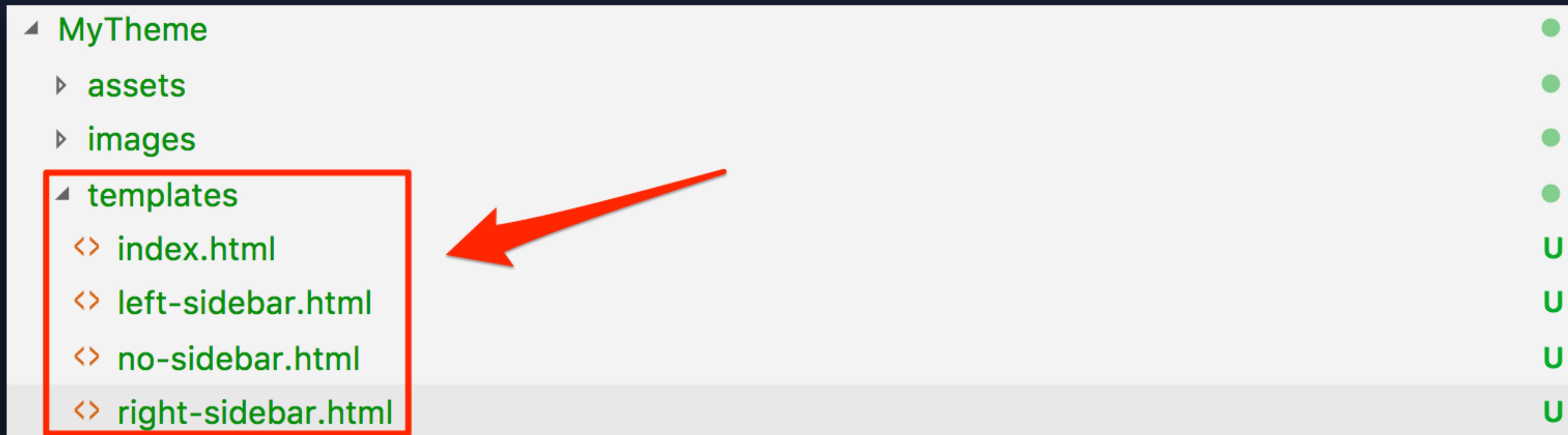
# Theme Layout Templates

1. Move your theme to the “**themes**” directory



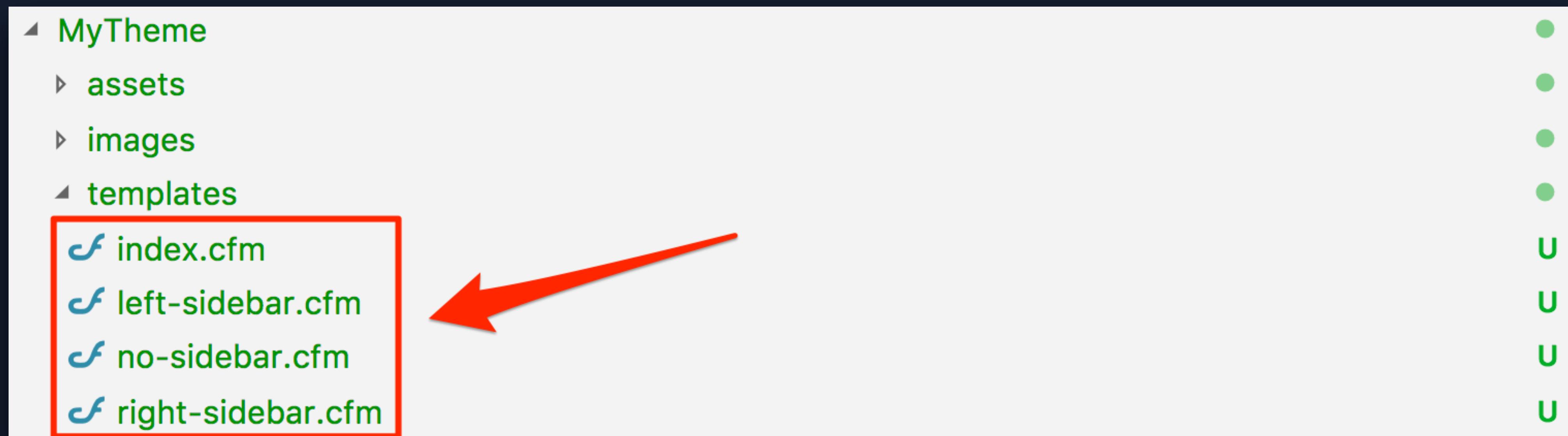
# Theme Layout Templates

2. Create a “**templates**” directory (& move your layouts under it)



# Theme Layout Templates

3. Rename “**.html**” files to “**.cfm**”



# Theme Layout Templates

## 4. Create a “`default.cfm`” layout template



# Theme Layout Templates

## 5. Use commonly used layout template names

Original Name	New Name
index.cfm	home.cfm
left-sidebar.cfm	two_column_SL.cfm
no-sidebar.cfm	one_column.cfm
right-sidebar.cfm	two_column_SR.cfm

# Theme Layout Templates

## 5. Use commonly used layout template names



# Theme Layout Templates

5. Use commonly used layout template names



The image shows a screenshot of a code editor window. The title bar says "default.cfm". The code in the editor is:

```
1 <cfinclude template = "two_column_SL.cfm">
2
```

# Theme Layout Templates

6. Replace # with ##

```
24      <!-- Header -->
25      <header id="header">
26          <div class="inner">
27
28              <!-- Logo -->
29              <h1><a href="index.html" id="logo">ZeroFour</a></h1>
30
31              <!-- Nav -->
32              <nav id="nav">
33                  <ul>
34                      <li class="current_page_item"><a href="index.html">Home</a></li>
35
36                      <a href="#">Dropdown</a>
37                      <ul>
38                          <li><a href="#">Lorem ipsum dolor</a></li>
39                          <li><a href="#">Magna phasellus</a></li>
40
41                          <a href="#">Phasellus consequat</a>
42                          <ul>
43                              <li><a href="#">Lorem ipsum dolor</a></li>
44                              <li><a href="#">Phasellus consequat</a></li>
45                              <li><a href="#">Magna phasellus</a></li>
46                              <li><a href="#">Etiam dolore nisl</a></li>
47
48                      </ul>
49                      </li>
50                  <li><a href="#">Veroeros feuaiat</a></li>
```

48 results found for '#'

Finding with Options: Case Insensitive

.\* Aa

#

48 found

Find

Find All

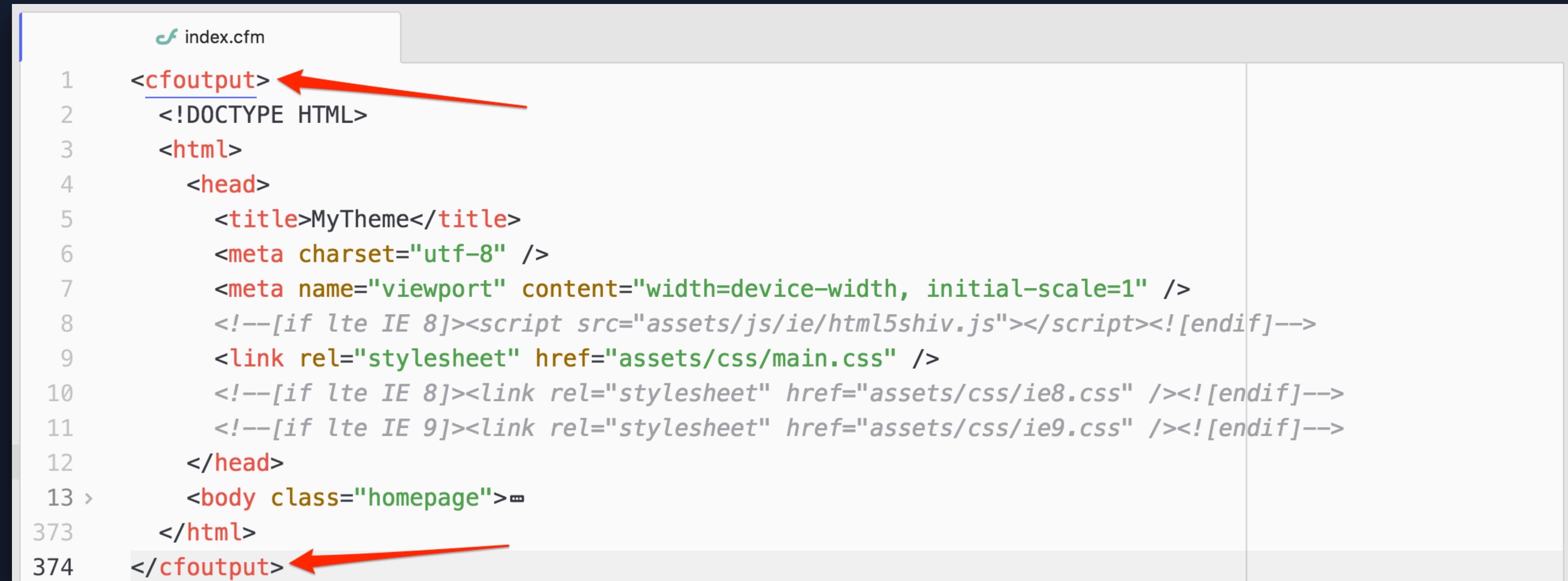
##

Replace

Replace All

# Theme Layout Templates

## 7. Wrap all output with `<cfoutput></cfoutput>` tags



```
index.cfm
1 <cfoutput>←
2   <!DOCTYPE HTML>
3   <html>
4     <head>
5       <title>MyTheme</title>
6       <meta charset="utf-8" />
7       <meta name="viewport" content="width=device-width, initial-scale=1" />
8       <!--[if lte IE 8]><script src="assets/js/ie/html5shiv.js"></script><![endif]-->
9       <link rel="stylesheet" href="assets/css/main.css" />
10      <!--[if lte IE 8]><link rel="stylesheet" href="assets/css/ie8.css" /><![endif]-->
11      <!--[if lte IE 9]><link rel="stylesheet" href="assets/css/ie9.css" /><![endif]-->
12    </head>
13    <body class="homepage">←
14      </body>
373    </html>
374  </cfoutput>←
```

# Theme Layouts Summary

1. Move your theme to the “themes” directory
2. Create a “templates” directory (& move your layout templates inside of it)
3. Rename “.html” files to “.cfm”
4. Create a “default.cfm” layout template
5. Use commonly used layout template names
6. Replace # with ##
7. Wrap all output with **<cfoutput></cfoutput>** tags

# Theme Layouts Summary

8. Replace static text and output with template variables and helper methods (*coming up soon*)

# Theme Layout Templates

- Example Theme Directory Structure
  - {context}/themes/default/
  - <http://docs.getmura.com/v7-1/theme-developers/creating-layout-templates/theme-layout-templates/example-theme-directory-structure/>
  - <https://github.com/blueriver/MuraBootstrap4>

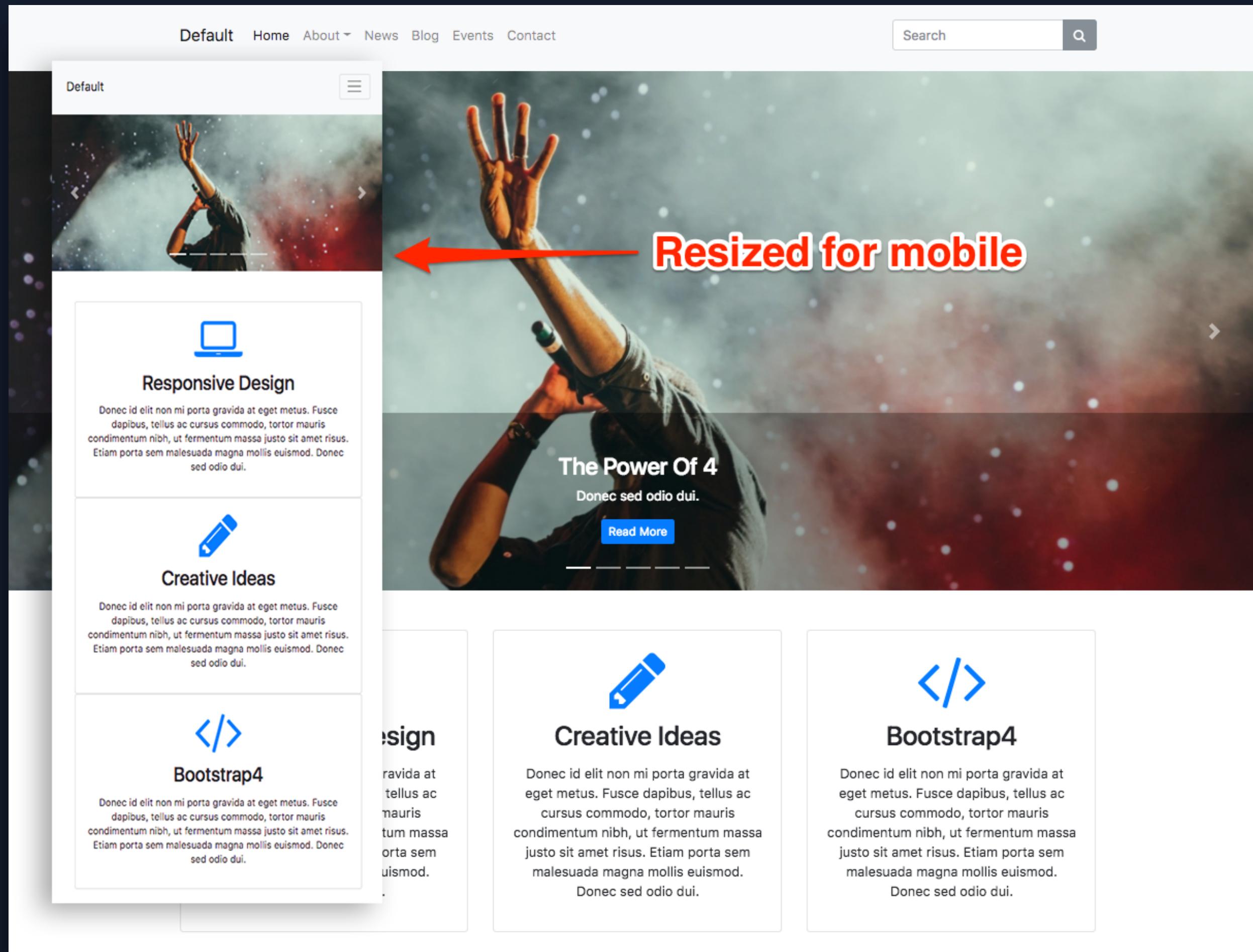
# Mobile Layouts

# Mobile Layouts

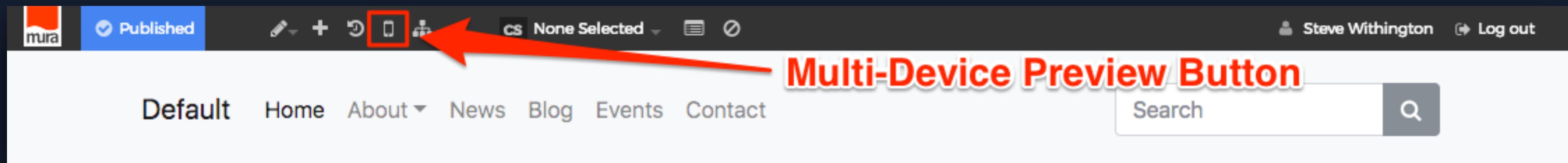
- Using Responsive Layouts
- Using a Mobile-Specific Layout

# Using Responsive Layouts

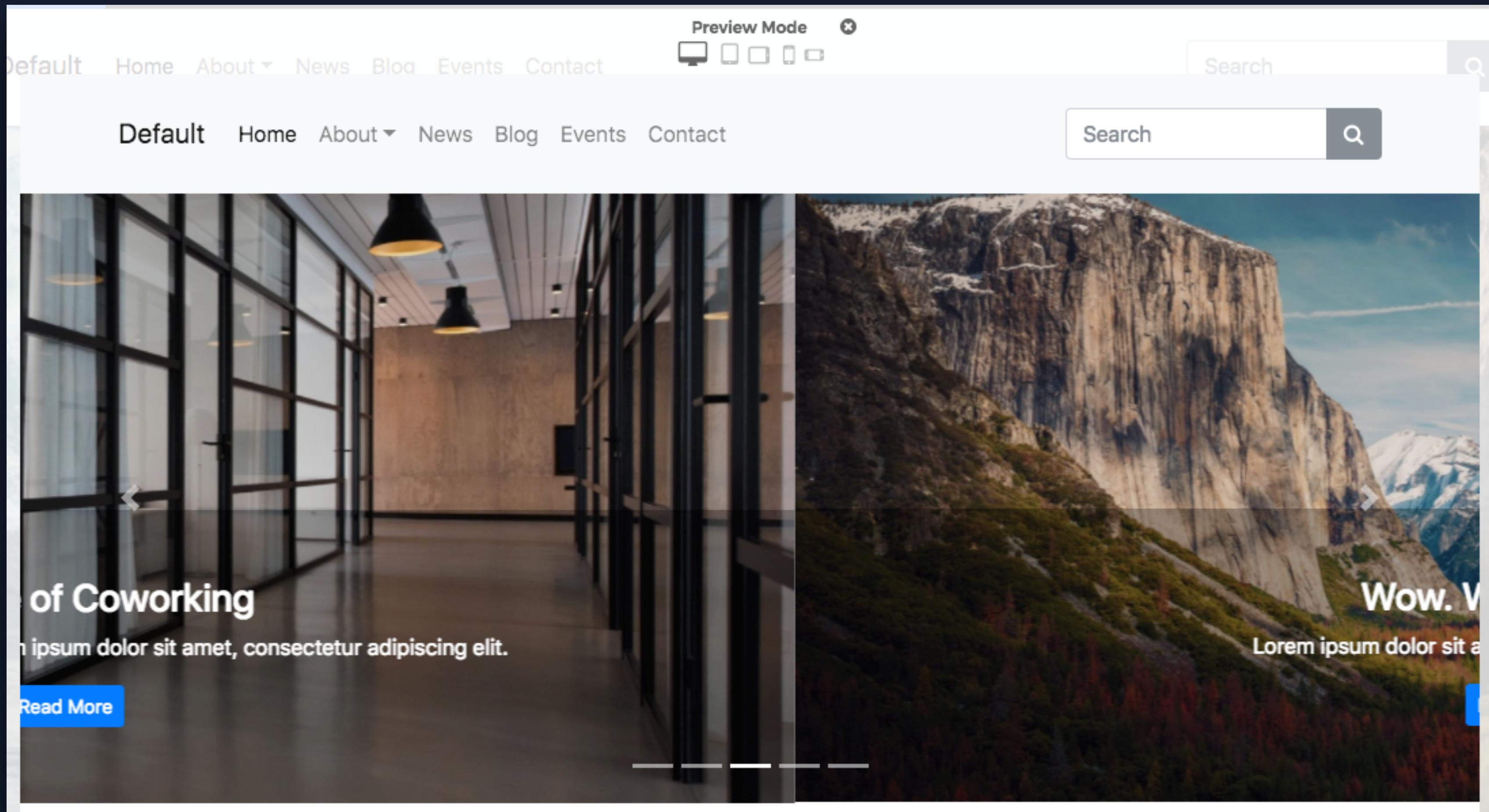
# Using Responsive Layouts



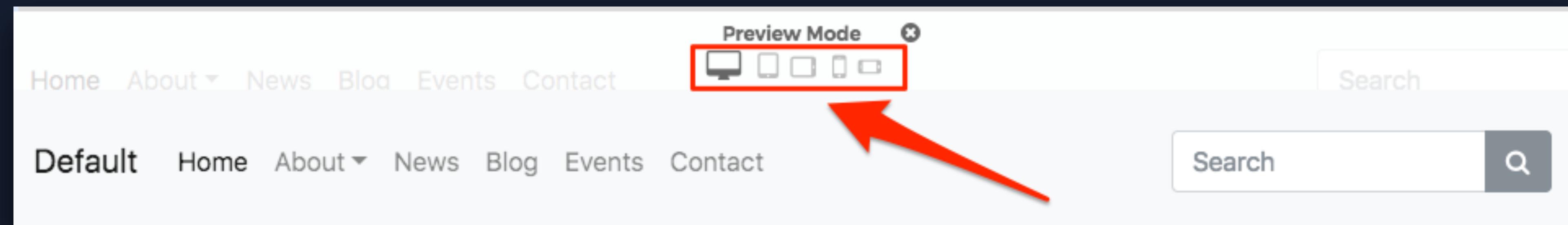
# Using Responsive Layouts



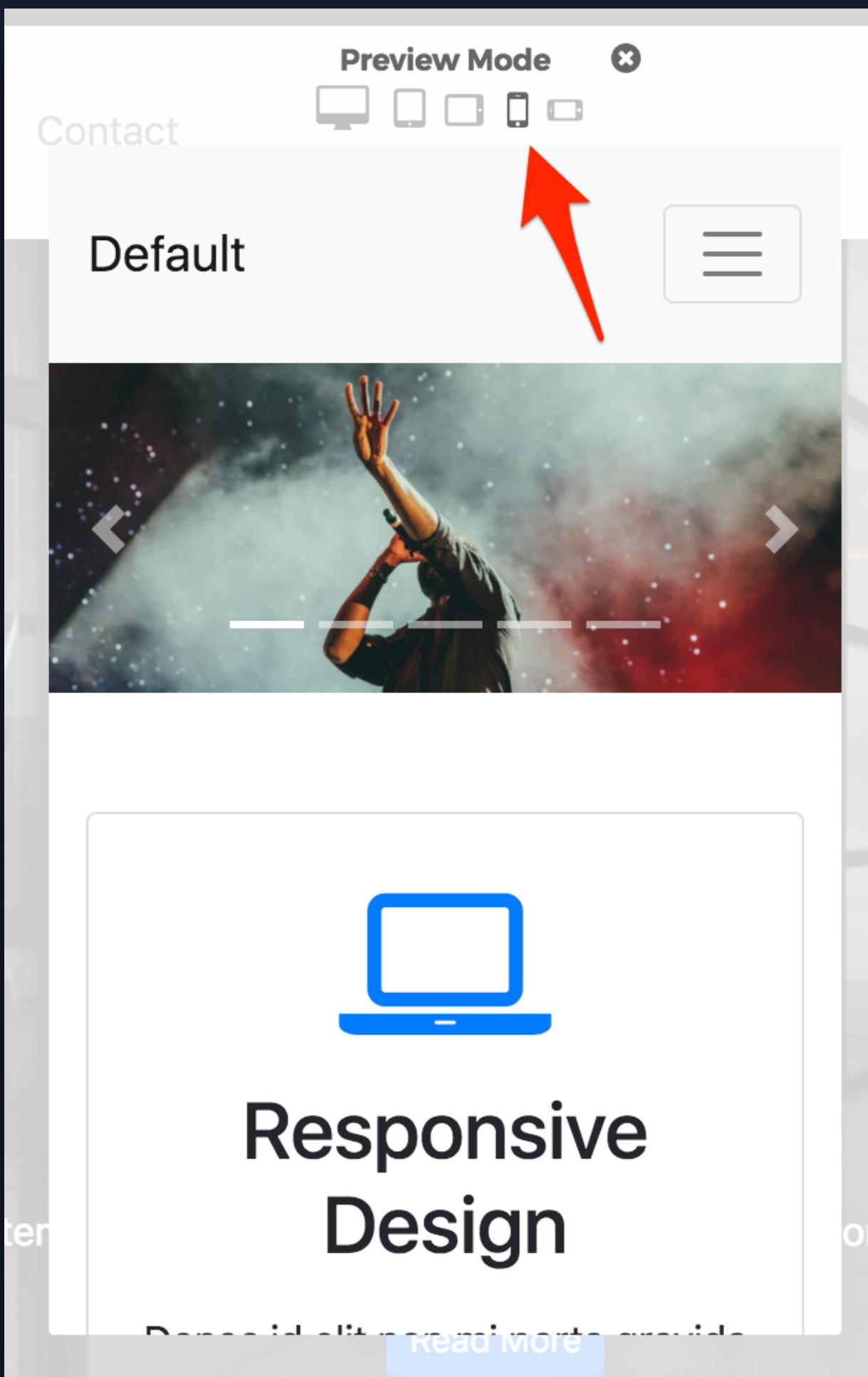
# Using Responsive Layouts



# Using Responsive Layouts



# Using Responsive Layouts



# Using a Mobile-Specific Layout

# Using a Mobile-Specific Layout

- mobileFormat Cookie

# Using a Mobile-Specific Layout

- mobileFormat Cookie
  - User-Agent string

# Using a Mobile-Specific Layout

- mobileFormat Cookie
  - User-Agent string
  - If mobile device, **mobileFormat=true**

# Using a Mobile-Specific Layout

- mobileFormat Cookie
  - User-Agent string
  - If mobile device, **mobileFormat=true**
  - `../themes/{ThemeName}/templates/mobile.cfm`

# Using a Mobile-Specific Layout

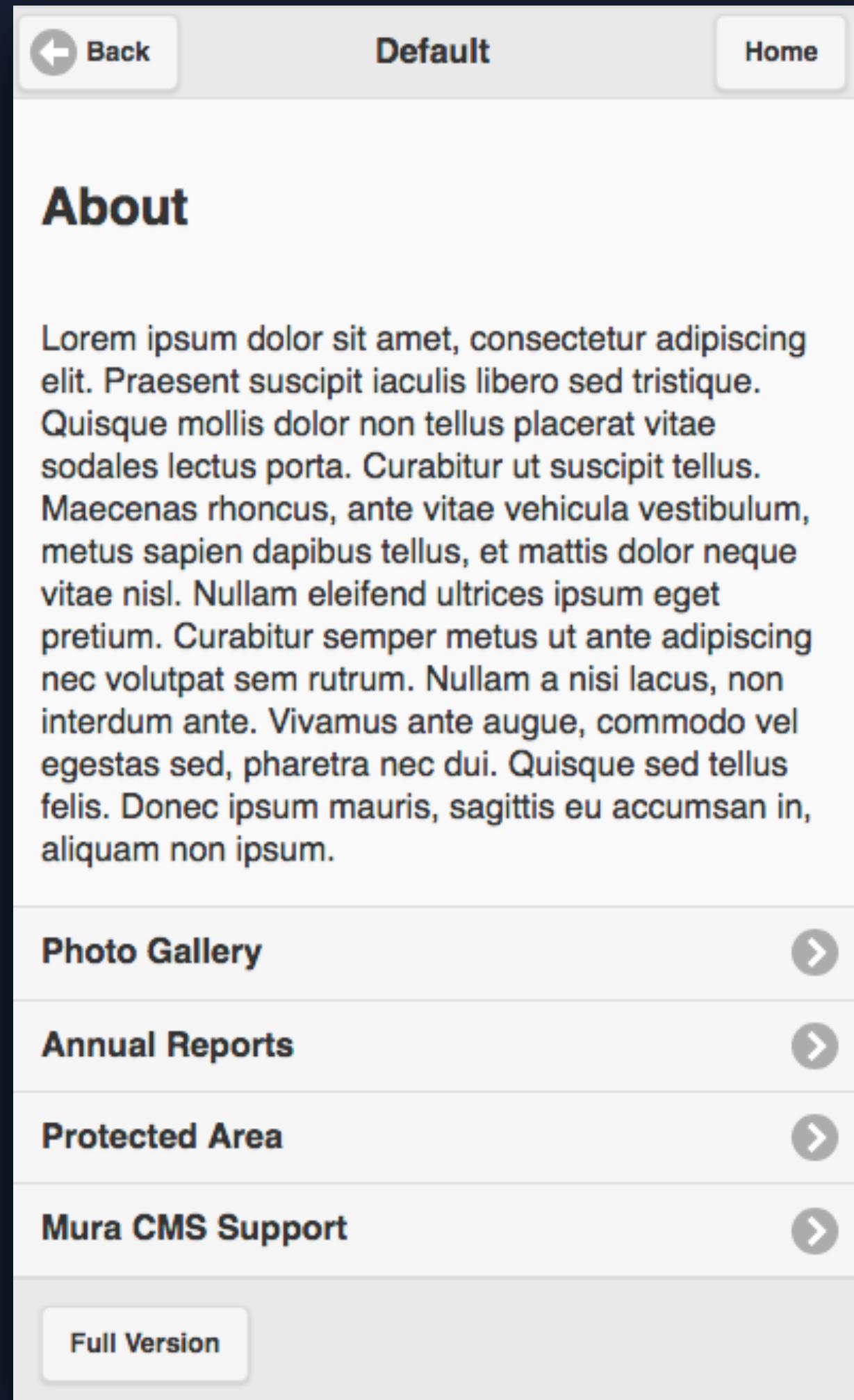
- mobileFormat Cookie
  - Via URL: `./?mobileFormat=true`

# Using a Mobile-Specific Layout

- mobileFormat Cookie
  - Via URL: `./?mobileFormat=false`

# Using a Mobile-Specific Layout

- mobile.cfm



# Using a Mobile-Specific Layout

- Example **mobile.cfm** layout:
  - <http://bit.ly/mura-mobile-layout>

```
1 <cfsilent>
2 <!--
3   NOTE: Since the MuraBootstrap theme is a 'Responsive' framework, this layout is
4   completely optional. It uses jQuery Mobile (http://jquerymobile.com/) to display
5   content for handheld devices.
6
7   To use it, simply rename the file to 'mobile.cfm'
8
9   If you wish to see how it looks, simply append '?mobileformat=1' to the end of the
10  URL. You could also add a link to your full site footer to allow people to view your
11  mobile site using something like:
12
13  <a href=".?mobileformat=1">Mobile Version</a>
14
15  This template uses the CDN scripts from jQuery Mobile. Of course, you could always
16  download the scripts and include them with your theme, if you prefer:
17  http://jquerymobile.com/download/
18  -->
19 </cfsilent>
20 <cfoutput>
21   <!DOCTYPE html>
22   <html>
23     <head>
24       <meta name="viewport" content="width=device-width, initial-scale=1" />
25       <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
26       <meta name="description" content="#esapiEncode('html', $.getMetaDesc())#" />
27       <meta name="keywords" content="#esapiEncode('html', $.getMetaKeywords())#" />
28       <cfif len($.content('credits'))>
29         <meta name="author" content="#esapiEncode('html', $.content('credits'))#" />
30       </cfif>
31       <meta name="generator" content="Mura CMS #$$.globalConfig('version')#" />
32       <meta name="robots" content="noindex, follow" />
33       <title>
34         #esapiEncode('html', $.content('HTMLTitle'))# - #esapiEncode('html', $.siteConfig('site'))#
35       </title>
36
37       <link rel="icon" href="#$.siteConfig('assetPath')#/images/favicon.ico" type="image/x-icon" />
38       <link rel="shortcut icon" href="#$.siteConfig('assetPath')#/images/favicon.ico" type="image/x-icon" />
39
40       <link rel="stylesheet" href="#$.siteConfig('assetPath')#/css/mura.7.0.min.css" />
41       <link rel="stylesheet" href="//code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.css" />
42       <!-- Font Awesome -->
43       <link rel="stylesheet" href="#$.siteConfig('themeAssetPath')#/assets/font-awesome/css/font-awesome.css">
```

# Component Layout Templates

# Component Layout Templates

- How to Create a Component Layout Template

# Component Layout Templates

- How to Create a Component Layout Template
  - `.../themes/{ThemeName}/templates/components/`

# Component Layout Templates

```
1  <cfoutput>
2      <div>
3
4          <!-- Use this if you do NOT want [mura] tags to render. -->
5          #$.component('body')#
6
7          <!-- Use this if you DO want [mura] tags to render. -->
8          <!--#$.setDynamicContent($.component('body'))# -->
9
10     </div>
11 </cfoutput>
```

# Component Layout Templates

- How to Apply a Layout Template to a Component

# Component Layout Templates

The screenshot shows the mura CMS interface. On the left is a dark sidebar with various navigation items: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. A red arrow points from the 'Content' item in the sidebar to the 'Content' section in the main area. In the main area, there is a header with 'Default' and a search bar. Below the header is a 'Content' section with 'TREE VIEW' and 'LIST VIEW' buttons. A red box highlights the 'TREE VIEW' button. To the right of the view buttons are 'Modify View' and 'Admin User' dropdowns. The main content area displays a table with columns 'Title', 'Display', and 'Updated'. The table contains four rows:

Title	Display	Updated
Components	✓	
Marketing	✓	03/06/2017
Sample Component	✓	03/06/2017
Lipsum	✓	03/16/2017

A red box highlights the 'Components' row in the table. Another red box highlights the 'Components' tab in the main navigation area.

# Component Layout Templates

The screenshot shows the Mura CMS interface for editing a component. On the left is a dark sidebar with various navigation options: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Edit Component" and shows the following details:

- Update: 03/06/2017 6:19 PM Status: Published Type: Component
- Components Sample Component
- Basic Publishing Categories Tags Usage Report Advanced (highlighted with a red arrow)
- Content ID: 53129784-008F-4610-A71A01741B9805A7
- Layout Template: none
- Locking: Lock Node (checkbox)

At the top right, there are links for "Back to Components" and "Actions". The top bar also includes a "Default" dropdown, a search bar, and a user account section.

# Component Layout Templates

The screenshot shows the 'Edit Component' page in the Mura CMS interface. The left sidebar contains navigation links: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main content area has tabs for BASIC, PUBLISHING, CATEGORIES, TAGS, USAGE REPORT, and ADVANCED. The ADVANCED tab is selected. Under the ADVANCED tab, there is a 'Content ID' field with the value '53129784-008F-4610-A71A01741B9805A7'. Below it is a 'Layout Template' dropdown menu. The menu has two items: 'none' (selected) and 'example.cfm'. A red arrow points from the bottom-left towards the 'example.cfm' option. At the top of the page, there is a header bar with the Mura logo, a 'Default' dropdown, a search bar, and a user dropdown for 'Admin User'.

# Component Layout Templates

The screenshot shows the Mura CMS interface for editing a component. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Edit Component" and shows the following details:

- Update: 03/06/2017 6:19 PM Status: Published Type: Component
- Components Sample Component
- BASIC PUBLISHING CATEGORIES TAGS USAGE REPORT ADVANCED (highlighted)
- Content ID: 53129784-008F-4610-A71A01741B9805A7
- Layout Template: example.cfm
- Locking:  Lock Node

At the bottom, there are three buttons: "SAVE DRAFT" (disabled), "SAVE TO CHANGE SET", and "PUBLISH" (highlighted with a red border).

# The Mura [m] Tag

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- Mura uses ColdFusion Markup Language (CFML) as its server-side scripting language.

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```
<cfoutput>#TimeFormat(Now(), 'hh:mm:ss tt')#</cfoutput>
```

# The Mura [m] Tag

Content

The screenshot shows a Mura CMS rich text editor interface. The top bar contains a toolbar with various icons for file operations (Source, Save, Undo, Redo, Find, Replace), text styling (Bold, Italic, Underline, Strike), and other functions like Insert, Link, and Media. Below the toolbar is a second row of icons for alignment, lists, and other document-related tasks. At the bottom of the toolbar, there are dropdown menus for 'Styles' and 'Normal' text, along with a question mark icon. The main content area displays the text "The time is now #TimeFormat(Now(), 'hh:mm:ss tt')#". The portion of the text starting with "#TimeFormat(Now(), 'hh:mm:ss tt')#" is highlighted with a red rectangular box.

The time is now #TimeFormat(Now(), 'hh:mm:ss tt')#

# The Mura [m] Tag

The screenshot shows a website interface with a dark header bar. The header contains a "Default" link and a navigation menu with "Home", "About", "News", "Blog", "Events", and "Contact". To the right of the menu is a search bar with a magnifying glass icon. Below the header, a breadcrumb navigation shows "Home / About". The main content area has a light gray background. On the left, there's a sidebar with a white background containing links: "Photo Gallery", "Annual Reports", "Protected Area", and "Mura Support". The main content title is "About". Below it, a text block says "The time is now: #TimeFormat(Now(), 'hh:mm:ss tt')#". This line of code is highlighted with a red rectangular box. A large amount of placeholder text (Lorem ipsum) follows. On the right side, there's a "Mura Blog" section with a post titled "April 25, 2018 [Webinar] Mura Translations: Finding Flow in Localization". The text in this section describes managing multilingual websites and the challenges of maintaining them.

Default Home About ▾ News Blog Events Contact

Search

Home / About

[Photo Gallery](#)  
[Annual Reports](#)  
[Protected Area](#)  
[Mura Support](#)

## About

The time is now: #TimeFormat(Now(), 'hh:mm:ss tt')#

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent suscipit iaculis libero sed tristique. Quisque mollis dolor non tellus placerat vitae sodales lectus porta. Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacus, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum.

### Mura Blog

April 25, 2018  
[Webinar] Mura Translations:  
Finding Flow in Localization

Managing a multilingual website can be daunting, with challenges in maintaining the website, streamlining the translation of content, and dealing with the long-term requirements associated with these tasks. In this webinar, host Grant Shepert will demonstrate the ways those problems are handled by the Mura Translations plugin.

# The Mura [m] Tag

- Use “Mura Tags” when you want to output dynamic code (*a CFML variable or function call*) within the HTML Editor content.

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- Use “Mura Tags” when you want to output dynamic code (*a CFML variable or function call*) within the HTML Editor content.

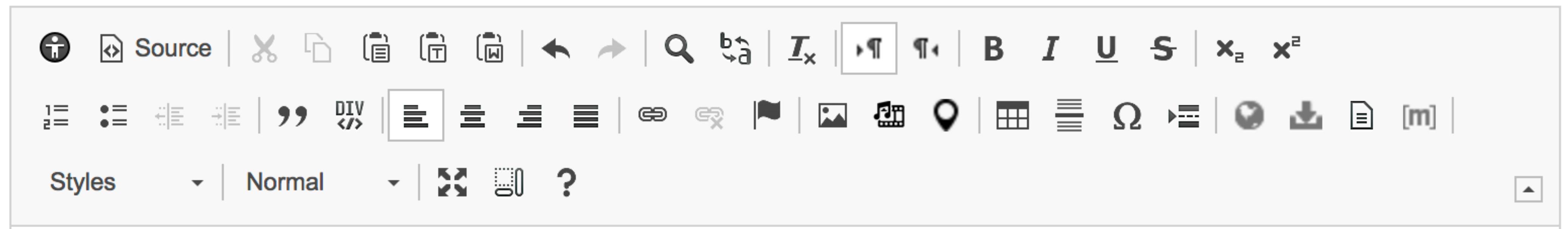
[mura]...[/mura]

OR

[m]...[/m]

# The Mura [m] Tag

Content



The time is now [m]TimeFormat(Now(), 'hh:mm:ss tt')[/m]

# The Mura [m] Tag

The screenshot shows a website interface with a dark header bar. The header contains navigation links: Default, Home, About ▾, News, Blog, Events, and Contact. To the right is a search bar with a magnifying glass icon. Below the header, a breadcrumb navigation bar shows Home / About. On the left, there's a sidebar with links: Photo Gallery, Annual Reports, Protected Area, and Mura Support. The main content area has a large title "About". Below it, a message says "The time is now: 09:43:53 PM", with the timestamp "09:43:53 PM" highlighted by a red rectangular box. A large amount of placeholder text (Lorem ipsum) follows. To the right, a sidebar titled "Mura Blog" lists a recent post: "April 25, 2018 [Webinar] Mura Translations: Finding Flow in Localization". Below the sidebar, descriptive text explains the challenges of managing multilingual websites.

Default Home About ▾ News Blog Events Contact

Search

Home / About

Photo Gallery

Annual Reports

Protected Area

Mura Support

## About

The time is now: 09:43:53 PM

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent suscipit iaculis libero sed tristique. Quisque mollis dolor non tellus placerat vitae sodales lectus porta. Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacinia, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum.

### Mura Blog

April 25, 2018

[Webinar] Mura Translations: Finding Flow in Localization

Managing a multilingual website can be daunting, with challenges in maintaining the website, streamlining the translation of content, and dealing with the long-term requirements associated with these tasks. In this webinar, host Grant Shepert will demonstrate the ways those problems are handled by the Mura Translations plugin.

# The Mura Scope

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- Similar to how CFML includes various scope types, Mura also includes its very own “Mura Scope” for accessing and manipulating Mura variables, data, and objects.

# The Mura Scope

- Similar to how CFML includes various scope types, Mura also includes its very own “Mura Scope” for accessing and manipulating Mura variables, data, and objects.
- In a nutshell, the Mura Scope allows you to “talk” with Mura.

# The Mura Scope

- Accessible via the **mura**, **\$**, or **m**.

# The Mura Scope

- We're covering template variables next, however, a couple of examples demonstrating use of the Mura Scope are noted below.

```
<!-- Example from within .cfm templates -->
#m.content('title')#  
  

<!-- Example when using the [m] or [mura] tag -->
[m]m.content('title')[/m]
```

# Template Variables & Helpers

# Template Variables & Helpers

- Replace static text

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- Replace static text
- Helper methods for:
  - Navigational elements
  - Modules / Display Objects
  - Main content/body
  - etc.

# Template Variables & Helpers

- Replace static text
- Helper methods for:
  - Navigational elements
  - Display objects
  - Main content/body
  - etc.
- `<cfdump var="#variable#">`

# Template Variables & Helpers

- esapiEncode

1.

```
esapiEncode( encodeFor, string )
```

# Template Variables & Helpers

- esapiEncode

```
1.  <cfoutput>
2.      <h2>#esapiEncode('html', m.content('title'))#</h2>
3.  </cfoutput>
```

# Template Variables & Helpers

- setDynamicContent

```
1. m.setDynamicContent( string )
```

# Template Variables & Helpers

- setDynamicContent

```
1. | <cfset exampleString = "Today is [m]DateFormat(Now(), 'yyyy-mm-dd') [/m]" />
2. | <cfoutput>
3. |   <div>
4. |     #m.setDynamicContent(exampleString)#
5. |   </div>
6. | </cfoutput>
```

# Template Variables & Helpers

- setDynamicContent

```
1. | <cfoutput>
2. |   <article>
3. |     #m.setDynamicContent(m.content('summary'))#
4. |   </article>
5. | </cfoutput>
```

# Template Variables & Helpers

- `dspPrimaryNav`

```
1. m.dspPrimaryNav(  
2.   viewDepth  
3.   , id  
4.   , class  
5.   , displayHome  
6.   , closeFolders  
7.   , openFolders  
8.   , showCurrentChildrenOnly  
9.   , liClass  
10.  , liHasKidsClass  
11.  , liHasKidsAttributes  
12.  , liCurrentClass  
13.  , liCurrentAttributes  
14.  , liHasKidsNestedClass  
15.  , aHasKidsClass  
16.  , aHasKidsAttributes  
17.  , aCurrentClass  
18.  , aCurrentAttributes  
19.  , ulNestedClass  
20.  , ulNestedAttributes  
21.  , aNotCurrentClass  
22.  , siteid  
23.  , complete  
24. )
```

# Template Variables & Helpers

- dspPrimaryNav

```
1. <cfoutput>
2.   <nav>
3.     #m.dspPrimaryNav(
4.       viewDepth=2
5.       , id='navPrimary'
6.       , class='nav navbar-nav'
7.       , displayHome='always'
8.       , closeFolders=false
9.       , showCurrentChildrenOnly=false
10.      , ulNestedClass='dropdown-menu'
11.      , liHasKidsNestedClass='dropdown-submenu'
12.      , aHasKidsClass='dropdown-toggle'
13.      , aHasKidsAttributes='role="button" data-toggle="dropdown" data-target="#"'
14.    )#
15.   </nav>
16. </cfoutput>
```

# Template Variables & Helpers

- `dspBody`

```
1. m.dspBody(  
2.   body  
3.   , pageTitle  
4.   , crumbList  
5.   , crumbSeparator  
6.   , showMetaImage  
7.   , metaImageSizeArgs  
8.   , metaImageClass  
9.   , includeMetaHref  
10. )
```

# Template Variables & Helpers

- dspBody

```
1.  <cfoutput>
2.    <article>
3.      #m.dspBody(
4.        body=m.content('body')
5.        , pageTitle=''
6.        , crumbList=false
7.        , showMetaImage=true
8.        , metaImageSizeArgs={size='medium'}
9.      )#
10.     </article>
11.   </cfoutput>
```

# Template Variables & Helpers

- `dspObjects`

1.

```
m.dspObjects( columnID )
```

# Template Variables & Helpers

- dspObjects

```
1. <cfoutput>
2.     <article class="display-objects-wrapper">
3.         #m.dspObjects(2)#
4.     </article>
5. </cfoutput>
```

# Template Variables & Helpers

- dspObjects

```
1. <cfoutput>
2.     <!-- Left Sidebar/Column Display Objects -->
3.     <aside class="left-sidebar display-objects-wrapper">
4.         #m.dspObjects(1)#
5.     </aside>
6.
7.     <!-- Main Content Display Objects -->
8.     <article class="main-content display-objects-wrapper">
9.         #m.dspObjects(2)#
10.    </article>
11.
12.    <!-- Right Sidebar/Column Display Objects -->
13.    <aside class="right-sidebar display-objects-wrapper">
14.        #m.dspObjects(3)#
15.    </aside>
16. </cfoutput>
```

# Template Variables & Helpers

- `dspObject`

```
1. m.dspObject(  
2.     object  
3.     , objectid  
4.     , siteid  
5. )
```

# Template Variables & Helpers

- dspObject

```
1. | <cfoutput>
2. |   <footer>
3. |     #m.dspObject(object='component', objectid='Footer')#
4. |   </footer>
5. | </cfoutput>
```

# Template Variables & Helpers

- dspObject

```
1. <cfoutput>
2.   <aside class="contact-us-wrapper">
3.     #m.dspObject(object='form', objectid='Contact Us')#
4.   </aside>
5. </cfoutput>
```

# Template Variables & Helpers

- dspObject

```
1.  <cfoutput>
2.      #m.dspObject(object='category_summary')#
3.  </cfoutput>
```

# Template Variables & Helpers

- `dspCrumbListLinks`

```
1. m.dspCrumbListLinks(  
2.   id  
3.   , separator  
4.   , class  
5. )
```

# Template Variables & Helpers

- dspCrumbListLinks

```
1.  <cfoutput>
2.      <nav class="breadcrumbs-wrapper">
3.          #m.dspCrumbListLinks(
4.              id = 'your-id'
5.              , separator = '&raquo;&nbsp;'
6.              , class = 'your-class'
7.          )#
8.      </nav>
9.  </cfoutput>
```

# Template Variables & Helpers

- outputMuraCSS

```
1. m.outputMuraCSS(  
2.   version  
3.   , includeskin  
4.   , complete  
5.   , useprotocol  
6. )
```

# Template Variables & Helpers

- outputMuraCSS

```
1. <cfoutput>
2.   <!-- Always include this _before_ any custom CSS -->
3.   #m.outputMuraCSS(version='7.1', includeskin=true)#
4.
5.   <!-- Custom CSS should go here -->
6. </cfoutput>
```

# Template Variables & Helpers

Default Home About ▾ News Blog Events Contact

Search

Home / News

April 2018						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**Archive**

October 2017 (5)

## News

October 6, 2017

### The Power Of 4

Donec sed odio dui.

By Sit Etiam

October 5, 2017

### The Rise of Coworking

Curabitur blandit tempus porttitor. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

By Ridiculus Euismod

## Categories

- Arts & Culture (4)
- Business (1)
- Health & Science (1)
- Opinion (2)
- Weather (1)

[View All](#)

## Tag Cloud

- 1 item is tagged with Concert
- 1 item is tagged with Coworking
- 1 item is tagged with Landscape

# Template Variables & Helpers

Default Home About ▾ News Blog Events Contact

Search

Home / News

« April 2018 »

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**News**

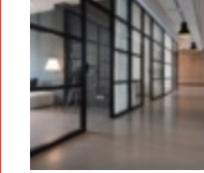


October 6, 2017

**The Power Of 4**

Donec sed odio du.

By Sit Etiam

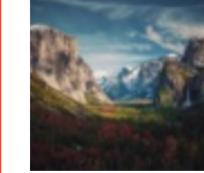


October 5, 2017

**The Rise of Coworking**

Curabitur blandit tempus porttitor. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

By Ridiculus Euismod



October 4, 2017

**Wow. What A View!**

Curabitur blandit tempus porttitor. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

By Etiam Sem

1 2 Next

**Categories**

- Arts & Culture (4)
- Business (1)
- Health & Science (1)
- Opinion (2)
- Weather (1)

[View All](#)

**Tag Cloud**

Concert Coworking Landscape  
Music Nature Networking  
**Outdoors**  
Productivity Surfing Synergy  
Trees

# Template Variables & Helpers

- createCssHook

```
1. | m.createCssHook( text )
```

# Template Variables & Helpers

- createCssHook

```
1. | <cfoutput>
2. |   <body class="body-#m.createCssHook(m.content('title'))#">
3. |   ...
4. |   </body>
5. | </cfoutput>
```

# Template Variables & Helpers

- createCssHook

```
1. | <cfoutput>
2. |   <body class="body-#m.createCssHook(m.content('title'))#">
3. |   ...
4. |   </body>
5. | </cfoutput>
```

```
1. | <body class="body-about-us">
2. |   ...
3. | </body>
```

# Template Variables & Helpers

- getURLForImage

```
1. m.getURLForImage(  
2.     fileID  
3.     , size  
4.     , complete  
5.     , height  
6.     , width  
7.     , siteID  
8. )
```

# Template Variables & Helpers

- getURLForImage

```
1. <cfoutput>
2.   <cfif Len(m.getURLForImage(fileid=m.content('fileid')))>
3.     
4.   </cfif>
5. </cfoutput>
```

# Template Variables & Helpers

- getURLForImage

```
1. <cfoutput>
2.   <cfif Len(m.getURLForImage(fileid=m.content('fileid')))>
3.     
4.   </cfif>
5. </cfoutput>
```

# Template Variables & Helpers

- getURLForImage

```
1. <cfoutput>
2.   <cfif Len(m.getURLForImage(fileid=m.content('fileid')))>
3.     
5.   </cfif>
6. </cfoutput>
```

# Template Variables & Helpers

- getURLForImage

```
1. <cfoutput>
2.   <cfif Len(m.getURLForImage(fileid=m.siteConfig('placeholderImgID')))>
3.     
4.   </cfif>
5. </cfoutput>
```

# Template Variables & Helpers

- getURLForImage

```
1. <cfoutput>
2.   <cfif Len(m.getURLForImage(fileid=m.content('fileid')))>
3.     
4.   <cfelseif Len(m.getURLForImage(fileid=m.siteConfig('placeholderImgID')))>
5.     
6.   </cfif>
7. </cfoutput>
```

# Template Variables & Helpers

- content

1.

```
m.content( property, propertyValue )
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.   <h2>
3.     #esapiEncode('html', m.content('title'))#
4.   </h2>
5. </cfoutput>
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.   <title>
3.     #esapiEncode('html', m.content('HTMLTitle'))# -
4.     #esapiEncode('html', m.siteConfig('site'))#
5.   </title>
6. </cfoutput>
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.   <article>
3.     #m.content('summary')#
4.   </article>
5. </cfoutput>
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.     <article>
3.         #m.setDynamicContent(m.content('summary'))#
4.     </article>
5. </cfoutput>
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.   <p>
3.     Date Last Updated: #DateFormat(m.content('lastUpdate'), 'YYYY-MM-DD')#
4.   </p>
5. </cfoutput>
```

# Template Variables & Helpers

- content

```
1.  <cfoutput>
2.    <meta name="keywords" content="#esapiEncode('html_attr', m.content('metaKeywords'))"
3.      #">
4.  </cfoutput>
```

# Template Variables & Helpers

- content

```
1. <cfoutput>
2.   <cfif Len(m.content().getImageURL('medium'))>
3.     
4.   </cfif>
5. </cfoutput>
```

# Template Variables & Helpers

- content

```
1. | <cfdump var="#m.content().getAllValues()#">
```

# Template Variables & Helpers

- component

1.

```
m.component( property, propertyName )
```

# Template Variables & Helpers

- component

```
1.  <cfoutput>
2.    <article>
3.      #m.component('body')#
4.    </article>
5.  </cfoutput>
```

# Template Variables & Helpers

- component

```
1. | <cfoutput>
2. |   <article>
3. |     #m.setDynamicContent(m.component('body'))#
4. |   </article>
5. | </cfoutput>
```

# Template Variables & Helpers

- component

```
1.  <cfoutput>
2.      <h2>
3.          #esapiEncode('html', m.component('title'))#
4.      </h2>
5.  </cfoutput>
```

# Template Variables & Helpers

- component

```
1. <cfoutput>
2.   <p>
3.     Date Last Updated: #DateFormat(m.component('lastUpdate'), 'YYYY-MM-DD')#
4.   </p>
5. </cfoutput>
```

# Template Variables & Helpers

- component

```
1.  <cfoutput>
2.    <h2>
3.      Last Updated By: #esapiEncode('html', m.component('lastUpdateBy'))#
4.    </h2>
5.  </cfoutput>
```

# Template Variables & Helpers

- component

```
1. | <cfdump var="#m.component().getAllValues()#">
```

# Template Variables & Helpers

- siteConfig

```
1. m.siteConfig( property, propertyValue )
```

# Template Variables & Helpers

- siteConfig

```
1.  <cfoutput>
2.    <p>
3.      #m.siteConfig('assetPath')#
4.    </p>
5.  </cfoutput>
```

# Template Variables & Helpers

- siteConfig

```
1.  <cfoutput>
2.    <p>
3.      #m.siteConfig('themeAssetPath')#
4.    </p>
5.  </cfoutput>
```

# Template Variables & Helpers

- siteConfig

```
1.  <cfoutput>
2.    <!-- Your Theme's Styles --->
3.    <link rel="stylesheet" href="#$.siteConfig('themAssetPath')#/css/your-styles.css">
4.  </cfoutput>
```

# Template Variables & Helpers

- siteConfig

```
1. <cfoutput>
2.   <header>
3.     <a class="navbar-brand" href="/">
4.       #esapiEncode('html', m.siteConfig('site'))#
5.     </a>
6.   </header>
7. </cfoutput>
```

# Template Variables & Helpers

- siteConfig

```
1.  <cfoutput>
2.    <header>
3.      <p>
4.        #esapiEncode('html', m.siteConfig('tagline'))#
5.      </p>
6.    </header>
7.  </cfoutput>
```

# Template Variables & Helpers

- siteConfig

```
1. | <cfoutput>
2. |     #esapiEncode('html', m.siteConfig('siteID'))#
3. | </cfoutput>
```

# Template Variables & Helpers

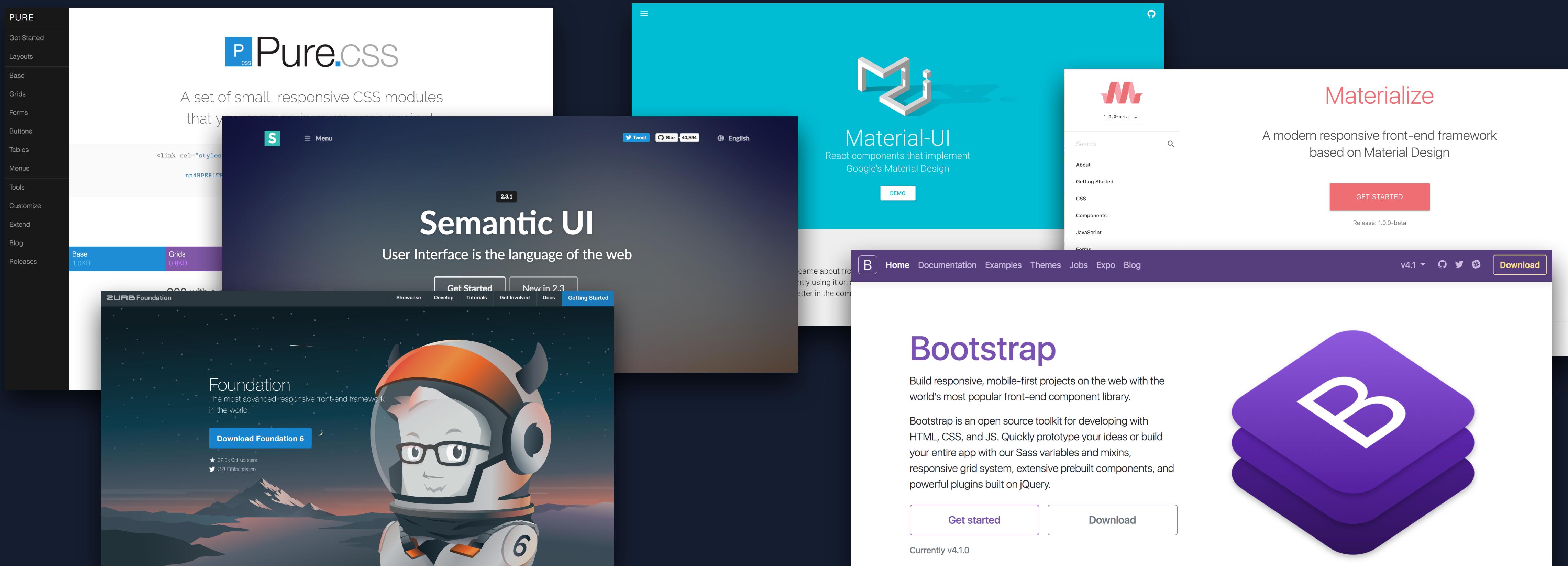
- siteConfig

```
1. | <cfdump var="#m.siteConfig().getAllValues()#">
```

# What Can I Use?

# What Can I Use?

- Any front-end framework you want



# What Can I Use?

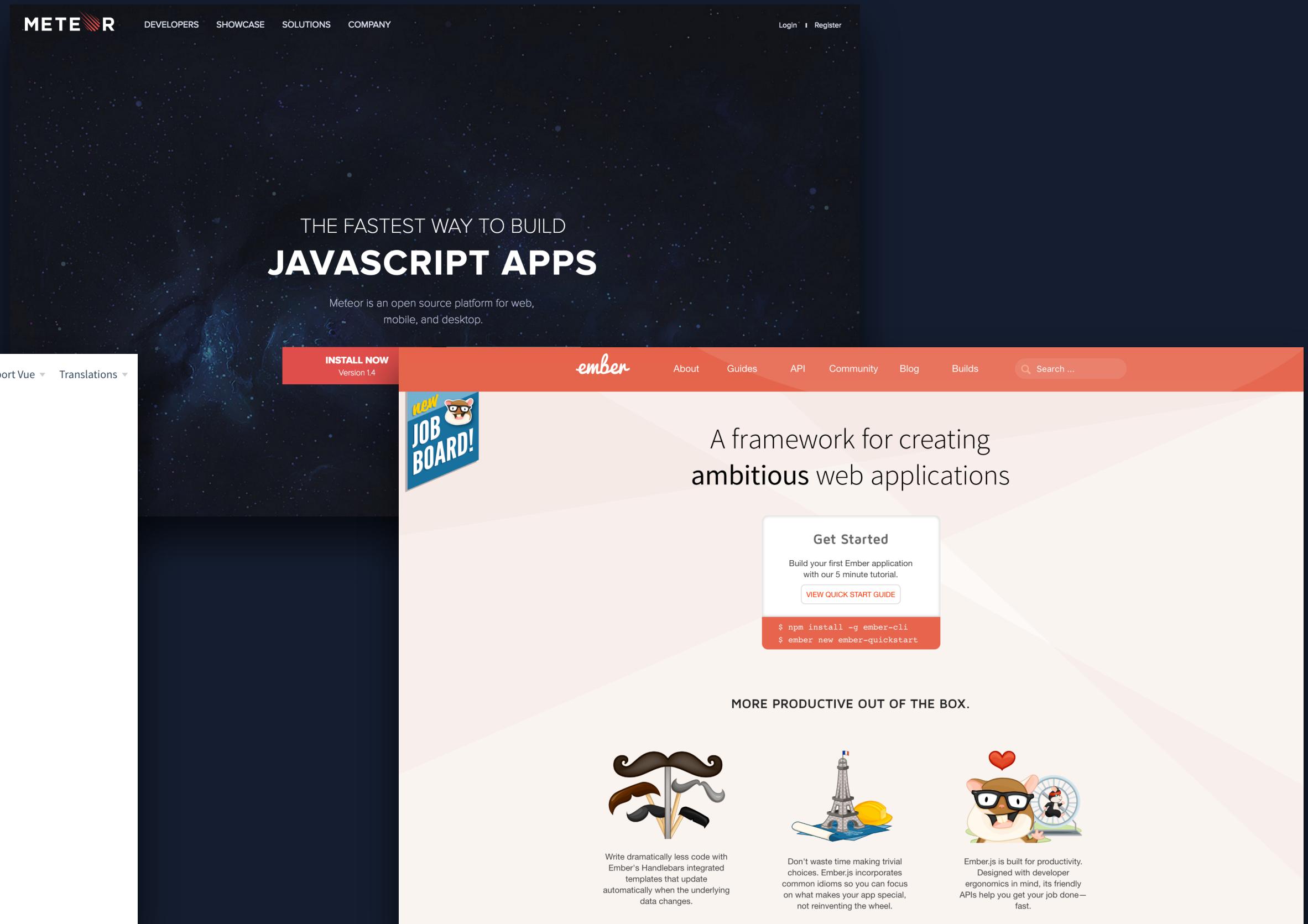
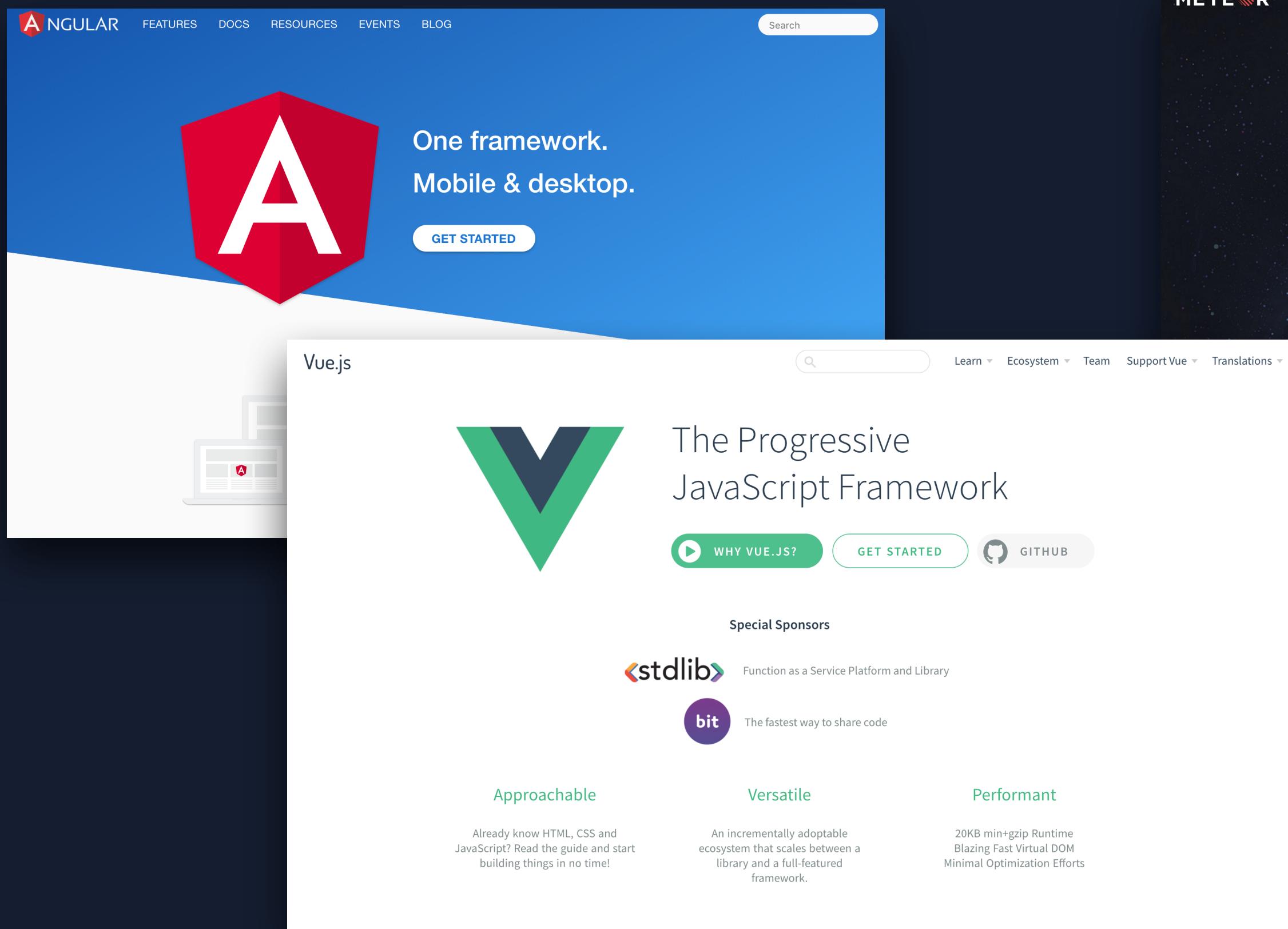
- Any JavaScript library you want

The image displays three side-by-side screenshots of popular JavaScript libraries:

- Dojo Toolkit 1.13**: A red-themed website with a "GET DOJO" button and a "LATEST NEWS" section.
- jQuery**: A blue-themed website featuring icons for "Lightweight Footprint", "CSS3 Compliant", and "Cross-Browser". It includes a "Download jQuery" button and a "What is jQuery?" section.
- React**: A dark-themed website with a "Get Started" button and a "Component-Based" section.

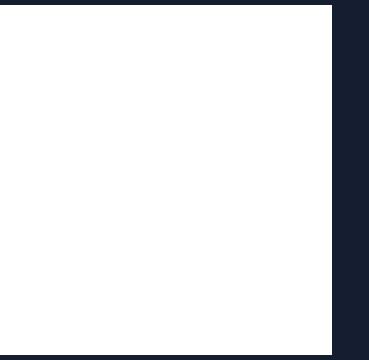
# What Can I Use?

- Any JavaScript framework you want



# What Can I Use?

- Use pretty much anything you want



# Lab Exercise

LET'S INTEGRATE!

# Lab Exercise

- Integrate HTML5Up's ZeroFour theme

# Summary

- Theme Layout Templates
- Mobile Layouts
- Component Layout Templates
- The Mura [m] Tag
- The Mura Scope
- Template Variables & Helper Methods
- What Can I Use?
- Lab Exercise

# Customizing Mura Output

WHEN YOU WOULD RATHER DO IT YOUR OWN WAY.

# Customizing Default Output

- Custom 404 Page
- Custom Error Page
- Customizing the Web Editor
- Image Sizes
- Lab Exercise

# Custom 404 Page

# Custom 404 Page

The requested page could not be found.

**About**

Mura CMS's rich feature set and powerful extensibility provides a toolkit for tackling and completing challenging Web projects, even those requiring deep integration and custom development. Our professional services team can assist your developers or lead the project from conception to delivery.

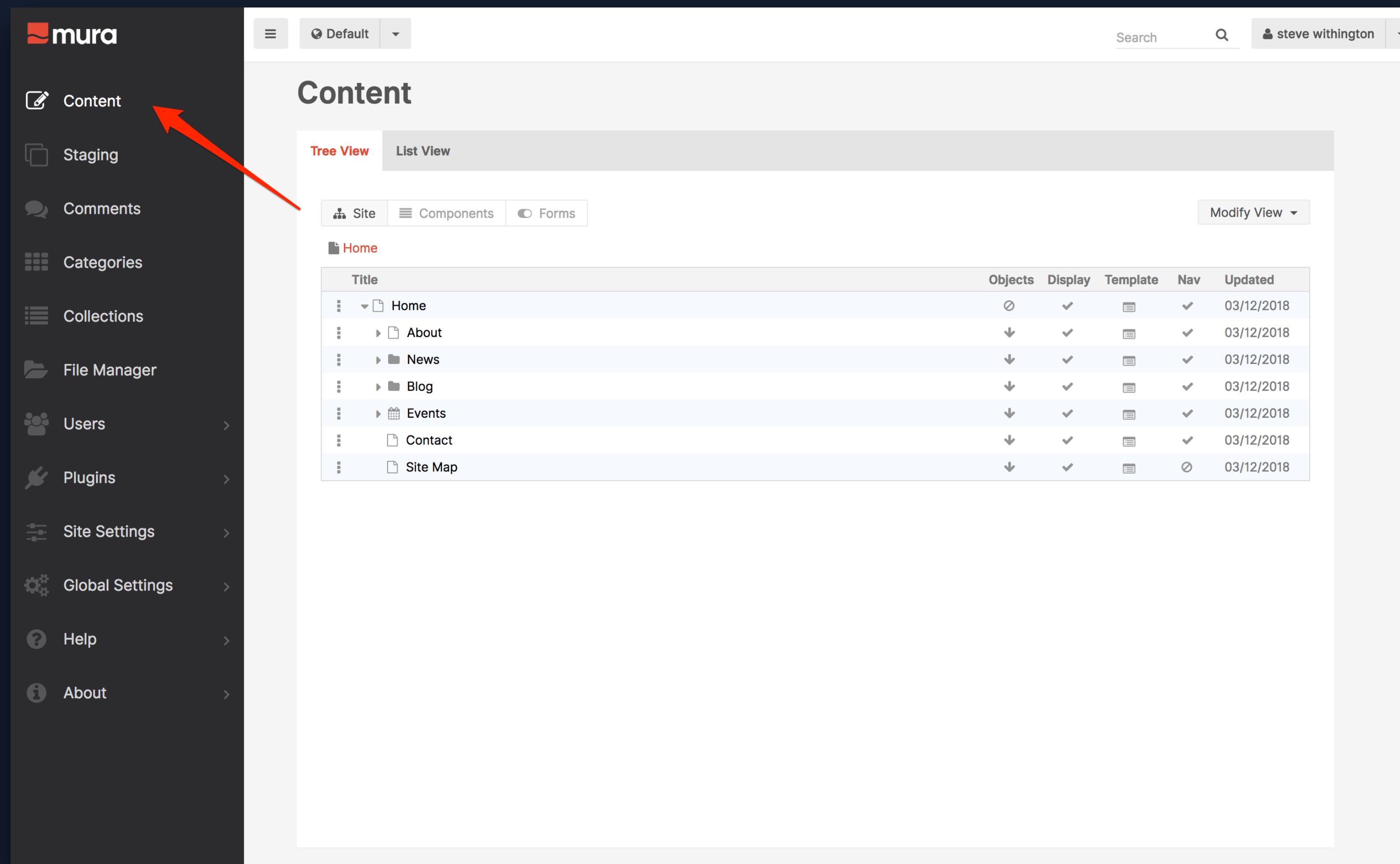
**Contact Info**

- 📞 +1(916)608-8608 Local
- 📞 +1(800)466-7525 Toll Free
- ✉️ info@blueriver.com
- ☒ Sample Modal Window
- ⚡ Powered by Mura

**Follow**

© Default 2018

# Custom 404 Page



A screenshot of the Mura CMS interface showing the 'Content' page. A red arrow points to the 'Content' item in the left sidebar menu.

The interface includes a top navigation bar with 'Default' and a search bar. The main content area features a 'Content' title, 'Tree View' and 'List View' tabs, and a 'Modify View' button. Below these are filters for 'Site', 'Components', and 'Forms'. The main list displays items under the 'Home' category:

Title	Objects	Display	Template	Nav	Updated
Home	∅	✓	✗	✓	03/12/2018
About	✗	✓	✗	✓	03/12/2018
News	✗	✓	✗	✓	03/12/2018
Blog	✗	✓	✗	✓	03/12/2018
Events	✗	✓	✗	✓	03/12/2018
Contact	✗	✓	✗	✓	03/12/2018
Site Map	✗	✓	✗	∅	03/12/2018

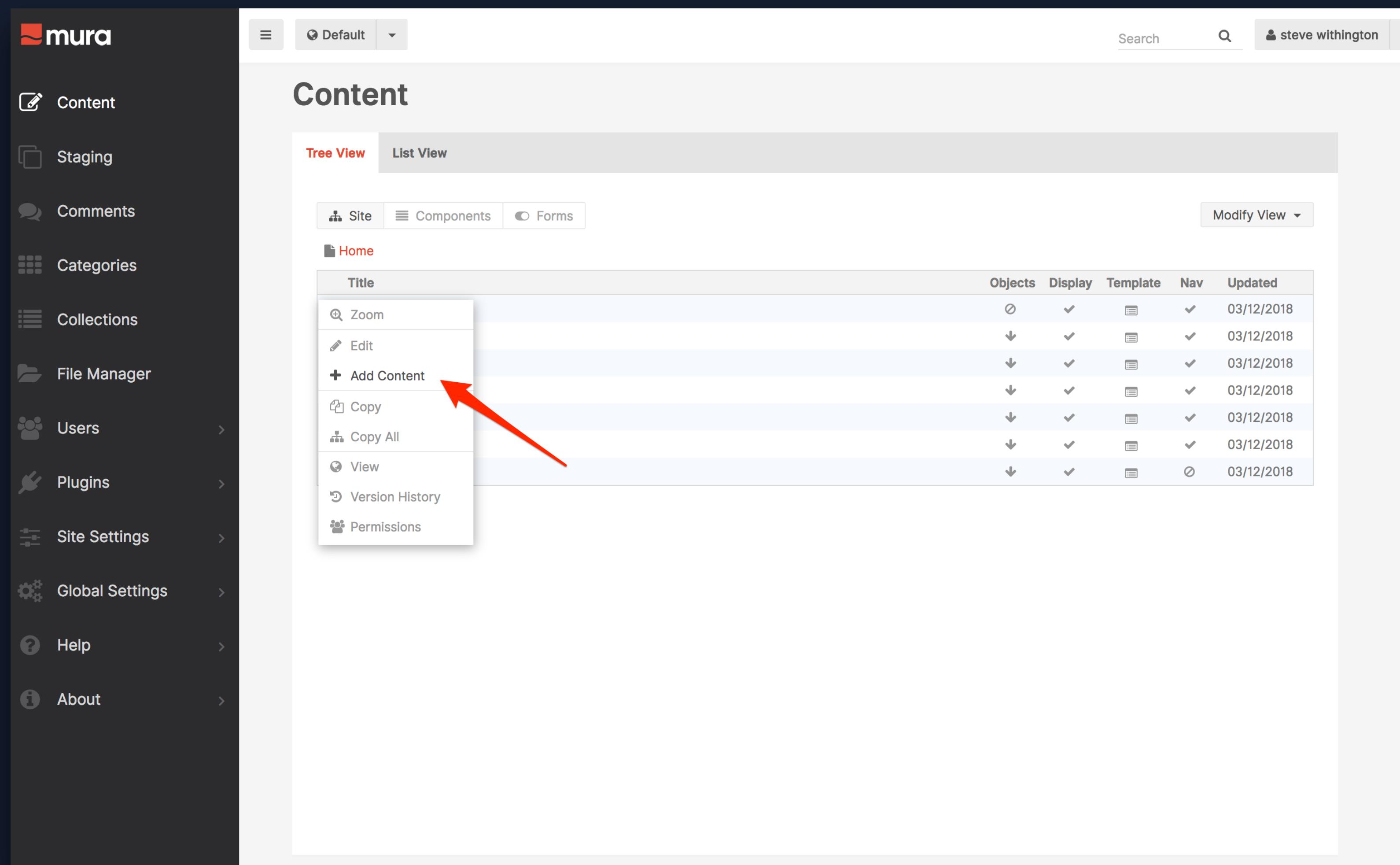
# Custom 404 Page

The screenshot shows the Mura CMS interface for managing content. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main content area is titled "Content" and features two tabs at the top: "Tree View" (which is highlighted with a red box) and "List View". Below the tabs is a toolbar with buttons for Site, Components, and Forms, and a "Modify View" dropdown. The main area displays a hierarchical tree structure under the "Home" node. A red arrow points from the "Tree View" tab towards the "Home" node in the tree. The tree structure is as follows:

- Home
  - Home
  - About
  - News
  - Blog
  - Events
  - Contact
  - Site Map

Title	Objects	Display	Template	Nav	Updated
Home	∅	✓	✗	✓	03/12/2018
About	✗	✓	✗	✓	03/12/2018
News	✗	✓	✗	✓	03/12/2018
Blog	✗	✓	✗	✓	03/12/2018
Events	✗	✓	✗	✓	03/12/2018
Contact	✗	✓	✗	✓	03/12/2018
Site Map	✗	✓	✗	∅	03/12/2018

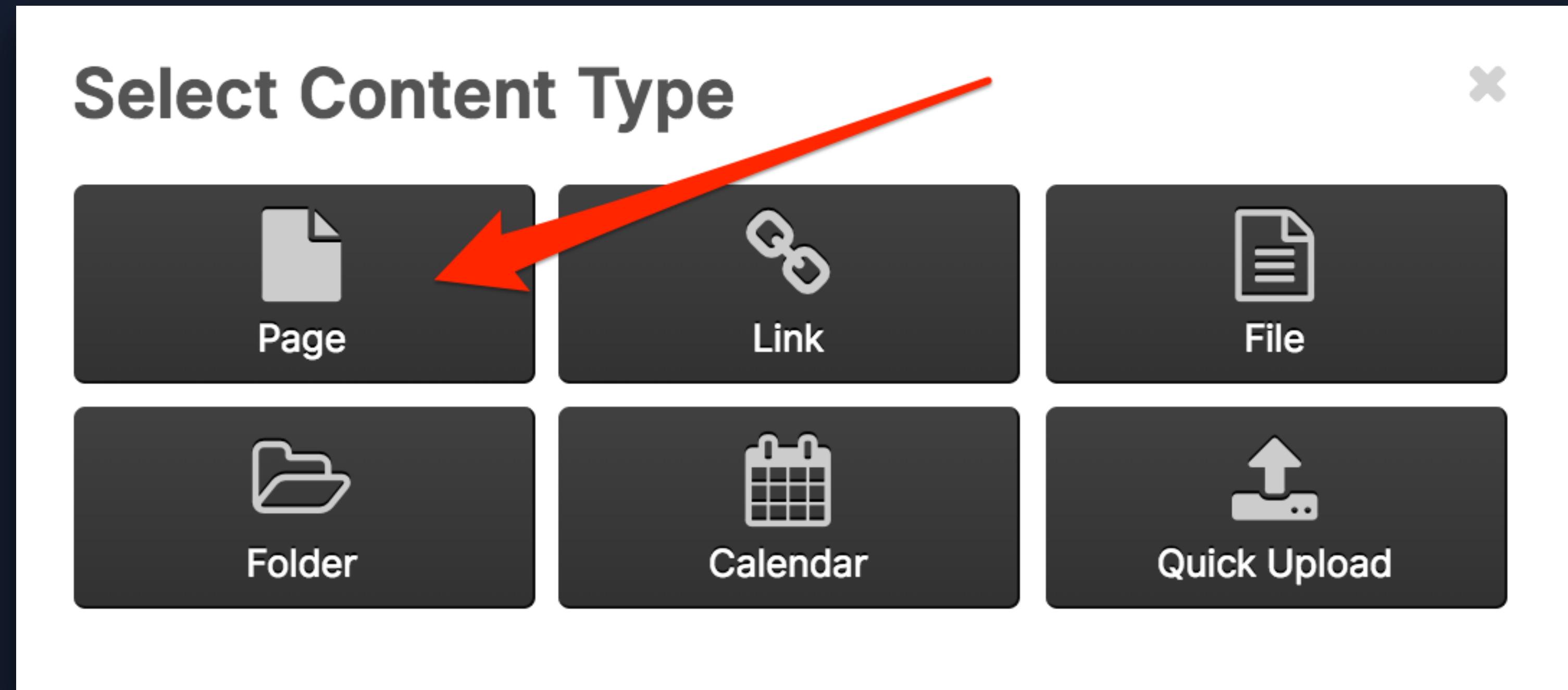
# Custom 404 Page



A screenshot of the Mura CMS interface showing the 'Content' page. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area shows a table of content items under 'Tree View'. A red arrow points to a context menu that is open over the first item in the list, titled 'Zoom'. The menu includes options: Zoom, Edit, Add Content (highlighted), Copy, Copy All, View, Version History, and Permissions.

Title	Objects	Display	Template	Nav	Updated
Zoom	∅	✓	grid	✓	03/12/2018
Edit	▼	✓	grid	✓	03/12/2018
+ Add Content	▼	✓	grid	✓	03/12/2018
Copy	▼	✓	grid	✓	03/12/2018
Copy All	▼	✓	grid	✓	03/12/2018
View	▼	✓	grid	✓	03/12/2018
Version History	▼	✓	grid	✓	03/12/2018
Permissions	∅	✓	grid	∅	03/12/2018

# Custom 404 Page



# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Create Content" and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Basic tab is selected.
- Type: Page
- Title: Page Not Found (highlighted with a red arrow)
- Show Additional Content Titles button
- Assign Associated Image section with options: Via Upload, Via URL, Select Existing. Choose File button: No file chosen.
- Summary WYSIWYG editor toolbar.
- Action buttons at the bottom: Save Draft, Preview, Save to Change Set, Publish (highlighted with a blue box).

# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains navigation links: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Create Content" and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Home
- Basic Publishing Layout Categories Tags Related Content Advanced
- Type: Page
- Title: Page Not Found
- Show Additional Content Titles (arrow pointing here)
- Assign Associated Image:
  - Via Upload
  - Via URL
  - Select ExistingNo file chosen
- Summary: A rich text editor toolbar.

At the bottom are buttons: Save Draft, Preview, Save to Change Set, and Publish (highlighted in blue).

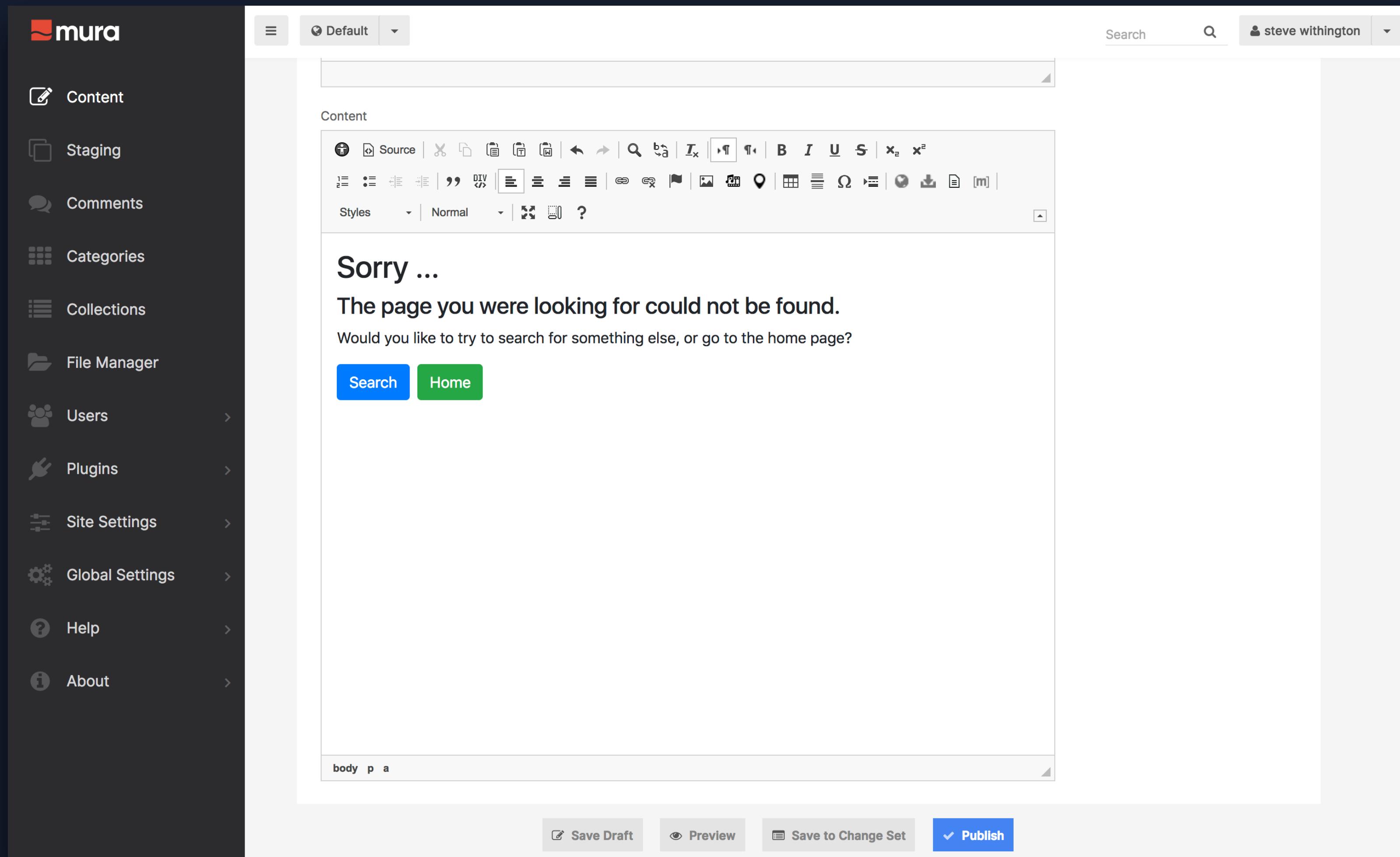
# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains navigation links: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Create Content" and shows the following fields:

- Type:** Page
- Title:** Page Not Found
- Navigation Title (Optional):** (empty)
- URL Title (Optional):** 404 (This field is highlighted with a red border)
- HTML (Browser) Title (Optional):** (empty)
- Assign Associated Image:** Via Upload, Via URL, Select Existing (No file chosen)
- Summary:** (empty)

At the bottom, there are four buttons: Save Draft, Preview, Save to Change Set, and Publish (highlighted with a blue border).

# Custom 404 Page



# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. On the left is a dark sidebar with various navigation items: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Create Content" and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Breadcrumbs: Home
- Content tabs: Basic (selected), Publishing (highlighted with a red arrow), Layout, Categories, Tags, Related Content, Advanced.
- Credits: A text input field.
- Meta Description: A text input field.
- Canonical URL: A text input field.
- Mobile Navigation:
  - Include in Site Navigation ?
  - Include for all
  - Include for Mobile Only
  - Exclude from Mobile
- Other options:
  - Open in New Browser Window ?
  - Exclude from Site Search
- Action buttons at the bottom: Save Draft, Preview, Save to Change Set, Publish (blue button).

# Custom 404 Page

The screenshot shows the Mura CMS content editor interface. On the left is a dark sidebar with navigation links: Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area displays a form for a content item. The form includes fields for Canonical URL, Mobile Navigation (radio buttons for 'Include for all' (selected), 'Include for Mobile Only', and 'Exclude from Mobile'), and 'Open in New Browser Window'. Two checkboxes are highlighted with red boxes: 'Exclude from Site Navigation' (unchecked) and 'Exclude from Site Search' (checked). Below these are fields for Official Release Date (set to 12:00 AM) and Display (set to Yes). A Content Parent dropdown is set to 'Select New Parent'. Content Expiration is set to 11:59 PM. A checkbox for 'Assign Content Expiration Notifications' is unchecked. A section for 'Feature in this section?' has 'No' selected. At the bottom are buttons for Save Draft, Preview, Save to Change Set, and Publish (highlighted in blue).

# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled 'Create Content' and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Parent Node: Home
- Tab navigation: Basic (selected), Publishing, Layout (highlighted with a red arrow), Categories, Tags, Related Content, Advanced.
- Layout Template: Inherit From Parent
- Alternate Child Layout Template: none
- Inheritance Rules: Inherit Cascade (selected), Start New Cascade, Do Not Inherit Cascade
- Content Objects: To manage content objects, preview this content node and select the "Inline Edit" option.
- Action buttons at the bottom: Save Draft, Preview, Save to Change Set, Publish (blue button).

# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled "Create Content" and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Home
- Basic Publishing Layout Categories Tags Related Content Advanced
- Layout Template: one\_column.cfm (highlighted)
- Alternate Child Layout Template: none
- Inheritance Rules:
  - Inherit Cascade
  - Start New Cascade
  - Do Not Inherit Cascade(highlighted)
- Content Objects: To manage content objects, preview this content node and select the "Inline Edit" option.

At the bottom, there are buttons for Save Draft, Preview, Save to Change Set, and Publish (highlighted).

# Custom 404 Page

The screenshot shows the Mura CMS interface for creating content. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled 'Create Content' and shows the following details:

- Update: 04/25/2018 8:59 PM Status: Draft Type: Page
- Home breadcrumb
- Layout tab selected (highlighted in red)
- Layout Template: one\_column.cfm
- Alternate Child Layout Template: none
- Inheritance Rules: Start New Cascade (radio button selected)
- Content Objects: To manage content objects, preview this content node and select the "Inline Edit" option.

At the bottom, there are four buttons: Save Draft, Preview, Save to Change Set, and Publish (highlighted with a red arrow).

# Custom 404 Page

The screenshot shows a custom 404 error page within the Mura CMS interface. The top navigation bar includes the Mura logo, a 'Published' status indicator, and various site management icons. The user 'steve withington' is logged in, and there is a 'Log out' option. Below the header, a secondary navigation bar lists 'Default', 'Home', 'About', 'News', 'Blog', 'Events', and 'Contact'. A search bar with a magnifying glass icon is also present. The main content area displays a breadcrumb trail ('Home / Page Not Found') and a large heading 'Page Not Found'. Below the heading, the text 'Sorry ...' and 'The page you were looking for could not be found.' is displayed. A message asks if the user would like to search or go home. Two buttons, 'Search' and 'Home', are available. At the bottom of the page, there are sections for 'About', 'Contact Info', and 'Follow'. The 'About' section contains a brief description of Mura CMS's features. The 'Contact Info' section provides phone numbers, email, and a link to a sample modal window. The 'Follow' section includes social media icons for Facebook, Twitter, Google+, and LinkedIn.

**About**

Mura CMS's rich feature set and powerful extensibility provides a toolkit for tackling and completing challenging Web projects, even those requiring deep integration and custom development. Our professional services team can assist your developers or lead the project from conception to delivery.

**Contact Info**

- 📞 +1(916)608-8608 Local
- 📞 +1(800)466-7525 Toll Free
- ✉️ info@blueriver.com
- ☒ Sample Modal Window

**Follow**

- [Facebook](#)
- [Twitter](#)
- [Google+](#)
- [LinkedIn](#)

# Custom Error Page

# Custom Error Page

Content

[m]x[/m] **Should cause an error**

>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent suscipit iaculis libero sed tristique. Quisque mollis dolor non tellus placerat vitae sodales lectus porta. Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacus, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum.

# Custom Error Page

The screenshot shows a custom 500 error page within a Mura CMS interface. The top navigation bar includes 'mura' (published), a toolbar with various icons, and user information ('steve withington' and 'Log out'). Below the toolbar, a secondary navigation bar lists 'Default', 'Home', 'About', 'News', 'Blog', 'Events', and 'Contact'. A search bar is also present. The main content area has a breadcrumb trail 'Home / About'. On the left, a sidebar contains links to 'Photo Gallery', 'Annual Reports', 'Protected Area', and 'Mura Support'. The central content area features a large heading 'About' and a red-bordered box containing the error message '500 Error' and 'Variable X is undefined.' It also displays detailed error trace information. To the right, a 'Mura Blog' section is visible, featuring a post by 'steve withington' from April 18, 2018, about 'MuraCon 2018 Conference in Review'. Another post by 'steve withington' from March 8, 2018, titled 'How Storytelling Soft Skills Can Create Better User Experiences in Technical Careers', is also shown.

mura Published

Default Home About News Blog Events Contact

Search

Home / About

Photo Gallery  
Annual Reports  
Protected Area  
Mura Support

## About

**500 Error**

**Variable X is undefined.**

Column: 0  
ID: ??  
Line: 1  
Raw Trace: at Statement574.evaluate(:1)  
Template:  
Type: CFML

Column: 0  
ID: CF\_CFPAGE  
Line: 2593  
Raw Trace: at  
cfcontentRenderer2ecfc459762978\$funcSETDYNAMICCONTENT.runFunction(/app/core/mura/content/contentRenderer.cfc:2593)  
Template: /app/core/mura/content/contentRenderer.cfc  
Type: CFML

Column: 0

### Mura Blog

April 18, 2018

[MuraCon 2018 Conference in Review](#)

MuraCon is the only conference dedicated to the Mura platform. Muracon 2018 was held at the Sheraton Grand in downtown Sacramento, on April 5 & 6, preceded by a sold out day of pre-conference training.

March 8, 2018

[How Storytelling Soft Skills Can Create Better User Experiences in Technical Careers](#)

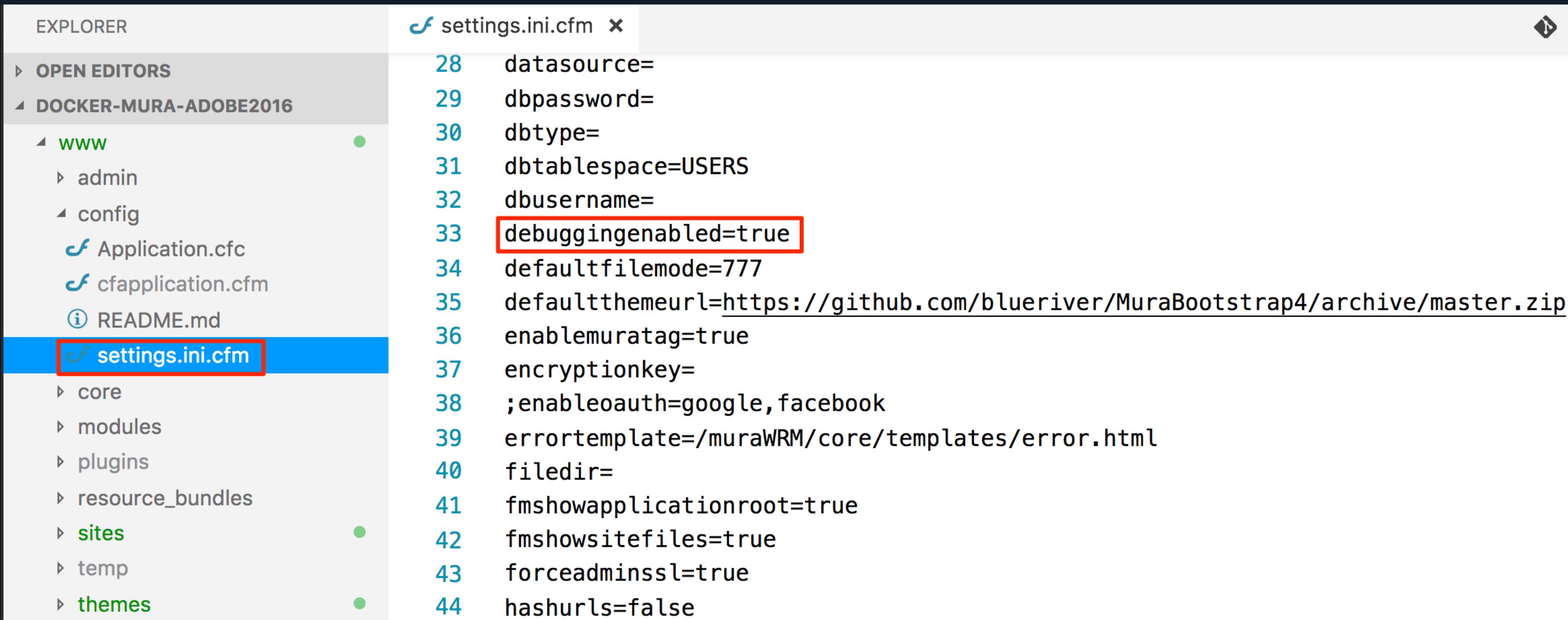
Business storytelling in the digital world is like programming code: The cleaner it is the better the user experience. Park Howell from The Business of Story explains why the power of person-to-person communication is much more than a "soft skill".

# Custom Error Page

- How to Enable/Disable Error Messages

# Custom Error Page

- {context}/config/settings.ini.cfm



The screenshot shows a code editor interface with the following details:

- EXPLORER** sidebar:
  - OPEN EDITORS
  - DOCKER-MURA-ADOBE2016
    - www
      - admin
      - config
        - Application.cfc
        - cfapplication.cfm
      - settings.ini.cfm
      - core
      - modules
      - plugins
      - resource\_bundles
      - sites
      - temp
      - themes
- settings.ini.cfm** code editor:

```
28 datasource=
29 dbpassword=
30 dbtype=
31 dbtablespace=USERS
32 dbusername=
33 debuggingenabled=true
34 defaultfilemode=777
35 defaultthemeurl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip
36 enablemuratag=true
37 encryptionkey=
38 ;enableoauth=google,facebook
39 errortemplate=/muraWRM/core/templates/error.html
40 filedir=
41 fmshowapplicationroot=true
42 fmshowsitemfiles=true
43 forceadminssl=true
44 hashurls=false
```

# Custom Error Page

- `debuggingEnabled=true`

The screenshot shows a custom error page for a 500 Internal Server Error. The page is titled "About" and displays the error message "Variable X is undefined." Below the message, there is detailed raw trace information:

Column: 0  
ID: ??  
Line: 1  
Raw Trace: at Statement574.evaluate(:1)  
Template:  
Type: CFML

Below this, another set of raw trace details is shown:

Column: 0  
ID: CF\_CFPAGE  
Line: 2593  
Raw Trace: at  
cfcontentRenderer2ecfc459762978\$funcSETDYNAMICCONTENT.runFunction(/app/core/mura/content/contentRenderer.cfc:2593)  
Template: /app/core/mura/content/contentRenderer.cfc  
Type: CFML

At the bottom of the error page, the word "Column: 0" is displayed.

On the right side of the page, there is a sidebar titled "Mura Blog" with two recent posts:

- April 18, 2018: [MuraCon 2018 Conference in Review](#)  
MuraCon is the only conference dedicated to the Mura platform. Muracon 2018 was held at the Sheraton Grand in downtown Sacramento, on April 5 & 6, preceded by a sold out day of pre-conference training.
- March 8, 2018: [How Storytelling Soft Skills Can Create Better User Experiences in Technical Careers](#)  
Business storytelling in the digital world is like programming code: The cleaner it is the better the user experience. Park Howell from The Business of Story explains why the power of person-to-person communication is much more than a "soft skill".

# Custom Error Page

- `debuggingEnabled=false`

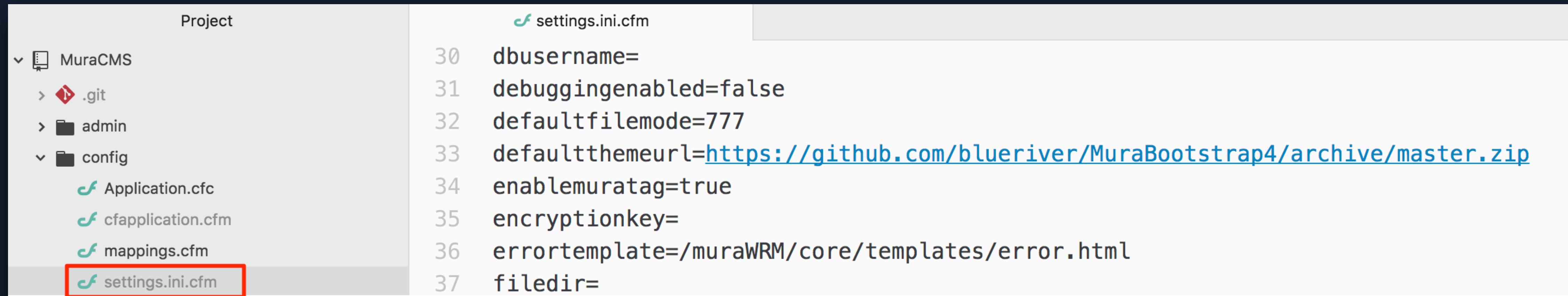
We're sorry, an error has occurred. Please try again later.

# Custom Error Page

- How to Create a Custom Error Screen

# Custom Error Page

- {context}/config/settings.ini.cfm



Project

MuraCMS

.git

admin

config

Application.cfc

cfapplication.cfm

mappings.cfm

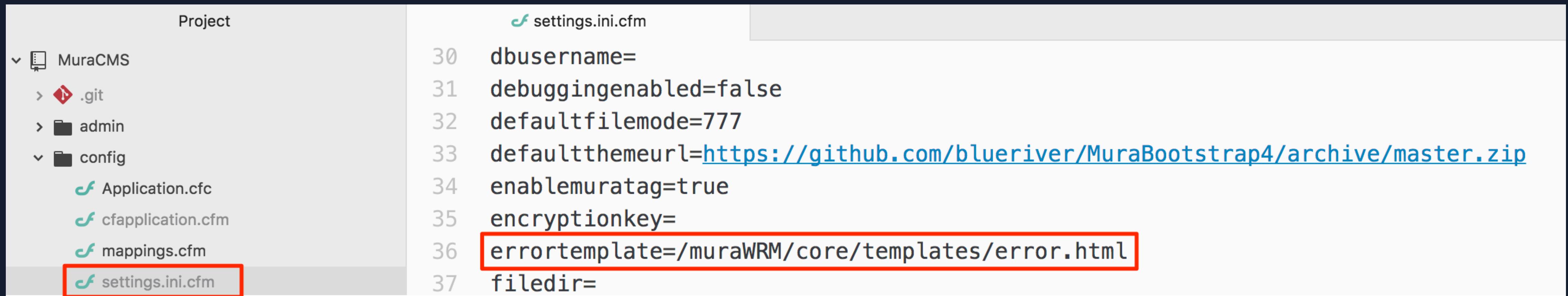
settings.ini.cfm

settings.ini.cfm

```
30 dbusername=
31 debuggingenabled=false
32 defaultfilemode=777
33 defaultthemeurl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip
34 enablemuratag=true
35 encryptionkey=
36 errortemplate=/muraWRM/core/templates/error.html
37 filedir=
```

# Custom Error Page

- `errortemplate=/muraWRM/core/templates/error.html`



The screenshot shows a code editor interface with a sidebar labeled "Project". The sidebar contains a tree view of files and folders under "MuraCMS": ".git", "admin", "config", "Application.cfc", "cfapplication.cfm", "mappings.cfm", and "settings.ini.cfm". The "settings.ini.cfm" file is selected and highlighted with a red border. The main pane displays the contents of the "settings.ini.cfm" file, which is a CFML configuration file. The "errortemplate" setting is explicitly highlighted with a red rectangular box.

```
Project
      settings.ini.cfm

30 dbusername=
31 debuggingenabled=false
32 defaultfilemode=777
33 defaultthemeurl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip
34 enablemuratag=true
35 encryptionkey=
36 errortemplate=/muraWRM/core/templates/error.html
37 filedir=
```

# Custom Error Page

- {context}/core/templates/error.html

The screenshot shows a code editor interface with a project tree on the left and a code editor on the right.

**Project Tree:**

- MuraCMS
  - .git
  - admin
  - config
  - core
    - appcfc
    - docker
    - modules
    - mura
    - setup
  - templates
    - site
      - Application.cfc
      - cffp.ini.template.cfm
      - error.html** (highlighted with a red border)
      - lockdown.cfm
      - robots.template.cfm
      - settings.template.cfm
      - theme.zip.cfm
      - web.config.template.cfm

# Custom Error Page

- {context}/core/templates/error.html



We're sorry, an error has occurred. Please try again later.

# Custom Error Page

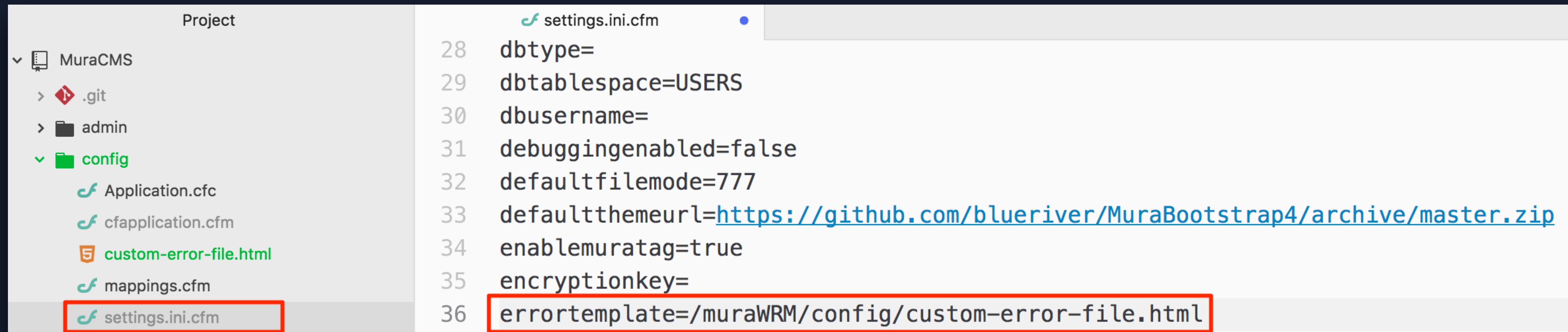
- {context}/config/custom-error-file.html

The screenshot shows a code editor interface with two panes. The left pane, titled "Project", displays the directory structure of a MuraCMS application. The "config" folder is expanded, showing files like Application.cfc, cfapplication.cfm, and custom-error-file.html, which is highlighted with a red border. The right pane shows the content of the "custom-error-file.html" file:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="utf-8">
5     <title>Custom Error File</title>
6   </head>
7   <body>
8     <h1>Custom Error File</h1>
9     <p>This is a custom error file.</p>
10    <p>You can use any design you wish in this file.</p>
11  </body>
12 </html>
```

# Custom Error Page

- `errortemplate=/muraWRM/config/custom-error-file.html`



The screenshot shows a code editor interface with a sidebar labeled "Project". In the sidebar, under the "MuraCMS" folder, there is a "config" folder containing several files: Application.cfc, cfapplication.cfm, custom-error-file.html, mappings.cfm, and settings.ini.cfm. The "settings.ini.cfm" file is currently selected and its content is displayed in the main editor area. The content of the file is as follows:

```
28 dbtype=
29 dbtablespace=USERS
30 dbusername=
31 debuggingenabled=false
32 defaultfilemode=777
33 defaultthemeurl=https://github.com/blueriver/MuraBootstrap4/archive/master.zip
34 enablemuratag=true
35 encryptionkey=
36 errortemplate=/muraWRM/config/custom-error-file.html
```

The line `36 errortemplate=/muraWRM/config/custom-error-file.html` is highlighted with a red rectangular border.

# Custom Error Page

- Reload Mura

## Custom Error File

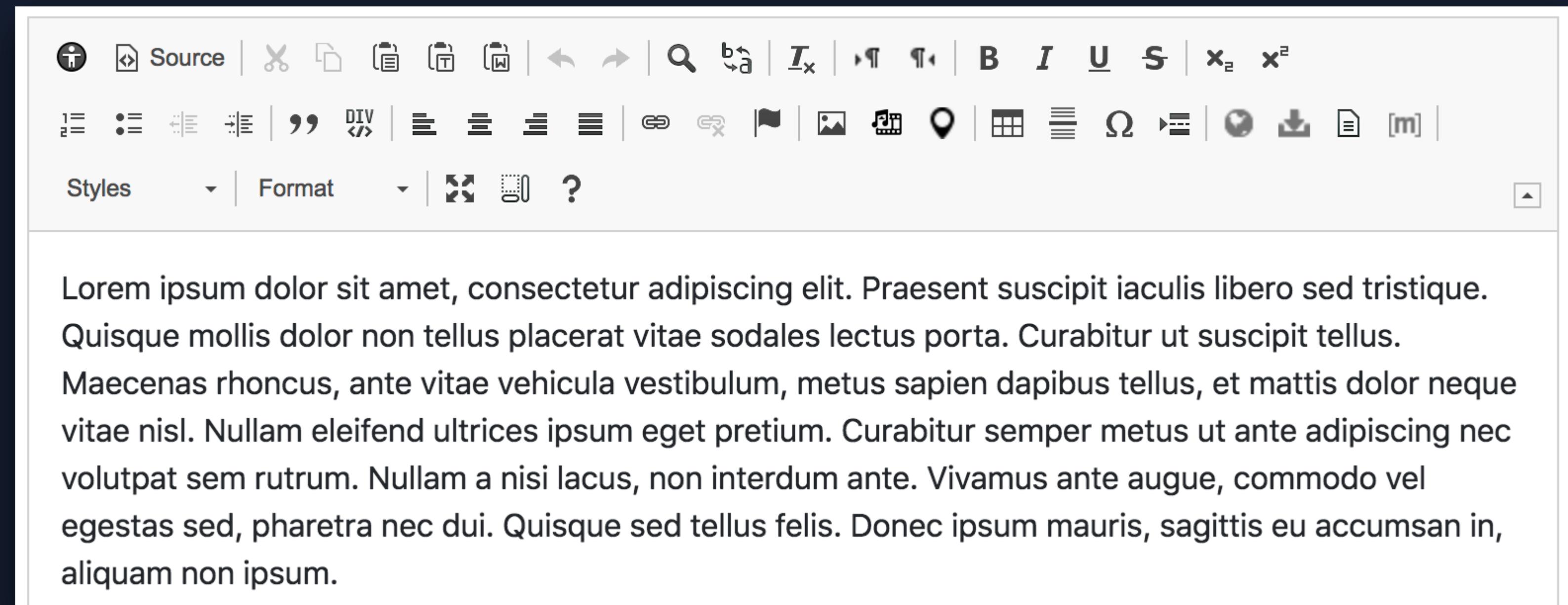
This is a custom error file.

You can use any design you wish in this file.

# Customizing the Web Editor

# Customizing the Web Editor

- <http://docs.ckeditor.com>



# Customizing the Web Editor

- Editor Settings

# Customizing the Web Editor

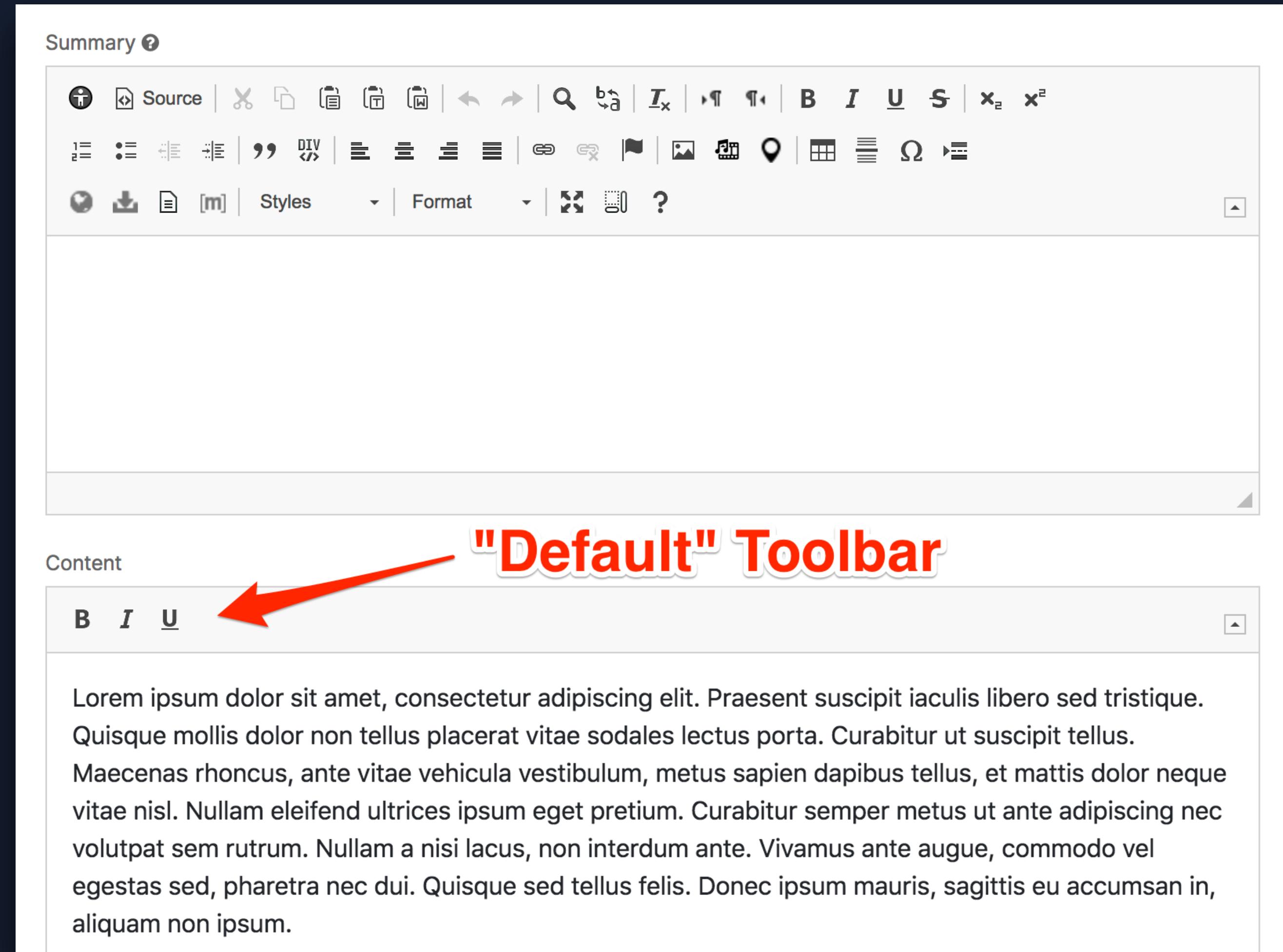
- Editor Settings
  - Custom Configuration File
    - `../themes/{ThemeName}/js/editor/config.js.cfm`
    - `../themes/{ThemeName}/js/editor/config.js`

# Customizing the Web Editor

- Editor Settings
  - Custom Configuration File
    - Custom Toolbar

```
1. if ( 'CKEDITOR' in window) {  
2.     CKEDITOR.editorConfig = function( config ) {  
3.  
4.         config.toolbar_Default = [  
5.             {name: 'group1', items: ['Bold', 'Italic', 'Underline']}  
6.         ];  
7.  
8.     };  
9. }
```

# Customizing the Web Editor



# Customizing the Web Editor

- Editor Settings
  - Custom Configuration File
    - Custom Toolbars

```
1. if ( 'CKEDITOR' in window) {
2.     CKEDITOR.editorConfig = function( config ) {
3.
4.         config.toolbar_Default =
5.             {name:'group1',items:['Bold','Italic','Underline']}
6.     };
7.
8.     config.toolbar_Summary = config.toolbar_Default;
9.     config.toolbar_QuickEdit = config.toolbar_Default;
10.
11.    };
12. }
```

# Customizing the Web Editor

Summary ?

B I U

Content

B I U

Placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent suscipit iaculis libero sed tristique. Quisque mollis dolor non tellus placerat vitae sodales lectus porta. Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacus, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum."

# Customizing the Web Editor

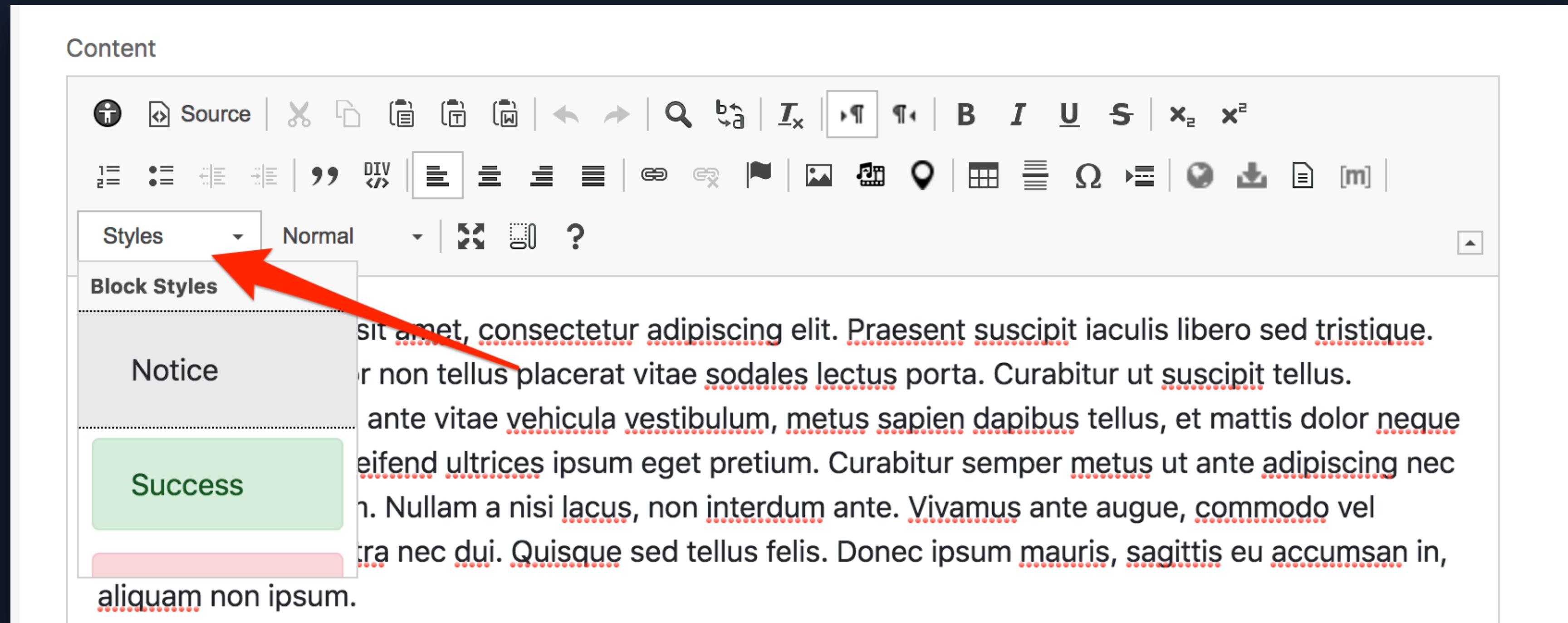
The screenshot displays a web-based富文本编辑器 (Rich Text Editor) interface. At the top, there is a toolbar with a "Summary" button and three bolding options: **B**, *I*, and U. Below the toolbar, the main content area contains a large block of placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent suscipit iaculis libero sed tristique. Quisque mollis dolor non tellus placerat vitae sodales lectus porta. Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacinia, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum." This text is enclosed in a dashed border, indicating it is a selected or nested element. To the left of this main content, there is a sidebar with a "Content" section containing a smaller set of bolding options (**B**, *I*) and some additional text: "Lorem Quisque". The overall design is clean and modern, using a white background with light gray borders for the toolbars and sidebar.

# Customizing the Web Editor

- Editor Styles Drop-down

# Customizing the Web Editor

- Editor Styles Drop-down



# Customizing the Web Editor

- Editor Styles Drop-down
  - `../themes/{ThemeName}/js/editor/styles.js.cfm`
  - `../themes/{ThemeName}/js/editor/styles.js`

# Customizing the Web Editor

- Editor Styles Drop-down
  - `../themes/{ThemeName}/js/editor/styles.js.cfm`
  - `../themes/{ThemeName}/js/editor/styles.js`
- Resources:
  - [http://docs.ckeditor.com/#!/guide/dev\\_styles](http://docs.ckeditor.com/#!/guide/dev_styles)
  - <http://docs.ckeditor.com/#!/api/CKEDITOR.stylesSet>
  - [http://docs.ckeditor.com/#!/guide/dev\\_howtos\\_styles](http://docs.ckeditor.com/#!/guide/dev_howtos_styles)

# Customizing the Web Editor

- Editor Content CSS

# Customizing the Web Editor

- Editor Content CSS
  - `../themes/{ThemeName}/css/editor.css.cfm`
  - `../themes/{ThemeName}/css/editor.css`

# Customizing the Web Editor

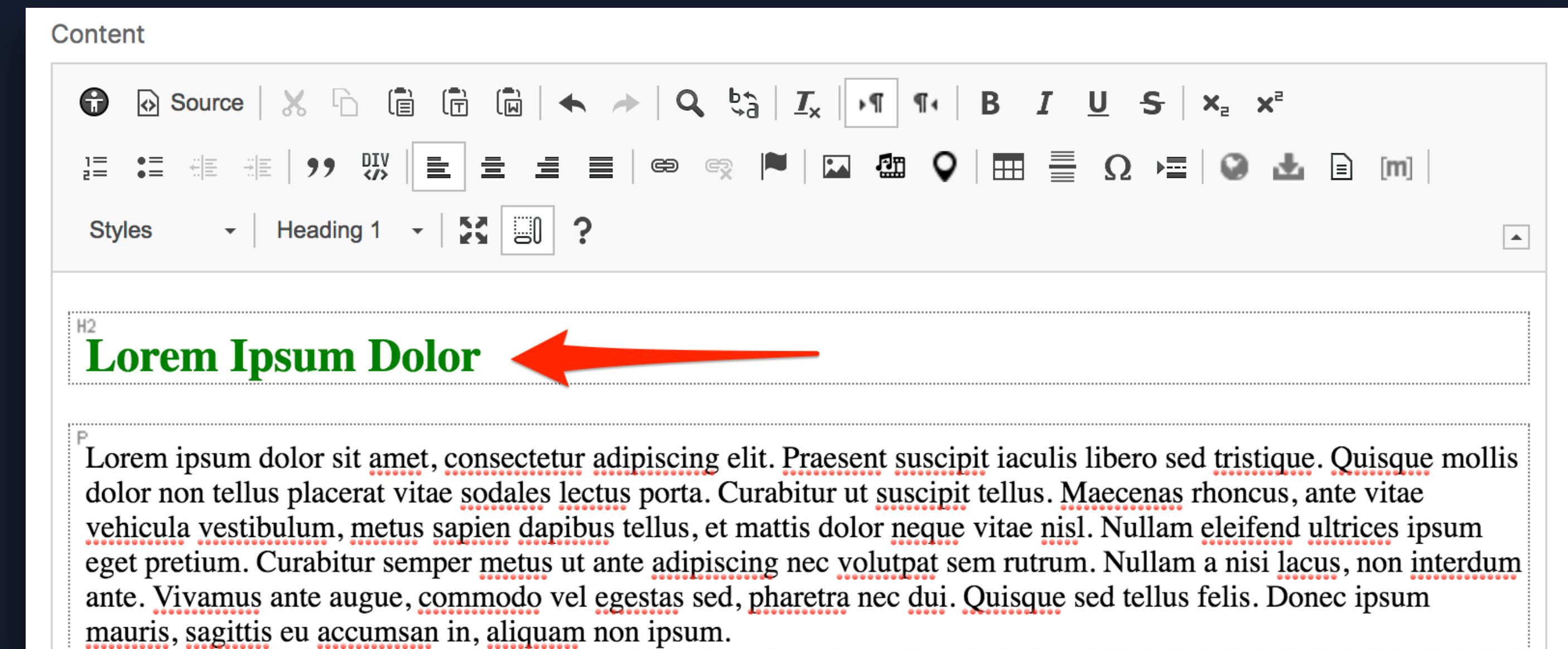
- Editor Content CSS

- ```
h2, h3 {  
    color: green;  
}
```

# Customizing the Web Editor

- Editor Content CSS

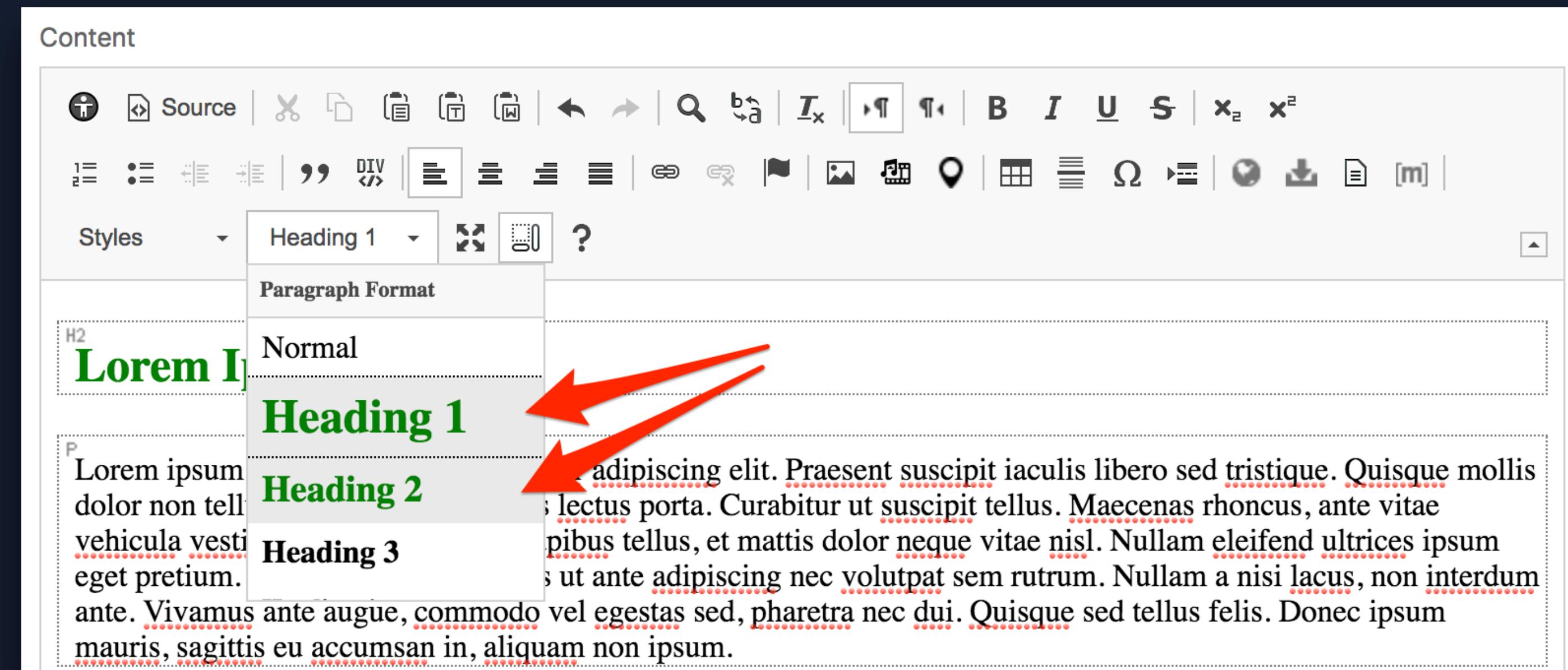
- ```
h2, h3 {  
    color: green;  
}
```



# Customizing the Web Editor

- Editor Content CSS

- ```
• h2, h3 {  
    color: green;  
}
```

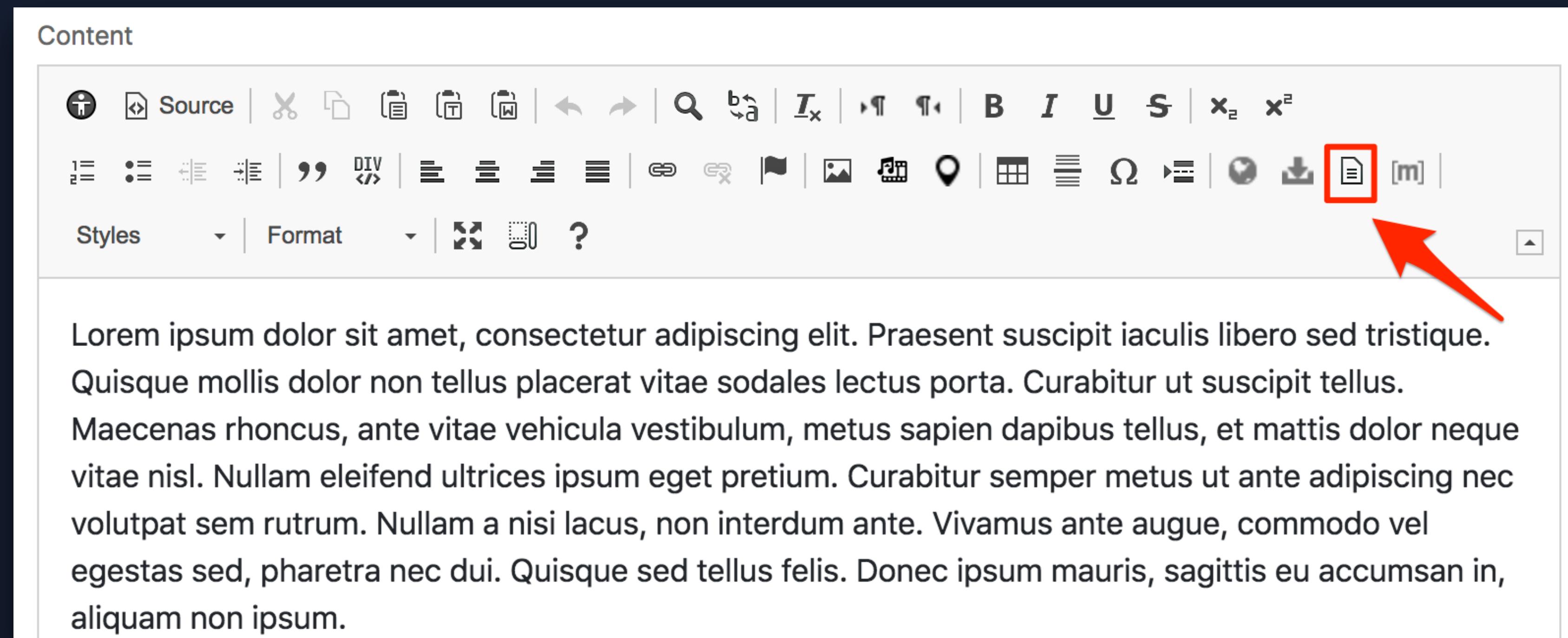


# Customizing the Web Editor

- Editor Body Templates

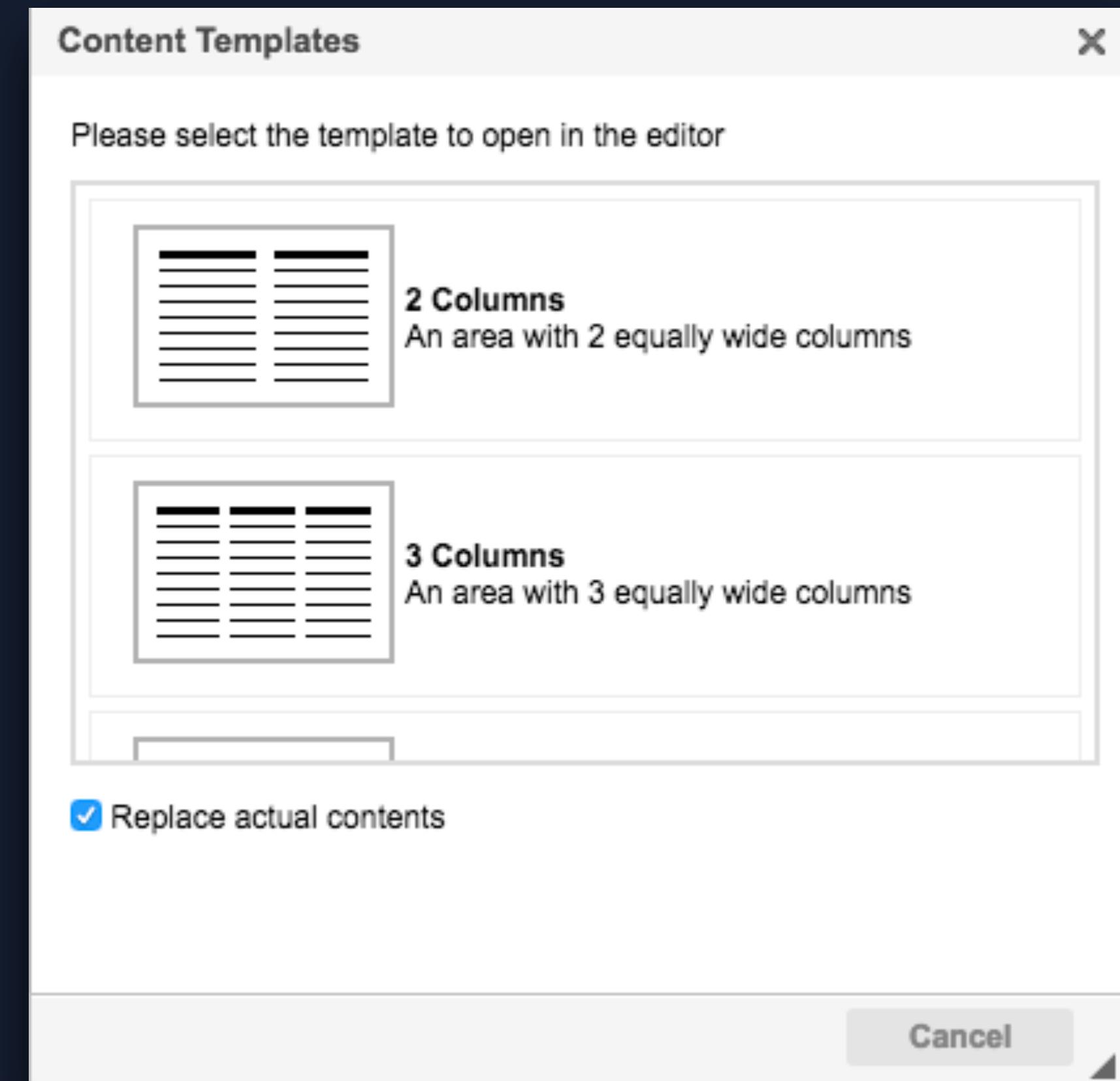
# Customizing the Web Editor

- Editor Body Templates



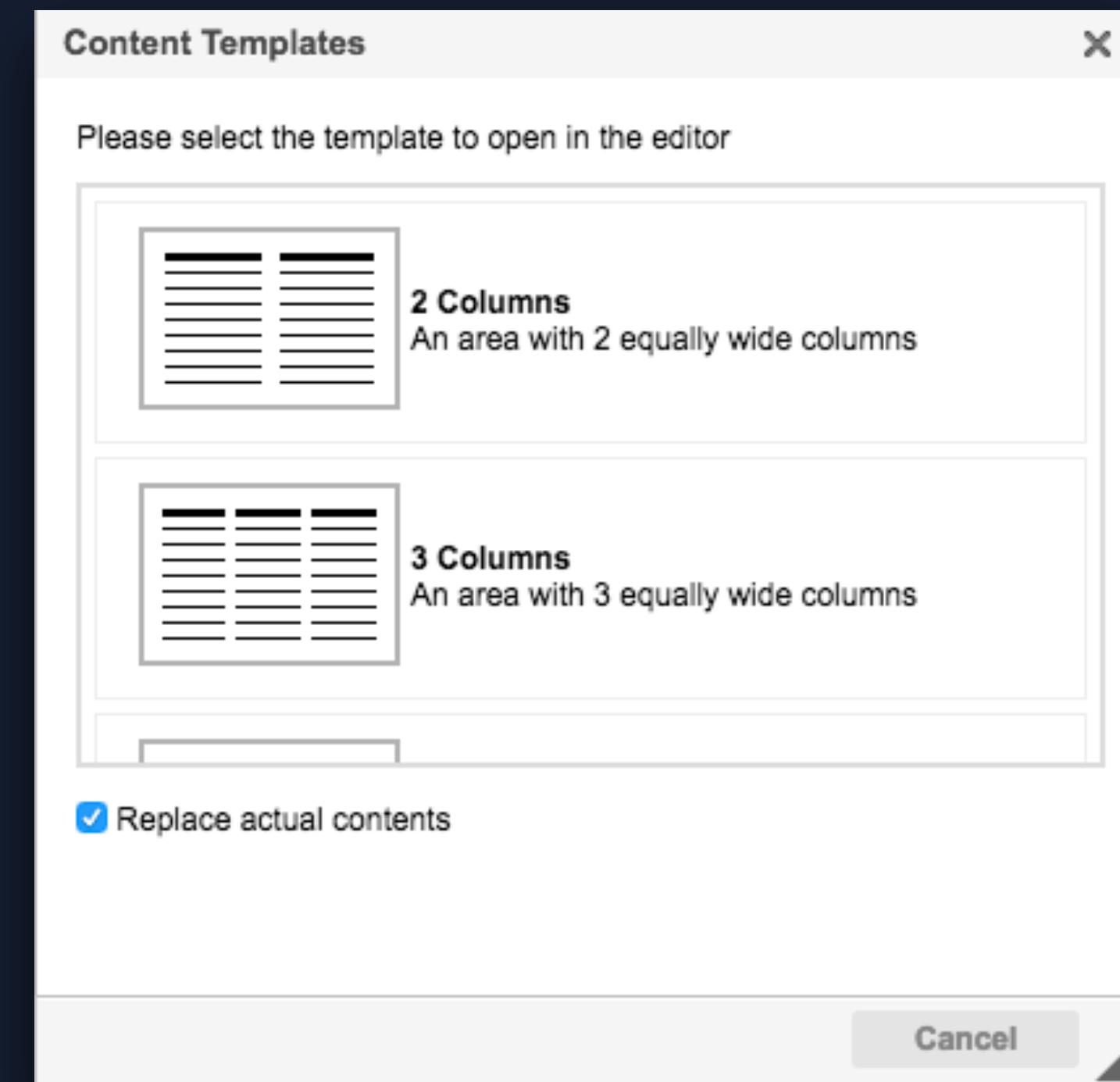
# Customizing the Web Editor

- Editor Body Templates



# Customizing the Web Editor

- Editor Body Templates
  - `config.templates_replaceContents = true;`

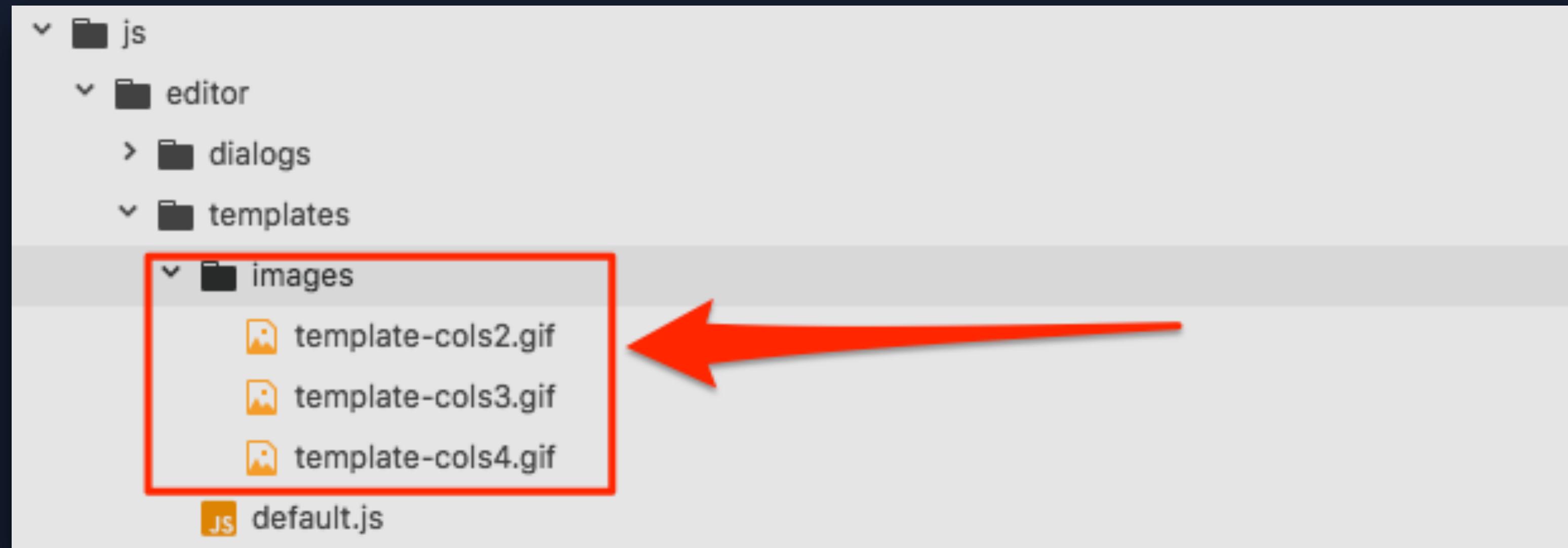


# Customizing the Web Editor

- Editor Body Templates
  - `.../themes/{ThemeName}/js/editor/templates/`

# Customizing the Web Editor

- Editor Body Templates
  - `../themes/{ThemeName}/js/editor/templates/images/`



# Customizing the Web Editor

- Editor Body Templates
  - `../themes/{ThemeName}/js/editor/templates/default.js`



```
9 CKEDITOR.addTemplates( 'default',
10 {
11     // The name of sub folder which hold the shortcut preview images of the templates.
12     //imagesPath : CKEDITOR.getUrl( themepath + '/js/editor/templates/images/' ),
13     imagesPath : mura.themepath + '/js/editor/templates/images/',
14     // The templates definitions.
15     templates :
16     [
17         {
18             title: '2 Columns',
19             image: 'template-cols2.gif',
20             description: 'An area with 2 equally wide columns',
21             html:
22                 '<div class="row">' +
23                     '<div class="span6 col-md-6">' +
24                         '<h2>Header 1</h2>' +
25                         '<p>Content for column 1 goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi
26                         venenatis lacinia sem, et imperdiet nisl rhoncus nec. Nulla erat neque, mattis et diam quis, posuere
27                         malesuada neque. Praesent dictum magna et mauris congue, at molestie ante imperdiet. Pellentesque
28                         neque justo, egestas ac augue vitae, fringilla malesuada orci. Sed tincidunt eleifend diam, nec
29                         imperdiet libero gravida quis. Fusce accumsan ultrices mauris et aliquam. Duis rutrum facilisis
30                         ultrices.</p>' +
31                     '</div>' +
32
33                     '<div class="span6 col-md-6">' +
34                         '<h2>Header 2</h2>' +
35                         '<p>Content for column 2 goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi
36                         venenatis lacinia sem, et imperdiet nisl rhoncus nec. Nulla erat neque, mattis et diam quis, posuere
37                         malesuada neque. Praesent dictum magna et mauris congue, at molestie ante imperdiet. Pellentesque
38                         neque justo, egestas ac augue vitae, fringilla malesuada orci. Sed tincidunt eleifend diam, nec
39                         imperdiet libero gravida quis. Fusce accumsan ultrices mauris et aliquam. Duis rutrum facilisis
40                         ultrices.</p>' +
41                     '</div>' +
42             '
```

# Image Sizes

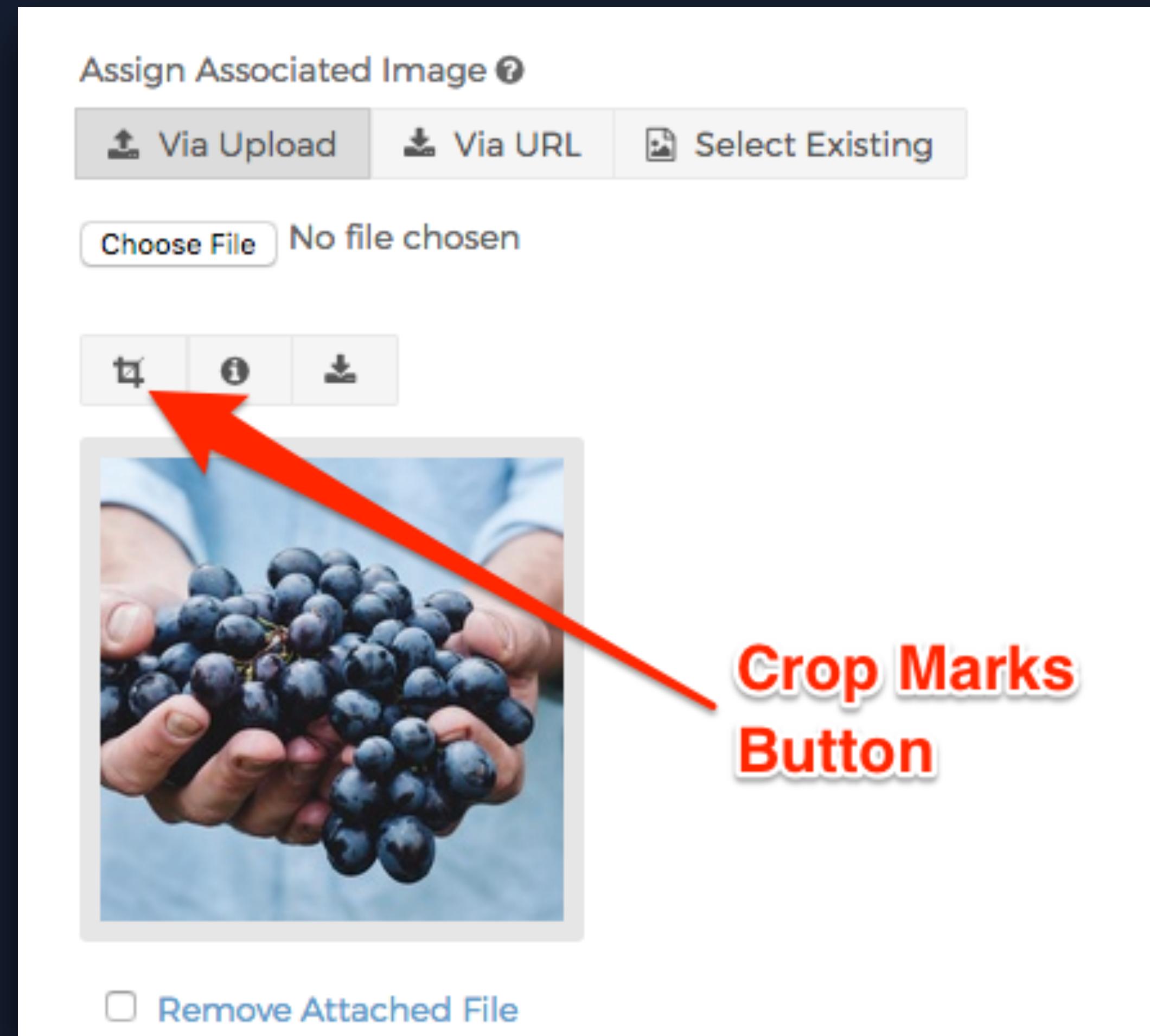
# Image Sizes

The screenshot shows the Mura CMS interface for editing content. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Global Settings, Help, and About. The main area is titled 'Edit Content' and shows the following details:

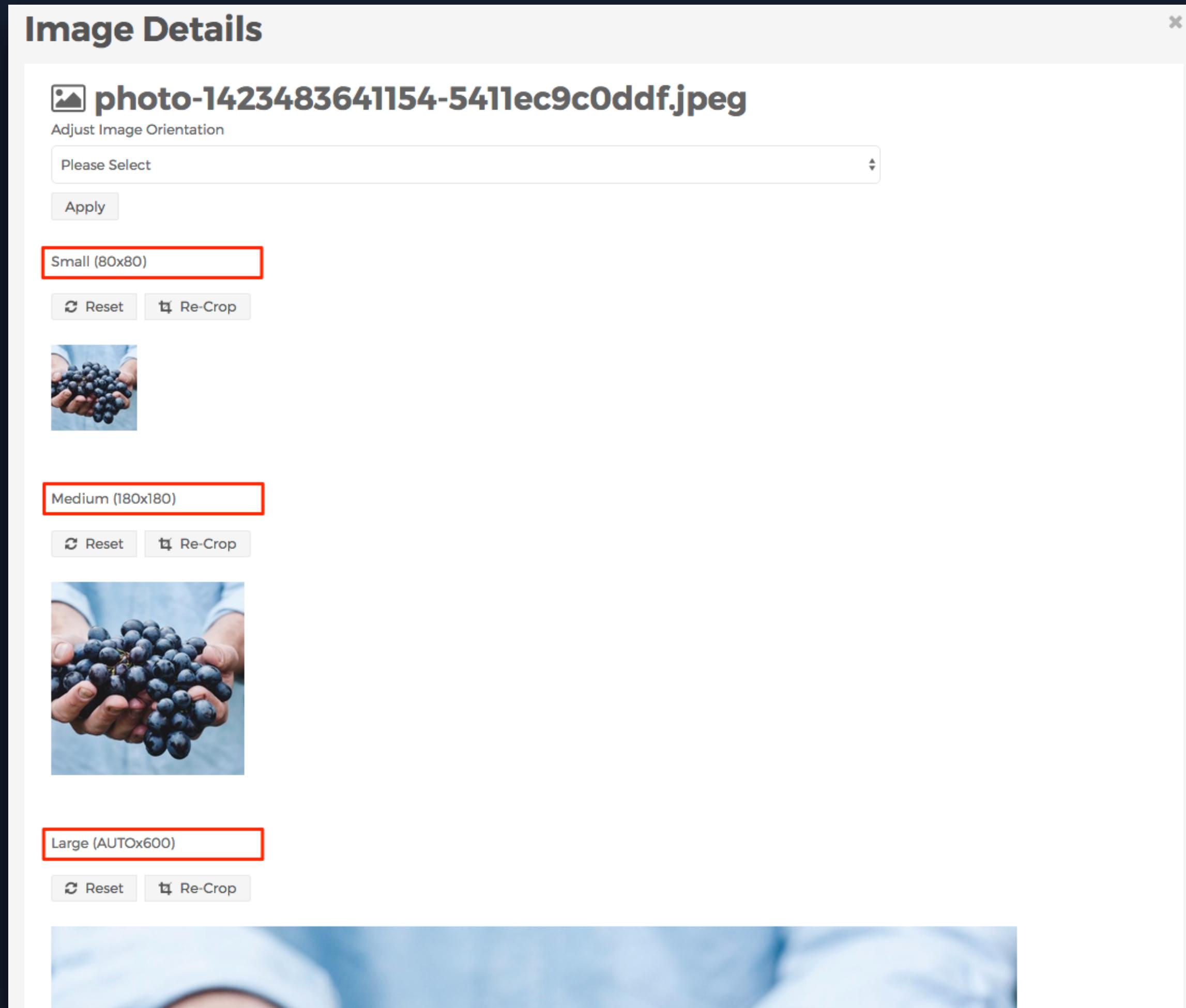
- Update: 09/08/2016 10:21 AM Status: Published Type: Page
- Breadcrumbs: Home > News > Not All Wine Comes From California After All
- Content tabs: BASIC (selected), PUBLISHING, LAYOUT, CATEGORIES, TAGS, RELATED CONTENT, ADVANCED
- Type: Page
- Title: Not All Wine Comes From California After All
- Assign Associated Image section:
  - Buttons: Via Upload, Via URL, Select Existing
  - Input field: Choose File (No file chosen)
  - Image preview: A hand holding a bunch of dark grapes.
  - Control icons: Edit, Delete, Download
  - Checkboxes: Remove Attached File

A red arrow points from the text "Associated Image" to the "Assign Associated Image" section.

# Image Sizes



# Image Sizes



# Image Sizes

- How to Manage Image Sizes

# Image Sizes

The screenshot shows the Mura CMS Site Settings page. The left sidebar contains a navigation menu with various options like Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings, Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, Global Settings, and Help. Two red arrows point from the top towards the 'Edit Settings' and 'Permissions' links in the Site Settings section of the sidebar.

**Site Settings**

**BASIC** CONTACT INFO SHARED RESOURCES MODULES EMAIL IMAGES EXTRANET DISPLAY REGIONS DEPLOY BUNDLE

Site ID: default

Site Name: Default

Tagline:

Primary Domain: 127.0.0.1

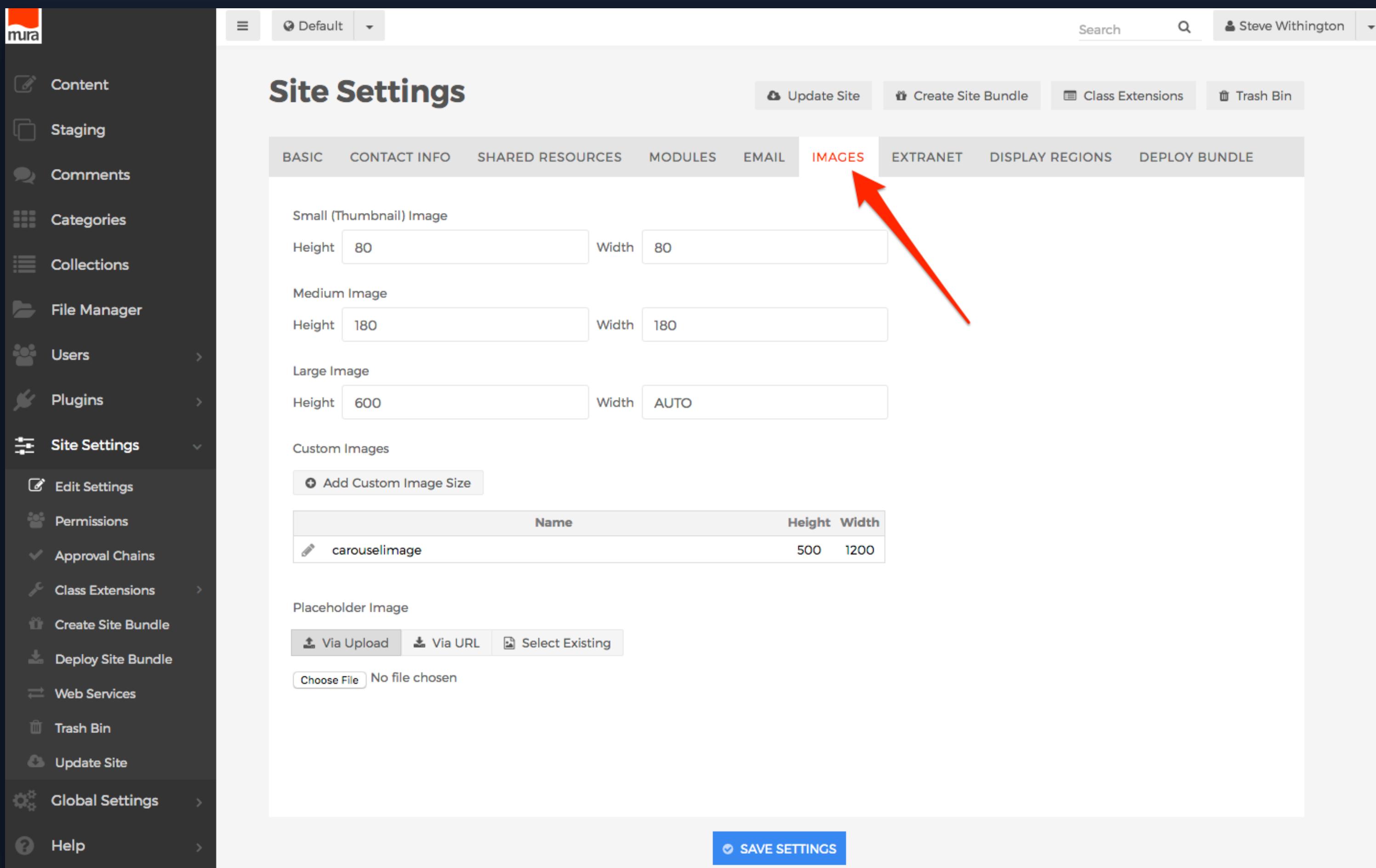
Domain Alias List (Line Delimited):

Enforce Primary Domain:  Off  On

Use SSL (Sitewide):  No  Yes

**SAVE SETTINGS**

# Image Sizes



The screenshot shows the 'Site Settings' page in the Mura CMS. The left sidebar contains links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, and Site Settings. Under Site Settings, there are sub-links for Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, Global Settings, and Help. The main content area is titled 'Site Settings' and includes tabs for BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES, EXTRANET, DISPLAY REGIONS, and DEPLOY BUNDLE. The IMAGES tab is selected, indicated by a red arrow pointing to it. Below the tabs, there are sections for Small (Thumbnail) Image, Medium Image, Large Image, and Custom Images. The Custom Images section shows a table with one entry: carouselimage, 500, 1200. At the bottom, there are buttons for Placeholder Image (Via Upload, Via URL, Select Existing), a file input field (Choose File, No file chosen), and a 'SAVE SETTINGS' button.

| Name          | Height | Width |
|---------------|--------|-------|
| carouselimage | 500    | 1200  |

# Image Sizes

The screenshot shows the Mura CMS Site Settings page under the IMAGES tab. The page displays various image size settings, each highlighted with a red border:

- Small (Thumbnail) Image:** Height: 80, Width: 80
- Medium Image:** Height: 180, Width: 180
- Large Image:** Height: 600, Width: AUTO
- Custom Images:** A table showing a single entry: carouselimage (Name), 500 (Height), 1200 (Width).

Below these settings is a Placeholder Image section with options to upload or select an existing file. At the bottom right is a blue "SAVE SETTINGS" button.

# Image Sizes

Default Home About News Blog Events Contact Search

« April 2017 »

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 |    |    |    |    |    |    |

Home / News

## News

September 15, 2016 **Not All Wine Comes From California After All**  
Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl.  
By Dan Daniels

August 12, 2016 **Developer Discovered Writing Code From Scratch**  
Donec in ipsum at est pulvinar suscipit sit amet id ipsum. Cras quis diam ac nulla sodales sodales. Vivamus nec ultrices velit. Duis neque nulla, luctus eu cursus sed, facilisis vel nisl.  
By Bill Williams

**Archive**

September 2016 (1)  
August 2016 (1)  
July 2016 (1)  
June 2016 (1)

**Small**

1 2 Next »

**Categories**

Arts & Culture (1)  
Health & Science (2)  
Technology (1)  
[View All](#)

**Tag Cloud**

birds california

# Image Sizes

Screenshot of a website interface showing image sizes. A red arrow points from the word "Medium" to a thumbnail image of grapes.

The screenshot shows a website layout with a dark header bar. The header includes a "mura" logo, a "Published" button, and various navigation links like "Default", "Home", "About", "News", "Blog", "Events", and "Contact". A search bar is also present. On the left, there's a calendar for April 2017 and an "Archive" sidebar with links to months from September 2016 to June 2016. The main content area displays a news article titled "Not All Wine Comes From California After All" with a preview of the text and a thumbnail image of a hand holding grapes. To the right of the article is a "Categories" sidebar listing "Arts & Culture (1)", "Health & Science (2)", "Technology (1)", and a "View All" link. Below that is a "Tag Cloud" section with the words "birds" and "california". A red arrow points from the word "Medium" to the thumbnail image of the grapes.

Published

Default Home About News Blog Events Contact

Search

Steve Withington Log Out

Home / News / Not All Wine Comes From California After All

## Not All Wine Comes From California After All

Curabitur ut suscipit tellus. Maecenas rhoncus, ante vitae vehicula vestibulum, metus sapien dapibus tellus, et mattis dolor neque vitae nisl. Nullam eleifend ultrices ipsum eget pretium. Curabitur semper metus ut ante adipiscing nec volutpat sem rutrum. Nullam a nisi lacus, non interdum ante. Vivamus ante augue, commodo vel egestas sed, pharetra nec dui. Quisque sed tellus felis. Donec ipsum mauris, sagittis eu accumsan in, aliquam non ipsum.

Vestibulum tempor nunc nec felis scelerisque eget elementum erat dignissim. Ut vel ipsum mollis orci venenatis luctus. Aenean vehicula quam vel quam porttitor ac iaculis elit pulvinar. Proin consequat, ipsum eu venenatis semper, justo turpis posuere tortor, ac placerat metus nisl et lectus. Nulla cursus dui id nunc ullamcorper sed semper nisl lobortis. Aliquam erat volutpat. Phasellus arcu ante, imperdiet in ornare sed, laoreet eu massa.

Nam aliquet ullamcorper ante non congue. Aenean elementum, nunc ac lobortis aliquet, augue magna varius leo, non fermentum nulla massa malesuada quam. Donec in ipsum at est pulvinar suscipit sit amet id ipsum. Cras quis diam ac nulla sodales sodales. Vivamus nec ultrices velit. Duis neque nulla, luctus eu cursus sed, facilisis vel nisl. Duis ornare est metus. Mauris et dolor quis orci consectetur eleifend. Suspendisse lobortis aliquet libero, sit amet varius sapien suscipit ut. Pellentesque vitae urna sem. Cras id urna ante. Vivamus id massa libero, et tincidunt lacus. Maecenas viverra interdum elit at convallis. Sed egestas, erat consectetur semper rutrum, nisi arcu viverra odio, commodo porta mauris massa imperdiet purus.

Categories

Arts & Culture (1)  
Health & Science (2)  
Technology (1)  
View All

Tag Cloud

birds california

Medium

Archive

September 2016 (1)  
August 2016 (1)  
July 2016 (1)  
June 2016 (1)

# Image Sizes



# Image Sizes

The screenshot shows the Mura CMS Site Settings page. The left sidebar contains navigation links for Content, Staging, Comments, Categories, Collections, File Manager, Users, Plugins, Site Settings (which is currently selected), Edit Settings, Permissions, Approval Chains, Class Extensions, Create Site Bundle, Deploy Site Bundle, Web Services, Trash Bin, Update Site, Global Settings, and Help.

The main content area is titled "Site Settings" and features a tab bar with BASIC, CONTACT INFO, SHARED RESOURCES, MODULES, EMAIL, IMAGES (which is selected), EXTRANET, DISPLAY REGIONS, and DEPLOY BUNDLE.

The "IMAGES" section includes settings for Small (Thumbnail) Image (Height: 80, Width: 80), Medium Image (Height: 180, Width: 180), Large Image (Height: 600, Width: AUTO), and a table for Custom Images. A red arrow points to the "Add Custom Image Size" button in the Custom Images section.

| Name          | Height | Width |
|---------------|--------|-------|
| carouselimage | 500    | 1200  |

The Placeholder Image section includes options for Via Upload, Via URL, and Select Existing, with a "Choose File" input field showing "No file chosen".

At the bottom right is a blue "SAVE SETTINGS" button.

# Image Sizes

**Add Custom Image Size** ×

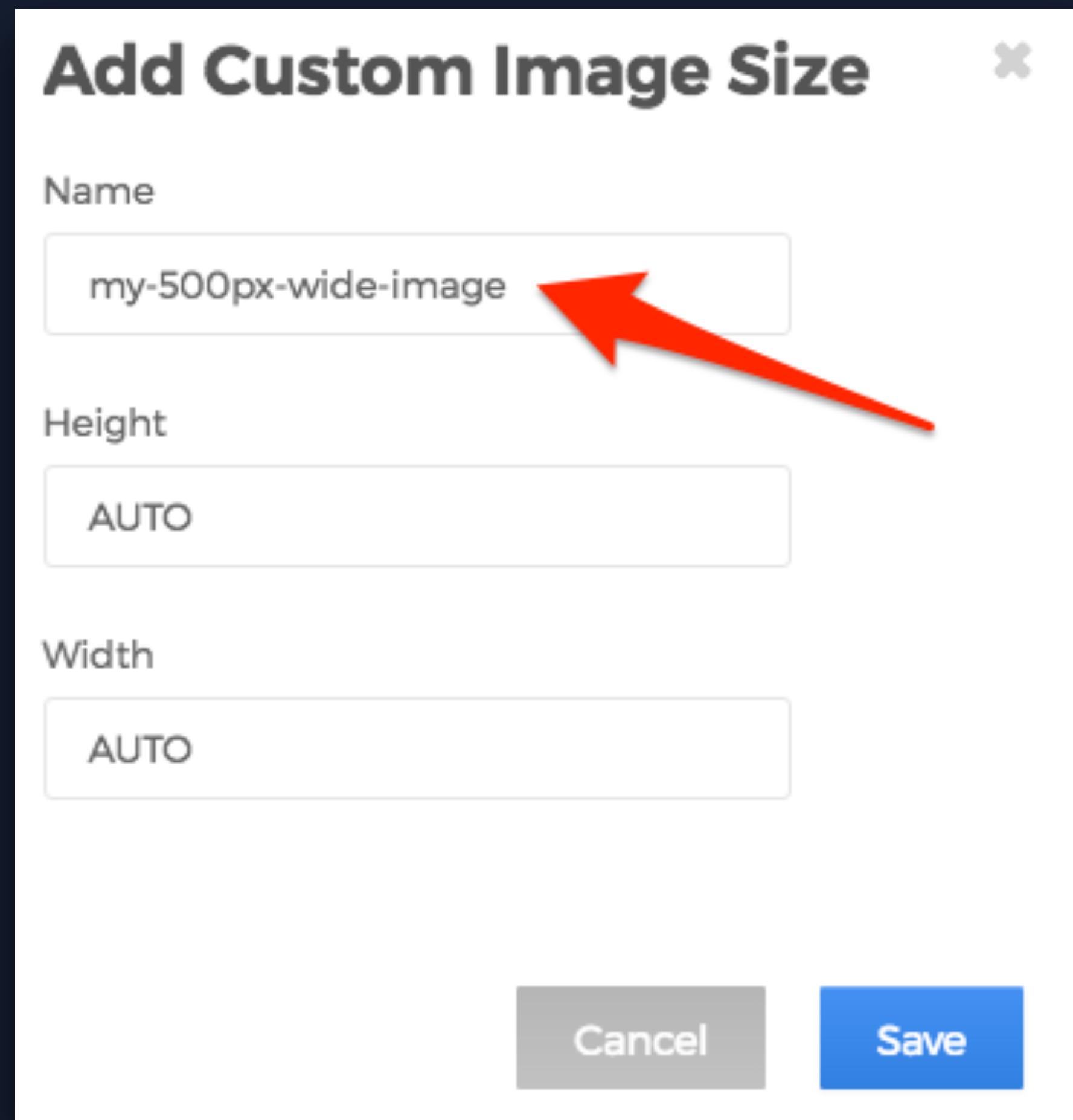
Name

Height

Width

Cancel Save

# Image Sizes



# Image Sizes

Add Custom Image Size ×

Name

Height

Width

Cancel Save



# Image Sizes

Add Custom Image Size ×

Name

Height

Width

Cancel Save



# Image Sizes

- Placeholder Images

The screenshot shows the Mura CMS Site Settings page under the IMAGES tab. On the left is a dark sidebar with various site management options. The main area displays settings for different image sizes: Small (Thumbnail) Image (Height: 80, Width: 80), Medium Image (Height: 180, Width: 180), and Large Image (Height: 600, Width: AUTO). Below these are sections for Custom Images and Placeholder Images. The Placeholder Image section is highlighted with a red box and contains three upload options: Via Upload, Via URL, and Select Existing. A file input field labeled "Choose File" shows "No file chosen". At the bottom right is a blue "SAVE SETTINGS" button.

**Site Settings**

BASIC CONTACT INFO SHARED RESOURCES MODULES EMAIL IMAGES EXTRANET DISPLAY REGIONS DEPLOY BUNDLE

Small (Thumbnail) Image  
Height 80 Width 80

Medium Image  
Height 180 Width 180

Large Image  
Height 600 Width AUTO

Custom Images

Add Custom Image Size

| Name          | Height | Width |
|---------------|--------|-------|
| carouselimage | 500    | 1200  |

Placeholder Image

Via Upload Via URL Select Existing

Choose File No file chosen

SAVE SETTINGS

# Lab Exercise

LET'S CUSTOMIZE SOMETHING ...

# Lab Exercise

- Create a custom 404 page
- Create a custom error template
  - Set `debuggingenabled=false`
  - Intentionally create an error
  - Assign the new error template & Reload Mura
  - Preview the error screen, and fix the error!
  - Set `debuggingenabled=true` and reload so we can see future errors ;)
- Create a custom `editor.css` file
- Create a custom image size and use it in section of your site

# Summary

- Custom 404 Page
- Custom Error Page
- Customizing the Web Editor
- Image Sizes
- Lab Exercise

# Where to Go From Here

HINT: LEARN MORE!

# Getting Support

- The Mura Community (Google Group & LinkedIn)
- Issues
- MuraCon
- Training (*obviously*)
- Support

# What We Covered

- Introduction
- Where to Start
- Creating Layout Templates
- Customizing Mura Output
- Where to Go From Here
- Getting Support

# Thanks,

YOU ROCK. NOW, GO DEVELOP SOME MURA THEMES.